

**KENTUCKY-AMERICAN WATER COMPANY  
CASE NO. 2010-00036  
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION**

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**Witness: Michael A. Miller**

30. Refer to the Company's response to AG-1-65. Was any of the cost of any of the judgments or settlements listed in the response to AG-1-65 included in the historic or future test year? If not, explain fully why not. If so, please identify the amount and accounts for the base period and FTY separately.

**Response:**

No. The claim occurred prior to the base period in this case.

For the electronic version, refer to KAW\_R\_AGDR2#30\_052410.pdf.

**KENTUCKY-AMERICAN WATER COMPANY  
CASE NO. 2010-00036  
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION**

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**Witness: Sheila Miller**

31. Refer to the Company's response to AG-1-66.
- a. What was the \$20,500 Robert Half expense for?
  - b. Please provide the invoice.
  - c. Please identify all other costs by account relating to the same contract or project that the \$20,500 Robert Half expense was for.

**Response:**

- a. Employment placement fee.
- b. See attached.
- c. There are no other expenses relating to this contract.

For the electronic version, refer to KAW\_R\_AGDR2#31\_052410.pdf.



**Robert Half**  
Finance & Accounting

Page: 1  
Invoice Date: 08/14/2009  
Invoice No: 24159350  
Customer Number: 01710-000065-000  
Fed Tax ID: 94-1648752

Professional Services Invoice - PAYABLE NET TEN (10)  
CALENDAR DAYS FROM THE STARTING DATE OF EMPLOYMENT

**PERSONAL & CONFIDENTIAL**  
Donna Braxton  
KENTUCKY AMERICAN WATER SUB OF AMERICAN  
Attn: Shared Services A12DIR03  
P.O. Box 5610  
Cherry Hill NJ 08034

**Please Remit To:**  
Robert Half Finance & Accounting  
FILE 73484  
P.O. BOX 60000  
San Francisco CA 94160-3484

Line	Candidate Placed	Candidate Start Date	Amount
1	Money, Gina	08/24/2009	\$ 20,500.00

**RECEIVED**

AUG 18 2009

**SSC-MAILROOM**

**TOTAL AMOUNT DUE :** \$ 20,500.00

We provide more timely and accurate information to the business community by sharing our accounts receivable information with National Credit Reporting Agencies.

Any questions regarding this invoice please call:  
(800) 356-1994

For qualified accounting and finance professionals please call:  
(859) 296-6519

Please detach and return this remittance stub with your payment.

Thank you for choosing Robert Half Finance & Accounting!

Robert Half Finance & Accounting  
FILE 73484  
P.O. BOX 60000  
San Francisco CA 94160-3484

Customer Number	Invoice Number	Total Amount
01710-000065-000	24159350	\$ 20,500.00

0171000006500024159350020500004

**KENTUCKY-AMERICAN WATER COMPANY  
CASE NO. 2010-00036  
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION**

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**Witness: Michael A. Miller**

32. Refer to the Company's response to AG-1-67.
- a. Are each of the dollar amounts listed in the response also in the future test year expense? If not, explain fully why not. Identify, quantify and explain the corresponding future test year amounts, by account.
  - b. Please provide the corporate and human resources brochures that relate to the \$7,843 expense.

**Response:**

- a. The expenses listed in response AG-1-67 represent 6 months of actual expenses from June 2009 through November 2009 plus 6 months of budgeted expenses from December 2009 through May 2010. Since budgets are prepared based on historical activity, the same categories of expenses also appear in the future test year. The future test year amounts by category are listed below.

Membership Dues	\$25,388
Lobbying Expenses	\$0
Charitable Contributions	\$4,728
Investor Relations Expenses	\$25,740
Community Relations Expenses	\$3,499
Advertising Expenses	\$11,909
Trade Shows	\$4,504
Brochures & Handouts	\$8,226

- b. The brochures reflected in the \$7,843 amount represent actual activity from the 6 month period ending November 2009 as well as forecasted budgeted costs for the 6 month period ending May 2010. Please see the attached.

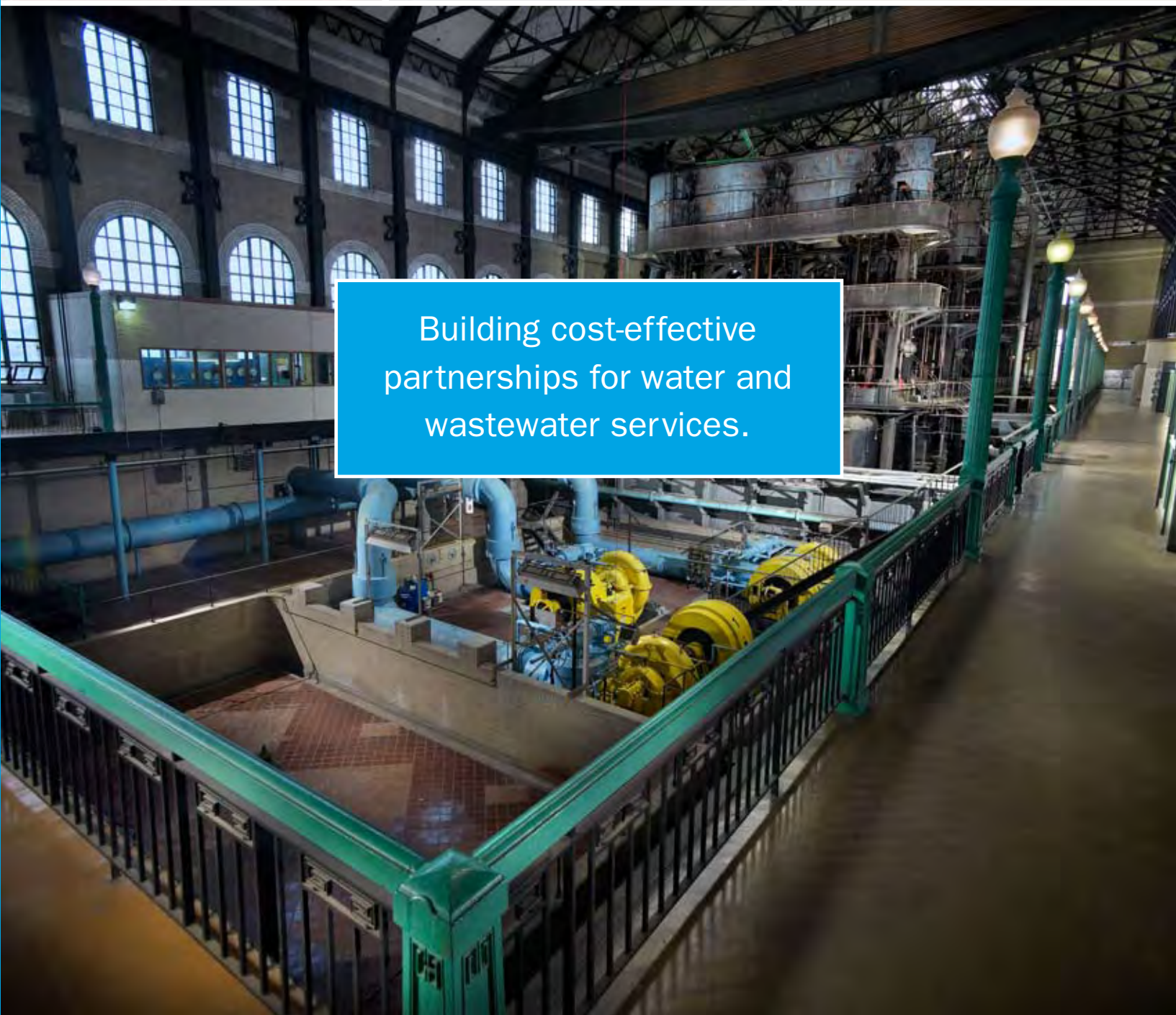
For the electronic version, refer to KAW\_R\_AGDR2#32\_052410.pdf.





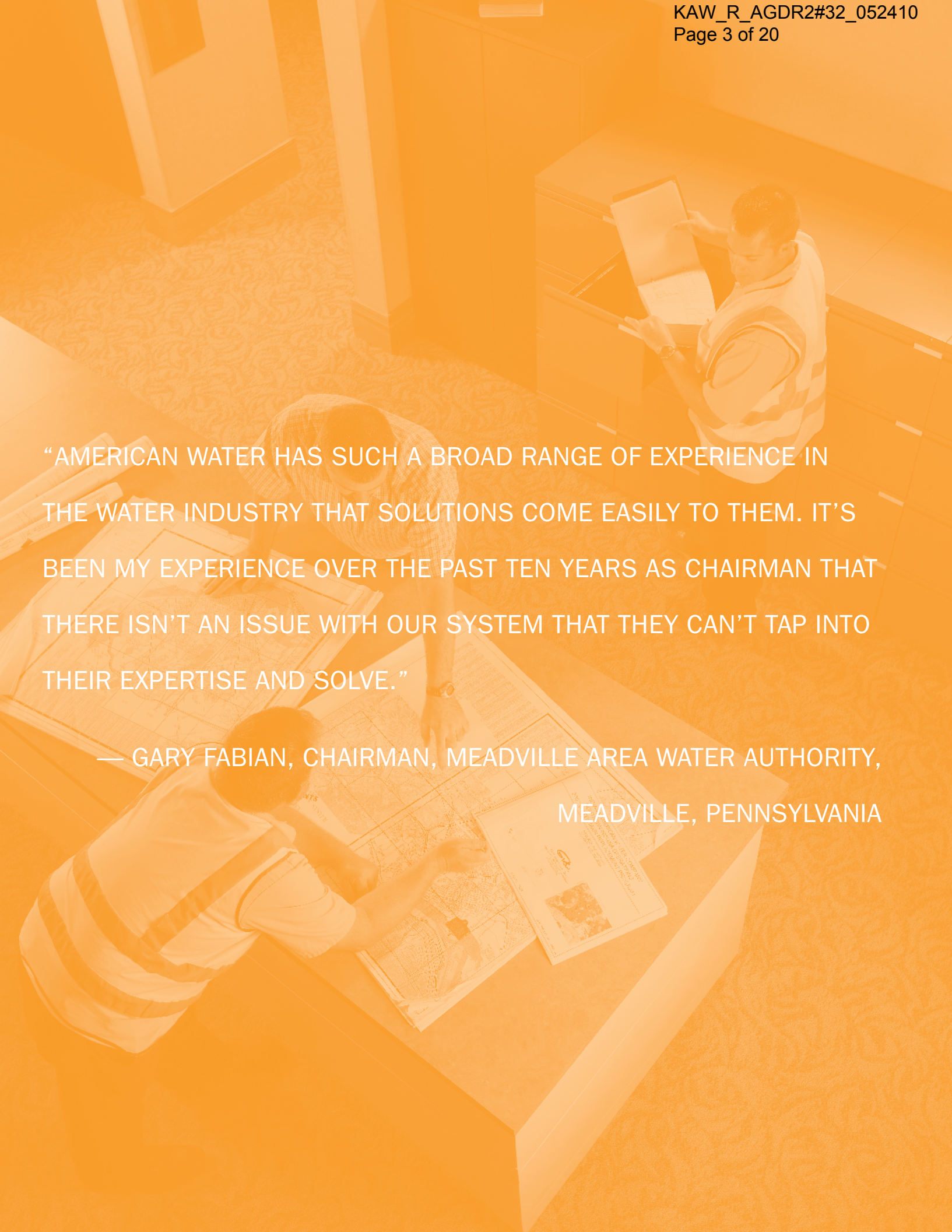
AMERICAN WATER

# PUBLIC-PRIVATE PARTNERSHIPS



Building cost-effective partnerships for water and wastewater services.





“AMERICAN WATER HAS SUCH A BROAD RANGE OF EXPERIENCE IN THE WATER INDUSTRY THAT SOLUTIONS COME EASILY TO THEM. IT’S BEEN MY EXPERIENCE OVER THE PAST TEN YEARS AS CHAIRMAN THAT THERE ISN’T AN ISSUE WITH OUR SYSTEM THAT THEY CAN’T TAP INTO THEIR EXPERTISE AND SOLVE.”

— GARY FABIAN, CHAIRMAN, MEADVILLE AREA WATER AUTHORITY,  
MEADVILLE, PENNSYLVANIA





*American Water, in partnership with the City of Buffalo, has been recognized with an Outstanding Achievement Award in the 2008 Public-Private Partnership Awards given by the U.S. Conference of Mayors.*

## WORKING TOGETHER. SUCCEEDING TOGETHER.

Water systems around the country have always involved the private sector. From the lawyers who broker the deal, to the contractor who pours the concrete, to the repair engineers who fix the pipes, communities rely on private services to get water to their customers. By choosing a single, experienced, private provider, you can streamline all of those contractor calls, making far less work for yourself, and bringing greater reliability and service to your customers.

As the largest investor-owned U.S. water and wastewater service provider, American Water has the experience, leading-edge technology, and resources to meet your water services needs. We currently serve approximately 15 million customers in more than 1,600 communities in 32 states and Ontario, Canada, with an employee base of approximately 7,000 professionals. Our commitment to customer service, operational excellence, and the reliable delivery of high-quality drinking water and water-related management services is unsurpassed, and we are proud of our many successful partnerships with municipalities across the country.

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“The City of Buffalo Water Board’s public-private partnership continues to be a ‘win-win-win’ situation. The city wins by improving its water infrastructure and financial management. The city employees win by preserving valuable pensions and benefits. Most importantly, the taxpayer wins by getting clean, reliable water at a reasonable price, and improved customer service.”

—Mayor Byron W. Brown, Buffalo, New York

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According to Public Works Financing, in 2007, private contract rate renewal was 98 percent.\*

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\*Source: 2007 Public Works Financing Report.

# MAKE A POSITIVE IMPACT ON YOUR COMMUNITY BY PARTNERING WITH AMERICAN WATER.

Nearly half of all community water systems in the United States are already owned and operated by the private sector. The remaining 51 percent of water systems are run by municipalities and other government entities that often cannot afford to make proper, timely updates. By tapping into the private sector, municipalities can develop partnerships that can positively impact their communities.

In a public-private partnership with American Water, the public truly comes first. We are dedicated to local involvement, improving the quality and reliability of customer service and community water or wastewater systems, updating pipes and treatment plants to handle new growth, and being a good neighbor in the areas we serve.

## Deliver high-quality results while minimizing risk.

When a water or wastewater system is designed and built, typically the municipality is burdened with coordinating and overseeing all of the private contractors involved, including those in construction specialties, financing, and legal work. The municipality also assumes the risk involved in this fragmented management system. Relying on a single private partner who is experienced in the industry to manage all aspects of the project can transfer these risks to the private partner, delivering higher quality results with considerably less stress.



“Entering into a contract with American Water has been a very positive move for our town. Operating a water and wastewater system in a small town is very challenging. American Water brings us expertise that we otherwise might not have.”

—Richard Canipe, Town Manager, Spruce Pine, North Carolina

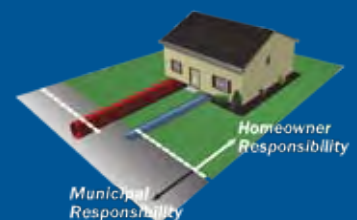
## LineSaver®

### Water Line Protection Program\* • Sewer Line Protection Program\* In-Home Plumbing Emergency Program\*

American Water provides another option outside of a traditional public-private partnership: LineSaver®. Many homeowners mistakenly believe that their local utility or municipality covers service line repairs. You can help educate homeowners and reduce customer complaints by bringing LineSaver to your community. LineSaver is an affordable solution that helps protect homeowners from thousands of dollars in service line repairs typically not covered by homeowners insurance.

LineSaver is entirely administered by American Water Resources®, Inc., a subsidiary of the nation’s leading water services company. LineSaver pays for covered service line repairs, establishes a local contractor network, and guarantees 24/7 customer service. Our experts customize the program to meet fiscal, operational and resource needs – and your municipality can earn income to fund infrastructure and community improvements.

**Make a difference in your municipality. Call 1-800-931-1548, visit [www.linesaver.amwater.com](http://www.linesaver.amwater.com) or email [linesaver@amwater.com](mailto:linesaver@amwater.com) for your FREE LineSaver Benefits Package.**



\*In CA this program is offered through American Water Resources Insurance Services. In CA and VA, this program is insurance provided by Virginia Surety Company, Inc. American Water Works Company, Inc., together with its subsidiaries, is referred to as American Water.



“Our maintenance and service contract exceeded our expectations in every respect. We saw improvements in every area of the utility: water and wastewater treatment plant efficiency, meter replacement, leak detection, service line replacement, fleet management programs, sanitary sewer system collection operations, financial reporting and analysis, internal controls, and employee benefits and morale. In addition, a public education campaign allowed us to adjust rates by 62 percent without one dissenting vote and very little negative public comment. Pineville Utility Commission highly recommends a partnership with American Water.”

—John E. Jones, Chair, Pineville Utility Commission, Pineville, Kentucky



**Relieve the municipality’s operational responsibilities.**

Once the system is operational, it is also typical in mid-size to smaller cities for private partners to take care of many operational tasks, such as:

- **Asset acquisition**
- **Contract operations and assistance**
- **Long-term lease partnerships**
- **Design-build-operate**
- **Developer services**
- **Homeowner Services LineSaver® program**
- **Carbon regeneration**
- **Residuals management (Ontario and select U.S. territories only.)**

**Comply with stricter requirements.**

With today’s strict water quality regulations and the United States Environmental Protection Agency (USEPA) report calling for nearly a trillion dollars of updates to the country’s water and wastewater infrastructure by 2019, managing water and wastewater systems is only going to get more difficult—and costly. You may not have the staff for implementation or the money for improving roads and schools. And, your residents may be resistant to rate increases to meet your water or wastewater system infrastructure needs. A public-private partnership with an experienced, technologically advanced company like American Water can help you meet these new challenges in the most efficient and cost-effective way.

**Contribute significant benefits to the community.**

- Keep your local employees in place
- Maintain control of rate-setting
- Re-direct resources to other necessities
- Develop water line, sewer line, and in-home emergency plumbing protection programs like LineSaver®, managed by American Water Resources®, Inc., a subsidiary of American Water.\* (See inset box for details.)
- Relieve the pressure of drought and flooding in your community by linking to American Water, a company that has developed best practices around the effect of changing weather patterns in cities nationwide.

**According to The National Council for Public-Private Partnerships:**

- The most important goal of private water service providers is to ensure safe, high-quality life-sustaining service.
- Privately-owned and privately-run systems are regulated at the federal level by the U.S. Environmental Protection Agency (USEPA), and at the state level by the various state health and environmental agencies.
- Our service agreements routinely require that we meet or exceed environmental standards.
- Providing safe, reliable water service that our customers can count on is our business.
- We understand the value of water, both to our customers and to the planet. We are dedicated to meeting the expectations of our customers and the responsibilities of good corporate citizenship.

# CHOOSE THE TYPE OF PARTNERSHIP THAT BEST MEETS YOUR NEEDS.

With American Water, you choose the degree of involvement that makes the most sense operationally and financially for your municipality. The graphic below shows you the range of options available in a public-private partnership:

Degrees of private involvement



## The Concession Model: A new partnership option to consider.

When we look at your water system, we consider your pipes and treatment plants to be important yet underleveraged assets. In this new form of public-private partnership, you are able to raise funds for your city by monetizing those assets while retaining ownership. The concession model is similar to a long-term lease. The contract might be 20–30 years or longer, but is negotiable—you determine how the water system will be run and how rates will be set. Once the contract is finalized, your municipality will receive an upfront cash payment, while realizing the benefits of added efficiencies and cost savings through partnering with an experienced operator like American Water.

## WE MEASURE OUR SUCCESS BY YOURS.

As a partner, we are firmly committed to achieving your goals.

### Buffalo, NY – An award-winning achievement.

We've helped Buffalo save \$21 million to date by partnering with the city to operate and manage its water system, conduct maintenance and repairs, and automate its customer record maintenance system. The operation serves a population of 290,000 and handles about 85 million gallons of water each day.

American Water, in partnership with the City of Buffalo, has been selected for the Outstanding Achievement Award in Public-Private Partnerships. This award honors the outstanding achievements made possible through the combined effort of cities and the members of The Mayors Business Council and covers a broad spectrum of services and activities.

### Fillmore, CA – Maximizing services, minimizing risk.

We've implemented a design/build/operate (DBO) wastewater treatment project in Fillmore. American Water will manage the design/build phase and ultimately operate the facility. The contract is for 20 years—the largest one-time investment in the city's history for a public facility.

### Seattle, WA – \$70 million in cost savings.

In 1997, American Water began work on the Tolt Water Treatment Plant, which now provides the City of Seattle with 120 million gallons of water per day – roughly 30 percent of its annual drinking water supply. The plant's design/build/operate (DBO) model, developed by American Water and its partners, saved the city an estimated \$70 million over its original benchmark design costs.

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“This is a highly successful partnership. We avoided cost escalation, treatment risks, and obtained excellent operator expertise by engaging in a public-private partnership with American Water.”

—Bert Rapp, Public Works Director of Fillmore

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# WE CARE ABOUT WATER. IT'S WHAT WE DO.



## DELIVER SIGNIFICANT BENEFITS TO YOUR RESIDENTS.

We've heard time and again how a public-private partnership is not an easy sell to city council members or voters. But we've learned over the years that once they understand how significant the benefits are for homeowners and the community, they accept and welcome a partnership.

### Local involvement.

It's important for your residents to know that under a public-private partnership their water remains a local source—the contract we sign binds us to deliver what you, the public partner, have outlined. We will always keep your residents top of mind. American Water supports our local communities whenever we can. Whether it's helping in schools, volunteering to clean up watersheds, or aiding residents in storms or natural disasters, we consider your community to be our community.

### Outstanding resources.

Because we have vast experience and a nationwide staff, we are able to tap into some of the country's most trusted minds to solve your issues. We have the ability to develop innovative programs and conduct award-winning research on your behalf. We have leading-edge technology that only a company of our size can support, which brings a new level of stability and reliability to your water or wastewater system.

### Cost efficiencies.

We will help you show your residents just how cost effective it is to enter into a public-private partnership. With operations in diverse geographic locations, we constantly share knowledge, tools, and technology across the vast American Water landscape.

Operating and maintaining a water or wastewater system will never be simple or cheap. But we would like to help you get a little bit closer to both.

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According to the U.S. Environmental Protection Agency, the basic reasons that the public sector historically privatized services were to realize cost savings, utilize expertise, achieve efficiencies in construction and operation, access private capital, and improve the quality of [services].

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For more information about American Water public-private partnerships and how we can make a difference in your community, please call Peter McChesney at (856) 346-8200 or visit [www.amwater.com/ppp](http://www.amwater.com/ppp).

## FAST FACTS ABOUT PUBLIC-PRIVATE PARTNERSHIPS

### They are just what the name implies.

They're contractual arrangements whereby the resources, risks and rewards of both the public agency and private company are combined to provide greater efficiency, better access to capital and improved compliance with a range of government regulations regarding the environment and workplace. The public's interests are fully assured through provisions in the contracts that provide for on-going monitoring and oversight of the operation of a service or development of a facility. In this way, everyone wins – the government entity, the private company and the general public.

### They are more common than you may think.

They've been in use in the United States for over 200 years. The contractual arrangement between government entities and private companies for the delivery of services or facilities is used for water/wastewater, transportation, urban development, and delivery of social services, to name only a few areas of application. Today, the average American city works with private partners to perform 23 out of 65 basic municipal services.

### They are an essential tool in challenging economic times.

During periods of slow growth, government revenues are frequently not sufficient to meet spending demands, necessitating painful spending cuts or tax increases. Partnerships can provide a continued or improved level of service, at reduced costs. And equally important, partnerships can also provide the capital needed for construction of major facilities.

### They can lead to happy employees.

In many partnerships created today, public employees are retained, usually at equal or improved benefits. One of the greatest areas of improvement for employees is with opportunities for career growth – private companies spend two to three times more on training and personnel development than their public-sector counterparts.

### They can provide clean, safe water.

The stringent health and environmental standards of the Safe Drinking Water Act and Clean Water Act have caused problems for some local governments without the budget flexibility to make major capital improvements in water and wastewater facilities. Public-private partnerships have enabled the construction of state-of-the-art water management facilities, while using efficient operations to hold down costs to ratepayers and provide a way of meeting those "un-funded mandates" from the federal government.

### They have the support of government agencies.

Federal agencies like the U.S. Environmental Protection Agency, the department of defense, and the veterans administration all use partnerships, and the number of state and local governments using this tool is even greater. Numerous surveys indicate why – governments traditionally realize cost savings of 20 to 50 percent when the private sector is involved in providing services.



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TO COME



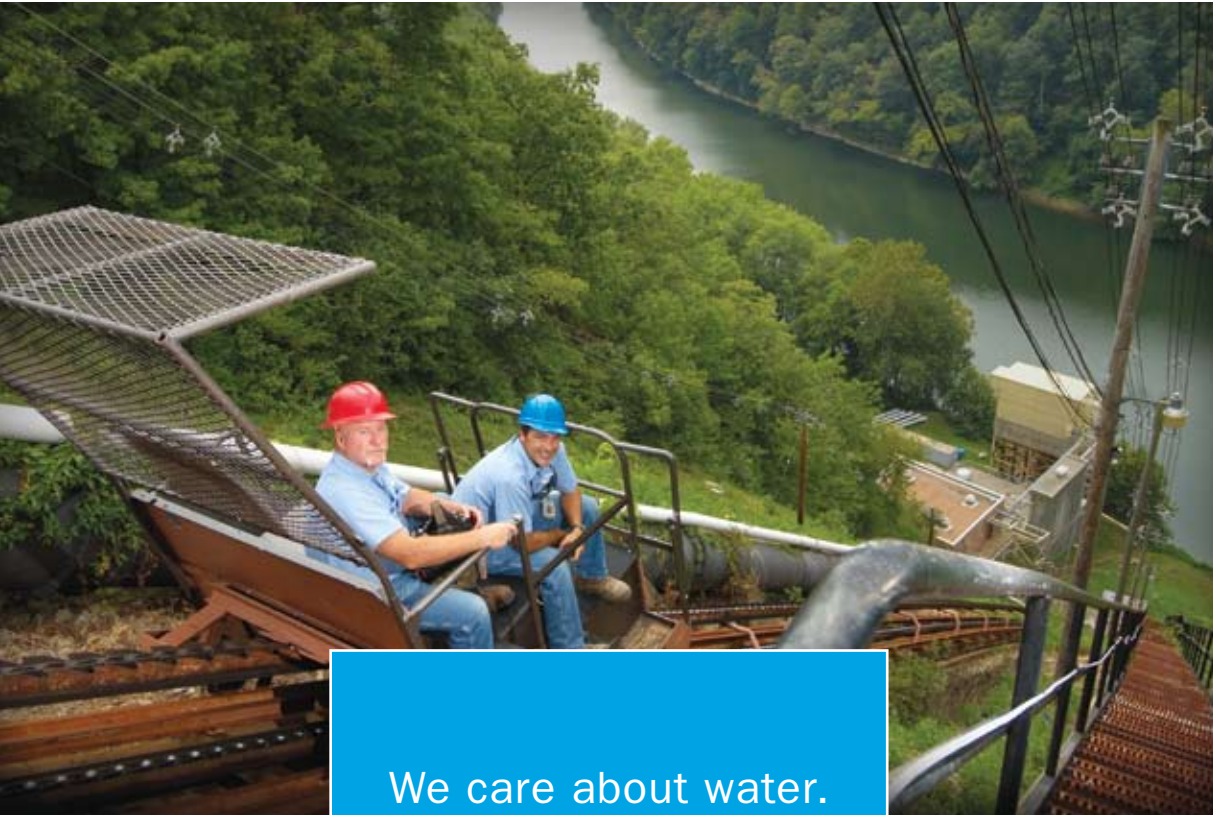
AMERICAN WATER

[www.amwater.com](http://www.amwater.com) • NYSE: AWK





THE CARE OF WATER



We care about water.  
It's what we do.



# KENTUCKY



WE GIVE BACK TO THE COMMUNITY BY SUPPORTING INNOVATIVE,  
ENVIRONMENTAL STEWARDSHIP GRANTS THAT STRIVE TO  
IMPROVE, PROTECT OR RESTORE DRINKING WATER SUPPLIES  
AND SURROUNDING WATERSHEDS.





Dillard Griffin, Manager of Operations-Production, has spearheaded many of Kentucky American Water's environmental initiatives.

# KENTUCKY AMERICAN WATER IS YOUR LOCAL WATER COMPANY.

Our lives revolve around water. It's involved in everything we do, everything we use. For more than 120 years, American Water\* has been taking care of water. We are experts in water service and wastewater treatment.

Every day, we put our expertise to work to deliver high-quality water service to our customers.

Kentucky American Water serves around half a million people, supplying high-quality water to our communities. We abide by regulations, invest in our vast infrastructure, develop industry innovations, educate our customers on wise water use, and help out where we can in our cities and towns.

Because water is such an integral part of life, we take pride in taking care of it.



## ABIDING BY REGULATIONS

In Kentucky, the Kentucky Public Service Commission (PSC) sets rules and we carefully follow them. Those regulations are what help to ensure that everyone is receiving quality water service at a fair price. All increases in service rates are directly related to the cost of providing high-quality water service and are subjected to a public review process and approval by the Kentucky Public Service Commission.

In addition, Kentucky American Water follows strict United States Environmental Protection Agency (USEPA) regulations to help provide high-quality drinking water. Because American Water works in cooperation with the USEPA to help in the development of national drinking water standards, we are often years ahead of the industry in implementing regulations.

Kentucky American Water is committed to delivering high-quality water service to all of our customers. We conduct about 15,000 tests per year for about 100 potential contaminants, checking drinking water quality at every stage of the water treatment and delivery process.

## INVESTING IN INFRASTRUCTURE

The United States Environmental Protection Agency (USEPA) estimates that approximately \$277 billion in capital spending across the nation will be needed between 2003 and 2022 to replace aging water infrastructure and comply with stricter water quality standards, and the USEPA estimates that approximately \$388 billion will be needed between 2000 and 2019 to replace aging wastewater infrastructure. We intend to invest capital prudently to enable us to continue to provide essential services to our regulated water and wastewater utility customers. Investing in our infrastructure is critical to our mission of providing our customers with quality and reliable water and wastewater service.







In 2011, the land that now makes up Jacobson Park in Lexington will be gifted from Kentucky American Water to the urban county government.

We have a strong and ongoing commitment to investing in infrastructure and keeping it updated and we are committed to delivering excellent service that our customers depend upon at an exceptional value. Tap water costs about a penny a gallon—a remarkable value compared to any other utilities today. With few exceptions, water service remains the lowest utility bill that a household will pay.

In fact, Kentucky American Water has invested \$185 million since 2000 to improve service to our customers. Every year, we deliver system improvements to the communities we serve—from extending water mains to replacing meters and hydrants to upgrading plant equipment. These investments will help us continue to provide high-quality water and wastewater service.

One current improvement project is the building of a new \$160 million water treatment facility and water transmission line that will be located in Owen County. The plant will initially have the capacity to treat and deliver 20 million gallons of water per day (mgd), with the capability of expanding to 25 mgd. It is the most significant improvement project in Kentucky in the last 40 years, and is critical to the future economic viability of our region.

### PROMOTING WISE WATER USE

Kentucky American Water is constantly looking to maintain water supply for future generations. Part of our commitment includes helping Kentucky customers understand what they can do to help. We communicate with our customers in a variety of ways. We send information in customer bills, produce customer newsletters and post updates to

our website. In Kentucky, we have also developed unique ways to communicate with our customers. We've created a Customer Service Council which includes a mix of residential and commercial customers and meets quarterly to discuss issues and ask for feedback on service-related issues. We've also created bluegrasswater.com, a website that informs customers about our new facility that will address the water supply challenge in Central Kentucky. The site keeps customers informed on the project as it moves towards its completion date.

### HELPING OUT IN OUR COMMUNITIES

Being a good neighbor is part of our mission at Kentucky American Water. We are dedicated to Kentucky and do make sure we show it.

We support community low-income customers through the H<sub>2</sub>O Help to Others Program™. We make an annual contribution to this bill payment assistance program and provide opportunities for customers to also make donations.

We also give back to the community by supporting a variety of community organizations and programs, including innovative, environmental stewardship projects that improve, protect or restore urban streams and watersheds, and protect the environment in general. Examples of such outstanding organizations include the local chapter of the Audubon Society, the Clyde E. Buckley Wildlife Sanctuary, Bluegrass PRIDE and the local Arboretum, Kentucky's official botanical garden. We also support Reforest the Bluegrass, an annual community effort whereby hundreds of volunteers plant thousands of tree seedlings alongside urban streams.

We know that young minds must be cultivated to have an appreciation for the environment, and that they can offer important contributions to environmental stewardship. So we are pleased to sponsor the annual Kentucky American Water Science Fair coordinated by Fayette County Public Schools, an event we established in 1985 and have supported ever since. It's a chance to see the dynamic achievements in science made by our Fayette County students in grades 4–12. The winners may advance to compete for regional and even international recognition. In addition, we sponsor an annual Ripple Effect Scholarship Program to recognize outstanding high school seniors who not only excel academically but also have demonstrated a sincere interest in environmental stewardship.



A view of one of the low-profile buildings on our "wildlife friendly" campus in Lexington.

In addition to these programs, we support well over 150 area organizations, and plan to continue that level of support into the future. One example of our commitment is our joining KY Excel, a voluntary environmental leadership program coordinated by the Kentucky Department for Environmental Protection. Kentucky American Water is the first utility company in the state to join this program, and we did so at the highest level possible—the Master level.

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We communicate regularly with our customers through community newsletters, local media, messages in customer bills and on our website.

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### **PARTNERSHIP WITH KENTUCKY**

You may never think about who is caring for Kentucky's water, what we do or why we do it. But know that Kentucky American Water will continue to do it day after day, the very best way we can.

**We care about water. It's what we do.**

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Every year, we deliver system improvements to the communities we serve—from extending water mains and replacing meters and hydrants to upgrading plant equipment.

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### Fast facts about Kentucky American Water

1. All of our water meets or exceeds stringent standards for public drinking water established by regulatory agencies, and is recognized nationally for excellence by the USEPA through our sustained commitment to the Partnership for Safe Water program.
2. Our roots date back more than 100 years—to 1882—when three Lexington businessmen established a local water company.
3. Our office and treatment plant on Richmond Road in Lexington, are housed on an 80-acre “wildlife friendly” campus which is home to a number of fish, birds and other wildlife not so typically found in such an urban setting.
4. Kentucky American Water is a proud partner in the USEPA’s WaterSense® program. Launched in 2006 to encourage water efficiency and water-saving practices in homes, the program brings together almost 1,000 partners across the nation to raise awareness of sustainable water solutions ranging from high-efficiency toilets to certification programs for irrigation professionals.

Work on a water main replacement project at a busy intersection in Lexington takes place during evening hours for the benefit of local businesses and commuters.





**Explore the  
AMERICAN WATER  
landscape and learn  
how we can make a  
difference in your  
community.**



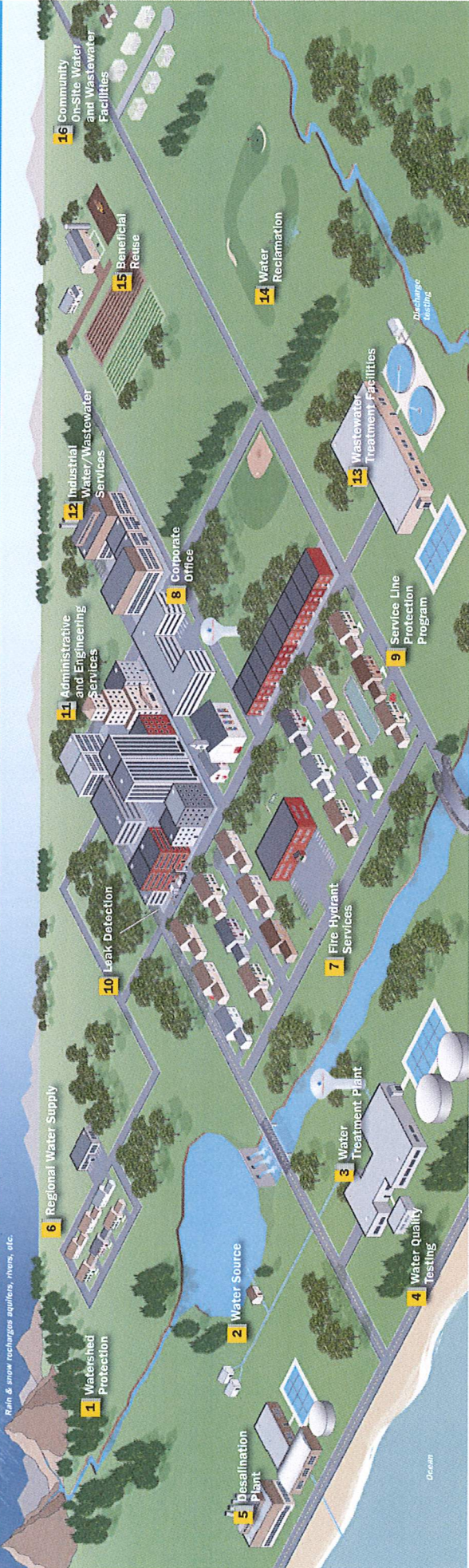
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**AMERICAN WATER**



# The American Water Landscape



**1 Watershed Protection**

We strive to provide high-quality water and wastewater service to our customers while focusing on protecting the environment in which we live. We take our role as protectors and innovators in the water industry very seriously.

**2 Water Source**

We can supply water from our extensive network of water systems in the U.S. or by building new, independent water supply sources.

**3 Water Treatment Plant**

Whether a new water plant, a system upgrade, or cost improvement program, American Water can help you expand, upgrade or efficiently operate your municipal water system. We can also help you gain access to capital to help fund your improvement projects.

**4 Water Quality Testing**

We are experts in water quality testing, compliance and treatment. We conduct nearly one million water quality tests each year at our technologically advanced quality control and testing laboratory in Belleville, Illinois, and in our field labs. In 2007, we achieved greater than a 99.9 percent compliance rate for meeting state and federal drinking water standards.

**5 Desalination Plant**

As the operator of the largest seawater desalination plant in the country in Tampa, Florida, and a pilot plant in the making in Monterey, California, American Water is helping to ensure the environmentally sound conversion of ocean water to drinking water that will establish a high-quality drinking water supply for years to come.

**6 Regional Water Supply**

Communities across the U.S. benefit from our bulk water sales, especially in times of increased demand.

**7 Fire Hydrant Services**

American Water works closely with fire departments in our communities with the planning of system expansions and cooperative training to ensure proper fire hydrant use and maintenance.

**8 Corporate Office**

Founded in 1886, American Water is the largest investor-owned U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs nearly 7,000 dedicated professionals who provide drinking water, wastewater and other related services to approximately 15.6 million people in 32 states and Ontario, Canada.

**9 LineSaver® – Service Line Protection Program\***

LineSaver is a municipal program which helps protect homeowners against the high cost of water line leaks or breaks, sewer line clogs or blocks and in-home plumbing emergencies. For only a few dollars a month, LineSaver provides peace-of-mind protection for homeowners and an income opportunity with no capital investment for municipalities.

**10 Leak Detection**

Our services can identify critical loss, revenue opportunities, and proactively monitor your system for efficiency and optimal revenue generation.

**11 Administration and Engineering Services**

The installation of our digital meter-reading scanning technology and touchpad capabilities can ensure accurate billing and customer privacy for your citizens at large.

**12 Industrial Water/Wastewater Services**

Food service, agriculture, automotive, and petrochemical industry clients have benefited from our feasibility studies and our operations and maintenance expertise.

**13 Wastewater Treatment Facilities**

We own and operate and are contracted to operate wastewater municipal facilities of all sizes and produce high-quality effluent – often a substitute for potable water for internal plant processes.

**14 Water Reclamation**

We place high priority on water reclamation projects that help to recycle and use water wisely. Our expertise has been tapped for a variety of projects including the first-of-its-kind on-site water recycling system in America – The Solaire – a luxury high-rise apartment building in New York City, and a system that helps an NFL football stadium – Gillette Stadium – handle the halftime flush by recycling and reusing its own water.

**15 Beneficial Reuse**

American Water places a high priority on the recycling of water and wastewater treatment residuals. These materials are being recycled in support of beneficial use initiatives such as brownfield reclamation projects and agriculture.

**16 Community On-Site Water and Wastewater Facilities**

American Water offers expert developer services with custom decentralized systems for new or expanding communities, which are ideal when development is removed from existing infrastructure. End-to-end services include planning, design, construction, operations and/or ownership.

\*In CA (DBA American Water Resources Insurance Services) and VA, this program is insurance which is provided by Virginia Surety Company, Inc.

For more information about American Water 856.346.8200 • LineSaver® 800.931.1548 • Service Line Protection Program 866.430.0819 • Community On-Site Water and Wastewater 908.359.5501

American Water Works Company, Inc., together with its subsidiaries, is referred to as American Water.





OUR STRENGTH AS A LEADER COMES FROM  
OUR EMPLOYEES AND MORE THAN 120 YEARS  
OF EXPERIENCE. ON THE AMERICAN WATER  
TEAM, YOU'LL FIND THE EXPERTS AND  
INNOVATORS IN THE WATER INDUSTRY.  
SCIENTISTS, ENGINEERS AND TECHNICIANS  
ALL COMING TOGETHER FOR ONE PURPOSE—  
TO PROVIDE HIGH-QUALITY WATER AND  
WASTEWATER SERVICE ACROSS THE COUNTRY.

# WE ARE AMERICAN WATER



AMERICAN WATER

[www.amwater.com](http://www.amwater.com) • NYSE: AWK



We are experts at delivering high-quality water and wastewater service to our customers. We are scientists, environmentalists, innovators, and protectors. We are also residents and employees in the communities we serve, and we understand how important, how precious, and how critical water is to daily life.

We're a company with a track record of financial success, environmental compliance, successful partnerships and commitment to our customers. We are focused on our customers and our communities, and we are driven to provide exceptional service, innovative solutions and quality products to our customers and our partners.

### WHAT WE ARE KNOWN FOR

#### Customer Service

Our customers are our number one priority. And our customers will tell you that we are responsive, reliable, and reputable.

#### The Highest Standards

When it comes to complying with strict federal regulations for delivering clean, quality drinking water, we've consistently scored among the highest of all water companies.

For 2007, we achieved greater than a 99.9 percent compliance rate for meeting state and federal drinking water standards and 99.4 percent for compliance with wastewater requirements.

In the past several years, across the American Water System, we've received more than 150 awards for superior water quality from state regulators, industry organizations, individual communities, and government and environmental agencies.

### Innovative Solutions

We work with cities and communities of all sizes to help them solve their unique water and wastewater needs and challenges. A solution can be as simple as installing a system for 39 homes, or as complex as finding a way to provide a water supply to 400,000 homes in the middle of a desert.

Our expertise has been tapped to develop self-contained wastewater recycling systems in high-rise, luxury apartment buildings in New York City, rescue a troubled treatment plant that converts ocean water to drinking water, and create a system built to help a football stadium handle the halftime flush by recycling and reusing its own water.

### Environmental Stewardship

The special projects we have developed in our communities have brought us awards but, more importantly, they show our commitment to the environment and this precious resource we protect.

We help reduce erosion, enhance habitats and teach children and young adults to respect, appreciate and conserve our natural resources. The American Water team is committed to protecting the environment, and to finding ways to use our most precious resource wisely.

### New Technologies

As fuel, energy and water supplies become more scarce, finding alternative solutions to ensure their availability is becoming necessary. Two processes that are becoming more visible and attainable are desalination of ocean water and ethanol production.

#### Desalination:

As the operator of the largest desalination plant in the country in Tampa, Florida, and a pilot plant in the making in California, American Water is helping to ensure the environmentally sound conversion of ocean water to drinking water that will establish a reliable drinking water supply for years to come.

#### Ethanol:

American Water is currently delivering water to ethanol plants as a necessary component in biofuel production. We've also been able to offer technological expertise to manage and treat the water supply, design and build water supply infrastructure, and to develop strategies to find new sources where adequate supply doesn't exist.

### Groundbreaking Research

Belleville, Illinois, is home to our state-of-the-art, world-renowned water quality control laboratory. Each year, at our central laboratory in Belleville, IL, and at our local utility labs, we conduct nearly one million tests and measurements using the most advanced technology and equipment available.

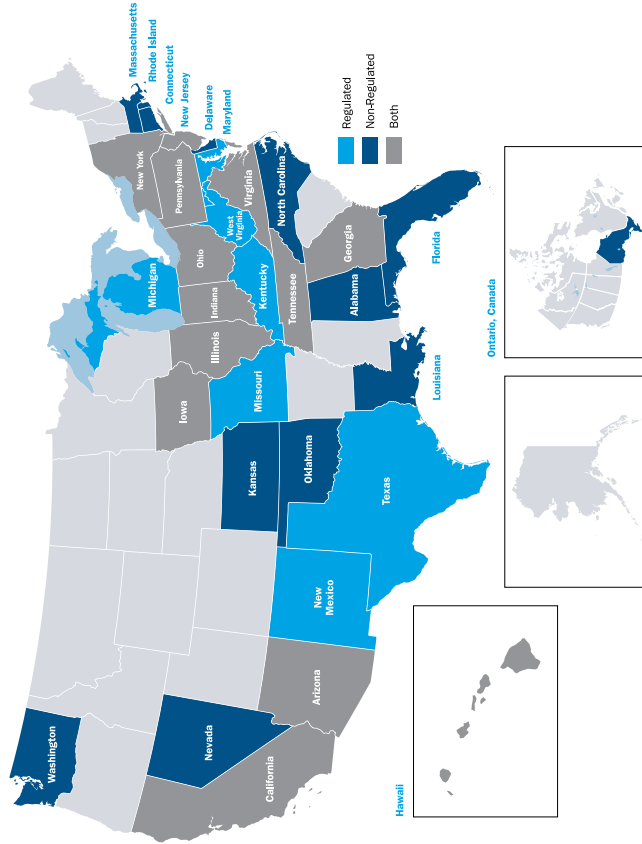
This highly technical facility routinely interacts with prominent researchers, universities and organizations, including the United States Environmental Protection Agency.

### AMERICAN WATER OPERATIONS

#### WHERE WE ARE

With operations in 32 states across the U.S., and Ontario, Canada, we are large enough to pool tremendous expertise and financial strength. From New Jersey to Hawaii, Florida to Canada, American Water, through its subsidiaries, serves approximately 15.6 million people.

American Water is one of the largest and most experienced water service providers in the United States. Our nearly 7,000 employees are committed to treating, delivering and protecting the earth's most important resource.



**AMERICAN WATER**  
www.amwater.com

**KENTUCKY-AMERICAN WATER COMPANY  
CASE NO. 2010-00036  
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION**

---

**Witness: Sheila Miller**

33. Refer to the Company's response to AG-1-69. Please provide the attachment electronically in Excel.

**Response:**

The excel attachment filed in response to KAW\_R\_AGDR1#69 was provided in response to KAW\_R\_AGDR1#1\_042610 and labeled as K\_REV10.XLS under tab Database.

For the electronic version of this response, refer to KAW\_R\_AGDR2#33\_052410.pdf.

**KENTUCKY-AMERICAN WATER COMPANY**  
**CASE NO. 2010-00036**  
**ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION**

---

**Witness: Sheila Miller**

34. Refer to the Company's response to AG-1-73.
- a. Please explain the negative actual recorded amounts for each year, 2007, 2008 and 2009 for Injuries and Damages.
  - b. Please show in detail what the budgeted amounts were for each year, 2007, 2008 and 2009.
  - c. Please show in detail how the 2010 and 2011 budget amounts were developed.

**Response:**

- a. In 2007 a miscellaneous invoice in the amount of (\$794.00), which was a reimbursement from State Farm for fence damage, was applied to the injuries and damages account. The original expense for fence damage was incurred in 2006. In 2008 and 2009 the negative balances in injuries and damages were the result of worker's compensation reimbursements from employees being applied to this account. These reimbursements should have been credited to the labor account.
- b. 2007 \$18,000  
2008 \$18,000  
2009 \$12,000
- c. The budget amounts for 2010 and 2011 are \$2,000 and \$2,060 respectively. These amounts were determined by the historical account activity excluding the worker's compensation reimbursements.

For the electronic version, refer to KAW\_R\_AGDR2#34\_052410.pdf.

**KENTUCKY-AMERICAN WATER COMPANY  
CASE NO. 2010-00036  
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION**

---

**Witness: Sheila Miller**

35. Refer to the Company's response to AG-1-74. Please provide the attachment electronically in Excel.

**Response:**

Please refer to the excel file labeled as KAW\_R\_AGDR2#35\_052410.xls.

For the electronic version of this document, refer to KAW\_R\_AGDR2#35\_052410.pdf.

**KENTUCKY-AMERICAN WATER COMPANY**  
**CASE NO. 2010-00036**  
**ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION**

---

**Witness: Sheila Miller/Michael A. Miller**

36. Refer to the Company's response to AG-1-74.
- a. Why has D&O increased by 1049% in 2008?
  - b. Why does KAW include items in the Rate Case Forecast that are not included in the 2010 budget?
  - c. Show in detail how each of the amounts on the "retros/contingency" line were derived and provide the supporting documents.
  - d. Provide a copy of the Executive Risk policy and invoice and explain why no amounts for this type of insurance were include in the Actual 2010 or 2009 or 2008 or 2007 results.
  - e. For each item that is listed with a "premium expiration" of 4/30/2010 or earlier, please provide the last invoice, indicate whether there was any renewal in 2010 and provide the most current invoice and expense.

**Response:**

- a. The Company did not require D&O insurance until it became a publicly traded company.
- b. There are items included in the forecast that were actual costs that the budget did not include. Also included were actual premium amounts rather than forecasted which in some cases were lower than the original budget. As indicated in response to KAW\_R\_PSCDR2#25b\_043010 a revision will be submitted once all premiums have been received.
- c. The amount on the retros/contingency line was derived from the 2010/2011 budget. The budget for the retrospective accrual was based on a prospective review of future claims experience based on the most recent claims experience regarding general liability, auto liability and workers compensation. This review produces an adjustment (plus or minus) to the premiums paid in past periods. This review produced the budgeted amounts for 2010 and 2011 which were used in the forecasted test-year in this case. Also see the response to AG-2-108.

- d. The Company has received neither an invoice nor a policy for Executive Risk as of this date; however this item was included in the original budget. If they are not received, this adjustment will be included in the revision referred to in part b. above.
  
- e. All premiums listed are expected to be renewed. The most current invoices available at the time of responding to the PSC-2 data requests were provided in response to PSC-2-Question 25. Attached are the invoices received since responding to PSC-2-25.

For the electronic version refer to KAW\_R\_AGDR2#36\_052410.pdf.



# MARSH

140

Marsh USA Inc.  
New York, NY - 299  
(212) 345-6000

Invoice No
200754

Date: 1/04/10

Mr. James P. Li  
Director of Risk Management  
American Water Works Co., Inc.  
1025 Laurel Oak Road  
Voorhees, NJ 08043

Effective Date	Expiration Date	Client No.
1/01/10	1/01/11	602328

Policyholder: AMER WATER WOR

Billing Effective Date: 4/01/10

INSTALLMENT 2 OF 4

Insurer	Policy No	Type of Coverage / Item	Amount
TRAVELERS P&C	TC2JGLSA260T3317	GEN LIABILITY PREMIUM	4,403,051.00
TRAVELERS P&C	TC2JCAP260T3298	AUTO LIAB PREMIUM	519,370.00
FEE BILLING	SERVICE FEE	CAS CONSULTING FEE	74,383.00
TRAVELERS P&C	TC2JUB121D3206	WORK COMP PREMIUM	2,638,400.00
REMIT IN: UNITED STATES DOLLARS			
Renewal premiums due. Fee breakdown by coverage. First Installment: GL - \$45,835, AL - \$4,452, WC \$24,102 Next Three Installments: GL \$45,833, AL \$4,450, WC \$24,100			
Please indicate Invoice # 200754 on your remittance to:			
Marsh USA Inc. New York Office P.O. Box 19601 Newark, NJ 07195-0601			
<b>TOTAL:</b>			<b>7,635,204.00</b>

Invoice Is Payable In Full Upon Receipt

Marsh earns and retains interest income on premium payments held by Marsh on behalf of insurers during the period between receipt of such payments from clients and the time such payments are remitted to the applicable insurer, where permitted by law.

# MARSH

140

Marsh USA Inc.  
New York, NY - 299  
(212) 345-6000

Invoice No
200755

Date: 1/04/10

Mr. James P. Li  
Director of Risk Management  
American Water Works Co., Inc.  
1025 Laurel Oak Road  
Voorhees, NJ 08043

Effective Date	Expiration Date	Client No.
1/01/10	1/01/11	602328

Policyholder: AMER WATER WOR

Billing Effective Date: 7/01/10

INSTALLMENT 3 OF 4

Insurer	Policy No.	Type of Coverage / Item	Amount
TRAVELERS P&C	TC2JGLSA260T3317	GEN LIABILITY PREMIUM	4,403,051.00
TRAVELERS P&C	TC2JCAP260T3298	AUTO LIAB PREMIUM	519,370.00
FEE BILLING	SERVICE FEE	CAS CONSULTING FEE	74,383.00
TRAVELERS P&C	TC2JUB121D3206	WORK COMP PREMIUM	2,638,400.00
REMIT IN: UNITED STATES DOLLARS			
Renewal premiums due. Fee breakdown by coverage.			
First Installment: GL - \$45,835, AL - \$4,452, WC \$24,102			
Next Three Installments: GL \$45,833, AL \$4,450, WC \$24,100			
Please indicate Invoice # 200755 on your remittance to:			
Marsh USA Inc. New York Office P.O. Box 19601 Newark, NJ 07195-0601			
<b>TOTAL:</b>			<b>7,635,204.00</b>

**Invoice Is Payable In Full Upon Receipt**

Marsh earns and retains interest income on premium payments held by Marsh on behalf of insurers during the period between receipt of such payments from clients and the time such payments are remitted to the applicable insurer, where permitted by law.

# MARSH

140

Marsh USA Inc.  
New York, NY - 299  
(212) 345-6000

Invoice No.
200756

Date: 1/04/10

Mr. James P. Li  
Director of Risk Management  
American Water Works Co., Inc.  
1025 Laurel Oak Road  
Voorhees, NJ 08043

Effective Date	Expiration Date	Client No.
1/01/10	1/01/11	602328

Policyholder: AMER WATER WOR

Billing Effective Date: 10/01/10

INSTALLMENT 4 OF 4

Insurer	Policy No.	Type of Coverage / Item	Amount
TRAVELERS P&C	TC2JGLSA260T3317	GEN LIABILITY PREMIUM	4,403,051.00
TRAVELERS P&C	TC2JCAP260T3298	AUTO LIAB PREMIUM	519,370.00
FEE BILLING	SERVICE FEE	CAS CONSULTING FEE	74,383.00
TRAVELERS P&C	TC2JUB121D3206	WORK COMP PREMIUM	2,638,400.00
REMIT IN: UNITED STATES DOLLARS			
Renewal premiums due. Fee breakdown by coverage.			
First Installment: GL - \$45,835, AL - \$4,452, WC \$24,102			
Next Three Installments: GL \$45,833, AL \$4,450, WC \$24,100			
Please indicate Invoice # 200756 on your remittance to:			
Marsh USA Inc. New York Office P.O. Box 19601 Newark, NJ 07195-0601			
<b>TOTAL:</b>			<b>7,635,204.00</b>

Invoice Is Payable In Full Upon Receipt

Marsh earns and retains interest income on premium payments held by Marsh on behalf of insurers during the period between receipt of such payments from clients and the time such payments are remitted to the applicable insurer, where permitted by law.

**Willis**

Willis of New York Inc. (SCR Division)  
P.O. Box 30230  
General Post Office  
New York, NY 10087-0230  
(212) 915-8888

**INVOICE**

INVOICE DATE  
**31-DEC-2009**  
INVOICE NO.  
**0000693**

AMERICAN WATER WORKS COMPANY, INC.  
FAO: JAMES P. LI  
1025 LAUREL OAK ROAD  
VOORHEES NJ 08043  
U S A

"099"  
nsx JMC

NAZIP

14,872.73

**DUE DATE**

Upon Receipt

→ 1A03DE30

Reg. portion only

ACCOUNT 51325	LOCATION 001	ACCOUNT NAME SCR FILE REF: 51325
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FOR QUESTIONS REGARDING THIS INVOICE, PLEASE CALL ONE OF THE FOLLOWING  
SERVICER **Todd Cranche** PRODUCER **Todd Cranche**

**REF. BILLING INFORMATION AMOUNT**

01	Transaction: New Policy Eff. Date : 01-JAN-2010 Policy : OR51325 Description: Special Contingency Risks Period : 01-JAN-2010 to 01-JAN-2013 Carrier : Great American Insurance Company In Full : January 2010 Premium for Other Special Risks	\$ 15,857.00
	Total for Reference 01 \$ 15,857.00	
This invoice relates to Great American Insurance Company Contract Number: GA 0248  For Your Convenience Funds May Be ACH/Wired To:  JP Morgan Chase Bank New York, NY Willis of NY - SCR Division Acct# 304-960187 ABA# 021000021 ****PLEASE REFERENCE INVOICE NUMBER**** **US DOLLAR ACCOUNT ONLY**		
<p><b>RECEIVED</b> FEB 15 2010 SSC Accounts Payable</p>		

PLEASE INCLUDE INVOICE NUMBER WITH YOUR PAYMENT      AMOUNT DUE      ➔      \$      15,857.00

Willis is a member of a major international group of companies. In addition to the compensation received by Willis from insurers for placements of your insurance coverages, other parties, such as excess and surplus lines brokers, wholesalers, reinsurance intermediaries, underwriting managers and similar parties (some of which may be owned in whole or in part by Willis' corporate parents or affiliates), may earn and retain usual and customary commissions for their role in providing insurance products or services to clients under their separate contracts with insurers or reinsurers. On October 21, 2004, we announced that we would discontinue contingencies in North America immediately and in the other countries in which we operate by the end of the year. For any placements that were made prior to October 21, 2004, it is possible that Willis, or its corporate parents or affiliates, earned contingent payments or allowances from insurers based on factors which are not client-specific, such as size or performance of an overall book of business produced with an insurer by Willis, its corporate parents or affiliates. Upon written request, Willis will provide information regarding the compensation received by Willis or by its corporate parents or affiliates. Prior to its merger with Willis, HRH accepted contingent compensation on certain of its clients' accounts; these contingents will be phased out over three years, and no contingents will be accepted on any new brokerage clients or business generated after the October 1, 2008 acquisition.

Willis of New York, Inc. Invoice #0000693 dated 12/31/09

Reg (JDE)	Accounting	
AMERICAN WATER ENTERPRISES*		\$ 874.47
AMERICAN WATER RESOURCES *		\$ 109.80
AMERICAN WATER WORKS COMPANY, IN 020105.165200.TJ36		\$ 6.90
AMERICAN WATER WORKS SERVICE CO., 032000.165200.TJ36		\$ 3,565.50
APPLIED WATER MANAGEMENT & APPLIED*		\$ -
California-American Water Co. 051005.165200.TJ36		\$ 738.33
Hawaii-American Water Co. 300205.165200.TJ36		\$ 52.02
ILLINOIS-AMERICAN WATER 098505.165200.TJ36		\$ 1,041.66
INDIANA-AMERICAN WATER 100105.165200.TJ36		\$ 670.86
Iowa-American Water Co. 110105.165200.TJ36		\$ 142.23
KENTUCKY-AMERICAN WATER 120105.165200.TJ36		\$ 291.48
Long Island Water Corp. - NY 380305.165200.TJ36		\$ 252.03
Maryland-American Water Co. 130205.165200.TJ36		\$ 22.08
Michigan-American Water Co. 160205.165200.TJ36		\$ 11.55
MISSOURI-AMERICAN WATER 170105.165200.TJ36		\$ 1,534.74
NEW JERSEY-AMERICAN WATER 180105.165200.TJ36		\$ 2,429.45
New Mexico-American Water Co. 190105.165200.TJ36		\$ 39.30
Ohio-American Water Co. 220105.165200.TJ36		\$ 222.84
Paradise Valley Water Co. - AZ 230105.165200.TJ36		\$ 366.00
PENNSYLVANIA-AMERICAN WATER 240005.165200.TJ36		\$ 2,336.94
Tennessee-American Water Co. 260205.165200.TJ36		\$ 209.43
Texas American 500105.165200.TJ36		\$ 19.83
Virginia-American Water Co. 270505.165200.TJ36		\$ 205.44
WEST VIRGINIA-AMERICAN WATER 285105.165200.TJ36		\$ 714.12

Total \$ 15,857.00

\*Less Non-Reg \$ (984.27)

Pay \$ 14,872.73

# MARSH

Marsh USA Inc.  
New York, NY - 299  
(212) 345-6000

50126585 *one*  
KAW\_R / ASDR2#361058410  
Page 8 of 22  
Vendor  
wire payment

*TX*  
39,392.96

Invoice No.  
206198 *not on System*

*see portion only*  
A03AWAIS ORIGINAL INVOICE

Date: 2/23/10

Attn: Jim Li  
American Water Works Co., Inc.  
1025 Laurel Oak Road  
Voorhees, NJ 08043

Effective Date	Expiration Date	Client No.
1/03/10	1/03/11	602328

*n/AZP*

Policyholder: American Water

ENDORSEMENT Billing Effective Date: 2/23/10

Insurer	Policy No.	Type of Coverage / Item	Amount
WESTCHESTER	K06685092	MISC SURETY PREMIUM  REMIT IN: UNITED STATES DOLLARS  Principal: American Water Works Company, Inc. Obligee: The Travelers Indemnity Company Bond Amount: \$6,000,000.00 Description: Other Financial Guarantee - Premium Deductible Bond Requester: Jim Li Renewal invoice Modification Effective Date: 23-Feb-2010	42,000.00
Please indicate Invoice # 206198 on your remittance to:  Marsh USA Inc. New York Office P.O. Box 19601 Newark, NJ 07195-0601			TOTAL: 42,000.00

RECEIVED

APR 26 2010

SSC *MC*  
Accounts Payable

Invoice Is Payable In Full Upon Receipt

Marsh earns and retains interest income on premium payments held by Marsh on behalf of insurers during the period between receipt of such payments from clients and the time such payments are remitted to the applicable insurer, where permitted by law.

MARSH USA Inc. Invoice #206198 dated 02/23/10

Reg (JDE)	Accounting	Amount
AMERICAN WATER ENTERPRISES*		\$ 2,316.22
AMERICAN WATER RESOURCES *		\$ 290.82
AMERICAN WATER WORKS COMPANY, IN 020105.165200.TJ36		\$ 18.29
AMERICAN WATER WORKS SERVICE CO., 032000.165200.TJ36		\$ 9,443.84
APPLIED WATER MANAGEMENT & APPLIED*		\$ -
California-American Water Co. 051005.165200.TJ36		\$ 1,955.56
Hawaii-American Water Co. 300205.165200.TJ36		\$ 137.75
ILLINOIS-AMERICAN WATER 098505.165200.TJ36		\$ 2,758.98
INDIANA-AMERICAN WATER 100105.165200.TJ36		\$ 1,776.91
Iowa-American Water Co. 110105.165200.TJ36		\$ 376.75
KENTUCKY-AMERICAN WATER 120105.165200.TJ36		\$ 772.03
Long Island Water Corp. - NY 380305.165200.TJ36		\$ 667.54
Maryland-American Water Co. 130205.165200.TJ36		\$ 58.49
Michigan-American Water Co. 160205.165200.TJ36		\$ 30.61
MISSOURI-AMERICAN WATER 170105.165200.TJ36		\$ 4,065.02
NEW JERSEY-AMERICAN WATER 180105.165200.TJ36		\$ 6,434.90
New Mexico-American Water Co. 190105.165200.TJ36		\$ 104.08
Ohio-American Water Co. 220105.165200.TJ36		\$ 590.20
Paradise Valley Water Co. - AZ 230105.165200.TJ36		\$ 969.45
PENNSYLVANIA-AMERICAN WATER 240005.165200.TJ36		\$ 6,189.80
Tennessee-American Water Co. 260205.165200.TJ36		\$ 554.70
Texas American 500105.165200.TJ36		\$ 52.49
Virginia-American Water Co. 270505.165200.TJ36		\$ 544.12
WEST VIRGINIA-AMERICAN WATER 285105.165200.TJ36		\$ 1,891.45
	<b>Total</b>	<b>\$ 42,000.00</b>
	<b>*Less Non-Reg</b>	<b>\$ (2,607.04)</b>
	<b>Pay</b>	<b>\$ 39,392.96</b>

MARSH

Marsh Ltd  
UK Operations  
Victoria House  
Queens Road  
Norwich  
NR1 3QQ  
020 7357 1000 Fax 020 7929 2705

AMERICAN WATER WORKS COMPANY INC  
1025 LAUREL OAK RD  
VOORHEES, NJ 080433597  
USA

50220154  
NSX ML

AA031A15

\$ 1,063,610.35

UK OPERATIONS FOR BOWRING MARSH

ACCOUNT NO: C4729602X  
RISK NO: DL481010  
CONTACT: EMMA FICKLING  
DIRECT LINE: 01603 20 7040

YOUR REFERENCE: JIM LI

DATE: 21 JAN 2010

DEBIT INVOICE NO: 10DL0011 / DL481010

INSURED: AMERICAN WATER WORKS COMPANY INC  
LIMIT: USD 50,000,000 EXCESS USD 25,000,000  
PERIOD: 1<sup>ST</sup> JAN 2010 TO 1<sup>ST</sup> JAN 2011  
TYPE: EXCESS LIABILITY INSURANCE  
DESCRIPTION: PREMIUM FOR RISK PERIOD

NARRATIVE PREMIUM PAYMENT CONDITION 31<sup>ST</sup> JANUARY 2010.  
INSURER: XL INSURANCE COMPANY

PREMIUM USD 1,134,000.00  
  
AMOUNT PAYABLE USD 1,134,000.00

PLEASE BE AWARE THAT THE COVERAGE AFFORDED BY THE POLICY IS CONDITIONAL UPON THE UNDERWRITER/S RECEIVING PAYMENT OF ALL PREMIUM AMOUNTS DUE. PLEASE THEREFORE ARRANGE TIMELY SETTLEMENT TO OUR BANK AS PER THE ACCOUNT DETAILS SHOWN ON THE ATTACHED SHEET. PLEASE QUOTE THE ABOVE INVOICE NUMBER ON ALL CORRESPONDENCE.

ANY EXEMPT PART OF THIS SUPPLY IS VAT EXEMPT UNDER ARTICLE 13B (A), DIRECTIVE 77/388/EC

RECEIVED

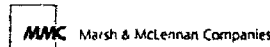
JAN 26 2010

SSC  
Accounts Payable

Marsh Ltd is authorised and regulated by the Financial Services Authority. Marsh Ltd conducts its general insurance activities on terms that are set out in the document "Our Business Principles and Practices". Full details may be viewed on our website <http://www.marsh.co.uk/aboutMarsh/principles.html>

VAT Reg. No 244 2517 79 Registered No 1507274, England Registered Office 1 Tower Place West, Tower Place, London EC3R 5BU

NOR





**MARSH**

Victoria House, Queens Road, Telephone: (44) (0)20 7357 1000  
Norwich, NR1 3QQ Facsimile: (44) (0)20 7929 2705  
United Kingdom

**MARSH LTD  
BANKING ARRANGEMENTS**

Telegraphic Transfers should be made to the following banks:

Sterling	United States Dollars	Australian Dollars	Canadian Dollars
<p>BARCLAYS BANK 1 Churchill Place London E14 5HP For account of: Marsh Ltd NST Account No: 20202681 Swift Code: BARCGB22 Sort Code 20-00-00 IBAN: GB90 BARC 200000 20202681</p>	<p>JPMORGAN CHASE BANK 125 London Wall London EC2Y 5AJ For account of: Marsh Ltd NST Account No: 15050511 Swift Code: CHASGB2L IBAN: GB25 CHAS 609242 15050511</p>	<p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 723908 Swift Code: CITIGB2L Cover with: Citibank, Sydney IBAN: GB39 CITI 185008 00723908</p>	<p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 3064972 Swift Code: CITIGB2L Cover with: Citibank, Toronto IBAN: GB03 CITI 185008 03064972</p>
<p>Danish Kroner</p> <p>Citibank NA 336 Strand London WC2R 1HB For account of: Marsh Ltd NST Account No: 1037730 Swift Code: CITIGB2L Cover with: Nordea Bank, Copenhagen IBAN: GB86 CITI 185008 01037730</p>	<p>Euro</p> <p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 8509077 Swift Code: CITIGB2L No cover bank IBAN: GB58 CITI 185008 08509077</p>	<p>Hong Kong Dollars</p> <p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 10004839 Swift Code: CITIGB2L Cover with: Citibank, Hong Kong IBAN: GB46 CITI 185008 10004839</p>	<p>Japanese Yen</p> <p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 722926 Swift Code: CITIGB2L Cover with: Citibank, Tokyo IBAN: GB18 CITI 185008 00722926</p>
<p>New Zealand Dollars</p> <p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 10004855 Swift Code: CITIGB2L Cover with: Citibank, Auckland IBAN: GB02 CITI 185008 10004855</p>	<p>Norwegian Kroner</p> <p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 723894 Swift Code: CITIGB2L Cover with: Den Norske Bank, Oslo IBAN: GB29 CITI 185008 00723894</p>	<p>Saudi Riyals</p> <p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 727555 Swift Code: CITIGB2L Cover with: Saudi American Bank, Riyadh IBAN: GB25 CITI 185008 00727555</p>	<p>Singapore Dollars</p> <p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 10004847 Swift Code: CITIGB2L Cover with: Citibank, Singapore IBAN: GB24 CITI 185008 10004847</p>
<p>South African Rands</p> <p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 723916 Swift Code: CITIGB2L Cover with: Citibank, Johannesburg IBAN: GB17 CITI 185008 00723916</p>	<p>Swedish Krona</p> <p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 727563 Swift Code: CITIGB2L Cover with: Svenska Handelsbanken, Stockholm IBAN: GB03 CITI 185008 00727563</p>	<p>Swiss Francs</p> <p>Citibank NA Citigroup Centre Canada Square, Canary Wharf London E14 5LB For account of: Marsh Ltd NST Account No: 723924 Swift Code: CITIGB2L BC Code 89095 IBAN: GB92 CITI 185008 00723924</p>	

MARSH UK Operations Invoice #DL481010 dated 01/21/10

Reg (JDE)	Accounting	Amount
AMERICAN WATER ENTERPRISES*		\$ 62,537.83
AMERICAN WATER RESOURCES *		\$ 7,851.82
AMERICAN WATER WORKS COMPANY, INC.	020105.165200.TJ36	\$ 494.42
AMERICAN WATER WORKS SERVICE CO., INC.	032000.165200.TJ36	\$ 254,983.30
APPLIED WATER MANAGEMENT & APPLIED*		\$ -
California-American Water Co.	051005.165200.TJ36	\$ 52,800.17
Hawaii-American Water Co.	300205.165200.TJ36	\$ 3,719.52
ILLINOIS-AMERICAN WATER	098505.165200.TJ36	\$ 74,492.46
INDIANA-AMERICAN WATER	100105.165200.TJ36	\$ 47,976.14
Iowa-American Water Co.	110105.165200.TJ36	\$ 10,171.98
KENTUCKY-AMERICAN WATER	120105.165200.TJ36	\$ 20,845.19
Long Island Water Corp. - NY	380305.165200.TJ36	\$ 18,023.80
Maryland-American Water Co.	130205.165200.TJ36	\$ 1,579.66
Michigan-American Water Co.	160205.165200.TJ36	\$ 826.69
MISSOURI-AMERICAN WATER	170105.165200.TJ36	\$ 109,755.32
NEW JERSEY-AMERICAN WATER	180105.165200.TJ36	\$ 173,742.41
New Mexico-American Water Co.	190105.165200.TJ36	\$ 2,810.05
Ohio-American Water Co.	220105.165200.TJ36	\$ 15,934.97
Paradise Valley Water Co. - AZ	230105.165200.TJ36	\$ 26,174.99
PENNSYLVANIA-AMERICAN WATER	240005.165200.TJ36	\$ 167,124.38
Tennessee-American Water Co.	260205.165200.TJ36	\$ 14,976.74
Texas American	500105.165200.TJ36	\$ 1,417.50
Virginia-American Water Co.	270505.165200.TJ36	\$ 14,690.97
WEST VIRGINIA-AMERICAN WATER	285105.165200.TJ36	\$ 51,069.69
<b>Total</b>		<b>\$ 1,134,000.00</b>
<b>*Less Non-Reg</b>		<b>\$ (70,389.65)</b>
<b>Pay</b>		<b>\$ 1,063,610.35</b>

# Willis

Willis of Pennsylvania, Inc.  
P.O. Box 905432  
Charlotte, NC 28290-5432  
(610) 964-8700

## INVOICE

INVOICE DATE <b>29-APR-2010</b>
INVOICE NO. <b>0428601</b>

AMERICAN WATER WORKS COMPANY, INC.  
ATTN: JIM LI  
1025 LAUREL OAK ROAD  
VOORHEES NJ 08043

## DUE DATE

Upon Receipt

ACCOUNT <b>427663</b>	LOCATION <b>001</b>	ACCOUNT NAME <b>American Water Works Company, Inc.</b>
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FOR QUESTIONS REGARDING THIS INVOICE, PLEASE CALL ONE OF THE FOLLOWING

SERVICER **Michael Snee** PRODUCER **Michael F. Trendler Jr.**

REF	BILLING INFORMATION	AMOUNT
01	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : 68039304 Description: Fiduciary Period : 22-APR-2010 to 22-APR-2011 Carrier : Federal Insurance Company In Full : April 2010 Premium for Fiduciary NJ PLIGA	\$ 87,000.00 \$ 783.00  Total for Reference 01 \$ 87,783.00  2010 Renewal Premium.
02	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : FLC902417906 Description: 25x25 XS Fiduciary Period : 22-APR-2010 to 22-APR-2011 Carrier : Zurich American Insurance Company In Full : April 2010 Premium for Fiduciary NJ PLIGA	\$ 80,000.00 \$ 720.00  Total for Reference 02 \$ 80,720.00  2010 Renewal Premium.

PLEASE INCLUDE INVOICE NUMBER WITH YOUR PAYMENT AMOUNT DUE  (Continued)

Willis is a member of a major international group of companies. In addition to the compensation received by Willis from insurers for placements of your insurance coverages, other parties, such as excess and surplus lines brokers, wholesalers, reinsurance intermediaries, underwriting managers and similar parties (some of which may be owned in whole or in part by Willis' corporate parents or affiliates), may earn and retain usual and customary commissions for their role in providing insurance products or services to clients under their separate contracts with insurers or reinsurers. On October 21, 2004, we announced that we would discontinue contingencies in North America immediately and in the other countries in which we operate by the end of the year. For any placements that were made prior to October 21, 2004, it is possible that Willis, or its corporate parents or affiliates, earned contingent payments or allowances from insurers based on factors which are not client-specific, such as size or performance of an overall book of business produced with an insurer by Willis, its corporate parents or affiliates. Upon written request, Willis will provide information regarding the compensation received by Willis or by its corporate parents or affiliates. Prior to its merger with Willis, HRH accepted contingent compensation on certain of its clients' accounts; these contingents will be phased out over three years, and no contingents will be accepted on any new brokerage clients or business generated after the October 1, 2008 acquisition.





Willis of Pennsylvania, Inc.  
 P.O. Box 905432  
 Charlotte, NC 28290-5432  
 (610) 964-8700

**INVOICE**

INVOICE DATE <b>29-APR-2010</b>
INVOICE NO. <b>0428597</b>

AMERICAN WATER WORKS COMPANY, INC.  
 ATTN: JIM LI  
 1025 LAUREL OAK ROAD  
 VOORHEES NJ 08043

**DUE DATE**

Upon Receipt

ACCOUNT <b>427663</b>	LOCATION <b>001</b>	ACCOUNT NAME <b>American Water Works Company, Inc.</b>
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FOR QUESTIONS REGARDING THIS INVOICE, PLEASE CALL ONE OF THE FOLLOWING

SERVICER **Michael Snee** PRODUCER **Michael F. Trendler Jr.**

REF	BILLING INFORMATION	AMOUNT
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01	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : FID968343505 Description: Crime Period : 22-APR-2010 to 22-APR-2011 Carrier : Zurich American Insurance Company In Full : April 2010 Premium for Crime NJ Surcharge  Total for Reference 01 \$ 39,556.00	\$ 39,500.00 \$ 56.00
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2010 Renewal Premium.

For Your Convenience Funds May Be ACH/Wired To:

Suntrust Bank  
 100 Colony Square  
 Atlanta, GA 30361  
 Willis of Pennsylvania, Inc  
 Acct# 1000011273884  
 ABA# 061000104

\*\*\*PLEASE REFERENCE INVOICE NUMBER\*\*\*  
 \*\*US DOLLAR ACCOUNT ONLY\*\*

PLEASE INCLUDE INVOICE NUMBER WITH YOUR PAYMENT	AMOUNT DUE	\$ 39,556.00
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**INVOICE**

INVOICE DATE <b>29-APR-2010</b>
INVOICE NO. <b>0428608</b>

AMERICAN WATER WORKS COMPANY, INC.  
 ATTN: JIM LI  
 1025 LAUREL OAK ROAD  
 VOORHEES NJ 08043

**DUE DATE**

Upon Receipt

ACCOUNT <b>427663</b>	LOCATION <b>001</b>	ACCOUNT NAME <b>American Water Works Company, Inc.</b>
--------------------------	------------------------	---

FOR QUESTIONS REGARDING THIS INVOICE, PLEASE CALL ONE OF THE FOLLOWING

SERVICER **Michael Snee** PRODUCER **Michael F. Trendler Jr.**

REF	BILLING INFORMATION	AMOUNT
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01	Transaction: Policy Renewal	
	Eff. Date : 22-APR-2010	
	Policy : DOC915975301	
	Description: Primary D&O	
	Period : 22-APR-2010 to 22-APR-2011	
	Carrier : Zurich American Insurance Company	
In Full : April 2010		
	Premium for Directors & Officers Liab	\$ 240,000.00
	NJ PLIGA	\$ 2,160.00
	<b>Total for Reference 01</b>	<b>\$ 242,160.00</b>

2010 Renewal Premium.

02	Transaction: Policy Renewal	
	Eff. Date : 22-APR-2010	
	Policy : 82100229	
	Description: XS D&O 15x15-Chubb	
	Period : 22-APR-2010 to 22-APR-2011	
	Carrier : Federal Insurance Company	
In Full : April 2010		
	Premium for Excess D & O	\$ 180,000.00
	NJ PLIGA	\$ 1,620.00
	<b>Total for Reference 02</b>	<b>\$ 181,620.00</b>

2010 Renewal Premium.

**PLEASE INCLUDE INVOICE NUMBER WITH YOUR PAYMENT**      **AMOUNT DUE**      **(Continued)**

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## INVOICE

INVOICE DATE <b>29-APR-2010</b>
INVOICE NO. <b>0428608</b>

AMERICAN WATER WORKS COMPANY, INC.  
ATTN: JIM LI  
1025 LAUREL OAK ROAD  
VOORHEES NJ 08043

## DUE DATE

Upon Receipt

ACCOUNT <b>427663</b>	LOCATION <b>001</b>	ACCOUNT NAME <b>American Water Works Company, Inc.</b>
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FOR QUESTIONS REGARDING THIS INVOICE, PLEASE CALL ONE OF THE FOLLOWING

SERVICER **Michael Snee** PRODUCER **Michael F. Trendler Jr.**

REF	BILLING INFORMATION	AMOUNT
03	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : 24MGU10A21249 Description: XS D&O 15x30-HCC Global Period : 22-APR-2010 to 22-APR-2011 Carrier : U.S. Specialty Insurance Company In Full : April 2010 Premium for Directors & Officers Liab NJ PLIGA	\$ 126,000.00 \$ 1,134.00
	Total for Reference 03	\$ 127,134.00
	2010 Renewal Premium.	
04	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : 00DA024998310 Description: XS D&O 15x45-Hartford Period : 22-APR-2010 to 22-APR-2011 Carrier : Twin City Fire Insurance Company In Full : April 2010 Premium for Excess D & O NJ Surcharge	\$ 88,200.00 \$ 794.00
	Total for Reference 04	\$ 88,994.00
	2010 Renewal Premium.	

PLEASE INCLUDE INVOICE NUMBER WITH YOUR PAYMENT AMOUNT DUE  (Continued)

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**INVOICE**

INVOICE DATE <b>29-APR-2010</b>
INVOICE NO. <b>0428608</b>

AMERICAN WATER WORKS COMPANY, INC.  
 ATTN: JIM LI  
 1025 LAUREL OAK ROAD  
 VOORHEES NJ 08043

**DUE DATE**

Upon Receipt

ACCOUNT <b>427663</b>	LOCATION <b>001</b>	ACCOUNT NAME <b>American Water Works Company, Inc.</b>
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FOR QUESTIONS REGARDING THIS INVOICE, PLEASE CALL ONE OF THE FOLLOWING

SERVICER **Michael Snee** PRODUCER **Michael F. Trendler Jr.**

REF	BILLING INFORMATION	AMOUNT
05	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : 03055131 Description: XS D&O 15/40X50-AWNAC Period : 22-APR-2010 to 22-APR-2011 Carrier : Allied World National Assurance Company In Full : April 2010 Premium for Excess D & O NJ PLIGA Total for Reference 05 \$ 75,675.00 2010 Renewal Premium.	\$ 75,000.00 \$ 675.00
06	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : HN03032631 Description: XS D&O 15x100 SIDE A-XL Period : 22-APR-2010 to 22-APR-2011 Carrier : Hudson Insurance Company In Full : April 2010 Premium for Excess D & O NJ PLIGA Total for Reference 06 \$ 74,161.50 2010 Renewal Premium.	\$ 73,500.00 \$ 661.50

**PLEASE INCLUDE INVOICE NUMBER WITH YOUR PAYMENT** AMOUNT DUE (Continued)

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## INVOICE

INVOICE DATE <b>29-APR-2010</b>
INVOICE NO. <b>0428608</b>

AMERICAN WATER WORKS COMPANY, INC.  
ATTN: JIM LI  
1025 LAUREL OAK ROAD  
VOORHEES NJ 08043

## DUE DATE

Upon Receipt

ACCOUNT <b>427663</b>	LOCATION <b>001</b>	ACCOUNT NAME <b>American Water Works Company, Inc.</b>
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FOR QUESTIONS REGARDING THIS INVOICE, PLEASE CALL ONE OF THE FOLLOWING

SERVICER **Michael Snee** PRODUCER **Michael F. Trendler Jr.**

REF	BILLING INFORMATION	AMOUNT
07	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : PH10DOL394831NV Description: XS D&O 15/40x60-NavPro Period : 22-APR-2010 to 22-APR-2011 Carrier : Navigators Insurance Company In Full : April 2010 Premium for Excess D & O NJ PLIGA	\$ 75,000.00 \$ 675.00
	Total for Reference 07 \$ 75,675.00  2010 Renewal Premium.	
08	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : DFX3912073 Description: XS D&O 10/40x60-GrAmerica Period : 22-APR-2010 to 22-APR-2011 Carrier : Great American Insurance Company In Full : April 2010 Premium for Excess D & O NJ PLIGA	\$ 50,000.00 \$ 450.00
	Total for Reference 08 \$ 50,450.00  2010 Renewal Premium.	

PLEASE INCLUDE INVOICE NUMBER WITH YOUR PAYMENT AMOUNT DUE  (Continued)

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 Charlotte, NC 28290-5432  
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INVOICE DATE <b>29-APR-2010</b>
INVOICE NO. <b>0428608</b>

AMERICAN WATER WORKS COMPANY, INC.  
 ATTN: JIM LI  
 1025 LAUREL OAK ROAD  
 VOORHEES NJ 08043

**DUE DATE**

Upon Receipt

ACCOUNT <b>427663</b>	LOCATION <b>001</b>	ACCOUNT NAME <b>American Water Works Company, Inc.</b>
--------------------------	------------------------	---

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SERVICER **Michael Snee** PRODUCER **Michael F. Trendler Jr.**

REF	BILLING INFORMATION	AMOUNT
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09	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : V1090A100101 Description: XS D&O 10x110 SideA-Beazl Period : 22-APR-2010 to 22-APR-2011 Carrier : Beazley Insurance Company, Inc In Full : April 2010 Premium for Excess D & O NJ Surcharge	\$ 49,000.00 \$ 441.00  Total for Reference 09 \$ 49,441.00
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2010 Renewal Premium.

10	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : EC03801000 Description: XS D&O 10x125 Side A-Trav Period : 22-APR-2010 to 22-APR-2011 Carrier : St. Paul Fire & Marine Insurance Company In Full : April 2010 Premium for Excess D & O NJ PLIGA	\$ 50,000.00 \$ 450.00  Total for Reference 10 \$ 50,450.00
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2010 Renewal Premium.

PLEASE INCLUDE INVOICE NUMBER WITH YOUR PAYMENT AMOUNT DUE (Continued)

Willis is a member of a major international group of companies. In addition to the compensation received by Willis from insurers for placements of your insurance coverages, other parties, such as excess and surplus lines brokers, wholesalers, reinsurance intermediaries, underwriting managers and similar parties (some of which may be owned in whole or in part by Willis' corporate parents or affiliates), may earn and retain usual and customary commissions for their role in providing insurance products or services to clients under their separate contracts with insurers or reinsurers. On October 21, 2004, we announced that we would discontinue contingencies in North America immediately and in the other countries in which we operate by the end of the year. For any placements that were made prior to October 21, 2004, it is possible that Willis, or its corporate parents or affiliates, earned contingent payments or allowances from insurers based on factors which are not client-specific, such as size or performance of an overall book of business produced with an insurer by Willis, its corporate parents or affiliates. Upon written request, Willis will provide information regarding the compensation received by Willis or by its corporate parents or affiliates. Prior to its merger with Willis, HRH accepted contingent compensation on certain of its clients' accounts; these contingents will be phased out over three years, and no contingents will be accepted on any new brokerage clients or business generated after the October 1, 2008 acquisition.



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 Charlotte, NC 28290-5432  
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**INVOICE**

INVOICE DATE <b>29-APR-2010</b>
INVOICE NO. <b>0428608</b>

AMERICAN WATER WORKS COMPANY, INC.  
 ATTN: JIM LI  
 1025 LAUREL OAK ROAD  
 VOORHEES NJ 08043

**DUE DATE**

Upon Receipt

ACCOUNT <b>427663</b>	LOCATION <b>001</b>	ACCOUNT NAME <b>American Water Works Company, Inc.</b>
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SERVICER **Michael Snee** PRODUCER **Michael F. Trendler Jr.**

REF	BILLING INFORMATION	AMOUNT
-----	---------------------	--------

For Your Convenience Funds May Be ACH/Wired To:

Suntrust Bank  
 100 Colony Square  
 Atlanta, GA 30361  
 Willis of Pennsylvania, Inc  
 Acct# 1000011273884  
 ABA# 061000104

\*\*\*PLEASE REFERENCE INVOICE NUMBER\*\*\*  
 \*\*US DOLLAR ACCOUNT ONLY\*\*

**PLEASE INCLUDE INVOICE NUMBER WITH YOUR PAYMENT**      **AMOUNT DUE** **\$ 1,015,760.50**

Willis is a member of a major international group of companies. In addition to the compensation received by Willis from insurers for placements of your insurance coverages, other parties, such as excess and surplus lines brokers, wholesalers, reinsurance intermediaries, underwriting managers and similar parties (some of which may be owned in whole or in part by Willis' corporate parents or affiliates), may earn and retain usual and customary commissions for their role in providing insurance products or services to clients under their separate contracts with insurers or reinsurers. On October 21, 2004, we announced that we would discontinue contingencies in North America immediately and in the other countries in which we operate by the end of the year. For any placements that were made prior to October 21, 2004, it is possible that Willis, or its corporate parents or affiliates, earned contingent payments or allowances from insurers based on factors which are not client-specific, such as size or performance of an overall book of business produced with an insurer by Willis, its corporate parents or affiliates. Upon written request, Willis will provide information regarding the compensation received by Willis or by its corporate parents or affiliates. Prior to its merger with Willis, HRH accepted contingent compensation on certain of its clients' accounts; these contingents will be phased out over three years, and no contingents will be accepted on any new brokerage clients or business generated after the October 1, 2008 acquisition.

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 Charlotte, NC 28290-5432  
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## INVOICE

INVOICE DATE <b>29-APR-2010</b>
INVOICE NO. <b>0428598</b>

AMERICAN WATER WORKS COMPANY, INC.  
 ATTN: JIM LI  
 1025 LAUREL OAK ROAD  
 VOORHEES NJ 08043

## DUE DATE

Upon Receipt

ACCOUNT <b>427663</b>	LOCATION <b>001</b>	ACCOUNT NAME <b>American Water Works Company, Inc.</b>
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FOR QUESTIONS REGARDING THIS INVOICE, PLEASE CALL ONE OF THE FOLLOWING

SERVICER **Michael Snee** PRODUCER **Michael F. Trendler Jr.**

REF	BILLING INFORMATION	AMOUNT
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01	Transaction: Policy Renewal Eff. Date : 22-APR-2010 Policy : V15QUI100501 Description: Employment Practices Liab Period : 22-APR-2010 to 22-APR-2011 Carrier : Beazley Insurance Company, Inc In Full : April 2010 Premium for Employment Practices Liability NJ Surcharge	\$ 133,327.00 \$ 1,199.94  Total for Reference 01 \$ 134,526.94
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2010 Renewal Premium.

For Your Convenience Funds May Be ACH/Wired To:

Suntrust Bank  
 100 Colony Square  
 Atlanta, GA 30361  
 Willis of Pennsylvania, Inc  
 Acct# 1000011273884  
 ABA# 061000104

\*\*\*PLEASE REFERENCE INVOICE NUMBER\*\*\*  
 \*\*US DOLLAR ACCOUNT ONLY\*\*

PLEASE INCLUDE INVOICE NUMBER WITH YOUR PAYMENT	AMOUNT DUE	\$ 134,526.94
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Willis is a member of a major international group of companies. In addition to the compensation received by Willis from insurers for placements of your insurance coverages, other parties, such as excess and surplus lines brokers, wholesalers, reinsurance intermediaries, underwriting managers and similar parties (some of which may be owned in whole or in part by Willis' corporate parents or affiliates), may earn and retain usual and customary commissions for their role in providing insurance products or services to clients under their separate contracts with insurers or reinsurers. On October 21, 2004, we announced that we would discontinue contingencies in North America immediately and in the other countries in which we operate by the end of the year. For any placements that were made prior to October 21, 2004, it is possible that Willis, or its corporate parents or affiliates, earned contingent payments or allowances from insurers based on factors which are not client-specific, such as size or performance of an overall book of business produced with an insurer by Willis, its corporate parents or affiliates. Upon written request, Willis will provide information regarding the compensation received by Willis or by its corporate parents or affiliates. Prior to its merger with Willis, HRH accepted contingent compensation on certain of its clients' accounts; these contingents will be phased out over three years, and no contingents will be accepted on any new brokerage clients or business generated after the October 1, 2008 acquisition.



AMERICAN WATER WORKS COMPANY, INC.				
INSURANCE COVERAGES EFFECTIVE IN 2010 EXPIRING IN 2011				
	Effective 4/22/10 to 4/22/11	AWK Fiduciary	Effective 4/22/10 to 4/22/11	AWK D&O
COMPANY NAME	Employment Practice Liability	TOTAL	Crime	TOTAL
AMERICAN WATER WORKS COMPANY, INC.	\$ 58.59	\$ 90.97	\$ 17.23	\$ 508,101.46
AMERICAN WATER WORKS SERVICE CO., INC.	\$ 30,248.84	\$ 46,963.56	\$ 8,894.30	\$ 114,198.61
AMERICAN WATER RESOURCES, INC.	\$ 931.51	\$ 1,446.24	\$ 273.90	\$ 3,516.73
ILLINOIS-AMERICAN WATER	\$ 8,837.08	\$ 13,720.22	\$ 2,598.44	\$ 33,362.68
MISSOURI AMERICAN WATER	\$ 13,020.34	\$ 20,215.04	\$ 3,828.47	\$ 49,155.76
St. Louis County	\$ -	\$ -	\$ -	\$ -
Jefferson City	\$ -	\$ -	\$ -	\$ -
INDIANA-AMERICAN WATER	\$ 5,691.48	\$ 8,836.45	\$ 1,673.51	\$ 21,487.08
NEW JERSEY-AMERICAN WATER	\$ 20,611.13	\$ 32,000.30	\$ 6,060.45	\$ 77,813.31
ELIZABETHTOWN WATER COMPANY	\$ -	\$ -	\$ -	\$ -
THE MOUNT HOLLY WATER COMPANY	\$ -	\$ -	\$ -	\$ -
APPLIED WATER MANAGEMENT & APPLIED WASTE WATER MANAGEMENT	\$ -	\$ -	\$ -	\$ -
PENNSYLVANIA-AMERICAN WATER	\$ 19,826.03	\$ 30,781.38	\$ 5,829.60	\$ 74,849.33
WEST VIRGINIA-AMERICAN WATER	\$ 6,058.37	\$ 9,406.07	\$ 1,781.39	\$ 22,872.20
KENTUCKY-AMERICAN WATER	\$ 2,472.82	\$ 3,839.24	\$ 727.10	\$ 9,335.66
AWWSCO - REGIONAL	\$ -	\$ -	\$ -	\$ -
Connecticut-American Water Co.	\$ -	\$ -	\$ -	\$ -
Iowa-American Water Co.	\$ 1,206.75	\$ 1,873.57	\$ 354.83	\$ 4,555.85
Maryland-American Water Co.	\$ 187.34	\$ 290.86	\$ 55.09	\$ 707.28
Michigan-American Water Co.	\$ 98.03	\$ 152.20	\$ 28.83	\$ 370.11
Long Island Water Corp. - NY	\$ 2,138.14	\$ 3,319.62	\$ 628.69	\$ 8,072.12
New York-American Water Co.	\$ -	\$ -	\$ -	\$ -
Ohio-American Water Co.	\$ 1,890.43	\$ 2,935.03	\$ 555.86	\$ 7,136.95
Tennessee-American Water Co.	\$ 1,776.71	\$ 2,758.48	\$ 522.42	\$ 6,707.64
Virginia-American Water Co.	\$ 1,742.84	\$ 2,705.88	\$ 512.46	\$ 6,579.75
WESTERN REGION	\$ -	\$ -	\$ -	\$ -
Arizona American Water Company	\$ 3,105.15	\$ 4,820.98	\$ 913.03	\$ 11,722.91
Texas American	\$ 168.12	\$ 261.03	\$ 49.44	\$ 634.72
California-American Water Co.	\$ 6,263.71	\$ 9,724.88	\$ 1,841.77	\$ 23,647.42
Hawaii-American Water Co.	\$ 441.23	\$ 685.04	\$ 129.74	\$ 1,665.77
New Mexico-American Water Co.	\$ 333.37	\$ 517.57	\$ 98.02	\$ 1,258.56
Southwest Utilities (Azurix NA and Walker Water)	\$ -	\$ -	\$ -	\$ -
AMERICAN WATER Enterprises	\$ 7,418.90	\$ 11,518.39	\$ 2,181.44	\$ 28,008.61
<b>TOTAL</b>	<b>\$ 134,526.94</b>	<b>\$ 208,863.00</b>	<b>\$ 39,556.00</b>	<b>\$ 1,015,760.50</b>
CHECK (Agnes Sheet Total)				
	Willis Invoice No.0428598;	Willis Invoice No. 0428601	Willis Invoice No. 0428597	<b>Willis Invoice No. 0428608</b>

**KENTUCKY-AMERICAN WATER COMPANY**  
**CASE NO. 2010-00036**  
**ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION**

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**Witness: Patrick L. Baryenbruch**

37. Refer to the Company's response to AG-1-82. What sources did Mr. Baryenbruch search as the basis for his conclusion that water company specific data was not available? Identify each source.

**Response:**

Mr. Baryenbruch's response to AG1 #82 is based on his experience and observations over the course of 30 years as a management consultant. He has also discussed the availability of water company specific data with company client personnel such as American Water's Mike Miller.

Mr. Baryenbruch is aware of the existence of water industry information data from sources such as the Wisconsin Public Service Commission's (WPSC) Water Utility Statistical Benchmark data, which is available on the WPSC's website. Mr. Baryenbruch has found several problems with this data, including:

1. Data Accuracy and Quality – Clearly displayed on the WPSC's website is this caveat concerning its benchmark information: "These benchmarks may contain errors for individual companies. While the averages are unaffected by these errors, the minimums and maximums can be greatly distorted." This statement leaves one suspect of the quality of this benchmark data, especially if one were trying to select only a few utilities for comparison.
2. Smaller Size – The vast majority of water companies in the WPSC database are small municipal utilities without the same scale and infrastructure (e.g., call centers, enterprise-wide work management systems) as KAWC. Only 1 of the 589 water companies in the WPSC database is larger than KAWC. The next second largest water company in the WPSC database is just 55% of KAWC's size.
3. Limited Investor Owned Utilities - Only 2 of 589 water utilities in the WPSC database are investor-owned utilities. Among other cost of service differences, municipal utilities pay no income taxes.
4. No Service Company Affiliates – The purpose of Mr. Baryenbruch's study is to determine the reasonableness of affiliate charges from American Water's service company. Only one of the two investor owned water

companies is part of a utility holding company with a service company affiliate. This absence of water companies with comparable service company affiliates makes the WPSC unusable to Mr. Baryenbruch.

For all of these reasons, the WPSC database is not a useful source for the comparisons that Mr. Baryenbruch performs in his studies.

For the electronic version, refer to [KAW\\_R\\_AGDR2#37\\_052410.pdf](#).

**KENTUCKY-AMERICAN WATER COMPANY  
CASE NO. 2010-00036  
ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION**

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**Witness: Patrick L. Baryenbruch**

38. Refer to the Company's response to AG-1-84. Identify the "prime contractor" for each audit of affiliated charges listed in AG-1-84.

**Response:**

- a. Connecticut Light and Power - Richard Metzler & Associates
- b. Connecticut Natural Gas – Richard Metzler & Associates
- c. General Water Corporation – Hogan & Doherty
- d. Philadelphia Suburban Water Company – Schumaker & Company
- e. Pacific Gas & Electric Company – Richard Metzler & Associates

For the electronic version, refer to KAW\_R\_AGDR2#38\_052410.pdf.



**KENTUCKY-AMERICAN WATER COMPANY**  
**CASE NO. 2010-00036**  
**ATTORNEY GENERAL'S SECOND REQUEST FOR INFORMATION**

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**Witness: Patrick L. Baryenbruch**

39. Refer to the Company's response to AG-1-85.
- a. Identify each "previous cost comparison study" for American Water performed by Baryenbruch and Company or by Baryenbruch.
  - b. Identify each "previous cost comparison study" for utility clients other than American Water performed by Baryenbruch and Company or by Baryenbruch.
  - c. Provide the complete other "study" from which the graph on KAW's response to AG-1-85, page 3 of 15 was derived.
  - d. Provide all of Mr. Baryenbruch's testimony and exhibits in each case listed on pages 7 and 8 of 15 of KAW's response to AG-1-85 that was for an American Water affiliate.
  - e. Refer to page 11 of 15 of KAW's response to AG-1-85. "American Water - Mr. Baryenbruch has acted as an expert witness on the issue of service company charges in 23 rate cases."
    - 1) Identify each of the 23 rate cases.
    - 2) Identify and provide a copy of the Baryenbruch testimony in each such rate case that related to service company charges.
  - f. Refer to page 11 of 15 of KAW's response to AG-1-85: "Duke Energy – "Mr. Baryenbruch is currently involved with Duke's enterprise-wide re-engineering of its accounting function and its merger with Cinergy Corporation. ... Mr. Baryenbruch is currently assisting Duke with its merger with Cinergy."
    - 1) Identify the dates of Mr. Baryenbruch's work for Duke regarding the merger with Cinergy.
    - 2) Identify and provide a copy of all related recommendations related to the Duke "accounting function and its merger with Cinergy."

- g. Refer to page 12 of 15. Has Mr. Baryenbruch retained work product or filed reports for any of the Commission-ordered management audits listed there (his Exhibit 1, page 3 of 4)? If not, explain fully why not. If so, please identify and provide a copy of the reports, or, at minimum, the sections of the reports which address the affiliated transactions.

**Response:**

- a. Previous cost comparison studies Mr. Baryenbruch has performed for American Water are listed below.

American Water Operating Company	Year
American Water of Connecticut	1999
American Water of Illinois	2007
American Water of Kentucky	2003
	2006
	2008
	2009
American Water of New Jersey	2005
	2007
	2009
American Water of New Mexico	2007
American Water of Ohio	2006
American Water of Pennsylvania	2008
American Water of Tennessee	2006
American Water of Virginia	1996
	1999
	2000
	2001
	2003
	2007
	2009
American Water of West Virginia	2003
	2006
	2007
Long Island American Water	2006

- b. Previous cost comparison studies Mr. Baryenbruch has performed for utility clients other than American Water are listed below.

Client	Year
Atlanta Gas Light (AGL Resources)	2009
Atmos Energy Corporation (VA)	2004
Bay State Gas Company (MA)	2004
Columbia Gas of Virginia	2003
	2004
	2005
	2006
	2007
	2008
	2009
Dominion Resources, Inc. (VA)	2008
Duke Energy (NC)	2006
Elizabethtown Gas (NJ)	2008
General Water Works/Rio Rancho (NM)	1993
Po River Water and Sewer (VA)	1993
	2008
Roanoke Gas Company (VA)	2006
Virginia Natural Gas (AGL Resources)	2004
	2005
United Water of Pennsylvania	2004
Utilities, Inc. (VA)	2006
	2008

- c. See attached report for Pennsylvania American Water Company, the file for which is named KAW\_R\_AGDR2#39c.
- d. This question references incorrect page numbers from AG1 #85. However, shown below are the file names for the cost comparison studies Mr. Baryenbruch has conducted for American Water affiliates and that are included with this response.

American Water Operating Company	Year	File Name
American Water of Connecticut	1999	KAW_R_AGDR2_39d1
American Water of Illinois	2007	KAW_R_AGDR2_39d2
American Water of Kentucky	2003	KAW_R_AGDR2_39d3
	2006	KAW_R_AGDR2_39d4
	2008	KAW_R_AGDR2_39d5
	2009	NA
American Water of New Jersey	2005	KAW_R_AGDR2_39d6
	2007	KAW_R_AGDR2_39d7
	2009	KAW_R_AGDR2_39d8
American Water of New Mexico	2007	KAW_R_AGDR2_39d9
American Water of Ohio	2006	KAW_R_AGDR2_39d10
American Water of Pennsylvania	2008	KAW_R_AGDR2_39d11
American Water of Tennessee	2006	KAW_R_AGDR2_39d12
American Water of Virginia	1996	KAW_R_AGDR2_39d13
	1999	KAW_R_AGDR2_39d14
	2000	KAW_R_AGDR2_39d15
	2001	KAW_R_AGDR2_39d16
	2003	KAW_R_AGDR2_39d17
	2007	KAW_R_AGDR2_39d18
American Water of West Virginia	2002	KAW_R_AGDR2_39d20
	2006	KAW_R_AGDR2_39d21
	2007	KAW_R_AGDR2_39d22
Long Island American Water	2006	KAW_R_AGDR2_39d23

- e. This question references incorrect page numbers from AG1 #85. The response is the same as AGDR2#39d.
- f. 1) Mr. Baryenbruch assisted Duke Energy with the implementation of several financial systems projects since its merger with Cinergy in 2006.
- 2) It was not Mr. Baryenbruch's responsibility to make recommendations concerning Duke accounting function and its merger with Cinergy. Mr. Baryenbruch helped implement financial systems-related projects.
- g. No, these audits were conducted between 20 and 25 years ago and the reports and work papers have not been retained. Mr. Baryenbruch's consulting firm was not the primary contractor for any of these audits so Baryenbruch & Company, LLC had no contractual obligations to maintain the information.

For the electronic version of this response, refer to KAW\_R\_AGDR2#39\_052410.pdf.

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**Market Cost Comparison of Service Company Charges to  
Pennsylvania-American Water Company**

**12-Months Ended December 31, 2008**

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**Pennsylvania-American Water Company  
Market Cost Comparison of Service Company Charges  
12-Months Ended December 31, 2008**

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## I – Introduction

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### **Purpose of This Study**

This study was undertaken to answer four questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to Pennsylvania-American Water Company (PAWC):

1. Were the Service Company's charges to PAWC during the 12 months ended December 31, 2008 reasonable?
2. Was PAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during 2008?
3. Were the 2008 costs of the Service Company's customer accounts services, including those of the National Call Centers, comparable to those of other utilities?
4. Are the services PAWC receives from Service Company necessary?

### **Study Results**

Concerning question 1, the following conclusion was reached:

- The Service Company's 2008 cost per PAWC customer was very reasonable compared to cost per customer for electric and combination electric/gas service companies. During 2008, PAWC was charged \$54 per customer for administrative and general (A&G)-related services provided by the Service Company. This compares to an average of \$109 per customer for service companies reporting to the Federal Energy Regulatory Commission (FERC). Only 3 of the 24 utility service companies that filed a FERC Form 60 for 2008 had a lower per customer A&G cost than PAWC's charges from the Service Company.

Concerning question 2, the following conclusions were drawn from this study:

- PAWC was charged the lower of cost or market for managerial and professional services during the 12 months ended December 31, 2008.
- On average, the hourly rates for outside service providers are 18% higher than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by PAWC without careful supervision on the part of PAWC. If these services were contracted to outside providers, PAWC would have to add at least two positions to manage activities of outside firms. These positions would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been outsourced during the 12 months ended December 31, 2008, PAWC and its ratepayers would have incurred more than \$5.5 million in additional expenses. This amount includes the higher cost of outside providers and the cost of two PAWC positions needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to PAWC from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company exempt personnel, on the other hand, charge a

## I – Introduction

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maximum of 8 hours per day even when they work more hours. If the overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$5.5 million cited above. For instance, if Service Company overtime is conservatively estimated at 5% (2 hours per week), then that work would have cost an estimated \$0.25 million in additional charges from outside providers.

- It would be difficult for PAWC to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from PAWC ratepayers.

Concerning question 3, the following conclusion was reached:

- The cost of the Service Company's customer accounts services, including those provided by the National Call Center, is well below the average of the neighboring electric utility comparison group. As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of the Service Company and PAWC. During the 12-months ended December 31, 2008, the customer accounts cost for PAWC customers was \$27.06 compared to the 2008 average of \$38.97 for neighboring electric utilities. The highest comparison group per customer cost was \$83.88 and the lowest \$12.54.

Concerning question 4, the following conclusions was drawn:

- The services that the Service Company provides are necessary and would be required even if PAWC were a stand-alone water utility.
- Furthermore, there is no redundancy or overlap in the services provided by the Service Company to PAWC. For all of the services listed in Exhibit 11, there was only one entity primarily responsible for the service.

## II – Background

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### Overview of American Water Works Service Company

American Water's Service Company exists to provide certain shared services to American Water subsidiaries. It follows a service company model used by many utility holding companies that own multiple regulated utilities. By consolidating executive and professional services into a single service company, utility holding companies are able to realize the following benefits for ratepayers:

- **Purchasing Economies** – Common expenses (e.g., insurance, chemicals, piping) can be procured on a much larger scale thereby providing greater bargaining power for the combined entity compared to individual utility operating companies. A service company facilitates corporate-wide purchasing programs through its procurement and contract administration functions.
- **Operating Economies of Scale** – A service company is able to deliver services more efficiently because workloads can be balanced across more persons and facilities. For instance, American Water's Service Company is able to maintain one principal data center for the entire corporation. This is much more cost-efficient than each operating utility funding their own data center with its large fixed hardware, software and staffing costs.
- **Continuity of Service** – Centralizing service company personnel who perform similar services facilitates job cross-training and sharing of knowledge and expertise. This makes it easier to deal with staff turnover and absences and to sustain high levels of service to operating utilities. An individual operating utility might experience considerable disruption if a key professional left and it was necessary to hire outside to fill the vacancy.
- **Maintenance of Corporate-Wide Standards** – Personnel in American Water's Service Company establish standards for many functions (e.g., engineering designs, operating procedures and maintenance practices). It is easier to ensure these standards are followed by every operating utility because their implementation is overseen by the Service Company.
- **Improved Governance** – American Water's Service Company provides another dimension of management and financial oversight that supplements local operating utility management. The Service Company facilitates standard planning and reporting that help ensure operating utilities meet the requirements of their customers in a cost effective manner.
- **Retention of Personnel** – A service company organization provides operating utility personnel with another career path beyond what may be available on a local level. These opportunities tend to improve employee retention.

American Water follows the model for other utility service companies in another important regard. Its services are provided to affiliate operating utilities, like PAWC, at cost. American Water's Service Company is not a profit-making entity. It assigns only its actual expenses to the American Water subsidiaries it services.

The Service Company provides services to American Water operating companies from the following locations:



## II – Background

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- Corporate Office – Includes American Water’s executive management and personnel from the various corporate support services. American Water’s corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in 2001 and a second in Pensacola, Florida that went into operation in 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of PAWC, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company’s financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they are not provided by the National Shared Services Center. Examples of regional office services include rates and revenues, engineering, operations and field resource coordination.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water’s principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the communications systems. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### **Service Company Expense Categories**

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial

## II – Background

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services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

### Charging and Assignment Of Service Company Time and Expenses

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company
- Formula number
- Work order (where applicable)
- Authorization number (where applicable)

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries



## II – Background

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The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet that shows:

- Formula number (this is linked to operating company within American Water's financial system)
- Employee hours worked
- Account number for non-labor charges

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 20% of American Water's Western Region's professional labor is assigned to PAWC during a month, then 20% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 20% of the Western Region's accumulated professional and support labor is charged to PAWC during the month, then 20% of that month's overhead expenses will be assigned to PAWC.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to PAWC, then 2% of that office's office expenses would be assigned to PAWC. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a rate case proceeding are charged directly to the operating company whose case is being heard.

### III – Service Company Cost Comparison Approach

During the 12 months ended December 31, 2008, the Service Company billed PAWC \$40,008,443 in O&M-related charges, \$2,010,948 in capital-related charges and \$39 other charges. Included in the O&M amount are certain non-recurring expenses which are excluded from this market study. As calculated in the table below, net testable Service Company charges of \$40,147,774 were subjected to a market cost comparison.

	12 Months Ended December 31, 2008
Mgmt Fee Expense (O&M)	\$ 40,008,443
Less: Non-Recurring Items	
Sarbanes-Oxley	\$ (1,730,784)
Divestiture Support	\$ (140,872)
Net O&M Expenses	<u>\$ 38,136,786</u>
Mgmt Fees - Capital	\$ 2,010,948
Mgmt Fees - Other	\$ 39
<b>Total Testable AWWSC Charges</b>	<b><u>\$ 40,147,774</u></b>

For purposes of comparing these charges to certain outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	12 Months Ended Dec. 31, 2008	
	Amount	Hours
Management and Professional Services	\$ 28,707,056	230,685
Customer Account Services	\$ 11,440,717	275,540
<b>Total Service Company Charges</b>	<b><u>\$ 40,147,774</u></b>	<b><u>506,225</u></b>

This study's first question—whether Service Company 2008 charges were reasonable—was determined by comparing PAWC's A&G-related Service Company charges per customer to the same charges for utility companies that must file the FERC Form 60 – Annual Report of Service Companies.

The second question—whether 2008 Service Company charges were at the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to PAWC during the 12 months ended December 31, 2008. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

### III – Service Company Cost Comparison Approach

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The third question—whether Service Company 2008 customer account services charges, including those of the National Call Center costs, were comparable to other utilities—was addressed by comparing PAWC’s customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The fourth question—the necessity of Service Company services—was investigated by defining the services provided to PAWC and determining if these services would be required if PAWC were a stand-alone utility.



IV – Question 1 – Reasonableness of Service Company Charges

**PAWC’s Service Company Cost per Customer**

During 2008, PAWC was charged \$54 per customer by the Service Company for A&G-related services. As shown in the table below, this calculation is made using net testable O&M, which eliminates certain O&M items for which PAWC has not requested cost recovery.

	2008 AWWSC Charges
Testable AWWSC Charges	\$ 40,147,774
Less: Non-A&G Charges:	
Engineering	\$ (39,393)
Operations	\$ (3,444,442)
Water Quality	\$ (1,535,320)
Net A&G-Related Charges	\$ 35,128,618
PAWC Customers (12/31/08)	648,953
<b>PAWC Cost Per Customer</b>	<b>\$ 54</b>

**Comparison Group Cost Per Customer**

Every centralized service company in a holding company system must file a Form 60 in accordance with the Public Utility Holding Company Act of 2005, Section 1270, Section 390 of the Federal Power Act and 18 C.F.R. paragraph 366.23. This report is designed to collect financial information from service companies that are subject to regulation by the FERC.

For 2008, a Form 60 was filed by 24 utility service companies, all of which serve utilities that provide regulated electric and, in some cases, gas service to retail customers. In order to make a valid comparison of this group’s costs to those of American Water Works Service Company, it was necessary to isolate expenses that they have in common. These include A&G-related charges associated with the following FERC accounts:

901 – Supervision	921 – Office supplies and expenses
903 – Customer records and collection expenses	923 – Outside services employed
905 – Miscellaneous customer accounts expenses	926 – Employee pensions and benefits
907 – Supervision	928 – Regulatory commission expenses
910 – Misc customer service and info expenses	930.2 – Miscellaneous general expenses
911 – Supervision	931 – Rents
920 - Administrative and general salaries	935 – Maintenance of structures and equipment

O&M expenses charged to utility affiliates for the comparison group service companies were obtained from Schedule XVI – Analysis of Charges for Service Associate and Non-Associate Companies (p. 303 to 306) of each entity’s FERC Form 60. This schedule shows charges by FERC Account.

Comparison group service company 2008 expenses were also adjusted to remove charges to non-regulated affiliates from the cost pool used to calculate the cost per regulated service customer. This determination was made using information from the FERC Form 60 schedule: Account 457 – Analysis of Billing – Associate Companies.



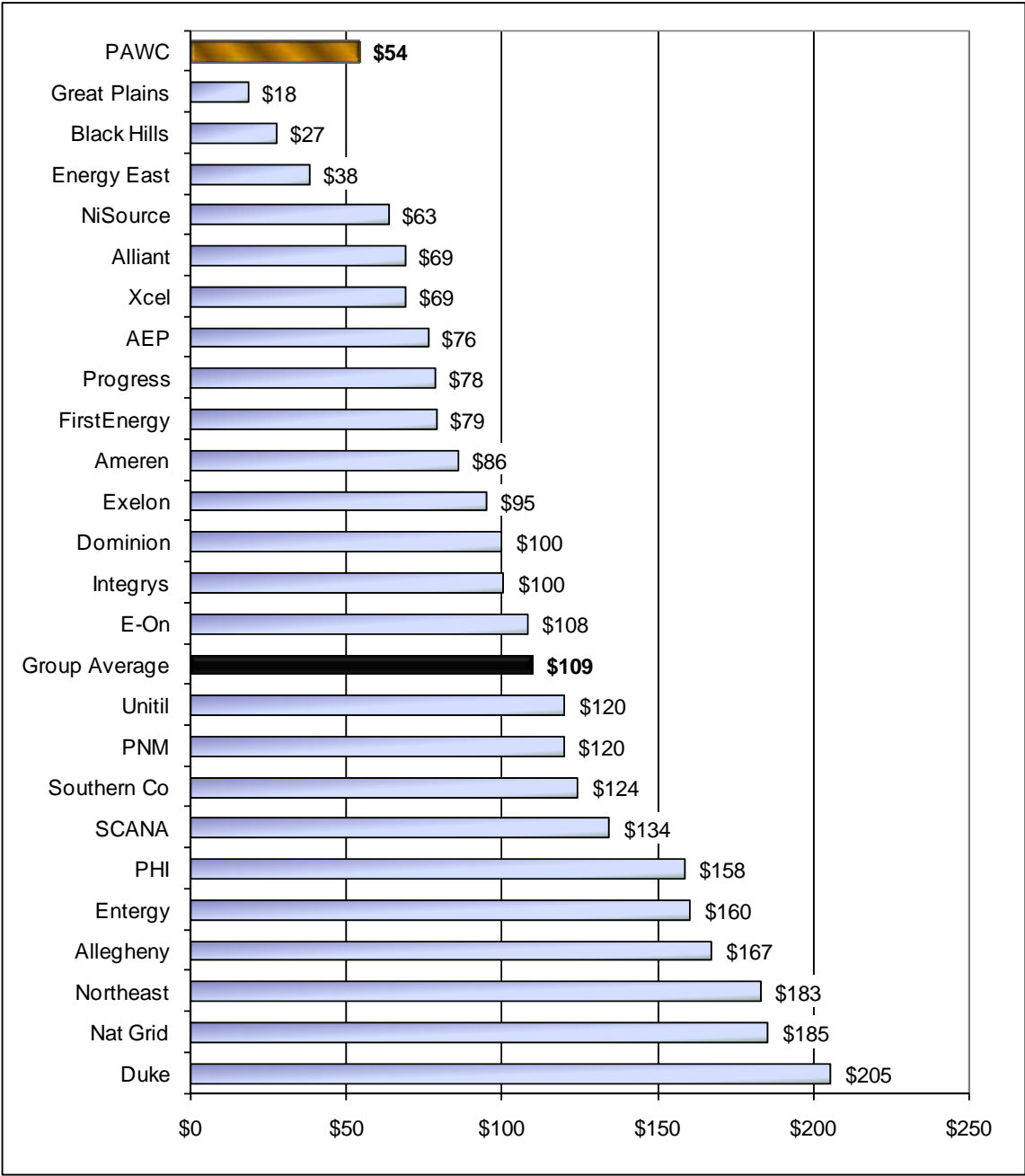
A&G expenses per regulated utility customer for the 24 utility companies that file Form 60 for 2008 are calculated below.

Utility Company	2008 Regulated		Cost per Customer
	Retail Service Company A&G Expenses	Regulated Retail Customers	
AEP	\$396,340,118	5,213,000	\$ 76
Allegheny	\$263,588,707	1,577,873	\$ 167
Alliant	\$205,754,832	3,000,000	\$ 69
Ameren	\$291,684,710	3,400,000	\$ 86
Black Hills	\$20,763,828	759,400	\$ 27
Dominion	\$357,718,046	3,588,500	\$ 100
Duke	\$923,936,645	4,500,000	\$ 205
Energy East	\$113,714,789	2,989,800	\$ 38
Entergy	\$432,575,683	2,700,000	\$ 160
E-On	\$136,276,177	1,263,000	\$ 108
Exelon	\$558,687,014	5,885,000	\$ 95
FirstEnergy	\$354,028,109	4,499,000	\$ 79
Great Plains	\$15,000,708	820,000	\$ 18
Integrus	\$216,364,166	2,157,000	\$ 100
Nat Grid	\$1,240,706,398	6,700,000	\$ 185
NiSource	\$237,380,009	3,750,000	\$ 63
Northeast	\$302,138,730	1,654,000	\$ 183
PHI	\$302,463,412	1,910,000	\$ 158
Progress	\$242,677,256	3,100,000	\$ 78
PNM	\$102,688,385	859,000	\$ 120
SCANA	\$191,207,825	1,424,300	\$ 134
Southern Co	\$546,498,605	4,402,000	\$ 124
Unitil	\$20,341,422	169,600	\$ 120
Xcel	\$367,626,617	5,345,000	\$ 69
<b>Group Total</b>	<b>\$7,840,162,191</b>	<b>71,666,473</b>	<b>\$ 109</b>

Exhibit 1 shows PAWC's 2008 Service Company cost per customer of \$54 to be considerably lower than the average of \$109 per customer for the comparison group service companies. Only 3 of 24 comparison group service companies had a lower 2008 cost per customer than PAWC. Based on this result, it is possible to conclude that the Service Company's 2008 charges to PAWC were reasonable.

Exhibit 1

**Pennsylvania-American Water Company**  
**Comparison of Service Company Annual Costs Per Customer**



## V – Question 2 – Provision of Services at the Lower of Cost or Market

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### **Methodology**

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar, scientific educational backgrounds as Service Company engineering personnel. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to PAWC during the 12 months ended December 31, 2008. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged PAWC during 2008, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### **Service Company Hourly Rates**

Exhibit 2 (page 14) details the assignment of 12 months ended December 31, 2008 management and professional Service Company charges by outsider provider category. Exhibit 3 (page 15) shows the same assignment for Service Company management and professional hours charged to PAWC during the 12 months ended December 31, 2008.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2008 test period non-labor Service Company charges:

- Contract Services – 12 months ended December 31, 2008 Service Company charges to PAWC include almost \$2,665,000 in expenses associated with the use of outside professional firms to perform certain corporate-wide services (e.g., legal, financial audit,

V – Question 2 – Provision of Services at the Lower of Cost or Market

actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.

- Travel Expenses – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- Computer Hardware and Software Expenses – Included in the 12 months ended December 31, 2008 Service Company charges to PAWC are charges for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the communications systems. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

Exhibit 4 (page 16) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Exhibits 2 and 3 and the excludable items shown in Exhibit 4, the Service Company's equivalent costs per hour for the 12 months ended December 31, 2008 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 862,288	\$ 7,833,805	\$ 15,855,078	\$ 4,155,862	\$ 28,707,033
Less:					
Contract services	\$ 80,381	\$ 583,168	\$ 1,858,877	\$ 142,652	\$ 2,665,078
Travel expenses	\$ 24,401	\$ 221,487	\$ 249,834	\$ 237,561	\$ 733,283
Computer hardware/software	\$ -	\$ 84,853	\$ 78,486	\$ 94,156	\$ 257,495
Net Service Charges (A)	\$ 757,505	\$ 6,944,297	\$ 13,667,881	\$ 3,681,493	\$ 25,051,177
Total Hours (B)	5,189	38,558	147,824	39,115	230,685
<b>Average Hourly Rate (A / B)</b>	<b>\$ 146</b>	<b>\$ 180</b>	<b>\$ 92</b>	<b>\$ 94</b>	



**Pennsylvania-American Water Company**  
**Analysis of 12 Months Ended December 31, 2008 Service Company Charges By Location And Function**

		12 Months Ended December 31, 2008 Service Company Charges				
Location	Function	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Belleville Lab	Water Quality		\$ 249,650		\$ 1,114,775	\$ 1,114,775
Call Center	Human Resources			\$ 2,312,012		\$ 249,650
Corporate	Accounting					\$ 2,312,012
	Administration		\$ 1,306,612			\$ 1,306,612
	Audit			\$ 276,833		\$ 276,833
	Communications		\$ 406,915			\$ 406,915
	Finance			\$ 870,167		\$ 870,167
	Human Resources		\$ 1,077,103			\$ 1,077,103
	Legal	\$ 412,106				\$ 412,106
	Operations		\$ 606,233		\$ 974,158	\$ 1,580,391
	Rates & Revenue			\$ 382,584		\$ 382,584
	Risk Management		\$ 519,722			\$ 519,722
	Water Quality				\$ 361,709	\$ 361,709
Regional Offices	Accounting			\$ 134,163		\$ 134,163
	Administration		\$ 1,759,565			\$ 1,759,565
	Communications		\$ 169,537			\$ 169,537
	Engineering				\$ 39,393	\$ 39,393
	Finance			\$ 1,717,981		\$ 1,717,981
	Human Resources		\$ 578,886			\$ 578,886
	Legal	\$ 450,182				\$ 450,182
	Operations		\$ 257,060		\$ 1,606,991	\$ 1,864,051
	Risk Management		\$ 184,367			\$ 184,367
	Water Quality				\$ 58,836	\$ 58,836
Information Technology	Information Technology			\$ 7,640,272		\$ 7,640,272
Shared Services	Accounting			\$ 2,119,476		\$ 2,119,476
	Administration		\$ 718,155			\$ 718,155
	Finance			\$ 228,466		\$ 228,466
	Rates & Revenue			\$ 173,124		\$ 173,124
	<b>Total Dollars Charged</b>	<b>\$ 862,288</b>	<b>\$ 7,833,805</b>	<b>\$ 15,855,078</b>	<b>\$ 4,155,862</b>	<b>\$ 28,707,033</b>

**Pennsylvania-American Water Company  
Analysis of 12 Months Ended December 31, 2008 Service Company Hours By Location And Function**

		12 Months Ended December 31, 2008 Service Company Hours				
Location	Function	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Belleville Lab	Water Quality				11,873	11,873
Call Center	Human Resources		2,589			2,589
Corporate	Accounting			21,904		21,904
	Administration		4,622			4,622
	Audit			2,490		2,490
	Communications		2,093			2,093
	Finance			6,247		6,247
	Human Resources		9,567			9,567
	Legal	1,943				1,943
	Operations		2,696		7,038	9,734
	Rates & Revenue			1,796		1,796
	Risk Management		3,615			3,615
	Water Quality					-
Regional Offices	Accounting			2,192		2,192
	Administration		906			906
	Communications		1,340			1,340
	Engineering				273	273
	Finance			13,987		13,987
	Human Resources		4,154			4,154
	Legal	3,246				3,246
	Operations		2,930		18,867	21,797
	Risk Management		1,464			1,464
	Water Quality				1,063	1,063
Information Technology	Information Technology			51,608		51,608
Shared Services	Accounting			40,138		40,138
	Administration		2,582			2,582
	Finance			5,616		5,616
	Rates & Revenue			1,847		1,847
	<b>Total Hours Charged</b>	<b>5,189</b>	<b>38,558</b>	<b>147,824</b>	<b>39,115</b>	<b>230,685</b>

Exhibit 4

**Pennsylvania-American Water Company  
12 Months Ended December 31, 2008 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Accounting	\$ 1,019,281	\$ 42,769	\$ 22,149	\$ 1,084,199
Administration	\$ 94,728	\$ 28,524	\$ 6,997	\$ 130,249
Audit	\$ 7,842	\$ 12,060	\$ 156	\$ 20,058
Communications	\$ 82,186	\$ 35,690	\$ 782	\$ 118,658
Engineering	\$ 46	\$ 5,842	\$ 2,785	\$ 8,674
Finance	\$ 370,502	\$ 67,052	\$ 1,927	\$ 439,481
Human Resources	\$ 271,652	\$ 71,092	\$ 15,855	\$ 358,599
Information Technology	\$ 371,830	\$ 107,223	\$ 52,886	\$ 531,939
Legal	\$ 80,381	\$ 24,401		\$ 104,783
Operations	\$ 124,686	\$ 251,626	\$ 51,880	\$ 428,193
Rates & Revenue	\$ 89,422	\$ 20,730	\$ 1,368	\$ 111,520
Risk Management	\$ 123,526	\$ 39,491	\$ 42,809	\$ 205,826
Water Quality	\$ 28,995	\$ 26,783	\$ 57,901	\$ 113,679
<b>Total</b>	<b>\$ 2,665,078</b>	<b>\$ 733,283</b>	<b>\$ 257,495</b>	<b>\$ 3,655,856</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Management Consultant,
Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Attorney	\$ 80,381	\$ 24,401	\$ -	\$ 104,783
Management Consultant	\$ 583,168	\$ 221,487	\$ 84,853	\$ 889,508
Certified Public Accountant	\$ 1,858,877	\$ 249,834	\$ 78,486	\$ 2,187,196
Professional Engineer	\$ 142,652	\$ 237,561	\$ 94,156	\$ 474,369
<b>Total</b>	<b>\$ 2,665,078</b>	<b>\$ 733,283</b>	<b>\$ 257,495</b>	<b>\$ 3,655,856</b>



V – Question 2 – Provision of Services at the Lower of Cost or Market

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**Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

It should be noted that professionals working for three of the five outside provider categories may be licensed to practice by state regulatory bodies. However, not every professional working for these firms is licensed. For instance, among Pennsylvania certified public accounting firms, only more experienced staff are predominantly CPAs (see table below). Some Service Company employees also have professional licenses. Thus, it is valid to compare the Service Company's hourly rates to those of the outside professional service providers included in this study.

Position	% In PA Who Are CPAs
Partners/Owners	100%
Directors (11+ years experience)	76%
Managers (6-10 years experience)	84%
Sr Associates (4-5 years experience)	53%
Associates (1-3 years experience)	10%
New Professionals	0%

Source: AICPA's National PCPS/TSCPA Management of an Accounting Practice Survey (2008)

**Attorneys**

The Pennsylvania State Bar does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for Pennsylvania attorneys. Therefore, an estimate of Pennsylvania attorney rates was developed from two surveys conducted by Lawyers Weekly in the states of Michigan and Massachusetts. As presented in Exhibit 5, the average rate for each firm was adjusted for the cost of living differential between its location and Hershey, Pennsylvania. The Lawyers Weekly surveys included rates in effect at December 31, 2007. Thus, the 2008 average rate was escalated to June 30, 2008—the midpoint of the test year ended December 31, 2008.

**Management Consultants**

The cost per hour for management consultants was developed from a 2008 survey performed by the Association of Management Consulting Firms—an industry trade organization. The survey includes rates that were in effect during 2007 for firms throughout the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison.

The first step in the calculation, presented in Exhibit 6, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. The 2007 average rate was escalated to June 30, 2008—the midpoint of the 12 months ended December 31, 2008.

### **Certified Public Accountants**

The average hourly rate for Pennsylvania CPAs was developed from a 2008 survey performed by the American Institute of Certified Public Accountants (AICPA). The Pennsylvania version of this survey was used to develop hourly rates for member firms in Pennsylvania.

As shown in Exhibit 7, a weighted average hourly rate was developed based on a set of accountant positions and a percent of time that is typically applied to an accounting assignment. This survey includes rate information in effect during 2007. Thus, the data had to be escalated to June 30, 2008—the test year’s midpoint.

### **Professional Engineers**

The Company provided hourly rate information for outside engineering firms that could have been used by PAWC in 2008. As presented in Exhibit 8, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.



**Pennsylvania-American Water Company  
Estimated Billing Rates For Pennsylvania Attorneys Based On  
Michigan and Massachusetts Attorney Billing Rates**

Billing rates as of December 31, 2007 (Note A)									
Firm	Location	Number Of Lawyers	Billing Rate Range				Average	Cost of Living Adjust (C)	Adjusted Rate
			Associate		Partner				
			Low	High	Low	High			
Dickinson Wright PLLC	Detroit, Mi	229	\$ 170	\$ 275	\$ 260	\$ 530	\$ 309	80%	\$ 385
Dykema	Detroit, Mi	222	\$ 185	\$ 390	\$ 245	\$ 625	\$ 361	80%	\$ 450
Butzel Long	Detroit, Mi	209	\$ 165	\$ 400	\$ 220	\$ 550	\$ 334	80%	\$ 416
Bodman LLP	Detroit, Mi	128	\$ 125	\$ 215	\$ 210	\$ 495	\$ 261	80%	\$ 326
Jaffe Raitt Heuer & Weiss, PC	Southfield, Mi	100	\$ 165	\$ 225	\$ 225	\$ 500	\$ 279	92%	\$ 304
Trott & Trott, PC	Bingham Farms, Mi	64	\$ 170	\$ 170	\$ 235	\$ 235	\$ 203	119%	\$ 170
Brooks Kushman PC	Southfield, Mi	52	\$ 160	\$ 275	\$ 250	\$ 505	\$ 298	92%	\$ 325
Kemp, Klein, Umphrey, Edelman & May PC	Troy, Mi	36	\$ 150	\$ 190	\$ 200	\$ 340	\$ 220	105%	\$ 209
Pepper Hamilton LLP	Detroit, Mi	33	\$ 200	\$ 315	\$ 340	\$ 615	\$ 368	80%	\$ 458
Hertz, Schram & Saretsky, PC	Bloomfield Hills, Mi	29	\$ 175	\$ 260	\$ 275	\$ 400	\$ 278	131%	\$ 211
Strobl & Sharp, PC	Bloomfield Hills, Mi	28	\$ 110	\$ 210	\$ 200	\$ 300	\$ 205	131%	\$ 156
Kupelian Ormond & Magy, PC	Southfield, Mi	25	\$ 165	\$ 195	\$ 235	\$ 320	\$ 229	92%	\$ 250
Rader, Fishman & Grauer, PLLC	Bloomfield Hills, Mi	25	\$ 130	\$ 250	\$ 275	\$ 495	\$ 288	131%	\$ 219
McShane & Bowie PLC	Grand Rapids, Mi	22	\$ 160	\$ 275	\$ 250	\$ 375	\$ 265	91%	\$ 292
Edwards Angel Palmer & Dodge	Boston, Ma	259	\$ 144	\$ 321	\$ 474	\$ 474	\$ 353	139%	\$ 254
Sullivan & Worcester	Boston, Ma	137	\$ 245	\$ 530	\$ 415	\$ 700	\$ 473	139%	\$ 339
Burns & Levinson	Boston, Ma	112	\$ 210	\$ 350	\$ 375	\$ 475	\$ 353	139%	\$ 253
Bowditch & Dewey	Worcester, Ma	64	\$ 150	\$ 300	\$ 280	\$ 550	\$ 320	109%	\$ 292
Mirick O'Connell	Worcester, Ma	60	\$ 160	\$ 250	\$ 280	\$ 400	\$ 273	109%	\$ 249
Hinckley, Allen & Snyder	Boston, Ma	58	\$ 200	\$ 330	\$ 300	\$ 480	\$ 328	139%	\$ 235
Prince Lobel Glovsky & Tye	Boston, Ma	52	\$ 175	\$ 265	\$ 275	\$ 475	\$ 298	139%	\$ 214
Robinson & Cole	Boston, Ma	48	\$ 220	\$ 375	\$ 340	\$ 490	\$ 356	139%	\$ 256
Bromberg & Sunstein	Boston, Ma	42	\$ 250	\$ 450	\$ 500	\$ 725	\$ 481	139%	\$ 346
Lawson & Weitzen	Boston, Ma	35	\$ 125	\$ 225	\$ 225	\$ 400	\$ 244	139%	\$ 175
Murtha Cullina	Boston, Ma	34	\$ 165	\$ 290	\$ 250	\$ 500	\$ 301	139%	\$ 216
Marcus Errico Emmer & Brooks	Braintree, Ma	28	\$ 250	\$ 250	\$ 300	\$ 360	\$ 290	130%	\$ 222
Rich May	Boston, Ma	25	\$ 150	\$ 300	\$ 300	\$ 400	\$ 288	139%	\$ 206
Keegan Werlin	Boston, Ma	22	\$ 150	\$ 275	\$ 325	\$ 475	\$ 306	139%	\$ 220
Barron & Stadfeld	Boston, Ma	21	\$ 160	\$ 230	\$ 250	\$ 350	\$ 248	139%	\$ 178
Cain Hibbard Myers & Cook	Pittsfield, Ma	19	\$ 150	\$ 200	\$ 210	\$ 235	\$ 199	110%	\$ 180
Overall Average 2007 Billing Rate									\$ 267
<u>Escalation to Test Year's Mid-Point - June 30, 2008 (Note B)</u>									
CPI at December 31, 2007								210.0	
CPI at June 30, 2008								218.8	
Inflation/Escalation								4.2%	
Average Billing Rate At June 30, 2008									<b>\$ 278</b>

Note A: Source is Michigan Lawyers Weekly (April 2008) and Massachusetts Lawyers Weekly (April 2008)

Note B: Source is U.S. Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This percentage represents the cost of living difference between the Michigan and Massachusetts cities and Harrisburg, Pennsylvania. A number over 100% indicates the Michigan or Massachusetts city's cost of living is higher than Harrisburg. A number less than 100% indicates Harrisburg's cost of living is higher.

**Pennsylvania-American Water Company  
Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position					
Survey billing rates were those in effect in 2007 (Note A)					
	Average Hourly Rates (Note A)				
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average	\$ 142	\$ 181	\$ 236	\$ 286	\$ 333
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement					
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average Hourly Billing Rate (from above)	\$ 142	\$181	\$236	\$286	\$333
Percent of Consulting Assignment	30%	30%	20%	10%	10%
	\$ 42	\$ 54	\$ 47	\$ 29	\$ 33
					<b>Weighted Average \$ 206</b>
<u>Escalation to Midpoint of December 31, 2008 Test Period (Note B)</u>					
				CPI at December 31, 2007	210.0
				CPI at June 30, 2008	218.8
				Inflation/Escalation	4.2%
Average Hourly Billing Rate For Management Consultants At June 30, 2008					<b>\$ 214</b>

Note A: Source is "Operating Ratios For Management Consulting Firms, 2008 Edition," Association of Management Consulting Firms

Note B: Source is U.S. Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.ai.txt>)

**Pennsylvania-American Water Company  
Estimated Billing Rates Of Pennsylvania Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position					
Survey billing rates were those in effect in 2007 (Note A)					
<b>Average Hourly Billing Rate (Note A)</b>					
	Staff Accountant	Senior Accountant	Manager	Partner	
Average Hourly Billing Rate by CPA Firm Position	\$ 68	\$ 100	\$ 133	\$ 154	
Percent of Accounting Assignment	30%	30%	20%	20%	Weighted Average
	\$ 20	\$ 30	\$ 27	\$ 31	<b>\$ 108</b>
<u>Escalation to Midpoint of June 30, 2008 Test Period (Note B)</u>					
					CPI at December 31, 2007
					210.0
					CPI at June 30, 2008
					218.8
					Inflation/Escalation
					4.2%
					<b>Average Hourly Billing Rate For CPAs At June 30, 2008</b>
					<b>\$ 112</b>

Note A: Source is AICPA's 2008 National PCPS/TSCPA Management of an Accounting Practice Survey (Pennsylvania edition)

Note B: Source is U.S. Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiat.txt>)

Exhibit 8

**Pennsylvania-American Water Company  
Estimated Billing Rates Of Pennsylvania Engineers**

Note: Billing rates are the average for 2008

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$71	\$88	\$140	\$175
Firm #2	\$56	\$70	\$126	\$163
Firm #3	\$80	\$108	\$168	\$185
Firm #4	\$48	\$80	\$122	\$162

B. Calculation of Overall Average Engineering Hourly Billing Rate

	Technician	Engineer	Project Manager	Officer	Weighted Average
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$64	\$86	\$139	\$171	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$19	\$30	\$35	\$17	<b>\$101</b>

Source: Information provided by Pennsylvania American Water Company. Firm names have not been disclosed to preserve the confidentiality of their hourly rates.

V – Question 2 – Provision of Services at the Lower of Cost or Market

**Service Company versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	12 Months Ended December 31, 2008		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 146	\$ 278	\$ (132)
Management Consultant	\$ 180	\$ 214	\$ (34)
Certified Public Accountant	\$ 92	\$ 112	\$ (20)
Professional Engineer	\$ 94	\$ 101	\$ (7)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to PAWC during the 12-months ended December 31, 2008, outside service providers would have cost \$5,218,274 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are 18% higher than those of the Service Company (\$5,218,274 / \$ 29,432,558).

Service Provider	12 Months Ended December 31, 2008		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (132)	5,189	\$ (685,112)
Management Consultant	\$ (34)	38,558	\$ (1,320,850)
Certified Public Accountant	\$ (20)	147,824	\$ (2,935,364)
Professional Engineer	\$ (7)	39,115	\$ (276,947)
Service Company Less Than Outside Providers			\$ (5,218,274)

It should be noted that the cost differential associated with using outside providers is even greater because Service Company personnel do not charge for more than 8 hours per day even when they work more. Outside providers generally charge clients for all hours worked. If, for instance, Service Company personnel worked 5% overtime (2 hours) per week on PAWC's behalf, that would have amounted to over 14,000 additional hours of work during 2008. Based on the hourly rate differentials above, this overtime would have added another \$716,000 to the cost of using outside provider.

If PAWC were to use outside service providers rather than the Service Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform over 230,000 hours of work (more than 153 full-time equivalents at 1,500 "billable" hours per FTE per year) would add a significant workload to the existing PAWC management team. Thus, it would be necessary for PAWC to add at least two positions to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill these positions would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As



V – Question 2 – Provision of Services at the Lower of Cost or Market

calculated in the table below, this position would add almost \$300,000 per year to PAWC's personnel expenses.

<u>Cost of Adding 2 Professional Positions To PAWC's Staff</u>	
	<u>Total</u>
New Positions' Salary	\$ 100,000
Benefits (at 49.4%)	\$ 49,400
Office Expenses (15.2%)	\$ 15,200
Total Cost of Full Time Position	\$ 149,400
Number of Positions	2
Half Time Cost of Position	\$ 298,800

Thus, the total effect on the ratepayers of PAWC of contracting all services now provided by Service Company would be an increase in their costs of \$5,517,074 (\$5,218,274 + \$298,800). Based on the results of this comparison, it is possible to conclude that the Service Company charged PAWC at the lower of cost or market for services provided during 2008.

## VI - Question 3 - Reasonableness of Customer Accounts Services Costs

### Background

Customer Accounts Services covers the following utility functions:

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing, and mailing
- Remittance processing – processing customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

It is difficult to compare the cost of the Service Company's customer accounts services-related charges to PAWC with outside providers of the same services because survey data is proprietary and expensive to obtain. For this reason, PAWC's charges from the Service Company for customer accounts services are compared to those of neighboring electric utilities because the data necessary to make such comparison is available to the public.

Neighboring electric utility cost information comes from the FERC Form 1 that each utility must file. FERC's chart of accounts is defined in Chapter 18, Part 101 of the Code of Federal Regulations. FERC accounts that contain customer accounts services-related expenses are Account 903 Customer Accounts Expense – Records and Collection Expense and Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense. Exhibit 9 provides FERC's definition of the type of expenses that should be recorded in these accounts.

In addition to the charges in these FERC accounts, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905:

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA)

### Comparison Group

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

Pennsylvania	<ul style="list-style-type: none"> <li>• Duquesne Light</li> <li>• Metropolitan Edison</li> <li>• PECO Energy</li> <li>• Pennsylvania Electric</li> </ul>	<ul style="list-style-type: none"> <li>• Pennsylvania Power</li> <li>• PPL Electric Utilities</li> <li>• West Penn Power</li> </ul>
New York	<ul style="list-style-type: none"> <li>• Central Hudson Gas &amp; Electric</li> <li>• Consolidated Edison</li> <li>• New York State Electric &amp; Gas</li> </ul>	<ul style="list-style-type: none"> <li>• Niagara Mohawk Power</li> <li>• Orange &amp; Rockland Utilities</li> <li>• Rochester Gas &amp; Electric</li> </ul>
Delaware	<ul style="list-style-type: none"> <li>• Delmarva Power &amp; Light</li> </ul>	
Ohio	<ul style="list-style-type: none"> <li>• Cleveland Electric Illuminating</li> <li>• Columbus Southern Power</li> <li>• Dayton Power &amp; Light</li> <li>• Duke Energy Ohio</li> </ul>	<ul style="list-style-type: none"> <li>• Ohio Edison</li> <li>• Ohio Power</li> <li>• Toledo Edison</li> </ul>
New Jersey	<ul style="list-style-type: none"> <li>• Atlantic City Electric</li> <li>• Jersey Central Power</li> </ul>	<ul style="list-style-type: none"> <li>• Public Service Electric &amp; Gas</li> </ul>
Maryland	<ul style="list-style-type: none"> <li>• Baltimore Gas &amp; Electric</li> <li>• Delmarva Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• Potomac Edison</li> <li>• Potomac Electric</li> </ul>
West Virginia	<ul style="list-style-type: none"> <li>• Appalachian Power</li> <li>• Monongahela Power</li> </ul>	<ul style="list-style-type: none"> <li>• Wheeling Power</li> </ul>

## Pennsylvania-American Water Company FERC Account Descriptions

### **903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

#### Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

#### Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

## FERC Account Descriptions

### **905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

#### Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

#### Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

**PAWC Cost per Customer**

As calculated below, PAWC's 2008 customer account services expense per customer was \$27.06. The cost pool used to calculate this average includes charges for Service Company services (e.g., call center, billing, payment processing) and postage and forms expenses, which are incurred directly by PAWC. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.32 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level.

Pennsylvania American Water Company		Service Co	Adjustment Fewer Calls For	Adjusted
Cost Component		Charges	Water Cos. (A)	
Service Company				
Call Centers	Call processing, order processing, credit, bill collection	\$ 9,980,441	\$ 1,553,373	\$11,533,814
Regional Offices		\$ 1,460,276		\$ 1,460,276
Service Company	Customer payment processing			\$ 754,603 (B)
Operating Company	Postage & forms			\$ 3,811,233
			Cost Pool Total	\$17,559,926
			Total Customers	648,953
				<b>\$ 27.06</b>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Call handling expenses		\$ 1,727,223
Electric utility industry's avg calls/customer	2.50	
American Water's avg calls/customer	1.32	
Percent different	90%	90%
Total Adjustment		\$ 1,553,373

Note B: Estimated customer payment processing expenses

Number of customer bills	7,787,436
Bank charge per item	\$ 0.0969
Total estimated annual expense	\$ 754,603

**Electric Utility Group Cost per Customer**

Exhibit 10 shows the actual 2008 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.



VI - Question 3 - Reasonableness of Customer Accounts Services Costs

**Summary of Results**

As shown in the table below, PAWC's cost per customer is well below the average cost of the neighboring electric utility comparison group. It can therefore be concluded that PAWC's 2008 customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to PAWC were comparable to those of other utilities.

<b>Customer Account Services Expenses Per Customer</b>	
West Penn Power Company	\$ 12.54
Potomac Electric Power Company	\$ 13.24
Pennsylvania Electric Company	\$ 14.28
Pennsylvania Power Company	\$ 15.69
Metropolitan Edison Company	\$ 15.79
Jersey Central Power & Light Company	\$ 15.99
Monongahela Power Company	\$ 16.17
Duquesne Light Company	\$ 17.17
Dayton Power and Light Company	\$ 18.51
Ohio Edison Company	\$ 19.13
Cleveland Electric Illuminating Company	\$ 20.60
Toledo Edison Company	\$ 24.81
Wheeling Power Company	\$ 26.12
Rochester Gas and Electric Corporation	\$ 26.62
<b>Pennsylvania American Water</b>	<b>\$ 27.06</b>
PPL Electric Utilities Corporation	\$ 28.02
Niagara Mohawk Power Corporation	\$ 31.14
Duke Energy-Ohio	\$ 31.20
Ohio Power Company	\$ 31.70
Appalachian Power Company	\$ 32.57
New York State Electric & Gas Corporation	\$ 33.75
Columbus Southern Power Company	\$ 35.11
Baltimore Gas and Electric Company	\$ 35.46
<b>Comparison Group Weighted Average</b>	<b>\$ 38.97</b>
Central Hudson Gas & Electric Company	\$ 43.79
Consolidated Edison Company	\$ 46.64
Orange and Rockland Utilities, Inc.	\$ 56.57
PECO Energy Company	\$ 60.18
Delmarva Power & Light Company	\$ 69.08
Atlantic City Electric Company	\$ 70.72
Public Service Electric and Gas Company	\$ 83.88

**Pennsylvania-American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

	Pennsylvania							
	Duquesne Light	Metropolitan Edison	PECO Energy	Pennsylvania Electric	Pennsylvania Power	PPL Electric Utilities	West Penn Power	
<b>Customer Account Management Cost Pool</b>								
FERC Account Balances:								
Account 903 - Customer Records & Collection (page 322, line 161)	\$ 7,479,961	\$ 10,122,140	\$ 53,673,664	\$ 10,592,384	\$ 2,928,197	\$ 30,220,945	\$ 6,946,910	
Account 905 - Misc Customer Accounts (page 322, line 163)	\$ -	\$ 136,228	\$ 32,549,592	\$ 194,662	\$ 82,458	\$ 1,100,131	\$ -	
Subtotal	\$ 7,479,961	\$ 10,258,368	\$ 86,223,256	\$ 10,787,046	\$ 3,010,655	\$ 31,321,076	\$ 6,946,910	
Add: Employee Benefits & Employer FICA (not included in above amounts)								
Account 926 - Employee Pension & Benefits	\$ 2,022,069	\$ (1,860,051)	\$ 6,418,193	\$ (2,677,607)	\$ (590,677)	\$ 6,256,579	\$ 1,594,105	
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)	\$ 498,724	\$ 250,220	\$ 1,865,596	\$ 299,011	\$ 79,412	\$ 1,437,663	\$ 402,847	
<b>Total Cost Pool</b>	\$ 10,000,754	\$ 8,648,537	\$ 94,507,045	\$ 8,408,450	\$ 2,499,390	\$ 39,015,318	\$ 8,943,861	
Total Customers (page 304, line 43)	582,474	547,557	1,570,291	589,017	159,346	1,392,441	713,401	
<b>Customer Account Services Expense per Customer</b>	\$ 17.17	\$ 15.79	\$ 60.18	\$ 14.28	\$ 15.69	\$ 28.02	\$ 12.54	
<b>Note A: Calculation of Pension &amp; Benefits Pertaining to Customer Account Mgmt</b>								
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 16,461,810	\$ (18,462,242)	\$ 34,870,872	\$ (24,103,475)	\$ (4,532,561)	\$ 28,423,183	\$ 16,475,935	
Total O&M Payroll (page 355, line 65)	\$ 53,073,862	\$ 32,465,349	\$ 132,487,079	\$ 35,185,122	\$ 7,965,617	\$ 85,375,132	\$ 54,426,651	
Benefits as Percent of Payroll	31.0%	-56.9%	26.3%	-68.5%	-56.9%	33.3%	30.3%	
Payroll Applicable to Customer Account Services								
Total Payroll Charged to Customer Accounts Function	\$ 9,676,251	\$ 5,316,403	\$ 23,554,469	\$ 6,561,812	\$ 1,624,429	\$ 20,085,492	\$ 8,766,657	
Electric (page 354, line 7)			\$ 5,036,945					
Gas (page 354, line 37)			\$ 28,591,414	\$ 6,561,812	\$ 1,624,429	\$ 20,085,492	\$ 8,766,657	
Total Payroll Charged to Customer Accounts	\$ 9,676,251	\$ 5,316,403	\$ 28,591,414	\$ 6,561,812	\$ 1,624,429	\$ 20,085,492	\$ 8,766,657	
Percent Applicable to Customer Accounts Services (903 and 905):								
Account 903 - Customer Records & Collection (page 322, line 161)	\$ 7,479,961	\$ 10,122,140	\$ 53,673,664	\$ 10,592,384	\$ 2,928,197	\$ 30,220,945	\$ 6,946,910	
Account 905 - Misc Customer Accounts (page 322, line 163)	\$ -	\$ 136,228	\$ 32,549,592	\$ 194,662	\$ 82,458	\$ 1,100,131	\$ -	
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 7,479,961	\$ 10,258,368	\$ 86,223,256	\$ 10,787,046	\$ 3,010,655	\$ 31,321,076	\$ 6,946,910	
Account 902 - Meter Reading Expenses (page 322, line 160)	\$ 3,622,199	\$ 6,415,472	\$ 14,865,724	\$ 7,322,187	\$ 1,700,593	\$ 2,154,152	\$ 4,618,134	
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	\$ 11,102,160	\$ 16,673,840	\$ 101,088,980	\$ 18,109,233	\$ 4,711,248	\$ 33,475,228	\$ 11,565,044	
Percent Applicable to Customer Accounts Services (903 and 905)	67.4%	61.5%	85.3%	59.6%	63.9%	93.6%	60.1%	
Customer Account Services Portion of Total Payroll	\$ 6,519,270	\$ 3,270,849	\$ 24,386,880	\$ 3,908,645	\$ 1,038,068	\$ 18,792,978	\$ 5,265,970	
Pension & Benefits Pertaining to Customer Accounts Services	\$ 2,022,069	\$ (1,860,051)	\$ 6,418,193	\$ (2,677,607)	\$ (590,677)	\$ 6,256,579	\$ 1,594,105	
<b>Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services</b>								
Customer Account Services Portion of Total Payroll	\$ 6,519,270	\$ 3,270,849	\$ 24,386,880	\$ 3,908,645	\$ 1,038,068	\$ 18,792,978	\$ 5,265,970	
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	\$ 498,724	\$ 250,220	\$ 1,865,596	\$ 299,011	\$ 79,412	\$ 1,437,663	\$ 402,847	
Estimated Employer's Portion of FICA								



**Pennsylvania-American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

	New York						Delaware
	Central Hudson Gas & Electric	Consolidated Edison	New York State Electric & Gas	Niagra Mohawk Power	Orange & Rockland Utilities	Rochester Gas & Electric	
<b>Customer Account Management Cost Pool</b>							
FERC Account Balances:							
Account 903 - Customer Records & Collection (page 322, line 161)	\$ 6,778,169	\$ 114,032,729	\$ 28,066,820	\$ 39,200,043	\$ 8,465,643	\$ 9,741,613	\$ 32,574,788
Account 905 - Misc Customer Accounts (page 322, line 163)	\$ 2,520,777	\$ 344,426	\$ 135,082	\$ 929,964	\$ 66,274	\$ 1,855	\$ -
Subtotal	\$ 9,298,946	\$ 114,377,155	\$ 28,201,902	\$ 40,130,007	\$ 8,531,917	\$ 9,743,468	\$ 32,574,788
Add: Employee Benefits & Employer FICA (not included in above amounts)							
Account 926 - Employee Pension & Benefits	\$ 2,815,515	\$ 30,169,769	\$ (632,835)	\$ 2,686,451	\$ 3,422,645	\$ (753,034)	\$ 1,184,741
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)	\$ 507,967	\$ 7,584,800	\$ 1,916,606	\$ 403,817	\$ 622,497	\$ 619,283	\$ 551,639
<b>Total Cost Pool</b>	<b>\$ 12,622,428</b>	<b>\$ 152,131,724</b>	<b>\$ 29,485,673</b>	<b>\$ 43,220,275</b>	<b>\$ 12,577,059</b>	<b>\$ 9,609,717</b>	<b>\$ 34,311,168</b>
Total Customers (page 304, line 43)	288,252	3,261,502	873,738	1,387,729	222,340	360,987	496,682
<b>Customer Account Services Expense per Customer</b>	<b>\$ 43.79</b>	<b>\$ 46.64</b>	<b>\$ 33.75</b>	<b>\$ 31.14</b>	<b>\$ 56.57</b>	<b>\$ 26.62</b>	<b>\$ 69.08</b>
<b>Note A: Calculation of Pension &amp; Benefits Pertaining to Customer Account Mgmt</b>							
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 23,649,061	\$ 171,421,764	\$ (3,779,369)	\$ 105,135,887	\$ 26,239,707	\$ (5,487,845)	\$ 6,458,817
Total O&M Payroll (page 355, line 65)	\$ 55,773,767	\$ 563,347,904	\$ 149,623,715	\$ 206,583,051	\$ 62,383,976	\$ 58,994,943	\$ 39,311,821
Benefits as Percent of Payroll	42.4%	30.4%	-2.5%	50.9%	42.1%	-9.3%	16.4%
Payroll Applicable to Customer Account Services							
Total Payroll Charged to Customer Accounts Function	\$ 7,303,699	\$ 102,691,785	\$ 26,157,611	\$ 6,012,948	\$ 7,521,305	\$ 5,776,605	\$ 7,184,790
Electric (page 354, line 7)	\$ 1,300,052	\$ 22,542,147	\$ 4,815,257	\$ 6,012,948	\$ 3,284,938	\$ 4,309,646	\$ 1,796,197
Gas (page 354, line 37)	\$ 8,603,751	\$ 125,233,932	\$ 30,972,868	\$ 6,012,948	\$ 10,806,243	\$ 10,086,251	\$ 8,980,987
Total Payroll Charged to Customer Accounts	\$ 6,778,169	\$ 114,032,729	\$ 28,066,820	\$ 39,200,043	\$ 8,465,643	\$ 9,741,613	\$ 32,574,788
Account 903 - Customer Records & Collection (page 322, line 161)	\$ 2,520,777	\$ 344,426	\$ 135,082	\$ 929,964	\$ 66,274	\$ 1,855	\$ -
Account 905 - Misc Customer Accounts (page 322, line 163)	\$ 9,298,946	\$ 114,377,155	\$ 28,201,902	\$ 40,130,007	\$ 8,531,917	\$ 9,743,468	\$ 32,574,788
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 2,749,960	\$ 30,093,154	\$ 6,662,993	\$ 5,582,389	\$ 2,798,488	\$ 2,396,447	\$ 7,995,878
Account 902 - Meter Reading Expenses (page 322, line 160)	\$ 12,048,906	\$ 144,470,309	\$ 34,864,895	\$ 45,712,396	\$ 11,330,405	\$ 12,139,915	\$ 40,570,666
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	77.2%	79.2%	80.9%	87.8%	75.3%	80.3%	80.3%
Percent Applicable to Customer Accounts Services (903 and 905)	\$ 6,640,090	\$ 99,147,714	\$ 25,053,676	\$ 5,278,648	\$ 8,137,217	\$ 8,095,202	\$ 7,210,967
Customer Account Services Portion of Total Payroll	\$ 2,815,515	\$ 30,169,769	\$ (632,835)	\$ 2,686,451	\$ 3,422,645	\$ (753,034)	\$ 1,184,741
Pension & Benefits Pertaining to Customer Accounts Services							
<b>Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services</b>							
Customer Account Services Portion of Total Payroll	\$ 6,640,090	\$ 99,147,714	\$ 25,053,676	\$ 5,278,648	\$ 8,137,217	\$ 8,095,202	\$ 7,210,967
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
Estimated Employer's Portion of FICA	\$ 507,967	\$ 7,584,800	\$ 1,916,606	\$ 403,817	\$ 622,497	\$ 619,283	\$ 551,639

**Customer Account Management Cost Pool**

FERC Account Balances:

Account 903 - Customer Records & Collection (page 322, line 161)  
Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A: Calculation of Pension & Benefits Pertaining to Customer Account Mgmt**

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Account 903 - Customer Records & Collection (page 322, line 161)

Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Account 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services**

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA

**Pennsylvania-American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

**Customer Account Management Cost Pool**

FERC Account Balances:

Account 903 - Customer Records & Collection (page 322, line 161)  
Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A: Calculation of Pension & Benefits Pertaining to Customer Account Mgmt**

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Account 903 - Customer Records & Collection (page 322, line 161)

Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Account 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services**

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA

Ohio										
	Cleveland Electric Illum.	Collumbus Southern Power	Dayton Power & Light	Duke Energy Ohio	Ohio Edison	Ohio Power	Toledo Edison			
\$	14,516,027	24,640,129	8,648,983	17,655,073	20,713,551	21,137,257	6,909,201			
\$	531,238	15,947	-	(256,106)	579,775	19,561	213,136			
\$	15,047,265	24,656,076	8,648,983	17,398,967	21,293,326	21,156,818	7,122,337			
\$	243,960	1,169,753	547,426	2,836,968	(1,852,176)	1,008,466	482,226			
\$	280,555	401,794	333,017	1,229,505	468,076	387,630	152,465			
\$	<b>15,571,780</b>	<b>26,227,624</b>	<b>9,529,426</b>	<b>21,465,440</b>	<b>19,909,226</b>	<b>22,552,914</b>	<b>7,757,028</b>			
\$	755,807	747,099	514,882	687,903	1,040,518	711,447	312,642			
\$	<b>20.60</b>	<b>35.11</b>	<b>18.51</b>	<b>31.20</b>	<b>19.13</b>	<b>31.70</b>	<b>24.81</b>			
\$	2,546,911	13,054,219	11,936,626	34,365,193	(15,395,255)	25,630,628	4,035,809			
\$	38,286,937	58,613,682	94,920,691	194,686,375	50,858,052	128,781,829	16,679,734			
	6.7%	22.3%	12.6%	17.7%	-30.3%	19.9%	24.2%			
\$	5,037,050	6,281,750	6,306,396	14,312,049	8,765,466	6,394,108	2,665,076			
\$	5,037,050	6,281,750	6,306,396	14,312,049	8,765,466	6,394,108	2,665,076			
\$	14,516,027	24,640,129	8,648,983	17,655,073	20,713,551	21,137,257	6,909,201			
\$	531,238	15,947	-	(256,106)	579,775	19,561	213,136			
\$	15,047,265	24,656,076	8,648,983	17,398,967	21,293,326	21,156,818	7,122,337			
\$	5,619,752	4,833,074	3,980,743	5,795,966	9,211,147	5,540,885	2,401,739			
\$	20,667,017	29,489,150	12,529,726	23,194,933	30,504,473	26,697,703	9,524,076			
\$	3,667,381	5,252,213	4,353,161	16,071,965	6,118,641	5,067,064	1,993,009			
\$	243,960	1,169,753	547,426	2,836,968	(1,852,176)	1,008,466	482,226			
\$	3,667,381	5,252,213	4,353,161	16,071,965	6,118,641	5,067,064	1,993,009			
\$	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%			
\$	280,555	401,794	333,017	1,229,505	468,076	387,630	152,465			



**Pennsylvania-American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

**Customer Account Management Cost Pool**

FERC Account Balances:

Account 903 - Customer Records & Collection (page 322, line 161)  
Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A: Calculation of Pension & Benefits Pertaining to Customer Account Mgmt**

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Account 903 - Customer Records & Collection (page 322, line 161)

Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Account 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services**

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20% and Medicare (1.45%))

Estimated Employer's Portion of FICA

	New Jersey				Maryland			
	Atlantic City Electric	Jersey Central Power	Public Service Electric & Gas	Baltimore Gas & Electric	DeMarva Power & Light	Potomac Edison	Potomac Electric	
\$	37,383,789	\$ 19,051,474	\$ 58,917,046	\$ 28,731,040		\$ 5,031,476	\$ 51,049,711	
\$	237,995	\$ 364,803	\$ 90,240,911	\$ 4,115,795		\$ -	\$ -	
\$	37,621,784	\$ 19,416,277	\$ 149,157,957	\$ 32,846,835		\$ 5,031,476	\$ 51,049,711	
\$	757,867	\$ (2,610,530)	\$ 23,726,309	\$ 8,208,844		\$ 1,036,653	\$ 6,217,334	
\$	165,569	\$ 622,147	\$ 6,037,109	\$ 2,528,394		\$ 290,778	\$ 1,009,884	
\$	<b>38,545,220</b>	\$ <b>17,427,894</b>	\$ <b>178,921,376</b>	\$ <b>43,584,072</b>		\$ <b>6,358,906</b>	\$ <b>58,276,929</b>	
	545,011	1,089,980	2,133,003	1,229,181		480,214	762,094	
\$	<b>70.72</b>	\$ <b>15.99</b>	\$ <b>83.88</b>	\$ <b>35.46</b>	see Delaware	\$ <b>13.24</b>	\$ <b>76.47</b>	
\$	7,169,358	\$ (23,911,321)	\$ 97,803,439	\$ 45,202,255		\$ 11,006,243	\$ 25,000,866	
\$	20,474,113	\$ 74,491,459	\$ 325,305,600	\$ 181,995,810		\$ 40,355,725	\$ 53,083,661	
	35.0%	-32.1%	30.1%	24.8%		27.3%	47.1%	
\$	2,394,886	\$ 13,387,647	\$ 49,463,253	\$ 25,480,677		\$ 6,108,096	\$ 13,534,519	
\$	2,394,886	\$ 13,387,647	\$ 88,480,039	\$ 38,552,239		\$ 6,108,096	\$ 13,534,519	
\$	37,383,789	\$ 19,051,474	\$ 58,917,046	\$ 28,731,040		\$ 5,031,476	\$ 51,049,711	
\$	237,995	\$ 364,803	\$ 90,240,911	\$ 4,115,795		\$ -	\$ -	
\$	37,621,784	\$ 19,416,277	\$ 149,157,957	\$ 32,846,835		\$ 5,031,476	\$ 51,049,711	
\$	4,008,199	\$ 12,546,067	\$ 18,075,870	\$ 5,467,374		\$ 3,053,931	\$ 1,289,369	
\$	41,629,983	\$ 31,962,344	\$ 167,233,827	\$ 38,314,209		\$ 8,085,407	\$ 52,339,080	
	90.4%	60.7%	89.2%	85.7%		62.2%	97.5%	
\$	2,164,303	\$ 8,132,641	\$ 78,916,461	\$ 33,050,899		\$ 3,801,013	\$ 13,201,097	
\$	757,867	\$ (2,610,530)	\$ 23,726,309	\$ 8,208,844		\$ 1,036,653	\$ 6,217,334	
\$	2,164,303	\$ 8,132,641	\$ 78,916,461	\$ 33,050,899		\$ 3,801,013	\$ 13,201,097	
\$	165,569	\$ 622,147	\$ 6,037,109	\$ 2,528,394		\$ 290,778	\$ 1,009,884	



**Pennsylvania-American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

West Virginia				
	Appalachian Power	Monongahela Power	Potomac Edison	Wheeling Power
	\$ 29,231,353	\$ 5,020,473		\$ 1,013,571
	\$ 1,894	\$ -		\$ 286
	\$ 29,233,247	\$ 5,020,473		\$ 1,013,857
<b>Note A</b>	\$ 1,415,185	\$ 849,338		\$ 46,865
<b>Note B</b>	\$ 548,440	\$ 294,683		\$ 18,802
<b>Total Cost Pool</b>	<b>\$ 31,196,872</b>	<b>\$ 6,164,494</b>		<b>\$ 1,079,524</b>
	957,875	381,193		41,334
	<b>\$ 32.57</b>	<b>\$ 16.17</b>	see Maryland	<b>\$ 26.12</b>

Group Average	
\$	710,474,160
\$	134,126,684
\$	844,600,844
\$	91,132,965
\$	32,217,874
<b>\$</b>	<b>967,951,683</b>
\$	24,835,940
<b>\$</b>	<b>38.97</b>

**Customer Account Services Cost Pool**

FERC Account Balances:  
Account 903 - Customer Records & Collection (page 322, line 161)  
Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A: Calculation of Pension & Benefits Pertaining to Customer Account Mgmt**

Account 926 - Employee Pension & Benefits (page 323, line 187)  
Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Account 903 - Customer Records & Collection (page 322, line 161)

Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Account 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services**

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



## VI - Question 4 – Need for Service Company Services

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### **Analysis of Services**

The final aspect of this study was an assessment of whether the services that are provided to PAWC by the Service Company would be necessary if PAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for PAWC. Based on discussions with Service Company personnel, the matrix in Exhibit 11 was created showing which entity—PAWC or a Service Company location—is responsible for each of the functions PAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Exhibit 12, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if PAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to PAWC. For all of the services listed in Exhibit 12, there was only one entity that was primarily responsible for the service.

Water Company Function	PAWC	Performed By:				
		Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers
<b>Primarily Responsible Provides Support</b> P S						
Water Company Function						
<b>Engineering and Construction Management</b>						
CPS Preparation	P				S	
Five-Year System Planning	P				P	
Engineering Standards & Policies Development						
Project Design						
Major Projects (e.g., new treatment plant)	P				S	
Special Projects	P				S	
Minor Projects (e.g., pipelines)	P				S	
Construction Project Management	P				S	
Special Projects	P					
Minor Projects	P					
Hydraulics Review	P					
Developers Extensions	P					
Tank Painting	P					
<b>Water Quality and Purification</b>						
Water Quality Standards Development	S				P	S
Research Studies	S				P	S
Water Quality Program Implementation	P				S	
Water Treatment Operations & Maintenance	P				S	
Compliance Tracking and Chemical Testing	P				S	S
Sample Collection and Other Testing	P				S	S
<b>Transmission and Distribution</b>						
Preventive Maintenance Program Development	S		P		S	
System Maintenance	P					
Leak Detection	P					
<b>Customer Service</b>						
Community Relations	P					
Customer Contact	P (A)	P (A)	S		S	
Call Processing	P	P	S			
Service Order Creation	S	P	S			
Service Order Processing	P	S	S			
Customer Credit		P	S			
Meter Reading	P		S			S
Customer Bill Preparation		S	S			P
Bill Collection		P	S			S
Customer Payment Processing	S		S			S
Meter Standards Development	S		S			S
Meter Testing, Maintenance & Replacement	P		S		P	

Note A: PAWC provide in-person customer contact while Service Company call centers provide customer phone contact

Primarily Responsible Provides Support	Water Company Function	Performed By:								
		PAWC	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab		
	<b>Financial Management</b>									
	Financial Planning	S		P				S		
	Financings--Equity			P				S		
	Financings--Long Term Debt & Preferred (A)			P				S		
	Short Term Lines of Credit Arrangements (A)			P				S		
	Investor Relations			S				P		
	Insurance Program Administration							P		
	Loss Control/Safety Program Administration			P				S		
	Pension Fund Asset Management							P		
	Cash Management/Disbursements						S	P		
	<b>Internal Auditing</b>							P		
	<b>Budgeting and Variance Reporting</b>									
	Corporate Guidelines & Instructions							P		
	Regional Guidelines & Instructions			P						
	Budget Preparation									
	Revenue			P						
	O&M			P						
	Depreciation and Interest Expense			P						
	Budget Preparation--Service Company Charges									
	Capital Budget Preparation--Projects			P				S		S
	Capital Budget Preparation--Non-Project Work			P						
	Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")			S						
	Prepare Capital Project Budget Status Report			P						
	Year-End Projections (A)			S						
	<b>Accounting and Taxes</b>									
	Accounts Payable Accounting			S				P		
	Payroll Accounting			S				P		
	Work Order Accounting			S				P		
	Fixed Asset Accounting			S				P		
	Journal Entry Preparation--All Others			S				P		
	Financial Statement Preparation			S				P		
	State Commission Reporting			S				P		
	Income Taxes--State			S				P		
	Income Taxes--Federal									
	Property Taxes			S						
	Gross Receipts Taxes			S				P		

Note A: Financings and lines of credit are the responsibility of American Capital Corporation

**Pennsylvania-American Water Company**  
**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:					
	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible P</b>						
<b>Provides Support S</b>						
<b>Rates</b>						
Rate Studies & Tariff Change Administration		P	S			
Rate Case Planning and Preparation		P	S			
Rate Case Administration		P	S			
Commission Inquiry Response		P	S			
<b>Legal</b>						
<b>Purchasing and Materials Management</b>						
Specification Development		S		P		
Bid Solicitation				P		
Contract Administration		P (A)		P (A)		
Ordering				S		
<b>Inventory Management</b>						
<b>Human Resources Management</b>						
Benefit Program Development				P		
Benefits Program Administration				P		
Management Compensation Administration				P		
Wage & Salary Program Design		S		P		
Wage & Salary Administration		P				
Labor Negotiations--Wages		P				
Labor Negotiations--Benefits		P		P		
Labor Negotiations-- Work Rules						
Training Program Development		P				
Training--Course Delivery		P				
Affirmative Action/EEO--Plan Development		P	S			
Affirmative Action/EEO--Implementation		P				
<b>Information Systems Services</b>						
Service Company Data Centers						
System Operations & Maintenance						P
Software Maintenance						P
Network Administration						P
PC Acquisition & Support						P
Help Desk			S			P

Note A: Where contracts are administered is based on the nature of the work and where that work originated

## VI - Question 4 – Need for Service Company Services

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### Governance Practices Associated With Service Company Charges

There are several ways by which PAWC exercises control over Service Company services and charges. The most important of these are described below.

- **Company President Oversight** – The Company President of the state utility is responsible for the overall performance of the each operating company or district in the state. The state President has a significant voice in major business decisions of American Water and has the ability to monitor Service Company quality and spending.
- **Vice President Finance** – The VP Finance is responsible for the financial reporting, performance and internal controls of PAWC. The VP Finance through designees monitors the performance and reporting from the Service Company. The VP Finance attends quarterly Business Performance Review sessions with the PAWC President and finance group to review actual results and address forecast modifications for the remainder of the year. The VP Finance reports on the quarterly financial results and forecast updates to PAWC's Board of Directors. The rates function reports to the VP Finance, who in conjunction with the State President reviews and authorizes the filing of PAWC rate cases and regularly monitors the status of cases.
- **Operating Company Board Oversight** – PAWC's board of directors includes members of American Water's senior executive team and the President of PAWC. This helps ensure that PA American's needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – PAWC's President and members of the American Water's senior executive team sit on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are combined with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors. PA American's president is also on the local board.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's senior executive team. American Water's senior executive team, with input from the President of PAWC has the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Finance personnel review the Service Company bill for accuracy and reasonableness on a monthly basis. The financial team has dialogue with regional and corporate office personnel concerning the monthly bill and any mistakes or overcharges are credited on a subsequent billing. The finance unit prepares an actual to budget comparison of service company fees each month for use in identifying unusual variances. Service Company actual to budget comparison is included in the monthly FRP. Unusual variances are researched, explanations are provided and any corrections are made, as necessary.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report is produced by Service Company location and shows actual spending for the month.
- **Operating Company Budget Variance Reporting** – The "Financial Review Package" produced monthly, has multiple line items for Service Company spending. In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date. Additional information exists that allows more detailed analysis of "Regional" and "Corporate" Service Company Fees.

## VI - Question 4 – Need for Service Company Services

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- **Capital Investment Management (CIM)** – CIMC is one of American Water’s primary business planning processes. It covers capital and asset planning and is employed throughout American Water. CIMC provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIMC ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans
  - The impacts of these plans are understood and affordable, and
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIMC process was designed to optimize the effectiveness of asset investment. The process is managed at two levels for all PAWC Operating Units. Monthly meetings of the CIMC are held to review capital spending compared to plan, review new project requests, and review updates or modifications to existing projects. The President of PAWC, VP Finance, and others participate as necessary (e.g. VP Engineering and VP Operations) and provide the data used in the monthly review schedules.



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**CONNECTICUT-AMERICAN WATER COMPANY**  
**EVALUATION OF SERVICE COMPANY SERVICES**

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**TEST YEAR ENDED JULY 31, 1999**

**BARYENBRUCH & COMPANY**

# CONNECTICUT-AMERICAN WATER COMPANY EVALUATION OF SERVICE COMPANY SERVICES

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## I - INTRODUCTION

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### PURPOSE OF THIS STUDY

This study was undertaken to answer two questions:

- What would be the economic impact on Connecticut-American Water Company (Connecticut-American) if it were to outsource the services that it now receives from American Water Works Service Company, Inc. (Service Company)?
- Are the services Connecticut-American receives from the Service Company necessary?

### STUDY APPROACH

The first issue was evaluated by comparing the cost per hour for work performed by Service Company personnel to the hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on the costs and hours that were charged to Connecticut-American during the twelve months ended July 31, 1999. Outside providers' billing rates came from surveys of professionals that could perform the services now provided by the Service Company.

The second issue--the necessity of Service Company services—was first investigated by determining what the Service Company does for Connecticut-American. A determination was then made as to whether these services would be required if Connecticut-American were a stand-alone utility.

### STUDY RESULTS

Concerning issue 1, the following conclusions can be drawn from this study:

- On average, the hourly rates for outside service providers are **72% greater** (\$735,116/\$1,015,190) than the Service Company's hourly rates.
- The services performed by the Service Company are vital and could not be procured externally by Connecticut-American without careful supervision on the part of Connecticut-American. If these services were contracted entirely to outside providers, Connecticut-American would have to add one more position to manage activities of the outside firms. This position would be essential to ensure a high level of quality service is being provided.

- If all the services now provided by the Service Company had been outsourced during the 1999 test year, Connecticut-American and its ratepayers would incur an additional **\$850,116** in annual expenses. This is more than **83% higher** (\$850,116/\$1,015,190) than the Service Company's total billings to Connecticut-American during the year ended July 31, 1999.
- It is doubtful that Connecticut-American could find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Substantially all that Service Company personnel do relates directly to servicing its operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company costs that cannot be charged directly to operating companies are allocated on the basis of number of customers. This is a straightforward and entirely reasonable methodology. The cost to administer this allocation technique is much lower than alternatives that use multiple factors.
- Service Company costs do not include any profit markup. Only its actual cost of service is being recovered from Connecticut-American ratepayers.

Concerning issue 2, the following conclusions can be drawn:

- Connecticut-American could not function without the services that are provided to it by the Service Company. These services are the same type of activities that must be carried out by a stand-alone utility company to ultimately provide customers with service.
- There is no redundancy in the services provided by the Service Company and the activities that are performed by Connecticut-American itself.

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## **II - BACKGROUND**

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### **OVERVIEW OF SERVICE COMPANY SERVICES**

The services that the Service Company provides to Connecticut-American are described in the contract dated January 1, 1989 between the Service Company and Connecticut-American Water Company. These services fall under the categorizes shown below, each of which is described in detail in the Service Agreement:

- Accounting
- Administration
- Communications
- Corporate Secretarial and Legal
- Engineering
- Financial
- Human Resources
- Information Systems
- Operations
- Rates and Revenue
- Risk Management
- Water Quality.

During the test year, Connecticut-American was provided services from the following Service Company locations:

- Corporate and Regional Offices – Voorhees, New Jersey
- Belleville Lab – Belleville, Illinois
- Service Company Data Centers

**DESCRIPTION OF SERVICE COMPANY EXPENSES**

The expenses of each Service Company location are categorized as follows:

- Labor - salaries of managerial, professional and technical employees
- Support - wages and salaries of office support personnel, including secretaries, clerks, telephone operators and mail clerks
- Overhead - costs of employee benefits, including payroll taxes, pensions and medical coverage, and other general office supplies and expenses
- Office Expense - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Travel Expenses - travel expenses incurred by the personnel of an office
- Other Expenses - other items submitted for reimbursement by employees, including professional association dues and moving expenses
- Vouchers/Journal Entries - various expense items, including Hershey Data Center expenses for software licenses and hardware maintenance.

During the twelve months ended July 31, 1999, the Service Company billed Connecticut-American \$1,015,190, as detailed below.

	Charges For Year Ended July 31, 1999
Payroll	\$ 413,883
Support	\$ 28,750
Overhead	\$ 171,692
Office Expense	\$ 170,422
Travel Expense	\$ 41,228
Other Expense	\$ 5,152
Vouchers/Journal Entries	\$ 184,062
Total	\$ 1,015,190



## **ASSIGNMENT OF SERVICE COMPANY EXPENSES TO OPERATING COMPANIES**

The expenses of each Service Company location are categorized as follows:

- Labor - salaries of managerial, professional and technical employees
- Support - wages and salaries of office support personnel, including secretaries, clerks, telephone operators and mail clerks
- Overhead - costs of employee benefits, including payroll taxes, pensions and medical coverage, and other general office supplies and expenses
- Office Expense - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Travel Expenses - travel expenses incurred by the personnel of an office
- Other Expenses - other items submitted for reimbursement by employees, including professional association dues and moving expenses
- Vouchers/Journal Entries - various items, including Hershey Data Center expenses for software licenses and hardware maintenance.

In general, these Service Company expenses are either (1) charged directly or (2) allocated to an operating company. Labor charges are based on the reporting of time by managerial, professional and technical Service Company employees. When they perform a service that benefits one operating company, they report their time to that company. When their efforts are in support of more than one operating company, they charge their time to an account whose costs are allocated to the benefiting operating companies. Hours charged by each Service Company employee are costed-out at that employee's hourly rate based on base salary. Support, Overhead and Office Expense are charged on the basis of Labor expenses. For example, if 45% of a Service Company office's labor expenses are charged directly to operating companies and 55% to accounts that are allocated, then Support, Overhead and Office Expense would be distributed similarly. Travel Expenses, Other Expenses and Vouchers/Journal Entries may be charged directly or allocated, depending on who receives the benefit from the expenses being incurred.

Every month, expenses of each Service Company office are tabulated and assigned to operating companies. Expenses that have not been charged directly to an operating company are allocated on the basis of number of operating company customers. In the example below, Connecticut-American would be allocated 7% of non-direct charge Labor expenses because it has 7% of the number of customers served by the Regional Office.

<i>Example--Regional Office Calculation of Labor Expenses Charged to Connecticut-American</i>						
	Time		Total	Salaries		Charged To
	Hours	% of Total				
Hours Charged Directly To Conn-American	100	20%	x	\$ 10,000	= \$ 2,000	\$ 2,000
					(direct charge)	
Hours Charged To Region Work	400	80%	x	\$ 10,000	= \$ 8,000	
					(allocated)	
						Ct-Am Customer
						x 7.0% = \$ 560
						(below)
Total	500	100%				
Total Charged To Connecticut-American						<u>\$ 2,560</u>
Connecticut-American Percentage Of Region's Customers (7/31/99)						
Ct-Am Customers	27,059					
Total Region Customers	386,859					
Percent of Region	7.0%					

Before 1989, the allocation of costs to operating companies was based on a multitude of factors (e.g., number of employees, dollar amount of net plant in service). This arrangement was difficult to administer and difficult to explain. Because of this, a decision was made in 1989 to rely solely on number of customers as the basis for allocation and the affiliate agreement was so modified and approved by the Connecticut State Corporation Commission. Number of customers is an entirely appropriate basis for allocating those Service Company charges because it is straightforward, easily understood and is relatively inexpensive to administer. Also, this methodology reasonably reflects how costs are incurred.

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### III - COST COMPARISON

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#### METHODOLOGY

The cost comparison quantifies the economic impact on Connecticut-American of outsourcing all the services it now receives from the Service Company. This is accomplished by comparing the cost per hour for Service Company services to those of outside service providers to whom these duties could be assigned.

The first step was to determine which types of outside providers could assume Service Company services. Based on the nature of services it was determined that the following outside service providers would perform the categories of services indicated.

- Management Consultants - executive and administrative management, human resources and communications services
- Attorneys - corporate secretarial and legal services
- Certified Public Accountants - accounting, financial, information systems, rates and revenues and risk management services
- Professional Engineers - engineering, operations and water quality services.

It should be noted that the services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no survey of hourly billing rates for outside professionals that perform the types of services provided by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

The next step was to compile all Service Company charges and employee hours so an average hourly rate could be calculated for each outside service provider category. Hourly billing rates for outside service providers were next determined. This information was gathered from industry survey data. Finally, the Service Company's average cost per hour was compared to the average cost per hour for outsider providers to determine who provided services at a lower cost.

#### COMPILATION OF SERVICE COMPANY HOURS/EXPENSES BY OUTSIDE PROVIDER CATEGORY

During the twelve months ended July 31, 1999, Service Company employees charged 16,386 hours of time to Connecticut-American. As indicated previously, the Service Company billed Connecticut-American \$1,015,190 during that same period.

Schedule 1 presents the assignment of total test year Service Company expenses and hours to outsider provider categories. Schedule 2 analyzes how travel expenses are split among the four outside provider categories.

With three exceptions, all of these expenses were used in calculating the Service Company's cost per hour. The exclusions represent items that outside service providers customarily do not recover through their hourly rate. The first such item is travel expenses (\$41,228), which are generally billed directly to a client at actual out-of-pocket expenses. The second (\$18,731) is hardware/software lease and maintenance fees associated with the business applications used by Connecticut-American. Here too, these costs would be billed directly to a client at the actual incurred cost rather than recovered in the providers hourly rates. Finally, the test year contains (\$23,621) fees from outside professional firms that were retained by the Corporate office to perform certain corporate-wide services (e.g., financial audit, actuarial services). These professional fees are excluded because the related services have already, in effect, been outsourced.

The analysis below summarizes which test year Service Company expenses were and were not included in the hourly rate calculation. Excluded hardware/software and professional fees fall in the category of Vouchers/Journal Entries.

	Included In Hourly Rate Calculation	Excluded From Hourly Rate Calculation	Total Charges Year-Ended 7/31/99
Payroll	\$ 413,883		\$ 413,883
Support	\$ 28,750		\$ 28,750
Overhead	\$ 171,692		\$ 171,692
Office Expense	\$ 170,422		\$ 170,422
Travel Expense	\$ (1)	\$ 41,229	\$ 41,228
Other Expense	\$ 5,152		\$ 5,152
Vouchers/Journal Entries	\$ 141,710	\$ 42,352	\$ 184,062
Total	\$ 931,609	\$ 83,581	\$ 1,015,190

### SERVICE COMPANY COST PER HOUR

Based on the assignment of expenses and hours shown in Schedule 1, Service Company's equivalent costs per hour for the test year ended July 31, 1999 are calculated below.

	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total
Total expenses (Sch 1)	\$ 150,200	\$ 4,281	\$ 694,045	\$ 166,664	\$ 1,015,190
Less: travel expenses (Sch 2)	\$ (5,224)	\$ (49)	\$ (5,517)	\$ (30,439)	\$ (41,229)
Less: computer hw/sw (Sch 2)			\$ (18,731)		\$ (18,731)
Less: prof svcs fees (Sch 2)	\$ (10,178)	\$ (3,128)	\$ (10,315)		\$ (23,621)
Net expenses	\$ 134,798	\$ 1,104	\$ 659,482	\$ 136,225	\$ 931,609
Total hours (Sch 1)	1,205	5	12,253	2,923	16,386
Average rate/hour	\$ 112	\$ 221	\$ 54	\$ 47	

**Connecticut-American Water Company  
Test Year Service Company Charges (Year Ended July 31, 1999)**

Account Number		AWW Office	Work Description	Total Charges	Hours	Service Company Work And Charges						Outside Service Provider To Whom Work Would Be Assigned					
						Mgmt Consultant		Attorney		Certified Public Acctt		Prof Engineer					
						Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours
107	Corporate	CWIP		\$ 211,359	3,611												
107	Corporate		Implementation of ORCOM software 60-00	\$ 16,543	34					\$ 211,359	3,611						
107	Corporate		JD Edwards software implementation	\$ 3,254	54					\$ 16,543	34						
146.1	Corporate		Safety training & certification	\$ 101	1					\$ 3,254	54						
186	Corporate		1999 rate filing	\$ 1,604	36												
426.29	Corporate		Other income deductions (61-00)	\$ 3	-												
642.3	Corporate		Water quality system	\$ 7,490	68												
923.1	Corporate		Accounting	\$ 29,885	425					\$ 29,885	425						
923.1	Corporate		Administrative	\$ 57,743	269												
923.1	Corporate		Administrative/Internal audit	\$ 9,400	176					\$ 9,400	176						
923.1	Corporate		Communications	\$ 3,471	28												
923.1	Corporate		Engineering	\$ 14,159	256												
923.1	Corporate		Financial	\$ 13,287	211					\$ 13,287	211						
923.1	Corporate		Human resources	\$ 32,525	228												
923.1	Corporate		Information systems/financial	\$ 74,579	599					\$ 74,579	599						
923.1	Corporate		Rates and revenue	\$ 20,233	272					\$ 20,233	272						
923.1	Corporate		Risk management	\$ 5,399	62												
923.1	Corporate		Water quality regional	\$ 6,868	80												
923.19	Corporate		Liaison with outside agencies	\$ 191	2			\$ 191	2								
923.19	Corporate		Standard contract update	\$ 153	3			\$ 153	3								
926.21	Corporate		Personal development education	\$ 903	8												
930.39	Corporate		Changes in bioslability (surface water)	\$ 9	0			\$ 903	8								
930.39	Corporate		Cryptosporidium (76-01)	\$ 26	0												
930.39	Corporate		Enhanced coagulation practices	\$ 391	5												
930.39	Corporate		Enhanced solids contact clarification	\$ 409	7												
930.39	Corporate		Evaluation of filter backwash procedure	\$ 119	0												
930.39	Corporate		Evaluation of washwater (surface water)	\$ 1,476	19												
930.39	Corporate		Occurrence and control of mycobacteria	\$ (400)	0												
930.39	Corporate		Pathogen intrusion into distribution system	\$ 363	2												
930.39	Corporate		Research & tech development gen program	\$ 6,170	84												
930.39	Corporate		Study microbial growth	\$ 44	1												
930.39	Corporate		Study of water quality improvements	\$ 421	6												
930.39	Corporate		Variability of pathogen concentration	\$ (407)	2												
930.39	Corporate		Virus detection in ground water	\$ 0	-												
107	Construction Service C	CWIP		\$ 87,304	1,854												
				\$ 87,304	1,854												

**Connecticut-American Water Company  
Test Year Service Company Charges (Year Ended July 31, 1999)**

Service Company Work And Charges			Outside Service Provider To Whom Work Would Be Assigned									
Account Number	AWW Office	Work Description	Total Charges		Mgmt Consultant		Attorney		Certified Public Acct		Prof Engineer	
			Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours
107	Regional Office	CWIP	\$ 10,704	112					\$ 10,704	112		
107	Regional Office	JD Edwards software implementation	\$ 4,927	91					\$ 4,927	91		
186	Regional Office	1999 rate filing	\$ 36,485	756					\$ 36,485	756		
923.1	Regional Office	Accounting	\$ 44,509	1,005					\$ 44,509	1,005		
923.1	Regional Office	Administrative	\$ 20,072	101								
923.1	Regional Office	Corporate secretarial	\$ 3,937					\$ 3,937				
923.1	Regional Office	Engineering	\$ 863	8					\$ 26,975	332		\$ 863
923.1	Regional Office	Financial	\$ 26,975	332								\$ 3
923.1	Regional Office	Human resources	\$ 3									
923.1	Regional Office	Rates and revenue	\$ 14,963	232					\$ 14,963	232		
923.1	Regional Office	Risk management	\$ 6,113	72								
923.1	Regional Office	Water quality regional	\$ 8,969	102								
107	Richmond Data Ctr	JD Edwards software implementation	\$ 457	7					\$ 457	7		
903.51	Richmond Data Ctr	IS/customer billing	\$ 3,825	62					\$ 3,825	62		
923.1	Richmond Data Ctr	Information systems/financial	\$ 12,665	125					\$ 12,665	125		
107	Hershey Data Ctr	Implementation of ORCOM software 605-00	\$ 47	0					\$ 47	0		
642.3	Belleville Lab	Water quality lab	\$ 47,241	922								\$ 47,241
643.19	Belleville Lab	Other income deductions (61-64)	\$ 158	3								\$ 158
665.19	Belleville Lab	Other income deductions (61-80)	\$ 169	2								\$ 169
930.39	Belleville Lab	Changes in biosability (surface water)	\$ 783	19								\$ 783
930.39	Belleville Lab	Cryptosporidium (76-01)	\$ 1,107	15								\$ 1,107
930.39	Belleville Lab	Enhanced coagulation practices	\$ 15	-								\$ 15
930.39	Belleville Lab	Enhanced solids contact clarification	\$ 8	0								\$ 8
930.39	Belleville Lab	Evaluation of washwater (surface water)	\$ 1,211	28								\$ 1,211
930.39	Belleville Lab	Occurrence and control of mycobacteria	\$ 1,624	29								\$ 1,624
930.39	Belleville Lab	Pathogen intrusion into distribution system	\$ 812	19								\$ 812
930.39	Belleville Lab	Research & tech development gen program	\$ 8,856	152								\$ 8,856
930.39	Belleville Lab	Study microbial growth	\$ 310	6								\$ 310
930.39	Belleville Lab	Study of water quality improvements	\$ 1,119	20								\$ 1,119
930.39	Belleville Lab	Survey of AOC levels in SWTP	\$ (107)	-								\$ (107)
930.39	Belleville Lab	Variability of pathogen concentration	\$ 1,070	20								\$ 1,070
930.39	Belleville Lab	Virus detection in ground water	\$ 2,415	42								\$ 2,415
923.1	New England	Accounting	\$ 70,820	2,257					\$ 70,820	2,257		
923.1	New England	Administrative	\$ (1,285)	-								
923.1	New England	Financial	\$ (3,896)	-					\$ (3,896)	-		
923.1	New England	Human resources	\$ 25,250	437								
923.1	New England	Information systems/financial	\$ 4,014	-					\$ 4,014	-		
923.1	New England	Operation	\$ 52,805	1,004								\$ 52,805
903.51	Western	IS/customer billing	\$ 2	-					\$ 2	-		
923.1	Western	Accounting	\$ 34	2					\$ 34	2		
923.1	Western	Human resources	\$ 10	0					\$ 10	0		
923.1	Western	Rates and revenue	\$ 62	2					\$ 62	2		
Total Service Company Expenses and Hours			\$ 1,015,190	16,386	\$ 150,200	1,205	\$ 4,281	5	\$ 606,741	10,399	\$ 253,968	4,777



SCHEDULE 2

**Connecticut-American Water Company  
Test Year Service Company Charges (Year Ended July 31, 1999)**

Travel Expense	AWW Office	Work Description	Total Charges	Service Provider Category To Which Expenses Apply		
				Mgmt Consult	Attorney	Cert Pub Acct
Corporate		Travel expenses - accounting	\$ 1,123			\$ 1,123
Corporate		Travel expenses - administrative	\$ 1,398	\$ 1,398		
Corporate		Travel expenses - admin/internal audit	\$ 550			\$ 550
Corporate		Travel expenses - communications	\$ 6	\$ 6		
Corporate		Travel expenses - engineering	\$ 22			\$ 22
Corporate		Travel expenses - financial	\$ 220			\$ 220
Corporate		Travel expenses - human resources	\$ 743	\$ 743		
Corporate		Travel expenses - IS/financial	\$ 760			\$ 760
Corporate		Travel expenses - rates & revenue	\$ 389			\$ 389
Corporate		Travel expenses - risk management	\$ 952	\$ 952		
Corporate		Travel expenses - water quality	\$ 984			\$ 984
Corporate		Travel expenses - authorizations/maintenance	\$ 26,880			\$ 26,880
New England Region		Travel expenses - accounting	\$ 1,800			\$ 1,800
New England Region		Travel expenses - administrative	\$ 326	\$ 326		
New England Region		Travel expenses - human resources	\$ 188	\$ 188		
New England Region		Travel expenses - operations	\$ 70			\$ 70
Belleville Lab		Travel expenses - water quality/lab services	\$ 596			\$ 596
Belleville Lab		Travel expenses - authorizations/maintenance	\$ 336			\$ 336
Other		Travel expenses - accounting	\$ 1			\$ 1
Other		Travel expenses - administrative	\$ 1,345	\$ 1,345		
Other		Travel expenses - corporate secretarial	\$ 49	\$ 49		
Other		Travel expenses - engineering	\$ 9			\$ 9
Other		Travel expenses - financial	\$ 178			\$ 178
Other		Travel expenses - IS/financial	\$ 491			\$ 491
Other		Travel expenses - rates & revenue	\$ 5			\$ 5
Other		Travel expenses - risk management	\$ 266	\$ 266		
Other		Travel expenses - water quality regional	\$ 776			\$ 776
Other		Travel expenses - authorizations/maintenance	\$ 767			\$ 767
<b>Total Excluded Travel Expenses</b>			<b>\$ 41,228</b>	<b>\$ 5,224</b>	<b>\$ 49</b>	<b>\$ 5,517</b>
<b>Total Excluded Travel Expenses</b>			<b>\$ 41,228</b>	<b>\$ 5,224</b>	<b>\$ 49</b>	<b>\$ 5,517</b>

Computer Hardware & Software Exp	Vendor	Nature of Charge	Total Charges	Service Provider Category To Which Expenses Apply		
				Mgmt Consult	Attorney	Cert Pub Acct
AT&T		Dedicated phone lines for network connection	\$ 10,993			\$ 10,993
IBM		Data center hardware/software fees	\$ 7,361			\$ 7,361
JD Edwards World Solutions		Financial system software maintenance fees	\$ 376			\$ 376
<b>Total Excluded Computer Hardware &amp; Software Expenses</b>			<b>\$ 18,731</b>			<b>\$ 18,731</b>

Outside Professional Services Fees	Outside Firm	Nature of Charge	Total Charges	Service Provider Category To Which Expenses Apply		
				Mgmt Consult	Attorney	Cert Pub Acct
AON Consulting		Employee benefits consulting	\$ 443	\$ 443		
Coleman Legal Staffing		Recruiting services	\$ 2,380		\$ 2,380	
Deloitte & Touche		Implementation of ORACOM billing system	\$ 8,474			\$ 8,474
Delweller Consulting		General management consulting	\$ 1,136	\$ 1,136		
Office Team		Temporary accounting staff	\$ 1,841			\$ 1,841
Price Waterhouse		Outside auditor	\$ 1,097	\$ 1,097		
The Affiliates		Legal consulting work	\$ 748		\$ 748	
Towers Perrin		Actuarial services	\$ 1,716			\$ 1,716
William Mercer		Employee development program	\$ 5,786	\$ 5,786		
<b>Total Excluded Outside Professional Services Fees</b>			<b>\$ 23,621</b>	<b>\$ 10,178</b>	<b>\$ 3,128</b>	<b>\$ 10,315</b>

## **OUTSIDE PROVIDER COST PER HOUR**

The next step in the cost comparison was to obtain the average billing rates for each type of outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Management Consultants**

The cost per hour for management consultants was developed from an annual survey performed by the Association of Management Consulting Firms—the industry’s trade organization. The first step in the calculation, presented in Schedule 3, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This represents the average for 1997. The resultant cost per hour is an average for all of the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. average is appropriate for comparison.

### **Attorneys**

The cost per hour for attorneys was developed from a study conducted by the Connecticut Law Tribune of the larger law firms in Connecticut. These are the firms that Connecticut-American would look to in lieu of support from Service Company attorneys. The calculation of the reported annual revenue per attorney, as shown in Schedule 4.

### **Certified Public Accountants**

The average hourly rate for Connecticut certified public accountants was developed from a survey performed by the New Jersey Society of Certified Public Accountants (the Connecticut state society does not survey its members on such matters). The New Jersey survey results were adjusted for Connecticut’s somewhat higher cost of living. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 5. Using an assumed percent of time on a typical assignment, a weighted average hourly rate was calculated.

### **Professional Engineers**

Baryenbruch & Company used data from a survey conducted by the Service Company of several engineering firms doing business in the Connecticut. Some of these firms have performed work for Connecticut-American in the past.

As presented in Schedule 6, an average rate was first developed for each engineering position level. Then, using a typical percentage mix of time by each engineering position that would be spent in performing non-capital engineering, operations and water quality assignments, a weighted average cost per hour was calculated.

CONNECTICUT-AMERICAN WATER COMPANY  
BILLING RATES OF U.S. MANAGEMENT CONSULTANTS

A. Calculation of Average Hourly Billing Rate by Consultant Position  
(Note: survey billing rates were those in effect in 1997)

Average Hourly Rates (Note A)					
Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$115	\$154	\$196	\$242	\$259

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement

	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (From Above)	\$115	\$154	\$196	\$242	\$259	
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%	Weighted Average
	\$35	\$46	\$39	\$24	\$26	<b>\$170</b>

Escalation to July 31, 1999 (Note B)

CPI at Dec 31, 1997	170.8
CPI at July 31, 1999	177.2
Inflation/Escalation	6.4%
Billing Rate At July 31, 1999	<b>\$181</b>

Note A: source--"1998 Survey of U.S. Key Management Information," Association of Management Consulting Firms

Note B: source--US Bureau of Labor Statistics

CONNECTICUT-AMERICAN WATER COMPANY  
BILLING RATES OF CONNECTICUT ATTORNEYS

Note: Billing rates are as of August 31, 1998		
A. Average Revenue Per Lawyer (Note A)		
Connecticut Firm (Note A)	Annual Amount	
Paul, Hustings, Janofsky & Walker	\$472,000	
Day, Berry & Howard	\$411,000	
Wiggin & Dana	\$367,000	
Cummings & Lockwood	\$360,500	
Pullman & Comley	\$336,000	
Tyler Cooper & Alcorn	\$315,500	
Halloran & Sage	\$298,000	
Murtha, Cullina, Richter and Pinney	\$295,000	
Robinson & Cole	\$289,000	
Shipman & Goodwin	<u>\$282,000</u>	
Overall Average		\$342,600
B. Average Annual Billable Hours:		
Weekdays Per Year (52x5)	260	
Less: Vacation Days	-15	
Less: Holidays	<u>-10</u>	
Net Annual Days	235	
Times: Average Billable Hours Per Day	<u>7</u>	
Average Billable Hours Per Year		1,645
C. Average Hourly Rate (August 1998)		<u>\$208</u>
D. Escalation To 1999 (Note B)		
CPI at August 1998		174.2
CPI at July 1999		177.2
Inflation/Escalation		<u>1.7%</u>
E. Average Billing Rate At July 31, 1999		<b>\$212</b>

Note A: source--The Connecticut Law Tribune, July 12, 1999

Note B: source--US Bureau of Labor Statistics:

**CONNECTICUT-AMERICAN WATER COMPANY  
BILLING RATES OF CONNECTICUT CERTIFIED PUBLIC ACCOUNTANTS**

**A. Calculation of Average Hourly Billing Rate by Public Accounting Position**  
(Note: survey billing rates were those in effect in 1997)

Type of Firm	Average Hourly Billing Rate (Note A)			
	Staff Accountant	Senior Accountant	Manager	Partner
Larger Firms	\$59	\$82	\$114	\$175
Medium-Sized Firms	\$62	\$83	\$87	\$124
Average Hourly Rate	\$61	\$83	\$101	\$150

**B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement**

	Staff Accountant	Senior Accountant	Manager	Partner	Weighted Average
	Average Hourly Billing Rate (From Above)	\$61	\$83	\$101	
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%	
	\$18	\$25	\$20	\$30	\$93

Escalation to July 31, 1999

CPI at Dec 31, 1997	170.8
CPI at July 31, 1999	177.2
Inflation/Escalation	6.4%

Estimated Average Hourly Billing Rate For New Jersey CPAs At July 31, 1999

**\$99**

**C. Adjustment For New Jersey-Connecticut Cost of Living Differential (Note B)**

Overall July 31, 1999 CPI of New York/Norther NJ/Connecticut	177.2
Overall July 31, 1998 CPI of Philadelphia/Wilmington/Atlantic City	172.1
Percentage Difference--NY/Northern NJ/Connecticut higher	<b>3.0%</b>

**D. Estimated Average Hourly Billing Rate For Connecticut CPAs At July 31, 1999**

**\$102**

Note A: source is "1998 Accounting Practice Survey," New Jersey Society of CPAs

Note B: source is US Bureau of Labor Statistics

SCHEDULE 6

CONNECTICUT-AMERICAN WATER COMPANY  
BILLING RATES OF CONNECTICUT ENGINEERS

Note: Billing rates were those in effect in 1998

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	CAD Technician Support Staff	Engineer Design Engineer Project Engineer	Sr. Proj Engineer Sr. Engineer	Officer Principal Engineer Sr. Associate
O'Brien and Gere Old Saybrook, Ct	\$45	\$65	\$95	\$150
Montgomery and Wilson Saddle Brook, NJ	\$46	\$69	\$81	\$122
Malcolm Pirnie White Plains, NY	\$49	\$85	\$121	\$154
Overall Average	\$47	\$73	\$99	\$142

B. Calculation of Overall Average Engineering Hourly Billing Rate

	CAD Technician Support Staff	Engineer Design Engineer Project Engineer	Sr. Proj Engineer Sr. Engineer	Officer Principal Engineer Sr. Associate	Weighted Average
	Average Hourly Billing Rate (From Above)	\$47	\$73	\$99	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$14	\$26	\$25	\$14	<b>\$79</b>

Source: Survey performed by American Water Works Service Company



**SERVICE COMPANY VERSUS OUTSIDE PROVIDER COST COMPARISONX**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Outside Provider	1999 Cost Per Hour		Difference-- Service Co. Greater (Less Than) Outside Provider
	Service Company	Outside Provider	
Management Consultant	\$ 112	\$ 181	\$ (69)
Attorney	\$ 221	\$ 212	\$ 9
Certified Public Accountant	\$ 54	\$ 102	\$ (48)
Professional Engineer	\$ 47	\$ 79	\$ (32)

Based on these cost per hour differentials and the number of hours that the Service Company billed Connecticut-American during the year ended July 31, 1999, the services themselves would cost significantly more—over \$735,000--from outside providers (see table below). Thus, on average, outside provider's rates are over 72% higher than those of the Service Company (\$735,116/\$1,015,190)

Dollar Difference Associated With Contracting Service Co Services

Outside Provider	Rate Difference-- Service Company Greater(Less) Than		Hours	Dollar Difference
	Outside Provider	Outside Provider		
Management Consultant	\$ (69)		1,205	\$ (83,145)
Attorney	\$ 9		5	\$ 45
Certified Public Account	\$ (48)		10,399	\$ (499,152)
Professional Engineer	\$ (32)		4,777	\$ (152,864)
Total Service Company Less Than Outside Providers				<b>\$ (735,116)</b>

Higher hourly rates are not the only negative economic impact that would result from contracting all Service Company services to outside providers. Managing outside firms who would perform over 16,386 hours of work would add a considerable workload to the existing Connecticut-American management team. Thus, it would be necessary for Connecticut-American to add one position whose responsibility it would be to supervise the outside firms and ensure they delivered quality services. The individual that would fill this position would need a good understanding of each profession being managed. This person must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$115,000 per year to Connecticut-American's personnel expenses.

Cost of Adding Administrative Position To The Staff Of Connecticut-American	
New Position's Salary	\$ 75,700
Benefits (Assume 52%)	<u>39,300</u>
Total Cost of the New Position	\$ <u>115,000</u>

Thus, the net effect on the ratepayers of Connecticut-American of contracting all services now provided by Service Company would be an increase in their costs of **\$850,116** (\$735,116+ \$115,000).

### **OTHER COST COMPARISONS**

The Service Company periodically conducts its own comparisons of the cost of outside service providers. In all instances, these comparisons confirm this study's conclusion--that the cost of outsourcing Service Company services is greater than the current arrangement. A brief description of several recent studies is provided below.

- Belleville Lab Testing - A comparison was made of Belleville Lab 1998 cost for performing over 40 major tests to the cost of using outside testing laboratory. It was found that the outside labs were 53% more expensive than the Belleville Lab.
- Bill Printing and Stuffing - A 1995 bid from an outside vendor showed that the Service Company's Hershey Data Center can print and stuff envelopes for 44% less.

These studies present further evidence that the Service Company arrangement is the lowest-cost alternative for Connecticut-American

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## IV - NEED FOR SERVICES

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### ANALYSIS OF SERVICES

The second issue addressed by this study is the need for the services that are rendered to Connecticut-American by the Service Company. First, it was determined specifically what the Service Company does for Connecticut-American. Based on discussions with Service Company personnel, the matrix in Schedule 7 was created showing which entity--Connecticut-American or a Service Company location--is responsible for each of the functions Connecticut-American requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 7, the following conclusions can be drawn:

- There is no redundancy or overlap in the services provided by the Service Company to Connecticut-American. For substantially all of the services listed in Schedule 7, there was only one entity that was primarily responsible for the service.
- The services that the Service Company provides would be necessary even if Connecticut-American were a stand-alone water utility.











**CONNECTICUT-AMERICAN WATER COMPANY  
DESIGNATION OF RESPONSIBILITY FOR WATER UTILITY FUNCTIONS**

Primarily Responsible <input checked="" type="checkbox"/> Provides Input <input type="checkbox"/>	Performed By				
	Connecticut-American	Regional Office	Corporate Office	Data Centers	Belleville Lab
Water Company Function <u>Information Systems Services</u> Richmond, Ind/Hershey, Pa Mainframe Computers System Operations & Maintenance Software Maintenance Corporate Mainframe Computer System Operations & Maintenance Software Maintenance Lan Installation Lan Administration PC Acquisition & Setup Help Desk	<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	

## CONTROLS OVER SERVICE COMPANY CHARGES

Several factors were noted that act to control the level of charges from the Service Company to Connecticut-American. The most significant of these are described below.

- **Service Company Budgets By Operating Company** - The budget for each Service Company location is allocated to each operating company so it knows what to expect in the way of charges during the next year. Each operating company president must review and approve the budgeted service company charges for the upcoming year.
- **Budget Variance Reporting (Service Company)** - A summary and explanation of year-to-date budget variances is prepared for the entire Service Company on a monthly basis. In addition, a monthly variance report called the “Statement of Expenses and Billed Charges,” is produced by Service Company location and shows budget versus actual spending for the month and year-to-date by cost category.
- **Budget Variance Reporting (Operating Company)** - The “Budget/Plan Analysis” produced monthly by each operating company has a line item for Service Company charges. In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.
- **Close Attention To Service Company Costs Per Customer** - The Corporate Accounting Department prepares a quarterly report that highlights the trend in Service Company costs per customer. Information is broken down in the following ways:
  - Budget versus actual
  - For the month and 12 months ended
  - For the past three years
  - By major Service Company location (Corporate, Belleville Lab and others).
- **Service Company Bill Detail** - The monthly Service Company bill is accompanied by detailed backup to support all charges by each Service Company location. Connecticut-American’s Vice President and Manager, who reviews the reasonableness of all charges, scrutinize this detail. Items that appear unusual are noted to the Regional VP of Accounting, who investigates them and, if necessary, make a correcting journal entry.
- **Capital Project Authorization** - Capital projects estimated to cost over \$100,000 must be approved by the operating company board of directors before any design and construction work begins.

## QUALITY OF SERVICE COMPANY SERVICES

As a conclusion to this section, a comment should be made on the quality of services being provided by the Service Company. While it is difficult to quantitatively measure the quality of Service Company services, there undoubtedly is a strong relationship between Service Company employee years of service and the quality of services they perform. On this basis, the Service Company can be declared a quality provider. As shown in the table below, employees' average years of service with the American system is more than sufficient to provide them with the knowledge and expertise needed to provide value to Connecticut-American.

Service Company Location	Average Years With American Waters Works
Corporate and Regional Offices	10.1
Hershey Data Center	19.0
Belleville Lab	4.5

It should be noted that a number of Service Company employees worked for other water companies before joining the American system. If this previous experience were considered, the above years of water industry experience would be even greater.

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**Market Cost Comparison of Service Company Charges to  
Illinois American Water Company  
12 Months Ending June 30, 2007**

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**Illinois American Water Company  
Market Cost Comparison of Service Company Charges  
12 Months Ending June 30, 2007**

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## I - Introduction

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### Purpose Of This Study

This study was undertaken to answer three questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to Illinois American Water Company (IAWC):

1. Was IAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during the 12 months ending June 30, 2007?
2. Was the 12 months ending June 30, 2007 cost of the Service Company's customer accounts services, including those of the National Call Centers, reasonable?
3. Are the services IAWC receives from Service Company necessary?

### Study Results

Concerning question 1, the following conclusions can be drawn from this study:

- IAWC was charged the lower of cost or market for managerial and professional services during the 12 months ending June 30, 2007.
- On average, the hourly rates for outside service providers are **51% higher** than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by IAWC without careful supervision on the part of IAWC. If these services were contracted entirely to outside providers, IAWC would have to add at least one position to manage activities of outside firms. These positions would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been out-sourced during the 12 months ending June 30, 2007, IAWC and its ratepayers would have incurred an **additional \$7.8 million** in expenses. This amount includes the higher cost of outside providers and the cost of two additional IAWC positions needed to direct and oversee the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to IAWC from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company exempt personnel, on the other hand, charge a maximum 8 per day even when they work more. If the overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$7.8 million cited above. For instance, if Service Company overtime is conservatively estimated at 5% (2 hours per week), then that work would have cost an estimated \$376,000 in additional charges from outside providers.
- It would be difficult for IAWC to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.

- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from IAWC ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, **is within the range of the comparison group of neighboring electric utilities.** As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of IAWC. During the 12 months ending June 30, 2007, the customer accounts cost for IAWC customers was \$32.18 compared to the 2006 average of \$27.65 for neighboring electric utilities. The highest comparison group per customer cost was \$43.63 and the lowest \$12.99.

IAWC's comparative position is completely acceptable for two reasons. First, every appropriate cost element has been included in the calculation of IAWC's customer account services cost pool. Second, some of the comparison group electric utilities may follow accounting policies that cause their cost pools to be higher or lower than that of IAWC. Even though electric utilities follow the FERC's Uniform System of Accounts, there is still some discretion as to how transactions are recorded. For instance, one utility may record the IT support costs for their customer information system to FERC account 903 Customer Records and Collections Expenses while another utility records that type of expense to different FERC account. This probably accounts for some of the wide range in per customer costs among the electric utilities.

Concerning question 3, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if IAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to IAWC. For all of the services listed in Schedule 10, there was only one entity that was primarily responsible for the service.



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## II - Background

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### Overview Of American Water Works Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in the second quarter of 2001 and a second in Pensacola, Florida that went into operation in April 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of IAWC, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they are not provided by the National Shared Services Center. Examples of regional office services include rates and revenues, engineering and operations.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the communications systems. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks

- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

**Charging and Assignment Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable)

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 20% of the Central Region's professional labor is assigned to IAWC during a month, then 20% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 20% of the Central Region's accumulated professional and support labor is charged to IAWC during the month, then 20% of that month's overhead expenses will be assigned to IAWC.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to IAWC, then 2% of that office's office expenses would be assigned to IAWC. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a rate case proceeding are charged directly to the operating company whose case is being heard.

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**III – Service Company Cost Comparison Approach**

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During the 12 months ending June 30, 2007, the Service Company billed IAWC \$21.5 million in management fees (O&M) and \$2.6 million in capital and other charges. For purposes of this market cost study, certain items were subtracted from the Service Company’s total charges to IAWC, as shown in the table below. The first item was the non-recurring accounting reclassification of pension expenses from management fees to pension expense. Other non-recurring expenses (Sarbanes Oxley implementation, business change, Service Company building write-off) for which IAWC is not seeking recovery were also subtracted. Finally, certain charges from regional offices other than the Central Region were eliminated. After these adjustments, testable Service Company charges totaled just over \$19 million.

	12 Months Ended June 30, 2007
Total Management Fees (O&M)	\$ 21,500,593
JE to reclass pension expense	\$ (2,101,519)
Mgmt Fee Expense per P&L	\$ 19,399,074
Less: Non-Recurring Expenses	
Divestiture & SOX	\$ (2,728,916)
Business Change	\$ (71,099)
Write-Off of Svc Co Bldg	\$ (45,289)
Net O&M Adjustments	\$ (2,845,304)
Less: Non-Central Regions	\$ (92,668)
Net Testable O&M	\$ 16,461,102
Total Capital	\$ 2,570,040
Total Other	\$ 50,158
<b>Total Testable SC Charges</b>	<b>\$ 19,081,299</b>

For purposes of comparing these charges to outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Water Quality Testing Services – Includes testing services performed by the Belleville Laboratory.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	12 Months Ended June 30, 2007	
	Amount	Hours
Management and Professional Services	\$ 14,702,513	153,312
Customer Account Services	\$ 4,378,786	118,362
Total Service Company Charges	\$ 19,081,299	271,674

This study’s first question—whether the Service Company charges the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to IAWC

during the 12 months ending June 30, 2007. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The second question—reasonableness of the National Call Center costs—was addressed by comparing IAWC's customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The third question—the necessity of Service Company services—was first investigated by determining the services provided to IAWC. A determination was then made as to whether these services would be required if IAWC were a stand-alone utility.

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## **IV – Managerial And Professional Services Hourly Rate Comparison**

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### **Methodology**

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

Service Company hourly rates were calculated for the four outside service provider categories, based on the dollars and hours charged to IAWC during the 12 months ended June 30, 2007. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

It should be noted that by using the Service Company's hours charged IAWC during the 12 months ended June 30, 2007, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

### **Service Company Hourly Rates**

Schedule 1 (page 10) details the assignment of 12 months ended June 30, 2007 management and professional Service Company charges by outsider provider category. Schedule 2 (page 11) shows the same assignment for Service Company management and professional hours charged to IAWC during the 12 months ended June 30, 2007.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following June 30, 2007 test period non-labor Service Company charges:

- Contract Services – 12 months ended June 30, 2007 Service Company charges to IAWC include approximately \$989,000 in expenses associated with the use of outside professional firms to perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.

- Travel Expenses – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- Computer Hardware and Software Expenses – Included in the 12 months ended June 30, 2007 Service Company charges to IAWC are charges for outside expenses for leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the communications systems. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

Schedule 3 (page 12) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 1 and 2 and the excludable items shown in Schedule 3, the Service Company's equivalent costs per hour for the 12 months ended June 30, 2007 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 558,149	\$ 4,926,856	\$ 6,000,263	\$ 3,217,245	\$ 14,702,513
Less:					
Contract services	\$ 17,421	\$ 326,297	\$ 590,549	\$ 55,094	\$ 989,361
Travel expenses	\$ 3,230	\$ 64,319	\$ 20,769	\$ 30,606	\$ 118,924
Computer hardware/software	\$ 15	\$ 41,237	\$ 148,137	\$ 34,510	\$ 223,898
Net Service Charges (A)	\$ 537,483	\$ 4,495,003	\$ 5,240,808	\$ 3,097,035	\$ 13,370,329
Total Hours (B)	5,062	36,342	64,686	47,222	153,312
<b>Average Hourly Rate (A / B)</b>	<b>\$ 106</b>	<b>\$ 124</b>	<b>\$ 81</b>	<b>\$ 66</b>	





**Illinois American Water Company  
Analysis of 12 Months Ended June 30, 2007 Service Company Charges By Location And Function**

Location	Function	12 Months Ended June 30, 2007 Service Company Charges				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality		\$ 95,648		\$ 453,574	\$ 453,574
Call Center	Human Resources			\$ 613,000		\$ 95,648
Corporate	Accounting					\$ 613,000
	Administration	\$ 54,659	\$ 512,210	\$ 410,240	\$ 160,484	\$ 1,137,593
	Audit			\$ 104,147		\$ 104,147
	Communications		\$ 199,692			\$ 199,692
	Engineering				\$ 40,518	\$ 40,518
	Finance			\$ 343,276		\$ 343,276
	Human Resources		\$ 477,718			\$ 477,718
	Legal	\$ 204,474				\$ 204,474
	Operations		\$ 308,254		\$ 248,844	\$ 557,098
	Rates & Revenue			\$ 230,519		\$ 230,519
	Risk Management		\$ 139,211			\$ 139,211
	Water Quality				\$ 129,988	\$ 129,988
Regional Offices	Accounting			\$ 57,282		\$ 57,282
	Administration		\$ 1,614,325			\$ 1,614,325
	Communications		\$ 226,530			\$ 226,530
	Engineering				\$ 1,218,590	\$ 1,218,590
	Finance			\$ 617,375		\$ 617,375
	Human Resources		\$ 592,031			\$ 592,031
	Legal	\$ 299,016				\$ 299,016
	Operations		\$ 271,581		\$ 661,113	\$ 932,694
	Risk Management		\$ 219,017			\$ 219,017
	Water Quality				\$ 304,136	\$ 304,136
Information Technology	Audit			\$ 45,148		\$ 45,148
	Information Technology			\$ 2,492,693		\$ 2,492,693
Shared Services	Accounting			\$ 891,512		\$ 891,512
	Administration		\$ 270,639			\$ 270,639
	Finance			\$ 108,127		\$ 108,127
	Rates & Revenue		\$ 86,944			\$ 86,944
	<b>Total Dollars Charged</b>	<b>\$ 558,149</b>	<b>\$ 4,926,856</b>	<b>\$ 6,000,263</b>	<b>\$ 3,217,245</b>	<b>\$ 14,702,513</b>

Witness: Patrick Baryenbruch  
Schedule 2

**Illinois American Water Company  
Analysis of 12 Months Ended June 30, 2007 Service Company Hours By Location And Function**

Location	Function	12 Months Ended June 30, 2007 Service Company Hours				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality				5,808	5,808
Call Center	Human Resources		1,054			1,054
Corporate	Accounting			7,252		7,252
	Administration		1,814			1,814
	Audit			1,363		1,363
	Communications		826			826
	Engineering				175	175
	Finance			3,249		3,249
	Human Resources		5,608			5,608
	Legal	1,241				1,241
	Operations		1,864		1,666	3,530
	Rates & Revenue			1,008		1,008
	Risk Management		1,096			1,096
	Water Quality				2,142	2,142
Regional Offices	Accounting			808		808
	Administration		5,134			5,134
	Communications		3,282			3,282
	Engineering				22,187	22,187
	Finance			8,165		8,165
	Human Resources		7,116			7,116
	Legal	3,821				3,821
	Operations		2,664		10,242	12,905
	Risk Management		4,564			4,564
	Water Quality				5,002	5,002
Information Technology	Audit			1,007		1,007
	Information Technology			20,800		20,800
Shared Services	Accounting			17,571		17,571
	Administration		1,320			1,320
	Finance			2,918		2,918
	Rates & Revenue			547		547
	<b>Total Hours Charged</b>	<b>5,062</b>	<b>36,342</b>	<b>64,686</b>	<b>47,222</b>	<b>153,312</b>

Witness: Patrick Baryenbruch  
Schedule 3

**Illinois American Water Company**  
**12 Months Ended June 30, 2007 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Accounting	\$ 308,295	\$ 5,288	\$ 4,375	\$ 317,959
Administration	\$ 51,422	\$ 22,048	\$ (2,093)	\$ 71,376
Audit	\$ 4,312	\$ 1,030		\$ 5,342
Communications	\$ 48,924	\$ 6,095	\$ 810	\$ 55,828
Engineering	\$ 16,150	\$ 13,061	\$ 6,276	\$ 35,486
Finance	\$ 54,633	\$ 5,089	\$ 1,912	\$ 61,634
Human Resources	\$ 187,200	\$ 8,026	\$ 8,549	\$ 203,774
Information Technology	\$ 208,669	\$ 7,038	\$ 141,807	\$ 357,514
Legal	\$ 17,421	\$ 3,230	\$ 15	\$ 20,666
Operations	\$ 34,012	\$ 32,951	\$ 3,130	\$ 70,093
Rates & Revenue	\$ 14,639	\$ 2,324	\$ 43	\$ 17,006
Risk Management	\$ 9,941	\$ 8,327	\$ 33,421	\$ 51,689
Water Quality	\$ 33,744	\$ 4,418	\$ 25,662	\$ 63,824
<b>Total</b>	<b>\$ 989,361</b>	<b>\$ 118,924</b>	<b>\$ 223,906</b>	<b>\$ 1,332,191</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Management Consultant, Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Attorney	\$ 17,421	\$ 3,230	\$ 15	\$ 20,666
Management Consultant	\$ 326,297	\$ 64,319	\$ 41,237	\$ 431,853
Certified Public Accountant	\$ 590,549	\$ 20,769	\$ 148,137	\$ 759,455
Professional Engineer	\$ 55,094	\$ 30,606	\$ 34,510	\$ 120,210
<b>Total</b>	<b>\$ 989,361</b>	<b>\$ 118,924</b>	<b>\$ 223,898</b>	<b>\$ 1,332,184</b>

## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Attorneys**

The Illinois Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for Illinois attorneys. Therefore, an Illinois estimate was developed from a survey of Michigan lawyers conducted annually by the Michigan Lawyers Weekly. As presented in Schedule 4, the average rate for each Michigan firm respondent was adjusted for the cost of living differential between their location and Belleville, Illinois. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to December 31, 2006—the midpoint of the 12 months ending June 30, 2007.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2006 annual survey performed by the Association of Management Consulting Firms—an industry trade organization. The first step in the calculation, presented in Schedule 5, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2005 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The survey includes rates that were in effect at December 31, 2005. This 2005 average rate was escalated to December 31, 2006—the midpoint of the 12 months ending June 30, 2007.

### **Certified Public Accountants**

The average hourly rate for Illinois certified public accountants was developed from a 2006 survey conducted by the American Institute of Certified Public Accountants (AICPA) every two years. Hourly rates in the AICPA survey are the average of firms in Illinois. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 6. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to December 31, 2006—the midpoint of the 12 months ending June 30, 2007.

### **Professional Engineers**

The Service Company provided hourly rate information for outside engineering firms that could have been utilized by IAWC during 2007. As presented in Schedule 7, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Schedule 4

**Illinois American Water Company**  
**Estimated Billing Rates For Illinois Attorneys Based On Michigan Attorney Billing Rates**

Billing rates as of December 31, 2006 (Note A)									
Firm	Michigan Location	Number Of Mich Lawyers	Billing Rate Range					Cost of Living Adjust (C)	Adjusted Rate
			Associate		Partner		Average		
			Low	High	Low	High			
Dickinson Wright PLLC	Detroit	218	\$ 170	\$ 275	\$ 260	\$ 530	\$ 309	92%	\$ 337
Butzel Long	Detroit	212	\$ 165	\$ 400	\$ 220	\$ 550	\$ 334	92%	\$ 364
Bodman LLP	Detroit	130	\$ 125	\$ 215	\$ 210	\$ 495	\$ 261	92%	\$ 285
Jaffe Raitt Heuer & Weiss, PC	Southfield	95	\$ 165	\$ 225	\$ 225	\$ 500	\$ 279	105%	\$ 266
Trott & Trott, PC	Bingham Farms	57	\$ 170	\$ 170	\$ 235	\$ 235	\$ 203	136%	\$ 149
Brooks Kushman PC	Southfield	52	\$ 160	\$ 275	\$ 250	\$ 505	\$ 298	105%	\$ 284
Kemp, Klein, Umphrey, Edelman & May PC	Troy	38	\$ 150	\$ 190	\$ 200	\$ 340	\$ 220	120%	\$ 183
Pepper Hamilton LLP	Detroit	31	\$ 200	\$ 315	\$ 340	\$ 615	\$ 368	92%	\$ 401
Hertz, Schram & Saretsky, PC	Bloomfield Hills	30	\$ 175	\$ 260	\$ 275	\$ 400	\$ 278	150%	\$ 185
Strobl & Sharp, PC	Bloomfield Hills	26	\$ 110	\$ 210	\$ 200	\$ 300	\$ 205	150%	\$ 136
Kupelian Ormond & Magy, PC	Southfield	24	\$ 165	\$ 195	\$ 235	\$ 320	\$ 229	105%	\$ 218
Rader, Fishman & Grauer, PLLC	Bloomfield Hills	23	\$ 130	\$ 250	\$ 275	\$ 495	\$ 288	150%	\$ 191
McShane & Bowie PLC	Grand Rapids	22	\$ 160	\$ 275	\$ 250	\$ 375	\$ 265	104%	\$ 255
Overall Average at December 31, 2006									\$ 250
Average Billing Rate At December 31, 2006 - the midpoint of 12 months ended June 30, 2007									<b>\$ 250</b>

Note A: Source is Michigan Lawyers Weekly, April 2007

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiat.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This number represents the cost of living difference between the Michigan city and Belleville, Ill. A number over 100% indicates the Michigan city's cost of living is higher than Belleville. A number less than 100% indicates Belleville's cost of living is higher.

Schedule 5

**Illinois American Water Company  
Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position  
Survey billing rates were those in effect in 2005 (Note A)

		Average Hourly Rates (Note A)				
Average		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
		\$ 141	\$ 186	\$ 234	\$ 320	\$ 350

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution  
of Time on an Engagement

		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)		\$ 141	\$186	\$234	\$320	\$350	
Typical Percent of Time Spent on a Consulting Project		30%	30%	20%	10%	10%	Weighted Average
		\$ 42	\$ 56	\$ 47	\$ 32	\$ 35	<b>\$ 212</b>

Escalation to Test Year Mid-Point June 30, 2007 (Note B)

	CPI at December 31, 2005	196.8
	CPI at December 31, 2006	201.8
	Inflation/Escalation	2.5%
Estimated Average Hourly Billing Rate For Illinois CPAs At December 31, 2006		<b>\$ 217</b>

Note A: source: "Operating Ratios For Management Consulting Firms, 2006 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>)

Schedule 6

**Illinois American Water Company**  
**Estimated Billing Rates Of Illinois Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2005 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 94	\$ 102	\$ 110	\$ 150
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 94	\$ 102	\$ 110	\$ 150
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 28	\$ 31	\$ 22	\$ 30
				Weighted Average \$ 111
<u>Escalation to Test Year Mid-Point June 30, 2007 (Note B)</u>				
			CPI at December 31, 2005	196.8
			CPI at December 31, 2006	201.8
			Inflation/Escalation	2.5%
Estimated Average Hourly Billing Rate For Illinois CPAs At December 31, 2006				<b>\$ 114</b>

Note A: Source is AICPA's 2006 National PCPS/TSCPA Management of an Accounting Practice Survey

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.ai.txt>)



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Schedule 7

**Illinois American Water Company**  
**Billing Rates Of Illinois Engineers**

Note: Billing rates were those in effect in 2007

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	Surveyor Technician	Engineer Design Engineer Project Engineer	Project Manager Sr. Mgr. Engineer	Officer Principal Engineer
	Firm #1	\$62	\$99	\$164
Firm #2	\$73	\$83	\$104	\$135
Firm #3	\$68	\$63	\$125	\$175
Firm #4	\$72	\$77	\$120	\$157

B. Calculation of Overall Average Engineering Hourly Billing Rate

Average Hourly Billing Rate (From Above)	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer	Weighted Average
	\$69	\$80	\$128	\$162	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$21	\$28	\$32	\$16	<b>\$97</b>

Source: Information provided by American Water Works Service Company

**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

12 Months Ended June 30, 2007			
Service Provider	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 106	\$ 250	\$ (144)
Management Consultant	\$ 124	\$ 212	\$ (88)
Certified Public Accountant	\$ 81	\$ 114	\$ (33)
Professional Engineer	\$ 66	\$ 97	\$ (31)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to IAWC during the 12 months ending June 30, 2007, outside service providers would have cost \$7,522,703 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are almost 51% higher than those of the Service Company (\$7,522,703 / \$14,702,513).

12 Months Ended June 30, 2007			
Service Provider	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (144)	5,062	\$ (729,957)
Management Consultant	\$ (88)	36,342	\$ (3,200,321)
Certified Public Accountant	\$ (33)	64,686	\$ (2,108,937)
Professional Engineer	\$ (31)	47,222	\$ (1,483,488)
Service Company Less Than Outside Providers			\$ (7,522,703)

If IAWC were to use outside service providers rather than the Services Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 153,312 hours of work (over 100 full-time equivalents at 1,500 "billable" hours per FTE per year) would add a significant workload to the existing IAWC management team. Thus, it would be necessary for IAWC to add at least two positions to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill these positions would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, these positions would add another \$304,000 per year to IAWC's personnel expenses.

Cost of Adding Administrative Positions To IAWC's Staff

	Per Position	Total
New Positions' (2) Salary	\$ 100,000	\$ 200,000
Benefits (at 52%)	\$ 52,000	\$ 104,000
Total Cost of the New Positions		\$ 304,000

Thus, the total effect on the ratepayers of IAWC of contracting all services now provided by Service Company would be an increase in their costs of \$7,826,703 (\$7,522,703 + \$304,000).

**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%
2005	24	25%
2006	24	31%

These studies provide additional evidence that the Service Company arrangement is the lowest-cost alternative for IAWC.

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**V – Customer Account Services Cost Comparison**

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**Background**

It is difficult to compare the cost of American Water's National Call Centers with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, IAWC's National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC's chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study's comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA).

Schedule 9 provides FERC's description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

<p><b><u>903 Records and Collection Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls</li><li>• Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications</li><li>• Customer billing – bill printing, stuffing and mailing</li><li>• Remittance processing – processing of customer payments received in the mail</li><li>• Bill payment centers – locations where customers can pay their bills in person</li></ul> <p><b><u>905 Miscellaneous Customer Accounts Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Information System IT – maintenance and support of the customer information system</li></ul>
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This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

**Illinois American Water Company**  
**FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

**Illinois American Water Company**  
**FERC Account Descriptions**

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.



**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

Illinois	<ul style="list-style-type: none"> <li>• Central Illinois Light</li> <li>• Central Illinois Public Service</li> </ul>	<ul style="list-style-type: none"> <li>• Commonwealth Edison</li> <li>• Illinois Power</li> </ul>
Iowa	<ul style="list-style-type: none"> <li>• Interstate Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• MidAmerican Energy</li> </ul>
Wisconsin	<ul style="list-style-type: none"> <li>• Madison Gas &amp; Electric</li> <li>• Northern States Power – Wis</li> <li>• Northwestern Wisconsin Elect</li> <li>• So. Beloit Light &amp; Power</li> </ul>	<ul style="list-style-type: none"> <li>• Superior Water, Light &amp; Pwr</li> <li>• Wisconsin Electric Power</li> <li>• Wisconsin Power &amp; Light</li> <li>• Wisconsin Public Service</li> </ul>
Missouri	<ul style="list-style-type: none"> <li>• Aquila Inc.</li> <li>• Kansas City Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• Union Electric</li> </ul>
Kentucky	<ul style="list-style-type: none"> <li>• Duke Energy – Kentucky</li> <li>• Kentucky Power</li> </ul>	<ul style="list-style-type: none"> <li>• Kentucky Utilities</li> <li>• Louisville Gas &amp; Electric</li> </ul>
Indiana	<ul style="list-style-type: none"> <li>• Duke Energy – Indiana</li> <li>• Indiana Michigan Power</li> <li>• Indiana Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• NIPSCO</li> <li>• So. Indiana Gas &amp; Electric</li> </ul>

Some neighboring electric utilities could not be included in the comparison group because they did not submit the necessary FERC Form 1 data.

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. IAWC's cost pool was developed to include the same expenses included in electric utility's FERC accounts 903 and 905. As shown in the graphic below, IAWC's resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u> Pensacola & Alton Call Centers a. Customer contact b. Customer order processing c. Billing information processing d. Collections e. Correspondence processing f. Customer payment processing <u>Operating Company</u> a. Postage and forms

Electric Utilities
FERC Acct 903 - Records and Collection Expense <u>and</u> FERC Acct 905 - Misc Customer Accounts Expense a. Customer contact b. Customer order processing c. Bill preparation and mailing d. Collections e. Payment processing f. Correspondence processing



**IAWC Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to IAWC. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.28 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, IAWC's adjusted annual expense per customer is \$32.18—the number that can be compared to neighboring electric utilities' expenses.

Illinois American 12 Months Ended June 30, 2007 Cost Per Customer		Service Co	Adjustment Fewer Calls For	Adjusted
Cost Component		Charges	Water Cos. (A)	
Service Company				
Call Centers	Call processing, order processing, credit, bill collection	\$ 3,836,943	\$ 3,657,086	\$ 7,494,028
Regional Offices		\$ 541,844		\$ 541,844
Service Company	Customer payment processing			\$ 454,284
Operating Company	Postage & forms			\$ 1,295,703
			Cost Pool Total	\$ 9,785,858
			Total Customers	304,072
				<u>\$ 32.18</u>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Test year annualized Call Center charges	\$ 3,836,943
Electric utility industry's avg calls/customer	2.50
American Water's avg calls/customer	1.28
Percent different	95%
Total Adjustment B	\$ 3,657,086

Note B: Estimated customer payment processing expenses

Number of customers	304,072
Number of payments/customer/year	12
Total payments processed/year	3,648,864
Bank charge per item	\$ 0.1245
Total estimated annual expense	\$ 454,284

### Electric Utility Group Cost Per Customer

Schedule 9 shows the actual 2006 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

### Summary Of Results

As shown in the table below, IAWC's cost per customer is within the range of the electric utility comparison group. It can therefore be concluded that the customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to IAWC are reasonable.

<b>Average Customer Accounts Expense Per Customer</b>	
Wisconsin Power & Light	\$ 12.99
Louisville Gas & Electric	\$ 13.46
Interstate Power & Light	\$ 13.79
Superior Water, Light & Power	\$ 17.56
Southern Indiana Gas & Electric	\$ 19.48
Indianapolis Power & Light	\$ 20.40
Wisconsin Electric Power	\$ 20.53
Illinois Power	\$ 20.92
Northern States Power (Wisconsin)	\$ 23.00
Union Electric	\$ 23.23
Kansas City Power & Light	\$ 24.00
Central Illinois Public Service	\$ 25.84
Kentucky Utilities	\$ 27.14
<b>Comparison Group Average</b>	<b>\$ 27.65</b>
Northwestern Wisconsin Electric	\$ 27.87
MidAmerican Energy	\$ 28.71
Aquila	\$ 29.90
Duke Energy Indiana	\$ 30.16
Indiana Michigan Power	\$ 30.76
<b>Illinois American Water</b>	<b>\$ 32.18</b>
Commonwealth Edison	\$ 33.33
Central Illinois Light	\$ 34.54
Kentucky Power	\$ 35.75
Duke Energy Kentucky	\$ 39.46
Northern Indiana Public Service	\$ 41.08
Wisconsin Public Service	\$ 42.72
Madison Gas & Electric	\$ 43.63

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Schedule 9  
Page 1 of 4

**Illinois American Water Company  
Comparison Group 2006 Actual Customer Accounts Expense Per Customer**

	Illinois				Iowa	
	Central Illinois Light	Central Illinois Pub Service	Comm Edison	Illinois Power	Interstate Power & Light	MidAmerica Energy
\$ 5,779,124	\$ 8,326,451	\$ 100,156,711	\$ 10,983,933	\$ 5,758,308	\$ 13,972,648	
\$ 241,537	\$ 350,812	\$ -	\$ 645,956	\$ 30,160	\$ 484,674	
\$ 6,020,661	\$ 8,677,263	\$ 100,156,711	\$ 11,629,889	\$ 5,788,468	\$ 14,457,322	
\$ 911,760	\$ 908,070	\$ 20,194,194	\$ 888,675	\$ 1,314,962	\$ 4,348,182	
\$ 320,091	\$ 438,848	\$ 4,770,329	\$ 375,412	\$ 319,916	\$ 1,575,023	
<b>\$ 7,252,512</b>	<b>\$ 10,024,181</b>	<b>\$ 125,121,234</b>	<b>\$ 12,893,976</b>	<b>\$ 7,423,346</b>	<b>\$ 20,380,527</b>	
209,990	387,934	3,754,162	616,239	538,258	709,861	
<b>\$ 34.54</b>	<b>\$ 25.84</b>	<b>\$ 33.33</b>	<b>\$ 20.92</b>	<b>\$ 13.79</b>	<b>\$ 28.71</b>	
\$ 7,566,312	\$ 9,327,733	\$ 84,071,540	\$ 7,324,915	\$ 29,389,292	\$ 41,820,167	
\$ 34,722,827	\$ 58,926,307	\$ 259,602,825	\$ 40,448,829	\$ 93,465,164	\$ 198,017,413	
21.8%	15.8%	32.4%	18.1%	31.4%	21.1%	
\$ 3,030,390	\$ 5,651,310	\$ 80,457,255	\$ 7,888,565	\$ 6,206,724	\$ 16,440,343	
\$ 2,529,882	\$ 2,627,496	\$ -	\$ -	\$ 2,275,016	\$ 14,795,551	
\$ 5,560,272	\$ 8,278,806	\$ 80,457,255	\$ 7,888,565	\$ 8,481,740	\$ 31,235,894	
\$ 5,779,124	\$ 8,326,451	\$ 100,156,711	\$ 10,983,933	\$ 5,758,308	\$ 13,972,648	
\$ 241,537	\$ 350,812	\$ -	\$ 645,956	\$ 30,160	\$ 484,674	
\$ 6,020,661	\$ 8,677,263	\$ 100,156,711	\$ 11,629,889	\$ 5,788,468	\$ 14,457,322	
\$ 1,980,053	\$ 3,845,433	\$ 29,071,798	\$ 7,065,186	\$ 5,951,711	\$ 7,476,607	
\$ 8,000,714	\$ 12,522,696	\$ 129,228,509	\$ 18,695,075	\$ 11,740,179	\$ 21,933,929	
75.3%	69.3%	77.5%	62.2%	49.3%	65.9%	
\$ 4,184,191	\$ 5,736,574	\$ 62,357,247	\$ 4,907,342	\$ 4,181,902	\$ 20,588,531	
\$ 911,760	\$ 908,070	\$ 20,194,194	\$ 888,675	\$ 1,314,962	\$ 4,348,182	
\$ 4,184,191	\$ 5,736,574	\$ 62,357,247	\$ 4,907,342	\$ 4,181,902	\$ 20,588,531	
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	
\$ 320,091	\$ 438,848	\$ 4,770,329	\$ 375,412	\$ 319,916	\$ 1,575,023	

**Customer Account Services Cost Pool**

FERC Account Balances:  
Acct 903 - Customer Records & Collection (page 322, line 161)  
Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt  
Account 926 - Employee Pension & Benefits (page 323, line 187)  
Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B:** Calculation of Employer's FICA Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA

Witness: Patrick Baryenbruch  
Schedule 9  
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**Illinois American Water Company**  
**Comparison Group 2006 Actual Customer Accounts Expense Per Customer**

Wisconsin						
Madison Gas & Electric	NSP - Wisconsin	Northwestern Wis Electric	Superior W, L&P	Wis Electric Power	Wis Power & Light	Wis Public Service
\$ 4,205,856	\$ 4,545,777	\$ 273,223	\$ 188,845	\$ 18,912,041	\$ 4,615,649	\$ 6,127,292
\$ 38,622	\$ 443,712	\$ -	\$ 9,527	\$ 90,846	\$ (178,324)	\$ 5,785,903
\$ 4,244,478	\$ 4,989,489	\$ 273,223	\$ 198,372	\$ 19,002,887	\$ 4,437,325	\$ 11,913,195
\$ 1,332,722	\$ 594,529	\$ 71,657	\$ 35,344	\$ 2,679,553	\$ 1,240,141	\$ 5,250,559
\$ 385,277	\$ 284,614	\$ 16,659	\$ 20,992	\$ 850,774	\$ 240,289	\$ 1,031,418
\$ 5,962,477	\$ 5,868,632	\$ 361,539	\$ 254,708	\$ 22,533,213	\$ 5,917,756	\$ 18,195,172
136,658	255,125	12,973	14,508	1,097,510	455,449	425,928
\$ 43.63	\$ 23.00	\$ 27.87	\$ 17.56	\$ 20.53	\$ 12.99	\$ 42.72
\$ 10,447,852	\$ 6,786,941	\$ 594,548	\$ 608,651	\$ 64,651,810	\$ 28,901,712	\$ 42,884,098
\$ 39,481,969	\$ 42,471,362	\$ 1,806,780	\$ 4,725,346	\$ 268,331,124	\$ 73,202,441	\$ 110,119,464
26.5%	16.0%	32.9%	12.9%	24.1%	39.5%	38.9%
\$ 2,882,319	\$ 4,264,116	\$ 392,360	\$ 224,055	\$ 12,054,597	\$ 5,145,197	\$ 8,200,700
\$ 2,563,355	\$ 1,525,286	\$ -	\$ 175,700	\$ 4,298,427	\$ 1,412,904	\$ 5,572,834
\$ 5,445,674	\$ 5,789,402	\$ 392,360	\$ 399,755	\$ 16,353,024	\$ 6,558,101	\$ 13,773,534
\$ 4,205,856	\$ 4,545,777	\$ 273,223	\$ 188,845	\$ 18,912,041	\$ 4,615,649	\$ 6,127,292
\$ 38,622	\$ 443,712	\$ -	\$ 9,527	\$ 90,846	\$ (178,324)	\$ 5,785,903
\$ 4,244,478	\$ 4,989,489	\$ 273,223	\$ 198,372	\$ 19,002,887	\$ 4,437,325	\$ 11,913,195
\$ 4,589,492	\$ 7,764,165	\$ 492,292	\$ 288,985	\$ 27,942,484	\$ 9,264,588	\$ 12,170,273
92.5%	64.3%	55.5%	68.6%	68.0%	47.9%	97.9%
\$ 5,036,297	\$ 3,720,446	\$ 217,761	\$ 274,400	\$ 11,121,226	\$ 3,141,038	\$ 13,482,590
\$ 1,332,722	\$ 594,529	\$ 71,657	\$ 35,344	\$ 2,679,553	\$ 1,240,141	\$ 5,250,559
\$ 5,036,297	\$ 3,720,446	\$ 217,761	\$ 274,400	\$ 11,121,226	\$ 3,141,038	\$ 13,482,590
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
\$ 385,277	\$ 284,614	\$ 16,659	\$ 20,992	\$ 850,774	\$ 240,289	\$ 1,031,418

**Note A:** Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)  
**Total Cost Pool**  
Total Customers (page 304, line 43)  
**Customer Account Services Expense per Customer**

**Note B:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt  
Account 926 - Employee Pension & Benefits (page 323, line 187)  
Total O&M Payroll (page 355, line 65)  
Benefits as Percent of Payroll  
Payroll Applicable to Customer Account Services  
Total Payroll Charged to Customer Accounts Function  
Electric (page 354, line 7)  
Gas (page 354, line 37)  
Total Payroll Charged to Customer Accounts  
Percent Applicable to Customer Accounts Services (903 and 905):  
Acct 903 - Customer Records & Collection (page 322, line 161)  
Acct 905 - Misc Customer Accounts (page 322, line 163)  
Subtotal - Total Charges Applicable to Customer Accounts Services  
Acct 902 - Meter Reading Expenses (page 322, line 160)  
Total Charges Applicable to Customer Accounts Svcs & Meter Reading  
Percent Applicable to Customer Accounts Services (903 and 905)  
Customer Account Services Portion of Total Payroll  
Pension & Benefits Pertaining to Customer Accounts Services  
Customer Account Services Portion of Total Payroll  
Employer's Portion of FICA (6.20% and Medicare (1.45%))  
Estimated Employer's Portion of FICA

Witness: Patrick Baryenbruch  
Schedule 9  
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**Illinois American Water Company  
Comparison Group 2006 Actual Customer Accounts Expense Per Customer**

	Missouri				Kentucky			
	Aquila	Kansas City Pwr & Light	Union Electric	Duke Energy Kentucky	Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	
<b>Customer Account Management Cost Pool</b>								
FERC Account Balances:								
Acct 903 - Customer Records & Collection (page 322, line 131)	\$ 10,189,732	\$ 10,322,640	\$ 23,104,931	\$ 3,332,632	\$ 5,947,615	\$ 11,543,567	\$ 4,361,172	
Acct 905 - Misc Customer Accounts (page 322, line 133)	\$ 4,731	\$ 5,972	\$ 456,938	\$ 6,343	\$ 2,104	\$ 70,757	\$ 248,889	
Subtotal	\$ 10,194,463	\$ 10,328,612	\$ 23,561,869	\$ 3,338,975	\$ 5,949,719	\$ 11,614,324	\$ 4,610,061	
Add: Employee Benefits & Employer FICA (not included in above amounts)								
Account 926 - Employee Pension & Benefits	\$ 3,087,027	\$ 1,358,942	\$ 2,888,787	\$ 1,031,926	\$ 232,836	\$ 2,465,044	\$ 652,046	
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)	\$ 608,226	\$ 397,865	\$ 747,238	\$ 274,415	\$ 94,616	\$ 249,993	\$ 87,152	
<b>Total Cost Pool</b>	<b>\$ 13,889,716</b>	<b>\$ 12,085,419</b>	<b>\$ 27,197,894</b>	<b>\$ 4,645,316</b>	<b>\$ 6,277,171</b>	<b>\$ 14,329,361</b>	<b>\$ 5,349,259</b>	
Total Customers (page 304, line 43)	464,588	503,517	1,170,738	117,722	175,571	527,907	397,331	
<b>Customer Account Services Expense per Customer</b>	<b>\$ 29.90</b>	<b>\$ 24.00</b>	<b>\$ 23.23</b>	<b>\$ 39.46</b>	<b>\$ 35.75</b>	<b>\$ 27.14</b>	<b>\$ 13.46</b>	
<b>Note A:</b> Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt								
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 36,457,466	\$ 41,555,196	\$ 85,099,288	\$ 8,999,663	\$ 3,888,690	\$ 28,229,324	\$ 24,717,445	
Total O&M Payroll (page 355, line 65)	\$ 93,896,620	\$ 159,037,193	\$ 287,745,228	\$ 31,284,068	\$ 20,656,477	\$ 37,423,258	\$ 43,185,745	
Benefits as Percent of Payroll	38.8%	26.1%	29.6%	28.8%	18.8%	75.4%	57.2%	
Payroll Applicable to Customer Account Services								
Total Payroll Charged to Customer Account Services Function	\$ 7,299,421	\$ 7,405,801	\$ 13,589,950	\$ 2,925,473	\$ 1,496,370	\$ 4,588,293	\$ 880,094	
Electric (page 354, line 7)	\$ 4,347,912	\$ -	\$ 3,160,299	\$ 1,823,135	\$ -	\$ -	\$ 757,336	
Gas (page 354, line 37)	\$ 11,647,333	\$ 7,405,801	\$ 16,750,249	\$ 4,748,608	\$ 1,496,370	\$ 4,588,293	\$ 1,637,430	
Percent Applicable to Customer Accounts								
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 10,189,732	\$ 10,322,640	\$ 23,104,931	\$ 3,332,632	\$ 5,947,615	\$ 11,543,567	\$ 4,361,172	
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ 4,731	\$ 5,972	\$ 456,938	\$ 6,343	\$ 2,104	\$ 70,757	\$ 248,889	
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 10,194,463	\$ 10,328,612	\$ 23,561,869	\$ 3,338,975	\$ 5,949,719	\$ 11,614,324	\$ 4,610,061	
Acct 902 - Meter Reading Expenses (page 322, line 160)	\$ 4,739,910	\$ 4,378,916	\$ 16,842,962	\$ 1,081,142	\$ 1,248,628	\$ 4,692,871	\$ 2,015,982	
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	\$ 14,934,373	\$ 14,707,528	\$ 40,404,831	\$ 4,420,117	\$ 7,198,347	\$ 16,307,195	\$ 6,626,043	
Percent Applicable to Customer Accounts Services (903 and 905)	68.3%	70.2%	58.3%	75.5%	82.7%	71.2%	69.6%	
Customer Account Services Portion of Total Payroll	\$ 7,950,672	\$ 5,200,850	\$ 9,767,821	\$ 3,587,118	\$ 1,236,809	\$ 3,267,878	\$ 1,139,240	
Pension & Benefits Pertaining to Customer Accounts Services	\$ 3,087,027	\$ 1,358,942	\$ 2,888,787	\$ 1,031,926	\$ 232,836	\$ 2,465,044	\$ 652,046	
Customer Account Services Portion of Total Payroll	\$ 7,950,672	\$ 5,200,850	\$ 9,767,821	\$ 3,587,118	\$ 1,236,809	\$ 3,267,878	\$ 1,139,240	
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	\$ 608,226	\$ 397,865	\$ 747,238	\$ 274,415	\$ 94,616	\$ 249,993	\$ 87,152	
Estimated Employer's Portion of FICA								

**Customer Account Management Cost Pool**

FERC Account Balances:  
Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt  
Account 926 - Employee Pension & Benefits (page 323, line 187)  
Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Account Services Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Percent Applicable to Customer Accounts

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



Witness: Patrick Baryenbruch  
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**Illinois American Water Company  
Comparison Group 2006 Actual Customer Accounts Expense Per Customer**

**Customer Account Services Cost Pool**

FERC Account Balances:  
Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

		Indiana			So Indiana Gas & Electric
	Duke Energy Indiana	Indiana Michigan Pwr	Indianapolis Power & Light	NIPSCO	
	\$ 18,117,442	\$ 16,610,048	\$ 7,603,902	\$ 13,156,536	\$ 2,969,508
	\$ 57,534	\$ 12,309	\$ 71,252	\$ 137,286	\$ 151,126
	\$ 18,174,976	\$ 16,622,357	\$ 7,675,154	\$ 13,293,822	\$ 3,120,634
<b>Note A</b>	\$ 4,237,121	\$ 892,045	\$ 1,555,051	\$ 4,084,026	\$ 2,824
<b>Note B</b>	\$ 696,664	\$ 352,614	\$ 293,531	\$ 1,143,737	\$ 150,378
	\$ <b>23,108,761</b>	\$ <b>17,867,016</b>	\$ <b>9,523,735</b>	\$ <b>18,521,585</b>	\$ <b>3,273,836</b>
	766,165	580,891	466,833	450,819	168,069
	\$ <b>30.16</b>	\$ <b>30.76</b>	\$ <b>20.40</b>	\$ <b>41.08</b>	\$ <b>19.48</b>
	\$ 72,322,016	\$ 31,195,475	\$ 37,890,227	\$ 27,645,570	\$ 40,455
	\$ 155,439,571	\$ 161,191,645	\$ 93,492,125	\$ 101,204,934	\$ 28,159,930
	46.5%	19.4%	40.5%	27.3%	0.1%
	\$ 12,564,124	\$ 5,630,709	\$ 6,593,347	\$ 6,733,185	\$ 1,482,695
	\$ -	\$ -	\$ -	\$ 11,231,830	\$ 1,315,238
	\$ 12,564,124	\$ 5,630,709	\$ 6,593,347	\$ 17,965,015	\$ 2,797,933
	\$ 18,117,442	\$ 16,610,048	\$ 7,603,902	\$ 13,156,536	\$ 2,969,508
	\$ 57,534	\$ 12,309	\$ 71,252	\$ 137,286	\$ 151,126
	\$ 18,174,976	\$ 16,622,357	\$ 7,675,154	\$ 13,293,822	\$ 3,120,634
	\$ 6,900,209	\$ 3,683,346	\$ 5,513,507	\$ 2,680,146	\$ 1,321,154
	\$ 25,075,185	\$ 20,305,703	\$ 13,188,661	\$ 15,973,968	\$ 4,441,788
	72.5%	81.9%	58.2%	83.2%	70.3%
	\$ 9,106,719	\$ 4,609,328	\$ 3,837,005	\$ 14,950,807	\$ 1,965,723
	\$ 4,237,121	\$ 892,045	\$ 1,555,051	\$ 4,084,026	\$ 2,824
<b>Note B</b>	\$ 9,106,719	\$ 4,609,328	\$ 3,837,005	\$ 14,950,807	\$ 1,965,723
	7.65%	7.65%	7.65%	7.65%	7.65%
	\$ 696,664	\$ 352,614	\$ 293,531	\$ 1,143,737	\$ 150,378

		Group Average
	\$	\$ 311,105,583
	\$	\$ 9,168,666
	\$	\$ 320,274,249
	\$	\$ 62,258,023
	\$	\$ 15,726,068
	\$	\$ <b>398,258,340</b>
	\$	\$ 14,404,746
	\$	\$ <b>27.65</b>
	\$	\$ 732,416,386
	\$	\$ 2,438,038,645
		30.0%
		22,402,739.3
		604,122,011
	\$	\$ 284,439,594
	\$	\$ 311,105,583
	\$	\$ 9,168,666
	\$	\$ 320,274,249
	\$	\$ 12,794,288.1
	\$	\$ 448,217,130
	\$	\$ 71.5%
	\$	\$ 205,569,515
	\$	\$ 61,755,576
	\$	\$ 205,569,515
	\$	\$ 7.65%
	\$	\$ 15,726,068

**Note A**  
**Note B**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20% and Medicare (1.45%))

Estimated Employer's Portion of FICA

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## VI - Need For Service Company Services

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### Analysis Of Services

The final aspect of this study was an assessment of whether the services that are provided to IAWC by the Service Company would be necessary if IAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for IAWC. Based on discussions with Service Company personnel, the matrix in Schedule 10 was created showing which entity—IAWC or a Service Company location—is responsible for each of the functions IAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 10, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if IAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to IAWC. For all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.

**Designation Of Responsibility For Water Utility Functions**

	IAWC	Performed By:							
		Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab		
<b>Primarily Responsible</b>	<b>P</b>								
<b>Provides Support</b>	<b>S</b>								
Water Company Function									
<b>Engineering and Construction Management</b>									
CPS Preparation	S		P				S		
Five-Year System Planning	S		P						
Engineering Standards & Policies Development									
Project Design									
Major Projects (e.g., new treatment plant)	S		P				S		
Special Projects	S		P				S		
Minor Projects (e.g., pipelines)	P								
Construction Project Management									
Major Projects	S		P						
Special Projects	S		P						
Minor Projects	P								
Hydraulics Review	P		S						
Developers Extensions	P								
Tank Painting	S		P						
<b>Water Quality and Purification</b>									
Water Quality Standards Development									
Research Studies	S		S				P		S
Water Quality Program Implementation	P		S				P		S
Water Treatment Operations & Maintenance	P		S				S		
Compliance Tracking and Chemical Testing	S		S				S		P
Sample Collection and Other Testing	P		S				S		S
<b>Transmission and Distribution</b>									
Preventive Maintenance Program Development	P								
System Maintenance	P								
Leak Detection	P		S						
<b>Customer Service</b>									
Community Relations	S		P				S		
Customer Contact	S								
Call Processing									
Service Order Creation	S		S						
Service Order Processing	P		S						
Customer Credit									
Meter Reading	P		S						S
Customer Bill Preparation									
Bill Collection	S		S						P
Customer Payment Processing	S		S						S
Meter Standards Development									
Meter Testing, Maintenance & Replacement	P		S				P		



**Designation Of Responsibility For Water Utility Functions**

Water Company Function	IAWC	Performed By:							
		Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab		
<b>Primarily Responsible P Provides Support S</b>									
Financial Management									
Financial Planning	S		P	S	S				
Financings—Equity			P	S	S				
Financings—Long Term Debt & Preferred (A)			P	S	S				
Short Term Lines of Credit Arrangements (A)			S	S	S				
Investor Relations			S						
Insurance Program Administration					P				
Loss Control/Safety Program Administration	S		P		S				
Pension Fund Asset Management					P				
Cash Management/Disbursements									
<b>Internal Auditing</b>									
<b>Budgeting and Variance Reporting</b>									
Corporate Guidelines & Instructions									
Regional Guidelines & Instructions			P				P		
Budget Preparation									
Revenue	S		P						
O&M	S		P						
Depreciation and Interest Expense	S		P						
Budget Preparation--Service Company Charges			P	S	S		S	S	S
Capital Budget Preparation—Projects	S		P						
Capital Budget Preparation—Non-Project Work	S		P						
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	S		P						
Prepare Capital Project Budget Status Report	S		P						
Year-End Projections (A)	S		P						
<b>Accounting and Taxes</b>									
Accounts Payable Accounting	S		S	P					
Payroll Accounting	S		S	P					
Work Order Accounting	S		S	P					
Fixed Asset Accounting	S		S	P					
Journal Entry Preparation--Billing Corrections	S		S	P					
Journal Entry Preparation--All Others	S		S	P					
Financial Statement Preparation	S		S	P					
State Commission Reporting	S		S	P					
Income Taxes—State									
Income Taxes—Federal									
Property Taxes	S		S	P					
Gross Receipts Taxes	S		S	P					

Note A: Financings and lines of credit are the responsibility of American Capital Corporation



### **Governance Practices Associated With Service Company Charges**

There are several ways by which IAWC exercises control over Service Company services and charges. The most important of these are described below.

- **Regional President Oversight** – The Regional President of the Central Region is on the Executive Management Team (EMT) of American Water. The Regional President is responsible for the overall performance of each operating company in the region, including IAWC. As part of the EMT, each Regional President has equal say with other EMT members in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending. The Regional President also serves as a Director on the Board of the Service Company.
- **Regional Vice President & Treasurer** – The Regional Vice President and Treasurer of the Central Region is responsible for the financial reporting, performance and internal controls of each of the operating companies in the region. The Regional Service Delivery and Finance Directors monitor the performance and reporting from the Service Company and pushes back whenever the quality and service are not appropriate.
- **Operating Company Board Oversight** – IAWC board of directors includes the Regional President, Vice President of Operations and Vice President of Finance.
- **Service Company Budget Review/Approval** – Every Regional President sits on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's Executive Management Team, which includes the Regional President. The Regional President, with input from the regional management team has the ability to impact all new initiatives and projects before they are authorized. Projects ultimately must be accounted for in the Service Company Budget, approved by its Board.
- **Service Company Bill Scrutiny** – Operating company personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. Any mistakes or overcharges are credited on a subsequent billing.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, the monthly financial review meetings are held to review various aspects of the financial statements of the Service Company.
- **Operating Company Budget Variance Reporting** – The "Budget/Plan Analysis," produced monthly by each operating company, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date. The Regional President attends the monthly review of the Service Company which includes an analysis of variances in both operating and financial data.
- **Capital Investment Management (CIM)** – Capital investment within American Water is a significant and essential part of the business. It is necessary to maintain regulatory compliance, provide for reliable, efficient, and quality service, keep pace with growth, and

facilitate appropriate infrastructure renewal. American Water's CIM policy supports the following objectives:

- Capital investment plans are developed and aligned with business plan objectives
- Effective technical oversight and governance is in place for individual projects
- Establishes investment strategies that represent value enhancements for customers
- Periodically review investment performance against established objectives and make adjustments to meet business needs

The CIM process was designed to optimize the effectiveness of asset investment. The process is managed at three levels for all American Water companies, including IAWC.

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**Kentucky-American Water Company**  
**Assessment of Service Company Services**  
**Year Ended December 31, 2003**

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## **Kentucky-American Water Company Assessment of Service Company Services**

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## I - Introduction

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### Purpose Of This Study

This study was undertaken to answer three questions:

1. What would be the economic impact on Kentucky-American Water Company (Kentucky-American) if it were to outsource the managerial, professional and technical services that it now receives from American Water Service Company, Inc. (Service Company)?
2. Are the costs of American Water's National Call Center reasonable?
3. Are the services Kentucky-American receives from the Service Company necessary?

### Study Results

Concerning question 1, the following conclusions can be drawn from this study:

- On average, the hourly rates for outside service providers are more than **68% higher** (\$2,078,431 / \$3,023,966) than the Service Company's hourly rates.
- The managerial, professional and technical services provided by the Service Company are vital and could not be procured externally by Kentucky-American without careful supervision on the part of Kentucky-American. If these services were contracted entirely to outside providers, Kentucky-American would have to add at least one more position to manage activities of the outside firms. This position would be essential to ensure a high level of quality service is being provided.
- If all the managerial, professional and technical services now provided by the Service Company had been out-sourced during the 12-months ended December 31, 2003, Kentucky-American and its ratepayers would have incurred an **additional \$2,184,831** in expenses. This amount includes the added cost of outside providers and the cost of one Kentucky-American position needed to direct this outsourced work. This is over **66% more** (\$2,184,831 / \$3,285,681) than the Service Company's total billings to Kentucky-American during the year ended December 31, 2003.
- It would be difficult for Kentucky-American to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.

- Service Company costs that cannot be charged directly to operating companies are allocated on the basis of number of customers. This is a straightforward and entirely reasonable methodology. The cost to administer this allocation technique is lower than alternatives that use multiple factors.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from Kentucky-American ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, **are less than the average of electric utilities in Kentucky and surrounding states.** During the 12-months ended December 31, 2003, the annualized customer accounts cost for Kentucky-American customers was **\$24.38 compared to the 2002 average of \$25.64** for neighboring electric utilities.

Concerning question 3, the following conclusions can be drawn:

- Kentucky-American could not function without the services that are provided to it by the Service Company. These services are the same type of activities that must be carried out by a stand-alone utility company to ultimately provide customers with service.
- There is no redundancy in the services provided by the Service Company and the activities that are performed by Kentucky-American itself.



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## II - Background

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### Overview Of American Water Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Corporate Office – Includes American Water’s executive management and personnel from the various corporate support services; located in Voorhees, New Jersey.
- National Call Center – Performs customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. This single call center facility, located in Alton, Illinois, went into operation in the second quarter of 2001. Kentucky-American transitioned to the National Call Center on October 20, 2003. Previously, this customer service function was performed by employees of Kentucky-American, which incurred the expense on its books.
- National Shared Services Center – In the fourth quarter of 2001, the new Shared Service Center assumed responsibility for various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company’s financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide certain support services to smaller-grouped operating companies that do not have sufficient workloads to support a full-time staff for various support services. These services include rates and revenues, engineering and operations. Kentucky-American is served by the Southeast Regional office.
- Information Technology Service Centers – These data centers operate mainframes and servers used to run corporate and operating company business applications and the email system. Personnel in the locations also support the application software and provide various IT services (e.g., help desk) to operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial, professional and technical employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Office Expense - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Overhead	X	X	These are primarily employee benefit costs that relate directly to labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

### **Charging Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges.

Charges originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries.

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial, professional and technical Service Company employees. Every week, Service Company professional employees complete an electronic time sheet (see Schedule 1) that shows:

- Type of service/activity (e.g., rate case data requests, accounting)
- Operating company (for direct charge)
- Work order (where applicable)
- Formula number (for allocation)
- Authorization number (where applicable).

Kentucky-American Water Company  
Sample Electronic Time Sheet

Time Sheet for Mike Rink - Lotus Notes

File Edit View Create Actions Section Help

Workspace Mike Rink - Inbox SSC - General Accounting - Inbox Time Sheets - SSC # 2 - Time Sheets11... notes

**Time Sheets - SSC # 2**

Employee's Area

Mike Rink  
Employee  
General Acctg./Rates  
Department

03001289 Emp. No. 6Z Dept. No. 04/20/2003 Week Ending 16

DESCRIPTION OF SERVICES	O. H.	CO. NO.	Pay Type	LOC.	W.O. NO.	Task Order	FORM. NO.	AUTH. NO.	TOT. HRS.	CHARGEABLE HOURS						
										Mo	Tu	We	Th	Fr	Sa	Su
Regular	<input type="checkbox"/>		001	NJ			6100		40	8	8	8	8	8	0	0
OT @ 1.5	<input type="checkbox"/>		106						0	0	0	0	0	0	0	0
OT @ 1.0	<input type="checkbox"/>		100						0	0	0	0	0	0	0	0
OT @ 2.0	<input type="checkbox"/>		125						0	0	0	0	0	0	0	0
Vacation	<input type="checkbox"/>		400						0	0	0	0	0	0	0	0
Float Holiday	<input type="checkbox"/>		430						0	0	0	0	0	0	0	0
Holiday	<input type="checkbox"/>		300						0	0	0	0	0	0	0	0
Funeral	<input type="checkbox"/>		566						0	0	0	0	0	0	0	0
Sick	<input type="checkbox"/>		250	NJ			6100		0	0	0	0	0	0	0	0
Sick without pay (Short-Term Disability)	<input type="checkbox"/>		267						0	0	0	0	0	0	0	0

Start Microsoft Excel - 2002 ... Time Sheet for Mike ... [09200] - Account Ledg... 2002 Annual Report Dr... Office 1:22 PM

## Cost Accumulation Process

The Service Company cost accumulation process is illustrated in Schedule 2.

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 13, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 2% of the Hershey Data Center's professional labor is assigned to Kentucky-American during a month, then 2% of that office's monthly administrative labor charges also is assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 2% of the Corporate Office's accumulated professional and support labor is charged to Kentucky-American during the month, then 2% of that month's overhead expenses will be assigned to Kentucky-American.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to Kentucky-American, then 2% of that office's office expenses would be assigned to Kentucky-American. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a state rate case proceeding are charged directly to the operating company whose case is being heard.



Kentucky-American Water Company  
Service Company Cost Accumulation And Assignment Process

**Cost Accumulation**

**Cost Assignment To Operating Companies**

**Labor**

**Other Cost Categories**

Service Company Managers,  
Professional and Technical Labor

Support  
Labor-Related Overheads  
Office Expenses  
Journals and Vouchers

Time (hours) is reported to:  
1. Account (O&M) (direct charged)  
2. Authorizations (O&M) (allocated)  
3. Work Orders (capital) (direct charged)

Ratio calculated for the actual costs for each category  
Support / Labor  
Labor-Related Overheads / Labor  
Office Expenses / Labor  
Journals and Vouchers / Labor

Hours are costed-out based on each person's actual salary  
Dollar amounts accumulated by account, authorization and work order

Ratios are applied to accumulated labor dollars by account, authorization and work order

Cost Accumulation -- Direct Charges

Time Sheet Entries	(a)	
	Labor	
Accounting	\$	
Administrative	\$	
Corporate Secretarial	\$	
Engineering	\$	
Human Resources	\$	
Rate Case	\$	
Construction	\$	
etc..		

Support	Ratios		Office Exp	J&Vs
	Labor Ovhds	Exp		
%	%	%	%	%
%	%	%	%	%
%	%	%	%	%
%	%	%	%	%
%	%	%	%	%
%	%	%	%	%
%	%	%	%	%

Support	Dollar Amounts (b)		Office Exp	J&Vs
	Labor Ovhds	Exp		
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$

(a+b)
Total Costs
\$
\$
\$
\$
\$
\$
\$

Cost Accumulation -- Allocated Charges

Time Sheet Entries	(c)	
	Labor	
Accounting	\$	
Administrative	\$	
Corporate Secretarial	\$	
Engineering	\$	
Human Resources	\$	
Rate Case	\$	
Construction	\$	
etc..		

Support	Ratios		Office Exp	J&Vs
	Labor Ovhds	Exp		
%	%	%	%	%
%	%	%	%	%
%	%	%	%	%
%	%	%	%	%
%	%	%	%	%
%	%	%	%	%
%	%	%	%	%

Support	Dollar Amounts (d)		Office Exp	J&Vs
	Labor Ovhds	Exp		
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$
\$	\$	\$	\$	\$

(c+d)
Total Costs
\$
\$
\$
\$
\$
\$
\$

Operating Company	(e) Direct Charged Work	Allocated Work (f)		Total Costs (e+f)
		# of Customers	% of Total Amount	
California	\$	xxx,xxx	%	\$
Tennessee	\$	xxx,xxx	%	\$
Iowa	\$	xxx,xxx	%	\$
Kentucky	\$	xxx,xxx	%	\$
Maryland	\$	xxx,xxx	%	\$
Missouri	\$	xxx,xxx	%	\$
etc.				

### 2003 Service Company Charges

During the 12-months ended December 31, 2003, the Service Company charged Kentucky-American the following amounts:

	12-Months Ended December 31, 2003 <u>Charges (A)</u>
Labor	\$ 1,759,697.20
Labor-Related Overheads	\$ 545,904.16
Support	\$ 42,165.29
Office Expenses	\$ 355,801.80
Vouchers/JEs	\$ 582,112.60
Total	<u>\$ 3,285,681.05</u>

Note A: includes both O&M expenses and capitalized costs to Kentucky-American

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### **III – Service Company Cost Comparison Approach**

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#### **Study Approach**

The first issue--comparison of Service Company costs to equivalent outside vendors--was evaluated by comparing the cost per hour for work performed by Service Company personnel to the hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on the expenses and hours that were charged to Kentucky-American during the twelve months ended December 31, 2003. Outside providers' billing rates came from surveys of professionals that could perform the services now provided by the Service Company.

The second issue--reasonableness of the National Call Center's costs--was addressed by comparing Kentucky-American's customer accounts expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account expenses can be obtained from the FERC Form 1.

The third issue--the necessity of Service Company services--was first investigated by determining the services provided to Kentucky-American. A determination was then made as to whether these services would be required if Kentucky-American were a stand-alone utility.

During the twelve months ended December 31, 2003, Service Company employees charged 46,015 hours of time to Kentucky-American. As indicated previously, the Service Company billed Kentucky-American \$3,285,681 during that same period.

The cost of Service Company services provided to Kentucky-American during the 12-months ended December 31, 2003 was compared to the following outside benchmarks:

- Managerial, Professional and Technical Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering. The Service Company's cost of these services is compared to the cost that would be charged by outside service providers, including management consultants, attorneys, certified public accountants and professional engineers.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing. The cost of these services is compared to similar costs incurred by investor-owned electric utilities in Kentucky and surrounding states.



During the 12-months ended December 31, 2003, Service Company charges to Kentucky-American can be placed into the following two categories:

	12-Months Ended December 31, 2003	
	Service Company Charges	
	\$ Amount	Hours
Management, Professional and Technical Services	\$ 3,023,966	39,339
Customer Account Services (A)	\$ 261,716	6,676
Total	\$ 3,285,681	46,015

Note A: These amounts include charges from the National Call Center to which Kentucky-American transitioned in Oct. 2003.

The cost comparisons for each of these categories are detailed in the next two sections of this report.

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## **IV – Managerial, Professional And Technical Services Cost Comparison**

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### **Methodology**

This cost comparison quantifies the economic impact on Kentucky-American of outsourcing all managerial, professional and technical services now provided by the Service Company. This is accomplished by comparing the cost per hour for Service Company services to those of outside service providers to whom these duties could be assigned.

The first step was to determine which types of outside providers could assume Service Company services. Based on the nature of these services it was determined that the following outside service providers could perform the categories of services indicated.

- Management Consultants - executive and administrative management, risk management services, human resources and communications services
- Attorneys - corporate secretarial and legal services
- Certified Public Accountants - accounting, financial, information systems and rates and revenues
- Professional Engineers - engineering, operations and water quality services.

It should be noted that the services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for outside professionals that perform the types of services provided by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

The next step was to calculate the Service Company's hourly rate for each of the four outside service provider categories, based on the dollars and hours charged to Kentucky-American during the 12-months ended December 31, 2003.

Hourly billing rates for outside service providers were next determined using information from pertinent surveys.

Finally, the Service Company's average cost per hour was compared to the average cost per hour for outside providers.

### **Service Company Hourly Rates**

Schedule 3 (page 15) details the assignment of management, professional and technical Service Company charges and hours to outsider provider categories for the 12-months ended December 31, 2003.

Certain adjustments to these dollar and hour amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. These adjustments are described below.

- Computer Hardware/Software/Supplies Expenses – Within the Vouchers/Journal Entries expense category are \$29,296 in data center hardware/software leases, maintenance fees and other computer-related payments to outside companies. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.
- Contract Services - The test year includes \$218,155 in Service Company charges associated with existing arrangements with outside professional firms who perform certain corporate-wide services (e.g., financial audit, actuarial services). These professional fees are excluded because the related services have effectively been out-sourced already. These expenses are all in the Vouchers/Journal Entries expense category.
- Travel Expenses – Also within the Vouchers/Journal Entries expense category are \$12,106 in travel expenses for Service Company personnel. Outside service providers bill this to a client in addition to their hourly fees. Here too, it is appropriate to remove this amount from the Service Company hourly rate calculation.

Schedule 4 (page 16) shows how computer hardware/software, outside contract services and travel expense-related Service Company charges are split among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 3 and 4, the Service Company's equivalent costs per hour for the test year ended December 31, 2003 are calculated below.

	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 1,184,890	\$ 25,098	\$ 1,503,350	\$ 310,628	\$ 3,023,966
Less:					
Computer hardware/software	(99)	-	(27,533)	(1,664)	(29,296)
Contract services	(117,107)	(5,691)	(88,372)	(6,985)	(218,155)
Travel expenses	(8,634)	(377)	(2,612)	(484)	(12,106)
Net Expenses (A)	\$ 1,059,050	\$ 19,030	\$ 1,384,833	\$ 301,495	\$ 2,764,408
Total Hours (B)	9,966	123	24,850	4,399	39,339
Average Hourly Rate	\$ 106	\$ 154	\$ 56	\$ 69	

Exhibit Witness: PLB  
Schedule 3

**Kentucky-American Water Company  
Test Year Service Company Charges (December 31, 2003) - Total**

	Test Year Service Company Dollars				Test Year Service Company Hours					
	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total
Belleville Lab				\$ 181,392	\$ 181,392				2,712.75	2,712.75
Call Center				\$ -	\$ -					
Corporate				\$ -	\$ -					
Water Quality/Laboratory										
Information Systems/Billing										
Accounting			\$ 76,084		\$ 76,084			954.58		954.58
Administration	\$ 208,633				\$ 208,633	725.02				725.02
Audit			\$ 21,325		\$ 21,325			334.26		334.26
Communications					\$ 32,076	211.84				211.84
Corporate Secretary	\$ 32,076				\$ 32,076					
Engineering		\$ 20,348			\$ 20,348		71.88			71.88
Finance			\$ 61,712		\$ 61,712			610.84		610.84
Human Resources	\$ 153,562				\$ 153,562	899.62				899.62
Information Systems/Billing					\$ -					
Information Systems/Financial					\$ -					
Operations			\$ 77		\$ 77					
Water Quality/Corporate					\$ 33,477				277.85	277.85
Administration	\$ 216				\$ 25,332				249.83	249.83
Administration	\$ (1,518)				\$ 216					
Corporate Secretary		\$ 394			\$ (1,518)		24.00			24.00
Accounting					\$ 394					
Administration	\$ 7,681		\$ (12,248)		\$ (12,248)					
Human Resources	\$ 1				\$ 7,681	40.00				40.00
Information Systems/Billing					\$ -					
Information Systems/Financial					\$ -					
Administration	\$ 13		\$ 856,033		\$ 856,033			11,194.61		11,194.61
Corporate Secretary		\$ 20			\$ 20					
Human Resources					\$ 18					
Accounting			\$ 238,845		\$ 238,845			6,682.09		6,682.09
Administration	\$ 114,440				\$ 114,440	1,647.01				1,647.01
Finance			\$ 68,500		\$ 68,500			1,475.01		1,475.01
Human Resources	\$ 8,237				\$ 8,237	75.85				75.85
Information Systems/Financial			\$ 147		\$ 147					
Accounting			\$ 12		\$ 12					
Administration	\$ 596,343				\$ 596,343	5,170.99				5,170.99
Corporate Secretary		\$ 4,336			\$ 4,336		27.46			27.46
Engineering					\$ 21,744					
Finance			\$ 118,101		\$ 118,101			2,099.80		2,099.80
Human Resources	\$ 64,632				\$ 64,632	1,191.35				1,191.35
Operations					\$ 229					
Rates and Revenues			\$ 74,763		\$ 74,763			1,499.09		1,499.09
Administration	\$ 240				\$ 240					
Human Resources	\$ 15				\$ 15					
Risk Management	\$ 319				\$ 319	4.38				4.38
Water Quality/Region			\$ 4		\$ 4					
<b>Total Service Company Fees</b>	<b>\$ 1,184,890</b>	<b>\$ 25,098</b>	<b>\$ 1,503,350</b>	<b>\$ 310,628</b>	<b>\$ 3,023,966</b>	<b>9,966.06</b>	<b>123.34</b>	<b>24,850.28</b>	<b>4,399.07</b>	<b>39,338.75</b>

Exhibit Witness: PLB  
Schedule 4

**Kentucky-American Water Company  
Test Year Service Company Charges (December 31, 2003) – Travel, HW/SW and Outside Services**

Charges By Function	Test Year Service Company Charges				Outside Service Provider Category
	Computer HW/SW	Contract Services	Travel Expenses	Total	
Accounting	\$ -	\$ 17,121	\$ 246	\$ 17,366	Certified Public Accountant
Administration	\$ 72	\$ 68,510	\$ 6,981	\$ 75,563	Management Consultant
Audit	\$ -	\$ 9	\$ 262	\$ 271	Certified Public Accountant
Communications	\$ 26	\$ 8,578	\$ 299	\$ 8,904	Management Consultant
Corporate Secretary	\$ -	\$ 5,691	\$ 377	\$ 6,067	Attorney
Engineering	\$ 1,664	\$ 495	\$ 44	\$ 2,203	Professional Engineer
Finance	\$ 12	\$ 10,880	\$ 976	\$ 11,868	Certified Public Accountant
Human Resources	\$ -	\$ 40,020	\$ 1,354	\$ 41,374	Management Consultant
Information Systems/Financial	\$ 27,521	\$ 60,362	\$ 987	\$ 88,870	Certified Public Accountant
Operations	\$ -	\$ 6,946	\$ 197	\$ 7,142	Professional Engineer
Rates and Revenues	\$ -	\$ -	\$ 141	\$ 141	Certified Public Accountant
Water Quality/Corporate	\$ -	\$ (759)	\$ 154	\$ (605)	Professional Engineer
Water Quality/Laboratory	\$ -	\$ 299	\$ 90	\$ 388	Professional Engineer
Water Quality/Regional	\$ -	\$ 4	\$ -	\$ 4	Professional Engineer
<b>Total</b>	<b>\$ 29,296</b>	<b>\$ 218,155</b>	<b>\$ 12,106</b>	<b>\$ 259,557</b>	

Recap By Outside Provider	Test Year Service Company Charges			
	Computer HW/SW	Contract Services	Travel Expenses	Total
Management Consultant	\$ 99	\$ 117,107	\$ 8,634	\$ 125,840
Attorney	\$ -	\$ 5,691	\$ 377	\$ 6,067
Certified Public Accountant	\$ 27,533	\$ 88,372	\$ 2,612	\$ 118,517
Professional Engineer	\$ 1,664	\$ 6,985	\$ 484	\$ 9,133
<b>Total</b>	<b>\$ 29,296</b>	<b>\$ 218,155</b>	<b>\$ 12,106</b>	<b>\$ 259,557</b>



## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each type of outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2003 annual survey performed by the Association of Management Consulting Firms—the industry trade organization. The first step in the calculation, presented in Schedule 5, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2002 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The 2002 average rate was escalated to June 30, 2003—the year's midpoint.

### **Attorneys**

The Kentucky Bar Association does not survey its members as to their hourly billing rates. Therefore, a Kentucky estimate was developed from a survey of Virginia lawyers conducted annually by the Virginia Lawyers Weekly. The average rate for each Virginia firm respondent was adjusted for the cost of living differential between their location and Lexington, Kentucky. The survey includes rates that were in effect at December 31, 2002. Thus, the 2002 average rate was escalated to June 30, 2003—the year's midpoint.

### **Certified Public Accountants**

The average hourly rate for Kentucky certified public accountants was developed from a 2003 survey performed by the American Institute of Certified Public Accountants (AICPA). Hourly rates in the AICPA survey are the average of firms in Kentucky.

The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 7. Using an assumed percent of time on a typical assignment, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2002, thus they had to be escalated to June 30, 2003—the year's midpoint.

### **Professional Engineers**

The Service Company provided hourly rate information for two outside engineering firms that were used by Kentucky-American in 2003. As presented in Schedule 8, an average rate was developed for each engineering position level. Then, using a typical percentage mix position time for an engineering project, a weighted average cost per hour was calculated.



Schedule 5

Kentucky-American Water Company  
Billing Rates of U.S. Management Consultants

A. Calculation of Average Hourly Billing Rate by Consultant Position  
Survey billing rates were those in effect in 2002 (Note A)

		Average Hourly Rates (Note A)				
		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average		\$ 147	\$ 174	\$ 233	\$ 296	\$ 341

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution  
of Time on an Engagement

		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)		\$ 147	\$ 174	\$ 233	\$ 296	\$ 341	
Typical Percent of Time Spent on a Consulting Project		30%	30%	20%	10%	10%	Weighted Average
		\$ 44	\$ 52	\$ 47	\$ 30	\$ 34	<b>\$ 206</b>

Escalation to June 30, 2003 (Note B)

CPI at December 31, 2002	180.9
CPI at June 30, 2003	183.7
Inflation/Escalation	2.8
Billing Rate At June 30, 2003	<b>\$ 212</b>

Note A: Source is "2003 Survey of U.S. Key Management Information," Association of Management Consulting Firms

Note B: Source is US Bureau of Labor Statistics (<http://data.bls.gov/cgi-bin/surveymost>)

## Schedule 6

Kentucky-American Water Company  
Estimated Billing Rates Of Kentucky Attorneys

Billing rates as of December 31, 2002 (Note A)							Cost of Living	Adjusted Rate
Firm	Virginia Location	Number Of Va Lawyers	Billing Rate Range			Adjustment (C)		
			Low	High	Avg			
LeClair Ryan	Richmond	111	\$ 130	\$ 375	\$ 253	90.3%	\$ 228	
Wilcox & Savage	Norfolk	66	\$ 130	\$ 340	\$ 235	92.4%	\$ 217	
Birch, Stewart, Kolasch & Birch	Falls Church	57	\$ 125	\$ 430	\$ 278	55.5%	\$ 154	
Gentry, Locke, Rakes & Moore	Roanoke	53	\$ 100	\$ 350	\$ 225	85.3%	\$ 192	
Cooley Godward	Reston	50	\$ 50	\$ 700	\$ 375	66.7%	\$ 250	
Veneable, Baetjer and Howard	Vienna	43	\$ 155	\$ 460	\$ 308	72.8%	\$ 224	
	Arlington	33	\$ 180	\$ 500	\$ 340	53.7%	\$ 183	
Wickwire Gavin	Vienna	32	\$ 185	\$ 435	\$ 310	72.8%	\$ 226	
Penstuart	Abingdon	31	\$ 110	\$ 225	\$ 168	95.0%	\$ 159	
McCandlish & Holton	Fairfax	26	\$ 175	\$ 410	\$ 293	52.1%	\$ 152	
Rees Broome & Diaz	Vienna	26	\$ 150	\$ 300	\$ 225	72.8%	\$ 164	
Jones, Blechman, Woltz & Kelly	Newport News	25	\$ 50	\$ 150	\$ 100	93.7%	\$ 94	
Bean, Kinney & Korman	Arlington	24	\$ 175	\$ 400	\$ 288	53.7%	\$ 154	
Frame Law Firm	Richmond	24	\$ 175	\$ 300	\$ 238	90.3%	\$ 214	
Kalbaugh, Pfund & Messersmith	Richmond	23	\$ 100	\$ 300	\$ 200	90.3%	\$ 181	
McCandlish & Lillard	Fairfax	22	\$ 125	\$ 350	\$ 238	52.1%	\$ 124	
Patten, Wornom, Hatten & Diamonstein	Newport News	22	\$ 125	\$ 300	\$ 213	93.7%	\$ 199	
DurretteBradshaw	Richmond	20	\$ 150	\$ 365	\$ 258	90.3%	\$ 233	
Thompson & McMullan	Richmond	19	\$ 140	\$ 350	\$ 245	90.3%	\$ 221	
Cantor Arkema	Richmond	18	\$ 135	\$ 260	\$ 198	90.3%	\$ 178	
Blankenship & Keith	Fairfax	17	\$ 165	\$ 350	\$ 258	52.1%	\$ 134	
Michie Hamlett Lowry Rasmussen	Charlottesville	17	\$ 70	\$ 350	\$ 210	92.3%	\$ 194	
Shuttleworth Ruloff Giordano & Swain	Virginia Beach	17	\$ 125	\$ 375	\$ 250	86.7%	\$ 217	
Cooper Spong & Davis	Portsmouth	16	\$ 105	\$ 210	\$ 158	91.0%	\$ 143	
Vanderpool Forstick & Nishanian	Manassas	15	\$ 145	\$ 260	\$ 203	88.8%	\$ 180	
Trichiol Bancroft McGavin Horvath	Fairfax	14	\$ 110	\$ 250	\$ 180	52.1%	\$ 94	
WootenHart	Roanoke	14	\$ 90	\$ 175	\$ 133	85.3%	\$ 113	
Albo & Oblon	Arlington	13	\$ 175	\$ 250	\$ 213	53.7%	\$ 114	
Parker Pollard & Brown	Richmond	13	\$ 110	\$ 275	\$ 193	90.3%	\$ 174	
Walton & Adams	Reston	13	\$ 150	\$ 325	\$ 238	66.7%	\$ 158	
Bowen Champlin Carr & Rockecharlie	Richmond	12	\$ 125	\$ 250	\$ 188	90.3%	\$ 169	
Crenshaw Ware & Martin	Norfolk	12	\$ 120	\$ 250	\$ 185	92.4%	\$ 171	
Redmon Payton & Braswell	Alexandria	12	\$ 75	\$ 350	\$ 213	53.7%	\$ 114	
Overall Average			\$ 128	\$ 332	\$ 230		\$ 173	
<u>Escalation to June 30, 2003 (Note B)</u>								
							CPI at December 31, 2002	180.9
							CPI at June 30, 2003	183.7
							Inflation/Escalation	2.8
							Billing Rate At June 30, 2003	<b>\$ 178</b>

Note A: Source is Virginia Lawyers Weekly, April 28, 2003

Note B: Source is US Bureau of Labor Statistics (<http://data.bls.gov/cgi-bin/surveymost>)

Note C: Represents Lexington, Kentucky's cost of living as a percent of the Virginia city in which the law firm is located.

Source of this information is [www.homefair.com](http://www.homefair.com).

Schedule 7

Kentucky-American Water Company  
Estimated Billing Rates Of Kentucky Certified Public Accountants

A. Calculation of Average Hourly Billing Rate by Public Accounting Position  
Survey billing rates were those in effect in 2002 (Note A)

Type of Firm	Average Hourly Billing Rate (Note A)			
	Staff Accountant	Senior Accountant	Manager	Partner
Larger Firms	\$ 72	\$ 84	\$ 104	\$ 150
Medium-Sized Firms	\$ 67	\$ 78	\$ 87	\$ 122
Average Hourly Rate	\$ 69	\$ 81	\$ 95	\$ 136

B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement

	Staff Accountant	Senior Accountant	Manager	Partner	
Average Hourly Billing Rate (From Above)	\$ 69	\$ 81	\$ 95	\$ 136	
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%	Weighted Average
	\$ 21	\$ 24	\$ 19	\$ 27	\$ 91

Escalation to June 30, 2003 (Note B)

CPI at December 31, 2002	180.9
CPI at June 30, 2003	183.7
Inflation/Escalation	2.8%
Estimated Average Hourly Billing Rate For CPAs At June 30, 2003	<b>\$ 94</b>

Note A: Source is AICPA's 2003 National PCPS/TSCPA Management of an Accounting Practice Survey

Note B: Source is US Bureau of Labor Statistics (<http://data.bls.gov/cgi-bin/surveymost>)

Exhibit Witness: PLB  
Schedule 8

Kentucky-American Water Company  
Billing Rates Of Kentucky Engineers

Note: Billing rates were those in effect in 2003

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer
Firm #1	\$55	\$70	\$122	\$138
Firm #2	\$52	\$79	\$113	\$150

B. Calculation of Overall Average Engineering Hourly Billing Rate

Average Hourly Billing Rate (From Above)	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer	Weighted Average
	\$54	\$75	\$117	\$144	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$16	\$26	\$29	\$14	<b>\$86</b>

Source: Information provided by American Water Works Service Company

**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

12-Months Ended December 31, 2003			
Service Provider	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Management Consultant	\$ 106	\$ 212	\$ (106)
Attorney	\$ 154	\$ 178	\$ (24)
Certified Public Accountant	\$ 56	\$ 94	\$ (38)
Professional Engineer	\$ 69	\$ 86	\$ (17)

Based on these cost per hour differentials and the number of hours that the Service Company billed Kentucky-American during the year ended December 31, 2003 the services themselves would cost significantly more—over \$2,078,000—from outside providers (see table below). Thus, on average, outside provider's hourly rates are 68% higher than those of the Service Company (\$2,078,431 / \$3,023,966).

12-Months Ended December 31, 2003			
Service Provider	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Management Consultant	\$ (106)	9,966	\$ (1,056,396)
Attorney	\$ (24)	123	\$ (2,952)
Certified Public Accountant	\$ (38)	24,850	\$ (944,300)
Professional Engineer	\$ (17)	4,399	\$ (74,783)
Net Service Co Less Than Outside Providers			\$ (2,078,431)

Higher hourly rates are not the only negative economic impact that would result from contracting all Service Company services to outside providers. Managing outside firms who would perform 46,015 hours of work would add a considerable workload to the existing Kentucky-American management team. Thus, it would be necessary for Kentucky-American to add at least one position whose responsibility it would be to supervise the outside firms and ensure they delivered quality services. The individual that would fill this position would need a good understanding of each profession being managed. This person must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$106,400 per year to Kentucky-American's personnel expenses.

Cost of Adding Administrative Position To The Staff of Kentucky-American

New Position's Salary	\$	70,000
Benefits	\$	36,400
Total Cost of the New Position	\$	106,400

Thus, the total effect on the ratepayers of Kentucky-American of contracting all services now provided by Service Company would be an increase in their costs of **\$2,184,831** (\$2,078,531 + \$106,400).

**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%

These studies present further evidence that the Service Company arrangement is the lowest-cost alternative for Kentucky-American.

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## V – Customer Accounts Cost Comparison

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### Background

It is difficult to compare the cost of American Water’s National Call Center with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, Kentucky-American’s National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC’s chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study’s comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer’s portion of FICA).

Schedule 9 provides FERC’s description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

#### **903 Records and Collection Expense**

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing and mailing
- Remittance processing – processing of customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

#### **905 Miscellaneous Customer Accounts Expense**

- Customer Information System IT – maintenance and support of the customer information system

This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

## FERC Account Descriptions

### **903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

#### Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

#### Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

### **905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

#### Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

#### Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.



### Comparison Group

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

Kentucky	<ul style="list-style-type: none"> <li>• Kentucky Power</li> <li>• Kentucky Utilities</li> </ul>	<ul style="list-style-type: none"> <li>• Louisville Gas &amp; Electric</li> <li>• Union Light, Heat &amp; Power</li> </ul>
Illinois	<ul style="list-style-type: none"> <li>• Commonwealth Edison</li> <li>• Illinois Power</li> </ul>	<ul style="list-style-type: none"> <li>• MidAmerica Energy</li> </ul>
Indiana	<ul style="list-style-type: none"> <li>• Indiana Michigan Power</li> <li>• Indianapolis Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• NIPSSCo</li> <li>• Public Service of Indiana</li> </ul>
Missouri	<ul style="list-style-type: none"> <li>• Kansas City Power &amp; Light</li> </ul>	
Ohio	<ul style="list-style-type: none"> <li>• Cincinnati Gas &amp; Electric</li> <li>• Cleveland Electric Illum</li> <li>• Columbus Southern Power</li> <li>• Dayton Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• Ohio Edison</li> <li>• Ohio Power</li> <li>• Toledo Edison</li> </ul>
Tennessee	<ul style="list-style-type: none"> <li>• Kingsport Power</li> </ul>	
Virginia	<ul style="list-style-type: none"> <li>• Appalachian Power</li> </ul>	<ul style="list-style-type: none"> <li>• Virginia Electric Power</li> </ul>
West Virginia	<ul style="list-style-type: none"> <li>• Wheeling Power</li> </ul>	

Several neighboring electric utilities could not be included in the comparison group because they did not submit the necessary FERC Form 1 data.

### Comparison Approach

The basis for this study's comparison is 2002 actual cost per customer. In order to develop this, a cost pool was created for Kentucky-American that was equivalent to the contents of FERC accounts 903 and 905. As shown in the graphic below, Kentucky-American's cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u> Alton Call Center a. Customer contact b. Customer order processing c. Billing information processing d. Collections e. Correspondence processing IT Services a. Support expenses for the customer information system (ORCOM) b. Bill preparation and mailing  <u>Operating Company Customer</u> a. Payment processing

Electric Utilities
FERC Acct 903 - Records and Collection Expense <u>and</u> FERC Acct 905 - Misc Customer Accounts Expense a. Customer contact b. Customer order processing c. Bill preparation and mailing d. Collections e. Payment processing f. Correspondence processing

## Kentucky-American Cost Per Customer

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to Kentucky-American. First, it was necessary to annualize the National Call Center charges because they covered less than 3 full months of 2003. Another adjustment was necessary because the electric utilities experience an average of 2.5 calls per customer compared to American Water's 1.5 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.5 calls per customer level. As shown below, Kentucky-American's adjusted annual expense per customer is \$24.38—the number that can be compared to neighboring electric utilities' expenses.

### Kentucky-American 12/31/03 Test Year Cost Per Customer

Cost Component	12/31/2003 Year Svc Co Charges	Adjustments		Adjusted
		Annualize Call Center Services (A)	Fewer Calls For Water Cos. (B)	
Alton Call Center	Customer service	\$ 239,010	\$ 1,195,049	\$ 2,390,097
IT/Data Centers	Bill preparation and mailing	\$ 22,423		\$ 22,423
Corporate	Customer information system support	\$ 283		\$ 283
Operating Company	Customer payment processing			\$ 164,976
			Cost Pool Total	\$ 2,577,779
			Total Customers	105,754
			<b>2003 Cost Per Kentucky-American Customer</b>	<b>\$ 24.38</b>

#### Note A: Adjustment for full year of Call Center expenses

Ky-Am transitioned to the National Call Center in late October 2003. Thus, the test year charges contain just over 2 full months of Call Center costs. This adjustment creates an full year of charges.

Test Year Alton Call Center Charges (2 months service)	\$ 239,010
Cost per month	\$ 119,505
Additional months	10
Total Adjustment A	\$ 1,195,049

#### Note B: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities.

Test year annualized Call Center charges	\$ 1,434,058	(\$239,009 + \$1,195,049)
Electric utility industry's avg calls/customer	2.50	(source: PA Consulting Group)
American Water's avg calls/customer	1.50	
Percent different	67%	67%
Total Adjustment B	\$ 956,039	

#### Note C: Estimated customer payment processing expenses

Number of customers	105,754
Number of payments/customer/year	12
Total payments processed/year	1,269,048
Bank charge per item	\$ 0.13
Total estimated annual expense	\$ 164,976

### Electric Utility Group Cost Per Customer

Schedule 10 shows the actual 2002 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

### Summary Of Results

As shown in the table below, American Water's cost per customer is below the electric utility comparison group average. Thus, it can be concluded that the customer accounts-related expenses, including those of the Alton Call Center, assigned by the Service Company to Kentucky-American are reasonable.

<b>Average Customer Accounts Expense Per Customer</b>	
Virginia Electric Power	\$ 10.89
Cleveland Electric Illuminating	\$ 10.89
Ohio Edison	\$ 12.09
Louisville Gas & Electric	\$ 12.10
Illinois Power	\$ 13.32
Toledo Edison	\$ 17.28
Indianapolis Power & Light	\$ 17.79
Dayton Power & Light	\$ 21.22
Union Heat, Light & Power	\$ 21.56
MidAmerican Energy	\$ 22.70
<b>Ky-American Water</b>	<b>\$ 24.38</b>
<b>Comparison Group Average</b>	<b>\$ 25.64</b>
Kansas City Power & Light	\$ 26.11
Public Service of Indiana	\$ 26.21
Kentucky Utilities	\$ 26.85
Cincinnati Gas & Electric	\$ 29.05
Indiana Michigan Power	\$ 30.93
Kingsport Power	\$ 31.02
Columbus & Souther Power	\$ 31.63
Ohio Power	\$ 31.87
Appalachian Power	\$ 32.72
Northern Indiana Public Serice	\$ 36.48
Kentucky Power	\$ 36.95
Commonwealth Edison	\$ 39.76
Wheeling Power	\$ 41.38

## Kentucky-American Water Company Comparison Group 2002 Actual Customer Accounts Expense Per Customer

	West Virginia			Kentucky				Virginia	
	Wheeling Power	Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	Union Light, Heat & Power	Appalachian Power	Virginia Electric Power		
\$	1,594,123	\$ 5,939,656	\$ 5,824,785	\$ 3,041,374	\$ 2,266,316	\$ 27,320,386	\$ 17,672,377		
\$	24,767	\$ 129,581	\$ 5,512,855	\$ 898,967	\$ 143,208	\$ 740,150	\$ 1,208		
\$	1,618,890	\$ 6,069,237	\$ 11,337,640	\$ 3,940,341	\$ 2,409,524	\$ 28,060,536	\$ 17,673,585		
\$	67,559	\$ 227,634	\$ 1,856,488	\$ 574,078	\$ 180,762	\$ 1,408,109	\$ 3,980,177		
\$	23,585	\$ 97,172	\$ 302,350	\$ 99,653	\$ 148,789	\$ 661,338	\$ 1,998,602		
\$	<b>1,710,034</b>	\$ <b>6,394,043</b>	\$ <b>13,496,478</b>	\$ <b>4,614,072</b>	\$ <b>2,739,076</b>	\$ <b>30,129,983</b>	\$ <b>23,652,364</b>		
\$	41,330	\$ 173,050	\$ 502,698	\$ 381,358	\$ 127,058	\$ 920,835	\$ 2,171,975		
\$	<b>41.38</b>	\$ <b>36.95</b>	\$ <b>26.85</b>	\$ <b>12.10</b>	\$ <b>21.56</b>	\$ <b>32.72</b>	\$ <b>10.89</b>		
\$	777,655	\$ 4,551,631	\$ 16,624,301	\$ 15,872,558	\$ 1,866,527	\$ 22,213,375	\$ 74,277,444		
\$	4,378,648	\$ 31,338,538	\$ 43,668,605	\$ 44,499,981	\$ 24,780,314	\$ 168,271,409	\$ 601,574,245		
\$	17.8%	14.5%	38.1%	35.7%	7.5%	13.2%	12.3%		
\$	380,399	\$ 1,567,290	\$ 4,876,610	\$ 1,607,304	\$ 2,399,828	\$ 10,666,749	\$ 32,235,518		
\$	67,559	\$ 227,634	\$ 1,856,488	\$ 574,078	\$ 180,762	\$ 1,408,109	\$ 3,980,177		
\$	380,399	\$ 1,567,290	\$ 4,876,610	\$ 1,607,304	\$ 2,399,828	\$ 10,666,749	\$ 32,235,518		
\$	6.20%	6.20%	6.20%	6.20%	6.20%	6.20%	6.20%		
\$	23,585	\$ 97,172	\$ 302,350	\$ 99,653	\$ 148,789	\$ 661,338	\$ 1,998,602		

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA

## Kentucky-American Water Company Comparison Group 2002 Actual Customer Accounts Expense Per Customer

Ohio										
Cin Gas & Electric	Cleveland Electric Illum.	Columbus Southern Pwr	Dayton Power & Light	Ohio Edison	Ohio Power	Toledo Edison				
\$ 15,391,668	\$ 5,331,957	\$ 20,197,457	\$ 9,383,999	\$ 8,666,153	\$ 20,321,157	\$ 3,855,388				
\$ 601,148	\$ 119,506	\$ 352,442	\$ -	\$ 372,327	\$ 327,998	\$ 112,845				
\$ 15,992,816	\$ 5,451,463	\$ 20,549,899	\$ 9,383,999	\$ 9,038,480	\$ 20,649,155	\$ 3,968,233				
\$ 2,341,895	\$ 2,297,237	\$ 779,864	\$ 812,604	\$ 2,620,150	\$ 1,247,219	\$ 1,089,122				
\$ 823,015	\$ 432,634	\$ 300,934	\$ 482,728	\$ 526,011	\$ 399,686	\$ 227,729				
<b>\$ 19,157,726</b>	<b>\$ 8,181,334</b>	<b>\$ 21,630,697</b>	<b>\$ 10,679,331</b>	<b>\$ 12,184,642</b>	<b>\$ 22,296,061</b>	<b>\$ 5,285,084</b>				
659,442	751,430	683,800	503,157	1,008,197	699,519	305,860				
<b>\$ 29.05</b>	<b>\$ 10.89</b>	<b>\$ 31.63</b>	<b>\$ 21.22</b>	<b>\$ 12.09</b>	<b>\$ 31.87</b>	<b>\$ 17.28</b>				
\$ 32,110,512	\$ 20,708,696	\$ 13,027,317	\$ 8,557,993	\$ 26,508,997	\$ 32,288,835	\$ 9,074,219				
\$ 182,010,322	\$ 62,903,651	\$ 81,080,218	\$ 81,998,052	\$ 85,836,183	\$ 166,892,657	\$ 30,602,687				
17.6%	32.9%	16.1%	10.4%	30.9%	19.3%	29.7%				
\$ 13,274,440	\$ 6,977,968	\$ 4,853,768	\$ 7,785,934	\$ 8,484,052	\$ 6,446,555	\$ 3,673,049				
\$ 2,341,895	\$ 2,297,237	\$ 779,864	\$ 812,604	\$ 2,620,150	\$ 1,247,219	\$ 1,089,122				
\$ 13,274,440	\$ 6,977,968	\$ 4,853,768	\$ 7,785,934	\$ 8,484,052	\$ 6,446,555	\$ 3,673,049				
6.20%	6.20%	6.20%	6.20%	6.20%	6.20%	6.20%				
\$ 823,015	\$ 432,634	\$ 300,934	\$ 482,728	\$ 526,011	\$ 399,686	\$ 227,729				

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA

## Kentucky-American Water Company Comparison Group 2002 Actual Customer Accounts Expense Per Customer

Missouri		Illinois			Tennessee	
Kansas City Power & Light	Commonwealth Edison	Illinois Power	MidAmerica Energy	Kingsport Power		
\$ 10,760,612	\$ 126,815,956	\$ 6,838,561	\$ 11,429,185	\$ 1,330,216		
\$ 72,595	-	\$ 308,045	\$ 623,726	\$ 24,345		
\$ 10,833,207	\$ 126,815,956	\$ 7,146,606	\$ 12,052,911	\$ 1,354,561		
\$ 1,258,756	\$ 11,200,452	\$ 180,884	\$ 2,351,565	\$ 38,398		
\$ 454,294	\$ 5,361,423	\$ 308,540	\$ 954,688	\$ 16,963		
<b>\$ 12,546,257</b>	<b>\$ 143,377,831</b>	<b>\$ 7,636,030</b>	<b>\$ 15,359,165</b>	<b>\$ 1,409,921</b>		
480,540	3,605,711	573,475	676,669	45,450		
<b>\$ 26.11</b>	<b>\$ 39.76</b>	<b>\$ 13.32</b>	<b>\$ 22.70</b>	<b>\$ 31.02</b>		
\$ 27,986,302	\$ 81,413,380	\$ 4,369,022	\$ 34,523,350	\$ 559,075		
\$ 162,910,652	\$ 628,562,676	\$ 120,200,030	\$ 226,061,121	\$ 3,983,527		
17.2%	13.0%	3.6%	15.3%	14.0%		
\$ 7,327,327	\$ 86,474,560	\$ 4,976,457	\$ 15,398,200	\$ 273,592		
\$ 1,258,756	\$ 11,200,452	\$ 180,884	\$ 2,351,565	\$ 38,398		
\$ 7,327,327	\$ 86,474,560	\$ 4,976,457	\$ 15,398,200	\$ 273,592		
6.20%	6.20%	6.20%	6.20%	6.20%		
\$ 454,294	\$ 5,361,423	\$ 308,540	\$ 954,688	\$ 16,963		

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA

Exhibit Witness: PLB  
Schedule 10  
Page 4 of 4

## Kentucky-American Water Company Comparison Group 2002 Actual Customer Accounts Expense Per Customer

Indiana				
Indiana Michigan Pwr	Indianapolis Power & Light	NIPSCO	Pub Service of Indiana	
\$ 16,075,962	\$ 6,365,701	\$ 13,661,073	\$ 15,001,719	
\$ 316,734	\$ 144,262	\$ 34,335	\$ 224,157	
\$ 16,392,696	\$ 6,509,963	\$ 13,695,408	\$ 15,225,876	
\$ 865,232	\$ 1,156,740	\$ 1,564,382	\$ 3,151,600	
\$ 334,714	\$ 278,582	\$ 566,556	\$ 842,884	
<b>\$ 17,592,642</b>	<b>\$ 7,945,285</b>	<b>\$ 15,826,346</b>	<b>\$ 19,220,360</b>	
568,868	446,614	433,798	733,201	
<b>\$ 30.93</b>	<b>\$ 17.79</b>	<b>\$ 36.48</b>	<b>\$ 26.21</b>	
\$ 32,011,761	\$ 20,628,833	\$ 26,326,426	\$ 44,531,184	
\$ 199,737,135	\$ 80,130,942	\$ 153,780,260	\$ 192,092,050	
16.0%	25.7%	17.1%	23.2%	
\$ 5,398,608	\$ 4,493,259	\$ 9,138,007	\$ 13,594,905	
\$ 865,232	\$ 1,156,740	\$ 1,564,382	\$ 3,151,600	
\$ 5,398,608	\$ 4,493,259	\$ 9,138,007	\$ 13,594,905	
6.20%	6.20%	6.20%	6.20%	
\$ 334,714	\$ 278,582	\$ 566,556	\$ 842,884	

**Customer Account Management Cost Pool**

FERC Account Balances:

- Acct 903 - Customer Records & Collection (page 322, line 131)
- Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA

Group Average	
\$ 355,085,781	
\$ 11,085,201	
\$ 366,170,982	
\$ 41,149,540	
\$ 15,642,871	
<b>\$ 422,963,394</b>	
16,494,035	
<b>\$ 25.64</b>	
\$ 550,809,393	
\$3,377,233,903	
16.3%	
\$ 252,304,379	
\$ 41,149,540	
\$ 252,304,379	
6.20%	
\$ 15,642,871	



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## VI - Need For Service Company Services

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### Analysis Of Services

The second issue addressed by this study is the need for the services that are rendered to Kentucky-American by the Service Company. First, it was determined specifically what the Service Company does for Kentucky-American. Based on discussions with Service Company personnel, the matrix in Schedule 11 was created showing which entity--Kentucky-American or a Service Company location--is responsible for each of the functions Kentucky-American requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 11, the following conclusions can be drawn:

- There is no redundancy or overlap in the services provided by the Service Company to Kentucky-American. For substantially all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.
- The services that the Service Company provides would be necessary even if Kentucky-American were a stand-alone water utility.



### Designation of Responsibility For Water Utility Functions

Water Company Function	Kentucky-American	Performed By:						Belleville Lab
		Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers		
<b>Primarily Responsible</b> P								
<b>Provides Support</b> S								
<b>Water Company Function</b>								
<b>Engineering and Construction Management</b>								
CPS Preparation	P				S			
Five-Year System Planning	P							
Engineering Standards & Policies Development								
Project Design								
Major Projects (e.g., new treatment plant)	P							
Special Projects	P							
Minor Projects (e.g., pipelines)	P							
Construction Project Management								
Major Projects	P							
Special Projects	P							
Minor Projects	P							
Hydraulics Review	P							
Developers Extensions	P							
Tank Painting	P							
<b>Water Quality and Purification</b>								
Water Quality Standards Development								
Research Studies	S							P
Water Quality Program Implementation	P							P
Water Treatment Operations & Maintenance	P							
Compliance Sampling	P							
Testing/Other Sampling	S							S
<b>Transmission and Distribution</b>								
Preventive Maintenance Program Development	P							
System Maintenance	P							
Leak Detection	P							
<b>Customer Service</b>								
Community Relations	P							
Customer Contact	S							
Call Processing								
Service Order Processing	P							
Customer Credit	P							
Meter Reading	P							
Customer Bill Preparation								
Bill Collection	S							
Customer Payment Processing	S							
Meter Standards Development								
Meter Testing, Maintenance & Replacement	P							

### Designation Of Responsibility For Water Utility Functions

Water Company Function	Performed By:						
	Kentucky-American	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible P</b> <b>Provides Support S</b>							
<b>Financial Management</b>							
Financial Planning	S		P		S		
Financings—Equity					S		
Financings--Long Term Debt & Preferred (A)					S		
Short Term Lines of Credit Arrangements (A)							
Investor Relations					P		
Insurance Program Administration					P		
Loss Control/Safety Program Administration	P		S		S		
Pension Fund Asset Management					P		
Cash Management/Disbursements				P			
<b>Internal Auditing</b>					P		
<b>Budgeting and Variance Reporting</b>					P		
Corporate Guidelines & Instructions							
Regional Guidelines & Instructions			P				
Budget Preparation							
Revenue and O&M	P						
Depreciation and Interest Expense	S		S	P			
Budget Preparation--Service Company Charges		S	P	S	S	S	S
Capital Budget Preparation--Projects	P		S				
Capital Budget Preparation--Non-Project Work	P						
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	P						
Prepare Capital Project Budget Status Report	P		S				
Year-End Projections			S				
<b>Accounting and Taxes</b>							
Accounts Payable Accounting	S			P			
Payroll Accounting	S			P			
Work Order Accounting	S			P			
Fixed Asset Accounting	S			P			
Journal Entry Preparation--Billing Corrections	S			P			
Journal Entry Preparation--All Others	S			P			
Financial Statement Preparation	S			P			
State Commission Reporting	S			P			
Income Taxes—State				P			
Income Taxes—Federal				P			
Property Taxes	S			P			
Gross Receipts Taxes	S			P			

Note A: Financings and lines of credit are the responsibility of American Capital Corporation

## Kentucky-American Water Company Designation Of Responsibility For Water Utility Functions

Water Company Function	Performed By:						
	Kentucky-American	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible P Provides Support S</b>							
<b>Rates</b>							
Rate Studies & Tariff Change Administration	S		P				
Rate Case Planning and Preparation	S		P				
Rate Case Administration	S		P				
Commission Inquiry Response	S		P				
<b>Legal</b>							
<b>Purchasing and Materials Management</b>							
Specification Development	S		S	S	P		
Bid Solicitation	S			P			
Contract Administration	S			P			
Ordering	P						
Inventory Management	P			S			
<b>Human Resources Management</b>							
Benefit Program Development							
Benefits Program Administration	P		S		P		
Management Compensation Administration							
Wage & Salary Program Design							
Wage & Salary Administration	P		S		P		
Labor Negotiations--Wages	P		S				
Labor Negotiations--Benefits							
Labor Negotiations-- Work Rules	P		S		P		
Training Program Development							
Training--Course Delivery	P						
Affirmative Action/EEO--Plan Development	P						
Affirmative Action/EEO--Implementation	P						
<b>Information Systems Services</b>							
Service Company Data Centers							
System Operations & Maintenance							P
Software Maintenance							P
Network Administration			P				S
PC Acquisition & Support			P				S
Help Desk			S				P

## **Governance Of Service Company Transactions**

There are several ways by which Kentucky-American exercises control over Service Company services and charges. The most important of these are described below.

- **Regional Managing Director Oversight** – The Regional Managing Director of the Southeast Region is on the Executive Management Team of RWE Thames Water. The Regional Managing Director is responsible for the financial performance of each operating company in the region, including Kentucky-American. As part of the Executive Management Team, the Regional Managing Director has equal say in major business decisions of RWE Thames Water and has the ability to monitor Service Company service quality and spending.
- **Operating Company Board Oversight** – Kentucky-American’s board of directors includes members of RWE Thames Water’s Executive Management Team, including its Vice President of Finance and Senior Vice President of External Affairs. This helps ensure that Kentucky-American’s needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – Every operating company president must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company’s own spending into an overall budget which must be approved by the company’s board of directors.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by the operating companies that will pay for the initiatives. Executives authorized to perform this review include the operating company’s president and the Regional Managing Director. Consultants used on these projects who are hired by the Service Company must also be approved by operating companies’ same representatives.
- **Service Company Bill Scrutiny** – Operating company personnel review the monthly Service Company bill for accuracy and reasonableness.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report, called the “Statement of Expenses and Billed Charges,” is produced by Service Company location and shows budget versus actual spending for the month and year-to-date by cost category.

- **Operating Company Budget Variance Reporting** - The “Budget/Plan Analysis,” produced monthly by each operating company, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.
- **Capital Project Authorization** - Capital projects estimated to cost over \$100,000 must be approved by the operating company board of directors before any design and construction work begins.

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## **VII - Conclusion**

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Based on the results of this study, the following major conclusions have been reached:

- The cost of managerial, professional and technical services provided by the Service Company to Kentucky-American is much lower than the cost of outside providers of those same services.
- The National Call Center's costs charged to Kentucky-American are reasonable.
- Services that Kentucky-American receives from the Service Company are necessary.

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**Market Cost Comparison of Service Company Charges to  
Kentucky American Water Company  
12-Months Ended December 31, 2006**

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**Kentucky American Water Company  
Market Cost Comparison of Service Company Charges  
12-Months Ended December 31, 2006**

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## I - Introduction

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### Purpose Of This Study

This study was undertaken to answer three questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to Kentucky American Water Company (KAWC):

1. Was KAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during the 12-months ended December 31, 2006?
2. Were the 12-months ended December 31, 2006 costs of the Service Company's customer accounts services, including those of the National Call Centers, reasonable?
3. Are the services KAWC receives from Service Company necessary?

### Study Results

Concerning question 1, the following conclusions can be drawn from this study:

- KAWC was charged the lower of cost or market for managerial and professional services during the 12-months ended December 31, 2006.
- On average, the hourly rates for outside service providers are **44% higher** than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by KAWC without careful supervision on the part of KAWC. If these services were contracted entirely to outside providers, KAWC would have to add at least one position to manage activities of outside firms. This position would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been out-sourced during the 12-months ended December 31, 2006, KAWC and its ratepayers would have incurred an **additional \$2.7 million** in expenses. This amount includes the higher cost of outside providers and the cost of a KAWC position needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to KAWC from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company personnel, on the other hand, charge a maximum 8 per day even when they work more. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$2.7 million cited above.
- It would be difficult for KAWC to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from KAWC ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, **is near the average of the comparison group of neighboring electric utilities.** As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of KAWC. During the 12-months ended December 31, 2006, the customer accounts cost for KAWC customers was \$26.98 compared to the 2005 average of \$26.07 for neighboring electric utilities. The highest comparison group per customer cost was \$35.82 and the lowest \$12.43.

Concerning question 3, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if KAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to KAWC. For all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.

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## II - Background

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### Overview Of American Water Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in the second quarter of 2001 and a second in Pensacola, Florida that went into operation in April 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of KAWC, which incurred the expense on its books. KAWC transitioned to the Alton Call Center in October 2003 and to the Pensacola Call Center in June 2005.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they have not been consolidated into the National Shared Services Center. Examples of regional office services include rates and revenues, engineering and operations. There are four regional offices—Northeast, Southeast, Central and West.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the email system. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads – employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support – wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks

- Office Expenses – office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

**Charging and Assignment Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges.

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries.

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet (see example in Schedule 1) that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable).

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 2% of the Voorhees Data Center's professional labor is assigned to KAWC during a month, then 2% of that office's monthly administrative labor charges also is assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 2% of the Corporate Office's accumulated professional and support labor is charged to KAWC during the month, then 2% of that month's overhead expenses will be assigned to KAWC.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to KAWC, then 2% of that office's office expenses would be assigned to KAWC. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a state rate case proceeding are charged directly to the operating company whose case is being heard.

Kentucky American Water Company  
Sample Electronic Time Sheet

Week Ending:	1/23/06	Andes, Kathleen	Time Entry							17:00:09
Dept:	036518	NE-Human Resources	Mo	Tu	We	Th	Fr	Sa	Su	Emp#: 18507871
<b>Totals:</b>	<b>8.00</b>	<b>8.00</b>	<b>8.00</b>	<b>8.00</b>	<b>8.00</b>	<b>8.00</b>	<b>8.00</b>	<b>8.00</b>	<b>8.00</b>	<b>40.00</b>
Formula	Typ		1/17	1/18	1/19	1/20	1/21	1/22	1/23	Total
100082	001		1.00	1.00	1.00	1.00	1.00	1.00	1.00	Hours
										5.00
Account:			036518.501200.16							Pay Type Desc:
100229	001		6.00	6.00	6.00	6.00	6.00	6.00	6.00	Regular
Account:			036518.501200.16							Pay Type Desc:
100231	001		1.00	1.00	1.00	1.00	1.00	1.00	1.00	Regular
Account:			036518.501200.16							Pay Type Desc:
100229	250									Regular
Account:			036518.501200.16							Pay Type Desc:
100229	300									Sick
Account:			036518.501200.16							Pay Type Desc:
100229	400									Holiday
Account:			036518.501200.16							Pay Type Desc:
100229	400									Vacation
Account:			036518.501200.16							Pay Type Desc:
										More...

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**III – Service Company Cost Comparison Approach**

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During the 12-months ended December 31, 2006, the Service Company billed KAWC \$6,612,414 in O&M-related charges. Included in this amount is \$733,724 associated with several non-recurring items, for which KAWC is not seeking recovery. This market study excludes the non-recurring items so as to align with the rate case’s recoverable costs.

For purposes of comparing Service Company charges to outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	2006	
	Amount	Hours
Management and Professional Services	\$ 4,406,473	48,595
Customer Account Services	\$ 1,472,217	49,904
Total Charges	\$ 5,878,690	98,499

This study’s first question—whether the Service Company charges the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to KAWC during 2006. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The second question—reasonableness of the National Call Center costs—was addressed by comparing KAWC’s customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The third question—the necessity of Service Company services—was first investigated by determining the services provided to KAWC. A determination was then made as to whether these services would be required if KAWC were a stand-alone utility.

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## IV – Managerial And Professional Services Hourly Rate Comparison

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### Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to KAWC during 2006. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged KAWC during 2006, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### Service Company Hourly Rates

Schedule 2 (page 10) details the assignment of 2006 management and professional Service Company charges to outsider provider categories. Schedule 3 (page 11) shows the same assignment for Service Company management and professional hours charged to KAWC during 2006.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2006 test year non-labor Service Company charges:



- **Contract Services** – 2006 Service Company charges to KAWC include over \$413,000 in charges associated with existing arrangements with outside professional firms who perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.
- **Travel Expenses** – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- **Computer Hardware and Software Expenses** – Included in 2006 Service Company charges to KAWC are charges for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the email system. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

Schedule 4 (page 12) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 2 and 3 and the excludable items shown in Schedule 4, the Service Company's equivalent costs per hour for 2006 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 280,454	\$ 1,227,408	\$ 2,068,084	\$ 830,527	\$ 4,406,473
Less:					
Contract services	8,060	97,609	295,680	11,978	413,326
Travel expenses	5,596	7,307	8,592	8,548	30,043
Computer hardware/software	4	12,483	49,854	304	62,644
Net Service Charges (A)	\$ 266,794	\$ 1,110,009	\$ 1,713,959	\$ 809,699	\$ 3,900,460
Total Hours (B)	2,041	11,786	25,258	9,510	48,595
<b>Average Hourly Rate (A / B)</b>	<b>\$ 131</b>	<b>\$ 94</b>	<b>\$ 68</b>	<b>\$ 85</b>	

**Kentucky American Water Company  
Analysis of 2006 Service Company Charges By Location And Function**

Location	Function	2006 Service Company Charges				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality		\$ 35,974		\$ 173,054	\$ 173,054
Call Center	Human Resources					\$ 35,974
Corporate	Accounting		\$ 106,490			\$ 106,490
	Administration	\$ 29,624	\$ 248,625	\$ 169,740	\$ 105,722	\$ 553,711
	Audit			\$ 37,212		\$ 37,212
	Communications		\$ 65,748			\$ 65,748
	Finance			\$ 163,765		\$ 163,765
	Human Resources		\$ 153,205			\$ 153,205
	Legal	\$ 74,313				\$ 74,313
	Operations					\$ 110,649
	Rates & Revenue			\$ 106,287		\$ 106,287
	Risk Management		\$ 44,700			\$ 44,700
	Water Quality				\$ 36,217	\$ 36,217
Regional Offices	Accounting			\$ 20,894		\$ 20,894
	Administration		\$ 254,063			\$ 254,063
	Communications		\$ 201,580			\$ 201,580
	Customer Service					\$ -
	Engineering				\$ 52,541	\$ 52,541
	Finance			\$ 190,055		\$ 190,055
	Human Resources		\$ 121,933			\$ 121,933
	Legal	\$ 176,516				\$ 176,516
	Operations				\$ 288,493	\$ 288,493
	Risk Management		\$ 69,962			\$ 69,962
	Water Quality				\$ 63,850	\$ 63,850
Information Technology	Audit			\$ 14,115		\$ 14,115
	Information Technology			\$ 794,195		\$ 794,195
Shared Services	Accounting			\$ 408,940		\$ 408,940
	Administration		\$ 31,619			\$ 31,619
	Finance			\$ 38,801		\$ 38,801
	Rates & Revenue			\$ 17,588		\$ 17,588
<b>Total Dollars Charged</b>		<b>\$ 280,454</b>	<b>\$ 1,227,408</b>	<b>\$ 2,068,084</b>	<b>\$ 830,527</b>	<b>\$ 4,406,473</b>



**Kentucky American Water Company**  
**Analysis of 2006 Service Company Hours By Location And Function**

Location	Function	2006 Service Company Hours				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality				2,618	2,618
Call Center	Human Resources		472			472
Corporate	Accounting			1,550		1,550
	Administration		128			128
	Audit			575		575
	Communications		227			227
	Finance			1,463		1,463
	Human Resources		1,595			1,595
	Legal	299				299
	Operations				507	507
	Rates & Revenue			327		327
	Risk Management		351			351
Water Quality				572	572	
Regional Offices	Accounting			349		349
	Administration		909			909
	Communications		4,242			4,242
	Customer Service					-
	Engineering				341	341
	Finance			2,604		2,604
	Human Resources		1,940			1,940
	Legal	1,742				1,742
	Operations					
	Risk Management				4,482	4,482
	Water Quality		1,647			1,647
	Information Technology	Audit			336	336
	Information Technology	Information Technology			8,415	8,415
Shared Services	Accounting			7,979		7,979
	Administration		275			275
	Finance			1,383		1,383
	Rates & Revenue			277		277
<b>Total Hours Charged</b>		<b>2,041</b>	<b>11,786</b>	<b>25,258</b>	<b>9,510</b>	<b>48,595</b>

**Kentucky American Water Company**  
**2006 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Accounting	\$ 163,083	\$ 1,158	\$ 994	\$ 165,235
Administration	\$ 31,918	\$ 1,127	\$ 231	\$ 33,276
Audit	\$ (102)	\$ 423	\$	\$ 321
Communications	\$ 21,194	\$ 720	\$ 227	\$ 22,141
Engineering	\$	\$ 332	\$	\$ 332
Finance	\$ 38,687	\$ 2,969	\$ 604	\$ 42,260
Human Resources	\$ 40,461	\$ 3,988	\$ 1,134	\$ 45,584
Information Technology	\$ 80,414	\$ 1,533	\$ 48,255	\$ 130,202
Legal	\$ 8,060	\$ 5,596	\$ 4	\$ 13,660
Operations	\$ 3,921	\$ 6,602	\$ 139	\$ 10,662
Rates & Revenue	\$ 13,599	\$ 2,508	\$	\$ 16,106
Risk Management	\$ 4,036	\$ 1,472	\$ 10,890	\$ 16,397
Water Quality	\$ 8,057	\$ 1,614	\$ 165	\$ 9,835
<b>Total</b>	<b>\$ 413,326</b>	<b>\$ 30,043</b>	<b>\$ 62,644</b>	<b>\$ 506,013</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Attorney	\$ 8,060	\$ 5,596	\$ 4	\$ 13,660
Management Consultant	\$ 97,609	\$ 7,307	\$ 12,483	\$ 117,399
Certified Public Accountant	\$ 295,680	\$ 8,592	\$ 49,854	\$ 354,125
Professional Engineer	\$ 11,978	\$ 8,548	\$ 304	\$ 20,829
<b>Total</b>	<b>\$ 413,326</b>	<b>\$ 30,043</b>	<b>\$ 62,644</b>	<b>\$ 506,013</b>

## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Attorneys**

The Kentucky Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for Kentucky attorneys. Therefore, a Kentucky estimate was developed from a survey of Michigan lawyers conducted annually by the Michigan Lawyers Weekly. As presented in Schedule 5, the average rate for each Michigan firm respondent was adjusted for the cost of living differential between their location and Lexington, Kentucky. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2006 annual survey performed by the Association of Management Consulting Firms—an industry trade organization. The first step in the calculation, presented in Schedule 6, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2005 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Certified Public Accountants**

The average hourly rate for Kentucky certified public accountants was developed from a 2006 survey conducted by the American Institute of Certified Public Accountants (AICPA) every two years. Hourly rates in the AICPA survey are the average of firms in the Kentucky region. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 7. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Professional Engineers**

The Service Company provided hourly rate information for outside engineering firms that could have been used by KAWC in 2006. As presented in Schedule 8, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Schedule 5

**Kentucky American Water Company**  
**Estimated Billing Rates Of Kentucky Attorneys**

Billing rates as of December 31, 2005 (Note A)							Cost of Living Adjust (C)	Adjusted Rate
Firm	Michigan Location	Number Of Mich Lawyers	Billing Rate Range			Average		
			Associate	Partner				
Dykema	Detroit	228	\$ 250	\$ 408	\$ 329	93%	\$ 352	
Dickinson Wright PLLC	Detroit	218	\$ 208	\$ 385	\$ 296	93%	\$ 317	
Butzel Long	Detroit	212	\$ 283	\$ 385	\$ 334	93%	\$ 357	
Bodman LLP	Detroit	130	\$ 168	\$ 323	\$ 245	93%	\$ 262	
Jaffe Raitt Heuer & Weiss, PC	Southfield	95	\$ 160	\$ 358	\$ 259	108%	\$ 239	
Sommers Schwartz	Southfield	76	\$ 138	\$ 193	\$ 165	108%	\$ 153	
Trott & Trott, PC	Bingham Farms	57	\$ 188	\$ 250	\$ 219	169%	\$ 129	
Brooks Kushman PC	Southfield	52	\$ 218	\$ 375	\$ 296	108%	\$ 274	
Foley & Lardner LLP	Detroit	42	\$ 298	\$ 453	\$ 375	93%	\$ 401	
Kemp, Klein, Umphrey, Edelman & May PC	Troy	38	\$ 155	\$ 263	\$ 209	130%	\$ 161	
Pepper Hamilton LLP	Detroit	31	\$ 255	\$ 448	\$ 351	93%	\$ 376	
Hertz, Schram & Saretsky, PC	Bloomfield Hills	30	\$ 218	\$ 338	\$ 278	143%	\$ 194	
O'Reilly Rancilio PC	Sterling Heights	27	\$ 180	\$ 238	\$ 209	110%	\$ 189	
Thrun Law Firm	East Lansing	27	\$ 190	\$ 220	\$ 205	102%	\$ 200	
Strobl & Sharp, PC	Bloomfield Hills	26	\$ 145	\$ 275	\$ 210	143%	\$ 147	
Kupelian Ormond & Magy, PC	Southfield	24	\$ 173	\$ 263	\$ 218	108%	\$ 201	
Parmenter O'Toole	Muskegon	23	\$ 145	\$ 238	\$ 191	90%	\$ 213	
Rader, Fishman & Grauer, PLLC	Bloomfield Hills	23	\$ 208	\$ 373	\$ 290	143%	\$ 203	
Tanoury, Corbet, Shaw, Nauts & Essad PLLC	Detroit	22	\$ 120	\$ 180	\$ 150	93%	\$ 161	
Williams, Williams, Rattner & Plunkett, PC	Birmingham	22	\$ 200	\$ 313	\$ 256	129%	\$ 199	
Overall Average at December 31, 2005								\$ 236
<u>Escalation to Mid-Point of Year - June 30, 2006 (Note B)</u>								
CPI at December 31, 2005								196.8
CPI at June 30, 2006								202.9
Inflation/Escalation								3.1%
Average Billing Rate At June 30, 2006								<b>\$ 244</b>

Note A: Source is Michigan Lawyers Weekly, April 2006

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This number represents the cost of living difference between the Michigan city and Lexington, Ky. A number over 100% indicates the Michigan city's cost of living is higher than Lexington. A number less than 100% indicates Lexington's cost of living is higher.

Schedule 6

**Kentucky American Water Company**  
**Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position						
Survey billing rates were those in effect in 2005 (Note A)						
	<b>Average Hourly Rates (Note A)</b>					
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$ 141	\$ 186	\$ 234	\$ 320	\$ 350	
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)	\$ 141	\$186	\$234	\$320	\$350	
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%	Weighted Average
	\$ 42	\$ 56	\$ 47	\$ 32	\$ 35	<b>\$ 212</b>
<u>Escalation to Test Year Mid-Point June 30, 2006 (Note B)</u>						
				CPI at December 31, 2005	196.8	
				CPI at June 30, 2006	202.9	
				Inflation/Escalation	3.1%	
Estimated Average Hourly Billing Rate For Consultants At June 30, 2006					<b>\$ 218</b>	

Note A: source: "Operating Ratios For Management Consulting Firms, 2006 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>)

Schedule 7

**Kentucky American Water Company**  
**Estimated Billing Rates Of Kentucky Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2005 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 65	\$ 77	\$ 112	\$ 150
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 65	\$ 77	\$ 112	\$ 150
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 20	\$ 23	\$ 22	\$ 30
				Weighted Average
				<b>\$ 95</b>
			CPI at December 31, 2005	196.8
			CPI at June 30, 2006	202.9
			Inflation/Escalation	3.1%
Estimated Average Hourly Billing Rate For Kentucky CPAs At June 30, 2006				<b>\$ 98</b>

Note A: Source is AICPA's 2006 National PCPS/TSCPA Management of an Accounting Practice Survey

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)



Exhibit Witness: PLB-1  
Schedule 8

**Kentucky American Water Company**  
**Billing Rates Of Kentucky Engineers**

Note: Billing rates were those in effect in 2006

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer
Firm #1	\$65	\$93	\$121	\$237
Firm #2	\$63	\$71	\$114	na

B. Calculation of Overall Average Engineering Hourly Billing Rate

Average Hourly Billing Rate (From Above)	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer	Weighted Average
		\$64	\$82	\$117	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$19	\$29	\$29	\$24	<b>\$101</b>

Source: Information provided by American Water Works Service Company

**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

12 Months Ended December 31, 2006			
Service Provider	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 131	\$ 244	\$ (113)
Management Consultant	\$ 94	\$ 218	\$ (124)
Certified Public Accountant	\$ 68	\$ 98	\$ (30)
Professional Engineer	\$ 85	\$ 101	\$ (16)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to KAWC during the 12-months ended December 31, 2006, outside service providers would have cost \$2,602,632 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are almost 44% higher than those of the Service Company (\$2,602,632 / \$5,878,690).

12 Months Ended December 31, 2006			
Service Provider	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (113)	2,041	\$ (231,164)
Management Consultant	\$ (124)	11,786	\$ (1,459,265)
Certified Public Accountant	\$ (30)	25,258	\$ (761,368)
Professional Engineer	\$ (16)	9,510	\$ (150,835)
Service Company Less Than Outside Providers			\$ (2,602,632)

If KAWC were to use outside service providers rather than the Services Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 48,595 hours of work (around 32 full-time equivalents at 1,500 billable hours per FTE) would add a significant workload to the existing KAWC management team. Thus, it would be necessary for KAWC to add at least one position to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill these positions would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$121,400 per year to KAWC's personnel expenses.

Cost of Adding Administrative Positions To KAWC's Staff

	Total
New Positions' Salary	\$ 85,000
Benefits (at 52%)	\$ 36,400
Total Cost of the New Position	\$ 121,400

Thus, the total effect on the ratepayers of KAWC of contracting all services now provided by Service Company would be an increase in their costs of **\$2,724,032** (\$2,602,632 + \$121,400).

**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%
2005	24	25%

These studies provide additional evidence that the Service Company arrangement is the lowest-cost alternative for KAWC.

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**V – Customer Account Services Cost Comparison**

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**Background**

It is difficult to compare the cost of American Water's National Call Centers with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, KAWC's National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC's chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study's comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA).

Schedule 9 provides FERC's description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

**903 Records and Collection Expense**

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing and mailing
- Remittance processing – processing of customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

**905 Miscellaneous Customer Accounts Expense**

- Customer Information System IT – maintenance and support of the customer information system

This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

**Kentucky American Water Company**  
**FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

**Kentucky American Water Company**  
**FERC Account Descriptions**

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

Kentucky	<ul style="list-style-type: none"> <li>• Kentucky Power</li> <li>• Kentucky Utilities</li> </ul>	<ul style="list-style-type: none"> <li>• Louisville Gas &amp; Electric</li> <li>• Union Light, Heat &amp; Power</li> </ul>
Illinois	<ul style="list-style-type: none"> <li>• Commonwealth Edison</li> <li>• Illinois Power</li> </ul>	<ul style="list-style-type: none"> <li>• MidAmerica Energy</li> </ul>
Indiana	<ul style="list-style-type: none"> <li>• Indiana Michigan Power</li> <li>• Indianapolis Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• Northern Indiana Public Service</li> <li>• Public Service of Indiana</li> </ul>
Missouri	<ul style="list-style-type: none"> <li>• Kansas City Power &amp; Light</li> </ul>	
Ohio	<ul style="list-style-type: none"> <li>• Cincinnati Gas &amp; Electric</li> <li>• Cleveland Electric</li> <li>• Columbus Southern Power</li> <li>• Dayton Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• Ohio Edison</li> <li>• Ohio Power</li> <li>• Toledo Edison</li> </ul>
Tennessee	<ul style="list-style-type: none"> <li>• Kingsport Power</li> </ul>	
Virginia	<ul style="list-style-type: none"> <li>• Appalachian Power</li> </ul>	<ul style="list-style-type: none"> <li>• Virginia Electric Power</li> </ul>
West Virginia	<ul style="list-style-type: none"> <li>• Wheeling Power</li> </ul>	

Some neighboring electric utilities could not be included in the comparison group because they did not submit the necessary FERC Form 1 data.

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. KAWC's cost pool was developed to include the same expenses included in electric utility's FERC accounts 903 and 905. As shown in the graphic below, KAWC's resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u> Pensacola & Alton Call Centers a. Customer contact b. Customer order processing c. Billing information processing d. Collections e. Correspondence processing  <u>IT Service Centers</u> a. Support expenses for the customer information system (ORCOM)  <u>Kentucky American Water</u> a. Payment processing

Electric Utilities
FERC Acct 903 - Records and Collection Expense <u>and</u> FERC Acct 905 - Misc Customer Accounts Expense a. Customer contact b. Customer order processing c. Bill preparation and mailing d. Collections e. Payment processing f. Correspondence processing

**KAWC Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to KAWC. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.28 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, KAWC's adjusted annual expense per customer is \$26.18—the number that can be compared to neighboring electric utilities' expenses.

**Kentucky-American 2006 Cost Per Customer**

Cost Component		2006 Service Co Charges	Adjustment Fewer Calls For Water Cos. (A)	Adjusted
<b>Service Company</b>				
Call Centers	Call processing, order processing, credit, bill collection	\$ 1,315,990	\$ 1,254,303	\$ 2,570,294
Regional Offices		\$ 156,227		\$ 156,227
IT/Data Centers	Bill preparation and mailing	\$ 274,661		\$ 274,661
Operating Company	Customer payment processing			\$ 152,198 <small>Note B</small>
Cost Pool Total				\$ 3,153,378
Total Customers				116,865
<b>2006 Cost Per Kentucky-American Customer</b>				<b>\$ 26.98</b>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Test year annualized Call Center charges		\$ 1,315,990
Electric utility industry's avg calls/customer	2.50	
American Water's avg calls/customer	1.28	
Percent different	95%	95%
Total Adjustment B		\$ 1,254,303

Note B: Estimated customer payment processing expenses

Number of customers	116,865
Number of payments/customer/year	12
Total payments processed/year	1,402,380
Bank charge per item	\$ 0.1085
Total estimated annual expense	\$ 152,198



### Electric Utility Group Cost Per Customer

Schedule 10 shows the actual 2005 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

### Summary Of Results

As shown in the table below, KAWC's cost per customer is near the average of the electric utility comparison group. It can therefore be concluded that the customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to KAWC are reasonable.

<b>Average Customer Accounts Expense Per Customer</b>	
Louisville Gas & Electric	\$ 12.43
Illinois Power	\$ 14.01
Virginia Electric Power	\$ 15.77
Ohio Edison	\$ 16.68
Cleveland Electric Illuminating	\$ 17.15
Dayton Power & Light	\$ 19.72
Toledo Edison	\$ 21.45
Indianapolis Power & Light	\$ 21.91
Kentucky Utilities	\$ 24.87
Union Heat, Light & Power	\$ 25.64
Public Service of Indiana	\$ 26.02
<b>Comparison Group Average</b>	<b>\$ 26.07</b>
Kansas City Power & Light	\$ 26.64
<b>Kentucky American Water</b>	<b>\$ 26.98</b>
Wheeling Power	\$ 29.20
Cincinnati Gas & Electric	\$ 30.50
MidAmerican Energy	\$ 31.14
Indiana Michigan Power	\$ 31.50
Kingsport Power	\$ 32.18
Ohio Power	\$ 32.30
Appalachian Power	\$ 32.40
Commonwealth Edison	\$ 33.43
Kentucky Power	\$ 34.25
Columbus & Souther Power	\$ 35.49
Northern Indiana Public Serice	\$ 35.82

**Kentucky American Water Company**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

	West Virginia			Kentucky				Virginia	
	Wheeling Power	Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	Union Light, Heat & Power	Appalachian Power	Virginia Electric Power		
\$	1,124,907	\$ 5,669,498	\$ 10,832,569	\$ 4,279,581	\$ 2,787,640	\$ 28,324,797	\$ 27,055,213		
\$	3,916	\$ 15,566	\$ 130,794	\$ 276,482	\$ 96,072	\$ 65,026	\$ -		
\$	1,128,823	\$ 5,685,064	\$ 10,963,363	\$ 4,556,063	\$ 2,883,712	\$ 28,389,823	\$ 27,055,213		
\$	45,742	\$ 180,973	\$ 1,641,361	\$ 265,773	\$ 279,291	\$ 1,155,330	\$ 6,548,241		
\$	31,178	\$ 135,759	\$ 358,923	\$ 62,820	\$ 195,943	\$ 850,432	\$ 2,461,320		
\$	<b>1,205,743</b>	\$ <b>6,001,796</b>	\$ <b>12,963,648</b>	\$ <b>4,884,656</b>	\$ <b>3,358,947</b>	\$ <b>30,395,584</b>	\$ <b>36,064,774</b>		
	41,294	175,255	521,342	392,998	131,028	938,029	2,287,193		
\$	<b>29.20</b>	\$ <b>34.25</b>	\$ <b>24.87</b>	\$ <b>12.43</b>	\$ <b>25.64</b>	\$ <b>32.40</b>	\$ <b>15.77</b>		
\$	486,262	\$ 3,634,365	\$ 22,757,866	\$ 21,039,968	\$ 3,124,822	\$ 17,426,702	\$ 130,305,500		
\$	4,332,473	\$ 35,638,655	\$ 65,053,063	\$ 65,008,192	\$ 28,657,418	\$ 167,682,274	\$ 640,242,951		
	11.2%	10.2%	35.0%	32.4%	10.9%	10.4%	20.4%		
\$	407,551	\$ 1,774,628	\$ 4,691,810	\$ 821,173	\$ 2,561,351	\$ 11,116,753	\$ 32,174,121		
\$	45,742	\$ 180,973	\$ 1,641,361	\$ 265,773	\$ 279,291	\$ 1,155,330	\$ 6,548,241		
\$	407,551	\$ 1,774,628	\$ 4,691,810	\$ 821,173	\$ 2,561,351	\$ 11,116,753	\$ 32,174,121		
\$	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%		
\$	31,178	\$ 135,759	\$ 358,923	\$ 62,820	\$ 195,943	\$ 850,432	\$ 2,461,320		

**Customer Account Management Cost Pool**

FERC Account Balances:  
Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FIC. **Note B**)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



**Kentucky American Water Company**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

Ohio							
	Cin Gas & Electric	Cleveland Electric Illum.	Columbus Southern Pwr	Dayton Power & Light	Ohio Edison	Ohio Power	Toledo Edison
	\$ 16,957,239	\$ 11,230,608	\$ 23,820,271	\$ 8,492,898	\$ 14,841,763	\$ 21,665,275	\$ 5,303,736
	\$ 330,392	\$ 548,454	\$ 43,621	\$ -	\$ 606,191	\$ 57,486	\$ 473,314
	\$ 17,287,631	\$ 11,779,062	\$ 23,863,892	\$ 8,492,898	\$ 15,447,954	\$ 21,722,761	\$ 5,777,050
<b>Account 926 - Employee Pension &amp; Benefits</b>	\$ 2,385,460	\$ 950,879	\$ 861,354	\$ 1,102,139	\$ 1,332,841	\$ 675,068	\$ 745,337
	\$ 994,470	\$ 333,890	\$ 447,526	\$ 491,627	\$ 471,882	\$ 497,301	\$ 183,541
<b>Account 408 - Taxes Other Than Income (Employer's Portion of FICA, Note B)</b>	\$ 20,667,561	\$ 13,063,831	\$ 25,172,772	\$ 10,086,663	\$ 17,252,677	\$ 22,895,130	\$ 6,705,928
Total Customers (page 304, line 43)	677,662	761,559	709,305	511,595	1,034,352	708,823	312,698
<b>Customer Account Services Expense per Customer</b>	\$ 30.50	\$ 17.15	\$ 35.49	\$ 19.72	\$ 16.68	\$ 32.30	\$ 21.45
<b>Note A:</b> Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt Account 926 - Employee Pension & Benefits (page 323, line 158)	\$ 47,475,767	\$ 15,685,439	\$ 12,034,999	\$ 15,099,058	\$ 18,208,700	\$ 17,071,647	\$ 9,733,958
Total Payroll (page 355, line 96)	\$ 258,720,076	\$ 71,996,883	\$ 81,737,364	\$ 88,041,518	\$ 84,269,929	\$ 164,393,699	\$ 31,333,451
Total Benefits as Percent of Payroll	18.4%	21.8%	14.7%	17.1%	21.6%	10.4%	31.1%
Payroll Charged to Customer Accts Expenses (page 354, line 6)	\$ 12,999,608	\$ 4,364,576	\$ 5,850,008	\$ 6,426,492	\$ 6,168,392	\$ 6,500,661	\$ 2,399,227
Pension & Benefits Pertaining to Customer Accts Expenses	\$ 2,385,460	\$ 950,879	\$ 861,354	\$ 1,102,139	\$ 1,332,841	\$ 675,068	\$ 745,337
<b>Note B:</b> Calculation of Employer's FICA Pertaining to Customer Acct Mgmt Payroll Charged to Customer Accts Expenses (page 354, line 6)	\$ 12,999,608	\$ 4,364,576	\$ 5,850,008	\$ 6,426,492	\$ 6,168,392	\$ 6,500,661	\$ 2,399,227
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	\$ 994,470	\$ 333,890	\$ 447,526	\$ 491,627	\$ 471,882	\$ 497,301	\$ 183,541
Estimated Employer's Portion of FICA							

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA, Note B)

Total Cost Pool

Total Customers (page 304, line 43)

Customer Account Services Expense per Customer

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



**Kentucky American Water Company**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

Total Cost Pool

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

	Missouri	Illinois	Tennessee
	Kansas City Power & Light	Commonwealth Edison	MidAmerica Energy
		Illinois Power	Kingsport Power
\$	11,049,866	\$ 6,940,415	\$ 14,864,999
\$	7,221	\$ 307,504	\$ 710,122
\$	11,057,077	\$ 7,247,919	\$ 15,575,121
\$	1,617,439	\$ 620,503	\$ 19,249
\$	589,767	\$ 5,811,184	\$ 1,273,961
\$	13,264,283	\$ 8,482,450	\$ 19,500,489
\$	497,877	605,279	626,226
\$	26.64	\$ 14.01	\$ 31.14
\$	39,543,929	\$ 72,745,805	\$ 40,108,225
\$	188,482,542	\$ 469,888,402	\$ 251,913,704
	21.0%	15.5%	6.4%
\$	7,709,375	\$ 75,963,195	\$ 16,653,088
\$	1,617,439	\$ 11,760,247	\$ 2,651,407
\$	7,709,375	\$ 75,963,195	\$ 16,653,088
\$	7.65%	7.65%	7.65%
\$	589,767	\$ 5,811,184	\$ 1,273,961
		\$ 614,028	\$ 22,989
		\$ 14,01	\$ 32.18

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20% and Medicare (1.45%))

Estimated Employer's Portion of FICA



**Kentucky American Water Company**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

**Note A**

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Note B**

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

Indiana				
Indiana Michigan Pwr	Indianapolis Power & Light	NIPSCO	Pub Service of Indiana	
\$ 17,053,003	\$ 7,326,360	\$ 14,221,619	\$ 14,922,938	
\$ 44,548	\$ 397,889	\$ 145,257	\$ 121,962	
\$ 17,097,551	\$ 7,724,249	\$ 14,366,876	\$ 15,044,900	
\$ 718,820	\$ 1,899,860	\$ 1,155,339	\$ 3,726,773	
\$ 434,513	\$ 514,872	\$ 470,395	\$ 977,535	
<b>\$ 18,250,885</b>	<b>\$ 10,138,981</b>	<b>\$ 15,992,610</b>	<b>\$ 19,749,208</b>	
579,376	462,837	448,495	758,912	
<b>\$ 31.50</b>	<b>\$ 21.91</b>	<b>\$ 35.82</b>	<b>\$ 26.02</b>	
\$ 26,142,933	\$ 32,170,538	\$ 31,993,279	\$ 62,558,153	
\$ 206,573,891	\$ 113,965,747	\$ 170,274,964	\$ 214,497,393	
12.7%	28.2%	18.8%	29.2%	
\$ 5,679,911	\$ 6,730,350	\$ 6,148,956	\$ 12,778,240	
<b>\$ 718,820</b>	<b>\$ 1,899,860</b>	<b>\$ 1,155,339</b>	<b>\$ 3,726,773</b>	
\$ 5,679,911	\$ 6,730,350	\$ 6,148,956	\$ 12,778,240	
7.65%	7.65%	7.65%	7.65%	
\$ 434,513	\$ 514,872	\$ 470,395	\$ 977,535	

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA

Group Average	
\$	376,696,883
\$	4,384,526
\$	381,081,409
\$	42,339,427
\$	18,225,856
<b>\$</b>	<b>441,646,693</b>
16,937,857	
<b>\$</b>	<b>26.07</b>
\$	651,166,257
\$	3,556,277,105
\$	238,246,488
\$	43,623,730
\$	238,246,488
\$	7.65%
\$	18,225,856



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## VI - Need For Service Company Services

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### Analysis Of Services

The final aspect of this study was an assessment of whether the services that are provided to KAWC by the Service Company would be necessary if KAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for KAWC. Based on discussions with Service Company personnel, the matrix in Schedule 11 was created showing which entity—KAWC or a Service Company location—is responsible for each of the functions KAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 11, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if KAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to KAWC. For all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:					
	Kentucky American	American Water Service Company				
		Customer Call Centers	Regional Office	Shared Services	Corporate Office	IT Service Centers
<b>Engineering and Construction Management</b>						
GPS Preparation	S	P		S		
Five-Year System Planning	S	S				
Engineering Standards & Policies Development				P		
Project Design						
Major Projects (e.g., new treatment plant)	S	P		S		
Special Projects	P	S		S		
Minor Projects (e.g., pipelines)	P					
Construction Project Management						
Major Projects	S	P				
Special Projects	S	P				
Minor Projects	P	P				
Hydraulics Review	S	P				
Developers Extensions	P					
Tank Painting	P	S				
<b>Water Quality and Purification</b>						
Water Quality Standards Development		S		S		P
Research Studies	S			S		P
Water Quality Program Implementation	P	S				
Water Treatment Operations & Maintenance	P	S				
Compliance Sampling	P	S				
Testing/Other Sampling	S	S		S		S
<b>Transmission and Distribution</b>						
Preventive Maintenance Program Development	P					
System Maintenance	P					
Leak Detection	P	S				
<b>Customer Service</b>						
Community Relations	P	S				
Customer Contact	S			S		
Call Processing						
Service Order Creation	S	S				
Service Order Processing	P					
Customer Credit						
Meter Reading	P					
Customer Bill Preparation						S
Bill Collection	S					P
Customer Payment Processing	S					S
Meter Standards Development						
Meter Testing, Maintenance & Replacement	P	S		P		

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:						
	Kentucky American	Customer Call Centers	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b>	<b>P</b>						
<b>Provides Support</b>	<b>S</b>						
<b>Financial Management</b>							
Financial Planning	P		P		S		
Financings—Equity					S		
Financings--Long Term Debt & Preferred (A)	S		P				
Short Term Lines of Credit Arrangements (A)	S		P				
Investor Relations			S		P		
Insurance Program Administration					P		
Loss Control/Safety Program Administration	S		P		S		
Pension Fund Asset Management					P		
Cash Management/Disbursements				P			
<b>Internal Auditing</b>							
<b>Budgeting and Variance Reporting</b>							
Corporate Guidelines & Instructions					P		
Regional Guidelines & Instructions			P				
Budget Preparation							
Revenue	P		S				
O&M	P		S				
Depreciation and Interest Expense	S		S		P		
Budget Preparation--Service Company Charges			P		S		S
Capital Budget Preparation—Projects	P		S				
Capital Budget Preparation--Non-Project Work	P						
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	P		S				
Prepare Capital Project Budget Status Report	S		P				
Year-End Projections	P		S				
<b>Accounting and Taxes</b>							
Accounts Payable Accounting	S			P			
Payroll Accounting	S			P			
Work Order Accounting	S			P			
Fixed Asset Accounting	S			P			
Journal Entry Preparation--Billing Corrections	S			P			
Journal Entry Preparation--All Others	S			P			
Financial Statement Preparation	S			P			
State Commission Reporting	S		S				
Income Taxes—State				P			
Income Taxes—Federal				P			
Property Taxes	S			P			
Gross Receipts Taxes	S			P			

Note A: Financings and lines of credit are the responsibility of American Capital Corporation



**Kentucky American Water Company**  
**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:						
	Kentucky American	Customer Call Centers	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b> P							
<b>Provides Support</b> S							
<b>Rates</b>							
Rate Studies & Tariff Change Administration	S		P				
Rate Case Planning and Preparation	S		P				
Rate Case Administration	S		P				
Commission Inquiry Response	S		P		S		
<b>Legal</b>							
<b>Purchasing and Materials Management</b>							
Specification Development	S		S	S	P		
Bid Solicitation	S			P			
Contract Administration	S			P			
Ordering	P						
Inventory Management	P			S			
<b>Human Resources Management</b>							
Benefit Program Development					P		
Benefits Program Administration	S		P				
Management Compensation Administration					P		
Wage & Salary Program Design					P		
Wage & Salary Administration	S		P				
Labor Negotiations--Wages	S		P				
Labor Negotiations--Benefits					P		
Labor Negotiations--Work Rules	S		P				
Training Program Development	S						
Training--Course Delivery	P		S				
Affirmative Action/EEO--Plan Development	P						
Affirmative Action/EEO--Implementation	P						
<b>Information Systems Services</b>							
Service Company Data Centers							P
System Operations & Maintenance							P
Software Maintenance							S
Network Administration			P				S
PC Acquisition & Support			P				S
Help Desk			S				P



## **Governance Practices Associated With Service Company Charges**

There are several ways by which KAWC exercises control over Service Company services and charges. The most important of these are described below.

- **Regional President Oversight** – The Regional President of the Southeast Region is on the Executive Management Team (EMT) of American Water. The Regional President is responsible for the overall performance of each operating company in the region, including PAWC, VAWC, WVAWC, KAWC, KAWC and MAWC. As part of the EMT, each Regional President has equal say with other EMT members in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending. The regional president has dialogue with each operating sub president to address their local concerns.
- **Regional Vice President & Treasurer** – The Regional Vice President and Treasurer of the Southeast Region is responsible for the financial reporting, performance and internal controls of each of the operating companies in the region. The Vice President and Treasurer monitor the performance and reporting from the Service Company and pushes back whenever the quality and service are not appropriate. The operating sub interacts with the regional VP & Treasurer to discuss any concerns with billings, etc.
- **Operating Company Board Oversight** – KAWC board of directors includes members of American Water's EMT, members of the regional management team and business and community leaders from outside the Company. This helps ensure that KAWC's needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – Every operating company's regional president sits on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors. KAWC's president is chairman of the local board.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's Executive Management Team, which includes the Regional President. The Regional President, with input from the regional management team (including president of KAWC) has the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Regional office personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. Local subsidiary financial analyst has dialogue with regional office personnel on the monthly bill and any mistakes or overcharges are credited on a subsequent billing.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report, called the "Statement of Expenses and Billed Charges," is produced by Service Company location and shows actual spending for the month.
- **Operating Company Budget Variance Reporting** – The "Budget/Plan Analysis," produced monthly by each operating company, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.

- **Capital Investment Management (CIM)** – CIM is one of American Water's primary business planning processes. It covers capital and asset planning and is employed throughout American Water and Thames Water. The current CIM process and procedures were established in 2003 as part of an initiative to implement leading water industry practices. CIM provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIM ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business,
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans,
  - The impacts of these plans are understood and affordable, and
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIM process was designed to optimize the effectiveness of asset investment. The process is managed at three levels for all American Water companies, including all KAWC Operating Units. Monthly meetings are held to review projects and when appropriate, KAWC is represented locally by appropriate parties.

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**Assessment of Service Company Charges to  
Kentucky American Water Company  
12-Months Ended July 31, 2008**

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**Kentucky American Water Company  
Assessment of Service Company Charges  
12-Months Ended July 31, 2008**

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## I - Introduction

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### **Purpose Of This Study**

This study was undertaken to answer four questions concerning the services provided by American Water Works Service Company, Inc. ("Service Company") to Kentucky American Water Company ("KAWC"), each of which bears on the reasonableness of those charges as incurred during the 12 months ended July 31, 2008:

1. Was KAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during this test period?
2. Was the 12 months ended July 31, 2008 cost of the Service Company's customer accounts services, including those of the National Call Centers, comparable to those of other utilities?
3. Are the services KAWC receives from Service Company necessary?
4. Were the Service Company's charges to KAWC during the 12-months ended July 31, 2008 comparable to other utility service companies?

### **Study Results**

Concerning question 1, the following conclusions can be drawn from this study:

- KAWC was charged the lower of cost or market for managerial and professional services during the 12-months ended July 31, 2008.
- On average, the hourly rates for outside service providers are 28% higher than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by KAWC without careful supervision on the part of KAWC. If these services were contracted entirely to outside providers, KAWC would have to add at least one position to manage activities of outside firms. This position would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been outsourced during the 12-months ended July 31, 2008, KAWC and its ratepayers would have incurred nearly \$1,745,000 in additional expenses. This amount includes the higher cost of outside providers and the cost of an additional KAWC position needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to KAWC from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company exempt personnel, on the other hand, charge a maximum of 8 hours per day even when they work more hours. If the overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$1,745,000 cited above. For instance, if Service Company overtime is conservatively estimated at 5% (2 hours per week), then that work would have cost an estimated \$80,000 in additional charges from outside providers.

- It would be difficult for KAWC to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from KAWC ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Centers, is close to the average of the neighboring electric utility comparison group. As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of the Service Company and KAWC. During the 12-months ended July 31, 2008, the customer accounts cost for KAWC customers was \$28.07 compared to the 2007 average of \$27.99 for neighboring electric utilities. The highest comparison group per customer cost was \$39.81 and the lowest \$13.71.

Concerning question 3, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if KAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to KAWC. For all of the services listed in Schedule 10, there was only one entity that was primarily responsible for the service.

Concerning question 4, the following conclusions were reached:

- The Service Company provides KAWC with services similar to those provided by other utility service companies. This determination was based on service company information included in the Form 60, which must be filed with the Federal Energy Regulatory Commission ("FERC") by electric and combination electric/gas utility holding companies.
- The Service Company's 12 months ended July 31, 2008 cost per KAWC customer was reasonable compared to cost per customer for electric and combination electric/gas service companies. During the 2008 test period, KAWC was charged an average of \$60 per customer by the Service Company compared to an average of \$121 per customer for service companies reporting to the FERC.

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## II - Background

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### Overview Of American Water Works Service Company

American Water's Service Company exists to provide certain shared services to American Water subsidiaries. It follows a service company model used by many utility holding companies that own multiple regulated utilities. By consolidating executive and professional services into a single service company, utility holding companies are able to realize the following benefits for ratepayers:

- **Purchasing Economies** – Common costs (e.g., insurance, chemicals, piping) can be procured on a much larger scale thereby providing greater bargaining power for the combined entity compared to individual utility operating companies. A service company facilitates corporate-wide purchasing programs through its procurement and contract administration functions.
- **Operating Economies of Scale** – A service company is able to deliver services more efficiently because workloads can be balanced across more persons and facilities. For instance, American Water's Service Company is able to maintain one principal data center for the entire corporation. This is much more cost-efficient than each operating utility funding its own data center with its large fixed hardware, software and staffing costs.
- **Continuity of Service** – Centralizing service company personnel who perform similar services facilitates job cross-training and sharing of knowledge and expertise. This makes it easier to deal with staff turnover and absences and to sustain high levels of service to operating utilities. An individual operating utility might experience considerable disruption if a key professional left and it was necessary to hire outside to fill the vacancy.
- **Maintenance of Corporate-Wide Standards** – Personnel in American Water's Service Company establish standards for many functions (e.g., engineering designs, operating procedures and maintenance practices). It is easier to ensure these standards are followed by every operating utility because their implementation is overseen by the Service Company.
- **Improved Governance** – American Water's Service Company provides another dimension of management and financial oversight that supplements local operating utility management. The Service Company facilitates standard planning and reporting that help ensure operating utilities meet the requirements of their customers in a cost effective manner.
- **Retention of Personnel** – A service company organization provides operating utility personnel with another career path beyond what may be available on a local level. These opportunities tend to improve employee retention.

American Water follows the model for other utility service companies in another important regard. Its services are provided to affiliate operating utilities, like KAWC, at cost. American Water's Service Company is not a profit-making entity. It assigns only its actual expenses to the American Water subsidiaries it services.

The Service Company provides services to American Water operating companies from the following locations:



- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers: one in Alton, Illinois that went into operation in 2001 and a second in Pensacola, Florida that went into operation in 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of KAWC, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they are not provided by the National Shared Services Center. Examples of regional office services include rates and revenues, engineering and operations.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois, and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the communications systems. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### **Service Company Expense Categories**

The Service Company renders a monthly bill to American Water's operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses can be directly charged and allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

### **Charging and Assignment Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable)

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 20% of American Water's Southeast Region's professional labor is assigned to KAWC during a month, then 20% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 20% of the Southeast Region's accumulated professional and support labor is charged to KAWC during the month, then 20% of that month's overhead expenses will be assigned to KAWC.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to KAWC, then 2% of that office's office expenses would be assigned to KAWC. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a rate case proceeding are charged directly to the operating company whose case is being heard.

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**III – Service Company Cost Comparison Approach**

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During the 12 months ended July 31, 2008, the Service Company billed KAWC \$8,347,528 in O&M-related charges, \$486,878 in capital-related charges and \$1,114 in other charges. Included in the O&M amount are certain non-recurring expenses and non-Southeast Region charges which are excluded from this market study. As calculated in the table below, net Service Company charges of \$7,552,811 were subjected to a market cost comparison.

Reconciliation to Testable Service Company Charges	
Total Management Fees (O&M)	\$ 7,859,536
Non-Recurring Items:	
Business Change - Corporate	\$ (23,400)
Business Change - Regions	\$ (9,111)
Divestiture & SOX - Corp	\$ (729,860)
Divestiture & SOX - Regions	\$ 17,854
Less: Non-Southeast Region Charges	\$ (50,041)
Net Testable O&M	<u>\$ 7,064,978</u>
Total Capital	\$ 486,878
Total Other	\$ 1,114
<b>Total Testable Svc Co Charges</b>	<b><u>\$ 7,552,970</u></b>

For purposes of comparing these charges to outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	12 Months Ended July 31, 2008	
	Amount	Hours
Management and Professional Services	\$ 5,724,142	48,123
Customer Account Services	\$ 1,828,827	43,730
Total Service Company Charges	<u>\$ 7,552,970</u>	<u>91,853</u>

This study's first question—whether Service Company 12 months ended July 31, 2008 charges were charged at the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to KAWC during the 12 months ended July 31, 2008. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The second question—whether Service Company 12 months ended July 31, 2008 customer account services charges, including those of the National Call Center costs, were comparable to other utilities—was addressed by comparing KAWC's customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer

account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The third question—the necessity of Service Company services—was first investigated by determining the services provided to KAWC. A determination was then made as to whether these services would be required if KAWC were a stand-alone utility.

The fourth question—whether Service Company 12 months ended July 31, 2008 charges were reasonable by other comparative measures—was determined by comparing KAWC's net testable O&M Service Company charges per customer to those of electric and combination electric/gas utilities that file FERC Form 60 – Annual Report of Service Companies.

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## IV – Managerial And Professional Services Hourly Rate Comparison

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### Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar, scientific educational backgrounds as Service Company engineering personnel. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

The Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to KAWC during the 12 months ended July 31, 2008. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged KAWC during the 12 months ended December 31, 2008, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, then Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### Service Company Hourly Rates

Schedule 1 (page 11) details the assignment of 12 months ended July 31, 2008 management and professional Service Company charges by outsider provider category. Schedule 2 (page 12) shows the same assignment for Service Company management and professional hours charged to KAWC during the 12 months ended July 31, 2008.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2008 test period non-labor Service Company charges:

- Contract Services – 12 months ended July 31, 2008 Service Company charges to KAWC include over \$383,000 in expenses associated with the use of outside professional firms to perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.
- Travel Expenses – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- Computer Hardware and Software Expenses – Included in the 12 months ended July 31, 2008 Service Company charges to KAWC are charges for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the communications systems. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

Schedule 3 (page 13) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 1 and 2 and the excludable items shown in Schedule 3, the Service Company's equivalent costs per hour for the 12 months ended July 31, 2008 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total testable management & professional charges	\$ 291,662	\$ 2,209,038	\$ 2,416,857	\$ 806,585	\$ 5,724,142
Less:					
Contract services	\$ 9,655	\$ 116,547	\$ 232,727	\$ 24,523	\$ 383,452
Travel expenses	\$ -	\$ 22,123	\$ 54,548	\$ 20,286	\$ 96,958
Computer hardware/software	\$ 3,387	\$ 56,059	\$ 43,833	\$ 46,985	\$ 150,264
Net Service Charges (A)	\$ 278,619	\$ 2,014,309	\$ 2,085,749	\$ 714,791	\$ 5,093,468
Total Hours (B)	3,599	9,514	26,141	8,870	48,123
<b>Average Hourly Rate (A / B)</b>	<b>\$ 77</b>	<b>\$ 212</b>	<b>\$ 80</b>	<b>\$ 81</b>	

**Kentucky American Water Company**  
**Analysis of 12 Months Ended July 31, 2008 Service Company Charges By Location And Function**

Location	Function	12 Months Ended July 31, 2008 Service Company Charges				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality				\$ 186,737	\$ 186,737
Call Center	Human Resources		\$ 33,855			\$ 33,855
Corporate	Accounting			\$ 336,339		\$ 336,339
	Administration		\$ 718,676			\$ 718,676
	Audit			\$ 48,650		\$ 48,650
	Communications		\$ 66,004			\$ 66,004
	Engineering				\$ 24,295	\$ 24,295
	Finance			\$ 137,954		\$ 137,954
	Human Resources		\$ 178,942			\$ 178,942
	Legal	\$ 67,808				\$ 67,808
	Operations		\$ 115,054		\$ 189,616	\$ 304,670
	Rates & Revenue			\$ 16,035		\$ 16,035
	Risk Management		\$ 85,250			\$ 85,250
	Water Quality				\$ 49,779	\$ 49,779
Regional Offices	Accounting			\$ 25,276		\$ 25,276
	Administration		\$ 438,197			\$ 438,197
	Communications		\$ 95,236			\$ 95,236
	Engineering				\$ 95,059	\$ 95,059
	Finance			\$ 280,782		\$ 280,782
	Human Resources		\$ 193,549			\$ 193,549
	Legal	\$ 223,854				\$ 223,854
	Operations		\$ 118,985		\$ 241,196	\$ 360,181
	Risk Management		\$ 39,935			\$ 39,935
	Water Quality				\$ 19,903	\$ 19,903
Information Technology	Information Technology			\$ 1,159,787		\$ 1,159,787
Shared Services	Accounting			\$ 342,329		\$ 342,329
	Administration		\$ 125,357			\$ 125,357
	Finance			\$ 43,125		\$ 43,125
	Rates & Revenue			\$ 26,580		\$ 26,580
	<b>Total Dollars Charged</b>	<b>\$ 291,662</b>	<b>\$ 2,209,038</b>	<b>\$ 2,416,857</b>	<b>\$ 806,585</b>	<b>\$ 5,724,142</b>



**Kentucky American Water Company**  
**Analysis of 12 Months Ended July 31, 2008 Service Company Hours By Location And Function**

Location	Function	12 Months Ended July 31, 2008 Service Company Hours				Total	
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer		
Belleville Lab	Water Quality				2,185	2,185	
Call Center	Human Resources		430			430	
Corporate	Accounting			3,786		3,786	
	Administration		175			175	
	Audit			401		401	
	Communications		412			412	
	Engineering				153	153	
	Finance			1,070		1,070	
	Human Resources		1,770			1,770	
	Legal		286			286	
	Operations		551		1,861	2,412	
	Rates & Revenue			90		90	
Regional Offices	Risk Management		439			439	
	Water Quality				695	695	
	Accounting			397		397	
	Administration		86			86	
	Communications		1,299			1,299	
	Engineering				1,138	1,138	
	Finance			2,246		2,246	
	Human Resources		2,313			2,313	
	Legal		3,313			3,313	
	Operations		1,119		2,604	3,723	
Information Technology Shared Services	Risk Management		423			423	
	Water Quality				234	234	
	Information Technology			9,358		9,358	
	Accounting			7,301		7,301	
	Administration		499			499	
	Finance			1,180		1,180	
	Rates & Revenue			312		312	
	<b>Total Hours Charged</b>		<b>3,599</b>	<b>9,514</b>	<b>26,141</b>	<b>8,870</b>	<b>48,123</b>

**Kentucky American Water Company  
12 Months Ended July 31, 2008 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Accounting	\$ 103,793	\$ 1,612	\$ 10,773	\$ 116,178
Administration	\$ 38,800	\$ 36	\$ 6,738	\$ 45,573
Audit	\$ 8,416	\$ 27	\$ 1,984	\$ 10,427
Communications	\$ 11,565	\$ 143	\$ 9,410	\$ 21,119
Engineering	\$ (339)	\$ 169	\$ 1,892	\$ 1,722
Finance	\$ 44,540	\$ 276	\$ 10,732	\$ 55,547
Human Resources	\$ 45,503	\$ 2,998	\$ 15,490	\$ 63,990
Information Technology	\$ 75,880	\$ 52,634	\$ 18,173	\$ 146,686
Legal	\$ 9,655	\$ -	\$ 3,387	\$ 13,042
Operations	\$ 16,214	\$ 12,932	\$ 53,636	\$ 82,783
Rates & Revenue	\$ 99	\$ -	\$ 2,171	\$ 2,271
Risk Management	\$ 19,739	\$ 15,537	\$ 8,828	\$ 44,104
Water Quality	\$ 9,588	\$ 10,596	\$ 7,048	\$ 27,233
<b>Total</b>	<b>\$ 383,452</b>	<b>\$ 96,958</b>	<b>\$ 150,264</b>	<b>\$ 630,674</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Management Consultant, Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Attorney	\$ 9,655	\$ -	\$ 3,387	\$ 13,042
Management Consultant	\$ 116,547	\$ 22,123	\$ 56,059	\$ 194,730
Certified Public Accountant	\$ 232,727	\$ 54,548	\$ 43,833	\$ 331,108
Professional Engineer	\$ 24,523	\$ 20,286	\$ 46,985	\$ 91,794
<b>Total</b>	<b>\$ 383,452</b>	<b>\$ 96,958</b>	<b>\$ 150,264</b>	<b>\$ 630,674</b>

**Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs below.

It should be noted that professionals working for 3 of the 4 outside provider categories may be licensed to practice by state regulatory bodies. However, not every professional working for these firms is licensed. For instance, among certified public accounting firms within Kentucky's regions, only more experienced staff are predominantly CPAs, as shown in the table below. Some employees of the Service Company also have professional licenses. Thus, it is valid to compare the Service Company's hourly rates to those of the outside professional service providers included in this study.

Position	Firm Size		
	Small	Medium	Large
Partners/Owners	97.8%	96.6%	98.1%
Directors (over 10 years experience)	na	72.7%	78.0%
Managers (6-10 years experience)	na	50.0%	91.9%
Sr Associates (4-5 years experience)	100.0%	20.0%	72.2%
Associates (1-3 years experience)	na	40.0%	31.4%
New Professionals	na	0.0%	15.0%

**Attorneys**

The Kentucky Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for Kentucky attorneys. Therefore, an estimate of Kentucky attorney rates was developed from a survey of Michigan lawyers conducted annually by the Michigan Lawyers Weekly. As presented in Schedule 4, the average rate for each Michigan firm respondent was adjusted for the cost of living differential between their location and Lexington, Kentucky. The survey includes rates that were in effect during 2007.

**Management Consultants**

The cost per hour for management consultants was developed from the 2007 annual survey performed by the Association of Management Consulting Firms, an industry trade organization. The first step in the calculation, presented in Schedule 5, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2006 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The survey 2006 average rate was escalated to January 31, 2008—the midpoint of the 12 months ended July 31, 2008.

**Certified Public Accountants**

The average hourly rate for Kentucky certified public accountants was developed from a 2006 survey performed by the American Institute of Certified Public Accountants (AICPA). Hourly rates in the AICPA survey are the average of firms in Kentucky's region. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 6. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2005. Thus, the 2005 average rate was escalated to January 31, 2008, the midpoint of the 12 months ended July 31, 2008.

### **Professional Engineers**

The Service Company provided hourly rate information for outside engineering firms that could have been used by KAWC in 2007 and 2008. As presented in Schedule 7, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Schedule 4

**Kentucky American Water Company  
Estimated Billing Rates For Kentucky Attorneys Based On  
Michigan Attorney Billing Rates**

Billing rates as of December 31, 2007 (Note A)									
Firm	Michigan Location	Number Of Mich Lawyers	Billing Rate Range				Average	Cost of Living Adjust (C)	Adjusted Rate
			Associate		Partner				
			Low	High	Low	High			
Dickinson Wright PLLC	Detroit	229	\$ 170	\$ 275	\$ 260	\$ 530	\$ 309	86%	\$ 361
Dykema	Detroit	222	\$ 185	\$ 390	\$ 245	\$ 625	\$ 361	86%	\$ 422
Butzel Long	Detroit	209	\$ 165	\$ 400	\$ 220	\$ 550	\$ 334	86%	\$ 390
Bodman LLP	Detroit	128	\$ 125	\$ 215	\$ 210	\$ 495	\$ 261	86%	\$ 305
Jaffe Raitt Heuer & Weiss, PC	Southfield	100	\$ 165	\$ 225	\$ 225	\$ 500	\$ 279	98%	\$ 285
Trott & Trott, PC	Bingham Farms	64	\$ 170	\$ 170	\$ 235	\$ 235	\$ 203	127%	\$ 160
Brooks Kushman PC	Southfield	52	\$ 160	\$ 275	\$ 250	\$ 505	\$ 298	98%	\$ 304
Kemp, Klein, Umphrey, Edelman & May PC	Troy	36	\$ 150	\$ 190	\$ 200	\$ 340	\$ 220	112%	\$ 196
Pepper Hamilton LLP	Detroit	33	\$ 200	\$ 315	\$ 340	\$ 615	\$ 368	86%	\$ 430
Hertz, Schram & Saretsky, PC	Bloomfield Hills	29	\$ 175	\$ 260	\$ 275	\$ 400	\$ 278	140%	\$ 198
Strobl & Sharp, PC	Bloomfield Hills	28	\$ 110	\$ 210	\$ 200	\$ 300	\$ 205	140%	\$ 146
Kupelian Ormond & Magy, PC	Southfield	25	\$ 165	\$ 195	\$ 235	\$ 320	\$ 229	98%	\$ 234
Rader, Fishman & Grauer, PLLC	Bloomfield Hills	25	\$ 130	\$ 250	\$ 275	\$ 495	\$ 288	140%	\$ 205
McShane & Bowie PLC	Grand Rapids	22	\$ 160	\$ 275	\$ 250	\$ 375	\$ 265	97%	\$ 273
Overall Average 2007 Billing Rate									\$ 279

Note A: Source is Michigan Lawyers Weekly, April 2008

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiat.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This number represents the cost of living difference between the Michigan city and Lexington, Ky. A number over 100% indicates the Michigan city's cost of living is higher than Lexington. A number less than 100% indicates Lexington's cost of living is higher.

Schedule 5

**Kentucky American Water Company  
Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position  
Survey billing rates were those in effect in 2006 (Note A)

		Average Hourly Rates (Note A)				
		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average		\$ 142	\$ 187	\$ 235	\$ 306	\$ 358

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution  
of Time on an Engagement

		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)		\$ 142	\$187	\$235	\$306	\$358	
Typical Percent of Time Spent on a Consulting Project		30%	30%	20%	10%	10%	Weighted Average
		\$ 43	\$ 56	\$ 47	\$ 31	\$ 36	<b>\$ 212</b>

Escalation to Midpoint of July 31, 2008 Test Period (Note B)

	CPI at December 31, 2006	201.8
	CPI at January 31, 2008	211.1
	Inflation/Escalation	4.6%
Average Hourly Billing Rate For Management Consultants At January 31, 2008		<b>\$ 222</b>

Note A: source: "Operating Ratios For Management Consulting Firms, 2007 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>)

Schedule 6

**Kentucky American Water Company  
Billing Rates Of Kentucky Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position				
Survey billing rates were those in effect in 2005 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 65	\$ 77	\$ 112	\$ 150
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 65	\$ 77	\$ 112	\$ 150
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 20	\$ 23	\$ 22	\$ 30
				Weighted Average
				<b>\$ 95</b>
			CPI at December 31, 2005	196.8
			CPI at January 31, 2008	211.1
			Inflation/Escalation	7.3%
			Average Hourly Billing Rate For CPAs At January 31, 2008	<b>\$ 102</b>

Note A: Source is AICPA's 2006 National PCPS/TSCPA Management of an Accounting Practice Survey

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Exhibit PLB-1  
Schedule 7

**Kentucky American Water Company  
Billing Rates Of Kentucky Engineers**

Note: Billing rates were those in effect in 2007 and 2008

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$73	\$85	\$136	\$175
Firm #2	\$76	\$84	\$134	\$164
Firm #3	\$80	\$102	\$162	\$207
Firm #4	\$60	\$80	\$127	\$162
Firm #5	\$70	\$73	\$112	\$160
Firm #6	\$55	\$86	\$139	\$190

B. Calculation of Overall Average Engineering Hourly Billing Rate

	CAD Drafter	Engineer	Project Manager	Officer	Weighted Average
	Engineer Tech	Design Engineer Project Engineer Elect Proj Engineer	Project Associate Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$69	\$85	\$135	\$176	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$21	\$30	\$34	\$18	<b>\$102</b>

Source: Information provided by American Water Works Service Company



**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	12 Months Ended July 31, 2008		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 77	\$ 279	\$ (202)
Management Consultant	\$ 212	\$ 222	\$ (10)
Certified Public Accountant	\$ 80	\$ 102	\$ (22)
Professional Engineer	\$ 81	\$ 102	\$ (21)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to KAWC during the 12-months ended July 31, 2008, outside service providers would have cost \$1,595,514 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are 28% higher than those of the Service Company (\$1,595,514 / \$5,724,142).

Service Provider	12 Months Ended July 31, 2008		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (202)	3,599	\$ (726,242)
Management Consultant	\$ (10)	9,514	\$ (98,587)
Certified Public Accountant	\$ (22)	26,141	\$ (583,251)
Professional Engineer	\$ (21)	8,870	\$ (187,433)
Service Company Less Than Outside Providers			\$ (1,595,514)

If KAWC were to use outside service providers rather than the Service Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 48,123 hours of work (around 32 full-time equivalents at 1,500 "billable" hours per FTE per year) would add a significant workload to the existing KAWC management team. Thus, it would be necessary for KAWC to add at least one position to supervise the outside firms and ensure they delivered quality and timely services. The individual that would fill this position would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$149,400 per year to KAWC's personnel expenses.

Cost of Adding a Professional Position To KAWC's Staff

	Total
New Position's Salary	\$ 100,000
Benefits (49.4%)	\$ 49,400
Office Expenses (15.2%)	\$ 15,200
Total Cost of Full Time Position	\$ 149,400

Thus, the total effect on the ratepayers of KAWC of contracting all services now provided by the Service Company would be an increase in their costs of \$1,744,914 (\$1,595,514 + \$149,400). Based on the results of this comparison, it is possible to conclude that the Service Company

charged KAWC at the lower of cost or market for services provided during the 12 months ended July 31, 2008.

**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%
2005	24	25%
2006	24	31%

These studies provide additional evidence that the Service Company arrangement is the lowest-cost alternative for KAWC.

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**V – Customer Account Services Cost Comparison**

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**Background**

It is difficult to compare the cost of American Water's National Call Centers with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, KAWC's National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from the FERC Form 1 that each must file. FERC's chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study's comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA).

Schedule 8 provides FERC's description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

**903 Records and Collection Expense**

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing and mailing
- Remittance processing – processing of customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

**905 Miscellaneous Customer Accounts Expense**

- Customer Information System IT – maintenance and support of the customer information system

This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.



**Kentucky American Water Company  
FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

**Kentucky American Water Company  
FERC Account Descriptions**

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 shows amounts for accounts 903 and 905.

Kentucky	<ul style="list-style-type: none"> <li>• Duke Energy – Kentucky</li> <li>• Kentucky Power</li> </ul>	<ul style="list-style-type: none"> <li>• Kentucky Utilities</li> <li>• Louisville Gas &amp; Electric</li> </ul>
West Virginia	<ul style="list-style-type: none"> <li>• Wheeling Power</li> </ul>	
Virginia	<ul style="list-style-type: none"> <li>• Appalachian Power</li> </ul>	<ul style="list-style-type: none"> <li>• Virginia Electric Power</li> </ul>
Ohio	<ul style="list-style-type: none"> <li>• Cleveland Electric</li> <li>• Columbus Southern Power</li> <li>• Dayton Power &amp; Light</li> <li>• Duke Energy – Ohio</li> </ul>	<ul style="list-style-type: none"> <li>• Ohio Edison</li> <li>• Ohio Power</li> <li>• Toledo Edison</li> </ul>
Missouri	<ul style="list-style-type: none"> <li>• Aquila</li> <li>• Kansas City Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• Union Electric</li> </ul>
Indiana	<ul style="list-style-type: none"> <li>• Duke Energy – Indiana</li> <li>• Indiana Michigan Power</li> </ul>	<ul style="list-style-type: none"> <li>• Indianapolis Power &amp; Light</li> <li>• NIPSCO</li> </ul>
Illinois	<ul style="list-style-type: none"> <li>• Central Illinois Light</li> <li>• Central Illinois Public Service</li> <li>• Commonwealth Edison</li> </ul>	<ul style="list-style-type: none"> <li>• Illinois Power</li> <li>• Interstate Power &amp; Light</li> <li>• MidAmerica Energy</li> </ul>
Tennessee	<ul style="list-style-type: none"> <li>• Kingsport Power</li> </ul>	

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. KAWC's cost pool was developed to include the same expenses included in electric utility's FERC accounts 903 and 905. As shown in the graphic below, KAWC's resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u>
Pensacola & Alton Call Centers
a. Customer contact
b. Customer order processing
c. Billing information processing
d. Collections
e. Correspondence processing
f. Customer payment processing
<u>Operating Company</u>
a. Postage and forms

Electric Utilities
FERC Acct 903 - Records and Collection Expense and FERC Acct 905 - Misc Customer Accounts Expense
a. Customer contact
b. Customer order processing
c. Bill preparation and mailing
d. Collections
e. Payment processing
f. Correspondence processing

**KAWC Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to KAWC. It was necessary to adjust the National Call Center call handling charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.33 calls per customer. Thus, National Call Center call handling charges had to be increased for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, KAWC's adjusted annual expense per customer is \$28.07—the number that can be compared to neighboring electric utilities' expenses. KAWC's 12 months ended July 31, 2008 unadjusted annual expense per customer is \$23.22.

<b>Kentucky-American Cost Per Customer</b>		Year Ended 7/31/2008	Adjustment Fewer Service Co Calls For	Adjusted
Cost Component		Charges	Water Cos. (A)	
<b>Service Company</b>				
Call Centers	Call processing, order processing, credit, bill collection	\$ 1,648,336	\$ 567,707	\$ 2,216,043
Regional Offices		\$ 180,491		\$ 180,491
Operating Company	Customer payment processing			\$ 166,689 Note B
Operating Company	Postage & forms			\$ 724,532
Cost Pool Total				\$ 3,287,755
Total Customers				117,119
<b>12 Months Ended July 31, 2008 Cost Per KAWC Customer</b>				<b>\$ 28.07</b>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Call handling expenses		\$ 643,808
Electric utility industry's avg calls/customer	2.50	
American Water's avg calls/customer	1.33	
Percent different	88%	88%
Total Adjustment		\$ 567,707

Note B: Estimated customer payment processing expenses

Number of customers	117,119
Number of payments/customer/year	12
Total payments processed/year	1,405,428
Bank charge per item	\$ 0.1186
Total estimated annual expense	\$ 166,689

**Electric Utility Group Cost Per Customer**

Schedule 9 shows the actual 2007 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data were taken from each utility's FERC Form 1.

## Summary Of Results

As shown in the table below, KAWC's cost per customer is close to the average of the neighboring electric utility comparison group. It can therefore be concluded that KAWC's 12 months ended July 31, 2008 customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to KAWC are reasonable compared to those of other utilities.

Average Customer Accounts Expense Per Customer		
Louisville Gas & Electric	\$	13.71
Interstate Power & Light	\$	15.86
Virginia Electric Power	\$	15.89
Ohio Edison	\$	19.04
Dayton Power & Light	\$	19.15
Illinois Power	\$	19.83
Indianapolis Power & Light	\$	20.62
Cleveland Electric Illuminating	\$	21.33
Union Electric	\$	23.46
Aquila	\$	23.72
Kansas City Power & Light	\$	25.09
Toledo Edison	\$	25.77
Kentucky Utilities	\$	25.91
Central Illinois Public Service	\$	26.50
MidAmerican Energy	\$	27.50
<b>Comparison Group Average</b>	<b>\$</b>	<b>27.99</b>
<b>Kentucky American Water</b>	<b>\$</b>	<b>28.07</b>
Wheeling Power	\$	28.08
Northern Indiana Public Service	\$	28.32
Indiana Michigan Power	\$	31.74
Duke Energy Indiana	\$	32.14
Kingsport Power	\$	32.31
Central Illinois Light	\$	34.22
Duke Energy Kentucky	\$	34.88
Appalachian Power	\$	34.99
Ohio Power	\$	35.00
Duke Energy Ohio	\$	36.10
Kentucky Power	\$	37.59
Columbus & Southern Power	\$	38.57
Commonwealth Edison	\$	39.81

It should be noted that comparison group per customer costs at the low end are unusually low given the nature of Customer Accounts expenses. For instance, the annual cost of forms and postage alone is around \$6.20 per customer for KAWC. It would be expected that this cost would be the same for every utility in the comparison group because all likely mail customer bills monthly. Thus, for a low-end cost utility like Louisville Gas & Electric, that leaves only \$7.51 (\$13.71-\$6.20) to cover labor and information technology expenses that Customer Accounts services require. It is possible that the very low end cost utilities record the cost of supporting their customer information systems to an A&G FERC account rather than to a Customer Accounts FERC account (903).





**Kentucky American Water Company**  
**Comparison Group 2007 Actual Customer Accounts Expense Per Customer**

	Kentucky			West Virginia		Virginia	
	Duke Energy Kentucky	Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	Wheeling Power	Appalachian Power	Virginia Electric Power
<b>Customer Account Services Cost Pool</b>							
FERC Account Balances:							
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 3,247,759	\$ 6,205,360	\$ 11,681,015	\$ 4,642,565	\$ 1,083,477	\$ 31,314,061	\$ 32,253,336
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ 75,852	\$ 2,888	\$ 173,641	\$ 215,534	\$ 1,480	\$ 18,238	\$ -
Subtotal	\$ 3,323,611	\$ 6,208,248	\$ 11,854,656	\$ 4,858,099	\$ 1,084,957	\$ 31,332,299	\$ 32,253,336
Add: Employee Benefits & Employer FICA (not included in above amounts)	\$ 1,080,370	\$ 285,983	\$ 1,738,946	\$ 542,390	\$ 55,868	\$ 1,429,385	\$ 3,831,664
Account 926 - Employee Pension & Benefits							
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)	\$ 264,982	\$ 111,009	\$ 230,888	\$ 94,002	\$ 19,665	\$ 534,319	\$ 1,451,975
<b>Total Cost Pool</b>	<b>\$ 4,668,963</b>	<b>\$ 6,605,240</b>	<b>\$ 13,824,490</b>	<b>\$ 5,494,491</b>	<b>\$ 1,160,489</b>	<b>\$ 33,296,003</b>	<b>\$ 37,536,975</b>
Total Customers (page 304, line 43)	133,868	175,705	533,512	400,703	41,332	951,693	2,362,318
<b>Customer Account Services Expense per Customer</b>	<b>\$ 34.88</b>	<b>\$ 37.59</b>	<b>\$ 25.91</b>	<b>\$ 13.71</b>	<b>\$ 28.08</b>	<b>\$ 34.99</b>	<b>\$ 15.89</b>
<b>Note A:</b> Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt							
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 9,725,767	\$ 4,466,809	\$ 22,618,725	\$ 20,138,689	\$ 369,460	\$ 21,499,955	\$ 120,865,073
Total O&M Payroll (page 355, line 65)	\$ 31,182,162	\$ 22,664,819	\$ 39,257,367	\$ 45,624,056	\$ 1,699,949	\$ 105,057,647	\$ 598,702,458
Benefits as Percent of Payroll	31.2%	19.7%	57.6%	44.1%	21.7%	20.5%	20.2%
Payroll Applicable to Customer Account Services							
Total Payroll Charged to Customer Accounts Function	\$ 1,323,882	\$ 1,702,053	\$ 4,110,913	\$ 960,068	\$ 357,852	\$ 8,227,618	\$ 25,945,148
Electric (page 354, line 7)	\$ 3,112,805			\$ 771,056			
Gas (page 354, line 37)	\$ 4,436,687	\$ 1,702,053	\$ 4,110,913	\$ 1,731,124	\$ 357,852	\$ 8,227,618	\$ 25,945,148
Total Payroll Charged to Customer Accounts	\$ 3,247,759	\$ 6,205,360	\$ 11,681,015	\$ 4,642,565	\$ 1,083,477	\$ 31,314,061	\$ 32,253,336
Percent Applicable to Customer Accounts Services (903 and 905):							
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 75,852	\$ 2,888	\$ 173,641	\$ 215,534	\$ 1,480	\$ 18,238	\$ -
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ 3,323,611	\$ 6,208,248	\$ 11,854,656	\$ 4,858,099	\$ 1,084,957	\$ 31,332,299	\$ 32,253,336
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 933,492	\$ 1,073,679	\$ 4,292,201	\$ 1,986,061	\$ 425,426	\$ 5,576,254	\$ 11,835,960
Account 902 - Meter Reading Expenses (page 322, line 160)	\$ 4,257,103	\$ 7,281,927	\$ 16,146,857	\$ 6,844,160	\$ 1,570,383	\$ 36,908,553	\$ 44,089,296
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	78.1%	85.3%	73.4%	71.0%	71.8%	84.9%	73.2%
Percent Applicable to Customer Accounts Services (903 and 905)	\$ 3,463,816	\$ 1,451,095	\$ 3,018,139	\$ 1,228,781	\$ 257,057	\$ 6,984,565	\$ 18,980,062
Customer Account Services Portion of Total Payroll	\$ 1,080,370	\$ 285,983	\$ 1,738,946	\$ 542,390	\$ 55,868	\$ 1,429,385	\$ 3,831,664
Pension & Benefits Pertaining to Customer Accounts Services							
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 3,463,816	\$ 1,451,095	\$ 3,018,139	\$ 1,228,781	\$ 257,057	\$ 6,984,565	\$ 18,980,062
Customer Account Services Portion of Total Payroll	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	\$ 264,982	\$ 111,009	\$ 230,888	\$ 94,002	\$ 19,665	\$ 534,319	\$ 1,451,975
Estimated Employer's Portion of FICA							

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

Total Customers (page 304, line 43)

Customer Account Services Expense per Customer

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Account 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

Account 926 - Employee Pension & Benefits (page 323, line 187)

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA

**Kentucky American Water Company**  
**Comparison Group 2007 Actual Customer Accounts Expense Per Customer**

Ohio							Toledo Edison
Cleveland Electric Illum.	Columbus Southern Pwr	Dayton Power & Light	Duke Energy - Ohio	Ohio Edison	Ohio Power	Toledo Edison	
\$ 14,571,985	\$ 27,013,658	\$ 8,528,580	\$ 18,251,514	\$ 20,280,096	\$ 23,346,691	\$ 6,786,566	
\$ 493,177	\$ 30,647	\$ -	\$ 7,279	\$ 507,437	\$ 36,717	\$ 156,298	
\$ 15,065,162	\$ 27,044,305	\$ 8,528,580	\$ 18,258,793	\$ 20,787,533	\$ 23,383,408	\$ 6,942,864	
\$ 836,948	\$ 1,264,559	\$ 991,292	\$ 5,237,196	\$ (1,424,285)	\$ 1,098,295	\$ 982,446	
\$ 274,236	\$ 428,016	\$ 333,191	\$ 1,290,860	\$ 450,184	\$ 418,833	\$ 150,795	
<b>\$ 16,176,347</b>	<b>\$ 9,853,063</b>	<b>\$ 24,786,849</b>	<b>\$ 19,813,432</b>	<b>\$ 24,900,536</b>	<b>\$ 8,076,105</b>	<b>\$ 313,413</b>	
\$ 758,319	\$ 745,133	\$ 514,405	\$ 686,578	\$ 1,040,662	\$ 711,406	\$ 313,413	
<b>\$ 21.33</b>	<b>\$ 38.57</b>	<b>\$ 19.15</b>	<b>\$ 36.10</b>	<b>\$ 19.04</b>	<b>\$ 35.00</b>	<b>\$ 25.77</b>	
<b>Note A</b>							
<b>Note B</b>							
\$ 7,650,920	\$ 11,597,859	\$ 18,464,446	\$ 52,482,158	\$ (11,505,519)	\$ 22,732,455	\$ 7,749,820	
\$ 32,770,179	\$ 51,314,234	\$ 81,127,271	\$ 169,094,889	\$ 47,537,720	\$ 113,320,078	\$ 15,549,239	
23.3%	22.6%	22.8%	31.0%	-24.2%	20.1%	49.8%	
\$ 4,890,691	\$ 6,589,685	\$ 6,193,463	\$ 8,774,665	\$ 8,447,511	\$ 6,727,321	\$ 2,640,178	
\$ 4,890,691	\$ 6,589,685	\$ 6,193,463	\$ 22,336,017	\$ 8,447,511	\$ 6,727,321	\$ 2,640,178	
\$ 14,571,985	\$ 27,013,658	\$ 8,528,580	\$ 18,251,514	\$ 20,280,096	\$ 23,346,691	\$ 6,786,566	
\$ 493,177	\$ 30,647	\$ -	\$ 7,279	\$ 507,437	\$ 36,717	\$ 156,298	
\$ 15,065,162	\$ 27,044,305	\$ 8,528,580	\$ 18,258,793	\$ 20,787,533	\$ 23,383,408	\$ 6,942,864	
\$ 5,488,077	\$ 4,808,046	\$ 3,599,111	\$ 5,910,289	\$ 9,052,734	\$ 5,348,894	\$ 2,356,336	
\$ 20,553,239	\$ 31,852,351	\$ 12,127,691	\$ 24,169,082	\$ 29,840,267	\$ 28,732,302	\$ 9,299,200	
73.3%	84.9%	70.3%	75.5%	69.7%	81.4%	74.7%	
\$ 3,584,790	\$ 5,594,986	\$ 4,355,441	\$ 16,873,984	\$ 5,884,763	\$ 5,474,942	\$ 1,971,180	
\$ 836,948	\$ 1,264,559	\$ 991,292	\$ 5,237,196	\$ (1,424,285)	\$ 1,098,295	\$ 982,446	
\$ 3,584,790	\$ 5,594,986	\$ 4,355,441	\$ 16,873,984	\$ 5,884,763	\$ 5,474,942	\$ 1,971,180	
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	
\$ 274,236	\$ 428,016	\$ 333,191	\$ 1,290,860	\$ 450,184	\$ 418,833	\$ 150,795	

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 161)  
Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

Total Cost Pool

Total Customers (page 304, line 43)

Customer Account Services Expense per Customer

**Note A: Calculation of Pension & Benefits** Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 187)  
Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Account 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B: Calculation of Employer's FICA** Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA

**Kentucky American Water Company**  
**Comparison Group 2007 Actual Customer Accounts Expense Per Customer**

	Missouri			Indiana			NIPSCO
	Aquila	Kansas City Power & Light	Union Electric	Duke Energy Indiana	Indiana Mich Power	Indianapolis Power & Light	
<b>Customer Account Services Cost Pool</b>							
FERC Account Balances:							
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 7,864,226	\$ 10,445,176	\$ 23,559,069	\$ 20,424,866	\$ 17,077,474	\$ 7,808,040	\$ 7,640,560
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ 3,970	\$ 6,055	\$ 393,593	\$ 71,323	\$ 101,472	\$ 67,688	\$ 148,310
Subtotal	\$ 7,868,196	\$ 10,451,231	\$ 23,952,662	\$ 20,496,189	\$ 17,178,946	\$ 7,875,728	\$ 7,788,870
Add: Employee Benefits & Employer FICA (not included in above amounts)							
Account 926 - Employee Pension & Benefits	\$ 2,740,462	\$ 2,054,257	\$ 2,890,852	\$ 3,670,837	\$ 927,402	\$ 1,466,355	\$ 3,921,459
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)	\$ 531,626	\$ 393,973	\$ 833,653	\$ 710,258	\$ 360,378	\$ 306,353	\$ 1,159,163
<b>Total Cost Pool</b>	<b>\$ 11,140,285</b>	<b>\$ 12,899,461</b>	<b>\$ 27,677,167</b>	<b>\$ 24,877,285</b>	<b>\$ 18,466,726</b>	<b>\$ 9,648,436</b>	<b>\$ 12,869,492</b>
Total Customers (page 304, line 43)	469,707	514,210	1,179,789	773,954	581,882	467,864	454,471
<b>Customer Account Services Expense per Customer</b>	<b>\$ 23.72</b>	<b>\$ 25.09</b>	<b>\$ 23.46</b>	<b>\$ 32.14</b>	<b>\$ 31.74</b>	<b>\$ 20.62</b>	<b>\$ 28.32</b>
<b>Note A:</b> Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt							
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 36,497,609	\$ 60,859,546	\$ 84,255,317	\$ 64,187,707	\$ 31,214,137	\$ 35,834,278	\$ 29,700,994
Total O&M Payroll (page 355, line 65)	\$ 92,551,964	\$ 152,573,359	\$ 317,610,780	\$ 162,345,980	\$ 158,555,087	\$ 97,863,363	\$ 114,764,234
Benefits as Percent of Payroll	39.4%	39.9%	26.5%	39.5%	19.7%	36.6%	25.9%
Payroll Applicable to Customer Account Services							
Total Payroll Charged to Customer Accounts Function	\$ 6,278,707	\$ 6,966,789	\$ 15,228,065	\$ 12,278,547	\$ 5,707,798	\$ 6,869,864	\$ 7,923,830
Electric (page 354, line 7)	\$ 4,539,711	\$ 5,000,000	\$ 11,500,000	\$ 9,500,000	\$ 4,000,000	\$ 4,500,000	\$ 5,000,000
Gas (page 354, line 37)	\$ 1,739,000	\$ 1,966,789	\$ 3,728,065	\$ 2,778,547	\$ 1,707,798	\$ 2,369,864	\$ 2,923,830
Total Payroll Charged to Customer Accounts	\$ 10,818,418	\$ 13,933,578	\$ 15,228,065	\$ 12,278,547	\$ 7,415,596	\$ 9,179,864	\$ 10,827,660
Percent Applicable to Customer Accounts Services (903 and 905):							
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 7,864,226	\$ 10,445,176	\$ 23,559,069	\$ 20,424,866	\$ 17,077,474	\$ 7,808,040	\$ 7,640,560
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ 3,970	\$ 6,055	\$ 393,593	\$ 71,323	\$ 101,472	\$ 67,688	\$ 148,310
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 7,868,196	\$ 10,451,231	\$ 23,952,662	\$ 20,496,189	\$ 17,178,946	\$ 7,875,728	\$ 7,788,870
Acct 902 - Meter Reading Expenses (page 322, line 160)	\$ 4,380,613	\$ 3,687,007	\$ 17,397,091	\$ 6,609,800	\$ 3,635,670	\$ 5,634,982	\$ 2,831,519
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	\$ 12,248,809	\$ 14,138,238	\$ 41,349,753	\$ 27,105,989	\$ 20,814,616	\$ 13,510,710	\$ 10,620,389
Percent Applicable to Customer Accounts Services (903 and 905)	64.2%	73.9%	57.9%	75.6%	82.5%	58.3%	73.3%
Customer Account Services Portion of Total Payroll	\$ 6,949,364	\$ 5,149,971	\$ 10,897,423	\$ 9,284,421	\$ 4,710,822	\$ 4,004,614	\$ 15,152,462
Pension & Benefits Pertaining to Customer Accounts Services	\$ 2,740,462	\$ 2,054,257	\$ 2,890,852	\$ 3,670,837	\$ 927,402	\$ 1,466,355	\$ 3,921,459
Total Payroll Charged to Customer Accounts Services	\$ 9,689,826	\$ 7,204,228	\$ 13,788,275	\$ 12,955,258	\$ 5,638,224	\$ 5,470,969	\$ 19,073,921
Customer Account Services Portion of Total Payroll	\$ 6,949,364	\$ 5,149,971	\$ 10,897,423	\$ 9,284,421	\$ 4,710,822	\$ 4,004,614	\$ 15,152,462
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	\$ 7.65%	\$ 7.65%	\$ 7.65%	\$ 7.65%	\$ 7.65%	\$ 7.65%	\$ 7.65%
Estimated Employer's Portion of FICA	\$ 531,626	\$ 393,973	\$ 833,653	\$ 710,258	\$ 360,378	\$ 306,353	\$ 1,159,163

**Note B:** Calculation of Employer's FICA Pertaining to Customer Accounts Services  
 Customer Account Services Portion of Total Payroll  
 Employer's Portion of FICA (6.20%) and Medicare (1.45%)  
 Estimated Employer's Portion of FICA

**Kentucky American Water Company  
Comparison Group 2007 Actual Customer Accounts Expense Per Customer**

	Illinois					Tennessee	
	Central Illinois Light	Central Illinois Pub Service	Commonwealth Edison	Illinois Power	Interstate Power & Light	MidAmerica Energy	Kingsport Power
\$ 5,596,991	\$ 8,716,470	\$ 120,610,588	\$ 10,989,619	\$ 6,841,367	\$ 14,254,909	\$ 1,473,454	
\$ 223,985	\$ 302,592	\$ 568,738	\$ 28,667	\$ 309,674	\$ 401	\$ 401	
\$ 5,820,976	\$ 9,019,062	\$ 120,610,588	\$ 11,558,357	\$ 6,870,034	\$ 14,564,583	\$ 1,473,855	
\$ 1,037,533	\$ 812,658	\$ 25,649,317	\$ 69,710	\$ 1,133,450	\$ 3,583,729	\$ 44,764	
\$ 334,233	\$ 442,805	\$ 5,100,185	\$ 541,271	\$ 372,012	\$ 1,552,522	\$ 20,029	
\$ 7,192,743	\$ 10,274,525	\$ 151,360,089	\$ 12,169,339	\$ 8,375,496	\$ 19,700,834	\$ 1,538,648	
\$ 210,178	\$ 387,776	\$ 3,802,140	\$ 613,536	\$ 528,093	\$ 716,315	\$ 47,624	
\$ 34,22	\$ 26,50	\$ 39,81	\$ 19,83	\$ 15,86	\$ 27,50	\$ 32,31	
\$ 8,354,060	\$ 8,570,858	\$ 115,712,143	\$ 870,134	\$ 23,724,694	\$ 38,097,558	\$ 234,574	
\$ 35,179,031	\$ 61,047,440	\$ 300,765,220	\$ 88,316,487	\$ 101,787,427	\$ 215,743,804	\$ 1,371,988	
23.7%	14.0%	38.5%	1.0%	23.3%	17.7%	17.1%	
\$ 3,140,575	\$ 5,666,365	\$ 85,366,508	\$ 7,085,972	\$ 6,582,592	\$ 16,414,627	\$ 297,440	
\$ 2,647,376	\$ 2,677,418	\$ 4,384,260	\$ 4,384,260	\$ 2,494,279	\$ 14,720,361	\$ 401	
\$ 5,787,951	\$ 8,343,783	\$ 85,366,508	\$ 11,470,232	\$ 9,076,871	\$ 31,134,988	\$ 297,440	
\$ 5,596,991	\$ 8,716,470	\$ 120,610,588	\$ 10,989,619	\$ 6,841,367	\$ 14,254,909	\$ 1,473,454	
\$ 223,985	\$ 302,592	\$ -	\$ 568,738	\$ 28,667	\$ 309,674	\$ 401	
\$ 5,820,976	\$ 9,019,062	\$ 120,610,588	\$ 11,558,357	\$ 6,870,034	\$ 14,564,583	\$ 1,473,855	
\$ 1,890,408	\$ 3,981,834	\$ 33,825,388	\$ 7,179,283	\$ 5,953,252	\$ 7,779,904	\$ 200,527	
\$ 7,711,384	\$ 13,000,896	\$ 154,435,976	\$ 18,737,640	\$ 12,823,286	\$ 22,344,487	\$ 1,674,382	
75.5%	69.4%	78.1%	61.7%	53.6%	65.2%	88.0%	
\$ 4,369,063	\$ 5,788,301	\$ 66,669,082	\$ 7,075,439	\$ 4,862,904	\$ 20,294,407	\$ 261,818	
\$ 1,037,533	\$ 812,658	\$ 25,649,317	\$ 69,710	\$ 1,133,450	\$ 3,583,729	\$ 44,764	
\$ 4,369,063	\$ 5,788,301	\$ 66,669,082	\$ 7,075,439	\$ 4,862,904	\$ 20,294,407	\$ 261,818	
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	
\$ 334,233	\$ 442,805	\$ 5,100,185	\$ 541,271	\$ 372,012	\$ 1,552,522	\$ 20,029	
<b>Group Average</b>							
						\$ 563,120,389	
						\$ 20,116,586	
						\$ 27.99	

**Customer Account Services Cost Pool**

FERC Account Balances:  
 Acct 903 - Customer Records & Collection (page 322, line 161)  
 Acct 905 - Misc Customer Accounts (page 322, line 163)  
 Subtotal  
 Add: Employee Benefits & Employer FICA (not included in above amounts)  
 Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

Total Cost Pool

Total Customers (page 304, line 43)

Customer Account Services Expense per Customer

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 187)  
 Total O&M Payroll (page 355, line 65)  
 Benefits as Percent of Payroll  
 Total Payroll Charged to Customer Accounts Function  
 Electric (page 354, line 7)  
 Gas (page 354, line 37)  
 Total Payroll Charged to Customer Accounts  
 Percent Applicable to Customer Accounts Services (903 and 905):  
 Acct 903 - Customer Records & Collection (page 322, line 161)  
 Acct 905 - Misc Customer Accounts (page 322, line 163)  
 Subtotal - Total Charges Applicable to Customer Accounts Services  
 Acct 902 - Meter Reading Expenses (page 322, line 160)  
 Total Charges Applicable to Customer Accounts Svcs & Meter Reading  
 Percent Applicable to Customer Accounts Services (903 and 905)  
 Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services  
**Note B:** Calculation of Employer's FICA Pertaining to Customer Accounts Services  
 Customer Account Services Portion of Total Payroll  
 Employer's Portion of FICA (6.20%) and Medicare (1.45%)  
 Estimated Employer's Portion of FICA

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## VI - Need For Service Company Services

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### Analysis Of Services

The third aspect of this study was an assessment of whether the services that are provided to KAWC by the Service Company would be necessary if KAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for KAWC. Based on Baryenbruch & Company, LLC's experience working with the Service Company and information from Service Company personnel, the matrix in Schedule 10 was created showing which entity—KAWC or a Service Company location—is responsible for each of the functions KAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 10, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if KAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to KAWC. For all of the services listed in Schedule 10, there was only one entity that was primarily responsible for the service.

**Designation Of Responsibility For Water Utility Functions**

	Primarily Responsible Provides Support	P S	Performed By:							
			KAWC	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab	
Water Company Function										
<b>Engineering and Construction Management</b>										
CPS Preparation	P							S		
Five-Year System Planning	P							S		
Engineering Standards & Policies Development								P		
Project Design										
Major Projects (e.g., new treatment plant)	P							S		
Special Projects	P							S		
Minor Projects (e.g., pipelines)										
Construction Project Management										
Major Projects	P							S		
Special Projects	P							S		
Minor Projects	P									
Hydraulics Review	P							S		
Developers Extensions	P									
Tank Painting	P									
<b>Water Quality and Purification</b>										
Water Quality Standards Development								S		P
Research Studies	S							S		P
Water Quality Program Implementation	P							S		
Water Treatment Operations & Maintenance	P							S		
Compliance Tracking and Chemical Testing	P							S		S
Sample Collection and Other Testing	S							S		P
<b>Transmission and Distribution</b>										
Preventive Maintenance Program Development	P									
System Maintenance	P									
Leak Detection	P									
<b>Customer Service</b>										
Community Relations	P							S		
Customer Contact	S									
Call Processing										
Service Order Creation	S							S		
Service Order Processing	P									
Customer Credit										
Meter Reading	P									S
Customer Bill Preparation										P
Bill Collection	S									S
Customer Payment Processing	S									P
Meter Standards Development	S									
Meter Testing, Maintenance & Replacement	P									P

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	KAWC	Performed By:							
		Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab		
<b>Primarily Responsible P Provides Support S</b>									
Financial Management									
Financial Planning	S		P		S				
Financings—Equity	S		P		S				
Financings--Long Term Debt & Preferred (A)	S		P		S				
Short Term Lines of Credit Arrangements (A)	S		S		P				
Investor Relations									
Insurance Program Administration	S				P				
Loss Control/Safety Program Administration	P								
Pension Fund Asset Management									
Cash Management/Disbursements				P					
<b>Internal Auditing</b>									
<b>Budgeting and Variance Reporting</b>									
Corporate Guidelines & Instructions									
Regional Guidelines & Instructions			P						
Budget Preparation									
Revenue	P		S						
O&M	P		S						
Depreciation and Interest Expense	S		S						
Budget Preparation--Service Company Charges	S	S	P	P	S		S	S	S
Capital Budget Preparation—Projects	P								
Capital Budget Preparation—Non-Project Work	P								
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	P								
Prepare Capital Project Budget Status Report	P								
Year-End Projections (A)	P								
<b>Accounting and Taxes</b>									
Accounts Payable Accounting	S			P					
Payroll Accounting	S			P					
Work Order Accounting	S			P					
Fixed Asset Accounting	S			P					
Journal Entry Preparation--Billing Corrections	S			P					
Journal Entry Preparation--All Others	S			P					
Financial Statement Preparation	S			P					
State Commission Reporting	S		S						
Income Taxes—State									
Income Taxes—Federal									
Property Taxes									
Gross Receipts Taxes	S	S	S	P					

Note A: Financings and lines of credit are the responsibility of American Capital Corporation



**Kentucky American Water Company**  
**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:					
	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible P Provides Support S</b>						
<b>Rates</b>						
Rate Studies & Tariff Change Administration		P				
Rate Case Planning and Preparation		P				
Rate Case Administration		P				
Commission Inquiry Response		P		S		
<b>Legal</b>						
<b>Purchasing and Materials Management</b>						
Specification Development		S	S	P		
Bid Solicitation		S	P			
Contract Administration		S	P			
Ordering						
Inventory Management			S			
<b>Human Resources Management</b>						
Benefit Program Development						
Benefits Program Administration		P		P		
Management Compensation Administration						
Wage & Salary Program Design						
Wage & Salary Administration		S				
Labor Negotiations--Wages		S				
Labor Negotiations--Benefits						
Labor Negotiations--Work Rules		P		P		
Training Program Development						
Training--Course Delivery		S		P		
Affirmative Action/EEO--Plan Development		P				
Affirmative Action/EEO--Implementation		P				
<b>Information Systems Services</b>						
Service Company Data Centers						
System Operations & Maintenance					P	
Software Maintenance					P	
Network Administration		P			S	
PC Acquisition & Support		P			S	
Help Desk		S			P	





### **Governance Practices Associated With Service Company Charges**

There are several ways by which KAWC exercises control over Service Company services and charges. The most important of these are described below.

- **President of Regulated Operations Oversight** – The President of Regulated Operations is on the Executive Management Team (EMT) of American Water. This position is responsible for the overall performance of each operating company in American Water. As part of the EMT, the President of Regulated Operations has equal say with other EMT members in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending. The President of Regulated Operations also has dialogue with each operating company president to address local concerns.
- **Regional Vice President & Treasurer** – The Regional Vice President and Treasurer of the southeast states is responsible for the financial reporting, performance and internal controls of each of the operating companies in the region. The Vice President and Treasurer monitors the performance and reporting from the Service Company and follows up on instances where the quality and timeliness of services are not as expected. The operating company interacts with the Regional VP & Treasurer to discuss any concerns with billings, etc.
- **Operating Company Board Oversight** – KAWC board of directors includes members of American Water's EMT, members of the regional management team and business and community leaders from outside the Company. KAWC's president is Chairman of the KAWC board. This helps ensure that KAWC's needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – The President of Regulated Operations sits on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors. KAWC's president also sits on the Service Company board.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's Executive Management Team, which includes the President of Regulated Operations. With input from the local presidents and Regional Vice President & Treasurer, they have the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Southeast Region Finance personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. KAWC's financial analyst has dialogue with regional office personnel concerning the monthly bill and any mistakes or overcharges are credited on a subsequent billing. The Southeast Region Finance unit prepares an actual to budget comparison of management fees each month for use in identifying unusual variances. Service Company actual to budget comparison is included in the monthly FRP. Unusual variances are researched, explanations are provided and any corrections are made, as necessary.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report, called the "Statement of Expenses and Billed Charges," is produced by Service Company location and shows actual spending for the month.

- **Operating Company Budget Variance Reporting** – The “Budget/Plan Analysis,” produced monthly, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date. Additional information exists that allows more detailed analysis of "Regional" and "Corporate" Management Fees.
  
- **Capital Investment Management (“CIM”)** – CIM is one of American Water’s primary business planning processes. It covers capital and asset planning and is employed throughout American Water. CIM provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIM ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans
  - The impacts of these plans are understood and affordable, and
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIM process was designed to optimize the effectiveness of asset investment. The process is managed at two levels for all American Water companies, including all KAWC Operating Units. Monthly meetings of the CIM are held to review capital spending compared to plan, review new project requests, and review updates or modifications to existing projects. The President of KAWC, VP Finance, and others participate as necessary (e.g. KAWC operations managers and Rates Manager) and provide the data used in the monthly review schedules.

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**VII – Other Comparative Measures Of Reasonableness Of Service Company Charges**

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**KAWC’s Service Company Cost Per Customer**

During the 12 months ended July 31, 2008, KAWC was charged \$60 per customer in O&M expenses by the Service Company. As shown in the table below, this calculation is based on net testable O&M, which eliminates certain O&M items for which KAWC has not requested cost recovery.

	12 Months Ended July 31, 2008
Net Testable Service Company O&M Expenses	\$ 7,064,978
KAWC American Customers (12/31/07)	117,119
KAWC American Cost Per Customer	\$ 60

**Comparison Group Cost Per Customer**

Every centralized service company in a holding company system must file a Form 60 in accordance with the Public Utility Holding Company Act of 2005, Section 1270, Section 390 of the Federal Power Act and 18 C.F.R. paragraph 366.23. This report is designed to collect financial information from service companies that are subject to regulation by the FERC.

Twenty-three utility holding companies filed a Form 60 for 2007. All but two were included in the comparison group. The service company for PNM Resources, Inc. was excluded because its 2007 service company cost per regulated utility customer was clearly an anomaly as a negative number. This result is likely due to the unique manner by which PNM’s service company expenses are reported on Form 60. Duke Energy was also excluded from the comparison group because one of its two service companies did not provide numbers for its Form 60. Thus, it was not possible to develop Duke’s consolidated service company cost per customer for 2007.

Schedule 11 compares the services provided by American Water’s Service Company to the services provided by comparison group service companies. In general, the types of services provided by American Water’s Service Company are similar to those provided by comparison group service companies.

O&M expenses charged to utility affiliates for the comparison group service companies were obtained from Schedule XVII – Schedule of Expense Distribution by Department or Service Function (p. 305 to 305c) of each entity’s FERC Form 60. This schedule shows charges by category of service (e.g., accounting, information technology) and type of cost (e.g., labor, benefits, outside services). The following were eliminated from the comparison group’s total expenses because they are not in American Water Service Company’s 2007 charges to KAWC:

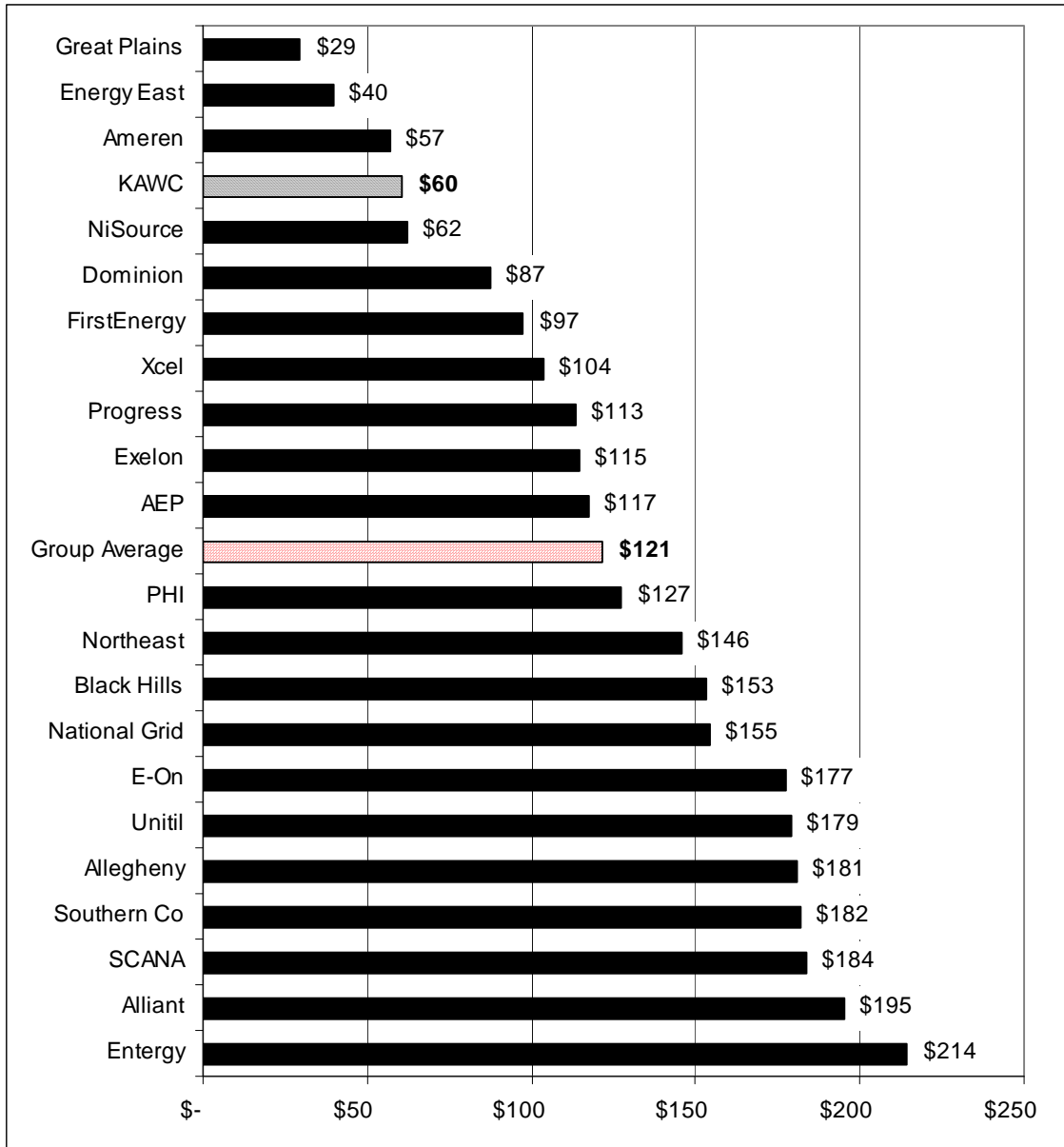
- All electric- and gas-specific services
- Income taxes (account 409), provision for deferred income taxes (account 410), provision for deferred income taxes – credit (account 411) and investment tax credit (account 411.5).
- Donations (account 426.1)
- Interest on long-term debt (account 427), interest on debt to associate companies (account 430) and other interest expense (account 431)

Comparison group service company 2007 expenses were also adjusted to remove charges to non-regulated affiliates from the cost pool used to calculate the cost per regulated service customer. This determination was made using information from the FERC Form 60 schedule: Account 457 – Analysis of Billing – Associate Companies.

Schedule 12 shows KAWC's 12 months ended July 31, 2008 Service Company cost per customer of \$60 to be considerably lower than the average of \$121 per customer for the comparison group service companies. Only 3 of 21 comparison group service companies had a lower 2007 cost per customer than KAWC. These results further support the conclusion that the Service Company's 2007 charges to KAWC were reasonable.

**Kentucky American Water Company  
Analysis of Service Company Services**

Service Category	American Water	AEP	Allegheny	Alliant	Ameren	Black Hills	Dominion	Energy East	Entergy	F-On	Exelon	First Energy	Great Plains	KeySpan	NiSource	Northeast	PHI	Progress	SCANA	Southern Co	Unitil	Xcel
Accounting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Audit Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Corporate Planning	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Customer Service	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Engineering	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Environmental	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Executive	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
External Affairs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Facilities Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Finance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Human Resources	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Information Technology	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Investor Relations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Legal	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Operations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Regulatory Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Risk Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Security	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Service Co Overhead	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Shared Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Supply Chain	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Transportation Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Treasury	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Total Services	18	18	15	16	14	16	17	11	6	19	14	17	8	20	20	8	10	13	13	10	7	17



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**Market Cost Comparison of Service Company Charges  
Provided to New Jersey American, Including**

**New Jersey American Water Company  
Elizabethtown Water Company, and  
The Mount Holly Water Company**

**Year Ended December 31, 2005**

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**New Jersey American  
Market Cost Comparison of Service Company Charges  
Year Ended December 31, 2005**

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## I - Introduction

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### Purpose Of This Study

As the title of this study indicates, the information provided herein pertains to the aggregate of the New Jersey American Water Company (NJAWC), Elizabethtown Water Company (EWC) and The Mount Holly Water Company (MHWC), which will be referred to individually by name and collectively as New Jersey American (NJAM). At the time of the preparation of this study, NJAW, EWC and MHWC are separate legal entities under common ownership and management, and separate water utilities regulated by the New Jersey Board of Public Utilities (BPU). All references herein to the three utilities as a single functional entity will be to New Jersey American (NJAM).

This study was undertaken to answer three questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to NJAM:

1. Was NJAM charged the lower of cost or market for managerial and professional services provided by the Service Company during 2005?
2. Were the 2005 costs of the Service Company's customer accounts services, including those of the National Call Centers, reasonable?
3. Are the services NJAM receives from Service Company necessary?

### Study Results

Concerning question 1, the following conclusions can be drawn from this study:

- NJAM was charged the lower of cost or market for managerial and professional services during 2005.
- On average, the hourly rates for outside service providers are **38% higher** than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by NJAM without careful supervision on the part of NJAM. If these services were contracted entirely to outside providers, NJAM would have to add at least two positions to manage activities of outside firms. These positions would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been out-sourced during 2005, NJAM and its ratepayers would have incurred an **additional \$9.1 million** in expenses. This amount includes the higher cost of outside providers and the cost of two NJAM positions needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantage that accrues to NJAM from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company personnel, on the other hand, charge a maximum 8 per day even when they work more. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$9.1 million cited above.

- It would be difficult for NJAM to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from NJAM ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, **is close to the average of the comparison group of electric utilities in New Jersey and surrounding states.** As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of NJAM. During 2005, the customer accounts cost for NJAM customers was \$28.87 compared to the 2004 average of \$27.70 for neighboring electric utilities. The highest comparison group per customer cost was \$69.75 and the lowest \$8.62.

Concerning question 3, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if NJAM were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to NJAM. For all of the services listed in Schedule 10, there was only one entity that was primarily responsible for the service.

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## II - Background

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### Overview Of American Water Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in the second quarter of 2001 and a second in Pensacola, Florida that went into operation in April 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of NJAM, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Mount Laurel, New Jersey during 2005 and moved to Cherry Hill, New Jersey in January 2006, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they have not been consolidated into the National Shared Services Center. Examples of regional office services include rates and revenues, engineering and operations. There are four regional offices—Northeast, Southeast, Central and West.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located in Voorhees, New Jersey, supports the IT infrastructure required to run corporate and operating company business applications and the email system. Two smaller data centers, located in Hershey, Pennsylvania and Richmond, Indiana host some Company servers and print customer bills. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses

- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Overhead	X	X	These are primarily employee benefit costs that relate directly to labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

**Charging and Assignment Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges.

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries.

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet (see example in Schedule 1) that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable).

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 2% of the Voorhees Data Center's professional labor is assigned to NJAM during a month, then 2% of that office's monthly administrative labor charges also is assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 2% of the Corporate Office's accumulated professional and support labor is charged to NJAM during the month, then 2% of that month's overhead expenses will be assigned to NJAM.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to NJAM, then 2% of that office's office expenses would be assigned to NJAM. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a state rate case proceeding are charged directly to the operating company whose case is being heard.

New Jersey American  
Sample Electronic Time Sheet

Session A - [24 x 80]  
File Edit View Communication Actions Window Help

American Water Works Company (581020) - 1/26/06  
File Edit Help

17:00:09  
Emp#: 18507871  
View Mode

Week Ending:	1/23/05	Andes, Kathleen	Time Entry							Total	Meal	
Dept:	036518	NE-Human Resources	Mo	Tu	We	Th	Fr	Sa	Su	Hours	Money	
Totals:	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	1/23	5.00		
Formula	Typ	1/17	1/18	1/19	1/20	1/21	1/22	1/23				
100082	001	1.00	1.00	1.00	1.00	1.00	1.00	1.00		5.00		
Account:		036518.501200.16	Pay Type Desc:							Regular		
100229	001	6.00	6.00	6.00	6.00	6.00	6.00	6.00		30.00		
Account:		036518.501200.16	Pay Type Desc:							Regular		
100231	001	1.00	1.00	1.00	1.00	1.00	1.00	1.00		5.00		
Account:		036518.501200.16	Pay Type Desc:							Regular		
100229	250									.00		
Account:		036518.501200.16	Pay Type Desc:							Sick		
100229	300									.00		
Account:		036518.501200.16	Pay Type Desc:							Holiday		
100229	400									.00		
Account:		036518.501200.16	Pay Type Desc:							Vacation		

OK Cancel Help  
F9-Comments F10-Save Template F11-Display Errors  
More...  
1/26/06 11:58:51 AM  
Disconnected. \\WJ5003\JWORK

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**III – Service Company Cost Comparison Approach**

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During 2005, Service Company charged NJAM \$33,174,950. For purposes of comparing these charges to outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total 2005 Service Company charges breaks down between management/professional services and customer account services as follows:

	2005	
	Amount	Hours
Management and Professional Services	\$ 23,573,472	191,519
Customer Account Services	\$ 9,601,478	240,107
Total Charges	\$ 33,174,950	431,626

This study’s first question—whether the Service Company charges the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to NJAM during 2005. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The second question—reasonableness of the National Call Center costs—was addressed by comparing NJAM’s customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The third question—the necessity of Service Company services—was first investigated by determining the services provided to NJAM. A determination was then made as to whether these services would be required if NJAM were a stand-alone utility.

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## IV – Managerial And Professional Services Hourly Rate Comparison

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### Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys - legal services
- Certified Public Accountants - accounting, financial, information technology and rates and revenues
- Professional Engineers - engineering, operations and water quality services.

It should be noted that the services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to NJAM during 2005. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged NJAM during 2005, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### Service Company Hourly Rates

Schedule 2 (page 10) details the assignment of 2005 management and professional Service Company charges and hours to outsider provider categories.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2005 non-labor Service Company charges:

- Computer Hardware and Software Expenses – Included in the 2005 Service Company charges to NJAM are charges from the IT Service Centers for outside expenses related to leases and maintenance fees related to mainframe, server and network



infrastructure, corporate business applications and the email system. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

- **Contract Services** – 2005 Service Company charges to NJAM include over \$5.7 million in charges associated with existing arrangements with outside professional firms who perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded because the related services have effectively been out-sourced already.
- **Travel Expenses** – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.

Schedule 3 (page 11) shows how computer hardware/software, contract services and travel expense-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 3 and 4, the Service Company's equivalent costs per hour for 2005 are calculated below.

	<b>Management Consultant</b>	<b>Attorney</b>	<b>Certified Public Accountant</b>	<b>Professional Engineer</b>	<b>Total</b>
Total management, professional & technical services charges	\$ 8,687,179	\$ 998,724	\$ 11,253,943	\$ 2,633,625	\$ 23,573,472
Less:					
Computer hardware/software	3,338	-	460,121	-	463,459
Contract services	2,135,446	42,229	3,134,447	428,004	5,740,126
Travel expenses	52,557	316	32,705	7,049	92,627
Net Service Charges (A)	\$ 6,495,838	\$ 956,179	\$ 7,626,671	\$ 2,198,572	\$ 17,277,260
Total Hours (B)	44,991	7,721	113,660	25,147	191,519
Average Hourly Rate (A / B)	\$ 144	\$ 124	\$ 67	\$ 87	

Exhibit Witness: PLB-1  
Schedule 2

**New Jersey American  
Analysis of 2005 Service Company Managerial And Professional Charges By Location And Function**

		2005 Service Company Dollars					2005 Service Company Hours				
	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total	
Belleville Lab Corporate	\$ -	\$ -	\$ -	\$ 853,711	\$ 853,711	\$ -	-	-	13,568	13,568	
Water Quality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-	
Accounting	\$ -	\$ -	\$ 580,674	\$ -	\$ 580,674	\$ -	-	5,127	-	5,127	
Administration	\$ 3,091,601	\$ -	\$ -	\$ -	\$ 3,091,601	\$ 4,712	-	-	-	4,712	
Audit	\$ -	\$ -	\$ 195,283	\$ -	\$ 195,283	\$ -	-	2,847	-	2,847	
Communications	\$ 415,967	\$ -	\$ -	\$ -	\$ 415,967	\$ 1,284	-	-	-	1,284	
Finance	\$ -	\$ -	\$ 739,698	\$ -	\$ 739,698	\$ -	-	2,595	-	2,595	
Human Resources	\$ 1,796,548	\$ -	\$ -	\$ -	\$ 1,796,548	\$ 3,427	-	-	-	3,427	
Legal	\$ -	\$ 423,246	\$ -	\$ -	\$ 423,246	\$ -	1,652	-	-	1,652	
Operations	\$ -	\$ -	\$ -	\$ 651,158	\$ 651,158	\$ -	-	-	4,022	4,022	
Rates & Revenue	\$ -	\$ -	\$ 418,994	\$ -	\$ 418,994	\$ -	-	750	-	750	
Risk Management	\$ 224,483	\$ -	\$ -	\$ -	\$ 224,483	\$ 2,257	-	-	-	2,257	
Water Quality	\$ -	\$ -	\$ -	\$ 181,805	\$ 181,805	\$ -	-	-	2,671	2,671	
IT	\$ -	\$ -	\$ 5,905,463	\$ -	\$ 5,905,463	\$ -	-	32,967	-	32,967	
Information Systems	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-	
Accounting	\$ -	\$ -	\$ 58,599	\$ -	\$ 58,599	\$ -	-	975	-	975	
Administration	\$ 945,044	\$ -	\$ -	\$ -	\$ 945,044	\$ 3,660	-	-	-	3,660	
Communications	\$ 369,278	\$ -	\$ -	\$ -	\$ 369,278	\$ 5,421	-	-	-	5,421	
Engineering	\$ -	\$ -	\$ -	\$ 60,992	\$ 60,992	\$ -	-	-	749	749	
Finance	\$ -	\$ -	\$ 1,323,443	\$ -	\$ 1,323,443	\$ -	-	16,208	-	16,208	
Human Resources	\$ 703,158	\$ -	\$ -	\$ -	\$ 703,158	\$ 11,539	-	-	-	11,539	
Legal	\$ -	\$ 575,479	\$ -	\$ -	\$ 575,479	\$ -	6,070	-	-	6,070	
Operations	\$ -	\$ -	\$ -	\$ 840,192	\$ 840,192	\$ -	-	-	4,137	4,137	
Risk Management	\$ 400,230	\$ -	\$ -	\$ -	\$ 400,230	\$ 7,228	-	-	-	7,228	
Water Quality	\$ -	\$ -	\$ -	\$ 45,766	\$ 45,766	\$ -	-	-	-	-	
Shared Services	\$ -	\$ -	\$ 1,599,187	\$ -	\$ 1,599,187	\$ -	-	40,708	-	40,708	
Accounting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-	
Administration	\$ 740,871	\$ -	\$ 329,521	\$ -	\$ 1,070,392	\$ 5,386	-	9,917	-	15,303	
Finance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-	
Human Resources	\$ 0	\$ -	\$ -	\$ -	\$ 0	\$ 76	-	-	-	76	
Rates & Revenue	\$ -	\$ -	\$ 103,082	\$ -	\$ 103,082	\$ -	-	1,566	-	1,566	
<b>Total</b>	<b>\$ 8,687,179</b>	<b>\$ 998,724</b>	<b>\$ 11,253,943</b>	<b>\$ 2,633,625</b>	<b>\$ 23,573,472</b>	<b>\$ 44,991</b>	<b>\$ 7,721</b>	<b>\$ 113,660</b>	<b>\$ 25,147</b>	<b>\$ 191,519</b>	



Exhibit Witness: PLB-1  
Schedule 3

**New Jersey American  
2005 Service Company Charges Excludable From The Hourly Rate Calculation – Computer HW/SW, Contract Services and Travel Expenses**

Charges By Function	Exclusions From 2005 Hourly Rate Calculation			Total
	Computer HW/SW	Contract Services	Travel Expenses	
Accounting	\$ -	\$ 518,770	\$ 10,919	\$ 529,689
Administration	\$ 2,826	\$ 1,384,254	\$ 29,172	\$ 1,416,251
Audit	\$ -	\$ (11,741)	\$ 2,267	\$ (9,474)
Communications	\$ -	\$ 174,264	\$ 376	\$ 174,640
Finance	\$ 0	\$ 344,810	\$ 6,740	\$ 351,549
Human Resources	\$ -	\$ 560,076	\$ 20,246	\$ 580,321
Information Systems	\$ 460,121	\$ 2,164,245	\$ 3,864	\$ 2,628,230
Legal	\$ -	\$ 42,229	\$ 316	\$ 42,545
Operations	\$ -	\$ 349,795	\$ 5,413	\$ 355,208
Rates & Revenue	\$ -	\$ 118,363	\$ 8,916	\$ 127,279
Risk Management	\$ 512	\$ 16,853	\$ 2,764	\$ 20,129
Water Quality	\$ -	\$ 78,209	\$ 1,635	\$ 79,844
<b>Total</b>	\$ 463,459	\$ 5,740,126	\$ 92,627	\$ 6,296,212

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From 2005 Hourly Rate Calculation			Total
	Computer HW/SW	Contract Services	Travel Expenses	
Management Consultant	\$ 3,338	\$ 2,135,446	\$ 52,557	\$ 2,191,341
Attorney	\$ -	\$ 42,229	\$ 316	\$ 42,545
Certified Public Accountant	\$ 460,121	\$ 3,134,447	\$ 32,705	\$ 3,627,273
Professional Engineer	\$ -	\$ 428,004	\$ 7,049	\$ 435,053
<b>Total</b>	\$ 463,459	\$ 5,740,126	\$ 92,627	\$ 6,296,212



## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2005 annual survey performed by the Association of Management Consulting Firms—an industry trade organization. The first step in the calculation, presented in Schedule 4, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2004 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The 2004 average rate was escalated to June 30, 2005—the midpoint of 2005.

### **Attorneys**

The New Jersey Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for New York or Pennsylvania attorneys. Therefore, a New Jersey estimate was developed from a survey of Missouri lawyers conducted annually by the Missouri Lawyers Weekly. As presented in Schedule 5, the average rate for each Missouri firm respondent was adjusted for the cost of living differential between their location and Trenton, New Jersey. The survey includes rates that were in effect at December 31, 2004. Thus, the 2004 average rate was escalated to June 30, 2005—the midpoint of 2005.

### **Certified Public Accountants**

The average hourly rate for New Jersey certified public accountants was developed from a 2005 survey performed by the American Institute of Certified Public Accountants (AICPA). Hourly rates in the AICPA survey are the average of firms in New Jersey. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 6. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2004, thus they had to be escalated to June 30, 2005—the midpoint of 2005.

### **Professional Engineers**

The Service Company provided hourly rate information for three outside engineering firms that were used by NJAM in 2005. As presented in Schedule 7, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Schedule 4

**New Jersey American  
Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position					
Survey billing rates were those in effect in 2004 (Note A)					
	Average Hourly Rates (Note A)				
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average	\$ 145	\$ 172	\$ 229	\$ 295	\$ 321
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement					
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average Hourly Billing Rate (from above)	\$ 145	\$172	\$229	\$295	\$321
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%
	\$ 44	\$ 51	\$ 46	\$ 29	\$ 32
					<b>Weighted Average \$ 202</b>
<u>Escalation to Test Year Mid-Point June 30, 2005 (Note B)</u>					
				CPI at December 31, 2004	190.3
				CPI at June 30, 2005	194.5
				Inflation/Escalation	4.2%
Estimated Average Hourly Billing Rate For Consultants At June 30, 2005					<b>\$ 211</b>

Note A: source: "Operating Ratios For Management Consulting Firms, 2005 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>)

Schedule 5

**New Jersey American**  
**Estimated Billing Rates Of New Jersey Attorneys**

Billing rates as of December 31, 2004 (Note A)							Cost of Living	
Firm	Missouri Location	Number Of Missouri Lawyers	Billing Rate Range			Adjustment (C)	Adjusted Rate	
			Low	High	Avg			
Bryan Cave, LLP	St. Louis	319	\$ 223	\$ 395	\$ 309	86.7%	\$ 268	
Shook, Hardy & Bacon LLP	Kansas City	298	\$ 276	\$ 426	\$ 351	101.7%	\$ 357	
Thompson Coburn, LLP	St. Louis	252	\$ 233	\$ 370	\$ 301	86.7%	\$ 261	
Blackwell Sanders Peper Martin, LLP	Kansas City	250	\$ 183	\$ 271	\$ 227	101.7%	\$ 231	
Husch & Eppenberger, LLC	Clayton	243	\$ 218	\$ 298	\$ 258	96.1%	\$ 247	
Polsinelli Shalton Welte Suelthaus, PC	Kansas City	179	\$ 130	\$ 450	\$ 290	101.7%	\$ 295	
Lewis, Rice & Fingersh, LC	St. Louis	167	\$ 218	\$ 355	\$ 286	86.7%	\$ 248	
Brown & James, PC	St. Louis	78	\$ 125	\$ 325	\$ 225	86.7%	\$ 195	
Gallop, Johnson & Neuman, LC	St. Louis	76	\$ 183	\$ 278	\$ 230	86.7%	\$ 199	
Sandberg, Phoenix & von Gontard, PC	St. Louis	64	\$ 95	\$ 300	\$ 198	86.7%	\$ 171	
Lashly & Baer, PC	St. Louis	48	\$ 188	\$ 275	\$ 231	86.7%	\$ 200	
The Stolar Partnership, LLP	St. Louis	46	\$ 165	\$ 305	\$ 235	86.7%	\$ 204	
Seigfried Bingham Levy Selzer & Gee, PC	Kansas City	38	\$ 137	\$ 258	\$ 198	101.7%	\$ 201	
Rabbitt, Pitzer & Snodgrass, PC	St. Louis	37	\$ 120	\$ 150	\$ 135	86.7%	\$ 117	
McMahon, Berger, Hanna, Linihan, Cody & McCarthy	St. Louis	28	\$ 178	\$ 250	\$ 214	86.7%	\$ 185	
Herzog Crebs, LLP	St. Louis	26	\$ 90	\$ 355	\$ 223	86.7%	\$ 193	
McDowell, Rice, Smith & Buchanan, PC	Kansas City	26	\$ 180	\$ 278	\$ 229	101.7%	\$ 233	
Carmody MacDonald, PC	St. Louis	25	\$ 193	\$ 298	\$ 245	86.7%	\$ 212	
Doster, Mikes, James & Ullom, LLC	St. Louis	25	\$ 158	\$ 200	\$ 179	86.7%	\$ 155	
Berkowitz Stanton Brandt Williams & Shaw LLP	Kansas City	24	\$ 205	\$ 263	\$ 234	101.7%	\$ 238	
Franke, Schultz & Mullen	Kansas City	24	\$ 125	\$ 145	\$ 135	101.7%	\$ 137	
Boggs, Boggs & Bates	St. Louis	23	\$ 93	\$ 130	\$ 111	86.7%	\$ 96	
Paule, Camazine & Blumenthal, PC	St. Louis	23	\$ 155	\$ 275	\$ 215	86.7%	\$ 186	
Reizman Berger, PC	St. Louis	23	\$ 158	\$ 230	\$ 194	86.7%	\$ 168	
Danna McKittrick, PC	St. Louis	22	\$ 140	\$ 228	\$ 184	86.7%	\$ 159	
Polster, Lieder, Woodruff & Lucchesi, LC	St. Louis	22	\$ 160	\$ 265	\$ 213	86.7%	\$ 184	
Holtkamp, Liese, Childress & Schultz, PC	St. Louis	21	\$ 85	\$ 250	\$ 168	86.7%	\$ 145	
Roberts, Perryman, Bomkamp & Meives, PC	St. Louis	21	\$ 125	\$ 180	\$ 153	86.7%	\$ 132	
Overall Average			\$ 162	\$ 279	\$ 220		\$ 201	
<u>Escalation to Test Year Mid-Point June 30, 2005 (Note B)</u>								
							CPI at December 31, 2004	190.3
							CPI at June 30, 2005	194.5
							Inflation/Escalation	4.2
Estimated Average Hourly Billing Rate For New Jersey Attorneys At June 30, 2005								<b>\$ 209</b>

Note A: Source is Missouri Lawyers Weekly, 50 Largest Law Firms (April 2005)

Note B: Source is US Bureau of Labor Statistics (<http://data.bls.gov/cgi-bin/surveymost>)

Note C: Represents Trenton, New Jersey's cost of living as a percent of the Missouri city in which the law firm is located.  
Source of this information is [www.homefair.com](http://www.homefair.com).

Schedule 6

**New Jersey American**  
**Estimated Billing Rates Of New Jersey Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2004 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 78	\$ 83	\$ 114	\$ 173
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 78	\$ 83	\$ 114	\$ 173
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 23	\$ 25	\$ 23	\$ 35
				Weighted Average \$ 106
<u>Escalation to Test Year Mid-Point June 30, 2005 (Note B)</u>				
				CPI at December 31, 2004 190.3
				CPI at June 30, 2005 194.5
				Inflation/Escalation 4.2%
Estimated Average Hourly Billing Rate For New Jersey CPAs At March 31, 2005				<b>\$ 110</b>

Note A: Source is AICPA's 2005 National PCPS/TSCPA Management of an Accounting Practice Survey

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.ai.txt>)

Exhibit Witness: PLB-1  
Schedule 7

**New Jersey American  
Billing Rates Of New Jersey Engineers**

Note: Billing rates were those in effect in 2005

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer
Firm #1	\$65	\$85	\$148	\$200
Firm #2	\$62	\$80	\$132	\$170
Firm #3	\$76	\$86	\$128	\$180

B. Calculation of Overall Average Engineering Hourly Billing Rate

	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer	Weighted Average
	Average Hourly Billing Rate (From Above)	\$68	\$84	\$136	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$20	\$29	\$34	\$18	<b>\$102</b>

Source: Information provided by American Water Works Service Company. Firm names have not been disclosed to preserve the confidentiality of their hourly rates.



**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	2005		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Management Consultant	\$ 144	\$ 211	\$ (67)
Attorney	\$ 124	\$ 209	\$ (85)
Certified Public Accountant	\$ 67	\$ 110	\$ (43)
Professional Engineer	\$ 87	\$ 102	\$ (15)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to NJAM during 2005, outside service providers would have cost almost \$9 million more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are 38% higher than those of the Service Company (\$8,903,590 / \$ \$23,573,472).

Service Provider	2005		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Management Consultant	\$ (67)	44,991	\$ (2,997,288)
Attorney	\$ (85)	7,721	\$ (658,417)
Certified Public Accountant	\$ (43)	113,660	\$ (4,882,883)
Professional Engineer	\$ (15)	25,147	\$ (365,002)
Net Service Co Less Than Outside Providers			\$ (8,903,590)

If NJAM were to use outside service providers rather than the Services Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 191,519 hours of work (almost 128 full-time equivalents at 1,500 billable hours per FTE) would add a significant workload to the existing NJAM management team. Thus, it would be necessary for NJAM to add at least two positions to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill these positions would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$242,800 per year to NJAM's personnel expenses.

Cost of Adding Administrative Positions To NJAWC's Staff

	Per Position	Total
New Positions' (2) Salary	\$ 85,000	\$ 170,000
Benefits (at 52%)	\$ 36,400	\$ 72,800
Total Cost of the New Position		\$ 242,800

Thus, the total effect on the ratepayers of NJAM of contracting all services now provided by Service Company would be an increase in their costs of **\$9,146,390** (\$8,903,590 + \$242,800).

**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%

These studies present further evidence that the Service Company arrangement is the lowest-cost alternative for NJAM.

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**V – Customer Account Services Cost Comparison**

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**Background**

It is difficult to compare the cost of American Water’s National Call Center with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, NJAM’s National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC’s chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study’s comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer’s portion of FICA).

Schedule 8 provides FERC’s description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

<p><b><u>903 Records and Collection Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls</li><li>• Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications</li><li>• Customer billing – bill printing, stuffing and mailing</li><li>• Remittance processing – processing of customer payments received in the mail</li><li>• Bill payment centers – locations where customers can pay their bills in person</li></ul> <p><b><u>905 Miscellaneous Customer Accounts Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Information System IT – maintenance and support of the customer information system</li></ul>
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This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

**New Jersey American  
FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

**New Jersey American**  
**FERC Account Descriptions**

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

New Jersey	<ul style="list-style-type: none"> <li>• Atlantic City Electric</li> <li>• Jersey Central Power</li> </ul>	<ul style="list-style-type: none"> <li>• Public Service Electric &amp; Gas</li> <li>• Rockland Electric</li> </ul>
New York	<ul style="list-style-type: none"> <li>• Central Hudson Gas &amp; Electric</li> <li>• Consolidated Edison</li> <li>• New York State Electric &amp; Gas</li> </ul>	<ul style="list-style-type: none"> <li>• Niagra Mohawk Electric Power</li> <li>• Rochester Gas &amp; Electric</li> </ul>
Pennsylvania	<ul style="list-style-type: none"> <li>• Duquesne Light</li> <li>• PECO Energy</li> <li>• Pennsylvania Power</li> </ul>	<ul style="list-style-type: none"> <li>• PPL Electric Utilities</li> <li>• West Penn Power</li> </ul>

Several neighboring electric utilities could not be included in the comparison group because they did not submit the necessary FERC Form 1 data.

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. NJAM's cost pool was developed to include the same expenses included in electric utility's FERC accounts 903 and 905. As shown in the graphic below, NJAM's resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u> Pensacola & Alton Call Centers a. Customer contact b. Customer order processing c. Billing information processing d. Collections e. Correspondence processing  <u>IT Service Centers</u> a. Support expenses for the customer information system (ORCOM)  <u>New Jersey American</u> a. Payment processing

Electric Utilities
FERC Acct 903 - Records and Collection Expense and FERC Acct 905 - Misc Customer Accounts Expense a. Customer contact b. Customer order processing c. Bill preparation and mailing d. Collections e. Payment processing f. Correspondence processing

**NJAM Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to NJAM. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.32 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, NJAM's adjusted annual expense per customer is \$28.87—the number that can be compared to neighboring electric utilities' expenses.

<b>New Jersey American 2005 Cost Per Customer</b>			New Jersey American	
Cost Component			Actual	Adjusted
Service Company				
Call Centers	Call processing, order processing, credit, bill collection		\$ 9,601,478	
	Less: Pensacola transition expenses	Note A	\$ (1,503,425)	
	Net Call Center Charges	Note B	\$ 8,098,053	\$ 15,337,222
Regional Offices	Customer service support			\$ 141,113
IT Services	Customer info system support, bill printing			\$ 1,754,014
Operating Company	Customer payment processing	Note C		\$ 600,014
	Cost Pool Total			\$ 17,832,363
	Average Number of Customers			617,711
	<b>2005 Cost Per Customer</b>			<b>\$ 28.87</b>

Note A: During 2005, Elizabethtown and Mt. Holly transitioned to AWSC's call center in Pensacola, Florida. The associated one-time transition expenses are excluded from the per customer cost calculation because they are not on-going expenses.

Note B: Adjustment for American Water's fewer calls per customer			
Net Test Year Call Center Charges (above)			\$ 8,098,053
Electric Utility industry's avg calls/customer	2.50		
American Water's avg calls/customer	1.32		
	Multiplier		1.89
	Total estimated cost		\$ 15,337,222

Note C: Estimated customer <u>customer payment processing</u> expenses			
	Average number of customers		617,711
	Average number of payments/customer/year		9
	Total payments processed/year		5,628,652
	Bank charge per item		\$ 0.1066
	Total estimated annual expense		\$ 600,014

### Electric Utility Group Cost Per Customer

Schedule 9 shows the actual 2004 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

### Summary Of Results

As shown in the table below, NJAM's cost per customer is near the average of the electric utility comparison group. It can therefore be concluded that the customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to NJAM are reasonable.

<b>Customer Account Services Expenses Per Customer</b>	
Public Service Electric & Gas	\$ 8.62
West Penn Power Company	\$ 13.59
Duquesne Light Company	\$ 15.22
Jersey Central Power & Light Company	\$ 17.38
Rochester Gas & Electric Corporation	\$ 21.22
Pennsylvania Power Company	\$ 21.72
PPL Electric Utilities Corporation	\$ 22.32
Central Hudson Gas & Electric Company	\$ 27.17
<b>Comparison Group Average</b>	<b>\$ 27.70</b>
<b>New Jersey American Water</b>	<b>\$ 28.87</b>
New York State Electric & Gas Corporation	\$ 30.96
Niagra Mohawk Power Corporation	\$ 33.93
Consolidated Edison Company	\$ 34.85
PECO Energy Company	\$ 45.44
Atlantic City Electric Company	\$ 53.78
Rockland Electric Company	\$ 69.75



**New Jersey American  
Comparison Group 2004 Actual Customer Accounts Expense Per Customer**

New York						
Central Hudson Gas & Electric	Consolidated Edison	New York State Electric & Gas	Niagra Mohawk Power	Rochester Gas & Electric		
\$ 5,708,122	\$ 100,155,587	\$ 24,224,182	\$ 39,086,898	\$ 7,362,634		
\$ 2,024,982	\$ 734,457	\$ 470,788	\$ 1,114,740	\$ 47,270		
\$ 7,733,104	\$ 100,890,044	\$ 24,694,970	\$ 40,201,638	\$ 7,409,904		
\$ (351,518)	\$ 1,698,493	\$ 45,137	\$ 7,810,236	\$ (187,466)		
\$ 440,354	\$ 7,246,498	\$ 1,766,010	\$ 2,678,675	\$ 362,757		
<b>\$ 7,821,940</b>	<b>\$ 109,835,036</b>	<b>\$ 26,506,117</b>	<b>\$ 50,690,549</b>	<b>\$ 7,585,195</b>		
287,936	3,152,024	856,154	1,493,941	357,445		
<b>\$ 27.17</b>	<b>\$ 34.85</b>	<b>\$ 30.96</b>	<b>\$ 33.93</b>	<b>\$ 21.22</b>		
\$ (4,212,171)	\$ 18,723,289	\$ 349,504	\$ 85,761,574	\$ (3,854,327)		
\$ 68,976,241	\$ 1,044,203,235	\$ 178,750,964	\$ 384,491,864	\$ 97,494,700		
\$ 5,756,262	\$ 94,725,470	\$ 23,085,098	\$ 35,015,357	\$ 4,741,928		
\$ (351,518)	\$ 1,698,493	\$ 45,137	\$ 7,810,236	\$ (187,466)		
\$ 5,756,262	\$ 94,725,470	\$ 23,085,098	\$ 35,015,357	\$ 4,741,928		
\$ 440,354	\$ 7,246,498	\$ 1,766,010	\$ 2,678,675	\$ 362,757		

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A**

**Note B**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's Payroll Taxes Pertaining to Cust. Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA and Medicare



**New Jersey American**  
**Comparison Group 2004 Actual Customer Accounts Expense Per Customer**

Pennsylvania					
	Duquesne Light	PECO Energy	Pennsylvania Power	PPL Electric Utilities	West Penn Power
	\$ 7,032,096	\$ 48,423,902	\$ 2,710,863	\$ 24,089,106	\$ 7,338,579
	\$ -	\$ 16,541,548	\$ 109,043	\$ 2,240,062	\$ -
	\$ 7,032,096	\$ 64,965,450	\$ 2,819,906	\$ 26,329,168	\$ 7,338,579
	\$ 1,199,745	\$ 3,688,647	\$ 475,949	\$ 2,207,232	\$ 1,532,431
	\$ 699,457	\$ 1,194,054	\$ 102,904	\$ 1,467,035	\$ 613,376
	\$ <b>8,931,298</b>	\$ <b>69,848,151</b>	\$ <b>3,398,759</b>	\$ <b>30,003,435</b>	\$ <b>9,484,385</b>
	\$ 586,981	\$ 1,536,985	\$ 156,499	\$ 1,344,373	\$ 698,079
	\$ <b>15.22</b>	\$ <b>45.44</b>	\$ <b>21.72</b>	\$ <b>22.32</b>	\$ <b>13.59</b>
	\$ 11,592,771	\$ 46,225,202	\$ 4,751,101	\$ 26,628,438	\$ 15,331,965
	\$ 88,348,254	\$ 195,602,387	\$ 13,427,800	\$ 231,353,749	\$ 80,219,884
	13.1%	23.6%	35.4%	11.5%	19.1%
	\$ 9,143,232	\$ 15,608,545	\$ 1,345,151	\$ 19,176,922	\$ 8,017,982
	\$ 1,199,745	\$ 3,688,647	\$ 475,949	\$ 2,207,232	\$ 1,532,431
	\$ 9,143,232	\$ 15,608,545	\$ 1,345,151	\$ 19,176,922	\$ 8,017,982
	\$ 7.65%	\$ 7.65%	\$ 7.65%	\$ 7.65%	\$ 7.65%
	\$ 699,457	\$ 1,194,054	\$ 102,904	\$ 1,467,035	\$ 613,376

**Customer Account Management Cost Pool**

FERC Account Balances:

- Acct 903 - Customer Records & Collection (page 322, line 131)
- Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A**  
**Note B**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

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**Note B:** Calculation of Employer's Payroll Taxes Pertaining to Cust. Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA and Medicare



**New Jersey American  
Comparison Group 2004 Actual Customer Accounts Expense Per Customer**

		New Jersey				Group Average
	Atlantic City Electric	Jersey Central Power	Public Service Electric & Gas	Rockland Electric		
	\$ 27,067,201	\$ 15,594,076	\$ 53,871,607	\$ 2,444,554	\$ 365,109,407	
	\$ 19,583	\$ (107,204)	\$ (47,276,642)	\$ 1,341,950	\$ (22,739,423)	
	\$ 27,086,784	\$ 15,486,872	\$ 6,594,965	\$ 3,786,504	\$ 342,369,984	
	\$ 768,736	\$ 2,004,069	\$ 8,125,749	\$ 1,041,578	\$ 30,059,019	
	\$ 153,426	\$ 848,781	\$ 3,240,406	\$ 150,932	\$ 20,964,664	
	\$ <b>28,008,946</b>	\$ <b>18,339,722</b>	\$ <b>17,961,119</b>	\$ <b>4,979,013</b>	\$ <b>393,393,666</b>	
	520,850	1,054,959	2,082,450	71,382	14,200,058	
	\$ <b>53.78</b>	\$ <b>17.38</b>	\$ <b>8.62</b>	\$ <b>69.75</b>	\$ <b>27.70</b>	
	\$ 21,094,502	\$ 20,695,269	\$ 92,410,221	\$ 6,833,428	\$ 342,330,766	
	\$ 55,033,697	\$ 114,575,737	\$ 481,719,878	\$ 12,943,928	\$ 3,047,142,318	
	38.3%	18.1%	19.2%	52.8%	11.2%	
	\$ 2,005,565	\$ 11,095,176	\$ 42,358,243	\$ 1,972,964	\$ 274,047,895	
	\$ 768,736	\$ 2,004,069	\$ 8,125,749	\$ 1,041,578	\$ 30,787,871	
	\$ 2,005,565	\$ 11,095,176	\$ 42,358,243	\$ 1,972,964	\$ 274,047,895	
	7.65%	7.65%	7.65%	7.65%	7.65%	
	\$ 153,426	\$ 848,781	\$ 3,240,406	\$ 150,932	\$ 20,964,664	

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

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**Note B:** Calculation of Employer's Payroll Taxes Pertaining to Cust. Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA and Medicare



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## VI - Need For Service Company Services

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### Analysis Of Services

The final aspect of this study was an assessment of whether the services that are provided to NJAM by the Service Company would be necessary if NJAW were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for NJAM. Based on discussions with Service Company personnel, the matrix in Schedule 10 was created showing which entity--NJAM or a Service Company location--is responsible for each of the functions NJAM requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 10, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if NJAM were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to NJAM. For all of the services listed in Schedule 10, there was only one entity that was primarily responsible for the service.

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Primarily Responsible		Performed By:						
	P	S	NJAM EWC MHWC	Customer Call Center	Northeast Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Engineering and Construction Management</b>									
GPS Preparation	P						S		
Five-Year System Planning	P				S		P		
Engineering Standards & Policies Development									
Project Design									
Major Projects (e.g., new treatment plant)	P				S		S		
Special Projects	P								
Minor Projects (e.g., pipelines)	P								
Construction Project Management									
Major Projects	P				S				
Special Projects	P				S				
Minor Projects	P								
Hydraulics Review	P								
Developers Extensions	P								
Tank Painting	P				S				
<b>Water Quality and Purification</b>									
Water Quality Standards Development					S		S		P
Research Studies	S						S		P
Water Quality Program Implementation	P				S				
Water Treatment Operations & Maintenance	P				S				
Compliance Sampling	P				S				
Testing/Other Sampling	S				S		S		P
<b>Transmission and Distribution</b>									
Preventive Maintenance Program Development	P								
System Maintenance	P								
Leak Detection	P								
<b>Customer Service</b>									
Community Relations	P						S		
Customer Contact	S								
Call Processing	P								
Service Order Processing	P								
Customer Credit	P								
Meter Reading	P								
Customer Bill Preparation									
Bill Collection	S							P	
Customer Payment Processing	S								
Meter Standards Development	S								
Meter Testing, Maintenance & Replacement	P				S		P		

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	NJAM EWC MHW	Performed By:							
		Customer Call Center	Northeast Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab		
<b>Primarily Responsible</b> P									
<b>Provides Support</b> S									
<b>Financial Management</b>									
Financial Planning	S		P		S				
Financings—Equity					S				
Financings--Long Term Debt & Preferred (A)									
Short Term Lines of Credit Arrangements (A)									
Investor Relations							P		
Insurance Program Administration							P		
Loss Control/Safety Program Administration	P		S		S				
Pension Fund Asset Management							P		
Cash Management/Disbursements							P		
<b>Internal Auditing</b>									
<b>Budgeting and Variance Reporting</b>									
Corporate Guidelines & Instructions									
Regional Guidelines & Instructions			P						
Budget Preparation									
Revenue and O&M	P								
Depreciation and Interest Expense	S		S		P				
Budget Preparation--Service Company Charges									
Capital Budget Preparation—Projects	P	S	P		S		S		S
Capital Budget Preparation--Non-Project Work	P		S						
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	P								
Prepare Capital Project Budget Status Report	P		S						
Year-End Projections	P		S						
<b>Accounting and Taxes</b>									
Accounts Payable Accounting	S						P		
Payroll Accounting	S						P		
Work Order Accounting	S						P		
Fixed Asset Accounting	S						P		
Journal Entry Preparation--Billing Corrections	S		S						
Journal Entry Preparation--All Others	S		S						
Financial Statement Preparation	S		S						
State Commission Reporting	S		S						
Income Taxes—State									
Income Taxes—Federal									
Property Taxes			S						
Gross Receipts Taxes			S						

Note A: Financings and lines of credit are the responsibility of American Capital Corporation

**New Jersey American  
 Designation Of Responsibility For Water Utility Functions**

Water Company Function	Primarily Responsible Provides Support	NJAM EWC MHWC	Performed By:					Belleville Lab
			Customer Call Center	Northeast Regional Office	Shared Services	Corporate Office	IT Service Centers	
<b>Rates</b>	<b>P</b>							
Rate Studies & Tariff Change Administration	<b>S</b>							
Rate Case Planning and Preparation	<b>S</b>							
Rate Case Administration	<b>S</b>							
Commission Inquiry Response	<b>S</b>							
<b>Legal</b>								
<b>Purchasing and Materials Management</b>								
Specification Development	<b>S</b>							
Bid Solicitation	<b>S</b>							
Contract Administration	<b>S</b>							
Ordering	<b>P</b>							
Inventory Management	<b>P</b>							
<b>Human Resources Management</b>								
Benefit Program Development								
Benefits Program Administration								
Management Compensation Administration								
Wage & Salary Program Design								
Wage & Salary Administration								
Labor Negotiations--Wages								
Labor Negotiations--Benefits								
Labor Negotiations-- Work Rules								
Training Program Development								
Training--Course Delivery								
Affirmative Action/EEO--Plan Development								
Affirmative Action/EEO--Implementation								
<b>Information Systems Services</b>								
Service Company Data Centers								
System Operations & Maintenance								
Software Maintenance								
Network Administration								
PC Acquisition & Support								
Help Desk								



## **Governance Practices Associated With Service Company Charges**

There are several ways by which NJAM exercises control over Service Company services and charges. The most important of these are described below.

- **Regional President Oversight** – The Regional President of the Northeast Region is on the Executive Management Team (EMT) of American Water. The Regional President is responsible for the overall performance of each operating company in the region, including NJAWC, ETWC, and MHWC. As part of the EMT, each Regional President has equal say with other EMT members in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending.
- **Regional Vice President & Treasurer** – The Regional Vice President and Treasurer of the Northeast Region is responsible for the financial reporting, performance and internal controls of each of the operating companies in the region. The Vice President and Treasurer monitor the performance and reporting from the Service Company and pushes back whenever the quality and service are not appropriate.
- **Operating Company Board Oversight** – NJAWC, ETWC and MHWC board of directors includes members of American Water’s EMT, members of the regional management team and business and community leaders from outside the Company. This helps ensure that Northeast Region’s needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – Every operating company president sits on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company’s own spending into an overall budget which must be approved by the operating company’s board of directors.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water’s Executive Management Team, which includes the Regional President. The Regional President, with input from the regional management team has the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Operating company personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. Any mistakes or overcharges are credited on a subsequent billing.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report, called the “Statement of Expenses and Billed Charges,” is produced by Service Company location and shows budget versus actual spending for the month and year-to-date by cost category.
- **Operating Company Budget Variance Reporting** – The “Budget/Plan Analysis,” produced monthly by each operating company, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.



- **Capital Investment Management (CIM)** – CIM is one of American Water’s primary business planning processes. It covers capital and asset planning and is employed throughout American Water and Thames Water. The current CIM process and procedures were established in 2003 as part of an initiative to implement leading water industry practices. CIM provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIM ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business,
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans,
  - The impacts of these plans are understood and affordable, and
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIM process was designed to optimize the effectiveness of asset investment. The process is managed at three levels for all American Water companies, including all NJAM Operating Units.

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**Market Cost Comparison of Service Company Charges  
Provided to New Jersey American Water Company, Inc.**

**12 Months Ended June 30, 2007**

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**New Jersey American  
Market Cost Comparison of Service Company Charges  
12 Months Ended June 30, 2007**

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## I - Introduction

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### Purpose Of This Study

This study was undertaken to answer three questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to New Jersey American Water Company, Inc. (NJAWC):

1. Was NJAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during the 12 months ended June 30, 2007?
2. Were the 12 months ended June 30, 2007 costs of the Service Company's customer accounts services, including those of the National Call Centers, reasonable?
3. Are the services NJAWC receives from Service Company necessary?

### Study Results

Concerning question 1, the following conclusions can be drawn from this study:

- NJAWC was charged the lower of cost or market for managerial and professional services during the 12 months ended June 30, 2007.
- On average, the hourly rates for outside service providers are **66% higher** than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by NJAWC without careful supervision on the part of NJAWC. If these services were contracted entirely to outside providers, NJAWC would have to add at least two positions to manage activities of outside firms. These positions would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been out-sourced during the 12 months ended June 30, 2007, NJAWC and its ratepayers would have incurred an **additional \$17.9 million** in expenses. This amount includes the higher cost of outside providers and the cost of two NJAWC positions needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantage that accrues to NJAWC from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company personnel, on the other hand, charge a maximum 8 per day even when they work more. If the overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$17.9 million cited above. For instance, if Service Company overtime is conservatively estimated at 5% (only 2 hours per week), then that work would have cost over \$800,000 in additional charges from outside providers.
- It would be difficult for NJAWC to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.

- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from NJAWC ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, **is close to the average of the comparison group of electric utilities in New Jersey and surrounding states.** It can therefore be concluded that the customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to NJAWC are reasonable. As will be explained further herein, these companies provide a reasonable proxy group for comparison to a regulated utility of the size and scope of NJAWC. During the 12 months ended June 30, 2007, the customer accounts cost for NJAWC customers was \$31.02 compared to the 2006 average of \$27.70 for neighboring electric utilities. The highest comparison group per customer cost was \$61.67 and the lowest \$12.22.

Concerning question 3, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if NJAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to NJAWC. For all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.

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## II - Background

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### Overview Of American Water Works Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Central Services – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in the second quarter of 2001 and a second in Pensacola, Florida that went into operation in April 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of NJAWC, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional/Divisional Offices – Regional and Divisional offices provide operating companies with certain support services that can be performed more effectively on a regional or divisional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they are not provided by the National Shared Services Center. Examples of regional office services include rates and revenues, legal, human resources and operations. There are four regional offices—Northeast, Southeast, Central and West. Examples of divisional office services include administration, operation and customer support and security. Currently there is one divisional office, the Eastern Division which oversees the Northeast and Southeast regions.
- Laboratory Services – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the communications systems. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees

- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Overhead	X	X	These are primarily employee benefit costs that relate directly to labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

### Charging and Assignment Of Service Company Time and Expenses

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges.

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries.

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet (see example in Schedule 1) that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable).

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 25% of the Northeast Region professional labor is assigned to NJAWC during a month, then 25% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 25% of the Northeast Region accumulated professional and support labor is charged to NJAWC during the month, then 25% of that month's overhead expenses will be assigned to NJAWC.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 25% of professional labor from one Service Company office is assigned to NJAWC, then 25% of that office's office expenses would be assigned to NJAWC. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a rate case proceeding are charged directly to the operating company whose case is being heard.



New Jersey American Water Company  
Sample Electronic Time Sheet

American Water Works Company (581020) - 12/06/07

File Edit Help

10:33:42  
 Emp#: 18507361  
 View Mode

Week Ending: 4/29/07 Rex, H Edward  
 Dept: 036507 NE-Finance

Totals: 8.00 8.00 8.00 8.00 8.00 40.00  
 Total Money

Formula	Typ	Mo	Tu	We	Th	Fr	Sa	Su	Total	Meal
		4/23	4/24	4/25	4/26	4/27	4/28	4/29	Hours	Money
100074	001								.00	
100082	001		4.00						4.00	
100084	001	7.00	3.00	7.00	7.00	7.00			31.00	
100229	001								.00	
100231	001								.00	
100585	001								.00	
100625	001	1.00	1.00	1.00	1.00	1.00			5.00	
100074	300								.00	
100074	400								.00	

F3-Save/Exit F6-Submit F9-Comments Bottom  
 F1-Search F4-Fold/UnFold F7-Display Errors F10-Save Template

OK Cancel Help

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**III – Service Company Cost Comparison Approach**

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During the 12 months ended June 30, 2007, the Service Company charged NJAWC \$34,866,623. For purposes of comparing these charges to outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down by these categories as follows:

12 Months Ended June 30, 2007		
	Amount	Hours
Management and Professional Services	\$ 26,691,726	294,000
Customer Account Services	\$ 8,174,897	256,156
Total	\$ 34,866,623	550,156

This study’s first question—whether the Service Company charges the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to NJAWC during the 12 months ended June 30, 2007. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The second question—reasonableness of the National Call Center costs—was addressed by comparing NJAWC’s customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The third question—the necessity of Service Company services—was first investigated by determining the services provided to NJAWC. A determination was then made as to whether these services would be required if NJAWC were a stand-alone utility.

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## IV – Managerial And Professional Services Hourly Rate Comparison

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### Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys - legal services
- Certified Public Accountants - accounting, financial, information technology and rates and revenues
- Professional Engineers - engineering, operations and water quality services.

It should be noted that the services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar scientific educational backgrounds as Service Company engineering personnel. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to NJAWC during the 12 months ended June 30, 2007. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged NJAWC during the 12 months ended June 30, 2007, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### Service Company Hourly Rates

Schedules 2 and 3 (pages 10-11) details the assignment of 12 months ended June 30, 2007 management and professional Service Company charges and hours by outsider provider category.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 12 months ended June 30, 2007 non-labor Service Company charges:

- Contract Services – 12 months ended June 30, 2007 Service Company charges to NJAWC include over \$2.2 million in charges associated with the use of outside

professional firms to perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded because the related services have effectively been out-sourced already.

- Travel Expenses – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- Computer Hardware and Software Expenses – Included in the 12 months ended June 30, 2007 Service Company charges to NJAWC are charges from the IT Service Centers for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the communications systems. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the systems.

Schedule 4 (page 12) shows how computer hardware/software, contract services and travel expense-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 2, 3 and 4, the Service Company's equivalent costs per hour for the 12 months ended June 30, 2007 are calculated below.

	12 Months Ended June 30, 2007				
	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 1,260,479	\$ 8,800,100	\$ 13,893,353	\$ 2,737,793	\$ 26,691,726
Less:					
Contract services	24,154	604,264	1,537,948	51,306	2,217,672
Travel expenses	31	84,744	241,460	7,149	333,384
Computer hardware/software	11,442	92,693	55,223	14,866	174,224
Net Service Charges (A)	\$ 1,224,852	\$ 8,018,399	\$ 12,058,722	\$ 2,664,472	\$ 23,966,446
Total Hours (B)	13,140	77,725	170,370	32,764	294,000
<b>Average Hourly Rate (A / B)</b>	<b>\$ 93</b>	<b>\$ 103</b>	<b>\$ 71</b>	<b>\$ 81</b>	

**New Jersey American  
Analysis of 12 Months Ended June 30, 2007 Service Company Managerial And Professional Charges By Location And Function**

Location	Function	12 Months Ended June 30, 2007 Service Company Charges				Total	
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer		
Belleville Lab	Water Quality		\$ 189,788		\$ 935,280	\$ 935,280	
Call Center	Human Resources					\$ 189,788	
Corporate	Accounting	\$ 76,724	\$ 1,818,168	\$ 1,040,525	\$ 191,311	\$ 1,040,525	
	Administration			\$ 994,804		\$ 3,081,007	
	Audit			\$ 216,365		\$ 216,365	
	Communications		\$ 445,789			\$ 445,789	
	Engineering				\$ 99,495	\$ 99,495	
	Finance			\$ 936,017		\$ 936,017	
	Human Resources		\$ 965,479			\$ 965,479	
	Legal	\$ 424,723	\$ 641,623			\$ 424,723	
	Operations				\$ 535,241	\$ 1,176,864	
	Rates & Revenue			\$ 463,811		\$ 463,811	
	Risk Management		\$ 289,199			\$ 289,199	
	Water Quality				\$ 251,239	\$ 251,239	
	Regional Offices	Accounting			\$ 142,787		\$ 142,787
Administration		\$ 1,624,713				\$ 1,624,713	
Communications		\$ 295,821				\$ 295,821	
Engineering					\$ 176,985	\$ 176,985	
Finance				\$ 1,612,612		\$ 1,612,612	
Human Resources			\$ 736,643			\$ 736,643	
Legal						\$ 759,032	
Operations		\$ 759,032	\$ 457,038		\$ 402,135	\$ 859,173	
Risk Management			\$ 754,897			\$ 754,897	
Water Quality					\$ 146,106	\$ 146,106	
Information Technology		Audit			\$ 64,617		\$ 64,617
Information Technology				\$ 5,888,078		\$ 5,888,078	
Shared Services		Accounting			\$ 2,168,785		\$ 2,168,785
	Administration	\$ 580,942				\$ 580,942	
	Finance			\$ 225,627		\$ 225,627	
	Rates & Revenue			\$ 139,327		\$ 139,327	
<b>Total Dollars Charged</b>		<b>\$ 1,260,479</b>	<b>\$ 8,800,100</b>	<b>\$ 13,893,353</b>	<b>\$ 2,737,793</b>	<b>\$ 26,691,726</b>	



**New Jersey American  
Analysis of 12 Months Ended June 30, 2007 Service Company Managerial And Professional Hours By Location And Function**

Location	Function	12 Months Ended June 30, 2007 Service Company Hours					Total
		Attorney	Consultant	Accountant	Engineer	Professional	
Belleville Lab	Water Quality				13,474		13,474
Call Center	Human Resources		2,492				2,492
Corporate	Accounting			14,987			14,987
	Administration		6,733				6,733
	Audit			3,230			3,230
	Communications		2,585				2,585
	Engineering				1,556		1,556
	Finance			10,231			10,231
	Human Resources		12,634				12,634
	Legal	3,001	4,438				3,001
	Operations					7,344	11,782
	Rates & Revenue			2,466			2,466
Risk Management		2,560				2,560	
Water Quality				4,685		4,685	
Regional Offices	Accounting			2,911			2,911
	Administration		9,164				9,164
	Communications		5,960				5,960
	Engineering				1,817		1,817
	Finance			23,468			23,468
	Human Resources		11,243				11,243
	Legal	10,139					10,139
	Operations		4,983			2,994	7,977
	Risk Management		11,678				11,678
	Water Quality					895	895
Information Technology	Audit			1,250			1,250
	Information Technology			50,838			50,838
Shared Services	Accounting			51,530			51,530
	Administration		3,255				3,255
	Finance			6,915			6,915
	Rates & Revenue			2,546			2,546
<b>Total Hours Charged</b>		<b>13,140</b>	<b>77,725</b>	<b>170,370</b>	<b>32,764</b>		<b>294,000</b>

**New Jersey American  
12 Months Ended June 30, 2007 Service Company Charges Excludable From The Hourly Rate Calculation – Computer HW/SW, Contract Services  
and Travel Expenses**

Exclusions From Hourly Rate Calculation				
Charges By Function	Contract Services	Travel Expenses	Computer HW/SW	Total
Accounting	\$ 623,960	\$ 9,044	\$ 9,260	\$ 642,264
Administration	\$ 105,941	\$ (4,129)	\$ 41,305	\$ 143,117
Audit	\$ 8,898	\$	\$ 2,149	\$ 11,047
Communications	\$ 101,469	\$ 1,202	\$ 1,976	\$ 104,647
Engineering	\$ 16	\$ 545	\$ 1,205	\$ 1,766
Finance	\$ 270,315	\$ 5,761	\$ 16,077	\$ 292,153
Human Resources	\$ 308,699	\$ 16,906	\$ 22,391	\$ 347,996
Information Technology	\$ 604,304	\$ 226,566	\$ 22,822	\$ 853,692
Legal	\$ 24,154	\$ 31	\$ 11,442	\$ 35,627
Operations	\$ 81,230	\$ 5,490	\$ 26,448	\$ 113,168
Rates & Revenue	\$ 30,471	\$ 89	\$ 4,915	\$ 35,475
Risk Management	\$ 17,691	\$ 69,626	\$ 9,961	\$ 97,278
Water Quality	\$ 40,524	\$ 2,253	\$ 4,273	\$ 47,050
<b>Total</b>	<b>\$ 2,217,672</b>	<b>\$ 333,384</b>	<b>\$ 174,224</b>	<b>\$ 2,725,280</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Management Consultant, Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Exclusions From Hourly Rate Calculation				
Recap By Outside Provider	Contract Services	Travel Expenses	Computer HW/SW	Total
Attorney	\$ 24,154	\$ 31	\$ 11,442	\$ 35,627
Management Consultant	\$ 604,264	\$ 84,744	\$ 92,693	\$ 781,701
Certified Public Accountant	\$ 1,537,948	\$ 241,460	\$ 55,223	\$ 1,834,631
Professional Engineer	\$ 51,306	\$ 7,149	\$ 14,866	\$ 73,321
<b>Total</b>	<b>\$ 2,217,672</b>	<b>\$ 333,384</b>	<b>\$ 174,224</b>	<b>\$ 2,725,280</b>



## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Attorneys**

The New Jersey Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for New York or Pennsylvania attorneys. Therefore, a New Jersey estimate was developed from a survey of Michigan lawyers conducted annually by the Michigan Lawyers Weekly. As presented in Schedule 5, the average rate for each Michigan firm respondent was adjusted for the cost of living differential between their location and Trenton, New Jersey. The survey includes rates that were in effect at December 31, 2006—the midpoint of the 12 months ended June 30, 2007.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2006 annual survey performed by the Association of Management Consulting Firms—an industry trade organization. The first step in the calculation, presented in Schedule 6, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2005 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The 2005 average rate was escalated to December 31, 2006—the midpoint of the 12 months ended June 30, 2007.

### **Certified Public Accountants**

The average hourly rate for New Jersey certified public accountants was developed from a 2006 survey performed by the American Institute of Certified Public Accountants (AICPA). Hourly rates in the AICPA survey are the average of firms in New Jersey. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 7. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2005, thus they had to be escalated to December 31, 2006—the midpoint of the 12 months ended June 30, 2007.

### **Professional Engineers**

The Service Company provided hourly rate information for three outside engineering firms that were used by NJAWC in 2007. As presented in Schedule 8, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.



**New Jersey American  
Estimated Billing Rates Of New Jersey Attorneys**

Billing rates as of December 31, 2006 (Note A)							Cost of Living Adjust (C)	Adjusted Rate
Firm	Michigan Location	Number Of Mich Lawyers	Billing Rate Range					
			Associate	Partner	Average			
Dickinson Wright PLLC	Detroit	218	\$ 223	\$ 395	\$ 309	80%	\$ 384	
Butzel Long	Detroit	212	\$ 283	\$ 385	\$ 334	80%	\$ 415	
Bodman LLP	Detroit	130	\$ 170	\$ 353	\$ 261	80%	\$ 325	
Jaffe Raitt Heuer & Weiss, PC	Southfield	95	\$ 195	\$ 363	\$ 279	92%	\$ 304	
Trott & Trott, PC	Bingham Farms	57	\$ 170	\$ 235	\$ 203	119%	\$ 170	
Brooks Kushman PC	Southfield	52	\$ 218	\$ 378	\$ 298	92%	\$ 324	
Kemp, Klein, Umphrey, Edelman & May PC	Troy	38	\$ 170	\$ 270	\$ 220	106%	\$ 208	
Pepper Hamilton LLP	Detroit	31	\$ 258	\$ 478	\$ 368	80%	\$ 457	
Hertz, Schram & Saretsky, PC	Bloomfield Hills	30	\$ 218	\$ 338	\$ 278	132%	\$ 211	
Strobl & Sharp, PC	Bloomfield Hills	26	\$ 160	\$ 250	\$ 205	132%	\$ 156	
Kupelian Ormond & Magy, PC	Southfield	24	\$ 180	\$ 278	\$ 229	92%	\$ 249	
Rader, Fishman & Grauer, PLLC	Bloomfield Hills	23	\$ 190	\$ 385	\$ 288	132%	\$ 218	
McShane & Bowie PLC	Grand Rapids	22	\$ 218	\$ 313	\$ 265	91%	\$ 291	
Overall Average at December 31, 2006								\$ 286
Average Billing Rate At December 31, 2006 - the midpoint of 12 months ended June 30, 2007								<b>\$ 286</b>

Note A: Source is Michigan Lawyers Weekly, April 2007

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiat.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This number represents the cost of living difference between the Michigan city and Trenton, NJ. A number over 100% indicates the Michigan city's cost of living is higher than Trenton. A number less than 100% indicates Trenton's cost of living is higher.

**New Jersey American  
Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position  
Survey billing rates were those in effect in 2005 (Note A)

		Average Hourly Rates (Note A)				
		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average		\$ 141	\$ 186	\$ 234	\$ 320	\$ 350

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement

		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)		\$ 141	\$186	\$234	\$320	\$350	
Typical Percent of Time Spent on a Consulting Project		30%	30%	20%	10%	10%	Weighted Average
		\$ 42	\$ 56	\$ 47	\$ 32	\$ 35	<b>\$ 212</b>

Escalation to Test Year Mid-Point June 30, 2007 (Note B)

	CPI at December 31, 2005	196.8
	CPI at December 31, 2006	201.8
	Inflation/Escalation	2.5%
Estimated Average Hourly Billing Rate For New Jersey CPAs At December 31, 2006		<b>\$ 217</b>

Note A: source: "Operating Ratios For Management Consulting Firms, 2006 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>)

**New Jersey American**  
**Estimated Billing Rates Of New Jersey Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2005 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 64	\$ 90	\$ 109	\$ 166
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 64	\$ 90	\$ 109	\$ 166
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 19	\$ 27	\$ 22	\$ 33
				Weighted Average \$ 101
<u>Escalation to Test Year Mid-Point June 30, 2007 (Note B)</u>				
			CPI at December 31, 2005	196.8
			CPI at December 31, 2006	201.8
			Inflation/Escalation	2.5%
Estimated Average Hourly Billing Rate For New Jersey CPAs At December 31, 2006				<b>\$ 104</b>

Note A: Source is AICPA's 2006 National PCPS/TSCPA Management of an Accounting Practice Survey

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

**New Jersey American  
Billing Rates Of New Jersey Engineers**

Note: Billing rates were those in effect in 2007

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$65	\$93	\$144	\$185
Firm #2	\$71	\$88	\$133	\$165
Firm #3	\$85	\$98	\$128	\$173
Firm #4	\$59	\$81	\$113	\$152
Firm #5	\$64	\$86	\$117	\$160

B. Calculation of Overall Average Engineering Hourly Billing Rate

	CAD Drafter	Engineer	Project Manager	Officer	Weighted Average
	Engineer Tech	Design Engineer Project Engineer Elect Proj Engineer	Project Associate Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$69	\$89	\$127	\$167	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$21	\$31	\$32	\$17	<b>\$100</b>

Source: Information provided by American Water Works Service Company

**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

12 Months Ended June 30, 2007			
Service Provider	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 93	\$ 286	\$ (193)
Management Consultant	\$ 103	\$ 217	\$ (114)
Certified Public Accountant	\$ 71	\$ 104	\$ (33)
Professional Engineer	\$ 81	\$ 100	\$ (19)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to NJAWC during the 12 months ended June 30, 2007, outside service providers would have cost almost \$9 million more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are 66% higher than those of the Service Company (\$17,662,967 / \$26,691,726).

12 Months Ended June 30, 2007			
Service Provider	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (193)	13,140	\$ (2,533,145)
Management Consultant	\$ (114)	77,725	\$ (8,858,090)
Certified Public Accountant	\$ (33)	170,370	\$ (5,659,800)
Professional Engineer	\$ (19)	32,764	\$ (611,932)
Service Company Less Than Outside Providers			\$ (17,662,967)

If NJAWC were to use outside service providers rather than the Services Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 294,000 hours of work (almost 196 full-time equivalents at 1,500 billable hours per FTE) would add a significant workload to the existing NJAWC management team. Thus, it would be necessary for NJAWC to add at least two positions to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill these positions would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$304,000 per year to NJAWC's personnel expenses.

Cost of Adding Administrative Positions To NJAM's Staff

	Per Position	Total
New Positions' (2) Salary	\$ 100,000	\$ 200,000
Benefits (at 52%)	\$ 52,000	\$ 104,000
Total Cost of the New Positions		\$ 304,000

Thus, the total effect on the ratepayers of NJAWC of contracting all services now provided by Service Company would be an increase in their costs of **\$17,966,967** (\$17,662,967 + \$304,000).

### Other Cost Comparisons

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%
2005	24	25%
2006	24	31%

These survey results provide further evidence that the Service Company arrangement is the lowest-cost alternative for NJAWC.

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**V – Customer Account Services Cost Comparison**

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**Background**

It is difficult to compare the cost of American Water’s National Call Center with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, NJAWC’s National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC’s chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study’s comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer’s portion of FICA).

Schedule 8 provides FERC’s description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

<p><b><u>903 Records and Collection Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls</li><li>• Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications</li><li>• Customer billing – bill printing, stuffing and mailing</li><li>• Remittance processing – processing of customer payments received in the mail</li><li>• Bill payment centers – locations where customers can pay their bills in person</li></ul> <p><b><u>905 Miscellaneous Customer Accounts Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Information System IT – maintenance and support of the customer information system</li></ul>
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This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

**New Jersey American  
FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.



## FERC Account Descriptions

### **905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

#### Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

#### Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

New Jersey	<ul style="list-style-type: none"> <li>• Atlantic City Electric</li> <li>• Jersey Central Power</li> </ul>	<ul style="list-style-type: none"> <li>• Public Service Electric &amp; Gas</li> <li>• Rockland Electric</li> </ul>
New York	<ul style="list-style-type: none"> <li>• Central Hudson Gas &amp; Electric</li> <li>• Consolidated Edison</li> <li>• New York State Electric &amp; Gas</li> </ul>	<ul style="list-style-type: none"> <li>• Niagara Mohawk Electric Power</li> <li>• Rochester Gas &amp; Electric</li> </ul>
Pennsylvania	<ul style="list-style-type: none"> <li>• Duquesne Light</li> <li>• Metropolitan Edison</li> <li>• PECO Energy</li> <li>• Pennsylvania Electric</li> </ul>	<ul style="list-style-type: none"> <li>• Pennsylvania Power</li> <li>• PPL Electric Utilities</li> <li>• West Penn Power</li> </ul>
Delaware	<ul style="list-style-type: none"> <li>• Delmarva Power &amp; Light</li> </ul>	

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. NJAWC's cost pool was developed to include the same expenses included in electric utility's FERC accounts 903 and 905. As shown in the graphic below, NJAWC's resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u>
Pensacola & Alton Call Centers
a. Customer contact
b. Customer order processing
c. Billing information processing
d. Collections
e. Correspondence processing
f. Customer payment processing
<u>IT Service Centers</u>
a. Support expenses for the customer information system (ORCOM)
<u>Operating Company</u>
a. Postage and forms

Electric Utilities
FERC Acct 903 - Records and Collection Expense <u>and</u> FERC Acct 905 - Misc Customer Accounts Expense
a. Customer contact
b. Customer order processing
c. Bill preparation and mailing
d. Collections
e. Payment processing
f. Correspondence processing

**NJAWC Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to NJAWC. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.28 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, NJAWC's adjusted annual expense per customer is \$31.02—the number that can be compared to neighboring electric utilities' expenses.

**New Jersey American 12-Months Ended June 30, 2007 Cost Per Customer**

Cost Component	YE 6/30/07 Service Co Charges	Adjustment Fewer Calls For Water Cos. (A)	Adjusted
Service Company			
Call Centers	\$ 7,972,957	\$ 7,599,224	\$ 15,572,181
Regional Offices	\$ 201,941		\$ 201,941
IT/Data Centers	\$ 1,465,922		\$ 1,465,922
Service Company			\$ 592,816
Operating Company			\$ 1,513,501
		Cost Pool Total	\$ 19,346,361
		Total Customers	623,754
		<b>12 Months Ended June 30, 2007 Cost Per New Jersey American Customer</b>	<b>\$ 31.02</b>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Test Period Call Center charges	\$ 7,972,957
Electric utility industry's avg calls/customer	2.50
American Water's avg calls/customer	1.28
Percent different	95%
Total Adjustment B	\$ 7,599,224

Note B: Estimated customer payment processing expenses

Number of customers	623,754
Number of payments/customer/year	9
Total payments processed/year	5,613,786
Bank charge per item	\$ 0.1056
Total estimated annual expense	\$ 592,816

**Electric Utility Group Cost Per Customer**

Schedule 9 shows the actual 2006 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

**Summary Of Results**

As shown in the table below, NJAWC's cost per customer is close to the average of the electric utility comparison group. It can therefore be concluded that the customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to NJAWC are reasonable.

<b>Customer Account Services Expenses Per Customer</b>	
Public Service Electric & Gas	\$ 12.22
West Penn Power Company	\$ 12.82
Duquesne Light Company	\$ 15.97
Metropolitan Edison Company	\$ 18.17
Jersey Central Power & Light Company	\$ 18.18
Pennsylvania Electric Company	\$ 18.24
Pennsylvania Power Company	\$ 18.88
PPL Electric Utilities Corporation	\$ 21.13
Rochester Gas & Electric Corporation	\$ 22.61
<b>Comparison Group Average</b>	<b>\$ 28.90</b>
<b>New Jersey American Water</b>	<b>\$ 31.02</b>
Niagra Mohawk Power Corporation	\$ 31.14
Central Hudson Gas & Electric Company	\$ 33.67
New York State Electric & Gas Corporation	\$ 34.00
Consolidated Edison Company	\$ 39.40
PECO Energy Company	\$ 46.18
Atlantic City Electric Company	\$ 47.65
Delmarva Power & Light Company	\$ 49.05
Rockland Electric Company	\$ 61.67

**New Jersey American**  
**Comparison Group 2006 Actual Customer Accounts Expense Per Customer**

	New York					Rochester Gas & Electric
	Central Hudson Gas & Electric	Consolidated Edison	New York State Electric & Gas	Niagra Mohawk Power	New York State Electric & Gas	Rochester Gas & Electric
\$	6,494,641	\$ 110,493,688	\$ 26,065,553	\$ 34,953,004	\$ 7,483,349	\$ 7,483,349
\$	2,140,632	\$ 431,503	\$ 1,675,828	\$ 170,071	\$ 339,392	\$ 339,392
\$	8,635,273	\$ 110,925,191	\$ 27,741,381	\$ 35,123,075	\$ 7,822,741	\$ 7,822,741
\$	663,215	\$ 7,659,454	\$ 102,319	\$ 8,667,824	\$ 33,277	\$ 33,277
\$	493,524	\$ 7,624,334	\$ 1,666,371	\$ 2,158,145	\$ 272,425	\$ 272,425
\$	<b>9,792,012</b>	<b>\$ 126,208,980</b>	<b>\$ 29,510,071</b>	<b>\$ 45,949,044</b>	<b>\$ 8,128,443</b>	<b>\$ 8,128,443</b>
\$	290,818	\$ 3,203,541	\$ 868,027	\$ 1,475,451	\$ 359,450	\$ 359,450
\$	<b>33,67</b>	<b>\$ 39,40</b>	<b>\$ 34,00</b>	<b>\$ 31,14</b>	<b>\$ 22,61</b>	<b>\$ 22,61</b>
\$	7,820,791	\$ 90,060,950	\$ 920,181	\$ 106,795,887	\$ 711,608	\$ 711,608
\$	76,075,245	\$ 1,171,739,190	\$ 195,896,937	\$ 347,587,065	\$ 76,153,339	\$ 76,153,339
\$	10.3%	7.7%	0.5%	30.7%	0.9%	0.9%
\$	6,451,295	\$ 99,664,499	\$ 21,762,630	\$ 28,211,045	\$ 3,561,117	\$ 3,561,117
\$	663,215	\$ 7,659,454	\$ 102,319	\$ 8,667,824	\$ 33,277	\$ 33,277
\$	6,451,295	\$ 99,664,499	\$ 21,762,630	\$ 28,211,045	\$ 3,561,117	\$ 3,561,117
\$	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
\$	493,524	\$ 7,624,334	\$ 1,666,371	\$ 2,158,145	\$ 272,425	\$ 272,425

**Customer Account Management Cost Pool**

FERC Account Balances:  
 Acct 903 - Customer Records & Collection (page 322, line 131)  
 Acct 905 - Misc Customer Accounts (page 322, line 133)  
 Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
 Account 926 - Employee Pension & Benefits  
 Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt  
 Account 926 - Employee Pension & Benefits (page 323, line 187)  
 Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 7)  
 Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's Payroll Taxes Pertaining to Cust. Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)  
 Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA and Medicare



**New Jersey American  
Comparison Group 2006 Actual Customer Accounts Expense Per Customer**

Pennsylvania						
Duquesne Light	Metropolitan Edison	PECO Energy	Pennsylvania Electric	Pennsylvania Power	PPL Electric Utilities	West Penn Power
\$ 7,634,097	\$ 9,516,468	\$ 40,468,327	\$ 10,307,858	\$ 2,695,070	\$ 27,134,401	\$ 6,853,000
\$ -	\$ 29,309	\$ 27,371,284	\$ 145,765	\$ 164,238	\$ 853,743	\$ -
\$ 7,634,097	\$ 9,545,777	\$ 67,839,611	\$ 10,453,623	\$ 2,859,308	\$ 27,988,144	\$ 6,853,000
\$ 942,864	\$ (156,116)	\$ 2,582,413	\$ (233,705)	\$ 20,983	\$ (421,998)	\$ 1,600,005
\$ 774,174	\$ 389,377	\$ 1,226,378	\$ 512,931	\$ 109,507	\$ 1,465,959	\$ 609,671
\$ <b>9,351,135</b>	\$ <b>9,779,038</b>	\$ <b>71,648,402</b>	\$ <b>10,732,849</b>	\$ <b>2,989,797</b>	\$ <b>29,032,104</b>	\$ <b>9,062,676</b>
\$ 585,678	\$ 538,150	\$ 1,551,632	\$ 588,437	\$ 156,369	\$ 1,374,143	\$ 707,058
\$ <b>15.97</b>	\$ <b>18.17</b>	\$ <b>46.18</b>	\$ <b>18.24</b>	\$ <b>18.88</b>	\$ <b>21.13</b>	\$ <b>12.82</b>
\$ 11,293,383	\$ (1,607,694)	\$ 36,771,159	\$ (2,325,076)	\$ 213,351	\$ (4,477,514)	\$ 16,519,390
\$ 121,213,914	\$ 52,416,051	\$ 228,267,677	\$ 66,706,308	\$ 14,555,089	\$ 203,323,024	\$ 82,282,405
9.3%	-3.1%	16.1%	-3.5%	1.5%	-2.2%	20.1%
\$ 10,119,924	\$ 5,089,896	\$ 16,031,080	\$ 6,704,976	\$ 1,431,461	\$ 19,162,860	\$ 7,969,557
\$ 942,864	\$ (156,116)	\$ 2,582,413	\$ (233,705)	\$ 20,983	\$ (421,998)	\$ 1,600,005
\$ 10,119,924	\$ 5,089,896	\$ 16,031,080	\$ 6,704,976	\$ 1,431,461	\$ 19,162,860	\$ 7,969,557
\$ 774,174	\$ 389,377	\$ 1,226,378	\$ 512,931	\$ 109,507	\$ 1,465,959	\$ 609,671

**Customer Account Management Cost Pool**

FERC Account Balances:  
 Acct 903 - Customer Records & Collection (page 322, line 131)  
 Acct 905 - Misc Customer Accounts (page 322, line 133)  
 Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
 Account 926 - Employee Pension & Benefits  
 Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt  
 Account 926 - Employee Pension & Benefits (page 323, line 187)  
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Total Benefits as Percent of Payroll  
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Payroll Charged to Customer Accts Expenses (page 354, line 6)  
 Employer's Portion of FICA (6.20%) and Medicare (1.45%)  
 Estimated Employer's Portion of FICA and Medicare



**New Jersey American**  
**Comparison Group 2006 Actual Customer Accounts Expense Per Customer**

	New Jersey				Maryland		Group Average
	Atlantic City Electric	Jersey Central Power	Public Service Electric & Gas	Rockland Electric	Delmarva Power & Light		
\$	24,360,761	\$ 18,137,299	\$ 51,331,875	\$ 2,525,652	\$ 22,995,724	\$	409,450,767
\$	60,019	\$ 317,275	\$ (36,270,688)	\$ 1,101,219	\$ 132,342	\$	(3,338,068)
\$	24,420,780	\$ 18,454,574	\$ 13,061,187	\$ 3,626,871	\$ 23,128,066	\$	406,112,689
\$	947,498	\$ 228,567	\$ 9,333,579	\$ 753,502	\$ 1,435,423	\$	34,159,102
\$	191,087	\$ 910,077	\$ 3,341,394	\$ 43,024	\$ 582,624	\$	22,371,002
\$	<b>25,559,366</b>	\$ <b>19,593,218</b>	\$ <b>25,736,160</b>	\$ <b>4,423,397</b>	\$ <b>25,146,113</b>	\$	<b>462,642,803</b>
	536,415	1,077,948	2,106,886	71,726	512,673		16,006,402
\$	<b>47.65</b>	\$ <b>18.18</b>	\$ <b>12.22</b>	\$ <b>61.67</b>	\$ <b>49.05</b>	\$	<b>28.90</b>
\$	21,744,878	\$ 2,299,610	\$ 108,710,276	\$ 12,688,468	\$ 13,589,355		
\$	57,325,558	\$ 119,689,986	\$ 508,731,548	\$ 9,470,456	\$ 72,101,692		
	37.9%	1.9%	21.4%	134.0%	18.8%		
\$	2,497,870	\$ 11,896,435	\$ 43,678,354	\$ 562,401	\$ 7,615,995	\$	34,159,102
\$	947,498	\$ 228,567	\$ 9,333,579	\$ 753,502	\$ 1,435,423	\$	
\$	2,497,870	\$ 11,896,435	\$ 43,678,354	\$ 562,401	\$ 7,615,995	\$	
\$	7.65%	7.65%	7.65%	7.65%	7.65%	\$	
\$	191,087	\$ 910,077	\$ 3,341,394	\$ 43,024	\$ 582,624	\$	22,371,002

**Customer Account Management Cost Pool**

FERC Account Balances:  
 Acct 903 - Customer Records & Collection (page 322, line 131)  
 Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
 Account 926 - Employee Pension & Benefits  
 Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

Total Cost Pool

Total Customers (page 304, line 43)

Customer Account Management Expense per Customer

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt  
 Account 926 - Employee Pension & Benefits (page 323, line 187)  
 Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 7)  
 Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's Payroll Taxes Pertaining to Cust. Acct Mgmt  
 Payroll Charged to Customer Accts Expenses (page 354, line 6)  
 Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA and Medicare



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## VI - Need For Service Company Services

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### Analysis Of Service Company Services

The final aspect of this study was an assessment of whether the services that are provided to NJAWC by the Service Company would be necessary if NJAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for NJAWC. Based on discussions with Service Company personnel, the matrix in Schedule 11 was created showing which entity--NJAWC or a Service Company location--is responsible for each of the functions NJAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 11, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if NJAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to NJAWC. For all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.



Primarily Responsible Provides Support	P S	Performed By:						
		NJAWC	Customer Call Center	Regional/ Divisional Office	Shared Services	Central Services	IT Service Centers	Laboratory Services
Water Company Function								
<b>Engineering and Construction Management</b>								
CPS Preparation	P							
Five-Year System Planning	P		S					
Engineering Standards & Policies Development								
Project Design								
Major Projects (e.g., new treatment plant)	P							
Special Projects	P		S					
Minor Projects (e.g., pipelines)	P							
Construction Project Management								
Major Projects	P		S					
Special Projects	P		S					
Minor Projects	P							
Hydraulics Review	P							
Developers Extensions	P							
Tank Painting	P		S					
<b>Water Quality and Purification</b>								
Water Quality Standards Development	P		S					S
Research Studies	S		S					S
Water Quality Program Implementation	P		S					
Water Treatment Operations & Maintenance	P		S					
Compliance Sampling	P		S					
Testing/Other Sampling (2 Ps = different studies)	P		S					S
<b>Transmission and Distribution</b>								
Preventive Maintenance Program Development	P							
System Maintenance	P							
Leak Detection	P							
<b>Customer Service</b>								
Community Relations	P		S					
Customer Contact	S							
Call Processing	S							
Service Order Processing	P							
Customer Credit	S							
Meter Reading	P							
Customer Bill Preparation								
Bill Collection	S							S
Customer Payment Processing								
Meter Standards Development	S							
Meter Testing, Maintenance & Replacement	P		S					

Water Company Function	NJAWC	Performed By:							
		Customer Call Center	Regional/ Divisional Office	Shared Services	Central Services	IT Service Centers	Laboratory Services		
<b>Primarily Responsible P Provides Support S</b>									
<b>Financial Management</b>									
Financial Planning	S		P		S				
Financings—Equity					S				
Financings--Long Term Debt & Preferred (A)									
Short Term Lines of Credit Arrangements (A)									
Investor Relations							P		
Insurance Program Administration							P		
Loss Control/Safety Program Administration	P		S		S				
Pension Fund Asset Management							P		
Cash Management/Disbursements						P			
<b>Internal Auditing</b>									
<b>Budgeting and Variance Reporting</b>									
Corporate Guidelines & Instructions									
Regional Guidelines & Instructions			P						
Budget Preparation									
Revenue and O&M	P								
Depreciation and Interest Expense	S		S		P				S
Budget Preparation--Service Company Charges			P		S		S		
Capital Budget Preparation—Projects	P		S						
Capital Budget Preparation--Non-Project Work	P								
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	P								
Prepare Capital Project Budget Status Report	P		S						
Year-End Projections	P		S						
<b>Accounting and Taxes</b>									
Accounts Payable Accounting	S				P				
Payroll Accounting	S				P				
Work Order Accounting	S				P				
Fixed Asset Accounting	S				P				
Journal Entry Preparation--Billing Corrections	S		S		P				
Journal Entry Preparation--All Others	S		S		P				
Financial Statement Preparation	S		S		P				
State Commission Reporting	S		S		P				
Income Taxes—State					P				
Income Taxes—Federal					P				
Property Taxes			S		P				
Gross Receipts Taxes			S		P				

Note A: Financings and lines of credit are the responsibility of American Capital Corporation

**New Jersey American  
Designation Of Responsibility For Water Utility Functions**

Water Company Function	NJAWC	Performed By:						Laboratory Services
		Customer Call Center	Regional/ Divisional Office	Shared Services	Central Services	IT Service Centers		
<b>Primarily Responsible P Provides Support S</b>								
<b>Water Company Function</b>								
<b>Rates</b>								
Rate Studies & Tariff Change Administration	S		P	S				
Rate Case Planning and Preparation	S		P	S				
Rate Case Administration	S		P					
Commission Inquiry Response	S		P		S			
<b>Legal</b>								
<b>Purchasing and Materials Management</b>								
Specification Development	S		S	S	P			
Bid Solicitation	S			P				
Contract Administration	S			P				
Ordering	P							
Inventory Management	P			S				
<b>Human Resources Management</b>								
Benefit Program Development			S		P			
Benefits Program Administration			P	S				
Management Compensation Administration			P		S			
Wage & Salary Program Design			S		P			
Wage & Salary Administration			P		S			
Labor Negotiations--Wages			P					
Labor Negotiations--Benefits			P		S			
Labor Negotiations-- Work Rules			P					
Training Program Development			P					
Training--Course Delivery			P					
Affirmative Action/EEO--Plan Development			P					
Affirmative Action/EEO--Implementation			P					
<b>Information Systems Services</b>								
Service Company Data Centers								
System Operations & Maintenance								P
Software Maintenance								P
Network Administration								P
PC Acquisition & Support								P
Help Desk								P

## **Governance Practices Associated With Service Company Charges**

There are several ways by which NJAWC exercises control over Service Company services and charges. The most important of these are described below.

- **Company President Oversight** – The Company President of the state utility is responsible for the overall performance of each operating company in the state. As part of the management team, through the Executive Vice President of the Eastern Division, each state utility President has a significant voice in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending.
- **Vice President & Treasurer** – The Vice President and Treasurer position retains the functions previously performed on behalf of the Northeast Region. The Vice President and Treasurer is responsible for the financial reporting, performance and internal controls of the New Jersey and New York operating companies. The Vice President and Treasurer monitor the performance and reporting from the Service Company and pushes back whenever the quality and service are not appropriate.
- **Operating Company Board Oversight** – The board of directors includes members of American Water's EMT, members of the state management team and business and community leaders from outside the Company. This helps ensure that NJAWC's needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – Every operating company president sits on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's Executive Management Team, which includes the Executive Vice President. The Executive Vice President, with significant input from the state President and local management team, has the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Operating company personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. Any mistakes or overcharges are credited on a subsequent billing.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report, called the "Statement of Expenses and Billed Charges," is produced by Service Company location and shows budget versus actual spending for the month and year-to-date by cost category.
- **Operating Company Budget Variance Reporting** – The "Budget/Plan Analysis," produced monthly by each operating company, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.
- **Capital Investment Management (CIM)** – CIM is one of American Water's primary business planning processes. It covers capital and asset planning and is employed throughout American Water and Thames Water. The current CIM process and procedures were established in 2003 as part of an initiative to implement leading water industry practices. CIM provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital

program, approving project spending, delivering projects and measuring outputs. CIM ensures that:

- Capital expenditure plans are aligned with the strategic intent of the business,
- The impact of capital expenditure and income plans are fully reflected in operating expense plans,
- The impacts of these plans are understood and affordable, and
- Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIM process was designed to optimize the effectiveness of asset investment. The process is managed at three levels for all American Water companies, including all NJAWC operating units.

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**Market Cost Comparison of Service Company Charges to  
New Jersey American Water Company**

**12-Months Ended June 30, 2009**

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**New Jersey American Water Company  
Market Cost Comparison of Service Company Charges  
12-Months Ended June 30, 2009**

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## I – Introduction

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### **Purpose of This Study**

This study was undertaken to answer four questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to New Jersey American Water Company (NJAWC):

1. Were the Service Company's charges to NJAWC during the 12 months ended June 30, 2009 reasonable?
2. Was NJAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during the 12 months ended June 30, 2009?
3. Were the 12 months ended June 30, 2009 costs of the Service Company's customer accounts services, including those of the National Call Centers, comparable to those of other utilities?
4. Are the services NJAWC receives from Service Company necessary?

### **Study Results**

Concerning question 1, the following conclusion was reached:

- The Service Company's 12 months ended June 30, 2009 cost per NJAWC customer was very reasonable compared to cost per customer for electric and combination electric/gas service companies. During the 12 months ended June 30, 2009, NJAWC was charged \$49 per customer for administrative and general (A&G)-related services provided by the Service Company. This compares to an average of \$109 per customer for service companies reporting to the Federal Energy Regulatory Commission (FERC). Only 3 of the 24 utility service companies that filed a FERC Form 60 for 2008 had a lower per customer A&G cost than NJAWC's charges from the Service Company.

Concerning question 2, the following conclusions were drawn from this study:

- NJAWC was charged the lower of cost or market for managerial and professional services during the 12 months ended June 30, 2009.
- On average, the hourly rates for outside service providers are 75% higher than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by NJAWC without careful supervision on the part of NJAWC. If these services were contracted entirely to outside providers, NJAWC would have to add at least two positions to manage activities of outside firms. These positions would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been outsourced during the 12 months ended June 30, 2009, NJAWC and its ratepayers would have incurred more than \$20.6 million in additional expenses. This amount includes the higher cost of outside providers and the cost of two NJAWC positions needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to NJAWC from its use of the Service Company. Outside service providers generally bill



## I – Introduction

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for every hour worked. Service Company exempt personnel, on the other hand, charge a maximum of 8 hours per day even when they work more hours. If the overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$20.6 million cited above. For instance, if Service Company overtime is conservatively estimated at 5% (2 hours per week), then that work would have cost an estimated \$1.0 million in additional charges from outside providers.

- It would be difficult for NJAWC to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from NJAWC ratepayers.

Concerning question 3, the following conclusion was reached:

- The cost of the Service Company's customer accounts services, including those provided by the National Call Centers, is well below the average of the neighboring electric utility comparison group. As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of the Service Company and NJAWC. During the 12-months ended June 30, 2009, the customer accounts cost for NJAWC customers was \$26.33 compared to the 2008 average of \$43.23 for neighboring electric utilities. The highest comparison group per customer cost was \$83.88 and the lowest \$12.54.

Concerning question 4, the following conclusions was drawn:

- The services that the Service Company provides are necessary and would be required even if NJAWC were a stand-alone water utility.
- Furthermore, there is no redundancy or overlap in the services provided by the Service Company to NJAWC. For all of the services listed in Exhibit 11, there was only one entity primarily responsible for the service.

## II – Background

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### Overview of American Water Works Service Company

American Water's Service Company exists to provide certain shared services to American Water subsidiaries. It follows a service company model used by many utility holding companies that own multiple regulated utilities. By consolidating executive and professional services into a single service company, utility holding companies are able to realize the following benefits for ratepayers:

- **Purchasing Economies** – Common expenses (e.g., insurance, chemicals, piping) can be procured on a much larger scale thereby providing greater bargaining power for the combined entity compared to individual utility operating companies. A service company facilitates corporate-wide purchasing programs through its procurement and contract administration functions.
- **Operating Economies of Scale** – A service company is able to deliver services more efficiently because workloads can be balanced across more persons and facilities. For instance, American Water's Service Company is able to maintain one principal data center for the entire corporation. This is much more cost-efficient than each operating utility funding their own data center with its large fixed hardware, software and staffing costs.
- **Continuity of Service** – Centralizing service company personnel who perform similar services facilitates job cross-training and sharing of knowledge and expertise. This makes it easier to deal with staff turnover and absences and to sustain high levels of service to operating utilities. An individual operating utility might experience considerable disruption if a key professional left and it was necessary to hire outside to fill the vacancy.
- **Maintenance of Corporate-Wide Standards** – Personnel in American Water's Service Company establish standards for many functions (e.g., engineering designs, operating procedures and maintenance practices). It is easier to ensure these standards are followed by every operating utility because their implementation is overseen by the Service Company.
- **Improved Governance** – American Water's Service Company provides another dimension of management and financial oversight that supplements local operating utility management. The Service Company facilitates standard planning and reporting that help ensure operating utilities meet the requirements of their customers in a cost effective manner.
- **Retention of Personnel** – A service company organization provides operating utility personnel with another career path beyond what may be available on a local level. These opportunities tend to improve employee retention.

American Water follows the model for other utility service companies in another important regard. Its services are provided to affiliate operating utilities, like NJAWC, at cost. American Water's Service Company is not a profit-making entity. It assigns only its actual expenses to the American Water subsidiaries it services.

The Service Company provides services to American Water operating companies from the following locations:



## II – Background

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- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in 2001 and a second in Pensacola, Florida that went into operation in 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of NJAWC, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they are not provided by the National Shared Services Center. Examples of regional office services include legal, communication, human resources and maintenance.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the communications systems. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### **Service Company Expense Categories**

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial

## II – Background

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services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

### Charging and Assignment Of Service Company Time and Expenses

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company
- Formula number
- Work order (where applicable)
- Authorization number (where applicable)

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries

## II – Background

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The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet that shows:

- Formula number (this is linked to operating company within American Water's financial system)
- Employee hours worked
- Account number for non-labor charges

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 10% of American Water's Shared Services' professional labor is assigned to NJAWC during a month, then 10% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 10% of the Shared Services' accumulated professional and support labor is charged to NJAWC during the month, then 10% of that month's overhead expenses will be assigned to NJAWC.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to NJAWC, then 2% of that office's office expenses would be assigned to NJAWC. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a rate case proceeding are charged directly to the operating company whose case is being heard.

### III – Service Company Cost Comparison Approach

During the 12 months ended June 30, 2009, the Service Company billed NJAWC \$34,094,415 in O&M-related charges and \$2,541,741 in capital-related charges. Included in the O&M amount are certain non-recurring expenses which are excluded from this market study because NJAWC is not seeking their recovery. As calculated in the table below, net testable Service Company charges of \$36,550,356 were subjected to a market cost comparison.

	12 Months Ended June 30, 2009
Mgmt Fee Expense (O&M)	\$ 34,094,415
Add/Subtract: Non-Recurring Items	
Sarbanes-Oxley	\$ 9,117
Divestiture Support	\$ 19,012
Business Change	\$ (113,929)
Net O&M Expenses	\$ 34,008,615
Mgmt Fees - Capital	\$ 2,541,741
<b>Total Testable AWWSC Charges</b>	<b>\$ 36,550,356</b>

For purposes of comparing these charges to certain outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	12 Months Ended June 30, 2009	
	Amount	Hours
Management and Professional Services	\$ 26,876,116	261,863
Customer Account Services	\$ 9,674,240	278,715
Total	\$ 36,550,356	540,578

This study's first question—whether Service Company 12 months ended June 30, 2009 charges were reasonable—was determined by comparing NJAWC's A&G-related Service Company charges per customer to the same charges for utility companies that must file the FERC Form 60 – Annual Report of Service Companies.

The second question—whether Service Company charges during the 12 months ended June 30, 2009 were at the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to NJAWC during the 12 months ended June 30, 2009. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

### III – Service Company Cost Comparison Approach

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The third question—whether Service Company’s 12 months ended June 30, 2009 customer account services charges, including National Call Center costs, were comparable to other utilities—was addressed by comparing NJAWC’s customer accounts services expenses to those of neighboring investor owned electric utilities. This utility comparison group was selected because the cost of outside providers of customer accounts services is proprietary and not publicly available. Comparison to electric utilities is appropriate because all utilities, regardless of service type, must perform customer account services activities, including updating customer records for meter reads, printing and mailing bills, and the collection and processing of customer payments. Electric utility costs are available from the Federal Energy Regulatory Commission (FERC) Form 1, thus there is appropriate data transparency. The selection of electric utilities from New Jersey and neighboring states provides a sufficiently sized comparison group.

The fourth question—the necessity of Service Company services—was investigated by defining the services provided to NJAWC and determining if these services would be required if NJAWC were a stand-alone utility.

IV – Question 1 – Reasonableness of Service Company Charges

**NJAWC’s Service Company Cost per Customer**

During the 12 months ended June 30, 2009, NJAWC was charged \$49 per customer by the Service Company for A&G/O&M-related services. The calculation of this amount, shown in the table below, starts with total net testable Service Company charges and adjusts for capital and non-A&G functions (engineering, operations and water quality) charges. These adjustments are necessary to develop a per customer cost that is comparable to cost of utility service companies.

	12 Months ended Jun 30, 2009 AWWSC Charges
Testable Service Company charges	\$ 36,550,356
Less: Capital charges	\$ (2,541,741)
Less: Non-A&G function O&M charges	
Engineering	\$ (4,153)
Operations	\$ (1,232,226)
Water Quality	\$ (1,277,188)
Net A&G/O&M-related charges	\$ 31,495,047
NJAWC customers	638,458
<b>NJAWC Cost Per Customer</b>	<b>\$ 49</b>

**Comparison Group Cost Per Customer**

Every centralized service company in a holding company system subject to regulation by the FERC must file a Form 60 in accordance with the Public Utility Holding Company Act of 2005, Section 1270, Section 390 of the Federal Power Act and 18 C.F.R. paragraph 366.23. This report is designed to collect financial information from service companies that are subject to regulation by the FERC.

For 2008, a Form 60 was filed by 24 utility service companies, all of which serve utilities that provide regulated electric and, in some cases, gas service to retail customers. In order to make a valid comparison of this group’s costs to those of American Water Works Service Company, it was necessary to isolate expenses that they have in common. These include A&G-related charges associated with the following FERC accounts:

901 – Supervision	921 – Office supplies and expenses
903 – Customer records and collection expenses	923 – Outside services employed
905 – Miscellaneous customer accounts expenses	926 – Employee pensions and benefits
907 – Supervision	928 – Regulatory commission expenses
910 – Misc customer service and info expenses	930.2 – Miscellaneous general expenses
911 – Supervision	931 – Rents
920 - Administrative and general salaries	935 – Maintenance of structures and equipment

O&M expenses charged to utility affiliates for the comparison group service companies were obtained from Schedule XVI – Analysis of Charges for Service Associate and Non-Associate Companies (p. 303 to 306) of each entity’s FERC Form 60. This schedule shows charges by FERC Account.

Comparison group service company 2008 expenses were also adjusted to remove charges to non-regulated affiliates from the cost pool used to calculate the cost per regulated service



#### IV – Question 1 – Reasonableness of Service Company Charges

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customer. This determination was made using information from the FERC Form 60 schedule:  
Account 457 – Analysis of Billing – Associate Companies.

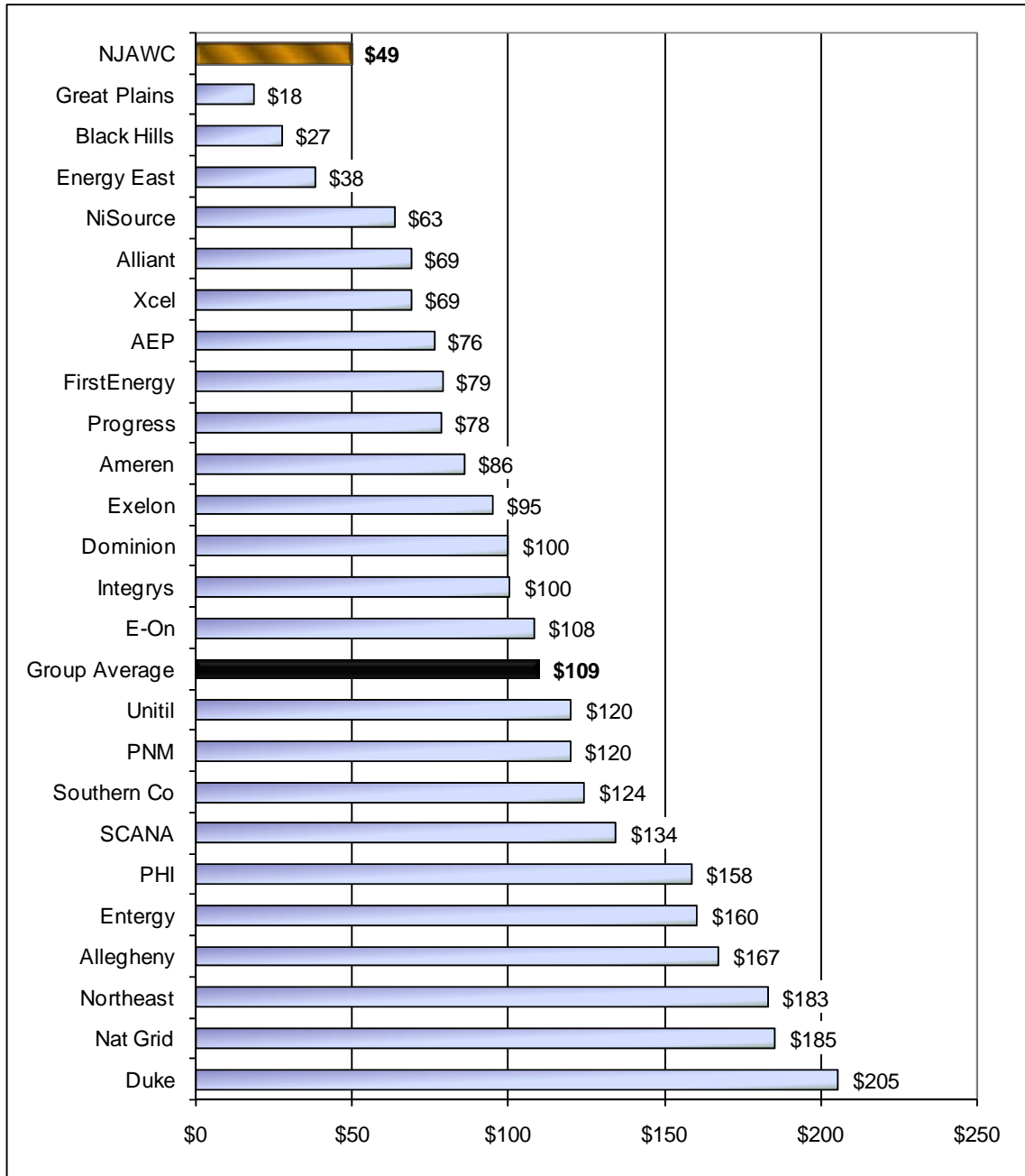
A&G expenses per regulated utility customer for the 24 utility companies that file Form 60 for 2008 are calculated below.

Utility Company	2008 Regulated		Cost per Customer
	Retail Service Company A&G Expenses	Regulated Retail Customers	
AEP	\$396,340,118	5,213,000	\$ 76
Allegheny	\$263,588,707	1,577,873	\$ 167
Alliant	\$205,754,832	3,000,000	\$ 69
Ameren	\$291,684,710	3,400,000	\$ 86
Black Hills	\$20,763,828	759,400	\$ 27
Dominion	\$357,718,046	3,588,500	\$ 100
Duke	\$923,936,645	4,500,000	\$ 205
Energy East	\$113,714,789	2,989,800	\$ 38
Entergy	\$432,575,683	2,700,000	\$ 160
E-On	\$136,276,177	1,263,000	\$ 108
Exelon	\$558,687,014	5,885,000	\$ 95
FirstEnergy	\$354,028,109	4,499,000	\$ 79
Great Plains	\$15,000,708	820,000	\$ 18
Integrus	\$216,364,166	2,157,000	\$ 100
Nat Grid	\$1,240,706,398	6,700,000	\$ 185
NiSource	\$237,380,009	3,750,000	\$ 63
Northeast	\$302,138,730	1,654,000	\$ 183
PHI	\$302,463,412	1,910,000	\$ 158
Progress	\$242,677,256	3,100,000	\$ 78
PNM	\$102,688,385	859,000	\$ 120
SCANA	\$191,207,825	1,424,300	\$ 134
Southern Co	\$546,498,605	4,402,000	\$ 124
Unitil	\$20,341,422	169,600	\$ 120
Xcel	\$367,626,617	5,345,000	\$ 69
<b>Group Total</b>	<b>\$7,840,162,191</b>	<b>71,666,473</b>	<b>\$ 109</b>

Exhibit 1 shows NJAWC's 12 months ended June 30, 2009 Service Company cost per customer of \$49 to be considerably lower than the average of \$109 per customer for the comparison group service companies. Only 3 of 24 comparison group service companies had a lower cost per customer than NJAWC. Based on this result, it is possible to conclude that the Service Company's 12 months ended June 30, 2009 charges to NJAWC were reasonable.

Exhibit 1

**New Jersey American Water Company**  
**Comparison of Service Company Annual Costs Per Customer**



## V – Question 2 – Provision of Services at the Lower of Cost or Market

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### **Methodology**

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar, scientific educational backgrounds as Service Company engineering personnel. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to NJAWC during the 12 months ended June 30, 2009. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged NJAWC during the 12 months ended June 30, 2009, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### **Service Company Hourly Rates**

Exhibit 2 (page 14) details the assignment of 12 months ended June 30, 2009 management and professional Service Company charges by outsider provider category. Exhibit 3 (page 15) shows the same assignment for Service Company management and professional hours charged to NJAWC during the 12 months ended June 30, 2009.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following the 12 months ended June 30, 2009 test period non-labor Service Company charges:

V – Question 2 – Provision of Services at the Lower of Cost or Market

- Contract Services – 12 months ended June 30, 2009 Service Company charges to NJAWC include expenses associated with the use of outside professional firms to perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.
- Travel Expenses – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- Information Technology Infrastructure Expenses – Included in the 12 months ended June 30, 2009 Service Company charges to NJAWC are leases, maintenance fees and depreciation related to American Water's enterprise mainframe, server and network infrastructure and corporate business applications. An outside provider that would take over operation of this infrastructure would recover these expenses over and above the labor necessary to operate the data center.

Exhibit 4 (page 16) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Exhibits 2 and 3 and the excludable items shown in Exhibit 4, the Service Company's equivalent costs per hour for the 12 months ended June 30, 2009 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 1,289,713	\$ 6,715,215	\$ 15,836,670	\$ 3,034,517	\$ 26,876,116
Less:					
Contract services	\$ 103,830	\$ 603,363	\$ 2,308,124	\$ 45,772	\$ 3,061,089
Travel expenses	\$ 16,222	\$ 180,663	\$ 229,293	\$ 69,761	\$ 495,939
IT infrastructure expenses	\$ 29,263	\$ 1,138,413	\$ 1,154,115	\$ 271,414	\$ 2,593,205
Net Service Charges (A)	\$ 1,140,398	\$ 4,792,776	\$ 12,145,138	\$ 2,647,570	\$ 20,725,882
Total Hours (B)	11,798	43,874	170,127	36,064	261,863
<b>Average Hourly Rate (A / B)</b>	<b>\$ 97</b>	<b>\$ 109</b>	<b>\$ 71</b>	<b>\$ 73</b>	

**New Jersey American Water Company  
Analysis of 12 Months Ended June 30, 2009 Service Company Charges By Location And Function**

Location	Function	12 Months Ended June 30, 2009 Service Company Charges				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality			\$ 1,045,491	\$ 1,045,491	
Call Center	Human Resources		\$ 219,676		\$ 219,676	
Corporate	Accounting			\$ 2,722,924	\$ 2,722,924	
	Administration		\$ 1,802,739		\$ 1,802,739	
	Audit			\$ 267,702	\$ 267,702	
	Communications		\$ 452,662		\$ 452,662	
	Finance			\$ 1,176,087	\$ 1,176,087	
	Human Resources		\$ 1,141,750		\$ 1,141,750	
	Information Technology			\$ 32,293	\$ 32,293	
	Legal	\$ 500,439			\$ 500,439	
	Operations		\$ 626,699	\$ 1,197,574	\$ 1,824,273	
	Rates & Revenue				\$ 380,077	
	Risk Management		\$ 364,964		\$ 364,964	
	Water Quality			\$ 402,465	\$ 402,465	
Regional Offices	Accounting			\$ 87,173	\$ 87,173	
	Administration		\$ 392,698		\$ 392,698	
	Communications		\$ 193,179		\$ 193,179	
	Engineering			\$ 4,446	\$ 4,446	
	Finance			\$ 2,023,612	\$ 2,023,612	
	Human Resources		\$ 435,930		\$ 435,930	
	Legal	\$ 789,274			\$ 789,274	
	Operations		\$ 2,163	\$ 382,216	\$ 384,379	
	Risk Management		\$ 519,317		\$ 519,317	
	Water Quality			\$ 2,324	\$ 2,324	
Information Technology	Information Technology			\$ 6,811,780	\$ 6,811,780	
Shared Services	Accounting			\$ 1,874,588	\$ 1,874,588	
	Administration		\$ 563,438		\$ 563,438	
	Finance			\$ 274,526	\$ 274,526	
	Rates & Revenue		\$ 185,908		\$ 185,908	
	<b>Total Dollars Charged</b>	<b>\$ 1,289,713</b>	<b>\$ 6,715,215</b>	<b>\$ 15,836,670</b>	<b>\$ 3,034,517</b>	
					<b>\$ 26,876,116</b>	

**New Jersey American Water Company  
Analysis of 12 Months Ended June 30, 2009 Service Company Hours By Location And Function**

		12 Months Ended June 30, 2009 Service Company Hours				
Location	Function	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Belleville Lab	Water Quality				14,164	14,164
Call Center	Human Resources		3,054			3,054
Corporate	Accounting			25,945		25,945
	Administration		2,910			2,910
	Audit			3,049		3,049
	Communications		2,494			2,494
	Finance			7,857		7,857
	Human Resources		11,425			11,425
	Information Technology			129		129
	Legal	2,572				2,572
	Operations		3,040		13,508	16,548
	Rates & Revenue			2,659		2,659
	Risk Management		3,812			3,812
	Water Quality				5,756	5,756
Regional Offices	Accounting			1,942		1,942
	Administration		-			-
	Communications		2,429			2,429
	Engineering				1	1
	Finance			22,334		22,334
	Human Resources		3,557			3,557
	Legal	9,226				9,226
	Operations		-		2,600	2,600
	Risk Management		8,353			8,353
	Water Quality				35	35
Information Technology	Information Technology			54,406		54,406
Shared Services	Accounting			41,990		41,990
	Administration		2,798			2,798
	Finance			7,334		7,334
	Rates & Revenue			2,484		2,484
	<b>Total Hours Charged</b>	<b>11,798</b>	<b>43,874</b>	<b>170,127</b>	<b>36,064</b>	<b>261,863</b>

**New Jersey American Water Company**  
**12 Months Ended June 30, 2009 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	IT HW/SW	Total
Accounting	\$ 1,278,626	\$ 34,534	\$ 36,330	\$ 1,349,490
Administration	\$ 174,667	\$ 32,716	\$ 1,031,167	\$ 1,238,550
Audit	\$ 15,915	\$ 7,738	\$ 3,614	\$ 27,267
Communications	\$ 86,761	\$ 26,828	\$ 7,684	\$ 121,273
Engineering	\$ -	\$ -	\$ 92	\$ 92
Finance	\$ 480,276	\$ 55,290	\$ 37,588	\$ 573,154
Human Resources	\$ 290,659	\$ 59,085	\$ 29,823	\$ 379,567
Information Technology	\$ 464,626	\$ 111,153	\$ 1,062,871	\$ 1,638,650
Legal	\$ 103,830	\$ 16,222	\$ 29,263	\$ 149,315
Operations	\$ 59,999	\$ 76,965	\$ 119,584	\$ 256,548
Rates & Revenue	\$ 68,681	\$ 20,578	\$ 13,712	\$ 102,971
Risk Management	\$ 37,246	\$ 32,848	\$ 37,738	\$ 107,832
Water Quality	\$ (198)	\$ 21,983	\$ 183,740	\$ 205,524
<b>Total</b>	<b>\$ 3,061,089</b>	<b>\$ 495,939</b>	<b>\$ 2,593,205</b>	<b>\$ 6,150,234</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Management Consultant,
Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	IT HW/SW	Total
Attorney	\$ 103,830	\$ 16,222	\$ 29,263	\$ 149,315
Management Consultant	\$ 603,363	\$ 180,663	\$ 1,138,413	\$ 1,922,440
Certified Public Accountant	\$ 2,308,124	\$ 229,293	\$ 1,154,115	\$ 3,691,532
Professional Engineer	\$ 45,772	\$ 69,761	\$ 271,414	\$ 386,947
<b>Total</b>	<b>\$ 3,061,089</b>	<b>\$ 495,939</b>	<b>\$ 2,593,205</b>	<b>\$ 6,150,234</b>



V – Question 2 – Provision of Services at the Lower of Cost or Market

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**Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

It should be noted that professionals working for three of the five outside provider categories may be licensed to practice by state regulatory bodies. However, not every professional working for these firms is licensed. For instance, among New Jersey certified public accounting firms, only more experienced staff are predominantly CPAs (see table below). Some Service Company employees also have professional licenses. Thus, it is valid to compare the Service Company's hourly rates to those of the outside professional service providers included in this study.

Position	New Jersey Average
Partners/Owners	97%
Directors (11+ years experience)	73%
Managers (6-10 years experience)	97%
Sr Associates (4-5 years experience)	59%
Associates (1-3 years experience)	26%
New Professionals	na

Source: AICPA's National PCPS/TSCPA Management of an Accounting Practice Survey (2008)

**Attorneys**

The New Jersey State Bar does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for New Jersey attorneys. Therefore, an estimate of New Jersey attorney rates was developed from two surveys conducted by Lawyers Weekly in the states of Michigan and Massachusetts. As presented in Exhibit 5, the average rate for each firm was adjusted for the cost of living differential between its location and Trenton, New Jersey. The Lawyers Weekly surveys included rates in effect at December 31, 2007. Thus, the 2007 average rate was escalated to December 31, 2008—the midpoint of the test year ended June 30, 2009.

**Management Consultants**

The cost per hour for management consultants was developed from a 2009 survey performed by the Association of Management Consulting Firms—an industry trade organization. The survey includes rates that were in effect during 2008 for firms throughout the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison.

The first step in the calculation, presented in Exhibit 6, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level.

### **Certified Public Accountants**

The average hourly rate for New Jersey CPAs was developed from a 2008 survey performed by the American Institute of Certified Public Accountants (AICPA). The New Jersey version of this survey was used to develop hourly rates for member firms in New Jersey.

As shown in Exhibit 7, a weighted average hourly rate was developed based on a set of accountant positions and a percent of time that is typically applied to an accounting assignment. This survey includes rate information in effect during 2007. Thus, the data had to be escalated to December 31, 2008—the midpoint of the test year ended June 30, 2009.

### **Professional Engineers**

The Company provided hourly rate information for outside engineering firms that could have been used by NJAWC in 2009. As presented in Exhibit 8, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

**New Jersey American Water Company  
Estimated Billing Rates For New Jersey Attorneys Based On  
Michigan and Massachusetts Attorney Billing Rates**

Billing rates as of December 31, 2007 (Note A)								Cost of Living Adjust (C)	Adjusted Rate
Firm	Location	Number Of Lawyers	Billing Rate Range				Average		
			Associate		Partner				
			Low	High	Low	High			
Dickinson Wright PLLC	Detroit, Mi	229	\$ 170	\$ 275	\$ 260	\$ 530	\$ 309	80%	\$ 384
Dykema	Detroit, Mi	222	\$ 185	\$ 390	\$ 245	\$ 625	\$ 361	80%	\$ 450
Butzel Long	Detroit, Mi	209	\$ 165	\$ 400	\$ 220	\$ 550	\$ 334	80%	\$ 415
Bodman LLP	Detroit, Mi	128	\$ 125	\$ 215	\$ 210	\$ 495	\$ 261	80%	\$ 325
Jaffe Raitt Heuer & Weiss, PC	Southfield, Mi	100	\$ 165	\$ 225	\$ 225	\$ 500	\$ 279	92%	\$ 304
Trott & Trott, PC	Bingham Farms, Mi	64	\$ 170	\$ 170	\$ 235	\$ 235	\$ 203	119%	\$ 170
Brooks Kushman PC	Southfield, Mi	52	\$ 160	\$ 275	\$ 250	\$ 505	\$ 298	92%	\$ 324
Kemp, Klein, Umphrey, Edelman & May PC	Troy, Mi	36	\$ 150	\$ 190	\$ 200	\$ 340	\$ 220	106%	\$ 208
Pepper Hamilton LLP	Detroit, Mi	33	\$ 200	\$ 315	\$ 340	\$ 615	\$ 368	80%	\$ 457
Hertz, Schram & Saretsky, PC	Bloomfield Hills, Mi	29	\$ 175	\$ 260	\$ 275	\$ 400	\$ 278	132%	\$ 211
Strobl & Sharp, PC	Bloomfield Hills, Mi	28	\$ 110	\$ 210	\$ 200	\$ 300	\$ 205	132%	\$ 156
Kupelian Ormond & Magy, PC	Southfield, Mi	25	\$ 165	\$ 195	\$ 235	\$ 320	\$ 229	92%	\$ 249
Rader, Fishman & Grauer, PLLC	Bloomfield Hills, Mi	25	\$ 130	\$ 250	\$ 275	\$ 495	\$ 288	132%	\$ 218
McShane & Bowie PLC	Grand Rapids, Mi	22	\$ 160	\$ 275	\$ 250	\$ 375	\$ 265	91%	\$ 291
Edwards Angel Palmer & Dodge	Boston, Ma	259	\$ 144	\$ 321	\$ 474	\$ 474	\$ 353	139%	\$ 253
Sullivan & Worcester	Boston, Ma	137	\$ 245	\$ 530	\$ 415	\$ 700	\$ 473	139%	\$ 339
Burns & Levinson	Boston, Ma	112	\$ 210	\$ 350	\$ 375	\$ 475	\$ 353	139%	\$ 253
Bowditch & Dewey	Worcester, Ma	64	\$ 150	\$ 300	\$ 280	\$ 550	\$ 320	110%	\$ 292
Mirick O'Connell	Worcester, Ma	60	\$ 160	\$ 250	\$ 280	\$ 400	\$ 273	110%	\$ 249
Hinckley, Allen & Snyder	Boston, Ma	58	\$ 200	\$ 330	\$ 300	\$ 480	\$ 328	139%	\$ 235
Prince Lobel Glovsky & Tye	Boston, Ma	52	\$ 175	\$ 265	\$ 275	\$ 475	\$ 298	139%	\$ 213
Robinson & Cole	Boston, Ma	48	\$ 220	\$ 375	\$ 340	\$ 490	\$ 356	139%	\$ 255
Bromberg & Sunstein	Boston, Ma	42	\$ 250	\$ 450	\$ 500	\$ 725	\$ 481	139%	\$ 345
Lawson & Weitzen	Boston, Ma	35	\$ 125	\$ 225	\$ 225	\$ 400	\$ 244	139%	\$ 175
Murtha Cullina	Boston, Ma	34	\$ 165	\$ 290	\$ 250	\$ 500	\$ 301	139%	\$ 216
Marcus Errico Emmer & Brooks	Braintree, Ma	28	\$ 250	\$ 250	\$ 300	\$ 360	\$ 290	131%	\$ 222
Rich May	Boston, Ma	25	\$ 150	\$ 300	\$ 300	\$ 400	\$ 288	139%	\$ 206
Keegan Werlin	Boston, Ma	22	\$ 150	\$ 275	\$ 325	\$ 475	\$ 306	139%	\$ 220
Barron & Stadfeld	Boston, Ma	21	\$ 160	\$ 230	\$ 250	\$ 350	\$ 248	139%	\$ 177
Cain Hibbard Myers & Cook	Pittsfield, Ma	19	\$ 150	\$ 200	\$ 210	\$ 235	\$ 199	111%	\$ 180
Overall Average 2007 Billing Rate								\$ 266	
<u>Escalation to the Test Year's Mid-Point (December 31, 2008) (Note B)</u>									
CPI at December 31, 2007								210.0	
CPI at December 31, 2008								210.0	
Inflation/Escalation								0.0%	
Average Billing Rate At December 31, 2008								<b>\$ 266</b>	

Note A: Source is Michigan Lawyers Weekly (April 2008) and Massachusetts Lawyers Weekly (April 2008)

Note B: Source is U.S. Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.ai.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This percentage represents the cost of living difference between the Michigan and Massachusetts cities and Trenton, New Jersey. A number over 100% indicates the Michigan or Massachusetts city's cost of living is higher than Trenton. A number less than 100 % indicates Trenton's cost of living is higher.

**New Jersey American Water Company  
Billing Rates of U.S. Management Consultants**

Survey billing rates in effect in 2008 (Note A)						
A. Calculation of Average Hourly Billing Rate by Consultant Position						
	Average Hourly Rates (Note A)					
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$ 147	\$ 196	\$ 268	\$ 295	\$ 384	
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)	\$ 147	\$196	\$268	\$295	\$384	
Percent of Consulting Assignment	30%	30%	20%	10%	10%	Weighted Average
	\$ 44	\$ 59	\$ 54	\$ 29	\$ 38	<b>\$ 224</b>
Avg Hourly Rate For Management Consultants At December 31, 2008 (test year mid-point) <b>\$ 224</b>						

Note A: Source is "Operating Ratios For Management Consulting Firms, 2009 Edition," Association of Management Consulting Firms

**New Jersey American Water Company  
Estimated Billing Rates Of New Jersey Certified Public Accountants**

Survey billing rates in effect in 2007 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 96	\$ 133	\$ 177	\$ 194
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 96	\$ 133	\$ 177	\$ 194
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 29	\$ 40	\$ 35	\$ 39
				<b>Weighted Average</b>
				<b>\$ 143</b>
<u>Escalation to the Test Year's Mid-Point (December 31, 2008) (Note B)</u>				
				CPI at December 31, 2007 210.0
				CPI at December 31, 2008 210.0
				Inflation/Escalation 0.0%
				<b>Average Hourly Billing Rate For CPAs At December 31, 2008 \$ 143</b>

Note A: Source is AICPA's 2008 National PCPS/TSCPA Management of an Accounting Practice Survey (New Jersey edition)

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Exhibit 8

**New Jersey American Water Company  
Estimated Billing Rates Of New Jersey Engineers**

Billing rates in effect in 2009

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$67	\$81	\$122	\$162
Firm #2	\$56	\$70	\$126	\$163
Firm #3	\$65	\$93	\$152	\$200
Firm #4	\$71	\$89	\$140	\$175
Firm #5	\$85	\$98	\$133	\$200
Firm #6	\$64	\$86	\$126	\$175

B. Calculation of Overall Average Engineering Hourly Billing Rate

	Technician	Engineer	Project Manager	Officer	Weighted Average
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$68	\$86	\$133	\$179	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$20	\$30	\$33	\$18	<b>\$102</b>

Source: Information provided by American Water Works Service Company

V – Question 2 – Provision of Services at the Lower of Cost or Market

**Service Company versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	12 Months Ended June 30, 2009		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 97	\$ 266	\$ (170)
Management Consultant	\$ 109	\$ 224	\$ (115)
Certified Public Accountant	\$ 71	\$ 143	\$ (72)
Professional Engineer	\$ 73	\$ 102	\$ (28)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to NJAWC during the 12-months ended June 30, 2009, outside service providers would have cost \$20,240,390 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are 75% higher than those of the Service Company (\$20,240,390 / \$26,876,116).

Service Provider	12 Months Ended June 30, 2009		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (170)	11,798	\$ (2,002,519)
Management Consultant	\$ (115)	43,874	\$ (5,055,494)
Certified Public Accountant	\$ (72)	170,127	\$ (12,165,996)
Professional Engineer	\$ (28)	36,064	\$ (1,016,381)
Service Company Less Than Outside Providers			\$ (20,240,390)

It should be noted that the cost differential associated with using outside providers is even greater because Service Company personnel do not charge for more than 8 hours per day even when they work more. Outside providers generally charge clients for all hours worked. If, for instance, Service Company personnel worked 5% overtime (2 hours) per week on NJAWC's behalf, that would have amounted to over 13,000 additional hours of work during the 12 months ended June 30, 2009. Based on the hourly rate differentials above, this overtime would have added another \$1,012,000 to the cost of using outside provider.

If NJAWC were to use outside service providers rather than the Service Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform over 264,000 hours of work (more than 176 full-time equivalents at 1,500 "billable" hours per FTE per year) would add a significant workload to the existing NJAWC management team. Thus, it would be necessary for NJAWC to add at least two positions to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill these positions would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add more than \$300,000 per year to NJAWC's personnel expenses.

V – Question 2 – Provision of Services at the Lower of Cost or Market

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Cost of Adding 2 Professional Positions To NJAWC's Staff

	<u>Total</u>
New Positions' Salary	\$ 100,000
Benefits (at 49.4%)	\$ 49,400
Office Expenses (15.2%)	\$ 15,200
Cost per Position	\$ 164,600
Number of Positions	<u>2</u>
Total Cost of Two Positions	\$ 329,200

Thus, the total effect on the ratepayers of NJAWC of contracting all services now provided by Service Company would be an increase in their costs of \$20,569,590 (\$20,240,390 + \$329,200). Based on the results of this comparison, it is possible to conclude that the Service Company charged NJAWC at the lower of cost or market for services provided during the 12 months ended June 30, 2009.



VI - Question 3 - Reasonableness of Customer Accounts Services Costs

**Background**

Customer Accounts Services involve the processes that occur from the time meter read data is recorded in the customer information system through the printing and mailing of bills through the collection and processing of customer payments. Customer Accounts Services are accomplished by the following utility functions:

- Customer Call Center Operations – customer calls/contact, credit, order taking/disposition, bill collection efforts and outage calls
- Customer Call Center Maintenance – support of phone banks, voice recognition units, call center software applications and telecommunications
- Customer billing – bill printing, stuffing, and mailing
- Remittance processing – processing customer payments received in the mail
- Bill payment centers – processing customer payments at locations where customers can pay their bills in person

Neighboring electric utility cost information comes from the FERC Form 1 that each utility that is subject to FERC regulation, must file. FERC’s chart of accounts is defined in Chapter 18, Part 101 of the Code of Federal Regulations. FERC accounts that contain customer accounts services-related expenses are Account 903 Customer Accounts Expense – Records and Collection Expense and Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense. Exhibit 9 provides FERC’s definition of the type of expenses that should be recorded in these accounts.

In addition to the charges in these FERC accounts, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905:

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer’s portion of FICA)

**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

New York	<ul style="list-style-type: none"> <li>• Central Hudson Gas &amp; Elect</li> <li>• Consolidated Edison</li> <li>• New York State Elect &amp; Gas</li> </ul>	<ul style="list-style-type: none"> <li>• Niagra Mohawk Power</li> <li>• Orange &amp; Rockland Utilities</li> <li>• Rochester Gas &amp; Electric</li> </ul>
Pennsylvania	<ul style="list-style-type: none"> <li>• Duquesne Light</li> <li>• Metropolitan Edison</li> <li>• PECO Energy</li> <li>• Pennsylvania Electric</li> </ul>	<ul style="list-style-type: none"> <li>• Pennsylvania Power</li> <li>• PPL Electric Utilities</li> <li>• West Penn Power</li> </ul>
New Jersey	<ul style="list-style-type: none"> <li>• Atlantic City Electric</li> <li>• Jersey Central Power</li> </ul>	<ul style="list-style-type: none"> <li>• Public Service Electric &amp; Gas</li> </ul>
Maryland	<ul style="list-style-type: none"> <li>• Delmarva Power &amp; Light</li> </ul>	

## New Jersey American Water Company FERC Account Descriptions

### 903 – Customer Records and Collection Expenses

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

#### Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

#### Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

## FERC Account Descriptions

### **905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

#### Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

#### Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

**NJAWC Cost per Customer**

As calculated below, NJAWC's 12 months ended June 30, 2009 customer account services expense per customer was \$26.33. The cost pool used to calculate this average includes charges for Service Company services (e.g., call center, billing, payment processing) and postage and forms expenses, which are incurred directly by NJAWC. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.32 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level.

New Jersey American Water Company		Service Co	Adjustment Fewer Calls For	Adjusted
Cost Component		Charges	Water Cos. (A)	
Service Company				
Call Centers	Call processing, order processing, credit, bill collection	\$ 9,663,854	\$ 3,513,016	\$13,176,870
Regional Offices		\$ 10,386		\$ 10,386
Service Company	Customer payment processing			\$ 819,780 (B)
Operating Company	Postage & forms			\$ 2,806,407
			Cost Pool Total	\$16,813,442
			Total Customers	638,458
				<u>\$ 26.33</u>

**Year Ended June 30, 2009 Cost Per New Jersey American Customer**

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Call handling expenses		\$ 3,906,184
Electric utility industry's avg calls/customer	2.50	
American Water's avg calls/customer	1.32	
Percent different	90%	90%
Total Adjustment		\$ 3,513,016

Note B: Estimated customer payment processing expenses

Number of customer bills	7,661,496
Bank charge per item	\$ 0.1070
Total estimated annual expense	\$ 819,780

**Electric Utility Group Cost per Customer**

Exhibit 10 shows the actual 2008 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

**Summary of Results**

As shown in the table below, NJAWC's cost per customer is well below the average cost of the neighboring electric utility comparison group. It can therefore be concluded that NJAWC's 12 months ended June 30, 2009 customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to NJAWC were comparable to those of other utilities.

<b>Customer Account Services Expenses Per Customer</b>	
West Penn Power Company	\$12.54
Pennsylvania Electric Company	\$14.28
Pennsylvania Power Company	\$15.69
Metropolitan Edison Company	\$15.79
Jersey Central Power & Light Company	\$15.99
Duquesne Light Company	\$17.17
<b>New Jersey American Water</b>	<b>\$26.33</b>
Rochester Gas & Electric Corporation	\$26.62
PPL Electric Utilities Corporation	\$28.02
Niagra Mohawk Power Corporation	\$31.14
New York State Electric & Gas Corporation	\$33.75
<b>Comparison Group Average</b>	<b>\$43.23</b>
Central Hudson Gas & Electric Company	\$43.79
Consolidated Edison Company	\$46.64
Orange & Rockland Utilities, Inc.	\$56.57
PECO Energy Company	\$60.18
Delmarva Power & Light Company	\$69.08
Atlantic City Electric Company	\$70.72
Public Service Electric & Gas Company	\$83.88

**New Jersey American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

		New York					
	Central Hudson Gas & Electric	Consolidated Edison	New York State Electric & Gas	Nagra Mohawk Power	Orange & Rockland	Rochester Gas & Electric	
	\$ 6,778,169	\$ 114,032,729	\$ 28,066,820	\$ 39,200,043	\$ 8,465,643	\$ 9,741,613	
	\$ 2,520,777	\$ 344,426	\$ 135,082	\$ 929,964	\$ 66,274	\$ 1,855	
	\$ 9,298,946	\$ 114,377,155	\$ 28,201,902	\$ 40,130,007	\$ 8,531,917	\$ 9,743,468	
	\$ 2,815,515	\$ 30,169,769	\$ (632,835)	\$ 2,686,451	\$ 3,422,645	\$ (753,034)	
	\$ 507,967	\$ 7,584,800	\$ 1,916,606	\$ 403,817	\$ 622,497	\$ 619,283	
	\$ 12,622,428	\$ 152,131,724	\$ 29,485,673	\$ 43,220,275	\$ 12,577,059	\$ 9,609,717	
	288,252	3,261,502	873,738	1,387,729	222,340	360,987	
	\$ 43.79	\$ 46.64	\$ 33.75	\$ 31.14	\$ 56.57	\$ 26.62	
	\$ 23,649,061	\$ 171,421,764	\$ (3,779,369)	\$ 105,135,887	\$ 26,239,707	\$ (5,487,845)	
	\$ 55,773,767	\$ 563,347,904	\$ 149,623,715	\$ 206,583,051	\$ 62,383,976	\$ 58,994,943	
	42.4%	30.4%	-2.5%	50.9%	42.1%	-9.3%	
	\$ 7,303,699	\$ 102,691,785	\$ 26,157,611	\$ -	\$ 7,521,305	\$ 5,776,605	
	\$ 1,300,052	\$ 22,542,147	\$ 4,815,257	\$ 6,012,948	\$ 3,284,938	\$ 4,309,646	
	\$ 8,603,751	\$ 125,233,932	\$ 30,972,868	\$ 6,012,948	\$ 10,806,243	\$ 10,086,251	
	\$ 6,778,169	\$ 114,032,729	\$ 28,066,820	\$ 39,200,043	\$ 8,465,643	\$ 9,741,613	
	\$ 2,520,777	\$ 344,426	\$ 135,082	\$ 929,964	\$ 66,274	\$ 1,855	
	\$ 9,298,946	\$ 114,377,155	\$ 28,201,902	\$ 40,130,007	\$ 8,531,917	\$ 9,743,468	
	\$ 2,749,960	\$ 30,093,154	\$ 6,662,993	\$ 5,582,389	\$ 2,798,488	\$ 2,396,447	
	\$ 12,048,906	\$ 144,470,309	\$ 34,864,895	\$ 45,712,396	\$ 11,350,405	\$ 12,139,915	
	77.2%	79.2%	80.9%	87.8%	75.3%	80.3%	
	\$ 6,640,090	\$ 99,147,714	\$ 25,053,676	\$ 5,278,648	\$ 8,137,217	\$ 8,095,202	
	\$ 2,815,515	\$ 30,169,769	\$ (632,835)	\$ 2,686,451	\$ 3,422,645	\$ (753,034)	
	\$ 6,640,090	\$ 99,147,714	\$ 25,053,676	\$ 5,278,648	\$ 8,137,217	\$ 8,095,202	
	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	
	\$ 507,967	\$ 7,584,800	\$ 1,916,606	\$ 403,817	\$ 622,497	\$ 619,283	

**Customer Account Services Cost Pool**

FERC Account Balances:  
Acct 903 - Customer Records & Collection (page 322, line 161)  
Acct 905 - Misc Customer Accounts (page 322, line 163)  
Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)  
Note A  
Note B

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 187)  
Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B:** Calculation of Employer's FICA Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



**New Jersey American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

	Pennsylvania						
	Duquesne Light	Metropolitan Edison	PECO Energy	Pennsylvania Electric	Pennsylvania Power	FPL Electric Utilities	West Penn Power
<b>Customer Account Services Cost Pool</b>							
FERC Account Balances:							
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 7,479,961	\$ 10,122,140	\$ 53,673,664	\$ 10,592,384	\$ 2,928,197	\$ 30,220,945	\$ 6,946,910
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ -	\$ 136,228	\$ 32,549,592	\$ 194,662	\$ 82,458	\$ 1,100,131	\$ -
Subtotal	\$ 7,479,961	\$ 10,258,368	\$ 86,223,256	\$ 10,787,046	\$ 3,010,655	\$ 31,321,076	\$ 6,946,910
Add: Employee Benefits & Employer FICA (not included in above amounts)							
Account 926 - Employee Pension & Benefits	\$ 2,022,069	\$ (1,860,051)	\$ 6,418,193	\$ (2,677,607)	\$ (590,677)	\$ 6,256,579	\$ 1,594,105
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)	\$ 498,724	\$ 250,220	\$ 1,865,596	\$ 299,011	\$ 79,412	\$ 1,437,663	\$ 402,847
<b>Total Cost Pool</b>	<b>\$ 10,000,754</b>	<b>\$ 8,648,537</b>	<b>\$ 94,507,045</b>	<b>\$ 8,408,450</b>	<b>\$ 2,499,390</b>	<b>\$ 39,015,318</b>	<b>\$ 8,943,861</b>
Total Customers (page 304, line 43)	582,474	547,557	1,570,294	589,017	159,346	1,392,441	713,401
<b>Customer Account Services Expense per Customer</b>	<b>\$ 17.17</b>	<b>\$ 15.79</b>	<b>\$ 60.18</b>	<b>\$ 14.28</b>	<b>\$ 15.69</b>	<b>\$ 28.02</b>	<b>\$ 12.54</b>
<b>Note A:</b> Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt							
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 16,461,810	\$ (18,462,242)	\$ 34,870,872	\$ (24,103,475)	\$ (4,532,561)	\$ 28,423,183	\$ 16,475,935
Total O&M Payroll (page 355, line 65)	\$ 53,073,862	\$ 32,465,349	\$ 132,497,079	\$ 35,185,122	\$ 7,965,617	\$ 85,375,132	\$ 54,426,651
Benefits as Percent of Payroll	31.0%	-56.9%	26.3%	-68.5%	-56.9%	33.3%	30.3%
Payroll Applicable to Customer Account Services							
Total Payroll Charged to Customer Accounts Function	\$ 9,676,251	\$ 5,316,403	\$ 23,554,469	\$ 6,561,812	\$ 1,624,429	\$ 20,085,492	\$ 8,766,657
Electric (page 354, line 7)	\$ -	\$ -	\$ 5,036,945	\$ -	\$ -	\$ -	\$ -
Gas (page 354, line 37)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Payroll Charged to Customer Accounts	\$ 9,676,251	\$ 5,316,403	\$ 28,591,414	\$ 6,561,812	\$ 1,624,429	\$ 20,085,492	\$ 8,766,657
Percent Applicable to Customer Accounts Services (903 and 905):							
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 7,479,961	\$ 10,122,140	\$ 53,673,664	\$ 10,592,384	\$ 2,928,197	\$ 30,220,945	\$ 6,946,910
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ -	\$ 136,228	\$ 32,549,592	\$ 194,662	\$ 82,458	\$ 1,100,131	\$ -
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 7,479,961	\$ 10,258,368	\$ 86,223,256	\$ 10,787,046	\$ 3,010,655	\$ 31,321,076	\$ 6,946,910
Acct 902 - Meter Reading Expenses (page 322, line 160)	\$ 3,622,199	\$ 6,415,472	\$ 14,865,724	\$ 7,322,187	\$ 1,700,593	\$ 2,154,152	\$ 4,618,134
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	\$ 11,102,160	\$ 16,673,840	\$ 101,088,980	\$ 18,109,233	\$ 4,711,248	\$ 33,475,228	\$ 11,565,044
Percent Applicable to Customer Accounts Services (903 and 905)	67.4%	61.5%	85.3%	59.6%	63.9%	93.6%	60.1%
Customer Account Services Portion of Total Payroll	\$ 6,519,270	\$ 3,270,849	\$ 24,386,880	\$ 3,908,645	\$ 1,038,068	\$ 18,792,978	\$ 5,265,970
Pension & Benefits Pertaining to Customer Accounts Services	\$ 2,022,069	\$ (1,860,051)	\$ 6,418,193	\$ (2,677,607)	\$ (590,677)	\$ 6,256,579	\$ 1,594,105
<b>Note B:</b> Calculation of Employer's FICA Pertaining to Customer Accounts Services							
Customer Account Services Portion of Total Payroll	\$ 6,519,270	\$ 3,270,849	\$ 24,386,880	\$ 3,908,645	\$ 1,038,068	\$ 18,792,978	\$ 5,265,970
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	\$ 498,724	\$ 250,220	\$ 1,865,596	\$ 299,011	\$ 79,412	\$ 1,437,663	\$ 402,847
Estimated Employer's Portion of FICA							

**New Jersey American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

	New Jersey				Maryland
	Atlantic City Electric	Jersey Central Power	Public Service Electric & Gas	Rockland Electric	Delmarva Power & Light
\$	37,383,789	\$ 19,051,474	\$ 58,917,046		\$ 32,574,788
\$	237,995	\$ 364,803	\$ 90,240,911		\$ -
\$	37,621,784	\$ 19,416,277	\$ 149,157,957	\$ -	\$ 32,574,788
\$	757,867	\$ (2,610,530)	\$ 23,726,309		\$ 1,184,741
\$	165,569	\$ 622,147	\$ 6,037,109		\$ 551,639
\$	<b>38,545,220</b>	<b>\$ 17,427,894</b>	<b>\$ 178,921,376</b>		<b>\$ 34,311,168</b>
\$	545,011	1,089,980	2,133,003		496,682
\$	<b>70.72</b>	<b>\$ 15.99</b>	<b>\$ 83.88</b>	see New York	<b>\$ 69.08</b>
\$	7,169,358	\$ (23,911,321)	\$ 97,803,439		\$ 6,458,817
\$	20,474,113	\$ 74,491,459	\$ 325,305,600		\$ 39,311,821
	35.0%	-32.1%	30.1%		16.4%
\$	2,394,886	\$ 13,387,647	\$ 49,463,253		\$ 7,184,790
\$	-	\$ -	\$ 39,016,786		\$ 1,796,197
\$	2,394,886	\$ 13,387,647	\$ 88,480,039		\$ 8,980,987
\$	37,383,789	\$ 19,051,474	\$ 58,917,046		\$ 32,574,788
\$	237,995	\$ 364,803	\$ 90,240,911		\$ -
\$	37,621,784	\$ 19,416,277	\$ 149,157,957		\$ 32,574,788
\$	4,008,199	\$ 12,546,067	\$ 18,075,870		\$ 7,995,878
\$	41,629,983	\$ 31,962,344	\$ 167,233,827		\$ 40,570,666
\$	90.4%	60.7%	89.2%		80.3%
\$	2,164,303	\$ 8,132,641	\$ 78,916,461		\$ 7,210,967
\$	757,867	\$ (2,610,530)	\$ 23,726,309		\$ 1,184,741
\$	2,164,303	\$ 8,132,641	\$ 78,916,461		\$ 7,210,967
\$	7.65%	7.65%	7.65%		7.65%
\$	165,569	\$ 622,147	\$ 6,037,109		\$ 551,639

<b>Group Average</b>
<b>\$ 700,875,889</b>
16,213,754
<b>\$ 43.23</b>

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 161)  
Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B:** Calculation of Employer's FICA Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA





### **Analysis of Services**

The final aspect of this study was an assessment of whether the services that are provided to NJAWC by the Service Company would be necessary if NJAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for NJAWC. Based on discussions with Service Company personnel, the matrix in Exhibit 11 was created showing which entity—NJAWC or a Service Company location—is responsible for each of the functions NJAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Exhibit 12, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if NJAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to NJAWC. For all of the services listed in Exhibit 12, there was only one entity that was primarily responsible for the service.

## New Jersey American Water Company Designation Of Responsibility For Water Utility Functions

P - Primarily Responsible S - Provides Support	Performed By:				
	NJAWC	American Water Service Company			
		Customer Call Center	Shared Services	Central Services	IT Service Centers
Water Company Function					
<b>Engineering and Construction Management</b>					
CPS Preparation	P		S		
Five-Year System Planning	P				
Engineering Standards & Policies Development	S		P		
Project Design					
Major Projects (e.g., new treatment plant)	P		S		
Special Projects	P		S		
Minor Projects (e.g., pipelines)	P				
Construction Project Management					
Major Projects	P		S		
Special Projects	P		S		
Minor Projects	P				
Hydraulics Review	P				
Developers Extensions	P				
Tank Painting	P				
<b>Water Quality and Purification</b>					
Water Quality Standards Development	P		S		S
Research Studies	S		P		S
Water Quality Program Implementation	P		S		
Water Treatment Operations & Maintenance	P		S		
Compliance Sampling	P				S
Testing/Other Sampling	P (Note A)		S		P (Note A)
<b>Transmission and Distribution</b>					
Preventive Maintenance Program Development	P				
System Maintenance	P				
Leak Detection	P				
<b>Customer Service</b>					
Community Relations	P		S		
Customer Contact	S	P			
Call Processing		P			
Service Order Processing	P	S			
Customer Credit	S	P			
Meter Reading	P				
Customer Bill Preparation	S	P		S	
Bill Collection		P			
Customer Payment Processing	S		P		
Meter Standards Development	S		P		
Meter Testing, Maintenance & Replacement	P				

Note A: NJAWC and the Belleville Lab are primarily responsible for different studies

## New Jersey American Water Company Designation Of Responsibility For Water Utility Functions

P - Primarily Responsible S - Provides Support	Performed By:				
	NJAWC	American Water Service Company			
		Customer Call Center	Shared Services	Central Services	IT Service Centers
Water Company Function					
<b>Financial Management</b>					
Financial Planning	P		S		
Financings--Equity			S		
Financings--Long Term Debt & Preferred (Note A)	P				
Short Term Lines of Credit Arrangements(Note A)	P				
Investor Relations			P		
Insurance Program Administration			P		
Loss Control/Safety Program Administration	P		S		
Pension Fund Asset Management			P		
Cash Management/Disbursements		P			
<b>Internal Auditing</b>			P		
<b>Budgeting and Variance Reporting</b>					
Corporate Guidelines & Instructions			P		
Regional Guidelines & Instructions	P				
Budget Preparation					
Revenue and O&M	P				
Depreciation and Interest Expense	P		S	S	
Budget Preparation--Service Company Charges	P	S	S	S	S
Capital Budget Preparation—Projects	P				
Capital Budget Preparation—Non-Project Work	P				
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	P				
Prepare Capital Project Budget Status Report	P				
Year-End Projections	P				
<b>Accounting and Taxes</b>					
Accounts Payable Accounting	S		P		
Payroll Accounting	S		P		
Work Order Accounting	S		P		
Fixed Asset Accounting	S		P		
Journal Entry Preparations--Billing Corrections	S		P		
Journal Entry Preparation--All Others	S		P		
Financial Statement Preparation	S		P		
State Commission Reporting	S		P		
Income Taxes--State			P		
Income Taxes--Federal			P		
Property Taxes	S		P		
Gross Receipts Taxes	S		P		

Note A: Lines of credit are the responsibility of American Water Capital Corporation ("AWCC"). AWCC is also responsible for Corporate financings which may be distributed to the regulated subsidiaries. NJAWC has its own credit rating and has the ability to do its own financings, in 2009 NJAWC did two such financings.

## New Jersey American Water Company Designation Of Responsibility For Water Utility Functions

P - Primarily Responsible S - Provides Support	Performed By:				
	NJAWC	American Water Service Company			
		Customer Call Center	Shared Services	Central Services	IT Service Centers
Water Company Function					
<b>Rates</b>					
Rate Studies & Tariff Change Administration	P		S		
Rate Case Planning and Preparation	P		S		
Rate Case Administration	P				
Commission Inquiry Response	P				
<b>Legal</b>	P			S	
<b>Purchasing and Materials Management – National (pipe, chemicals, meters, etc.)</b>					
Specification Development	S		S	P	
Bid Solicitation	S		P		
Contract Administration	S		P		
<b>Purchasing and Materials Management – State (state supplier service agreements)</b>					
Specification Development	P		S		
Bid Solicitation	P		S		
Contract Administration	P		S		
Ordering	P				
Inventory Management	P		S		
<b>Human Resources Management</b>					
Benefit Program Development	S			P	
Benefits Program Administration	S		P		
Management Compensation Administration	S			P	
Wage & Salary Program Design	S			P	
Wage & Salary Administration	P			S	
Labor Negotiations--Wages	P				
Labor Negotiations--Benefits	S			P	
Labor Negotiations-- Work Rules	P				
Training Program Development	P			S	
Training--Course Delivery	P				
Affirmative Action/EEO--Plan Development	P				
Affirmative Action/EEO--Implementation	P				
<b>Information Systems Services</b>					
Service Company Data Centers					
System Operations & Maintenance				P	
Software Maintenance				P	
Network Administration				P	
PC Acquisition & Support	S			P	
Help Desk				P	

## **Governance Practices Associated With Service Company Charges**

There are several ways by which NJAWC exercises control over Service Company services and charges. The most important of these are described below.

- **NJAWC Company Board Oversight** – The NJAWC board of directors includes members of American Water’s Executive Management Team, members of the NJAWC management team and external business and community leaders. This diverse board ensures that NJAWC’s needs are a factor in the delivery of Service Company services. The NJAWC Board meets at a minimum of four times each year and at every meeting financial and operational reports and issues are discussed at length.
- **NJAWC President Oversight** – The NJAWC President is responsible for the overall performance of NJAWC, including services and charges received from the American Water Service Company. The President of NJAWC is also a board member on the Service Company’s Board of Directors (see below for further discussion). In addition, as part of the overall management team of American Water through the President of Regulated Operations, NJAWC’s President has a significant voice in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending as NJAWC’s President is one of five direct reports to the President of Regulated Operations.
- **NJAWC Vice President and Treasurer** – The Vice President and Treasurer is responsible for the financial reporting, performance and internal controls of the NJAWC. The Vice President and Treasurer monitors the performance, expense and reporting from the Service Company and verifies and validates the cost of services received. In addition, the Vice President and Treasurer through the Financial Planning and Analysis staff reviews the monthly charges and investigates whenever the amount, quality and/or services are appropriate.
- **Service Company Board Oversight** – The Service Company Board of Directors is comprised of 16 members, of which NJAWC President is one of the members. They typically meet four times a year to provide governance on the activities and bylaws of Service Company. Their primary responsibilities include:
  - Approve the Business Plan and Operating Budget
  - Review Financial Performance of the Service Center
  - Review performance metrics of certain functional groups
  - Approve policy, procedures and practices of AW as it relates to Service Company.
- **Service Company Budget Review/Approval** – the NJAWC president and several other state regulated water utility presidents serve on the Service Company board of directors and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company’s own spending into an overall budget which must be approved by the individual operating company’s board of directors (e.g., NJAWC).
- **Major Project Review And Approval** – Major non-capital projects undertaken by the Service Company must first be reviewed by American Water’s Executive Management Team, which includes the President of Regulated Operations. The President of Regulated Operations, with significant input from his direct reports (including the NJAWC president), has the ability to impact all new initiatives and projects before they are authorized. Major non-capital projects and initiatives for the Service Company are approved through the Business Plan. All significant business initiatives (capital or non-capital) are required to be submitted to the “BATT” (Business and Technology Team) committee for final approval. The “BATT” team is comprised of C-level executive members (CEO, CFO, etc.).

- **Capital Investment Management (CIM)** – CIM covers capital and asset planning and is employed throughout American Water, including the Service Company. CIM provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIM ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans
  - The impacts of these plans are understood and affordable
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIM process was designed to optimize the effectiveness of asset investment.

- **Accounting and Financial Reporting** – Similar to the states, the Service Company follows the same accounting and financial reporting processes. During the month accounting transactions are recorded. At month end, the SSC and Service Company Finance teams review all transactions. Variance analyses are performed based on month to month actual as well as actual to budget to ensure accuracy. Once completed, the service company bill is run and the actuals are “pushed down” and allocated to the states based on predetermined formulas. A conference call is schedule before the operating companies close their books each month to discuss Service Company performance. This is based at a functional level with explanation reported for those expense variances that meet or exceed certain thresholds. At this time, the operating companies may question expenses and spending for better understanding of results. NJAWC Financial Performance and Analysis (FP&A) personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. Any mistakes or overcharges are credited on a subsequent billing.
- **NJAWC Company Budget Variance Reporting** – The “Budget/Plan Analysis,” produced monthly by each operating company, has line items for Management Fees and Shared Service Expense (i.e., IT, Call Center, etc.). In this way, Service Company budget versus actual charges as charged to the operating company can be monitored and reviewed for the month and year-to-date as compared to prior year, plan and reforecast.

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**Market Cost Comparison of Service Company Charges to  
New Mexico-American Water Company  
12-Months Ended December 31, 2007**

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**New Mexico-American Water Company  
Market Cost Comparison of Service Company Charges  
12-Months Ended December 31, 2007**

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## I - Introduction

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### Purpose Of This Study

This study was undertaken to answer four questions concerning the services provided by American Water Works Service Company, Inc. ("Service Company") to New Mexico-American Water Company ("NMA"):

1. Were the Service Company's charges to NMA during the 12-months ended December 31, 2007 reasonable?
2. Was NMA charged the lower of cost or market for managerial and professional services provided by the Service Company during 2007?
3. Were the 2007 costs of the Service Company's customer accounts services, including those of the National Call Centers, comparable to those of other utilities?
4. Are the services NMA receives from Service Company necessary?

### Study Results

Concerning question 1, the following conclusions were reached:

- American Water's Service Company provides NMA with services similar to those provided by other utility service companies. This was determined based on service company information included in the Form 60, which must be filed with the Federal Energy Regulatory Commission ("FERC") by electric and combination electric/gas utility holding companies.
- American Water's 2007 cost per NMA customer was very reasonable compared to cost per customer for electric and combination electric/gas service companies. During 2007, NMA was charged \$68 per customer by the Service Company compared to an average of \$122 per customer for service companies reporting to the FERC.

Concerning question 2, the following conclusions can be drawn from this study:

- NMA was charged the lower of cost or market for managerial and professional services during the 12-months ended December 31, 2007.
- On average, the hourly rates for outside service providers are 52% higher than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by NMA without careful supervision on the part of NMA. If these services were contracted entirely to outside providers, NMA would have to add at least one half of one position to manage activities of outside firms. This position would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been outsourced during the 12-months ended December 31, 2007, NMA and its ratepayers would have incurred more than \$610,000 in additional expenses. This amount includes the higher cost of outside providers and the cost of an additional one half NMA position needed to direct the outsourced work.

- This study's hourly rate comparison actually understates the cost advantages that accrue to NMA from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company exempt personnel, on the other hand, charge a maximum of 8 hours per day even when they work more hours. If the overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$610,000 cited above. For instance, if Service Company overtime is conservatively estimated at 5% (2 hours per week), then that work would have cost an estimated \$26,800 in additional charges from outside providers.
- It would be difficult for NMA to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from NMA ratepayers.

Concerning question 3, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, is within a reasonable range of the average of the neighboring electric utility comparison group. As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of the Service Company and NMA. During the 12-months ended December 31, 2007, the customer accounts cost for NMA customers was \$32.48 compared to the 2006 average of \$24.88 for neighboring electric utilities. The highest comparison group per customer cost was \$49.27 and the lowest \$8.82.

Concerning question 4, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if NMA were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to NMA. For all of the services listed in Schedule 10, there was only one entity that was primarily responsible for the service.

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## II - Background

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### Overview Of American Water Works Service Company

American Water's Service Company exists to provide certain shared services to American Water subsidiaries. It follows a service company model used by many utility holding companies that own multiple regulated utilities. By consolidating executive and professional services into a single service company, utility holding companies are able to realize the following benefits for ratepayers:

- **Purchasing Economies** – Common expenses (e.g., insurance, chemicals, piping) can be procured on a much larger scale thereby providing greater bargaining power for the combined entity compared to individual utility operating companies. A service company facilitates corporate-wide purchasing programs through its procurement and contract administration functions.
- **Operating Economies of Scale** – A service company is able to deliver services more efficiently because workloads can be balanced across more persons and facilities. For instance, American Water's Service Company is able to maintain one principal data center for the entire corporation. This is much more cost-efficient than each operating utility funding their own data center with its large fixed hardware, software and staffing costs.
- **Continuity of Service** – Centralizing service company personnel who perform similar services facilitates job cross-training and sharing of knowledge and expertise. This makes it easier to deal with staff turnover and absences and to sustain high levels of service to operating utilities. An individual operating utility might experience considerable disruption if a key professional left and it was necessary to hire outside to fill the vacancy.
- **Maintenance of Corporate-Wide Standards** – Personnel in American Water's Service Company establish standards for many functions (e.g., engineering designs, operating procedures and maintenance practices). It is easier to ensure these standards are followed by every operating utility because their implementation is overseen by the Service Company.
- **Improved Governance** – American Water's Service Company provides another dimension of management and financial oversight that supplements local operating utility management. The Service Company facilitates standard planning and reporting that help ensure operating utilities meet the requirements of their customers in a cost effective manner.
- **Retention of Personnel** – A service company organization provides operating utility personnel with another career path beyond what may be available on a local level. These opportunities tend to improve employee retention.

American Water follows the model for other utility service companies in another important regard. Its services are provided to affiliate operating utilities, like NMA, at cost. American Water's Service Company is not a profit-making entity. It assigns only its actual expenses to the American Water subsidiaries it services.

The Service Company provides services to American Water operating companies from the following locations:

- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in 2001 and a second in Pensacola, Florida that went into operation in 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of NMA, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they are not provided by the National Shared Services Center. Examples of regional office services include rates and revenues, engineering and operations.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the communications systems. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### **Service Company Expense Categories**

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

**Charging and Assignment Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable)

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 20% of American Water's Western Region's professional labor is assigned to NMA during a month, then 20% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 20% of the Western Region's accumulated professional and support labor is charged to NMA during the month, then 20% of that month's overhead expenses will be assigned to NMA.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to NMA, then 2% of that office's office expenses would be assigned to NMA. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a rate case proceeding are charged directly to the operating company whose case is being heard.

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**III – Service Company Cost Comparison Approach**

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During the 12 months ended December 31, 2007, the Service Company billed NMA \$1,316,757 in O&M-related charges, \$112,539 in capital-related charges and \$7,844 other charges. Included in the O&M amount are certain non-recurring expenses and charges from non-Western regions, which are excluded from this market study. As calculated in the table below, net Service Company charges of \$1,252,897 were subjected to a market cost comparison.

	12 Months Ended December 31, 2007
Mgmt Fee Expense (O&M) per P&L	\$ 1,316,757
Less: Non-Recurring Expenses	
Business Change	\$ (3,341)
Divestiture & SOX	\$ (174,226)
Total Non-Recurring Expenses	\$ (177,567)
Less: Non-Western Regions	\$ (6,676)
Net Testable O&M	\$ 1,132,514
Total Capital	\$ 112,539
Total Other	\$ 7,844
<b>Total Testable Service Co Charges</b>	<b>\$ 1,252,897</b>

For purposes of comparing these charges to outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	12 Months Ended Dec. 31, 2007	
	Amount	Hours
Management and Professional Services	\$ 1,031,624	10,864
Customer Account Services	\$ 221,273	6,261
Total Service Company Charges	\$ 1,252,897	17,125

This study's first question—whether Service Company 2007 charges were reasonable—was determined by comparing NMA's net testable O&M Service Company charges per customer to those of electric and combination electric/gas utilities that file FERC Form 60 – Annual Report of Service Companies.

The second question—whether Service Company 2007 charges the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to NMA during the 12 months ended December 31, 2007. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The third question—whether Service Company 2007 customer account services charges, including those of the National Call Center costs, were comparable to other utilities—was addressed by comparing NMA’s customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The fourth question—the necessity of Service Company services—was first investigated by determining the services provided to NMA. A determination was then made as to whether these services would be required if NMA were a stand-alone utility.



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**IV – Reasonableness Of Service Company Charges**

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**NMA’s Service Company Cost Per Customer**

During 2007, NMA was charged \$68 per customer in O&M expenses by the Service Company. As shown in the table below, this calculation is made using net testable O&M, which eliminates certain O&M items for which NMA has not requested cost recovery.

	2007
Net Testable Service Company O&M Expenses	\$ 1,132,514
NMA Customers (12/31/07)	16,774
NMA Cost Per Customer	\$ 68

**Comparison Group Cost Per Customer**

Every centralized service company in a holding company system must file a Form 60 in accordance with the Public Utility Holding Company Act of 2005, Section 1270, Section 390 of the Federal Power Act and 18 C.F.R. paragraph 366.23. This report is designed to collect financial information from service companies that are subject to regulation by the FERC.

Twenty-three utility holding companies filed a Form 60 for 2007. All but two were included in the comparison group. The service company for PNM Resources, Inc. was excluded because its 2007 service company cost per regulated utility customer was clearly an anomaly as a negative number. This result is likely due to the unique manner by which PNM’s service company expenses are reported on Form 60. Duke Energy was also excluded from the comparison group because one of its two service companies did not provide numbers for its Form 60. Thus, it was not possible to develop Duke’s consolidated service company cost per customer for 2007.

Schedule 1 compares the services provided by American Water’s Service Company to the services provided by comparison group service companies. In general, the types of services provided by American Water’s Service Company are similar to those provided by comparison group service companies.

O&M expenses charged to utility affiliates for the comparison group service companies were obtained from Schedule XVII – Schedule of Expense Distribution by Department or Service Function (p. 305 to 305c) of each entity’s FERC Form 60. This schedule shows charges by category of service (e.g., accounting, information technology) and type of cost (e.g., labor, benefits, outside services). The following were eliminated from the comparison group’s total expenses because they are not in American Water Service Company’s 2007 charges to NMA:

- All electric- and gas-related services
- Income taxes (account 409), provision for deferred income taxes (account 410), provision for deferred income taxes – credit (account 411) and investment tax credit (account 411.5).
- Donations (account 426.1)
- Interest on long-term debt (account 427), interest on debt to associate companies (account 430) and other interest expense (account 431)

Comparison group service company 2007 expenses were also adjusted to remove charges to non-regulated affiliates from the cost pool used to calculate the cost per regulated service customer. This determination was made using information from the FERC Form 60 schedule: Account 457 – Analysis of Billing – Associate Companies.

Schedule 2 shows NMA's 2007 Service Company cost per customer of \$68 to be considerably lower than the average of \$122 per customer for the comparison group service companies. Only 4 of 21 comparison group service companies had a lower 2007 cost per customer than NMA. Based on this result, it is possible to conclude that the Service Company's 2007 charges to NMA were reasonable.

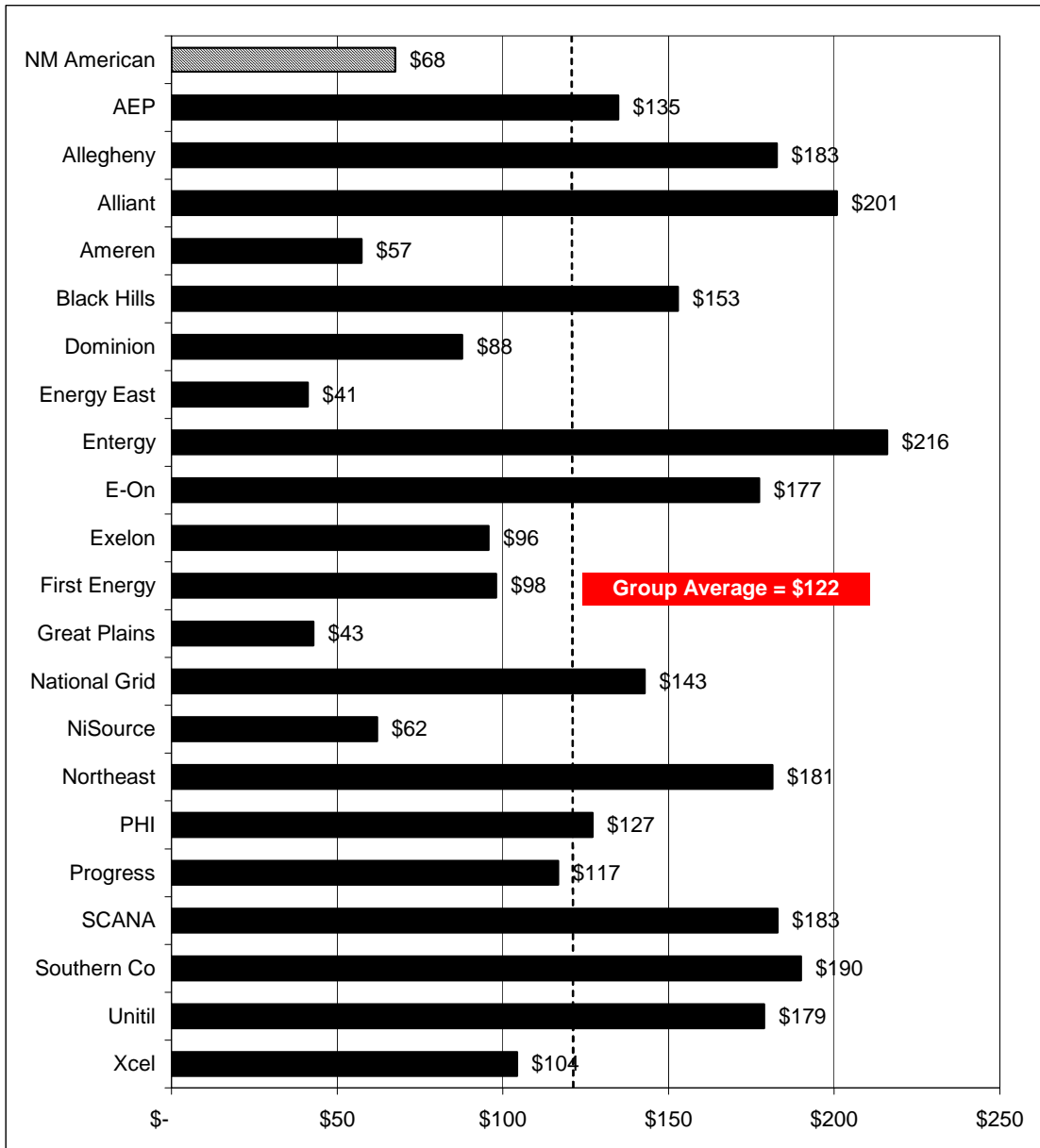
Exhibit Witness: PLB-1  
Schedule 1

**New Mexico-American Water Company  
Analysis of Service Company Services**

	American Water	AEP	Allegheny	Alliant	Ameren	Black Hills	Dominion	Energy East	Energy	F-On	Exelon	First Energy	Great Plains	National Grid	NiSource	Northeast	PHI	Progress	SCANA	Southern Co	Unifit	Xcel
Accounting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Audit Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Corporate Planning	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Customer Service	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Engineering	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Environmental	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Executive	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
External Affairs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Facilities Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Finance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Human Resources	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Information Technology	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Investor Relations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Legal	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Operations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Regulatory Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Risk Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Security	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Service Co Overhead	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Shared Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Supply Chain	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Transportation Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Treasury	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	17	17	15	16	14	15	17	8	7	19	14	17	8	19	20	16	10	13	13	11	7	17

Exhibit Witness: PLB-1  
Schedule 2

**New Mexico-American Water Company**  
**Comparison of Service Company Annual Costs Per Customer**



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## V – Managerial And Professional Services Hourly Rate Comparison

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### Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar, scientific educational backgrounds as Service Company engineering personnel. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to NMA during the 12 months ended December 31, 2007. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged NMA during 2007, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### Service Company Hourly Rates

Schedule 3 (page 14) details the assignment of 12 months ended December 31, 2007 management and professional Service Company charges by outsider provider category. Schedule 4 (page 15) shows the same assignment for Service Company management and professional hours charged to NMA during the 12 months ended December 31, 2007.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2007 test period non-labor Service Company charges:

- Contract Services – 12 months ended December 31, 2007 Service Company charges to NMA include almost \$54,000 in expenses associated with the use of outside

professional firms to perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.

- Travel Expenses – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- Computer Hardware and Software Expenses – Included in the 12 months ended December 31, 2007 Service Company charges to NMA are charges for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the communications systems. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

Schedule 5 (page 16) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 3 and 4 and the excludable items shown in Schedule 5, the Service Company's equivalent costs per hour for the 12 months ended December 31, 2007 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 41,025	\$ 283,418	\$ 482,541	\$ 224,640	\$ 1,031,624
Less:					
Contract services	\$ 2,959	\$ 18,219	\$ 28,876	\$ 3,676	\$ 53,730
Travel expenses	\$ 1,187	\$ 14,602	\$ 11,767	\$ 11,499	\$ 39,054
Computer hardware/software	\$ 0	\$ 4,657	\$ 5,612	\$ 2,029	\$ 12,299
Net Service Charges (A)	\$ 36,879	\$ 245,939	\$ 436,285	\$ 207,437	\$ 926,540
Total Hours (B)	302	1,978	5,779	2,805	10,864
<b>Average Hourly Rate (A / B)</b>	<b>\$ 122</b>	<b>\$ 124</b>	<b>\$ 75</b>	<b>\$ 74</b>	

**New Mexico-American Water Company**  
**Analysis of 12 Months Ended December 31, 2007 Service Company Charges By Location And Function**

Location	Function	12 Months Ended December 31, 2007 Service Company Charges				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality			\$ 24,664	\$	\$ 24,664
Call Center	Human Resources		\$ 4,829			\$ 4,829
Corporate	Accounting			\$ 57,391		\$ 57,391
	Administration	\$ -	\$ (11,390)	\$ -	\$ -	\$ (11,390)
	Audit			\$ 10,150		\$ 10,150
	Communications		\$ 12,392			\$ 12,392
	Engineering				\$ 2,188	\$ 2,188
	Finance			\$ 28,416		\$ 28,416
	Human Resources		\$ 39,391			\$ 39,391
	Legal	\$ 14,211				\$ 14,211
	Operations		\$ 27,363		\$ 13,464	\$ 40,827
	Rates & Revenue			\$ 13,274		\$ 13,274
	Risk Management		\$ 13,236			\$ 13,236
	Water Quality			\$ 11,566		\$ 11,566
Regional Offices	Accounting		\$ 8,120			\$ 8,120
	Administration		\$ 53,688			\$ 53,688
	Communications		\$ 27,001			\$ 27,001
	Engineering			\$ 74,652		\$ 74,652
	Finance			\$ 140,685		\$ 140,685
	Human Resources		\$ 35,679			\$ 35,679
	Legal	\$ 26,814				\$ 26,814
	Operations		\$ 42,586		\$ 84,671	\$ 127,257
	Risk Management		\$ 26,671			\$ 26,671
	Water Quality			\$ 13,435		\$ 13,435
Information Technology	Information Technology		\$ 128,829			\$ 128,829
Shared Services	Accounting		\$ 74,530			\$ 74,530
	Administration		\$ 11,973			\$ 11,973
	Finance			\$ 6,541		\$ 6,541
	Rates & Revenue			\$ 14,606		\$ 14,606
	<b>Total Dollars Charged</b>	<b>\$ 41,025</b>	<b>\$ 283,418</b>	<b>\$ 482,541</b>	<b>\$ 224,640</b>	<b>\$ 1,031,624</b>

Exhibit Witness: PLB-1  
Schedule 4

**New Mexico-American Water Company**  
**Analysis of 12 Months Ended December 31, 2007 Service Company Hours By Location And Function**

Location	Function	12 Months Ended December 31, 2007 Service Company Hours					
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total	
Belleville Lab	Water Quality				344	344	
Call Center	Human Resources		59			59	
Corporate	Accounting			508		508	
	Administration		1			1	
	Audit			56		56	
	Communications		52			52	
	Engineering				19	19	
	Finance			153		153	
	Human Resources		343			343	
	Legal		41			41	
	Operations		90		93	183	
	Rates & Revenue			49		49	
Regional Offices	Risk Management		59			59	
	Water Quality				97	97	
	Accounting			85		85	
	Administration		140			140	
	Communications		254			254	
	Engineering				938	938	
	Finance			1,784		1,784	
	Human Resources		314			314	
	Legal	260				260	
	Operations		368		1,151	1,519	
Information Technology Shared Services	Risk Management		227			227	
	Water Quality				163	163	
	Information Technology			1,168		1,168	
	Accounting			1,608		1,608	
	Administration		72			72	
	Finance			159		159	
	Rates & Revenue			208		208	
	<b>Total Hours Charged</b>		<b>302</b>	<b>1,978</b>	<b>5,779</b>	<b>2,805</b>	<b>10,864</b>



**12 Months Ended December 31, 2007 Service Company Charges Excludable From The Hourly Rate Calculation**  
New Mexico-American Water Company

Charges By Function	Exclusions From Hourly Rate Calculation			Total
	Contract Services	Travel Expenses	Computer HW/SW	
Accounting	\$ 14,355	\$ 2,045	\$ 399	\$ 16,799
Administration	\$ 2,949	\$ 5,313	\$ 524	\$ 8,787
Audit	\$ 1,289	\$ 196	\$ -	\$ 1,485
Communications	\$ 1,283	\$ 3,096	\$ 25	\$ 4,404
Engineering	\$ 2,363	\$ 4,436	\$ 399	\$ 7,198
Finance	\$ (417)	\$ 5,545	\$ 110	\$ 5,238
Human Resources	\$ 8,363	\$ 3,508	\$ 407	\$ 12,279
Information Technology	\$ 11,594	\$ 3,246	\$ 5,101	\$ 19,941
Legal	\$ 2,959	\$ 1,187	\$ 0	\$ 4,146
Operations	\$ 5,519	\$ 4,404	\$ 493	\$ 10,416
Rates & Revenue	\$ 2,055	\$ 736	\$ 2	\$ 2,793
Risk Management	\$ 458	\$ 3,957	\$ 3,458	\$ 7,873
Water Quality	\$ 958	\$ 1,387	\$ 1,380	\$ 3,725
<b>Total</b>	<b>\$ 53,730</b>	<b>\$ 39,054</b>	<b>\$ 12,299</b>	<b>\$ 105,083</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Management Consultant,
Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation			Total
	Contract Services	Travel Expenses	Computer HW/SW	
Attorney	\$ 2,959	\$ 1,187	\$ 0	\$ 4,146
Management Consultant	\$ 18,219	\$ 14,602	\$ 4,657	\$ 37,479
Certified Public Accountant	\$ 28,876	\$ 11,767	\$ 5,612	\$ 46,256
Professional Engineer	\$ 3,676	\$ 11,499	\$ 2,029	\$ 17,203
<b>Total</b>	<b>\$ 53,730</b>	<b>\$ 39,054</b>	<b>\$ 12,299</b>	<b>\$ 105,083</b>

## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Attorneys**

The New Mexico Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for New Mexico attorneys. Therefore, an estimate of New Mexico attorney rates was developed from a survey of Michigan lawyers conducted annually by the Michigan Lawyers Weekly. As presented in Schedule 6, the average rate for each Michigan firm respondent was adjusted for the cost of living differential between their location and Clovis, New Mexico. The survey includes rates that were in effect during 2007.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2007 annual survey performed by the Association of Management Consulting Firms—an industry trade organization. The first step in the calculation, presented in Schedule 7, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2006 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The survey includes rates that were in effect at December 31, 2006. Thus, the 2006 average rate was escalated to June 30, 2007—the midpoint of the 12 months ended December 31, 2007.

### **Certified Public Accountants**

The average hourly rate for New Mexico certified public accountants was developed from a 2006 survey conducted every two years by the American Institute of Certified Public Accountants (AICPA). Hourly rates in the AICPA survey are the average of firms in Arizona and Texas. The New Mexico Society of CPAs did not participate in the last AICPA survey so New Mexico-only data was not available. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 8. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2005. Thus, the 2005 average rate was escalated to June 30, 2007—the midpoint of the 12 months ended December 31, 2007.

### **Professional Engineers**

The Service Company provided hourly rate information for outside engineering firms that were used by American Water's Western Region during 2007. One firm is located in New Mexico and two are located in Arizona. As presented in Schedule 9, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Schedule 6

**New Mexico-American Water Company  
Estimated Billing Rates For New Mexico Attorneys Based On  
Michigan Attorney Billing Rates**

Billing rates in effect during 2007 (Note A)									
Firm	Michigan Location	Number Of Mich Lawyers	Billing Rate Range				Mich Average	Cost of Living Adjust (B)	Adjusted Rate
			Associate		Partner				
			Low	High	Low	High			
Dickinson Wright PLLC	Detroit	229	\$ 170	\$ 275	\$ 260	\$ 530	\$ 309	113%	\$ 273
Dykema	Detroit	222	\$ 185	\$ 390	\$ 245	\$ 625	\$ 361	113%	\$ 319
Butzel Long	Detroit	209	\$ 165	\$ 400	\$ 220	\$ 550	\$ 334	113%	\$ 295
Bodman LLP	Detroit	128	\$ 125	\$ 215	\$ 210	\$ 495	\$ 261	113%	\$ 231
Jaffe Raitt Heuer & Weiss, PC	Southfield	100	\$ 165	\$ 225	\$ 225	\$ 500	\$ 279	127%	\$ 220
Trott & Trott, PC	Bingham Farms	64	\$ 170	\$ 170	\$ 235	\$ 235	\$ 203	160%	\$ 127
Brooks Kushman PC	Southfield	52	\$ 160	\$ 275	\$ 250	\$ 505	\$ 298	127%	\$ 234
Kemp, Klein, Umphrey, Edelman & May PC	Troy	36	\$ 150	\$ 190	\$ 200	\$ 340	\$ 220	144%	\$ 153
Pepper Hamilton LLP	Detroit	33	\$ 200	\$ 315	\$ 340	\$ 615	\$ 368	113%	\$ 325
Hertz, Schram & Saretsky, PC	Bloomfield Hills	29	\$ 175	\$ 260	\$ 275	\$ 400	\$ 278	175%	\$ 159
Strobl & Sharp, PC	Bloomfield Hills	28	\$ 110	\$ 210	\$ 200	\$ 300	\$ 205	175%	\$ 117
Kupelian Ormond & Magy, PC	Southfield	25	\$ 165	\$ 195	\$ 235	\$ 320	\$ 229	127%	\$ 180
Rader, Fishman & Grauer, PLLC	Bloomfield Hills	25	\$ 130	\$ 250	\$ 275	\$ 495	\$ 288	175%	\$ 164
McShane & Bowie PLC	Grand Rapids	22	\$ 160	\$ 275	\$ 250	\$ 375	\$ 265	126%	\$ 210
Average Billing Rate for 12 months ended December 31, 2007									<b>\$ 215</b>

Note A: Source is Michigan Lawyers Weekly, April 2008

Note B: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This number represents the cost of living difference between the Michigan city and Clovis, New Mexico. A number over 100% indicates the Michigan city's cost of living is higher than Clovis. A number less than 100% indicates Clovis' cost of living is higher.

Schedule 7

**New Mexico-American Water Company  
Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position  
Survey billing rates were those in effect in 2006 (Note A)

		Average Hourly Rates (Note A)				
		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average		\$ 142	\$ 187	\$ 235	\$ 306	\$ 358

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution  
of Time on an Engagement

		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)		\$ 142	\$187	\$235	\$306	\$358	
Typical Percent of Time Spent on a Consulting Project		30%	30%	20%	10%	10%	Weighted Average
		\$ 43	\$ 56	\$ 47	\$ 31	\$ 36	<b>\$ 212</b>

Escalation to Midpoint of December 31, 2007 Test Period (Note B)

	CPI at December 31, 2006	201.8
	CPI at June 30, 2007	208.4
	Inflation/Escalation	3.3%
Average Hourly Billing Rate For Management Consultants At June 30, 2007		<b>\$ 219</b>

Note A: source: "Operating Ratios For Management Consulting Firms, 2007 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Schedule 8

**New Mexico-American Water Company  
Estimated Billing Rates Of New Mexico Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2005 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 80	\$ 98	\$ 119	\$ 169
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 80	\$ 98	\$ 119	\$ 169
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 24	\$ 29	\$ 24	\$ 34
				<b>Weighted Average \$ 111</b>
<u>Escalation to Midpoint of December 31, 2007 Test Period (Note B)</u>				
				CPI at December 31, 2005 196.8
				CPI at June 30, 2007 208.4
				Inflation/Escalation 5.9%
				<b>Average Hourly Billing Rate For CPAs At June 30, 2007 \$ 118</b>

Note A: Source is AICPA's 2006 National PCPS/TSCPA Management of an Accounting Practice Survey (for states of Arizona and Texas)

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiat.txt>)

Exhibit Witness: PLB-1  
Schedule 9

**New Mexico-American Water Company  
Estimated Billing Rates Of New Mexico/Arizona Engineers**

Note: Billing rates were those in effect in 2007

A. Calculation of Average Hourly Rate by Engineer Position

Engineering Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$53	\$65	\$84	\$96
Firm #2	\$89	\$98	\$139	\$181
Firm #3	\$80	\$105	\$155	\$198

B. Calculation of Overall Average Engineering Hourly Billing Rate

	CAD Drafter	Engineer	Project Manager	Officer	Weighted Average
	Engineer Tech	Design Engineer Project Engineer Elect Proj Engineer	Project Associate Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$74	\$89	\$126	\$158	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$22	\$31	\$32	\$16	<b>\$101</b>

Source: Information provided by American Water Works Service Company

**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	12 Months Ended December 31, 2007		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 122	\$ 215	\$ (92)
Management Consultant	\$ 124	\$ 219	\$ (95)
Certified Public Accountant	\$ 75	\$ 118	\$ (42)
Professional Engineer	\$ 74	\$ 101	\$ (27)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to NMA during the 12-months ended December 31, 2007, outside service providers would have cost \$535,895 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are almost 52% higher than those of the Service Company (\$535,895 / \$ 1,031,624).

Service Provider	12 Months Ended December 31, 2007		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (92)	302	\$ (27,890)
Management Consultant	\$ (95)	1,978	\$ (187,804)
Certified Public Accountant	\$ (42)	5,779	\$ (244,345)
Professional Engineer	\$ (27)	2,805	\$ (75,856)
Service Company Less Than Outside Providers			\$ (535,895)

If NMA were to use outside service providers rather than the Service Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 10,864 hours of work (more than 7 full-time equivalents at 1,500 "billable" hours per FTE per year) would add a significant workload to the existing NMA management team. Thus, it would be necessary for NMA to add at least one half of one position to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill this position would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$74,700 per year to NMA's personnel expenses.

Cost of Adding 1/2 of a Professional Position To NMA's Staff

	Total
New Positions' Salary	\$ 100,000
Benefits (at 49.4%)	\$ 49,400
Office Expenses (15.2%)	\$ 15,200
Total Cost of Full Time Position	\$ 149,400
Percent of Position Required	50%
Half Time Cost of Position	\$ 74,700

Thus, the total effect on the ratepayers of NMA of contracting all services now provided by Service Company would be an increase in their costs of \$610,595 (\$535,895 + \$74,700). Based on the results of this comparison, it is possible to conclude that the Service Company charged NMA at the lower of cost or market for services provided during 2007.

**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%
2005	24	25%
2006	24	31%

These studies provide additional evidence that the Service Company arrangement is the lowest-cost alternative for NMA.



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## VI – Customer Account Services Cost Comparison

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### Background

It is difficult to compare the cost of American Water's National Call Centers with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, NMA's National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC's chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study's comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA).

Schedule 10 provides FERC's description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

#### **903 Records and Collection Expense**

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing and mailing
- Remittance processing – processing of customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

#### **905 Miscellaneous Customer Accounts Expense**

- Customer Information System IT – maintenance and support of the customer information system

This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.



**New Mexico-American Water Company  
FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

**New Mexico-American Water Company  
FERC Account Descriptions**

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

New Mexico	<ul style="list-style-type: none"> <li>• Public Service Company of New Mexico</li> </ul>	<ul style="list-style-type: none"> <li>• Texas New Mexico Power</li> </ul>
Texas	<ul style="list-style-type: none"> <li>• Centerpoint Energy (formerly HL&amp;P)</li> </ul>	<ul style="list-style-type: none"> <li>• El Paso Electric</li> </ul>
Arizona	<ul style="list-style-type: none"> <li>• Arizona Public Service</li> </ul>	<ul style="list-style-type: none"> <li>• Tucson Electric</li> </ul>
Colorado	<ul style="list-style-type: none"> <li>• Aquilla</li> </ul>	<ul style="list-style-type: none"> <li>• Public Service Company of Colorado</li> </ul>
Oklahoma	<ul style="list-style-type: none"> <li>• Empire District Electric</li> <li>• Oklahoma Gas &amp; Electric</li> </ul>	<ul style="list-style-type: none"> <li>• Public Service Company of Oklahoma</li> </ul>

It should be noted that Oncor Electric Delivery (formerly Texas Utilities) was not included in the comparison group because it has outsourced customer account services. As a result, much of its expenses related to this function are charged to FERC account 923 – Outside Services rather than FERC accounts 903 and 905. The customer accounts services’ portion of FERC account 923 cannot be isolated from FERC Form 1 information. Thus, a customer accounts services cost comparison to Oncor was not possible.

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. NMA’s cost pool was developed to include the same expenses included in electric utility’s FERC accounts 903 and 905. As shown in the graphic below, NMA’s resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water	Electric Utilities
<u>Service Company</u> Pensacola & Alton Call Centers a. Customer contact b. Customer order processing c. Billing information processing d. Collections e. Correspondence processing f. Customer payment processing <u>Operating Company</u> a. Postage and forms	FERC Acct 903 - Records and Collection Expense and FERC Acct 905 - Misc Customer Accounts Expense a. Customer contact b. Customer order processing c. Bill preparation and mailing d. Collections e. Payment processing f. Correspondence processing

**NMA Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to NMA. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water’s 1.33 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, NMA’s adjusted annual expense per customer is \$32.48—the number that can be compared to neighboring electric utilities’ expenses. NMA’s 2007 unadjusted annual expense per customer is \$20.86.

New Mexico-American Water Company		Service Co Charges	Adjustment Fewer Calls For Water Cos. (A)	Adjusted
Service Company	Call Centers	\$ 221,037	\$ 194,910	\$ 415,947
Regional Offices	Call processing, order processing, credit, bill collection	\$ 236		\$ 236
Service Company	Customer payment processing			\$ 14,160 (B)
Operating Company	Postage & forms			\$ 114,400
			Cost Pool Total	\$ 544,743
			Total Customers	16,774
<b>12 Months Ended December 31, 2007 Cost Per New Mexico-American Customer</b>				<b>\$ 32.48</b>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Test year annualized Call Center charges	\$ 221,037
Electric utility industry's avg calls/customer	2.50
American Water's avg calls/customer	1.33
Percent different	88% 88%
Total Adjustment B	\$ 194,910

Note B: Estimated customer payment processing expenses

Number of customer bills	179,238
Bank charge per item	\$ 0.0790
Total estimated annual expense	\$ 14,160

### Electric Utility Group Cost Per Customer

Schedule 11 shows the actual 2006 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

### Summary Of Results

As shown in the table below, NMA's cost per customer is within a reasonable range of the average of the neighboring electric utility comparison group. It can therefore be concluded that NMA's 2007 customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to NMA were comparable to those of other utilities.

Annual Expense Per Customer	
Texas New Mexico Power	\$ 8.82
CenterPoint Energy (HL&P)	\$ 12.29
Public Service of New Mexico	\$ 18.50
Oklahoma Gas & Electric	\$ 19.93
Public Svc of Colorado	\$ 21.61
<b>Comparison Group Average</b>	<b>\$ 24.88</b>
Acquilla, Inc.	\$ 28.26
El Paso Electric	\$ 31.98
<b>New Mexico-American Water</b>	<b>\$ 32.48</b>
Empire District Electric Company	\$ 33.03
Tucson Electric	\$ 34.02
Public Svc of Oklahoma	\$ 35.55
Arizona Public Service Co	\$ 49.27

**New Mexico-American Water Company**  
**Comparison Group 2006 Actual Customer Accounts Expense Per Customer**

	New Mexico		Texas		Arizona	
	Public Svc of New Mexico	Texas-New Mexico Power	CenterPoint Energy	EI Paso Electric	Az Public Service Co	Tucson Electric
	\$ 6,985,621	\$ 1,901,609	\$ 19,023,675	\$ 7,163,439	\$ 45,761,786	\$ 11,915,625
	\$ 402	\$ 130,500	\$ -	\$ 498,787	\$ 1,117,449	\$ (31,254)
	\$ 6,986,023	\$ 2,032,109	\$ 19,023,675	\$ 7,662,226	\$ 46,879,235	\$ 11,884,371
<b>Note A</b>	\$ 569,066	\$ 129,355	\$ 4,081,833	\$ 2,963,933	\$ 3,065,834	\$ 956,359
<b>Note B</b>	\$ 403,373	\$ 156,680	\$ 1,376,954	\$ 435,512	\$ 1,884,588	\$ 368,128
<b>Total Cost Pool</b>	\$ 7,958,461	\$ 2,318,144	\$ 24,482,462	\$ 11,061,671	\$ 51,829,657	\$ 13,208,858
	\$ 430,211	\$ 262,929	\$ 1,992,812	\$ 345,929	\$ 1,051,895	\$ 388,307
	\$ 18.50	\$ 8.82	\$ 12.29	\$ 31.98	\$ 49.27	\$ 34.02
	\$ 18,878,471	\$ 2,151,168	\$ 47,857,442	\$ 34,913,362	\$ 77,941,202	\$ 19,935,891
	\$ 174,924,165	\$ 34,060,096	\$ 211,033,868	\$ 67,059,688	\$ 626,287,039	\$ 100,311,686
	10.8%	6.3%	22.7%	52.1%	12.4%	19.9%
	\$ 6,467,683	\$ 4,125,007	\$ 26,203,249	\$ 7,440,377	\$ 30,581,605	\$ 6,021,884
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 6,467,683	\$ 4,125,007	\$ 26,203,249	\$ 7,440,377	\$ 30,581,605	\$ 6,021,884
	\$ 6,985,621	\$ 1,901,609	\$ 19,023,675	\$ 7,163,439	\$ 45,761,786	\$ 11,915,625
	\$ 402	\$ 130,500	\$ -	\$ 498,787	\$ 1,117,449	\$ (31,254)
	\$ 6,986,023	\$ 2,032,109	\$ 19,023,675	\$ 7,662,226	\$ 46,879,235	\$ 11,884,371
	\$ 1,583,042	\$ 2,060,670	\$ 8,670,705	\$ 2,351,868	\$ 11,315,783	\$ 2,987,710
	\$ 8,569,065	\$ 4,092,779	\$ 27,694,380	\$ 10,014,094	\$ 58,195,018	\$ 14,872,081
	81.5%	49.7%	68.7%	76.5%	80.6%	79.9%
	\$ 5,272,849	\$ 2,048,111	\$ 17,999,395	\$ 5,692,961	\$ 24,635,137	\$ 4,812,124
	\$ 569,066	\$ 129,355	\$ 4,081,833	\$ 2,963,933	\$ 3,065,834	\$ 956,359
	\$ 5,272,849	\$ 2,048,111	\$ 17,999,395	\$ 5,692,961	\$ 24,635,137	\$ 4,812,124
	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
	\$ 403,373	\$ 156,680	\$ 1,376,954	\$ 435,512	\$ 1,884,588	\$ 368,128

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 161)  
Acct 905 - Misc Customer Accounts (page 322, line 163)  
Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**  
Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt  
Account 926 - Employee Pension & Benefits (page 323, line 187)  
Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll  
Payroll Applicable to Customer Account Services  
Total Payroll Charged to Customer Accounts Function  
Electric (page 354, line 7)  
Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts  
Percent Applicable to Customer Accounts Services (903 and 905):  
Acct 903 - Customer Records & Collection (page 322, line 161)  
Acct 905 - Misc Customer Accounts (page 322, line 163)  
Subtotal - Total Charges Applicable to Customer Accounts Services  
Acct 902 - Meter Reading Expenses (page 322, line 160)  
Total Charges Applicable to Customer Accounts Svcs & Meter Reading  
Percent Applicable to Customer Accounts Services (903 and 905)  
Customer Account Services Portion of Total Payroll

**Note B:** Calculation of Employer's FICA Pertaining to Customer Accounts Services  
Pension & Benefits Pertaining to Customer Accounts Services  
Customer Account Services Portion of Total Payroll  
Employer's Portion of FICA (6.20%) and Medicare (1.45%)  
Estimated Employer's Portion of FICA



Exhibit Witness: PLB-1  
Schedule 11  
Page 2 of 2

**New Mexico-American Water Company**  
**Comparison Group 2006 Actual Customer Accounts Expense Per Customer**

Colorado		Oklahoma			Group Average
Acquilla	Public Svc of Colorado	Empire District Electric	Oklahoma Gas & Electric	Public Svc of Oklahoma	
\$ 10,189,732	\$ 21,294,135	\$ 4,190,902	\$ 10,601,169	\$ 17,452,301	\$ 156,479,976
\$ 4,731	\$ 235,495	\$ 321,635	\$ 1,080,693	\$ 3,551	\$ 3,361,989
\$ 10,194,463	\$ 21,529,630	\$ 4,512,537	\$ 11,681,862	\$ 17,455,852	\$ 159,841,965
<b>Note A</b>					
\$ 2,324,990	\$ 5,283,449	\$ 707,574	\$ 2,613,341	\$ 588,329	\$ 23,284,062
<b>Note B</b>					
\$ 608,226	\$ 1,653,996	\$ 197,862	\$ 670,885	\$ 330,608	\$ 8,086,812
<b>Total Cost Pool</b>	<b>\$ 13,127,680</b>	<b>\$ 5,417,973</b>	<b>\$ 14,966,088</b>	<b>\$ 18,374,789</b>	<b>\$ 191,212,839</b>
	464,588	1,317,016	751,043	516,875	\$ 7,685,640
<b>\$ 28.26</b>	<b>\$ 21.61</b>	<b>\$ 33.03</b>	<b>\$ 19.93</b>	<b>\$ 35.55</b>	<b>\$ 24.88</b>
\$ 36,457,466	\$ 63,731,780	\$ 11,984,335	\$ 41,929,023	\$ 11,493,366	\$ 367,253,506
\$ 124,672,077	\$ 260,802,325	\$ 43,733,832	\$ 140,703,693	\$ 84,426,604	\$ 1,868,015,073
29.2%	24.4%	27.4%	29.8%	13.6%	19.7%
\$ 7,299,421	\$ 13,497,504	\$ 3,333,454	\$ 15,767,241	\$ 5,595,370	\$ 126,332,795
\$ 4,347,912	\$ 12,600,944	\$ -	\$ -	\$ -	\$ 16,948,856
\$ 11,647,333	\$ 26,098,448	\$ 3,333,454	\$ 15,767,241	\$ 5,595,370	\$ 143,281,651
\$ 10,189,732	\$ 21,294,135	\$ 4,190,902	\$ 10,601,169	\$ 17,452,301	\$ 156,479,976
\$ 4,731	\$ 235,495	\$ 321,635	\$ 1,080,693	\$ 3,551	\$ 3,361,989
\$ 10,194,463	\$ 21,529,630	\$ 4,512,537	\$ 11,681,862	\$ 17,455,852	\$ 159,841,965
\$ 4,739,910	\$ 4,458,697	\$ 1,303,329	\$ 9,321,119	\$ 5,144,623	\$ 53,937,456
\$ 14,934,373	\$ 25,988,327	\$ 5,815,866	\$ 21,002,981	\$ 22,600,475	\$ 213,779,421
68.3%	82.8%	77.6%	55.6%	77.2%	74.8%
\$ 7,950,672	\$ 21,620,858	\$ 2,586,431	\$ 8,769,742	\$ 4,321,677	\$ 107,131,082
\$ 2,324,990	\$ 5,283,449	\$ 707,574	\$ 2,613,341	\$ 588,329	\$ 21,062,071
\$ 7,950,672	\$ 21,620,858	\$ 2,586,431	\$ 8,769,742	\$ 4,321,677	\$ 105,709,956
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
\$ 608,226	\$ 1,653,996	\$ 197,862	\$ 670,885	\$ 330,608	\$ 8,086,812

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)

Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A: Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt**

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services**

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



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## VII - Need For Service Company Services

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### Analysis Of Services

The final aspect of this study was an assessment of whether the services that are provided to NMA by the Service Company would be necessary if NMA were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for NMA. Based on discussions with Service Company personnel, the matrix in Schedule 12 was created showing which entity—NMA or a Service Company location—is responsible for each of the functions NMA requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 12, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if NMA were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to NMA. For all of the services listed in Schedule 12, there was only one entity that was primarily responsible for the service.



**Designation Of Responsibility For Water Utility Functions**

	Primarily Responsible Provides Support	P S	Performed By:						
			Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab	
<b>Water Company Function</b>									
<b>Engineering and Construction Management</b>									
CPS Preparation	S		P				S		
Five-Year System Planning	S		P				P		
Engineering Standards & Policies Development									
Project Design									
Major Projects (e.g., new treatment plant)	S		P				S		
Special Projects	S		P				S		
Minor Projects (e.g., pipelines)	P								
Construction Project Management									
Major Projects	S		P						
Special Projects	S		P						
Minor Projects	P								
Hydraulics Review	P		S						
Developers Extensions	P								
Tank Painting	S		P						
<b>Water Quality and Purification</b>									
Water Quality Standards Development									
Research Studies	S		S				P		S
Water Quality Program Implementation	P		S				P		S
Water Treatment Operations & Maintenance	P		S				S		
Compliance Tracking and Chemical Testing	S		S				S		P
Sample Collection and Other Testing	P		S				S		S
<b>Transmission and Distribution</b>									
Preventive Maintenance Program Development	P								
System Maintenance	P								
Leak Detection	P		S						
<b>Customer Service</b>									
Community Relations	S		P				S		
Customer Contact	S								
Call Processing									
Service Order Creation	S		S						
Service Order Processing	P		S						
Customer Credit									
Meter Reading	P		S						S
Customer Bill Preparation									P
Bill Collection	S		S						S
Customer Payment Processing	S								
Meter Standards Development									
Meter Testing, Maintenance & Replacement	P		S				P		

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	NMA	Performed By:							
		Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab		
<b>Primarily Responsible P Provides Support S</b>									
Financial Management									
Financial Planning	S		P	S	S				
Financings—Equity			P	S	S				
Financings—Long Term Debt & Preferred (A)			P	S	S				
Short Term Lines of Credit Arrangements (A)			S	S	S				
Investor Relations			S						
Insurance Program Administration					P				
Loss Control/Safety Program Administration	S		P		S				
Pension Fund Asset Management					P				
Cash Management/Disbursements									
<b>Internal Auditing</b>									
<b>Budgeting and Variance Reporting</b>									
Corporate Guidelines & Instructions									
Regional Guidelines & Instructions			P						
Budget Preparation									
Revenue	S		P						
O&M	S		P						
Depreciation and Interest Expense	S		P						
Budget Preparation--Service Company Charges		S	P	S	S				S
Capital Budget Preparation—Projects	S		P						
Capital Budget Preparation—Non-Project Work	S		P						
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	S		P						
Prepare Capital Project Budget Status Report	S		P						
Year-End Projections (A)	S		P						
<b>Accounting and Taxes</b>									
Accounts Payable Accounting	S		S	P					
Payroll Accounting	S		S	P					
Work Order Accounting	S		S	P					
Fixed Asset Accounting	S		S	P					
Journal Entry Preparation--Billing Corrections	S		S	P					
Journal Entry Preparation--All Others	S		S	P					
Financial Statement Preparation	S		S	P					
State Commission Reporting	S		S	P					
Income Taxes—State									
Income Taxes—Federal									
Property Taxes									
Gross Receipts Taxes	S		S	P					

Note A: Financings and lines of credit are the responsibility of American Capital Corporation

**New Mexico-American Water Company  
 Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:					
	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible P Provides Support S</b>						
<b>Rates</b>						
Rate Studies & Tariff Change Administration		P				
Rate Case Planning and Preparation		P				
Rate Case Administration		P				
Commission Inquiry Response		P		S		
<b>Legal</b>						
<b>Purchasing and Materials Management</b>						
Specification Development		S	S	P		
Bid Solicitation		S		P		
Contract Administration		S		P		
Ordering						
Inventory Management			S			
<b>Human Resources Management</b>						
Benefit Program Development				P		
Benefits Program Administration		P				
Management Compensation Administration				P		
Wage & Salary Program Design				P		
Wage & Salary Administration	S	P				
Labor Negotiations--Wages	S	P				
Labor Negotiations--Benefits				P		
Labor Negotiations-- Work Rules	S	P				
Training Program Development	S	S		P		
Training--Course Delivery	S	P				
Affirmative Action/EEO--Plan Development	S	P				
Affirmative Action/EEO--Implementation	S	P				
<b>Information Systems Services</b>						
Service Company Data Centers						
System Operations & Maintenance					P	
Software Maintenance					P	
Network Administration					P	
PC Acquisition & Support					P	
Help Desk			S		P	



### **Governance Practices Associated With Service Company Charges**

There are several ways by which NMA exercises control over Service Company services and charges. The most important of these are described below.

- **Company President Oversight** – The Company President of the state utility is responsible for the overall performance of the each operating company or district in the state. Presently the Western States President is also the President of New Mexico-American. Through the Western States President, New Mexico-American has a significant voice in major business decisions of American Water and has the ability to monitor Service Company quality and spending.
- **Vice President Finance** – The VP Finance of the Western states is responsible for the financial reporting, performance and internal controls of each of the operating companies in the region. The VP Finance monitors the performance and reporting from the Service Company. The VP Finance attends monthly Business Plan Review sessions with the New Mexico-American General Manager and finance group to review actual results and address forecast modifications for the remainder of the year. The VP Finance reports on the quarterly financial results and forecast updates to New Mexico-American's Board of Directors. The rates function reports to the VP Finance, who reviews and authorizes the filing of New Mexico-American rate cases and regularly monitors the status of cases. The operating subsidiary interacts with the VP Finance to discuss various issues.
- **Operating Company Board Oversight** – New Mexico-American's board of directors includes a member of American Water's senior executive team, members of the Division management team and two external Directors. This helps ensure that New Mexico-American's needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – The Western States President sits on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors. New Mexico-American's president is also on the local board.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's senior executive team, which includes the President of the Western States. The President, with input from the Division management team, has the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Western States Finance personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. New Mexico's financial analyst has dialogue with regional office personnel concerning the monthly bill and any mistakes or overcharges are credited on a subsequent billing. The Western States' Finance unit prepares an actual to budget comparison of management fees each month for use in identifying unusual variances. Service Company actual to budget comparison is included in the monthly Financial Review Package. Unusual variances are researched, explanations are provided and any corrections are made, as deemed necessary.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report, called the "Statement of Expenses and Billed Charges," is produced by Service Company location and shows actual spending for the month.

- **Operating Company Budget Variance Reporting** – The “Budget/Plan Analysis,” produced monthly, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date. Additional information exists that allows more detailed analysis of "Regional" and "Corporate" Management Fees.
- **Capital Investment Management Committee (CIMC)** – CIMC is one of American Water’s primary business planning processes. It covers capital and asset planning and is employed throughout American Water. CIMC provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIMC ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans
  - The impacts of these plans are understood and affordable
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIMC process was designed to optimize the effectiveness of asset investment. The process is managed at three levels for all American Water companies, including all New Mexico Operating Units. Monthly meetings of the CIMC are held to review capital spending compared to plan, review new project requests, and review updates or modifications to existing projects. The President of New Mexico-American, VP Finance, and others participate as necessary (e.g. operations managers and Rates Manager) and provide the data used in the monthly review schedules.

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**Market Cost Comparison of Service Company Charges to  
Ohio American Water Company**

**12-Months Ended December 31, 2006**

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**Ohio American Water Company  
Market Cost Comparison of Service Company Charges  
12-Months Ended December 31, 2006**

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## I - Introduction

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### Purpose Of This Study

This study was undertaken to answer three questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to Ohio American Water Company (OAWC):

1. Was OAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during 2006?
2. Were the 2006 cost of the Service Company's customer accounts services, including those of the National Call Centers, reasonable?
3. Are the services OAWC receives from Service Company necessary?

### Study Results

Concerning question 1, the following conclusions can be drawn from this study:

- OAWC was charged the lower of cost or market for managerial and professional services during the 12-months ended December 31, 2006.
- On average, the hourly rates for outside service providers are **55% higher** than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by OAWC without careful supervision on the part of OAWC. If these services were contracted entirely to outside providers, OAWC would have to add at least one position to manage activities of outside firms. These positions would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been out-sourced during the 12-months ended December 31, 2006, OAWC and its ratepayers would have incurred an **additional \$1.8 million** in expenses. This amount includes the higher cost of outside providers and the cost of an additional OAWC position needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to OAWC from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company exempt personnel, on the other hand, charge a maximum 8 per day even when they work more. If the overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$1.8 million cited above. For instance, if Service Company overtime is conservatively estimated at 5% (2 hours per week), then that work would have cost an estimated \$84,000 in additional charges from outside providers.
- It would be difficult for OAWC to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.



- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from OAWC ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, **is within a reasonable range of the average of the comparison group of neighboring electric utilities.** As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of OAWC. During the 12-months ended December 31, 2006, the customer accounts cost for OAWC customers was \$31.70 compared to the 2005 average of \$26.45 for neighboring electric utilities. The highest comparison group per customer cost was \$46.94 and the lowest \$12.43.

Concerning question 3, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if OAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to OAWC. For all of the services listed in Schedule 10, there was only one entity that was primarily responsible for the service.

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## II - Background

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### Overview Of American Water Works Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in the second quarter of 2001 and a second in Pensacola, Florida that went into operation in April 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of OAWC, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they are not provided by the National Shared Services Center. Examples of regional office services include rates and revenues, engineering and operations.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the communications systems. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks

- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

**Charging and Assignment Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable)

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 20% of the Central Region's professional labor is assigned to OAWC during a month, then 20% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 20% of the Central Region's accumulated professional and support labor is charged to OAWC during the month, then 20% of that month's overhead expenses will be assigned to OAWC.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to OAWC, then 2% of that office's office expenses would be assigned to OAWC. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a rate case proceeding are charged directly to the operating company whose case is being heard.

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**III – Service Company Cost Comparison Approach**

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During 2006, the Service Company billed OAWC \$3,706,151 in O&M-related and \$504,356 in capital-related charges. Included in the O&M amount is \$364,509 for which OAWC will not seek recovery. As calculated in the table below, the net O&M and capital charges of \$3,845,998 were subjected to a market cost comparison.

Reconciliation to 2006 Testable Service Co Charges

O&M Per OAWC G/L	\$	3,706,151
Net O&M Adjustments	\$	(364,509)
Net Testable O&M	\$	3,341,642
Capital per OAWC G/L	\$	504,356
Net Testable SC Charges	\$	3,845,998

For purposes of comparing these charges to outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	2006	
	Amount	Hours
Management and Professional Services	\$ 3,082,016	35,958
Customer Account Services	\$ 763,982	25,291
Total Service Company Charges	\$ 3,845,998	61,249

This study’s first question—whether the Service Company charges the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to OAWC during 2006. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The second question—reasonableness of the National Call Center costs—was addressed by comparing OAWC’s customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The third question—the necessity of Service Company services—was first investigated by determining the services provided to OAWC. A determination was then made as to whether these services would be required if OAWC were a stand-alone utility.

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## IV – Managerial And Professional Services Hourly Rate Comparison

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### Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar, scientific educational backgrounds as Service Company engineering personnel. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to OAWC during 2006. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged OAWC during 2006, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### Service Company Hourly Rates

Schedule 1 (page 10) details the assignment of 2006 management and professional Service Company charges by outsider provider category. Schedule 2 (page 10) shows the same assignment for Service Company management and professional hours charged to OAWC during 2006.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2006 test period non-labor Service Company charges:

- Contract Services – 2006 Service Company charges to OAWC include approximately \$289,000 in charges associated with the use of outside professional firms to perform

certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.

- Travel Expenses – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- Computer Hardware and Software Expenses – Included in 2006 Service Company charges to OAWC are charges for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the communications systems. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

Schedule 3 (page 11) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 1 and 2 and the excludable items shown in Schedule 3, the Service Company's equivalent costs per hour for 2006 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 102,617	\$ 878,476	\$ 1,268,600	\$ 832,323	\$ 3,082,016
Less:					
Contract services	\$ 4,759	\$ 108,909	\$ 141,573	\$ 33,920	\$ 289,161
Travel expenses	\$ 502	\$ 14,926	\$ 5,095	\$ 14,571	\$ 35,094
Computer hardware/software	\$ 2	\$ 11,222	\$ 25,571	\$ 598	\$ 37,393
Net Service Charges (A)	\$ 97,353	\$ 743,418	\$ 1,096,362	\$ 783,234	\$ 2,720,368
Total Hours (B)	795	6,118	18,016	11,029	35,958
<b>Average Hourly Rate (A / B)</b>	<b>\$ 122</b>	<b>\$ 122</b>	<b>\$ 61</b>	<b>\$ 71</b>	

**Ohio American Water Company  
Analysis of 2006 Service Company Charges By Location And Function**

Location	Function	2006 Service Company Charges					Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer		
Belleville Lab	Water Quality		\$ 19,350		\$ 80,721	\$	\$ 80,721
Call Center	Human Resources			\$ 70,964			\$ 19,350
Corporate	Accounting						\$ 70,964
	Administration	\$ 8,207	\$ 158,164	\$ 104,816	\$ 72,261		\$ 343,448
	Audit			\$ 19,403			\$ 19,403
	Communications		\$ 34,096				\$ 34,096
	Finance			\$ 85,784			\$ 85,784
	Human Resources		\$ 84,344				\$ 84,344
	Legal	\$ 38,662					\$ 38,662
	Operations				\$ 90,107		\$ 90,107
	Rates & Revenue			\$ 55,796			\$ 55,796
	Risk Management		\$ 23,254				\$ 23,254
	Water Quality				\$ 23,285		\$ 23,285
Regional Offices	Accounting			\$ 13,469			\$ 13,469
	Administration		\$ 266,731				\$ 266,731
	Communications		\$ 56,337				\$ 56,337
	Customer Service						\$ -
	Engineering				\$ 199,845		\$ 199,845
	Finance			\$ 207,574			\$ 207,574
	Human Resources		\$ 162,949				\$ 162,949
	Legal	\$ 55,748					\$ 55,748
	Operations				\$ 235,146		\$ 235,146
	Risk Management		\$ 54,885				\$ 54,885
	Water Quality				\$ 130,958		\$ 130,958
Information Technology	Audit					\$ 8,048	\$ 8,048
	Information Technology					\$ 412,370	\$ 412,370
Shared Services	Accounting			\$ 211,947			\$ 211,947
	Administration		\$ 18,367				\$ 18,367
	Finance			\$ 21,070			\$ 21,070
	Rates & Revenue			\$ 57,362			\$ 57,362
	<b>Total Dollars Charged</b>	<b>\$ 102,617</b>	<b>\$ 878,476</b>	<b>\$ 1,268,600</b>	<b>\$ 832,323</b>	<b>\$</b>	<b>\$ 3,082,016</b>



Exhibit Witness: PLB-1  
Schedule 2

**Ohio American Water Company**  
**Analysis of 2006 Service Company Hours By Location And Function**

Location	Function	2006 Service Company Hours					Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer		
Belleville Lab	Water Quality				1,197		1,197
Call Center	Human Resources		242				242
Corporate	Accounting			1,260			1,260
	Administration		281				281
	Audit			305			305
	Communications		118				118
	Finance			623			623
	Human Resources		924				924
	Legal	153					153
	Operations				695		695
	Rates & Revenue			178			178
	Risk Management		180				180
	Water Quality				372		372
Regional Offices	Accounting			229			229
	Administration		701				701
	Communications		808				808
	Customer Service						-
	Engineering				3,426		3,426
	Finance			5,222			5,222
	Human Resources		1,488				1,488
	Legal	643					643
	Operations				3,364		3,364
	Risk Management		1,235				1,235
	Water Quality				1,974		1,974
Information Technology	Audit			194			194
	Information Technology			3,803			3,803
Shared Services	Accounting			4,041			4,041
	Administration		141				141
	Finance			707			707
	Rates & Revenue			1,453			1,453
	<b>Total Hours Charged</b>	<b>795</b>	<b>6,118</b>	<b>18,016</b>	<b>11,029</b>		<b>35,958</b>

**Ohio American Water Company**  
**2006 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation				Total
	Contract Services	Travel Expenses	Computer HW/SW	Computer HW/SW	
Accounting	\$ 75,609	\$ 704	\$ 509	\$ 509	\$ 76,821
Administration	\$ 23,091	\$ 5,340	\$ 4,837	\$ 4,837	\$ 33,268
Audit	\$ (54)	\$ 216			\$ 162
Communications	\$ 10,521	\$ 1,277	\$ 193	\$ 193	\$ 11,991
Engineering	\$ 4,177	\$ 6,383	\$ 185	\$ 185	\$ 10,745
Finance	\$ 17,803	\$ 1,415	\$ 315	\$ 315	\$ 19,532
Human Resources	\$ 39,727	\$ 1,822	\$ 641	\$ 641	\$ 42,190
Information Technology	\$ 41,259	\$ 1,389	\$ 24,748	\$ 24,748	\$ 67,395
Legal	\$ 4,759	\$ 502	\$ 2	\$ 2	\$ 5,263
Operations	\$ 34,964	\$ 8,417	\$ 377	\$ 377	\$ 43,758
Rates & Revenue	\$ 6,957	\$ 1,372			\$ 8,328
Risk Management	\$ 2,407	\$ 2,872	\$ 5,511	\$ 5,511	\$ 10,790
Water Quality	\$ 27,942	\$ 3,386	\$ 77	\$ 77	\$ 31,404
<b>Total</b>	<b>\$ 289,161</b>	<b>\$ 35,094</b>	<b>\$ 37,393</b>	<b>\$ 37,393</b>	<b>\$ 361,648</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Management Consultant,
Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation				Total
	Contract Services	Travel Expenses	Computer HW/SW	Computer HW/SW	
Attorney	\$ 4,759	\$ 502	\$ 2	\$ 2	\$ 5,263
Management Consultant	\$ 108,909	\$ 14,926	\$ 11,222	\$ 11,222	\$ 135,057
Certified Public Accountant	\$ 141,573	\$ 5,095	\$ 25,571	\$ 25,571	\$ 172,238
Professional Engineer	\$ 33,920	\$ 14,571	\$ 598	\$ 598	\$ 49,089
<b>Total</b>	<b>\$ 289,161</b>	<b>\$ 35,094</b>	<b>\$ 37,393</b>	<b>\$ 37,393</b>	<b>\$ 361,648</b>

## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Attorneys**

The Ohio Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for Ohio attorneys. Therefore, an Ohio estimate was developed from a survey of Michigan lawyers conducted annually by the Michigan Lawyers Weekly. As presented in Schedule 4, the average rate for each Michigan firm respondent was adjusted for the cost of living differential between their location and Columbus, Ohio. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2006 annual survey performed by the Association of Management Consulting Firms—an industry trade organization. The first step in the calculation, presented in Schedule 5, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2005 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Certified Public Accountants**

The average hourly rate for Ohio certified public accountants was developed from a 2006 survey conducted by the American Institute of Certified Public Accountants (AICPA) every two years. Hourly rates in the AICPA survey are the average of firms in Ohio. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 6. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Professional Engineers**

The Service Company provided hourly rate information for outside engineering firms that could have been utilized by OAWC during 2006. As presented in Schedule 7, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Schedule 4

**Ohio American Water Company**  
**Estimated Billing Rates For Ohio Attorneys Based On Michigan Attorney Billing Rates**

Billing rates as of December 31, 2005 (Note A)							Cost of Living Adjust (C)	Adjusted Rate
Firm	Michigan Location	Number Of Mich Lawyers	Billing Rate Range			Average		
			Associate	Partner				
Dykema	Detroit	228	\$ 250	\$ 408	\$ 329	82%	\$ 403	
Dickinson Wright PLLC	Detroit	218	\$ 208	\$ 385	\$ 296	82%	\$ 363	
Butzel Long	Detroit	212	\$ 283	\$ 385	\$ 334	82%	\$ 409	
Bodman LLP	Detroit	130	\$ 168	\$ 323	\$ 245	82%	\$ 300	
Jaffe Raitt Heuer & Weiss, PC	Southfield	95	\$ 160	\$ 358	\$ 259	94%	\$ 274	
Sommers Schwartz	Southfield	76	\$ 138	\$ 193	\$ 165	94%	\$ 175	
Trott & Trott, PC	Bingham Farms	57	\$ 188	\$ 250	\$ 219	148%	\$ 148	
Brooks Kushman PC	Southfield	52	\$ 218	\$ 375	\$ 296	94%	\$ 314	
Foley & Lardner LLP	Detroit	42	\$ 298	\$ 453	\$ 375	82%	\$ 460	
Kemp, Klein, Umphrey, Edelman & May PC	Troy	38	\$ 155	\$ 263	\$ 209	113%	\$ 184	
Pepper Hamilton LLP	Detroit	31	\$ 255	\$ 448	\$ 351	82%	\$ 431	
Hertz, Schram & Saretsky, PC	Bloomfield Hills	30	\$ 218	\$ 338	\$ 278	125%	\$ 222	
O'Reilly Rancilio PC	Sterling Heights	27	\$ 180	\$ 238	\$ 209	96%	\$ 217	
Thrun Law Firm	East Lansing	27	\$ 190	\$ 220	\$ 205	89%	\$ 229	
Strobl & Sharp, PC	Bloomfield Hills	26	\$ 145	\$ 275	\$ 210	125%	\$ 168	
Kupelian Ormond & Magy, PC	Southfield	24	\$ 173	\$ 263	\$ 218	94%	\$ 230	
Parmenter O'Toole	Muskegon	23	\$ 145	\$ 238	\$ 191	78%	\$ 244	
Rader, Fishman & Grauer, PLLC	Bloomfield Hills	23	\$ 208	\$ 373	\$ 290	125%	\$ 232	
Tanoury, Corbet, Shaw, Nauts & Essad PLLC	Detroit	22	\$ 120	\$ 180	\$ 150	82%	\$ 184	
Williams, Williams, Rattner & Plunkett, PC	Birmingham	22	\$ 200	\$ 313	\$ 256	112%	\$ 228	
Overall Average at December 31, 2005								\$ 271
<u>Escalation to Mid-Point of Year - June 30, 2006 (Note B)</u>								
CPI at December 31, 2005								196.8
CPI at June 30, 2006								202.9
Inflation/Escalation								3.1%
Average Billing Rate At June 30, 2006								<b>\$ 279</b>

Note A: Source is Michigan Lawyers Weekly, April 2006

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiat.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This number represents the cost of living difference between the Michigan city and Columbus, Oh. A number over 100% indicates the Michigan city's cost of living is higher than Columbus. A number less than 100% indicates Columbus' cost of living is higher.

Schedule 5

**Ohio American Water Company**  
**Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position						
Survey billing rates were those in effect in 2005 (Note A)						
	Average Hourly Rates (Note A)					
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$ 141	\$ 186	\$ 234	\$ 320	\$ 350	
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)	\$ 141	\$186	\$234	\$320	\$350	
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%	Weighted Average
	\$ 42	\$ 56	\$ 47	\$ 32	\$ 35	<b>\$ 212</b>
<u>Escalation to Test Year Mid-Point June 30, 2006 (Note B)</u>						
						CPI at December 31, 2005
						196.8
						CPI at June 30, 2006
						202.9
						Inflation/Escalation
						3.1%
Estimated Average Hourly Billing Rate For Consultants At June 30, 2006						<b>\$ 218</b>

Note A: source: "Operating Ratios For Management Consulting Firms, 2006 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>)

Schedule 6

**Ohio American Water Company**  
**Estimated Billing Rates Of Ohio Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2005 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 58	\$ 83	\$ 98	\$ 143
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 58	\$ 83	\$ 98	\$ 143
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 17	\$ 25	\$ 20	\$ 29
				<b>Weighted Average \$ 90</b>
				CPI at December 31, 2005 196.8
				CPI at June 30, 2006 202.9
				Inflation/Escalation 3.1%
Estimated Average Hourly Billing Rate For Ohio CPAs At June 30, 2006				<b>\$ 93</b>

Note A: Source is AICPA's 2006 National PCPS/TSCPA Management of an Accounting Practice Survey

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Exhibit Witness: PLB-1  
Schedule 7

**Ohio American Water Company**  
**Billing Rates Of Ohio Engineers**

Note: Billing rates were those in effect in 2006

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm (B)	Average Hourly Billing Rates			
	Technician Senior Technician	Engineer Design Engineer Project Engineer	Project Manager Sr. Mgr. Engineer	Officer Principal Engineer
Firm #1	\$65	\$99	\$154	\$200
Firm #2	\$73	\$96	\$145	\$175
Firm #3	\$66	\$82	\$134	\$162

B. Calculation of Overall Average Engineering Hourly Billing Rate

Average Hourly Billing Rate (From Above)	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer	Weighted Average
		\$68	\$92	\$144	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$20	\$32	\$36	\$18	<b>\$107</b>

Note A: source is information provided by American Water Works Service Company

Note B: billing rate information is considered confidential by the outside engineering firms,  
thus their names are not shown

**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	12 Months Ended December 31, 2006		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 122	\$ 279	\$ (157)
Management Consultant	\$ 122	\$ 218	\$ (97)
Certified Public Accountant	\$ 61	\$ 93	\$ (32)
Professional Engineer	\$ 71	\$ 107	\$ (36)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to OAWC during the 12-months ended December 31, 2006, outside service providers would have cost \$1,692,642 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are almost 55% higher than those of the Service Company (\$1,692,642 / \$ 3,082,016).

Service Provider	12 Months Ended December 31, 2006		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (157)	795	\$ (124,629)
Management Consultant	\$ (97)	6,118	\$ (592,219)
Certified Public Accountant	\$ (32)	18,016	\$ (583,167)
Professional Engineer	\$ (36)	11,029	\$ (392,628)
Service Company Less Than Outside Providers			\$ (1,692,642)

If OAWC were to use outside service providers rather than the Services Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 35,958 hours of work (about 24 full-time equivalents at 1,500 "billable" hours per FTE per year) would add a significant workload to the existing OAWC management team. Thus, it would be necessary for OAWC to add at least one position to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill this position would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$152,700 per year to OAWC's personnel expenses.

Cost of Adding Administrative Positions To OAWC's Staff

	Total
New Positions' Salary	\$ 100,000
Benefits (at 52.7%)	\$ 52,700
Total Cost of the New Position	\$ 152,700

Thus, the total effect on the ratepayers of OAWC of contracting all services now provided by Service Company would be an increase in their costs of **\$1,845,342** (\$1,692,642 + \$152,700).



**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%
2005	24	25%
2006	24	31%

These studies provide additional evidence that the Service Company arrangement is the lowest-cost alternative for OAWC.

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**V – Customer Account Services Cost Comparison**

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**Background**

It is difficult to compare the cost of American Water's National Call Centers with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, OAWC's National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC's chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study's comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA).

Schedule 9 provides FERC's description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

<p><b><u>903 Records and Collection Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls</li><li>• Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications</li><li>• Customer billing – bill printing, stuffing and mailing</li><li>• Remittance processing – processing of customer payments received in the mail</li><li>• Bill payment centers – locations where customers can pay their bills in person</li></ul> <p><b><u>905 Miscellaneous Customer Accounts Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Information System IT – maintenance and support of the customer information system</li></ul>
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This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

**Ohio American Water Company**  
**FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

**Ohio American Water Company**  
**FERC Account Descriptions**

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.



**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

Ohio	<ul style="list-style-type: none"> <li>• Cincinnati Gas &amp; Electric</li> <li>• Cleveland Electric Illuminating</li> <li>• Columbus &amp; Southern Power</li> <li>• Dayton Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• Ohio Edison</li> <li>• Ohio Power</li> <li>• Toledo Edison</li> </ul>
Michigan	<ul style="list-style-type: none"> <li>• Consumers Energy</li> <li>• Detroit Edison</li> </ul>	<ul style="list-style-type: none"> <li>• Indiana Michigan Power</li> </ul>
Kentucky	<ul style="list-style-type: none"> <li>• Kentucky Power</li> <li>• Kentucky Utilities</li> </ul>	<ul style="list-style-type: none"> <li>• Louisville Gas &amp; Electric</li> <li>• Union Light, Heat &amp; Power</li> </ul>
Pennsylvania	<ul style="list-style-type: none"> <li>• Duquesne Light</li> <li>• Philadelphia Electric</li> <li>• Pennsylvania Electric</li> </ul>	<ul style="list-style-type: none"> <li>• Pennsylvania Power</li> <li>• Pennsylvania Power &amp; Light</li> <li>• West Penn Power</li> </ul>
Indiana	<ul style="list-style-type: none"> <li>• Indiana-Michigan Power</li> <li>• Indianapolis Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• NIPSCO</li> <li>• Public Service of Indiana</li> </ul>
West Virginia	<ul style="list-style-type: none"> <li>• Wheeling Power</li> </ul>	

Some neighboring electric utilities could not be included in the comparison group because they did not submit the necessary FERC Form 1 data.

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. OAWC's cost pool was developed to include the same expenses included in electric utility's FERC accounts 903 and 905. As shown in the graphic below, OAWC's resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u> Pensacola & Alton Call Centers a. Customer contact b. Customer order processing c. Billing information processing d. Collections e. Correspondence processing f. Customer payment processing <u>IT Service Centers</u> a. Support expenses for the customer information system (ORCOM) <u>Operating Company</u> a. Postage and forms

Electric Utilities
FERC Acct 903 - Records and Collection Expense <u>and</u> FERC Acct 905 - Misc Customer Accounts Expense a. Customer contact b. Customer order processing c. Bill preparation and mailing d. Collections e. Payment processing f. Correspondence processing

**OAWC Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to OAWC. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.28 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, OAWC's adjusted annual expense per customer is \$31.70—the number that can be compared to neighboring electric utilities' expenses.

**Ohio American 2006 Cost Per Customer**

Cost Component		2006 Service Co Charges	Adjustment Fewer Calls For Water Cos. (A)	Adjusted
<b>Service Company</b>				
Call Centers	Call processing, order processing, credit, bill collection	\$ 669,645	\$ 638,256	\$ 1,307,901
Regional Offices		\$ 94,337		\$ 94,337
IT/Data Centers	Bill preparation and mailing	\$ 136,170		\$ 136,170
Service Company	Customer payment processing			\$ 92,058
Operating Company	Postage & forms			\$ 202,279
Cost Pool Total				\$ 1,832,744
Total Customers				57,811
<b>2006 Cost Per Ohio American Customer</b>				<b>\$ 31.70</b>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Test year annualized Call Center charges	\$ 669,645
Electric utility industry's avg calls/customer	2.50
American Water's avg calls/customer	1.28
Percent different	95%
Total Adjustment B	\$ 638,256

Note B: Estimated customer payment processing expenses

Number of customers	57,811
Number of payments/customer/year	12
Total payments processed/year	693,732
Bank charge per item	\$ 0.1327
Total estimated annual expense	\$ 92,058

### Electric Utility Group Cost Per Customer

Schedule 9 shows the actual 2005 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

### Summary Of Results

As shown in the table below, OAWC's cost per customer is near the average of the electric utility comparison group. It can therefore be concluded that the customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to OAWC are within a reasonable range of the comparison group average.

<b>Average Customer Accounts Expense Per Customer</b>	
Louisville Gas & Electric	\$ 12.43
West Penn Power	\$ 13.83
Duquesne Light	\$ 15.52
Ohio Edison	\$ 16.68
Cleveland Electric Illuminating	\$ 17.15
Consumers Energy	\$ 18.72
Pennsylvania Electric	\$ 19.13
Pennsylvania Power	\$ 19.69
Dayton Power & Light	\$ 19.72
Toledo Edison	\$ 21.45
Indianapolis Power & Light	\$ 21.91
PPL Electric	\$ 22.28
Kentucky Utilities	\$ 24.87
Union Light, Heat & Power	\$ 25.64
Pub Service of Indiana	\$ 26.02
<b>Comparison Group Average</b>	<b>\$ 26.45</b>
Wheeling Power	\$ 29.20
Cin Gas & Electric	\$ 30.50
Detroit Edison	\$ 31.50
Indiana Michigan Power	\$ 31.50
<b>Ohio American Water</b>	<b>\$ 31.70</b>
Ohio Power	\$ 32.30
Indiana Michigan	\$ 33.29
Kentucky Power	\$ 34.25
Columbus Southern Power	\$ 35.49
NIPSCO	\$ 35.82
PECO Energy	\$ 46.94





**Ohio American Water Company**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

	Michigan			Kentucky			
	Consumers Energy	Detroit Edison	Indiana Mich Power	Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	Union Light, Heat & Power
\$ 25,965,885	\$ 17,053,003	\$ 56,247,419	\$ 5,669,498	\$ 10,832,569	\$ 4,279,581	\$ 2,787,640	
\$ 653,028	\$ 44,548	\$ 338,973	\$ 15,566	\$ 130,794	\$ 276,482	\$ 96,072	
\$ 26,618,913	\$ 17,097,551	\$ 56,586,392	\$ 5,685,064	\$ 10,963,363	\$ 4,556,063	\$ 2,883,712	
\$ 4,513,941	\$ 718,820	\$ 12,494,278	\$ 180,973	\$ 1,641,361	\$ 265,773	\$ 279,291	
\$ 2,177,758	\$ 434,513	\$ 2,762,526	\$ 135,759	\$ 358,923	\$ 62,820	\$ 195,943	
<b>\$ 33,310,612</b>	<b>\$ 18,250,885</b>	<b>\$ 71,843,196</b>	<b>\$ 6,001,796</b>	<b>\$ 12,963,648</b>	<b>\$ 4,884,656</b>	<b>\$ 3,358,947</b>	
1,779,184	579,376	2,158,201	175,255	521,342	392,998	131,028	
<b>\$ 18.72</b>	<b>\$ 31.50</b>	<b>\$ 33.29</b>	<b>\$ 34.25</b>	<b>\$ 24.87</b>	<b>\$ 12.43</b>	<b>\$ 25.64</b>	
\$ 93,023,076	\$ 26,142,933	\$ 239,049,375	\$ 3,634,365	\$ 22,757,866	\$ 21,039,968	\$ 3,124,822	
\$ 586,655,410	\$ 206,573,891	\$ 690,909,887	\$ 35,638,655	\$ 65,053,063	\$ 65,008,192	\$ 28,657,418	
15.9%	12.7%	34.6%	10.2%	35.0%	32.4%	10.9%	
\$ 28,467,430	\$ 5,679,911	\$ 36,111,452	\$ 1,774,628	\$ 4,691,810	\$ 821,173	\$ 2,561,351	
\$ 4,513,941	\$ 718,820	\$ 12,494,278	\$ 180,973	\$ 1,641,361	\$ 265,773	\$ 279,291	
\$ 28,467,430	\$ 5,679,911	\$ 36,111,452	\$ 1,774,628	\$ 4,691,810	\$ 821,173	\$ 2,561,351	
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	
\$ 2,177,758	\$ 434,513	\$ 2,762,526	\$ 135,759	\$ 358,923	\$ 62,820	\$ 195,943	

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



**Ohio American Water Company  
Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

Pennsylvania						
Duquesne Light	PECO Energy	Pennsylvania Electric	Pennsylvania Power	PPL Electric	West Penn Power	
\$ 7,630,920	\$ 51,262,973	\$ 10,706,242	\$ 2,660,189	\$ 24,785,789	\$ 7,219,187	
\$ -	\$ 17,091,051	\$ 98,990	\$ 121,055	\$ 602,445	\$ -	
\$ 7,630,920	\$ 68,354,024	\$ 10,805,232	\$ 2,781,244	\$ 25,388,234	\$ 7,219,187	
\$ 729,457	\$ 2,946,156	\$ 11,831	\$ 227,639	\$ 3,320,449	\$ 1,860,894	
\$ 732,520	\$ 1,155,943	\$ 419,574	\$ 94,893	\$ 1,618,763	\$ 637,822	
\$ 9,092,897	\$ 72,456,123	\$ 11,236,637	\$ 3,103,776	\$ 30,327,466	\$ 9,717,903	
\$ 586,050	\$ 1,543,543	\$ 587,533	\$ 157,660	\$ 1,361,407	\$ 702,792	
\$ 15.52	\$ 46.94	\$ 19.13	\$ 19.69	\$ 22.28	\$ 13.83	
\$ 8,677,884	\$ 36,605,786	\$ 136,028	\$ 2,618,720	\$ 37,811,499	\$ 17,383,598	
\$ 113,912,649	\$ 187,745,320	\$ 63,058,697	\$ 14,269,687	\$ 240,965,158	\$ 77,885,393	
7.6%	19.5%	0.2%	18.4%	15.7%	22.3%	
\$ 9,575,422	\$ 15,110,369	\$ 5,484,627	\$ 1,240,430	\$ 21,160,563	\$ 8,337,540	
\$ 729,457	\$ 2,946,156	\$ 11,831	\$ 227,639	\$ 3,320,449	\$ 1,860,894	
\$ 9,575,422	\$ 15,110,369	\$ 5,484,627	\$ 1,240,430	\$ 21,160,563	\$ 8,337,540	
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	
\$ 732,520	\$ 1,155,943	\$ 419,574	\$ 94,893	\$ 1,618,763	\$ 637,822	

**Note A**  
**Note B**

**Customer Account Services Cost Pool**  
 FERC Account Balances:  
 Acct 903 - Customer Records & Collection (page 322, line 131)  
 Acct 905 - Misc Customer Accounts (page 322, line 133)  
 Subtotal  
 Add: Employee Benefits & Employer FICA (not included in above amounts)  
 Account 926 - Employee Pension & Benefits  
 Account 408 - Taxes Other Than Income (Employer's Portion of FICA)  
**Total Cost Pool**  
 Total Customers (page 304, line 43)  
**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt  
 Account 926 - Employee Pension & Benefits (page 323, line 158)  
 Total Payroll (page 355, line 96)  
 Total Benefits as Percent of Payroll  
 Payroll Charged to Customer Accts Expenses (page 354, line 6)  
 Pension & Benefits Pertaining to Customer Accts Expenses  
**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt  
 Payroll Charged to Customer Accts Expenses (page 354, line 6)  
 Employer's Portion of FICA (6.20%) and Medicare (1.45%)  
 Estimated Employer's Portion of FICA



**Ohio American Water Company  
Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

	Indiana			West Virginia		Group Average
	Indiana Michigan Pwr	Indianapolis Power & Light	NIPSCO	Pub Service of Indiana	Wheeling Power	
\$	17,053,003	7,326,360	14,221,619	14,922,938	1,124,907	\$ 384,061,512
\$	44,548	397,889	145,257	121,962	3,916	\$ 22,242,034
\$	17,097,551	7,724,249	14,366,876	15,044,900	1,128,823	\$ 406,303,546
Note A	\$ 718,820	\$ 1,899,860	\$ 1,155,339	\$ 3,726,773	\$ 45,742	\$ 44,790,477
Note B	\$ 434,513	\$ 514,872	\$ 470,395	\$ 977,535	\$ 31,178	\$ 16,636,507
<b>Total Cost Pool</b>	<b>\$ 18,250,885</b>	<b>\$ 10,138,981</b>	<b>\$ 15,992,610</b>	<b>\$ 19,749,208</b>	<b>\$ 1,205,743</b>	<b>\$ 467,730,530</b>
Total Customers (page 304, line 43)	579,376	462,837	446,495	758,912	41,294	17,681,277
<b>Customer Account Services Expense per Customer</b>	<b>\$ 31.50</b>	<b>\$ 21.91</b>	<b>\$ 35.82</b>	<b>\$ 26.02</b>	<b>\$ 29.20</b>	<b>\$ 26.45</b>
<b>Note A:</b> Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt Account 926 - Employee Pension & Benefits (page 323, line 158)	\$ 26,142,933	\$ 32,170,538	\$ 31,993,279	\$ 62,558,153	\$ 486,262	\$ 800,666,653
Total Payroll (page 355, line 96)	\$ 206,573,891	\$ 113,965,747	\$ 170,274,964	\$ 214,497,393	\$ 4,332,473	\$ 3,866,470,808
Total Benefits as Percent of Payroll	12.7%	28.2%	18.8%	29.2%	11.2%	20.7%
Payroll Charged to Customer Accts Expenses (page 354, line 6)	\$ 5,679,911	\$ 6,730,350	\$ 6,148,956	\$ 12,778,240	\$ 407,551	\$ 217,470,678
Pension & Benefits Pertaining to Customer Accts Expenses	\$ 718,820	\$ 1,899,860	\$ 1,155,339	\$ 3,726,773	\$ 45,742	\$ 45,033,709
<b>Note B:</b> Calculation of Employer's FICA Pertaining to Customer Acct Mgmt Payroll Charged to Customer Accts Expenses (page 354, line 6)	\$ 5,679,911	\$ 6,730,350	\$ 6,148,956	\$ 12,778,240	\$ 407,551	\$ 217,470,678
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
Estimated Employer's Portion of FICA	\$ 434,513	\$ 514,872	\$ 470,395	\$ 977,535	\$ 31,178	\$ 16,636,507

**Customer Account Services Cost Pool**  
 FERC Account Balances:  
 Acct 903 - Customer Records & Collection (page 322, line 131)  
 Acct 905 - Misc Customer Accounts (page 322, line 133)  
 Subtotal  
 Add: Employee Benefits & Employer FICA (not included in above amounts)  
 Account 926 - Employee Pension & Benefits  
 Account 408 - Taxes Other Than Income (Employer's Portion of FICA)  
 Total Customers (page 304, line 43)  
**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt Account 926 - Employee Pension & Benefits (page 323, line 158)  
 Total Payroll (page 355, line 96)  
 Total Benefits as Percent of Payroll  
 Payroll Charged to Customer Accts Expenses (page 354, line 6)  
 Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt Payroll Charged to Customer Accts Expenses (page 354, line 6)  
 Employer's Portion of FICA (6.20%) and Medicare (1.45%)  
 Estimated Employer's Portion of FICA

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## VI - Need For Service Company Services

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### Analysis Of Services

The final aspect of this study was an assessment of whether the services that are provided to OAWC by the Service Company would be necessary if OAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for OAWC. Based on discussions with Service Company personnel, the matrix in Schedule 10 was created showing which entity—OAWC or a Service Company location—is responsible for each of the functions OAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 10, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if OAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to OAWC. For all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.

**Designation Of Responsibility For Water Utility Functions**

	Primarily Responsible Provides Support	P S	Performed By:							
			OAWC	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab	
<b>Water Company Function</b>										
<b>Engineering and Construction Management</b>										
CPS Preparation	S									
Five-Year System Planning	S									
Engineering Standards & Policies Development										
Project Design										
Major Projects (e.g., new treatment plant)										
Special Projects	P									
Minor Projects (e.g., pipelines)	P									
Construction Project Management										
Major Projects	P									
Special Projects	S									
Minor Projects	P									
Hydraulics Review	S									
Developers Extensions	P									
Tank Painting	P									
<b>Water Quality and Purification</b>										
Water Quality Standards Development										
Research Studies										
Water Quality Program Implementation	S									
Water Treatment Operations & Maintenance	P									
Compliance Sampling										
Testing/Other Sampling										
<b>Transmission and Distribution</b>										
Preventive Maintenance Program Development	S									
System Maintenance	P									
Leak Detection	P									
<b>Customer Service</b>										
Community Relations	S									
Customer Contact	S									
Call Processing										
Service Order Processing	S									
Customer Credit										
Meter Reading	P									
Customer Bill Preparation										
Bill Collection	S									
Customer Payment Processing										
Meter Standards Development										
Meter Testing, Maintenance & Replacement	P									

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:						
	OAWC	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b> P							
<b>Provides Support</b> S							
<b>Financial Management</b>							
Financial Planning	S		P		P		
Financings—Equity			S		P		
Financings--Long Term Debt & Preferred (A)			P		S		
Short Term Lines of Credit Arrangements (A)			S		P		
Investor Relations					P		
Insurance Program Administration					P		
Loss Control/Safety Program Administration	S		P		S		
Pension Fund Asset Management					P		
Cash Management/Disbursements				P	S		
Financial Analysis & Review	S		P	S			
Internal Control Reviews	S		P		S		
<b>Internal Auditing</b>					P		
<b>Budgeting and Variance Reporting</b>							
Corporate Guidelines & Instructions							
Regional Guidelines & Instructions	S		P		P		
Budget Preparation							
Revenue and O&M	S		P				
Depreciation and Interest Expense	S		P				
Budget Preparation--Service Company Charges		P	P	P	P	P	P
Capital Budget Preparation—Projects	S		S		P		
Capital Budget Preparation--Non-Project Work	P		S				
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	P		S	S	S		
Prepare Capital Project Budget Status Report	S		P		S		
Year-End Projections (A)	S		P				
<b>Accounting and Taxes</b>							
Accounts Payable Accounting				P			
Payroll Accounting				P			
Work Order Accounting				P			
Fixed Asset Accounting				P			
Journal Entry Preparation--Billing Corrections				P			
Journal Entry Preparation--All Others				P			
Financial Statement Preparation				P			
State Commission Reporting				P			
Income Taxes—State				P			
Income Taxes—Federal				P			
Property Taxes				P			
Gross Receipts Taxes				P			

Note A: Projections are developed for certain cost types by Ohio American and by the Service Company for other cost types.

**Ohio American Water Company  
 Designation Of Responsibility For Water Utility Functions**

Water Company Function	OAWC	Performed By:				
		Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers
<b>Primarily Responsible P Provides Support S</b>						
<b>Rates</b>						
Rate Studies & Tariff Change Administration			P			
Rate Case Planning and Preparation	S		P			
Rate Case Preparation	S		P	S		
Rate Case Administration	S		P			
Commission Inquiry Response	S		P			
<b>Legal</b>						
<b>Purchasing and Materials Management</b>						
Specification Development	S		S	S	P	
Bid Solicitation	S		P			
Contract Administration	P		S			
Ordering	P					
Inventory Management	P					
<b>Human Resources Management</b>						
Benefit Program Development					P	
Benefits Program Administration					P	
Management Compensation Administration					P	
Wage & Salary Program Design					P	
Wage & Salary Administration					P	
Labor Negotiations--Wages	P		S			
Labor Negotiations--Benefits	P		S			
Labor Negotiations-- Work Rules	P		S			
Training Program Development			P			
Training--Course Delivery	S		P			
Affirmative Action/EEO--Plan Development						
Affirmative Action/EEO--Implementation	P		S			
<b>Information Systems Services</b>						
Service Company Data Centers						P
System Operations & Maintenance						P
Software Maintenance						P
Network Administration						P
PC Acquisition & Support						P
Help Desk						P

### **Governance Practices Associated With Service Company Charges**

There are several ways by which OAWC exercises control over Service Company services and charges. The most important of these are described below.

- **Regional President Oversight** – The Regional President of the Central Region is on the Executive Management Team (EMT) of American Water. The Regional President is responsible for the overall performance of each operating company in the region, including OAWC. As part of the EMT, each Regional President has equal say with other EMT members in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending. The Regional President also serves as a Director on the Board of the Service Company.
- **Regional Vice President & Treasurer** – The Regional Vice President and Treasurer of the Central Region is responsible for the financial reporting, performance and internal controls of each of the operating companies in the region. The Regional Service Delivery and Finance Directors monitor the performance and reporting from the Service Company and pushes back whenever the quality and service are not appropriate.
- **Operating Company Board Oversight** – OAWC board of directors includes the Regional President, Vice President of Operations and Vice President of Finance.
- **Service Company Budget Review/Approval** – Every Regional President sits on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's Executive Management Team, which includes the Regional President. The Regional President, with input from the regional management team has the ability to impact all new initiatives and projects before they are authorized. Projects ultimately must be accounted for in the Service Company Budget, approved by its Board.
- **Service Company Bill Scrutiny** – Operating company personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. Any mistakes or overcharges are credited on a subsequent billing.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, the monthly financial review meetings are held to review various aspects of the financial statements of the Service Company.
- **Operating Company Budget Variance Reporting** – The "Budget/Plan Analysis," produced monthly by each operating company, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date. The Regional President attends the monthly review of the Service Company which includes an analysis of variances in both operating and financial data.
- **Capital Investment Management (CIM)** – Capital investment within American Water is a significant and essential part of the business. It is necessary to maintain regulatory compliance, provide for reliable, efficient, and quality service, keep pace with growth, and



facilitate appropriate infrastructure renewal. American Water's CIM policy supports the following objectives:

- Capital investment plans are developed and aligned with business plan objectives
- Effective technical oversight and governance is in place for individual projects
- Establishes investment strategies that represent value enhancements for customers
- Periodically review investment performance against established objectives and make adjustments to meet business needs

The CIM process was designed to optimize the effectiveness of asset investment. The process is managed at three levels for all American Water companies, including OAWC.

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**Market Cost Comparison of Service Company Charges to  
Pennsylvania-American Water Company**

**12-Months Ended December 31, 2008**

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**Pennsylvania-American Water Company  
Market Cost Comparison of Service Company Charges  
12-Months Ended December 31, 2008**

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## I – Introduction

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### **Purpose of This Study**

This study was undertaken to answer four questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to Pennsylvania-American Water Company (PAWC):

1. Were the Service Company's charges to PAWC during the 12 months ended December 31, 2008 reasonable?
2. Was PAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during 2008?
3. Were the 2008 costs of the Service Company's customer accounts services, including those of the National Call Centers, comparable to those of other utilities?
4. Are the services PAWC receives from Service Company necessary?

### **Study Results**

Concerning question 1, the following conclusion was reached:

- The Service Company's 2008 cost per PAWC customer was very reasonable compared to cost per customer for electric and combination electric/gas service companies. During 2008, PAWC was charged \$54 per customer for administrative and general (A&G)-related services provided by the Service Company. This compares to an average of \$109 per customer for service companies reporting to the Federal Energy Regulatory Commission (FERC). Only 3 of the 24 utility service companies that filed a FERC Form 60 for 2008 had a lower per customer A&G cost than PAWC's charges from the Service Company.

Concerning question 2, the following conclusions were drawn from this study:

- PAWC was charged the lower of cost or market for managerial and professional services during the 12 months ended December 31, 2008.
- On average, the hourly rates for outside service providers are 18% higher than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by PAWC without careful supervision on the part of PAWC. If these services were contracted to outside providers, PAWC would have to add at least two positions to manage activities of outside firms. These positions would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been outsourced during the 12 months ended December 31, 2008, PAWC and its ratepayers would have incurred more than \$5.5 million in additional expenses. This amount includes the higher cost of outside providers and the cost of two PAWC positions needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to PAWC from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company exempt personnel, on the other hand, charge a

## I – Introduction

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maximum of 8 hours per day even when they work more hours. If the overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$5.5 million cited above. For instance, if Service Company overtime is conservatively estimated at 5% (2 hours per week), then that work would have cost an estimated \$0.25 million in additional charges from outside providers.

- It would be difficult for PAWC to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from PAWC ratepayers.

Concerning question 3, the following conclusion was reached:

- The cost of the Service Company's customer accounts services, including those provided by the National Call Center, is well below the average of the neighboring electric utility comparison group. As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of the Service Company and PAWC. During the 12-months ended December 31, 2008, the customer accounts cost for PAWC customers was \$27.06 compared to the 2008 average of \$38.97 for neighboring electric utilities. The highest comparison group per customer cost was \$83.88 and the lowest \$12.54.

Concerning question 4, the following conclusions was drawn:

- The services that the Service Company provides are necessary and would be required even if PAWC were a stand-alone water utility.
- Furthermore, there is no redundancy or overlap in the services provided by the Service Company to PAWC. For all of the services listed in Exhibit 11, there was only one entity primarily responsible for the service.

## II – Background

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### Overview of American Water Works Service Company

American Water's Service Company exists to provide certain shared services to American Water subsidiaries. It follows a service company model used by many utility holding companies that own multiple regulated utilities. By consolidating executive and professional services into a single service company, utility holding companies are able to realize the following benefits for ratepayers:

- **Purchasing Economies** – Common expenses (e.g., insurance, chemicals, piping) can be procured on a much larger scale thereby providing greater bargaining power for the combined entity compared to individual utility operating companies. A service company facilitates corporate-wide purchasing programs through its procurement and contract administration functions.
- **Operating Economies of Scale** – A service company is able to deliver services more efficiently because workloads can be balanced across more persons and facilities. For instance, American Water's Service Company is able to maintain one principal data center for the entire corporation. This is much more cost-efficient than each operating utility funding their own data center with its large fixed hardware, software and staffing costs.
- **Continuity of Service** – Centralizing service company personnel who perform similar services facilitates job cross-training and sharing of knowledge and expertise. This makes it easier to deal with staff turnover and absences and to sustain high levels of service to operating utilities. An individual operating utility might experience considerable disruption if a key professional left and it was necessary to hire outside to fill the vacancy.
- **Maintenance of Corporate-Wide Standards** – Personnel in American Water's Service Company establish standards for many functions (e.g., engineering designs, operating procedures and maintenance practices). It is easier to ensure these standards are followed by every operating utility because their implementation is overseen by the Service Company.
- **Improved Governance** – American Water's Service Company provides another dimension of management and financial oversight that supplements local operating utility management. The Service Company facilitates standard planning and reporting that help ensure operating utilities meet the requirements of their customers in a cost effective manner.
- **Retention of Personnel** – A service company organization provides operating utility personnel with another career path beyond what may be available on a local level. These opportunities tend to improve employee retention.

American Water follows the model for other utility service companies in another important regard. Its services are provided to affiliate operating utilities, like PAWC, at cost. American Water's Service Company is not a profit-making entity. It assigns only its actual expenses to the American Water subsidiaries it services.

The Service Company provides services to American Water operating companies from the following locations:



## II – Background

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- Corporate Office – Includes American Water’s executive management and personnel from the various corporate support services. American Water’s corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in 2001 and a second in Pensacola, Florida that went into operation in 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of PAWC, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company’s financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they are not provided by the National Shared Services Center. Examples of regional office services include rates and revenues, engineering, operations and field resource coordination.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water’s principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the communications systems. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### **Service Company Expense Categories**

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial

## II – Background

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services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

### Charging and Assignment Of Service Company Time and Expenses

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company
- Formula number
- Work order (where applicable)
- Authorization number (where applicable)

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries



## II – Background

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The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet that shows:

- Formula number (this is linked to operating company within American Water's financial system)
- Employee hours worked
- Account number for non-labor charges

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 20% of American Water's Western Region's professional labor is assigned to PAWC during a month, then 20% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 20% of the Western Region's accumulated professional and support labor is charged to PAWC during the month, then 20% of that month's overhead expenses will be assigned to PAWC.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to PAWC, then 2% of that office's office expenses would be assigned to PAWC. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a rate case proceeding are charged directly to the operating company whose case is being heard.

### III – Service Company Cost Comparison Approach

During the 12 months ended December 31, 2008, the Service Company billed PAWC \$40,008,443 in O&M-related charges, \$2,010,948 in capital-related charges and \$39 other charges. Included in the O&M amount are certain non-recurring expenses which are excluded from this market study. As calculated in the table below, net testable Service Company charges of \$40,147,774 were subjected to a market cost comparison.

	12 Months Ended December 31, 2008
Mgmt Fee Expense (O&M)	\$ 40,008,443
Less: Non-Recurring Items	
Sarbanes-Oxley	\$ (1,730,784)
Divestiture Support	\$ (140,872)
Net O&M Expenses	\$ 38,136,786
Mgmt Fees - Capital	\$ 2,010,948
Mgmt Fees - Other	\$ 39
<b>Total Testable AWWSC Charges</b>	<b>\$ 40,147,774</b>

For purposes of comparing these charges to certain outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	12 Months Ended Dec. 31, 2008	
	Amount	Hours
Management and Professional Services	\$ 28,707,056	230,685
Customer Account Services	\$ 11,440,717	275,540
<b>Total Service Company Charges</b>	<b>\$ 40,147,774</b>	<b>506,225</b>

This study's first question—whether Service Company 2008 charges were reasonable—was determined by comparing PAWC's A&G-related Service Company charges per customer to the same charges for utility companies that must file the FERC Form 60 – Annual Report of Service Companies.

The second question—whether 2008 Service Company charges were at the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to PAWC during the 12 months ended December 31, 2008. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

### III – Service Company Cost Comparison Approach

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The third question—whether Service Company 2008 customer account services charges, including those of the National Call Center costs, were comparable to other utilities—was addressed by comparing PAWC’s customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The fourth question—the necessity of Service Company services—was investigated by defining the services provided to PAWC and determining if these services would be required if PAWC were a stand-alone utility.

IV – Question 1 – Reasonableness of Service Company Charges

**PAWC’s Service Company Cost per Customer**

During 2008, PAWC was charged \$54 per customer by the Service Company for A&G-related services. As shown in the table below, this calculation is made using net testable O&M, which eliminates certain O&M items for which PAWC has not requested cost recovery.

	2008 AWWSC Charges
Testable AWWSC Charges	\$ 40,147,774
Less: Non-A&G Charges:	
Engineering	\$ (39,393)
Operations	\$ (3,444,442)
Water Quality	\$ (1,535,320)
Net A&G-Related Charges	\$ 35,128,618
PAWC Customers (12/31/08)	648,953
<b>PAWC Cost Per Customer</b>	<b>\$ 54</b>

**Comparison Group Cost Per Customer**

Every centralized service company in a holding company system must file a Form 60 in accordance with the Public Utility Holding Company Act of 2005, Section 1270, Section 390 of the Federal Power Act and 18 C.F.R. paragraph 366.23. This report is designed to collect financial information from service companies that are subject to regulation by the FERC.

For 2008, a Form 60 was filed by 24 utility service companies, all of which serve utilities that provide regulated electric and, in some cases, gas service to retail customers. In order to make a valid comparison of this group’s costs to those of American Water Works Service Company, it was necessary to isolate expenses that they have in common. These include A&G-related charges associated with the following FERC accounts:

901 – Supervision	921 – Office supplies and expenses
903 – Customer records and collection expenses	923 – Outside services employed
905 – Miscellaneous customer accounts expenses	926 – Employee pensions and benefits
907 – Supervision	928 – Regulatory commission expenses
910 – Misc customer service and info expenses	930.2 – Miscellaneous general expenses
911 – Supervision	931 – Rents
920 - Administrative and general salaries	935 – Maintenance of structures and equipment

O&M expenses charged to utility affiliates for the comparison group service companies were obtained from Schedule XVI – Analysis of Charges for Service Associate and Non-Associate Companies (p. 303 to 306) of each entity’s FERC Form 60. This schedule shows charges by FERC Account.

Comparison group service company 2008 expenses were also adjusted to remove charges to non-regulated affiliates from the cost pool used to calculate the cost per regulated service customer. This determination was made using information from the FERC Form 60 schedule: Account 457 – Analysis of Billing – Associate Companies.

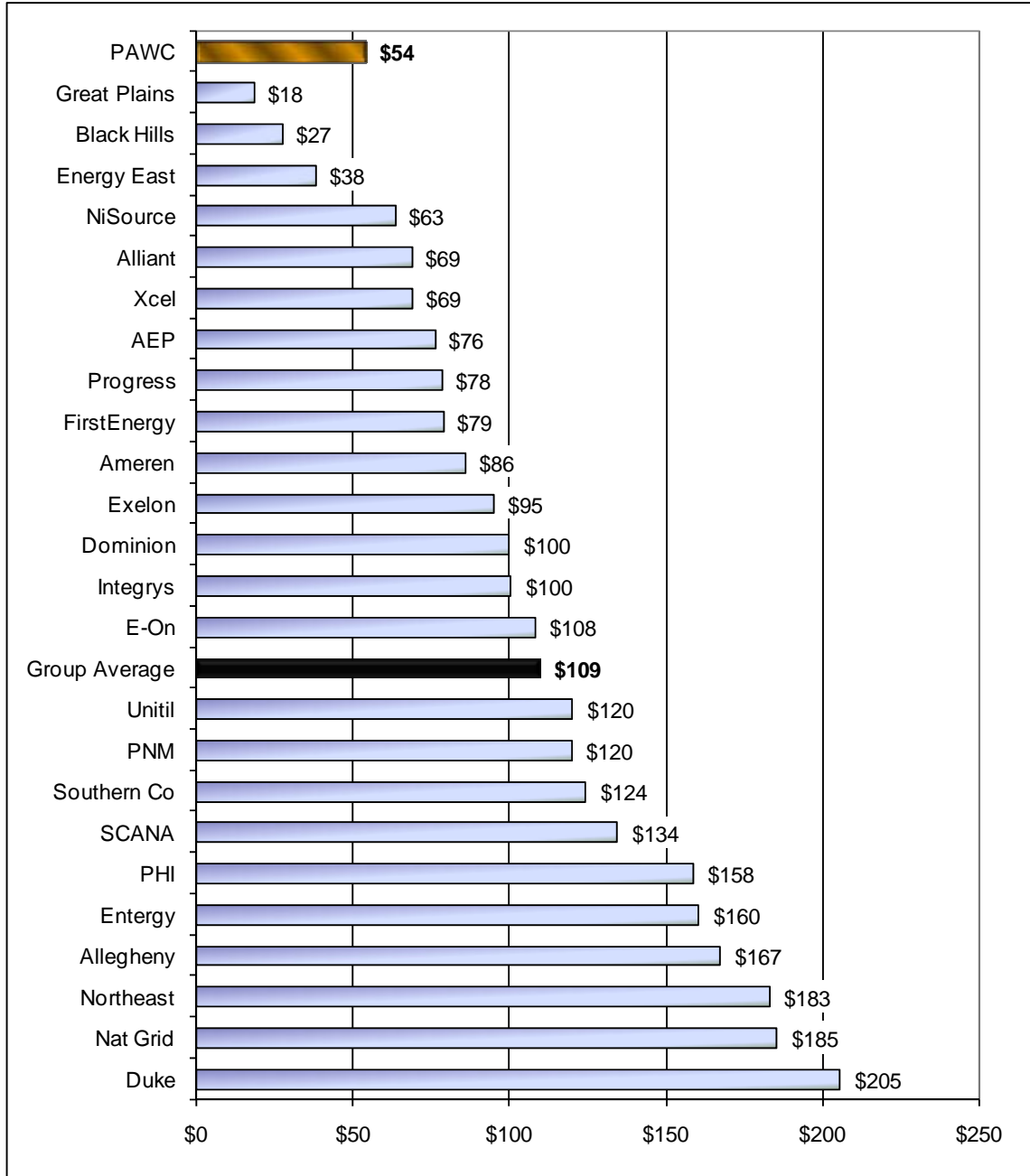
A&G expenses per regulated utility customer for the 24 utility companies that file Form 60 for 2008 are calculated below.

Utility Company	2008 Regulated		Cost per Customer
	Retail Service Company A&G Expenses	Regulated Retail Customers	
AEP	\$396,340,118	5,213,000	\$ 76
Allegheny	\$263,588,707	1,577,873	\$ 167
Alliant	\$205,754,832	3,000,000	\$ 69
Ameren	\$291,684,710	3,400,000	\$ 86
Black Hills	\$20,763,828	759,400	\$ 27
Dominion	\$357,718,046	3,588,500	\$ 100
Duke	\$923,936,645	4,500,000	\$ 205
Energy East	\$113,714,789	2,989,800	\$ 38
Energys	\$432,575,683	2,700,000	\$ 160
E-On	\$136,276,177	1,263,000	\$ 108
Exelon	\$558,687,014	5,885,000	\$ 95
FirstEnergy	\$354,028,109	4,499,000	\$ 79
Great Plains	\$15,000,708	820,000	\$ 18
Integrus	\$216,364,166	2,157,000	\$ 100
Nat Grid	\$1,240,706,398	6,700,000	\$ 185
NiSource	\$237,380,009	3,750,000	\$ 63
Northeast	\$302,138,730	1,654,000	\$ 183
PHI	\$302,463,412	1,910,000	\$ 158
Progress	\$242,677,256	3,100,000	\$ 78
PNM	\$102,688,385	859,000	\$ 120
SCANA	\$191,207,825	1,424,300	\$ 134
Southern Co	\$546,498,605	4,402,000	\$ 124
Unitil	\$20,341,422	169,600	\$ 120
Xcel	\$367,626,617	5,345,000	\$ 69
<b>Group Total</b>	<b>\$7,840,162,191</b>	<b>71,666,473</b>	<b>\$ 109</b>

Exhibit 1 shows PAWC's 2008 Service Company cost per customer of \$54 to be considerably lower than the average of \$109 per customer for the comparison group service companies. Only 3 of 24 comparison group service companies had a lower 2008 cost per customer than PAWC. Based on this result, it is possible to conclude that the Service Company's 2008 charges to PAWC were reasonable.

Exhibit 1

**Pennsylvania-American Water Company**  
**Comparison of Service Company Annual Costs Per Customer**



## V – Question 2 – Provision of Services at the Lower of Cost or Market

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### **Methodology**

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar, scientific educational backgrounds as Service Company engineering personnel. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to PAWC during the 12 months ended December 31, 2008. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged PAWC during 2008, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### **Service Company Hourly Rates**

Exhibit 2 (page 14) details the assignment of 12 months ended December 31, 2008 management and professional Service Company charges by outsider provider category. Exhibit 3 (page 15) shows the same assignment for Service Company management and professional hours charged to PAWC during the 12 months ended December 31, 2008.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2008 test period non-labor Service Company charges:

- Contract Services – 12 months ended December 31, 2008 Service Company charges to PAWC include almost \$2,665,000 in expenses associated with the use of outside professional firms to perform certain corporate-wide services (e.g., legal, financial audit,

V – Question 2 – Provision of Services at the Lower of Cost or Market

actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.

- Travel Expenses – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- Computer Hardware and Software Expenses – Included in the 12 months ended December 31, 2008 Service Company charges to PAWC are charges for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the communications systems. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

Exhibit 4 (page 16) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Exhibits 2 and 3 and the excludable items shown in Exhibit 4, the Service Company's equivalent costs per hour for the 12 months ended December 31, 2008 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 862,288	\$ 7,833,805	\$ 15,855,078	\$ 4,155,862	\$ 28,707,033
Less:					
Contract services	\$ 80,381	\$ 583,168	\$ 1,858,877	\$ 142,652	\$ 2,665,078
Travel expenses	\$ 24,401	\$ 221,487	\$ 249,834	\$ 237,561	\$ 733,283
Computer hardware/software	\$ -	\$ 84,853	\$ 78,486	\$ 94,156	\$ 257,495
Net Service Charges (A)	\$ 757,505	\$ 6,944,297	\$ 13,667,881	\$ 3,681,493	\$ 25,051,177
Total Hours (B)	5,189	38,558	147,824	39,115	230,685
<b>Average Hourly Rate (A / B)</b>	<b>\$ 146</b>	<b>\$ 180</b>	<b>\$ 92</b>	<b>\$ 94</b>	



**Pennsylvania-American Water Company**  
**Analysis of 12 Months Ended December 31, 2008 Service Company Charges By Location And Function**

		12 Months Ended December 31, 2008 Service Company Charges				
Location	Function	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Belleville Lab	Water Quality		\$ 249,650		\$ 1,114,775	\$ 1,114,775
Call Center	Human Resources			\$ 2,312,012		\$ 249,650
Corporate	Accounting					\$ 2,312,012
	Administration		\$ 1,306,612			\$ 1,306,612
	Audit			\$ 276,833		\$ 276,833
	Communications		\$ 406,915			\$ 406,915
	Finance			\$ 870,167		\$ 870,167
	Human Resources		\$ 1,077,103			\$ 1,077,103
	Legal	\$ 412,106				\$ 412,106
	Operations		\$ 606,233		\$ 974,158	\$ 1,580,391
	Rates & Revenue			\$ 382,584		\$ 382,584
	Risk Management		\$ 519,722			\$ 519,722
	Water Quality				\$ 361,709	\$ 361,709
Regional Offices	Accounting			\$ 134,163		\$ 134,163
	Administration		\$ 1,759,565			\$ 1,759,565
	Communications		\$ 169,537			\$ 169,537
	Engineering				\$ 39,393	\$ 39,393
	Finance			\$ 1,717,981		\$ 1,717,981
	Human Resources		\$ 578,886			\$ 578,886
	Legal	\$ 450,182				\$ 450,182
	Operations		\$ 257,060		\$ 1,606,991	\$ 1,864,051
	Risk Management		\$ 184,367			\$ 184,367
	Water Quality				\$ 58,836	\$ 58,836
Information Technology	Information Technology			\$ 7,640,272		\$ 7,640,272
Shared Services	Accounting			\$ 2,119,476		\$ 2,119,476
	Administration		\$ 718,155			\$ 718,155
	Finance			\$ 228,466		\$ 228,466
	Rates & Revenue			\$ 173,124		\$ 173,124
	<b>Total Dollars Charged</b>	<b>\$ 862,288</b>	<b>\$ 7,833,805</b>	<b>\$ 15,855,078</b>	<b>\$ 4,155,862</b>	<b>\$ 28,707,033</b>

Exhibit 3

**Pennsylvania-American Water Company  
Analysis of 12 Months Ended December 31, 2008 Service Company Hours By Location And Function**

		12 Months Ended December 31, 2008 Service Company Hours				
Location	Function	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Belleville Lab	Water Quality				11,873	11,873
Call Center	Human Resources		2,589			2,589
Corporate	Accounting			21,904		21,904
	Administration		4,622			4,622
	Audit			2,490		2,490
	Communications		2,093			2,093
	Finance			6,247		6,247
	Human Resources		9,567			9,567
	Legal	1,943				1,943
	Operations		2,696		7,038	9,734
	Rates & Revenue			1,796		1,796
	Risk Management		3,615			3,615
	Water Quality					-
Regional Offices	Accounting			2,192		2,192
	Administration		906			906
	Communications		1,340			1,340
	Engineering				273	273
	Finance			13,987		13,987
	Human Resources		4,154			4,154
	Legal	3,246				3,246
	Operations		2,930		18,867	21,797
	Risk Management		1,464			1,464
	Water Quality				1,063	1,063
Information Technology	Information Technology			51,608		51,608
Shared Services	Accounting			40,138		40,138
	Administration		2,582			2,582
	Finance			5,616		5,616
	Rates & Revenue			1,847		1,847
	<b>Total Hours Charged</b>	<b>5,189</b>	<b>38,558</b>	<b>147,824</b>	<b>39,115</b>	<b>230,685</b>

**Pennsylvania-American Water Company  
12 Months Ended December 31, 2008 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Accounting	\$ 1,019,281	\$ 42,769	\$ 22,149	\$ 1,084,199
Administration	\$ 94,728	\$ 28,524	\$ 6,997	\$ 130,249
Audit	\$ 7,842	\$ 12,060	\$ 156	\$ 20,058
Communications	\$ 82,186	\$ 35,690	\$ 782	\$ 118,658
Engineering	\$ 46	\$ 5,842	\$ 2,785	\$ 8,674
Finance	\$ 370,502	\$ 67,052	\$ 1,927	\$ 439,481
Human Resources	\$ 271,652	\$ 71,092	\$ 15,855	\$ 358,599
Information Technology	\$ 371,830	\$ 107,223	\$ 52,886	\$ 531,939
Legal	\$ 80,381	\$ 24,401		\$ 104,783
Operations	\$ 124,686	\$ 251,626	\$ 51,880	\$ 428,193
Rates & Revenue	\$ 89,422	\$ 20,730	\$ 1,368	\$ 111,520
Risk Management	\$ 123,526	\$ 39,491	\$ 42,809	\$ 205,826
Water Quality	\$ 28,995	\$ 26,783	\$ 57,901	\$ 113,679
<b>Total</b>	<b>\$ 2,665,078</b>	<b>\$ 733,283</b>	<b>\$ 257,495</b>	<b>\$ 3,655,856</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Management Consultant,
Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Attorney	\$ 80,381	\$ 24,401	\$ -	\$ 104,783
Management Consultant	\$ 583,168	\$ 221,487	\$ 84,853	\$ 889,508
Certified Public Accountant	\$ 1,858,877	\$ 249,834	\$ 78,486	\$ 2,187,196
Professional Engineer	\$ 142,652	\$ 237,561	\$ 94,156	\$ 474,369
<b>Total</b>	<b>\$ 2,665,078</b>	<b>\$ 733,283</b>	<b>\$ 257,495</b>	<b>\$ 3,655,856</b>



V – Question 2 – Provision of Services at the Lower of Cost or Market

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**Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

It should be noted that professionals working for three of the five outside provider categories may be licensed to practice by state regulatory bodies. However, not every professional working for these firms is licensed. For instance, among Pennsylvania certified public accounting firms, only more experienced staff are predominantly CPAs (see table below). Some Service Company employees also have professional licenses. Thus, it is valid to compare the Service Company's hourly rates to those of the outside professional service providers included in this study.

Position	% In PA Who Are CPAs
Partners/Owners	100%
Directors (11+ years experience)	76%
Managers (6-10 years experience)	84%
Sr Associates (4-5 years experience)	53%
Associates (1-3 years experience)	10%
New Professionals	0%

Source: AICPA's National PCPS/TSCPA Management of an Accounting Practice Survey (2008)

**Attorneys**

The Pennsylvania State Bar does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for Pennsylvania attorneys. Therefore, an estimate of Pennsylvania attorney rates was developed from two surveys conducted by Lawyers Weekly in the states of Michigan and Massachusetts. As presented in Exhibit 5, the average rate for each firm was adjusted for the cost of living differential between its location and Hershey, Pennsylvania. The Lawyers Weekly surveys included rates in effect at December 31, 2007. Thus, the 2008 average rate was escalated to June 30, 2008—the midpoint of the test year ended December 31, 2008.

**Management Consultants**

The cost per hour for management consultants was developed from a 2008 survey performed by the Association of Management Consulting Firms—an industry trade organization. The survey includes rates that were in effect during 2007 for firms throughout the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison.

The first step in the calculation, presented in Exhibit 6, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. The 2007 average rate was escalated to June 30, 2008—the midpoint of the 12 months ended December 31, 2008.

### **Certified Public Accountants**

The average hourly rate for Pennsylvania CPAs was developed from a 2008 survey performed by the American Institute of Certified Public Accountants (AICPA). The Pennsylvania version of this survey was used to develop hourly rates for member firms in Pennsylvania.

As shown in Exhibit 7, a weighted average hourly rate was developed based on a set of accountant positions and a percent of time that is typically applied to an accounting assignment. This survey includes rate information in effect during 2007. Thus, the data had to be escalated to June 30, 2008—the test year's midpoint.

### **Professional Engineers**

The Company provided hourly rate information for outside engineering firms that could have been used by PAWC in 2008. As presented in Exhibit 8, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

**Pennsylvania-American Water Company**  
**Estimated Billing Rates For Pennsylvania Attorneys Based On**  
**Michigan and Massachusetts Attorney Billing Rates**

Billing rates as of December 31, 2007 (Note A)									
Firm	Location	Number Of Lawyers	Billing Rate Range				Average	Cost of Living Adjust (C)	Adjusted Rate
			Associate		Partner				
			Low	High	Low	High			
Dickinson Wright PLLC	Detroit, Mi	229	\$ 170	\$ 275	\$ 260	\$ 530	\$ 309	80%	\$ 385
Dykema	Detroit, Mi	222	\$ 185	\$ 390	\$ 245	\$ 625	\$ 361	80%	\$ 450
Butzel Long	Detroit, Mi	209	\$ 165	\$ 400	\$ 220	\$ 550	\$ 334	80%	\$ 416
Bodman LLP	Detroit, Mi	128	\$ 125	\$ 215	\$ 210	\$ 495	\$ 261	80%	\$ 326
Jaffe Raitt Heuer & Weiss, PC	Southfield, Mi	100	\$ 165	\$ 225	\$ 225	\$ 500	\$ 279	92%	\$ 304
Trott & Trott, PC	Bingham Farms, Mi	64	\$ 170	\$ 170	\$ 235	\$ 235	\$ 203	119%	\$ 170
Brooks Kushman PC	Southfield, Mi	52	\$ 160	\$ 275	\$ 250	\$ 505	\$ 298	92%	\$ 325
Kemp, Klein, Umphrey, Edelman & May PC	Troy, Mi	36	\$ 150	\$ 190	\$ 200	\$ 340	\$ 220	105%	\$ 209
Pepper Hamilton LLP	Detroit, Mi	33	\$ 200	\$ 315	\$ 340	\$ 615	\$ 368	80%	\$ 458
Hertz, Schram & Saretsky, PC	Bloomfield Hills, Mi	29	\$ 175	\$ 260	\$ 275	\$ 400	\$ 278	131%	\$ 211
Strobl & Sharp, PC	Bloomfield Hills, Mi	28	\$ 110	\$ 210	\$ 200	\$ 300	\$ 205	131%	\$ 156
Kupelian Ormond & Magy, PC	Southfield, Mi	25	\$ 165	\$ 195	\$ 235	\$ 320	\$ 229	92%	\$ 250
Rader, Fishman & Grauer, PLLC	Bloomfield Hills, Mi	25	\$ 130	\$ 250	\$ 275	\$ 495	\$ 288	131%	\$ 219
McShane & Bowie PLC	Grand Rapids, Mi	22	\$ 160	\$ 275	\$ 250	\$ 375	\$ 265	91%	\$ 292
Edwards Angel Palmer & Dodge	Boston, Ma	259	\$ 144	\$ 321	\$ 474	\$ 474	\$ 353	139%	\$ 254
Sullivan & Worcester	Boston, Ma	137	\$ 245	\$ 530	\$ 415	\$ 700	\$ 473	139%	\$ 339
Burns & Levinson	Boston, Ma	112	\$ 210	\$ 350	\$ 375	\$ 475	\$ 353	139%	\$ 253
Bowditch & Dewey	Worcester, Ma	64	\$ 150	\$ 300	\$ 280	\$ 550	\$ 320	109%	\$ 292
Mirick O'Connell	Worcester, Ma	60	\$ 160	\$ 250	\$ 280	\$ 400	\$ 273	109%	\$ 249
Hinckley, Allen & Snyder	Boston, Ma	58	\$ 200	\$ 330	\$ 300	\$ 480	\$ 328	139%	\$ 235
Prince Lobel Glovsky & Tye	Boston, Ma	52	\$ 175	\$ 265	\$ 275	\$ 475	\$ 298	139%	\$ 214
Robinson & Cole	Boston, Ma	48	\$ 220	\$ 375	\$ 340	\$ 490	\$ 356	139%	\$ 256
Bromberg & Sunstein	Boston, Ma	42	\$ 250	\$ 450	\$ 500	\$ 725	\$ 481	139%	\$ 346
Lawson & Weitzen	Boston, Ma	35	\$ 125	\$ 225	\$ 225	\$ 400	\$ 244	139%	\$ 175
Murtha Cullina	Boston, Ma	34	\$ 165	\$ 290	\$ 250	\$ 500	\$ 301	139%	\$ 216
Marcus Errico Emmer & Brooks	Braintree, Ma	28	\$ 250	\$ 250	\$ 300	\$ 360	\$ 290	130%	\$ 222
Rich May	Boston, Ma	25	\$ 150	\$ 300	\$ 300	\$ 400	\$ 288	139%	\$ 206
Keegan Werlin	Boston, Ma	22	\$ 150	\$ 275	\$ 325	\$ 475	\$ 306	139%	\$ 220
Barron & Stadfeld	Boston, Ma	21	\$ 160	\$ 230	\$ 250	\$ 350	\$ 248	139%	\$ 178
Cain Hibbard Myers & Cook	Pittsfield, Ma	19	\$ 150	\$ 200	\$ 210	\$ 235	\$ 199	110%	\$ 180
Overall Average 2007 Billing Rate									\$ 267
<u>Escalation to Test Year's Mid-Point - June 30, 2008 (Note B)</u>									
								CPI at December 31, 2007	210.0
								CPI at June 30, 2008	218.8
								Inflation/Escalation	4.2%
								Average Billing Rate At June 30, 2008	<b>\$ 278</b>

Note A: Source is Michigan Lawyers Weekly (April 2008) and Massachusetts Lawyers Weekly (April 2008)

Note B: Source is U.S. Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This percentage represents the cost of living difference between the Michigan and Massachusetts cities and Harrisburg, Pennsylvania. A number over 100% indicates the Michigan or Massachusetts city's cost of living is higher than Harrisburg. A number less than 100% indicates Harrisburg's cost of living is higher.

**Pennsylvania-American Water Company  
Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position					
Survey billing rates were those in effect in 2007 (Note A)					
	Average Hourly Rates (Note A)				
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average	\$ 142	\$ 181	\$ 236	\$ 286	\$ 333
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement					
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average Hourly Billing Rate (from above)	\$ 142	\$181	\$236	\$286	\$333
Percent of Consulting Assignment	30%	30%	20%	10%	10%
	\$ 42	\$ 54	\$ 47	\$ 29	\$ 33
					<b>Weighted Average \$ 206</b>
<u>Escalation to Midpoint of December 31, 2008 Test Period (Note B)</u>					
				CPI at December 31, 2007	210.0
				CPI at June 30, 2008	218.8
				Inflation/Escalation	4.2%
Average Hourly Billing Rate For Management Consultants At June 30, 2008					<b>\$ 214</b>

Note A: Source is "Operating Ratios For Management Consulting Firms, 2008 Edition," Association of Management Consulting Firms

Note B: Source is U.S. Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.ai.txt>)

**Pennsylvania-American Water Company  
Estimated Billing Rates Of Pennsylvania Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position  
Survey billing rates were those in effect in 2007 (Note A)

Average Hourly Billing Rate (Note A)					
	Staff Accountant	Senior Accountant	Manager	Partner	
Average Hourly Billing Rate by CPA Firm Position	\$ 68	\$ 100	\$ 133	\$ 154	
Percent of Accounting Assignment	30%	30%	20%	20%	Weighted Average
	\$ 20	\$ 30	\$ 27	\$ 31	<b>\$ 108</b>

Escalation to Midpoint of June 30, 2008 Test Period (Note B)

CPI at December 31, 2007	210.0
CPI at June 30, 2008	218.8
Inflation/Escalation	4.2%
<b>Average Hourly Billing Rate For CPAs At June 30, 2008</b>	<b>\$ 112</b>

Note A: Source is AICPA's 2008 National PCPS/TSCPA Management of an Accounting Practice Survey (Pennsylvania edition)

Note B: Source is U.S. Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiat.txt>)



Exhibit 8

**Pennsylvania-American Water Company  
 Estimated Billing Rates Of Pennsylvania Engineers**

Note: Billing rates are the average for 2008

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$71	\$88	\$140	\$175
Firm #2	\$56	\$70	\$126	\$163
Firm #3	\$80	\$108	\$168	\$185
Firm #4	\$48	\$80	\$122	\$162

B. Calculation of Overall Average Engineering Hourly Billing Rate

	Technician	Engineer	Project Manager	Officer	Weighted Average
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$64	\$86	\$139	\$171	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$19	\$30	\$35	\$17	<b>\$101</b>

Source: Information provided by Pennsylvania American Water Company. Firm names have not been disclosed to preserve the confidentiality of their hourly rates.

V – Question 2 – Provision of Services at the Lower of Cost or Market

**Service Company versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	12 Months Ended December 31, 2008		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 146	\$ 278	\$ (132)
Management Consultant	\$ 180	\$ 214	\$ (34)
Certified Public Accountant	\$ 92	\$ 112	\$ (20)
Professional Engineer	\$ 94	\$ 101	\$ (7)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to PAWC during the 12-months ended December 31, 2008, outside service providers would have cost \$5,218,274 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are 18% higher than those of the Service Company (\$5,218,274 / \$ 29,432,558).

Service Provider	12 Months Ended December 31, 2008		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (132)	5,189	\$ (685,112)
Management Consultant	\$ (34)	38,558	\$ (1,320,850)
Certified Public Accountant	\$ (20)	147,824	\$ (2,935,364)
Professional Engineer	\$ (7)	39,115	\$ (276,947)
Service Company Less Than Outside Providers			\$ (5,218,274)

It should be noted that the cost differential associated with using outside providers is even greater because Service Company personnel do not charge for more than 8 hours per day even when they work more. Outside providers generally charge clients for all hours worked. If, for instance, Service Company personnel worked 5% overtime (2 hours) per week on PAWC's behalf, that would have amounted to over 14,000 additional hours of work during 2008. Based on the hourly rate differentials above, this overtime would have added another \$716,000 to the cost of using outside provider.

If PAWC were to use outside service providers rather than the Service Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform over 230,000 hours of work (more than 153 full-time equivalents at 1,500 "billable" hours per FTE per year) would add a significant workload to the existing PAWC management team. Thus, it would be necessary for PAWC to add at least two positions to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill these positions would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As

V – Question 2 – Provision of Services at the Lower of Cost or Market

calculated in the table below, this position would add almost \$300,000 per year to PAWC's personnel expenses.

Cost of Adding 2 Professional Positions To PAWC's Staff

	<u>Total</u>
New Positions' Salary	\$ 100,000
Benefits (at 49.4%)	\$ 49,400
Office Expenses (15.2%)	\$ 15,200
Total Cost of Full Time Position	<u>\$ 149,400</u>
Number of Positions	<u>2</u>
Half Time Cost of Position	<u>\$ 298,800</u>

Thus, the total effect on the ratepayers of PAWC of contracting all services now provided by Service Company would be an increase in their costs of \$5,517,074 (\$5,218,274 + \$298,800). Based on the results of this comparison, it is possible to conclude that the Service Company charged PAWC at the lower of cost or market for services provided during 2008.

## VI - Question 3 - Reasonableness of Customer Accounts Services Costs

### Background

Customer Accounts Services covers the following utility functions:

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing, and mailing
- Remittance processing – processing customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

It is difficult to compare the cost of the Service Company's customer accounts services-related charges to PAWC with outside providers of the same services because survey data is proprietary and expensive to obtain. For this reason, PAWC's charges from the Service Company for customer accounts services are compared to those of neighboring electric utilities because the data necessary to make such comparison is available to the public.

Neighboring electric utility cost information comes from the FERC Form 1 that each utility must file. FERC's chart of accounts is defined in Chapter 18, Part 101 of the Code of Federal Regulations. FERC accounts that contain customer accounts services-related expenses are Account 903 Customer Accounts Expense – Records and Collection Expense and Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense. Exhibit 9 provides FERC's definition of the type of expenses that should be recorded in these accounts.

In addition to the charges in these FERC accounts, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905:

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA)

### Comparison Group

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

Pennsylvania	<ul style="list-style-type: none"> <li>• Duquesne Light</li> <li>• Metropolitan Edison</li> <li>• PECO Energy</li> <li>• Pennsylvania Electric</li> </ul>	<ul style="list-style-type: none"> <li>• Pennsylvania Power</li> <li>• PPL Electric Utilities</li> <li>• West Penn Power</li> </ul>
New York	<ul style="list-style-type: none"> <li>• Central Hudson Gas &amp; Electric</li> <li>• Consolidated Edison</li> <li>• New York State Electric &amp; Gas</li> </ul>	<ul style="list-style-type: none"> <li>• Niagara Mohawk Power</li> <li>• Orange &amp; Rockland Utilities</li> <li>• Rochester Gas &amp; Electric</li> </ul>
Delaware	<ul style="list-style-type: none"> <li>• Delmarva Power &amp; Light</li> </ul>	
Ohio	<ul style="list-style-type: none"> <li>• Cleveland Electric Illuminating</li> <li>• Columbus Southern Power</li> <li>• Dayton Power &amp; Light</li> <li>• Duke Energy Ohio</li> </ul>	<ul style="list-style-type: none"> <li>• Ohio Edison</li> <li>• Ohio Power</li> <li>• Toledo Edison</li> </ul>
New Jersey	<ul style="list-style-type: none"> <li>• Atlantic City Electric</li> <li>• Jersey Central Power</li> </ul>	<ul style="list-style-type: none"> <li>• Public Service Electric &amp; Gas</li> </ul>
Maryland	<ul style="list-style-type: none"> <li>• Baltimore Gas &amp; Electric</li> <li>• Delmarva Power &amp; Light</li> </ul>	<ul style="list-style-type: none"> <li>• Potomac Edison</li> <li>• Potomac Electric</li> </ul>
West Virginia	<ul style="list-style-type: none"> <li>• Appalachian Power</li> <li>• Monongahela Power</li> </ul>	<ul style="list-style-type: none"> <li>• Wheeling Power</li> </ul>

## Pennsylvania-American Water Company FERC Account Descriptions

### **903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

#### Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

#### Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

## FERC Account Descriptions

### **905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

#### Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

#### Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

**PAWC Cost per Customer**

As calculated below, PAWC's 2008 customer account services expense per customer was \$27.06. The cost pool used to calculate this average includes charges for Service Company services (e.g., call center, billing, payment processing) and postage and forms expenses, which are incurred directly by PAWC. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.32 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level.

Pennsylvania American Water Company		Service Co	Adjustment Fewer Calls For Water Cos. (A)	Adjusted
Cost Component		Charges		
Service Company				
Call Centers	Call processing, order processing, credit, bill collection	\$ 9,980,441	\$ 1,553,373	\$11,533,814
Regional Offices		\$ 1,460,276		\$ 1,460,276
Service Company	Customer payment processing			\$ 754,603 (B)
Operating Company	Postage & forms			\$ 3,811,233
			Cost Pool Total	\$17,559,926
			Total Customers	648,953
			<b>2008 Cost Per Pennsylvania American Customer</b>	<b>\$ 27.06</b>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Call handling expenses		\$ 1,727,223
Electric utility industry's avg calls/customer	2.50	
American Water's avg calls/customer	1.32	
Percent different	90%	90%
Total Adjustment		\$ 1,553,373

Note B: Estimated customer payment processing expenses

Number of customer bills	7,787,436
Bank charge per item	\$ 0.0969
Total estimated annual expense	\$ 754,603

**Electric Utility Group Cost per Customer**

Exhibit 10 shows the actual 2008 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

**Summary of Results**

As shown in the table below, PAWC's cost per customer is well below the average cost of the neighboring electric utility comparison group. It can therefore be concluded that PAWC's 2008 customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to PAWC were comparable to those of other utilities.

<b>Customer Account Services Expenses Per Customer</b>	
West Penn Power Company	\$ 12.54
Potomac Electric Power Company	\$ 13.24
Pennsylvania Electric Company	\$ 14.28
Pennsylvania Power Company	\$ 15.69
Metropolitan Edison Company	\$ 15.79
Jersey Central Power & Light Company	\$ 15.99
Monongahela Power Company	\$ 16.17
Duquesne Light Company	\$ 17.17
Dayton Power and Light Company	\$ 18.51
Ohio Edison Company	\$ 19.13
Cleveland Electric Illuminating Company	\$ 20.60
Toledo Edison Company	\$ 24.81
Wheeling Power Company	\$ 26.12
Rochester Gas and Electric Corporation	\$ 26.62
<b>Pennsylvania American Water</b>	<b>\$ 27.06</b>
PPL Electric Utilities Corporation	\$ 28.02
Niagara Mohawk Power Corporation	\$ 31.14
Duke Energy-Ohio	\$ 31.20
Ohio Power Company	\$ 31.70
Appalachian Power Company	\$ 32.57
New York State Electric & Gas Corporation	\$ 33.75
Columbus Southern Power Company	\$ 35.11
Baltimore Gas and Electric Company	\$ 35.46
<b>Comparison Group Weighted Average</b>	<b>\$ 38.97</b>
Central Hudson Gas & Electric Company	\$ 43.79
Consolidated Edison Company	\$ 46.64
Orange and Rockland Utilities, Inc.	\$ 56.57
PECO Energy Company	\$ 60.18
Delmarva Power & Light Company	\$ 69.08
Atlantic City Electric Company	\$ 70.72
Public Service Electric and Gas Company	\$ 83.88



**Pennsylvania-American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

	Pennsylvania							
	Duquesne Light	Metropolitan Edison	PECO Energy	Pennsylvania Electric	Pennsylvania Power	PPL Electric Utilities	West Penn Power	
<b>Customer Account Management Cost Pool</b>								
FERC Account Balances:								
Account 903 - Customer Records & Collection (page 322, line 161)	\$ 7,479,961	\$ 10,122,140	\$ 53,673,664	\$ 10,592,384	\$ 2,928,197	\$ 30,220,945	\$ 6,946,910	
Account 905 - Misc Customer Accounts (page 322, line 163)	\$ -	\$ 136,228	\$ 32,549,592	\$ 194,662	\$ 82,458	\$ 1,100,131	\$ -	
Subtotal	\$ 7,479,961	\$ 10,258,368	\$ 86,223,256	\$ 10,787,046	\$ 3,010,655	\$ 31,321,076	\$ 6,946,910	
Add: Employee Benefits & Employer FICA (not included in above amounts)								
Account 926 - Employee Pension & Benefits	\$ 2,022,069	\$ (1,860,051)	\$ 6,418,193	\$ (2,677,607)	\$ (590,677)	\$ 6,256,579	\$ 1,594,105	
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)	\$ 498,724	\$ 250,220	\$ 1,865,596	\$ 299,011	\$ 79,412	\$ 1,437,663	\$ 402,847	
<b>Total Cost Pool</b>	\$ 10,000,754	\$ 8,648,537	\$ 94,507,045	\$ 8,408,450	\$ 2,499,390	\$ 39,015,318	\$ 8,943,861	
Total Customers (page 304, line 43)	582,474	547,557	1,570,291	589,017	159,346	1,392,441	713,401	
<b>Customer Account Services Expense per Customer</b>	\$ 17.17	\$ 15.79	\$ 60.18	\$ 14.28	\$ 15.69	\$ 28.02	\$ 12.54	
<b>Note A: Calculation of Pension &amp; Benefits Pertaining to Customer Account Mgmt</b>								
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 16,461,810	\$ (18,462,242)	\$ 34,870,872	\$ (24,103,475)	\$ (4,532,561)	\$ 28,423,183	\$ 16,475,935	
Total O&M Payroll (page 355, line 65)	\$ 53,073,862	\$ 32,465,349	\$ 132,487,079	\$ 35,185,122	\$ 7,965,617	\$ 85,375,132	\$ 54,426,651	
Benefits as Percent of Payroll	31.0%	-56.9%	26.3%	-68.5%	-56.9%	33.3%	30.3%	
Payroll Applicable to Customer Account Services								
Total Payroll Charged to Customer Accounts Function	\$ 9,676,251	\$ 5,316,403	\$ 23,554,469	\$ 6,561,812	\$ 1,624,429	\$ 20,085,492	\$ 8,766,657	
Electric (page 354, line 7)			\$ 5,036,945					
Gas (page 354, line 37)			\$ 28,591,414	\$ 6,561,812	\$ 1,624,429	\$ 20,085,492	\$ 8,766,657	
Total Payroll Charged to Customer Accounts	\$ 9,676,251	\$ 5,316,403	\$ 28,591,414	\$ 6,561,812	\$ 1,624,429	\$ 20,085,492	\$ 8,766,657	
Percent Applicable to Customer Accounts Services (903 and 905):								
Account 903 - Customer Records & Collection (page 322, line 161)	\$ 7,479,961	\$ 10,122,140	\$ 53,673,664	\$ 10,592,384	\$ 2,928,197	\$ 30,220,945	\$ 6,946,910	
Account 905 - Misc Customer Accounts (page 322, line 163)	\$ -	\$ 136,228	\$ 32,549,592	\$ 194,662	\$ 82,458	\$ 1,100,131	\$ -	
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 7,479,961	\$ 10,258,368	\$ 86,223,256	\$ 10,787,046	\$ 3,010,655	\$ 31,321,076	\$ 6,946,910	
Account 902 - Meter Reading Expenses (page 322, line 160)	\$ 3,622,199	\$ 6,415,472	\$ 14,865,724	\$ 7,322,187	\$ 1,700,593	\$ 2,154,152	\$ 4,618,134	
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	\$ 11,102,160	\$ 16,673,840	\$ 101,088,980	\$ 18,109,233	\$ 4,711,248	\$ 33,475,228	\$ 11,565,044	
Percent Applicable to Customer Accounts Services (903 and 905)	67.4%	61.5%	85.3%	59.6%	63.9%	93.6%	60.1%	
Customer Account Services Portion of Total Payroll	\$ 6,519,270	\$ 3,270,849	\$ 24,386,880	\$ 3,908,645	\$ 1,038,068	\$ 18,792,978	\$ 5,265,970	
Pension & Benefits Pertaining to Customer Accounts Services	\$ 2,022,069	\$ (1,860,051)	\$ 6,418,193	\$ (2,677,607)	\$ (590,677)	\$ 6,256,579	\$ 1,594,105	
<b>Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services</b>								
Customer Account Services Portion of Total Payroll	\$ 6,519,270	\$ 3,270,849	\$ 24,386,880	\$ 3,908,645	\$ 1,038,068	\$ 18,792,978	\$ 5,265,970	
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	\$ 498,724	\$ 250,220	\$ 1,865,596	\$ 299,011	\$ 79,412	\$ 1,437,663	\$ 402,847	
Estimated Employer's Portion of FICA								



**Pennsylvania-American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

	New York						Delaware	
	Central Hudson Gas & Electric	Consolidated Edison	New York State Electric & Gas	Niagra Mohawk Power	Orange & Rockland Utilities	Rochester Gas & Electric	Delmarva Power & Light	
<b>Customer Account Management Cost Pool</b>								
FERC Account Balances:								
Account 903 - Customer Records & Collection (page 322, line 161)	\$ 6,778,169	\$ 114,032,729	\$ 28,066,820	\$ 39,200,043	\$ 8,465,643	\$ 9,741,613	\$ 32,574,788	
Account 905 - Misc Customer Accounts (page 322, line 163)	\$ 2,520,777	\$ 344,426	\$ 135,082	\$ 929,964	\$ 66,274	\$ 1,855	\$ -	
Subtotal	\$ 9,298,946	\$ 114,377,155	\$ 28,201,902	\$ 40,130,007	\$ 8,531,917	\$ 9,743,468	\$ 32,574,788	
Add: Employee Benefits & Employer FICA (not included in above amounts)								
Account 926 - Employee Pension & Benefits	\$ 2,815,515	\$ 30,169,769	\$ (632,835)	\$ 2,686,451	\$ 3,422,645	\$ (753,034)	\$ 1,184,741	
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)	\$ 507,967	\$ 7,584,800	\$ 1,916,606	\$ 403,817	\$ 622,497	\$ 619,283	\$ 551,639	
<b>Total Cost Pool</b>	<b>\$ 12,622,428</b>	<b>\$ 152,131,724</b>	<b>\$ 29,485,673</b>	<b>\$ 43,220,275</b>	<b>\$ 12,577,059</b>	<b>\$ 9,609,717</b>	<b>\$ 34,311,168</b>	
Total Customers (page 304, line 43)	288,252	3,261,502	873,738	1,387,729	222,340	360,987	496,682	
<b>Customer Account Services Expense per Customer</b>	<b>\$ 43.79</b>	<b>\$ 46.64</b>	<b>\$ 33.75</b>	<b>\$ 31.14</b>	<b>\$ 56.57</b>	<b>\$ 26.62</b>	<b>\$ 69.08</b>	
<b>Note A: Calculation of Pension &amp; Benefits Pertaining to Customer Account Mgmt</b>								
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 23,649,061	\$ 171,421,764	\$ (3,779,369)	\$ 105,135,887	\$ 26,239,707	\$ (5,487,845)	\$ 6,458,817	
Total O&M Payroll (page 355, line 65)	\$ 55,773,767	\$ 563,347,904	\$ 149,623,715	\$ 206,583,051	\$ 62,383,976	\$ 58,994,943	\$ 39,311,821	
Benefits as Percent of Payroll	42.4%	30.4%	-2.5%	50.9%	42.1%	-9.3%	16.4%	
Payroll Applicable to Customer Account Services								
Total Payroll Charged to Customer Accounts Function	\$ 7,303,699	\$ 102,691,785	\$ 26,157,611	\$ 6,012,948	\$ 7,521,305	\$ 5,776,605	\$ 7,184,790	
Electric (page 354, line 7)	\$ 1,300,052	\$ 22,542,147	\$ 4,815,257	\$ 6,012,948	\$ 3,284,938	\$ 4,309,646	\$ 1,796,197	
Gas (page 354, line 37)	\$ 8,603,751	\$ 125,233,932	\$ 30,972,868	\$ 6,012,948	\$ 10,806,243	\$ 10,086,251	\$ 8,980,987	
Total Payroll Charged to Customer Accounts	\$ 6,778,169	\$ 114,032,729	\$ 28,066,820	\$ 39,200,043	\$ 8,465,643	\$ 9,741,613	\$ 32,574,788	
Account 903 - Customer Records & Collection (page 322, line 161)	\$ 2,520,777	\$ 344,426	\$ 135,082	\$ 929,964	\$ 66,274	\$ 1,855	\$ -	
Account 905 - Misc Customer Accounts (page 322, line 163)	\$ 9,298,946	\$ 114,377,155	\$ 28,201,902	\$ 40,130,007	\$ 8,531,917	\$ 9,743,468	\$ 32,574,788	
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 2,749,960	\$ 30,093,154	\$ 6,662,993	\$ 5,582,389	\$ 2,798,488	\$ 2,396,447	\$ 7,995,878	
Account 902 - Meter Reading Expenses (page 322, line 160)	\$ 12,048,906	\$ 144,470,309	\$ 34,864,895	\$ 45,712,396	\$ 11,330,405	\$ 12,139,915	\$ 40,570,666	
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	77.2%	79.2%	80.9%	87.8%	75.3%	80.3%	80.3%	
Percent Applicable to Customer Accounts Services (903 and 905)	\$ 6,640,090	\$ 99,147,714	\$ 25,053,676	\$ 5,278,648	\$ 8,137,217	\$ 8,095,202	\$ 7,210,967	
Customer Account Services Portion of Total Payroll	\$ 2,815,515	\$ 30,169,769	\$ (632,835)	\$ 2,686,451	\$ 3,422,645	\$ (753,034)	\$ 1,184,741	
Pension & Benefits Pertaining to Customer Accounts Services	\$ 6,640,090	\$ 99,147,714	\$ 25,053,676	\$ 5,278,648	\$ 8,137,217	\$ 8,095,202	\$ 7,210,967	
<b>Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services</b>								
Customer Account Services Portion of Total Payroll	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	\$ 507,967	\$ 7,584,800	\$ 1,916,606	\$ 403,817	\$ 622,497	\$ 619,283	\$ 551,639	
Estimated Employer's Portion of FICA								



**Pennsylvania-American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

		Ohio							
		Cleveland Electric Illum.	Collumbus Southern Power	Dayton Power & Light	Duke Energy Ohio	Ohio Edison	Ohio Power	Toledo Edison	
		\$ 14,516,027	\$ 24,640,129	\$ 8,648,983	\$ 17,655,073	\$ 20,713,551	\$ 21,137,257	\$ 6,909,201	
		\$ 531,238	\$ 15,947	\$ -	\$ (256,106)	\$ 579,775	\$ 19,561	\$ 213,136	
		\$ 15,047,265	\$ 24,656,076	\$ 8,648,983	\$ 17,398,967	\$ 21,293,326	\$ 21,156,818	\$ 7,122,337	
		\$ 243,960	\$ 1,169,753	\$ 547,426	\$ 2,836,968	\$ (1,852,176)	\$ 1,008,466	\$ 482,226	
		\$ 280,555	\$ 401,794	\$ 333,017	\$ 1,229,505	\$ 468,076	\$ 387,630	\$ 152,465	
		\$ 15,571,780	\$ 26,227,624	\$ 9,529,426	\$ 21,465,440	\$ 19,909,226	\$ 22,552,914	\$ 7,757,028	
		\$ 755,807	\$ 747,099	\$ 514,882	\$ 687,903	\$ 1,040,518	\$ 711,447	\$ 312,642	
		\$ 20.60	\$ 35.11	\$ 18.51	\$ 31.20	\$ 19.13	\$ 31.70	\$ 24.81	
		\$ 2,546,911	\$ 13,054,219	\$ 11,936,626	\$ 34,365,193	\$ (15,395,255)	\$ 25,630,628	\$ 4,035,809	
		\$ 38,286,937	\$ 58,613,682	\$ 94,920,691	\$ 194,686,375	\$ 50,858,052	\$ 128,781,829	\$ 16,679,734	
		6.7%	22.3%	12.6%	17.7%	-30.3%	19.9%	24.2%	
		\$ 5,037,050	\$ 6,281,750	\$ 6,306,396	\$ 14,312,049	\$ 8,765,466	\$ 6,394,108	\$ 2,665,076	
		\$ 5,037,050	\$ 6,281,750	\$ 6,306,396	\$ 14,312,049	\$ 8,765,466	\$ 6,394,108	\$ 2,665,076	
		\$ 14,516,027	\$ 24,640,129	\$ 8,648,983	\$ 17,655,073	\$ 20,713,551	\$ 21,137,257	\$ 6,909,201	
		\$ 531,238	\$ 15,947	\$ -	\$ (256,106)	\$ 579,775	\$ 19,561	\$ 213,136	
		\$ 15,047,265	\$ 24,656,076	\$ 8,648,983	\$ 17,398,967	\$ 21,293,326	\$ 21,156,818	\$ 7,122,337	
		\$ 5,619,752	\$ 4,833,074	\$ 3,980,743	\$ 5,795,966	\$ 9,211,147	\$ 5,540,885	\$ 2,401,739	
		\$ 20,667,017	\$ 29,489,150	\$ 12,529,726	\$ 23,194,933	\$ 30,504,473	\$ 26,697,703	\$ 9,524,076	
		\$ 72.8%	83.6%	69.0%	75.0%	69.8%	79.2%	74.8%	
		\$ 3,667,381	\$ 5,252,213	\$ 4,353,161	\$ 16,071,965	\$ 6,118,641	\$ 5,067,064	\$ 1,993,009	
		\$ 243,960	\$ 1,169,753	\$ 547,426	\$ 2,836,968	\$ (1,852,176)	\$ 1,008,466	\$ 482,226	
		\$ 3,667,381	\$ 5,252,213	\$ 4,353,161	\$ 16,071,965	\$ 6,118,641	\$ 5,067,064	\$ 1,993,009	
		7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	
		\$ 280,555	\$ 401,794	\$ 333,017	\$ 1,229,505	\$ 468,076	\$ 387,630	\$ 152,465	

**Customer Account Management Cost Pool**

FERC Account Balances:

Account 903 - Customer Records & Collection (page 322, line 161)  
Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A: Calculation of Pension & Benefits Pertaining to Customer Account Mgmt**

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Account 903 - Customer Records & Collection (page 322, line 161)

Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Account 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services**

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



**Pennsylvania-American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

**Customer Account Management Cost Pool**

FERC Account Balances:

Account 903 - Customer Records & Collection (page 322, line 161)  
Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A: Calculation of Pension & Benefits Pertaining to Customer Account Mgmt**

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Account 903 - Customer Records & Collection (page 322, line 161)

Account 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Account 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services**

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20% and Medicare (1.45%))

Estimated Employer's Portion of FICA

	New Jersey				Maryland			
	Atlantic City Electric	Jersey Central Power	Public Service Electric & Gas	Baltimore Gas & Electric	DeMarva Power & Light	Potomac Edison	Potomac Electric	
\$	37,383,789	\$ 19,051,474	\$ 58,917,046	\$ 28,731,040		\$ 5,031,476	\$ 51,049,711	
\$	237,995	\$ 364,803	\$ 90,240,911	\$ 4,115,795		\$ -	\$ -	
\$	37,621,784	\$ 19,416,277	\$ 149,157,957	\$ 32,846,835		\$ 5,031,476	\$ 51,049,711	
\$	757,867	\$ (2,610,530)	\$ 23,726,309	\$ 8,208,844		\$ 1,036,653	\$ 6,217,334	
\$	165,569	\$ 622,147	\$ 6,037,109	\$ 2,528,394		\$ 290,778	\$ 1,009,884	
\$	<b>38,545,220</b>	\$ <b>17,427,894</b>	\$ <b>178,921,376</b>	\$ <b>43,584,072</b>		\$ <b>6,358,906</b>	\$ <b>58,276,929</b>	
\$	545,011	1,089,980	2,133,003	1,229,181		480,214	762,094	
\$	<b>70.72</b>	\$ <b>15.99</b>	\$ <b>83.88</b>	\$ <b>35.46</b>	see Delaware	\$ <b>13.24</b>	\$ <b>76.47</b>	
\$	7,169,358	\$ (23,911,321)	\$ 97,803,439	\$ 45,202,255		\$ 11,006,243	\$ 25,000,866	
\$	20,474,113	\$ 7,449,145	\$ 325,305,600	\$ 181,995,810		\$ 40,355,725	\$ 53,083,661	
	35.0%	-32.1%	30.1%	24.8%		27.3%	47.1%	
\$	2,394,886	\$ 13,387,647	\$ 49,463,253	\$ 25,480,677		\$ 6,108,096	\$ 13,534,519	
\$	2,394,886	\$ 13,387,647	\$ 88,480,039	\$ 38,552,239		\$ 6,108,096	\$ 13,534,519	
\$	37,383,789	\$ 19,051,474	\$ 58,917,046	\$ 28,731,040		\$ 5,031,476	\$ 51,049,711	
\$	237,995	\$ 364,803	\$ 90,240,911	\$ 4,115,795		\$ -	\$ -	
\$	37,621,784	\$ 19,416,277	\$ 149,157,957	\$ 32,846,835		\$ 5,031,476	\$ 51,049,711	
\$	4,008,199	\$ 12,546,067	\$ 18,075,870	\$ 5,467,374		\$ 3,053,931	\$ 1,289,369	
\$	41,629,983	\$ 31,962,344	\$ 167,233,827	\$ 38,314,209		\$ 8,085,407	\$ 52,339,080	
	90.4%	60.7%	89.2%	85.7%		62.2%	97.5%	
\$	2,164,303	\$ 8,132,641	\$ 78,916,461	\$ 33,050,899		\$ 3,801,013	\$ 13,201,097	
\$	757,867	\$ (2,610,530)	\$ 23,726,309	\$ 8,208,844		\$ 1,036,653	\$ 6,217,334	
\$	2,164,303	\$ 8,132,641	\$ 78,916,461	\$ 33,050,899		\$ 3,801,013	\$ 13,201,097	
\$	7.65%	7.65%	7.65%	7.65%		7.65%	7.65%	
\$	165,569	\$ 622,147	\$ 6,037,109	\$ 2,528,394		\$ 290,778	\$ 1,009,884	

**Pennsylvania-American Water Company  
Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

		West Virginia				Group Average
		Appalachian Power	Monongahela Power	Potomac Edison	Wheeling Power	
<b>Customer Account Services Cost Pool</b>						
FERC Account Balances:						
Account 903 - Customer Records & Collection (page 322, line 161)		\$ 29,231,353	\$ 5,020,473		\$ 1,013,571	\$ 710,474,160
Account 905 - Misc Customer Accounts (page 322, line 163)		\$ 1,894	\$ -		\$ 286	\$ 134,126,684
	Subtotal	\$ 29,233,247	\$ 5,020,473		\$ 1,013,857	\$ 844,600,844
Add: Employee Benefits & Employer FICA (not included in above amounts)						
Account 926 - Employee Pension & Benefits	<b>Note A</b>	\$ 1,415,185	\$ 849,338		\$ 46,865	\$ 91,132,965
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)	<b>Note B</b>	\$ 548,440	\$ 294,683		\$ 18,802	\$ 32,217,874
	<b>Total Cost Pool</b>	\$ <b>31,196,872</b>	\$ <b>6,164,494</b>		\$ <b>1,079,524</b>	\$ <b>967,951,683</b>
Total Customers (page 304, line 43)		957,875	381,193		41,334	24,835,940
<b>Customer Account Services Expense per Customer</b>		\$ <b>32.57</b>	\$ <b>16.17</b>	see Maryland	\$ <b>26.12</b>	\$ <b>38.97</b>
<b>Note A: Calculation of Pension &amp; Benefits Pertaining to Customer Account Mgmt</b>						
Account 926 - Employee Pension & Benefits (page 323, line 187)		\$ 23,000,789	\$ 16,659,462		\$ 402,736	\$ 651,279,502
Total O&M Payroll (page 355, line 65)		\$ 116,519,186	\$ 75,556,781		\$ 2,112,138	\$ 3,009,728,762
Benefits as Percent of Payroll		19.7%	22.0%		19.1%	21.6%
Payroll Applicable to Customer Account Services						
Total Payroll Charged to Customer Accounts Function		\$ 8,480,076	\$ 6,101,855		\$ 339,964	\$ 407,274,176
Electric (page 354, line 7)						\$ 108,300,307
Gas (page 354, line 37)						\$ 515,574,483
Total Payroll Charged to Customer Accounts		\$ 8,480,076	\$ 6,101,855		\$ 339,964	\$ 407,274,176
Percent Applicable to Customer Accounts Services (903 and 905):						
Account 903 - Customer Records & Collection (page 322, line 161)		\$ 29,231,353	\$ 5,020,473		\$ 1,013,571	\$ 710,474,160
Account 905 - Misc Customer Accounts (page 322, line 163)		\$ 1,894	\$ -		\$ 286	\$ 134,126,684
Subtotal - Total Charges Applicable to Customer Accounts Services		\$ 29,233,247	\$ 5,020,473		\$ 1,013,857	\$ 844,600,844
Account 902 - Meter Reading Expenses (page 322, line 160)		\$ 5,345,473	\$ 2,932,203		\$ 388,499	\$ 189,368,061
Total Charges Applicable to Customer Accounts Svcs & Meter Reading		\$ 34,578,720	\$ 7,952,676		\$ 1,402,356	\$ 1,033,968,905
Percent Applicable to Customer Accounts Services (903 and 905)		84.5%	63.1%		72.3%	81.7%
Customer Account Services Portion of Total Payroll		\$ 7,169,154	\$ 3,852,062		\$ 245,783	\$ 421,148,684
Pension & Benefits Pertaining to Customer Accounts Services		\$ 1,415,185	\$ 849,338		\$ 46,865	\$ 91,132,965
<b>Note B: Calculation of Employer's FICA Pertaining to Customer Accounts Services</b>						
Customer Account Services Portion of Total Payroll		\$ 7,169,154	\$ 3,852,062		\$ 245,783	\$ 421,148,684
Employer's Portion of FICA (6.20%) and Medicare (1.45%)		\$ 7,657	\$ 7,657		\$ 7,657	\$ 7,657
Estimated Employer's Portion of FICA		\$ 548,440	\$ 294,683		\$ 18,802	\$ 32,217,874

## VI - Question 4 – Need for Service Company Services

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### **Analysis of Services**

The final aspect of this study was an assessment of whether the services that are provided to PAWC by the Service Company would be necessary if PAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for PAWC. Based on discussions with Service Company personnel, the matrix in Exhibit 11 was created showing which entity—PAWC or a Service Company location—is responsible for each of the functions PAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Exhibit 12, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if PAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to PAWC. For all of the services listed in Exhibit 12, there was only one entity that was primarily responsible for the service.

Water Company Function	PAWC	Performed By:							
		Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab		
<b>Primarily Responsible P Provides Support S</b>									
<b>Water Company Function</b>									
<b>Engineering and Construction Management</b>									
CPS Preparation	P				S				
Five-Year System Planning	P				P				
Engineering Standards & Policies Development									
Project Design									
Major Projects (e.g., new treatment plant)	P				S				
Special Projects	P				S				
Minor Projects (e.g., pipelines)	P				S				
Construction Project Management	P				S				
Special Projects	P								
Minor Projects	P								
Hydraulics Review	P								
Developers Extensions	P								
Tank Painting	P								
<b>Water Quality and Purification</b>									
Water Quality Standards Development	S				P				S
Research Studies	S				P				S
Water Quality Program Implementation	P				S				
Water Treatment Operations & Maintenance	P				S				
Compliance Tracking and Chemical Testing	P				S				S
Sample Collection and Other Testing	P				S				S
<b>Transmission and Distribution</b>									
Preventive Maintenance Program Development	S								
System Maintenance	P								
Leak Detection	P								
<b>Customer Service</b>									
Community Relations	P								
Customer Contact	P (A)								
Call Processing	P				S				
Service Order Creation	S				S				
Service Order Processing	P				S				
Customer Credit									
Meter Reading	P								S
Customer Bill Preparation									P
Bill Collection									S
Customer Payment Processing	S								S
Meter Standards Development	S								S
Meter Testing, Maintenance & Replacement	P								

Note A: PAWC provide in-person customer contact while Service Company call centers provide customer phone contact







**Pennsylvania-American Water Company**  
**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:					
	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible P</b>						
<b>Provides Support S</b>						
<b>Rates</b>						
Rate Studies & Tariff Change Administration		P	S			
Rate Case Planning and Preparation		P	S			
Rate Case Administration		P	S			
Commission Inquiry Response		P	S			
<b>Legal</b>		P	S			
<b>Purchasing and Materials Management</b>				S		
Specification Development		S		P		
Bid Solicitation		S		P		
Contract Administration		P (A)		P (A)		
Ordering		P		S		
Inventory Management		P				
<b>Human Resources Management</b>						
Benefit Program Development				P		
Benefits Program Administration				P		
Management Compensation Administration				P		
Wage & Salary Program Design		S		P		
Wage & Salary Administration		P		P		
Labor Negotiations--Wages		P				
Labor Negotiations--Benefits		P		P		
Labor Negotiations-- Work Rules		P				
Training Program Development		P				
Training--Course Delivery		P				
Affirmative Action/EEO--Plan Development		P	S			
Affirmative Action/EEO--Implementation		P				
<b>Information Systems Services</b>						
Service Company Data Centers						P
System Operations & Maintenance						P
Software Maintenance						
Network Administration						P
PC Acquisition & Support						P
Help Desk			S			P

Note A: Where contracts are administered is based on the nature of the work and where that work originated

## VI - Question 4 – Need for Service Company Services

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### Governance Practices Associated With Service Company Charges

There are several ways by which PAWC exercises control over Service Company services and charges. The most important of these are described below.

- **Company President Oversight** – The Company President of the state utility is responsible for the overall performance of the each operating company or district in the state. The state President has a significant voice in major business decisions of American Water and has the ability to monitor Service Company quality and spending.
- **Vice President Finance** – The VP Finance is responsible for the financial reporting, performance and internal controls of PAWC. The VP Finance through designees monitors the performance and reporting from the Service Company. The VP Finance attends quarterly Business Performance Review sessions with the PAWC President and finance group to review actual results and address forecast modifications for the remainder of the year. The VP Finance reports on the quarterly financial results and forecast updates to PAWC's Board of Directors. The rates function reports to the VP Finance, who in conjunction with the State President reviews and authorizes the filing of PAWC rate cases and regularly monitors the status of cases.
- **Operating Company Board Oversight** – PAWC's board of directors includes members of American Water's senior executive team and the President of PAWC. This helps ensure that PA American's needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – PAWC's President and members of the American Water's senior executive team sit on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are combined with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors. PA American's president is also on the local board.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's senior executive team. American Water's senior executive team, with input from the President of PAWC has the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Finance personnel review the Service Company bill for accuracy and reasonableness on a monthly basis. The financial team has dialogue with regional and corporate office personnel concerning the monthly bill and any mistakes or overcharges are credited on a subsequent billing. The finance unit prepares an actual to budget comparison of service company fees each month for use in identifying unusual variances. Service Company actual to budget comparison is included in the monthly FRP. Unusual variances are researched, explanations are provided and any corrections are made, as necessary.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report is produced by Service Company location and shows actual spending for the month.
- **Operating Company Budget Variance Reporting** – The "Financial Review Package" produced monthly, has multiple line items for Service Company spending. In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date. Additional information exists that allows more detailed analysis of "Regional" and "Corporate" Service Company Fees.

## VI - Question 4 – Need for Service Company Services

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- **Capital Investment Management (CIM)** – CIMC is one of American Water’s primary business planning processes. It covers capital and asset planning and is employed throughout American Water. CIMC provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIMC ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans
  - The impacts of these plans are understood and affordable, and
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIMC process was designed to optimize the effectiveness of asset investment. The process is managed at two levels for all PAWC Operating Units. Monthly meetings of the CIMC are held to review capital spending compared to plan, review new project requests, and review updates or modifications to existing projects. The President of PAWC, VP Finance, and others participate as necessary (e.g. VP Engineering and VP Operations) and provide the data used in the monthly review schedules.

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**Market Cost Comparison of Service Company Charges  
Provided to Tennessee American Water Company**

**12-Months Ended June 30, 2006**

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**Tennessee American Water Company  
Market Cost Comparison of Service Company Charges  
12-Months Ended June 30, 2006**

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## I - Introduction

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### Purpose Of This Study

This study was undertaken to answer three questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to Tennessee American Water Company (TAWC):

1. Was TAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during the 12-months ended June 30, 2006?
2. Were the 12-months ended June 30, 2006 costs of the Service Company's customer accounts services, including those of the National Call Centers, reasonable?
3. Are the services TAWC receives from Service Company necessary?

### Study Results

Concerning question 1, the following conclusions can be drawn from this study:

- TAWC was charged the lower of cost or market for managerial and professional services during the 12-months ended June 30, 2006.
- On average, the hourly rates for outside service providers are **34% higher** than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by TAWC without careful supervision on the part of TAWC. If these services were contracted entirely to outside providers, TAWC would have to add one position to manage activities of outside firms. This position would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been out-sourced during the 12-months ended June 30, 2006, TAWC and its ratepayers would have incurred an **additional \$1.6 million** in expenses. This amount includes the higher cost of outside providers and the cost of a TAWC position needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to TAWC from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company personnel, on the other hand, charge a maximum 8 per day even when they work more. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$1.6 million cited above.
- It would be difficult for TAWC to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.

- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from TAWC ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, **is below the average of the comparison group of neighboring electric utilities**. As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of TAWC. During the 12-months ended June 30, 2006, the customer accounts cost for TAWC customers was \$28.32 compared to the 2005 average of \$31.73 for neighboring electric utilities. The highest comparison group 2005 per customer cost was \$65.51 and the lowest \$12.61.

Concerning question 3, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if TAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to TAWC. For all of the services listed in Schedule 10, there was only one entity that was primarily responsible for the service.

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## II - Background

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### Overview Of American Water Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in the second quarter of 2001 a second in Pensacola, Florida that went into operation in April 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of TAWC, which incurred the expense on its books. TAWC transitioned to the Alton Call Center during July and August 2003. During the test period, TAWC also utilized the Pensacola Call Center.
- National Shared Services Center – The Shared Services Center, located in Mount Laurel, New Jersey during 2005 and moved to Cherry Hill, New Jersey in January 2006, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they have not been consolidated into the National Shared Services Center. Examples of regional office services include rates and revenues, engineering and operations. There are four regional offices—Northeast, Southeast, Central and West.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located in Voorhees, New Jersey, supports the IT infrastructure required to run corporate and operating company business applications and the email system. Two smaller data centers, located in Hershey, Pennsylvania and Richmond, Indiana host some Company servers and print customer bills. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees



- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

**Charging and Assignment Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges.

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries.

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet (see example in Schedule 1) that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable).

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 2% of the Voorhees Data Center's professional labor is assigned to TAWC during a month, then 2% of that office's monthly administrative labor charges also is assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 2% of the Corporate Office's accumulated professional and support labor is charged to TAWC during the month, then 2% of that month's overhead expenses will be assigned to TAWC.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to TAWC, then 2% of that office's office expenses would be assigned to TAWC. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a state rate case proceeding are charged directly to the operating company whose case is being heard.

Tennessee American Water Company  
Sample Electronic Time Sheet

Session A - [24 x 80]  
File Edit View Communication Actions Window Help

American Water Works Company (581020) - 1/26/06

17:00:09  
Emp#: 18507871  
View Mode

Week Ending:	1/23/05	Andes, Kathleen	Time Entry							Total	Meal
Dept:	036518	NE-Human Resources	Mo	Tu	We	Th	Fr	Sa	Su	Hours	Money
Totals:	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	40.00	
Formula	Typ	1/17	1/18	1/19	1/20	1/21	1/22	1/23			
100082	001	1.00	1.00	1.00	1.00	1.00	1.00	1.00		5.00	
Account:		036518.501200.16	Pay Type Desc:							Regular	
100229	001	6.00	6.00	6.00	6.00	6.00	6.00	6.00		30.00	
Account:		036518.501200.16	Pay Type Desc:							Regular	
100231	001	1.00	1.00	1.00	1.00	1.00	1.00	1.00		5.00	
Account:		036518.501200.16	Pay Type Desc:							Regular	
100229	250									.00	
Account:		036518.501200.16	Pay Type Desc:							Sick	
100229	300									.00	
Account:		036518.501200.16	Pay Type Desc:							Holiday	
100229	400									.00	
Account:		036518.501200.16	Pay Type Desc:							Vacation	

OK Cancel Help  
F9-Comments F10-Save Template F11-Display Errors  
More...

Disconnected. | WJ50031JW06P

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**III – Service Company Cost Comparison Approach**

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During the 12-months ended June 30, 2006, Service Company charged TAWC \$4,536,342. For purposes of comparing these charges to outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	12-Months Ended June 30, 2006	
	Amount	Hours
Management and Professional Services	\$ 3,580,292	31,995
Customer Account Services	\$ 956,050	29,476
Total Charges	\$ 4,536,342	61,471

This study’s first question—whether the Service Company charges the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to TAWC during the 12-months ended June 30, 2006. Outside providers’ billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The second question—reasonableness of the National Call Center costs—was addressed by comparing TAWC’s customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The third question—the necessity of Service Company services—was first investigated by determining the services provided to TAWC. A determination was then made as to whether these services would be required if TAWC were a stand-alone utility.

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## IV – Managerial And Professional Services Hourly Rate Comparison

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### Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services, it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues
- Professional Engineers – engineering, operations and water quality services.

It should be noted that the services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to TAWC during the 12-months ended June 30, 2006. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged TAWC during the 12-months ended June 30, 2006, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### Service Company Hourly Rates

Schedule 2 (pages 10-11) details the assignment of 2006 test period management and professional Service Company charges and hours to outsider provider categories.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2006 test period non-labor Service Company charges:

- Contract Services – 12-months ended June 30, 2006 Service Company charges to TAWC include over \$700,000 in charges associated with existing arrangements with

outside professional firms who perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.

- **Travel Expenses** – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- **Computer Hardware and Software Expenses** – Included in the 12-months ended June 30, 2006 Service Company charges to TAWC are charges for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the email system. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.
- **Severance Payments** – During the 12-months ended June 30, 2006, the Service Company instituted layoffs that resulted in severance payments to some departing employees. TAWC's portion of these payments are excluded from the hourly rate calculation because they are non-recurring items.

Schedule 3 (page 12) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 3 and 4, the Service Company's equivalent costs per hour for the 12-months ended June 30, 2006 are calculated below.

	<b>Attorney</b>	<b>Management Consultant</b>	<b>Certified Public Accountant</b>	<b>Professional Engineer</b>	<b>Total</b>
Total management, professional & technical services charges	\$ 169,849	\$ 1,324,057	\$ 1,408,453	\$ 677,933	\$ 3,580,292
Less:					
Contract services	4,748	395,354	300,437	12,653	713,192
Travel expenses	8,977	60,781	34,559	40,128	144,445
Computer hardware/software	(1)	44,399	40,436	6,575	91,409
Severance expenses		28,534			28,534
Net Service Charges (A)	\$ 156,124	\$ 794,989	\$ 1,033,021	\$ 618,577	\$ 2,602,711
Total Hours (B)	1,396	5,167	16,097	9,335	31,995
<b>Average Hourly Rate (A / B)</b>	<b>\$ 112</b>	<b>\$ 154</b>	<b>\$ 64</b>	<b>\$ 66</b>	

Exhibit Witness: PLB-1  
Schedule 2  
Page 1 of 2

**Tennessee American Water Company**  
**Analysis of 12-Months Ended June 30, 2006 Service Company Charges By Location And Function**

Location	Function	12-Months Ended June 30, 2006 Service Company Charges				Total
		Management Attorney	Certified Public Consultant	Professional Accountant	Professional Engineer	
Belleville Lab	Water Quality				\$ 103,764	\$ 103,764
Call Center	Human Resources		\$ 21,925			\$ 21,925
Corporate	Accounting			\$ 74,831		\$ 74,831
	Administration	\$ 14,063	\$ 627,448	\$ 84,973	\$ 51,499	\$ 777,983
	Audit			\$ 34,763		\$ 34,763
	Communications		\$ 41,968			\$ 41,968
	Finance			\$ 111,853		\$ 111,853
	Human Resources		\$ 157,104			\$ 157,104
	Legal	\$ 44,579				\$ 44,579
	Operations				\$ 99,126	\$ 99,126
	Rates & Revenue			\$ 68,440		\$ 68,440
	Risk Management		\$ 25,496			\$ 25,496
	Water Quality				\$ 24,829	\$ 24,829
Central Region	Administration		\$ 2,463			\$ 2,463
	Communications		\$ 662			\$ 662
	Engineering				\$ 801	\$ 801
	Finance			\$ (109)		\$ (109)
	Human Resources		\$ 752			\$ 752
	Legal	\$ 347				\$ 347
	Operations				\$ 171	\$ 171
	Risk Management		\$ 375			\$ 375
Northeast Region	Administration		\$ 2,523			\$ 2,523
	Communications		\$ 321			\$ 321
	Engineering				\$ 92	\$ 92
	Finance			\$ 1,079		\$ 1,079
	Human Resources		\$ 696			\$ 696
	Legal	\$ 794				\$ 794
	Operations				\$ 2,503	\$ 2,503
	Risk Management		\$ 254			\$ 254
Southeast Region	Administration		\$ 193,214			\$ 193,214
	Communications		\$ 39,609			\$ 39,609
	Engineering				\$ 82,049	\$ 82,049
	Finance			\$ 150,046		\$ 150,046
	Human Resources		\$ 85,563			\$ 85,563
	Legal	\$ 109,758				\$ 109,758
	Operations				\$ 247,745	\$ 247,745
	Risk Management		\$ 36,345			\$ 36,345
Western Region	Administration		\$ 294			\$ 294
	Communications		\$ (78)			\$ (78)
	Engineering				\$ 208	\$ 208
	Finance			\$ 1,160		\$ 1,160
	Human Resources		\$ (13)			\$ (13)
	Legal	\$ 307				\$ 307
	Operations				\$ (1,754)	\$ (1,754)
	Risk Management		\$ (12)			\$ (12)
IT	Information Systems			\$ 517,967		\$ 517,967
	Supply Chain			\$ 80,842		\$ 80,842
Shared Services	Accounting			\$ 232,176		\$ 232,176
	Administration		\$ 87,148			\$ 87,148
	Finance			\$ 32,458		\$ 32,458
	Rates & Revenue			\$ 17,973		\$ 17,973
<b>Total</b>		<b>\$ 169,849</b>	<b>\$ 1,324,057</b>	<b>\$ 1,408,453</b>	<b>\$ 677,933</b>	<b>\$ 3,580,292</b>

Exhibit Witness: PLB-1

Schedule 2

Page 2 of 2

**Tennessee American Water Company**  
**Analysis of 12-Months Ended June 30, 2006 Service Company Hours By Location And Function**

Location	Function	12-Months Ended June 30, 2006 Service Company Hours				
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Belleville Lab	Water Quality				1,639	1,639
Call Center	Human Resources		228			228
Corporate	Accounting			24		24
	Administration		1,207			1,207
	Audit			345		345
	Communications		140			140
	Finance			578		578
	Human Resources		569			569
	Legal	198				198
	Operations				795	795
	Rates & Revenue			179		179
	Risk Management		285			285
	Water Quality				411	411
Central Region	Administration		-			-
	Communications					-
	Engineering				2	2
	Finance			6		6
	Human Resources		26			26
	Legal					-
	Operations					-
	Risk Management					-
	Water Quality					-
Northeast Region	Administration		2			2
	Communications					-
	Engineering					-
	Finance			1		1
	Human Resources		0			0
	Legal	2				2
	Operations				7	7
	Risk Management					-
Water Quality					-	
Southeast Region	Administration		621			621
	Communications		414			414
	Engineering				763	763
	Finance			2,692		2,692
	Human Resources		912			912
	Legal	1,195				1,195
	Operations				4,355	4,355
	Risk Management		557			557
	Water Quality				1,364	1,364
Western Region	Administration		-			-
	Communications					-
	Engineering				(1)	(1)
	Finance					-
	Human Resources					-
	Legal	1				1
	Operations					-
	Risk Management					-
	Water Quality					-
IT	Information Systems			4,583		4,583
Supply Chain	Accounting			1,480		1,480
Shared Services	Accounting			4,810		4,810
	Administration		204			204
	Finance			997		997
	Rates & Revenue			402		402
<b>Total</b>		<b>1,396</b>	<b>5,167</b>	<b>16,097</b>	<b>9,335</b>	<b>31,995</b>



Exhibit Witness: PLB-1  
Schedule 3

**Tennessee American Water Company**  
**12-Months Ended June 30, 2006 Service Company Charges Excludable From The Hourly Rate Calculation –**  
**Contract Services, Travel Expenses and Computer Hardware/Software**

Charges By Function	Exclusions From Hourly Rate Calculation					Total
	Contract Services	Travel Expenses	Computer HW/SW	Severance Payments		
Accounting	\$ 160,062	\$ 4,463	\$ 707		\$ 165,232	
Administration	\$ 326,061	\$ 39,485	\$ 42,017	\$ 28,347	\$ 435,910	
Audit	\$ 8,568	\$ 3,262			\$ 11,830	
Communications	\$ 16,882	\$ 4,541	\$ 89		\$ 21,512	
Engineering		\$ 3,275			\$ 3,275	
Finance	\$ 25,377	\$ 9,389	\$ 129		\$ 34,895	
Human Resources	\$ 50,262	\$ 9,712	\$ 56	\$ 187	\$ 60,217	
Information Systems	\$ 89,740	\$ 12,226	\$ 39,600		\$ 141,566	
Legal	\$ 4,748	\$ 8,977	\$ (1)		\$ 13,724	
Operations	\$ 10,275	\$ 31,039	\$ 1,130		\$ 42,444	
Rates & Revenue	\$ 16,690	\$ 5,219			\$ 21,909	
Risk Management	\$ 2,149	\$ 7,043	\$ 2,237		\$ 11,429	
Water Quality	\$ 2,378	\$ 5,814	\$ 5,445		\$ 13,637	
<b>Total</b>	<b>\$ 713,192</b>	<b>\$ 144,445</b>	<b>\$ 91,409</b>	<b>\$ 28,534</b>	<b>\$ 977,580</b>	

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation					Total
	Contract Services	Travel Expenses	Computer HW/SW	Severance Payments		
Attorney	\$ 4,748	\$ 8,977	\$ (1)	\$ -	\$ 13,724	
Management Consultant	\$ 395,354	\$ 60,781	\$ 44,399	\$ 28,534	\$ 529,068	
Certified Public Accountant	\$ 300,437	\$ 34,559	\$ 40,436	\$ -	\$ 375,432	
Professional Engineer	\$ 12,653	\$ 40,128	\$ 6,575	\$ -	\$ 59,356	
<b>Total</b>	<b>\$ 713,192</b>	<b>\$ 144,445</b>	<b>\$ 91,409</b>	<b>\$ 28,534</b>	<b>\$ 977,580</b>	

## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Attorneys**

The Tennessee Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for Tennessee attorneys. Therefore, a Tennessee estimate was developed from a survey of Michigan lawyers conducted annually by the Michigan Lawyers Weekly. As presented in Schedule 4, the average rate for each Michigan firm respondent was adjusted for the cost of living differential between their location and Chattanooga, Tennessee. The survey includes rates that were in effect at December 31, 2005—the midpoint of the 12-months ended 2006.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2005 annual survey performed by the Association of Management Consulting Firms—an industry trade organization. The first step in the calculation, presented in Schedule 5, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2004 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The 2004 average rate was escalated to December 31, 2005—the midpoint of 12-months ended June 30, 2006.

### **Certified Public Accountants**

The average hourly rate for Tennessee certified public accountants was developed from a 2004 survey conducted by the American Institute of Certified Public Accountants (AICPA) every two years. Hourly rates in the AICPA survey are the average of firms in Tennessee. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 6. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2003, thus they had to be escalated to December 31, 2005—the midpoint of 12-months ended June 30, 2006.

### **Professional Engineers**

The Service Company provided hourly rate information for three outside engineering firms that were used by TAWC in 2005 and 2006. As presented in Schedule 7, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Schedule 4

**Tennessee American Water Company**  
**Estimated Billing Rates Of Tennessee Attorneys**

Billing rates as of December 31, 2005 (Note A)							Cost of Living	Adjusted Rate
Firm	Michigan Location	Number Of Michigan Lawyers	Billing Rate Range			Adjustment (C)		
			Low	High	Avg			
Dykema	Detroit	228	\$ 250	\$ 408	\$ 329	89.8%	\$ 295	
Dickinson Wright	Detroit	218	\$ 208	\$ 385	\$ 296	89.8%	\$ 266	
Butzel Long	Detroit	212	\$ 283	\$ 385	\$ 334	89.8%	\$ 300	
Bodman	Detroit	130	\$ 168	\$ 323	\$ 245	89.8%	\$ 220	
Jaffe Raitt Heuer & Weiss	Southfield	95	\$ 160	\$ 358	\$ 259	93.1%	\$ 241	
Sommers Schwartz	Southfield	76	\$ 138	\$ 193	\$ 165	93.1%	\$ 154	
Trott & Trott	Bingham Farms	57	\$ 188	\$ 250	\$ 219	79.4%	\$ 174	
Brooks Kushman	Southfield	52	\$ 218	\$ 375	\$ 296	93.1%	\$ 276	
Foley & Lardner	Detroit	42	\$ 298	\$ 453	\$ 375	89.8%	\$ 337	
Kemp, Klein, Umphrey, Edelman & May	Troy	38	\$ 155	\$ 263	\$ 209	89.1%	\$ 186	
Pepper Hamilton	Detroit	31	\$ 255	\$ 448	\$ 351	89.8%	\$ 315	
Hertz, Schram & Saretsky	Bloomfield Hills	30	\$ 218	\$ 338	\$ 278	80.3%	\$ 223	
O'Reilly Rancilio	Sterling Heights	27	\$ 180	\$ 238	\$ 209	91.6%	\$ 191	
Thrun Law Firm	East Lansing	27	\$ 190	\$ 220	\$ 205	90.2%	\$ 185	
Strobl & Sharp	Bloomfield Hills	26	\$ 145	\$ 275	\$ 210	80.3%	\$ 169	
Kuperlian Ormond & Magy	Southfield	24	\$ 173	\$ 263	\$ 218	93.1%	\$ 203	
Parmenter O'Toole	Muskegon	23	\$ 145	\$ 238	\$ 191	97.5%	\$ 187	
Rader, Fishman & Grauer	Bloomfield Hills	23	\$ 208	\$ 373	\$ 290	80.3%	\$ 233	
Tanoury, Corbet, Shaw, Nauts & Essad	Detroit	22	\$ 120	\$ 180	\$ 150	89.8%	\$ 135	
Williams, Williams, Ratner & Plunkett	Birmingham	22	\$ 200	\$ 313	\$ 256	64.3%	\$ 165	
Overall Average			\$ 195	\$ 314	\$ 254		\$ 223	
Estimated Average Hourly Billing Rate For Tennessee Attorneys At December 31, 2005							\$	<b>223</b>

Note A: Source is Michigan Lawyers Weekly, Michigan's Largest Law Firms (April 2006)

Note B: Source is US Bureau of Labor Statistics (<http://data.bls.gov/cgi-bin/surveymost>)

Note C: Represents Chattanooga's cost of living as a percent of the Michigan city in which the law firm is located.  
Source of this information is [www.homefair.com](http://www.homefair.com).

Schedule 5

**Tennessee American Water Company**  
**Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position  
Survey billing rates were those in effect in 2004 (Note A)

		Average Hourly Rates (Note A)				
		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average		\$ 145	\$ 172	\$ 229	\$ 295	\$ 321

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement

		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)		\$ 145	\$172	\$229	\$295	\$321	
Typical Percent of Time Spent on a Consulting Project		30%	30%	20%	10%	10%	Weighted Average
		\$ 44	\$ 51	\$ 46	\$ 29	\$ 32	<b>\$ 202</b>

Escalation to Test Year Mid-Point December 31, 2005 (Note B)

	CPI at December 31, 2004	190.3
	CPI at December 31, 2005	196.8
	Inflation/Escalation	6.5%
Estimated Average Hourly Billing Rate For Consultants At December 31, 2005		<b>\$ 216</b>

Note A: source: "Operating Ratios For Management Consulting Firms, 2005 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Schedule 6

**Tennessee American Water Company**  
**Estimated Billing Rates Of Tennessee Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2003 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 72	\$ 77	\$ 120	\$ 160
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 72	\$ 77	\$ 120	\$ 160
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 22	\$ 23	\$ 24	\$ 32
				Weighted Average \$ 101
<u>Escalation to Test Year Mid-Point December 31, 2005 (Note B)</u>				
			CPI at December 31, 2003	184.3
			CPI at December 31, 2005	196.8
			Inflation/Escalation	12.5%
Estimated Average Hourly Billing Rate For Tennessee CPAs At Dec. 31, 2005				<b>\$ 113</b>

Note A: Source is AICPA's 2004 National PCPS/TSCPA Management of an Accounting Practice Survey

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.ai.txt>)

Exhibit Witness: PLB-1  
Schedule 7

**Tennessee American Water Company**  
**Billing Rates Of Tennessee Engineers**

Note: Billing rates are the average for 2005 and 2006					
A. Calculation of Average Hourly Rate by Engineer Position					
Name of Firm	Average Hourly Billing Rates				
	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer	
Firm #1	\$59	\$99	\$122	\$133	
Firm #2	\$67	\$78	\$125	\$149	
B. Calculation of Overall Average Engineering Hourly Billing Rate					
Average Hourly Billing Rate (From Above)	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer	
	\$63	\$88	\$123	\$141	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	Weighted Average
	\$19	\$31	\$31	\$14	<b>\$95</b>

Source: Information provided by American Water Works Service Company. Firm names have not been disclosed to preserve the confidentiality of their hourly rates.

**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

12 Months Ended June 30, 2006			
Service Provider	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 112	\$ 223	\$ (111)
Management Consultant	\$ 154	\$ 216	\$ (62)
Certified Public Accountant	\$ 64	\$ 113	\$ (49)
Professional Engineer	\$ 66	\$ 95	\$ (29)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to TAWC during the 12-months ended June 30, 2006, outside service providers would have cost \$1,530,452 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are almost 34% higher than those of the Service Company (\$1,530,452 / \$4,536,342).

12 Months Ended June 30, 2006			
Service Provider	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (111)	1,396	\$ (155,217)
Management Consultant	\$ (62)	5,167	\$ (321,083)
Certified Public Accountant	\$ (49)	16,097	\$ (785,939)
Professional Engineer	\$ (29)	9,335	\$ (268,213)
Net Service Co Less Than Outside Providers			\$ (1,530,452)

If TAWC were to use outside service providers rather than the Services Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 31,995 hours of work (around 21 full-time equivalents at 1,500 billable hours per FTE) would add a significant workload to the existing TAWC management team. Thus, it would be necessary for TAWC to add at least one position to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill these positions would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$121,400 per year to TAWC's personnel expenses.

Cost of Adding Administrative Positions To TAWC's Staff

	Total
New Positions' Salary	\$ 85,000
Benefits (at 52%)	\$ 36,400
Total Cost of the New Position	\$ 121,400

Thus, the total effect on the ratepayers of TAWC of contracting all services now provided by Service Company would be an increase in their costs of **\$1,651,852** (\$1,530,452 + \$121,400).

**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%
2005	24	25%

These studies present further evidence that the Service Company arrangement is the lowest-cost alternative for TAWC.



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**V – Customer Account Services Cost Comparison**

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**Background**

It is difficult to compare the cost of American Water's National Call Centers with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, TAWC's National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC's chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study's comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA).

Schedule 8 provides FERC's description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

<p><b><u>903 Records and Collection Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls</li><li>• Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications</li><li>• Customer billing – bill printing, stuffing and mailing</li><li>• Remittance processing – processing of customer payments received in the mail</li><li>• Bill payment centers – locations where customers can pay their bills in person</li></ul> <p><b><u>905 Miscellaneous Customer Accounts Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Information System IT – maintenance and support of the customer information system</li></ul>
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This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

**Tennessee American Water Company**  
**FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

**Tennessee American Water Company**  
**FERC Account Descriptions**

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

Tennessee	• Kingsport Power	
Kentucky	• Kentucky Power	• Louisville Gas & Electric
	• Kentucky Utilities	• Union Light, Heat & Power
Virginia	• Appalachian Power	• Virginia Electric Power
North Carolina	• Duke Power	• Progress Energy – Carolinas
Georgia	• Georgia Power	• Savannah Electric
Alabama	• Alabama Power	
Mississippi	• Entergy Mississippi	• Mississippi Power
Arkansas	• Entergy Arkansas	
Missouri	• Aquila	• Union Electric

Several neighboring electric utilities could not be included in the comparison group because they did not submit the necessary FERC Form 1 data.

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. TAWC's cost pool was developed to include the same expenses included in electric utility's FERC accounts 903 and 905. As shown in the graphic below, TAWC's resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u>
Pensacola & Alton Call Centers
a. Customer contact
b. Customer order processing
c. Billing information processing
d. Collections
e. Correspondence processing
<u>IT Service Centers</u>
a. Support expenses for the customer information system (ORCOM)
<u>New Jersey American</u>
a. Payment processing

Electric Utilities
FERC Acct 903 - Records and Collection Expense <u>and</u> FERC Acct 905 - Misc Customer Accounts Expense
a. Customer contact
b. Customer order processing
c. Bill preparation and mailing
d. Collections
e. Payment processing
f. Correspondence processing

**TAWC Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to TAWC. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.32 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, TAWC's adjusted annual expense per customer is \$28.32—the number that can be compared to neighboring electric utilities' expenses.

Year Ended June 30, 2006 TAWC Cost Per Customer			Tennessee American	
Cost Component			Actual	Adjusted
<b>Service Company</b>				
Call Centers	Call processing, order processing, credit, bill collection	Note A	\$ 866,197	\$ 1,640,525
Regional Offices	Customer service support		\$ 89,853	\$ 89,853
IT Services	Customer info system support, bill printing			\$ 245,314
<b>Operating Company</b>				
	Customer payment processing	Note B		\$ 107,702
	Cost Pool Total			\$ 2,083,394
	Average Number of Customers			73,567
	<b>Year Ended June 30, 2006 Cost Per Customer</b>			<b>\$ 28.32</b>

Note A: Adjustment for American Water's fewer calls per customer

Net Test Year Call Center Charges (above)		\$ 866,197
Electric Utility industry's avg calls/customer	2.50	
American Water's avg calls/customer	1.32	
	Multiplier	1.89
	Total estimated cost	\$ 1,640,525

Note B: Estimated customer customer payment processing expenses

Average number of customers	73,567
Average number of payments/customer/year	12
Total payments processed/year	882,804
Bank charge per item	\$ 0.1220
Total estimated annual expense	\$ 107,702

### Electric Utility Group Cost Per Customer

Schedule 9 shows the actual 2005 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

### Summary Of Results

As shown in the table below, TAWC's cost per customer is below the average of the electric utility comparison group. It can therefore be concluded that the customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to TAWC are reasonable.

<b>Customer Account Services Expenses Per Customer</b>	
Louisville Gas & Electric	\$ 12.61
Virginia Electric Power	\$ 15.77
Union Electric	\$ 22.38
Aquila	\$ 22.84
Duke Power	\$ 24.35
Union Light, Heat & Power	\$ 25.75
Kentucky Utilities	\$ 25.78
Progress Energy - Carolinas	\$ 27.09
<b>Tennessee American Water</b>	<b>\$ 28.32</b>
<b>Comparison Group Average</b>	<b>\$ 31.73</b>
Kingsport Power	\$ 32.18
Appalachian Power	\$ 32.40
Kentucky Power	\$ 34.25
Georgia Power	\$ 43.44
Alabama Power	\$ 48.50
Savannah Electric	\$ 54.72
Mississippi Power	\$ 58.93
Entergy Arkansas	\$ 60.77
Entergy Mississippi	\$ 65.51

**Tennessee American Water Company  
Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

**Customer Accounts Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Accounts Expense per Customer**

Virginia		Kentucky				
Appalachian Power	Virginia Electric Power	Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	Union Light, Heat & Power	
\$ 28,324,797	\$ 27,065,213	\$ 5,669,498	\$ 10,832,569	\$ 4,279,581	\$ 2,787,640	
\$ 65,026	-	\$ 15,566	\$ 130,794	\$ 276,482	\$ 96,072	
\$ 28,389,823	\$ 27,065,213	\$ 5,685,064	\$ 10,963,363	\$ 4,556,063	\$ 2,883,712	
(A) \$ 1,155,330	\$ 6,548,241	\$ 180,973	\$ 2,120,162	\$ 337,225	\$ 294,880	
(B) \$ 850,432	\$ 2,461,320	\$ 135,759	\$ 358,923	\$ 62,820	\$ 195,943	
<b>\$ 30,395,584</b>	<b>\$ 36,064,774</b>	<b>\$ 6,001,796</b>	<b>\$ 13,442,448</b>	<b>\$ 4,956,108</b>	<b>\$ 3,374,536</b>	
938,029	2,287,193	175,255	521,342	392,998	131,028	
<b>\$ 32.40</b>	<b>\$ 15.77</b>	<b>\$ 34.25</b>	<b>\$ 25.78</b>	<b>\$ 12.61</b>	<b>\$ 25.75</b>	
\$ 17,426,702	\$ 130,305,500	\$ 3,634,365	\$ 22,757,866	\$ 21,039,968	\$ 3,124,822	
\$ 167,682,274	\$ 640,242,951	\$ 35,638,655	\$ 50,361,993	\$ 51,234,200	\$ 27,142,406	
10.4%	20.4%	10.2%	45.2%	41.1%	11.5%	
\$ 11,116,753	\$ 32,174,121	\$ 1,774,628	\$ 4,691,810	\$ 821,173	\$ 2,561,351	
\$ 1,155,330	\$ 6,548,241	\$ 180,973	\$ 2,120,162	\$ 337,225	\$ 294,880	
\$ 11,116,753	\$ 32,174,121	\$ 1,774,628	\$ 4,691,810	\$ 821,173	\$ 2,561,351	
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	
\$ 850,432	\$ 2,461,320	\$ 135,759	\$ 358,923	\$ 62,820	\$ 195,943	

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA



**Tennessee American Water Company  
Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

**Customer Accounts Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Accounts Expense per Customer**

	Georgia		Mississippi		North Carolina	
	Georgia Power	Savannah Electric	Energy Mississippi	Mississippi Power	Carolina Power & Light	Duke Power
	\$ 75,830,790	\$ 6,350,790	\$ 21,603,464	\$ 8,329,478	\$ 23,024,010	\$ 43,499,424
	\$ 721,329	\$ 5,674	\$ 850	\$ 1,431,145	\$ 7,101,028	\$ 3,497,590
	\$ 76,552,119	\$ 6,356,464	\$ 21,604,314	\$ 9,760,623	\$ 30,125,038	\$ 46,997,014
(A)	\$ 9,654,370	\$ 1,295,013	\$ 1,316,361	\$ 844,455	\$ 5,640,268	\$ 5,296,520
(B)	\$ 4,923,716	\$ 312,656	\$ 285,927	\$ 468,229	\$ 1,272,861	\$ 2,239,312
	<b>\$ 91,130,205</b>	<b>\$ 7,964,134</b>	<b>\$ 23,206,603</b>	<b>\$ 11,073,307</b>	<b>\$ 37,038,167</b>	<b>\$ 54,532,846</b>
	2,097,807	145,544	354,230	187,909	1,367,435	2,239,513
	<b>\$ 43.44</b>	<b>\$ 54.72</b>	<b>\$ 65.51</b>	<b>\$ 58.93</b>	<b>\$ 27.09</b>	<b>\$ 24.35</b>
	\$ 96,796,552	\$ 12,889,431	\$ 22,987,263	\$ 15,497,826	\$ 142,055,003	\$ 149,922,345
	\$ 645,308,750	\$ 40,678,526	\$ 65,268,940	\$ 112,328,864	\$ 419,060,053	\$ 828,569,320
	15.0%	31.7%	35.2%	13.8%	33.9%	18.1%
	\$ 64,362,306	\$ 4,087,010	\$ 3,737,614	\$ 6,120,641	\$ 16,638,704	\$ 29,272,048
	\$ 9,654,370	\$ 1,295,013	\$ 1,316,361	\$ 844,455	\$ 5,640,268	\$ 5,296,520
	\$ 64,362,306	\$ 4,087,010	\$ 3,737,614	\$ 6,120,641	\$ 16,638,704	\$ 29,272,048
	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
	\$ 4,923,716	\$ 312,656	\$ 285,927	\$ 468,229	\$ 1,272,861	\$ 2,239,312

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA





Exhibit Witness: PLB-1  
Schedule 9  
Page 3 of 3

**Tennessee American Water Company**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

	Tennessee		Missouri		Alabama		Arkansas		Group Average
	Kingsport Power	Aquila	Union Electric	Alabama Power	Entergy Arkansas	Group Average			
	\$ 1,433,975	\$ 8,536,953	\$ 21,732,269	\$ 58,210,665	\$ 27,300,865	\$ 374,801,981			
	\$ 2,709	\$ 182,261	\$ 467,706	\$ -	\$ 303,672	\$ 14,297,904			
	\$ 1,436,684	\$ 8,719,214	\$ 22,199,975	\$ 58,210,665	\$ 27,604,537	\$ 389,099,885			
(A)	\$ 19,249	\$ 1,241,896	\$ 3,189,312	\$ 5,848,557	\$ 6,224,256	\$ 51,207,068			
(B)	\$ 22,989	\$ 483,132	\$ 1,012,104	\$ 3,467,698	\$ 611,803	\$ 19,165,626			
<b>Total Cost Pool</b>	<b>\$ 1,478,923</b>	<b>\$ 10,444,242</b>	<b>\$ 26,401,390</b>	<b>\$ 67,526,920</b>	<b>\$ 34,440,596</b>	<b>\$ 459,472,579</b>			
Total Customers (page 304, line 43)	45,960	457,368	1,179,621	1,392,352	566,699	14,480,283			
<b>Customer Accounts Expense per Customer</b>	<b>\$ 32.18</b>	<b>\$ 22.84</b>	<b>\$ 22.38</b>	<b>\$ 48.50</b>	<b>\$ 60.77</b>	<b>\$ 31.73</b>			
	\$ 260,234	\$ 27,719,175	\$ 92,704,386	\$ 48,267,265	\$ 69,049,690	\$ 876,438,393			
	\$ 4,062,743	\$ 140,961,291	\$ 384,562,394	\$ 374,096,694	\$ 88,720,642	\$ 4,075,920,696			
	6.4%	19.7%	24.1%	12.9%	77.8%	21.5%			
	\$ 300,515	\$ 6,315,455	\$ 13,230,112	\$ 45,329,390	\$ 7,997,429	\$ 250,531,060			
	\$ 19,249	\$ 1,241,896	\$ 3,189,312	\$ 5,848,557	\$ 6,224,256	\$ 51,207,068			
	\$ 300,515	\$ 6,315,455	\$ 13,230,112	\$ 45,329,390	\$ 7,997,429	\$ 250,531,060			
	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%			
	\$ 22,989	\$ 483,132	\$ 1,012,104	\$ 3,467,698	\$ 611,803	\$ 19,165,626			

**Customer Accounts Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)

Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Accounts Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA



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## VI - Need For Service Company Services

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### Analysis Of Services

The final aspect of this study was an assessment of whether the services that are provided to TAWC by the Service Company would be necessary if TAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for TAWC. Based on discussions with Service Company personnel, the matrix in Schedule 10 was created showing which entity—TAWC or a Service Company location—is responsible for each of the functions TAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 10, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if TAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to TAWC. For all of the services listed in Schedule 10, there was only one entity that was primarily responsible for the service.

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:						
	Tennessee American	Customer Call Centers	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b> P							
<b>Provides Support</b> S							
Water Company Function							
<b>Engineering and Construction Management</b>							
GPS Preparation	S		P		S		
Five-Year System Planning	S		S		P		
Engineering Standards & Policies Development							
Project Design							
Major Projects (e.g., new treatment plant)	S		P		S		
Special Projects	P		S		S		
Minor Projects (e.g., pipelines)	P						
Construction Project Management							
Major Projects	S		P				
Special Projects	S		P				
Minor Projects	P		P				
Hydraulics Review	S		P				
Developers Extensions	P						
Tank Painting	P		S				
<b>Water Quality and Purification</b>							
Water Quality Standards Development			S		S		P
Research Studies	S		S		S		P
Water Quality Program Implementation	P		S		S		
Water Treatment Operations & Maintenance	P		S		S		
Compliance Sampling	P		S		S		S
Testing/Other Sampling	S		S		S		P
<b>Transmission and Distribution</b>							
Preventive Maintenance Program Development	P						
System Maintenance	P						
Leak Detection	P		S				
<b>Customer Service</b>							
Community Relations	P		S		S		
Customer Contact	S	P					
Call Processing		P					
Service Order Creation	S		S				
Service Order Processing	P						
Customer Credit		P					
Meter Reading	P						
Customer Bill Preparation		S				S	
Bill Collection		P		P			
Customer Payment Processing	S						
Meter Standards Development	S		S				
Meter Testing, Maintenance & Replacement	P		S		P		

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:						
	Tennessee American	Customer Call Centers	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b>	<b>P</b>						
<b>Provides Support</b>	<b>S</b>						
<b>Financial Management</b>							
Financial Planning	S		P		S		
Financings—Equity					S		
Financings--Long Term Debt & Preferred (A)	S		P				
Short Term Lines of Credit Arrangements (A)	S		P				
Investor Relations			S		P		
Insurance Program Administration					P		
Loss Control/Safety Program Administration	S		P		S		
Pension Fund Asset Management					P		
Cash Management/Disbursements				P			
<b>Internal Auditing</b>							
<b>Budgeting and Variance Reporting</b>							
Corporate Guidelines & Instructions					P		
Regional Guidelines & Instructions			P				
Budget Preparation			P				
Revenue	S						
O&M	P						
Depreciation and Interest Expense	S						
Budget Preparation--Service Company Charges					P		
Capital Budget Preparation—Projects	P		P		S		S
Capital Budget Preparation--Non-Project Work	P		S				
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	S		P				
Prepare Capital Project Budget Status Report	P		S				
Year-End Projections	P		S				
<b>Accounting and Taxes</b>							
Accounts Payable Accounting	S				P		
Payroll Accounting	S				P		
Work Order Accounting	S				P		
Fixed Asset Accounting	S				P		
Journal Entry Preparation--Billing Corrections	S				P		
Journal Entry Preparation--All Others	S				P		
Financial Statement Preparation	S				P		
State Commission Reporting	S		S		P		
Income Taxes—State					P		
Income Taxes—Federal					P		
Property Taxes	S				P		
Gross Receipts Taxes	S				P		

Note A: Financings and lines of credit are the responsibility of American Capital Corporation

**Tennessee American Water Company**  
**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:						
	Tennessee American	Customer Call Centers	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b> P							
<b>Provides Support</b> S							
<b>Rates</b>							
Rate Studies & Tariff Change Administration	S		P				
Rate Case Planning and Preparation	S		P				
Rate Case Administration	S		P				
Commission Inquiry Response	S		P		S		
<b>Legal</b>							
<b>Purchasing and Materials Management</b>							
Specification Development	S		S	S	P		
Bid Solicitation	S			P			
Contract Administration	S			P			
Ordering	P						
Inventory Management	P			S			
<b>Human Resources Management</b>							
Benefit Program Development					P		
Benefits Program Administration	P		S				
Management Compensation Administration					P		
Wage & Salary Program Design					P		
Wage & Salary Administration	P		S				
Labor Negotiations--Wages	P		S				
Labor Negotiations--Benefits					P		
Labor Negotiations--Work Rules	P		S				
Training Program Development	S		S				
Training--Course Delivery	P						
Affirmative Action/EEO--Plan Development	P		S				
Affirmative Action/EEO--Implementation	P						
<b>Information Systems Services</b>							
Service Company Data Centers							
System Operations & Maintenance						P	
Software Maintenance						P	
Network Administration			P			S	
PC Acquisition & Support			P			S	
Help Desk			S			P	



### **Governance Practices Associated With Service Company Charges**

There are several ways by which TAWC exercises control over Service Company services and charges. The most important of these are described below.

- **Regional President Oversight** – The Regional President of the Southeast Region is on the Executive Management Team (EMT) of American Water. The Regional President is responsible for the overall performance of each operating company in the region, including PAWC, VAWC, WVAWC, KAWC, TAWC, MAWC. As part of the EMT, each Regional President has equal say with other EMT members in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending.
- **Regional Vice President & Treasurer** – The Regional Vice President and Treasurer of the Southeast Region is responsible for the financial reporting, performance and internal controls of each of the operating companies in the region. The Vice President and Treasurer monitor the performance and reporting from the Service Company and pushes back whenever the quality and service are not appropriate.
- **Operating Company Board Oversight** – TAWC board of directors includes members of American Water’s EMT, members of the regional management team and business and community leaders from outside the Company. This helps ensure that Tennessee American’s needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – Every operating company president sits on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company’s own spending into an overall budget which must be approved by the operating company’s board of directors.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water’s Executive Management Team, which includes the Regional President. The Regional President, with input from the regional management team has the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Regional office personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. Any mistakes or overcharges are credited on a subsequent billing.
- **Operating Company Budget Variance Reporting** – The “Budget/Plan Analysis,” produced monthly by each operating company, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.

- **Capital Investment Management (CIM)** – CIM is one of American Water's primary business planning processes. It covers capital and asset planning and is employed throughout American Water and Thames Water. The current CIM process and procedures were established in 2003 as part of an initiative to implement leading water industry practices. CIM provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIM ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business,
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans,
  - The impacts of these plans are understood and affordable, and
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIM process was designed to optimize the effectiveness of asset investment. The process is managed at three levels for all American Water companies, including all Tennessee American Operating Units.

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**VIRGINIA-AMERICAN WATER COMPANY**  
**EVALUATION OF SERVICE COMPANY SERVICES**

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**MARCH 1999**

**BARYENBRUCH & COMPANY**



# VIRGINIA-AMERICAN WATER COMPANY EVALUATION OF SERVICE COMPANY SERVICES

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## I - INTRODUCTION

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### PURPOSE OF THIS STUDY

This study was undertaken to answer two questions:

- What would be the economic impact on Virginia-American Water Company (Virginia-American) if it were to outsource the services that it now receives from American Water Works Service Company, Inc. (Service Company)?
- Are the services Virginia-American receives from the Service Company necessary?

### STUDY APPROACH

The first issue was evaluated by comparing the cost per hour for work performed by Service Company personnel to the hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on the costs and hours that were charged to Virginia-American during the twelve months ended December 31, 1996. Outside providers' billing rates came from surveys of professionals that could perform the services now provided by the Service Company.

The second issue--the necessity of Service Company services--was investigated by determining specifically what the Service Company does for Virginia-American. Next, a comparison was made of the water utility functions performed by Virginia-American versus the Service Company to determine if there was any duplication of effort. Finally, an assessment was made as to whether these services would be required if Virginia-American were a stand-alone utility.

It should be noted that this is the same type of study that Baryenbruch & Company performed for Virginia-American in conjunction with its September 30, 1994 test year rate case. The methodology and information sources for this 1996 study are identical to those used in the 1994 study.

### STUDY RESULTS

Concerning issue 1, the following conclusions can be drawn from this study:

- The Service Company's hourly rates, on average, are **32% less than** those of outside providers of similar services.

- The services performed by the Service Company are vital and could not be procured externally by Virginia-American without careful oversight on the part of Virginia-American. If these services were contracted entirely to outside providers, Virginia-American would have to add at least one more position to coordinate and oversee the activities of those outside providers. This position would be essential to ensure a high level of quality service.
- If all the services now provided by the Service Company had been outsourced in 1996, Virginia-American and its ratepayers would incur an additional **\$391,300** in annual expenses. This is **43% higher than** the Service Company's total billings to Virginia-American during the year ended December 31, 1996.
- It is doubtful that Virginia-American could find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Substantially all that Service Company personnel do relates directly to servicing its operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company costs that cannot be charged directly to operating companies are allocated on the basis of number of customers. This is a straightforward and entirely reasonable methodology. The cost to administer this allocation technique is much lower than alternatives that use multiple factors.
- Service Company costs do not include any markup for profit. Only its actual cost of service is being recovered from Virginia-American ratepayers.

Concerning issue 2, the following conclusions can be drawn:

- Virginia-American could not function without the services that are provided to it by Service Company. These services are the same type of activities that must be carried out by a stand-alone utility company to ultimately provide customers with service.
- There is no redundancy in the services provided by the Service Company and the activities that are performed by Virginia-American itself.

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## **II - BACKGROUND**

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### **OVERVIEW OF SERVICE COMPANY SERVICES**

The services that the Service Company provides to Virginia-American are described in the contract dated January 1, 1989 between the Service Company and Virginia-American Water Company. These services fall under the categories shown below, each of which is described in detail in the Service Agreement:

- Accounting
- Administration
- Communications
- Corporate Secretarial and Legal
- Engineering
- Financial
- Human Resources
- Information Systems
- Operations
- Rates and Revenue
- Risk Management
- Water Quality.

During 1996, Virginia-American was provided services from the following Service Company locations:

- Corporate and Regional Offices – Voorhees, New Jersey
- Belleville Lab – Belleville, Illinois
- Hershey Data Processing Center – Hershey, Pennsylvania
- Richmond Data Processing Center – Richmond, Indiana.

In Baryenbruch & Company's 1994 study, all Virginia-American information services came from the Hershey Data Center. In 1996, the Richmond Data Center was used to produce customer bills. This transition was made because the Hershey center was running low on mainframe capacity and, in an effort to avoid the expense of added mainframe capacity, processing work was shifted to Richmond. It does not appear that there were additional costs associated with this change since total data center charges in 1996 (\$165,223) were lower than in the 1994 test year (\$168,556).

**DESCRIPTION OF SERVICE COMPANY EXPENSES**

The expenses of each Service Company location are categorized as follows:

- Labor - salaries of managerial, professional and technical employees
- Support - wages and salaries of office support personnel, including secretaries, clerks, telephone operators and mail clerks
- Overhead - costs of employee benefits, including payroll taxes, pensions and medical coverage, and other general office supplies and expenses
- Office Expense - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Travel Expenses - travel expenses incurred by the personnel of an office
- Other Expenses - other items submitted for reimbursement by employees, including professional association dues and moving expenses
- Vouchers/Journal Entries - various expense items, including Hershey Data Center expenses for software licenses and hardware maintenance.

During the twelve months ended December 31, 1996, the Service Company billed Virginia-American \$909,611, as detailed below.

	Charges For 1996
Payroll	\$ 365,251
Support	\$ 41,748
Overhead	\$ 196,463
Office Expense	\$ 144,068
Travel Expense	\$ 44,506
Other Expense	\$ (4,751)
Vouchers/Journal Entries	\$ 122,326
Total	\$ 909,611

## **ASSIGNMENT OF SERVICE COMPANY EXPENSES TO OPERATING COMPANIES**

The expenses of each Service Company location are categorized as follows:

- Labor - salaries of managerial, professional and technical employees
- Support - wages and salaries of office support personnel, including secretaries, clerks, telephone operators and mail clerks
- Overhead - costs of employee benefits, including payroll taxes, pensions and medical coverage, and other general office supplies and expenses
- Office Expense - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Travel Expenses - travel expenses incurred by the personnel of an office
- Other Expenses - other items submitted for reimbursement by employees, including professional association dues and moving expenses
- Vouchers/Journal Entries - various items, including Hershey Data Center expenses for software licenses and hardware maintenance.

In general, these Service Company expenses are either (1) charged directly or (2) allocated to an operating company. Labor charges are based on the reporting of time by managerial, professional and technical Service Company employees. When they perform a service that benefits one operating company, they report their time to that company. When their efforts are in support of more than one operating company, they charge their time to an account whose costs are allocated to the benefiting operating companies. Hours charged by each Service Company employee are costed-out at that employee's hourly rate based on base salary. Support, Overhead and Office Expense are charged on the basis of Labor expenses. For example, if 45% of a Service Company office's labor expenses are charged directly to operating companies and 55% to accounts that are allocated, then Support, Overhead and Office Expense would be distributed similarly. Travel Expenses, Other Expenses and Vouchers/Journal Entries may be charged directly or allocated, depending on who receives the benefit from the expenses being incurred.

Every month, expenses of each Service Company office are tabulated and assigned to operating companies. Expenses that have not been charged directly to an operating company are allocated on the basis of number of operating company customers. In the example below, Virginia-American would be allocated 10% of non-direct charge Labor expenses because it has 10% of the number of customers served by the Regional Office.

<i>Example--Regional Office Calculation of Labor Expenses Charged to Virginia-American</i>						
	Time		x	Total Salaries	=	Charged To Va-Am
	Hours	% of Total				
Hours Charged Directly To Virginia-American	100	20%		\$ 10,000	= \$ 2,000 (direct charge)	\$ 2,000
Hours Charged To Region Work	400	80%		\$ 10,000	= \$ 8,000 (allocated)	
Total	500	100%				
Total Charged To Virginia-American						<u>\$ 2,941</u>
Virginia-American Percentage Of Region's Customers (12/31/95)						
Va-Am Customers	45,941					
Total Region Customers	390,546					
Percent of Region	11.76%					

Before 1989, the allocation of costs to operating companies was based on a multitude of factors (e.g., number of employees, dollar amount of net plant in service). This arrangement was difficult to administer and difficult to explain. Because of this, a decision was made in 1989 to rely solely on number of customers as the basis for allocation and the affiliate agreement was so modified and approved by the Virginia State Corporation Commission. Number of customers is an entirely appropriate basis for allocating those Service Company charges because it is straightforward, easily understood and is relatively inexpensive to administer. Also, this methodology reasonably reflects how costs are incurred.

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### III - COST COMPARISON

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#### METHODOLOGY

The cost comparison quantifies the economic impact on Virginia-American of outsourcing all the services it now receives from the Service Company. This is accomplished by comparing the cost per hour for Service Company services to those of outside service providers to whom these duties could be assigned.

The first step was to determine which types of outside providers could assume Service Company services. Based on the nature of services it was determined that the following outside service providers would perform the categories of services indicated.

- Management Consultants - executive and administrative management, human resources and communications services
- Attorneys - corporate secretarial and legal services
- Certified Public Accountants - accounting, financial, information systems, rates and revenues and risk management services
- Professional Engineers - engineering, operations and water quality services.

It should be noted that the services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no survey of hourly billing rates for outside professionals that perform the types of services provided by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

The next step was to compile all Service Company charges and employee hours so an average hourly rate could be calculated for each outside service provider category. Hourly billing rates for outside service providers were next determined. This information was gathered from industry survey data. Finally, the Service Company's average cost per hour was compared to the average cost per hour for outsider providers to determine who provided services at a lower cost.

compilation of service company hours/expenses by outside PROVIDER category

During 1996, Service Company employees charged 12,603 hours of time to Virginia-American. As indicated previously, the Service Company billed Virginia-American \$909,611 during that same period. With two exceptions, all of these expenses were used in calculating the Service Company's cost per hour. The exclusions represent items that outside service providers do not recover through their hourly rate. The first (\$44,506) for



travel expenses, which are generally billed directly to a client at actual out-of-pocket expenses. The second (\$32,200) is hardware/software lease and maintenance fees associated with the business applications used by Virginia-American. Here too, these costs would be billed directly to a client at the actual incurred cost rather than recovered in the providers hourly rates. The analysis below summarizes which 1996 Service Company expenses were and were not included in the hourly rate calculation.

	Included In Hourly Rate Calculation	Excluded From Hourly Rate Calculation	Total Charges Year-Ended 12/31/96
Payroll	\$ 365,251		\$ 365,251
Support	\$ 41,748		\$ 41,748
Overhead	\$ 196,463		\$ 196,463
Office Expense	\$ 144,068		\$ 144,068
Travel Expense	\$ 0	\$ 44,506	\$ 44,506
Other Expense	\$ (4,751)		\$ (4,751)
Vouchers/Journal Entries	\$ 90,126	\$ 32,200	\$ 122,326
Total	\$ 832,905	\$ 76,706	\$ 909,611

Schedule 1 presents the assignment of total 1996 Service Company expenses and hours to outsider provider categories. Schedule 2 analyzes how travel expenses are split among the four outside provider categories.

**SERVICE COMPANY COST PER HOUR**

Based on the assignment of expenses and hours shown in Schedule 1, Service Company's equivalent costs per hour are calculated in the table below.

	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total
Total expenses (Sch 1)	\$ 235,556	\$ 23,038	\$ 498,449	\$ 152,567	\$ 909,609
Less: travel expenses (Sch 2)	\$ (8,460)	\$ (655)	\$ (15,914)	\$ (19,477)	\$ (44,506)
Less: hardware/software lease & mtnc expense			\$ (32,200)		\$ (32,200)
Net expenses	\$ 227,096	\$ 22,383	\$ 450,334	\$ 133,091	\$ 832,903
Total hours (Sch 1)	1,894	169	8,552	1,988	12,603
Average rate/hour	\$ 120	\$ 132	\$ 53	\$ 67	

**Virginia-American Water Company**  
**Case No. PUE970523**  
**Test Year Service Company Charges (Year Ended December 31, 1996)**

Account Charged		Service Company Work And Charges				Outside Service Provider To Whom Work Would Be Assigned							
Number	Description	AWW Office	Work Description	Total Charges	Hours	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Dollars	Hours	Dollars	Hours
107		Corporate	JD Edwards software implementation	\$ 998	13.46			\$998			13.46		
107		Corporate	Implementation of ORCOM software 60.00	\$ 511	2.21			\$511		\$1,343	12.40		
107		Corporate	CWIP (A02751)	\$ 1,343	12.40					\$660	0.00		
107		Corporate	CWIP (A02751H)	\$ 660	-					\$448	4.33		
107		Corporate	CWIP (A05271)	\$ 448	4.33					\$3,225	23.19		
107		Corporate	CWIP-Hopewell treatment plt desg (A27902H)	\$ 3,225	23.19					\$0	0.00		
107		Corporate	CWIP (A64121K)	\$ -	-					\$1,601	13.25		
183.12		Corporate	Industrial clearwell maintenance	\$ 1,601	13.25					\$12	0.00		
426.29		Corporate	Other income deductions	\$ 12	-					\$8,274	45.41		
642.3		Corporate	Water quality system	\$ 8,274	45.41					\$296	3.16		
643.19		Corporate	Prod. facility info management	\$ 296	3.16					\$183	2.06		
643.19		Corporate	Microrbial impact of carbon filter	\$ 183	2.06					\$1,490	15.13		
902.19		Corporate	Source water characterization	\$ 1,490	15.13					\$246	3.28		
903.51		Corporate	Meter reading management	\$ 246	3.28					\$1,362	-		
923.1		Corporate	IS/Customer Billing	\$ 1,362	-					\$28,179	404.97		
923.1		Corporate	Accounting	\$ 28,179	404.97					\$12,142	98.01		
923.1		Corporate	Administrative	\$ 12,142	98.01					\$17,081	346.64		
923.1		Corporate	Administrative/Internal Audit	\$ 17,081	346.64					\$6,150	92.70		
923.1		Corporate	Engineering	\$ 36	-					\$25,041	239.95		
923.1		Corporate	Financial	\$ 6,150	92.70					\$11,291	212.71		
923.1		Corporate	Human Resources	\$ 25,041	239.95					\$2,592	21.75		
923.1		Corporate	Information Systems/Financial	\$ 11,291	212.71					\$375	5.11		
923.1		Corporate	Rate refund	\$ 2,592	21.75								
923.1		Corporate	Liaison w/ outside agencies	\$ 375	5.11								
926.21		Corporate	Pers. develop education costs	\$ 2,143	21.82					\$2,143	21.82		
930.39		Corporate	Study microbial growth	\$ 186	0.60					\$186	0.60		
930.39		Corporate	Surface water parasites	\$ 161	2.24					\$161	2.24		
930.39		Corporate	Enhanced solids contact clarification	\$ 2,084	27.52					\$2,084	27.52		
930.39		Corporate	Virus detection in ground water	\$ 26	0.19					\$26	0.19		
930.39		Corporate	Viability assay for cryptosporidium	\$ (28)	-					(\$28)	0.00		
930.39		Corporate	Enhanced coagulation practices	\$ 3,861	47.61					\$3,861	47.61		
930.39		Corporate	Occurrence and control of mycobacteria	\$ 59	0.36					\$59	0.36		
930.39		Corporate	Finished reser for cryptosporidium	\$ 233	0.93					\$233	0.93		
930.39		Corporate	Survey of AOC levels in SWTP	\$ 87	0.99					\$87	0.99		
930.39		Corporate	Assess part remov by filtration	\$ 1,251	14.20					\$1,251	14.20		
930.39		Corporate	Prologn the life GAC (Surf. H2O)	\$ 1,591	3.45					\$1,591	3.45		
930.39		Corporate	Research & tech. devel. gen. program	\$ 7,632	94.79					\$7,632	94.79		

**Virginia-American Water Company**  
**Case No. PUE970523**  
**Test Year Service Company Charges (Year Ended December 31, 1996)**

Account Charged		Service Company Work And Charges		Outside Service Provider To Whom Work Would Be Assigned									
Number	Description	AWW Office	Work Description	Total Charges		Management Consultant		Attorney		Certified Public Accountant		Professional Engineer	
				Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours
107	JD Edwards software implementation	Regional		\$ 144	-					\$144	0.00		
107	JD Edwards software implementation	Regional		\$ 189	0.22					\$189	0.22		
107	JD Edwards software implementation	Regional		\$ (0)	0.59					(\$0)	0.59		
107	CWIP (A27903	Regional		\$ 4,554	45.50					\$4,554	45.50		
186.04	1994 rate filing	Regional		\$ 46,147	513.25					\$46,147	513.25		
186.04	1994 data request	Regional		\$ 8,046	150.50					\$8,046	150.50		
186.09	1995 financing	Regional		\$ 293	1.00			\$293	1.00				
186.5	Depreciation study expenses	Regional		\$ 8,816	232.75					\$8,816	232.75		
186.5	Depreciation study expenses	Regional		\$ 182	3.00					\$182	3.00		
903.51	IS/Customer Billing	Regional		\$ 66	-					\$66	0.00		
923.1	Accounting	Regional		\$ 113,206	2,757.17					\$113,206	2,757.17		
923.1	Administrative	Regional		\$ 102,528	539.23					\$102,528	539.23		
923.1	Corporate Secretarial	Regional		\$ 22,249	162.98			\$22,249	162.98				
923.1	Engineering	Regional		\$ 5,850	68.42								
923.1	Financial	Regional		\$ 52,456	870.42					\$52,456	870.42		
923.1	Human Resources	Regional		\$ 13,912	288.76					\$13,912	288.76		
923.1	Information Systems/Financial	Regional		\$ 121	-					\$121	0.00		
923.1	Rates and Revenue	Regional		\$ 43,437	809.95					\$43,437	809.95		
923.1	Risk Management	Regional		\$ 21,400	221.82					\$21,400	221.82		
923.1	Water Quality Regional	Regional		\$ 16,655	191.18							\$16,655	191.18
923.1	PUR95003-rate refund - Alex (Note A)	Regional		\$ 3,257	87.25					\$3,257	87.25		
923.1	PUR95003-rate refund - Hope (Note A)	Regional		\$ 766	13.00					\$766	13.00		
923.1	PUR95003-rate refund - Prince (Note A)	Regional		\$ 521	8.50					\$521	8.50		
107	JD Edwards software implementation	Richmond		\$ 176	-					\$176	0.00		
107	JD Edwards software implementation	Richmond		\$ (0)	1.10					(\$0)	1.10		
107	Implementation of ORCOM software 60-00	Richmond		\$ 585	3.95					\$585	3.95		
186.04	1994 rate filing	Richmond		\$ 776	-					\$776	0.00		
903.51	IS/Customer Billing	Richmond		\$ 59,916	1,062.69					\$59,916	1,062.69		
923.1	Corporate Secretarial	Richmond		\$ 120	-			\$120	0.00				
923.1	Information Systems/Financial	Richmond		\$ 25,779	304.28					\$25,779	304.28		
923.1	PUR95003-rate refund - Alex (Note A)	Richmond		\$ 11,609	186.00					\$11,609	186.00		
923.1	PUR95003-rate refund - Hope (Note A)	Richmond		\$ 2,959	53.00					\$2,959	53.00		
923.1	PUR95003-rate refund - Prince (Note A)	Richmond		\$ 5,000	89.75					\$5,000	89.75		

Note A: these items were excluded for rate-making purposes via Adjustment #19

**Virginia-American Water Company**  
**Case No. PUE970523**  
**Test Year Service Company Charges (Year Ended December 31, 1996)**

Account Charged		AWW Office	Work Description	Total		Outside Service Provider To Whom Work Would Be Assigned						
Number	Description			Charges	Hours	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Dollars	Hours	Dollars
903.51	Hershey		IS/Customer Billing	\$ 5,164	48.55			\$5,164			48.55	
923.1	Hershey		Information Systems/Financial	\$ 53,140	572.32			\$53,140			572.32	
642.3	Belleville		Water Quality Lab	\$ 61,774	936.72							\$61,774
643.19	Belleville		Microbial impact of carbon filler	\$ 1,158	15.49							\$1,158
643.19	Belleville		Source water characterization	\$ 1,113	14.21							\$1,113
930.39	Belleville		Study microbial growth	\$ (593)	-							(\$593)
930.39	Belleville		Enhanced solids contact clarification	\$ 883	14.71							\$883
930.39	Belleville		Virus detection in ground water	\$ 4,994	59.97							\$4,994
930.39	Belleville		Viability assay for cryptosporidium	\$ 1,299	22.64							\$1,299
930.39	Belleville		Enhanced coagulation practices	\$ 4,434	76.61							\$4,434
930.39	Belleville		Occurrence and control of mycobacteria	\$ (393)	8.29							(\$393)
930.39	Belleville		ST variance of giardia and cryptosporidium	\$ (416)	6.79							(\$416)
930.39	Belleville		ST variance of cryptosporidium	\$ 1,044	16.46							\$1,044
930.39	Belleville		Finished reser. For cryptosporidium	\$ 1,084	4.12							\$1,084
930.39	Belleville		Survey of AOC levels in SWTP	\$ 2,420	49.79							\$2,420
930.39	Belleville		Assess part removal by filtration	\$ 0	-							\$0
930.39	Belleville		Research & technical devel. Gen Prog	\$ 14,407	169.44							\$14,407
426.29	Executive		Other income deductions (61-00)	\$ 2	-							
923.1	Executive		Accounting	\$ 172	0.57			\$172			0.57	
923.1	Executive		Administrative	\$ 38,854	118.98			\$38,854			118.98	
923.1	Executive		Communications	\$ 4,532	27.00			\$4,532			27.00	
923.1	Executive		Human Resources	\$ 3	-			\$3			0.00	
Total Service Company Expenses and Hours				\$ 909,611	12,603.34	\$235,556	1,894	\$ 23,038	169	\$ 498,449	8,552	\$ 152,567

SCHEDULE 2

**Virginia-American Water Company**  
**Case No. PUE970523**  
**Test Year Service Company Travel Expenses (Year Ended December 31, 1996)**

Account Charged		Service Company Work And Charges		Outside Service Provider To Whom Work Would Be Assigned									
Number	Description	AWW Office	Work Description	Total		Management Consultant		Attorney		Certified Public Accountant		Professional Engineer	
				Charges	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours
	Travel Expense Subtraction (would be direct charged by outside service provider and recovered in hourly rates)	Corporate	Travel exp - Accounting	\$ (392)	-								
		Corporate	Travel exp - Administrative	\$ (1,904)	-	(\$1,904)	0.00				(\$392)	0.00	
		Corporate	Travel exp - Administrative/Internal Audit	\$ (3,084)	-						(\$3,084)	0.00	
		Corporate	Travel exp - Communications	\$ (160)	-	(\$160)	0.00						
		Corporate	Travel exp - Engineering	\$ (36)	-								(\$36)
		Corporate	Travel exp - Financial	\$ (25)	-						(\$25)	0.00	
		Corporate	Travel exp - Human Resources	\$ (525)	-	(\$525)	0.00						
		Corporate	Travel exp - IS/Financial	\$ (3)	-						(\$3)	0.00	
		Corporate	Travel exp - IS/Customer Billing & Acctg	\$ -	-						\$0	0.00	
		Corporate	Travel exp - Water Quality	\$ (410)	-								(\$410)
		Corporate	Travel exp - authorizations/m/nce	\$ (3,029)	-								(\$3,029)
		Corporate	Travel exp - Engineering	\$ (2,284)	-								(\$2,284)
		Regional Office	Travel exp - Accounting	\$ (2,138)	-						(\$2,138)	0.00	
		Regional Office	Travel exp - Administrative	\$ (5,612)	-	(\$5,612)	0.00						
		Regional Office	Travel exp - Corporate Secretary	\$ (655)	-			(\$655)	0.00				
		Regional Office	Travel exp - Engineering	\$ (150)	-								(\$150)
		Regional Office	Travel exp - Financial	\$ (3,409)	-					(\$3,409)	0.00		
		Regional Office	Travel exp - Human Resources	\$ (259)	-	(\$259)	0.00						
		Regional Office	Travel exp - Rates and Revenues	\$ (864)	-					(\$864)	0.00		
		Regional Office	Travel exp - Risk Management	\$ (1,822)	-					(\$1,822)	0.00		
		Regional Office	Travel exp - Water Quality/Regional	\$ (1,420)	-								(\$1,420)
		Regional Office	Travel exp - authorizations/m/nce	\$ (6,842)	-								(\$6,842)
		Regional Office	Travel exp - Engineering	\$ (795)	-								(\$795)
		Hershey Data Ctl	Travel exp - Water Quality/Regional	\$ (1,091)	-								(\$1,091)
		Hershey Data Ctl	Travel exp - Authorizations/m/nce	\$ (772)	-								(\$772)
		Richmond Data	Travel exp - IS/Financial	\$ (4,163)	-					(\$4,163)	0.00		
		Richmond Data	Travel exp - IS/Customer Billing & Acctg	\$ (14)	-					(\$14)	0.00		
		Richmond Data	Travel exp - authorizations/m/nce	\$ (2,648)	-								(\$2,648)
			Total Service Company Travel Expenses	\$ (44,506)	-	(\$8,460)	-	\$ (655)	-	\$ (15,914)	-	\$ (19,477)	-

## **OUTSIDE PROVIDER COST PER HOUR**

The next step in the cost comparison was to obtain the average billing rates for each type of outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Management Consultants**

The cost per hour for management consultants was developed from an annual survey performed by the Association of Management Consulting Firms (formerly known as the Council of Consulting Organizations, Inc.)—the industry's trade organization. The first step in the calculation, presented in Schedule 3, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This represents the average for 1996. The resultant cost per hour is an average for all of the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. average is appropriate for comparison.

### **Attorneys**

The cost per hour for attorneys was developed from a survey conducted by the Virginia Lawyers Weekly of the largest 50 law firms in Virginia. These are the firms that Virginia-American would look to in lieu of support from Service Company attorneys. The calculation of an hourly rate is presented in Schedule 4. Not all of the top Virginia firms provided their hourly rates for the Lawyers Weekly survey. Those that did were included in the average hourly rate calculation.

### **Certified Public Accountants**

The average hourly rate for Virginia certified public accountants was developed from a survey dated performed by the Virginia Society of Certified Public Accountants. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 5. Using an assumed percent of time on a typical assignment, a weighted average hourly rate was calculated.

### **Professional Engineers**

Baryenbruch & Company used data from a survey conducted by the Service Company of several engineering firms doing business in the Virginia. Some of these firms have performed work for Virginia-American in the past.

As presented in Schedule 6, an average rate was first developed for each engineering position level. Then, using a typical percentage mix of time by each engineering position that would be spent in performing non-capital engineering, operations and water quality assignments, a weighted average cost per hour was calculated.

**SERVICE COMPANY VERSUS OUTSIDE PROVIDER COST COMPARISON**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Outside Provider	1996 Cost Per Hour		Difference-- Service Co. Greater (Less Than) Outside Prov
	Service Company	Outside Provider	
Management Consultant	\$ 120	\$ 165	\$ (45)
Attorney	\$ 132	\$ 180	\$ (48)
Certified Public Accountant	\$ 53	\$ 74	\$ (21)
Professional Engineer	\$ 67	\$ 77	\$ (10)

Based on these cost per hour differentials and the number of hours that the Service Company billed Virginia-American during the year ended December 31, 1996, the services themselves would cost considerably more--\$292,814--from outside providers (see table below). Thus, on average, outside provider's rates are 32% higher than those of the Service Company (\$292,814/\$909,611).

Dollar Difference Associated With Contracting Service Co Services

Outside Provider	Rate Difference-- Service Company		Dollar Difference
	Less Than Outside Provider	Outside Provider	
Management Consultant	\$ (45)	1,894	\$ (85,230)
Attorney	\$ (48)	169	\$ (8,112)
Certified Public Accountant	\$ (21)	8,552	\$ (179,592)
Professional Engineer	\$ (10)	1,988	\$ (19,880)
Total Service Company Less Than Outside Providers			<b>\$ (292,814)</b>

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF U.S. MANAGEMENT CONSULTANTS

A. Calculation of Average Hourly Billing Rate by Consultant Position  
(Note: survey billing rates were those in effect in 1996)

		Average Hourly Rates				
		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average		\$ 110	\$ 144	\$ 192	\$ 239	\$ 271

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution  
of Time on an Engagement

		Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (From Above)		\$110	\$144	\$192	\$239	\$271	
Typical Percent of Time Spent on a Consulting Project		30%	30%	20%	10%	10%	Weighted Average
		\$33	\$43	\$38	\$24	\$27	<b>\$165</b>

Source: "1997 Survey of U.S. Key Management Information," Association of Management Consulting Firms



VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA ATTORNEYS

Note: Billing rates are as of December 31, 1996					
Firm	Virginia Location	Number of Lawyers (Va)	Billing Rate Range		
			Low	High	Average
Hunton & Williams	Richmond	269	\$90	\$400	\$245
Mays & Valentine	Richmond	129	\$95	\$325	\$210
Williams, Mullen, Christian & Dobbins	Richmond	85	\$85	\$275	\$180
Hazel & Thomas	Falls Church	77	\$80	\$300	\$190
Woods, Rogers & Hazelgrove	Roanoke	68	\$85	\$250	\$168
Wilcox & Savage	Norfolk	60	\$80	\$235	\$158
Gentry Locke Rakes & Moore	Roanoke	53	\$80	\$300	\$190
Sands, Anderson, Marks & Miller	Richmond	48	\$85	\$250	\$168
Hirschler, Fleischer, Weinberg	Richmond	44	\$90	\$250	\$170
Vandeventer, Black, Meredith & Martin	Norfolk	43	\$90	\$185	\$138
Mezzullo & McCandlish	Richmond	41	\$95	\$250	\$173
Birch, Stewart, Kolasch & Birch	Falls Church	32	\$170	\$275	\$223
Wickwire Gavin	Vienna	28	\$120	\$305	\$213
Hogan & Hartson	McLean	27	\$95	\$330	\$213
Williams Kelly & Greer	Norfolk	23	\$90	\$200	\$145
Jones, Blechman, Woltz & Kelly	Newport News	23	\$100	\$225	\$163
Venable, Baetjer & Howard	McClellan	23	\$100	\$300	\$200
Penn, Stuart & Eskridge	Abingdon	22	\$80	\$200	\$140
Maloney, Barr & Huennekens	Richmond	20	\$115	\$225	\$170
Surovell, Jackson, Colten & Dugan	Fairfax	19	\$150	\$300	\$225
McCandlish & Lillard	Fairfax	18	\$125	\$300	\$213
Cooper, Spong & Davis	Portsmouth	17	\$135	\$200	\$168
Bean, Kinney & Korman	Arlington	17	\$90	\$275	\$183
Durette, Irvin, Lemons & Bradshaw	Richmond	16	\$75	\$250	\$163
Knight, Dudley, Clarke & Dolph	Norfolk	16	\$75	\$200	\$138
McSweeney, Burtch & Crump	Richmond	16	\$85	\$195	\$140
Overall Average			\$98	\$262	<b>\$180</b>

Source: Virginia Lawyers Weekly, February 24, 1997

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA CERTIFIED PUBLIC ACCOUNTANTS

A. Calculation of Average Hourly Billing Rate by Public Accounting Position  
(Note: survey billing rates were those in effect in 1996)

Type of Firm	Average Hourly Billing Rate			
	Staff Accountant	Senior Accountant	Manager	Partner
Larger Firms	\$51	\$70	\$88	\$142
Medium-Sized Firms	\$42	\$56	\$68	\$111
Average Hourly Rate	\$46	\$63	\$78	\$127

B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement

Average Hourly Billing Rate (From Above)	Staff Accountant	Senior Accountant	Manager	Partner	Weighted Average
	\$46	\$63	\$78	\$127	
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%	
	\$14	\$19	\$16	\$25	<b>\$74</b>

Source: "1997 Management of Accounting Practice Survey," The Virginia Society of Certified Public Accountants

SCHEDULE 6

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA ENGINEERS

Note: Billing rates were those in effect in 1996

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	CAD Drafter Eng Technician	Engineer III Prin Engineer Staff Engineer Des/Const Engineer	Engineer V Sr Prin Engineer Sr Staff Engineer Sr Engineer	Partner/ Owner
Black & Vetch Richmond, Va.	\$50	\$75	\$100	\$120
Hazen and Sawyer Richmond & Vienna, Va.	\$47	\$75	\$85	\$130
Gannett Fleming Newport News, Va.	\$48	\$68	\$91	\$161
Overall Average	\$48	\$73	\$92	\$137

B. Calculation of Overall Average Engineering Hourly Billing Rate

Average Hourly Billing Rate (From Above)	CAD Drafter Eng Technician	Engineer III Prin Engineer Staff Engineer Des/Const Engineer	Engineer V Sr Prin Engineer Sr Staff Engineer Sr Engineer	Partner/ Owner	Weighted Average
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$15	\$25	\$23	\$14	<b>\$77</b>

Source: Survey performed by American Water Works Service Company

Higher hourly rates are not the only negative economic impact that would result from contracting all Service Company services to outside providers. Arranging for outside firms to perform over 12,600 hours of work would add an impossible workload to the existing Virginia-American management team. Thus, it would be necessary for Virginia-American to add at least one position whose duties would include the coordination and oversight of services performed by outside providers. The individual that would fill this position would need to have an administrative background and knowledge of each of the professions being overseen. This person must also have management experience and authority to give them the necessary degree of credibility with the outside service providers. As calculated in the table below, this position would add another \$98,500 per year to Virginia-American's personnel expenses.

Cost of Adding Administrative Position To The Staff Of Virginia-American	
New Position's Salary	\$ 73,000
Benefits (Assume 35%)	<u>25,500</u>
Total Cost of the New Position	\$ <u>98,500</u>

Thus, the net effect on the ratepayers of Virginia-American of contracting all services now provided by Service Company would be an increase in their costs of \$391,300 (\$292,800 + \$98,500).

### **OTHER COST COMPARISONS**

The Service Company periodically conducts its own comparisons of the cost of outside service providers. In all instances, these comparisons confirm this study's conclusion--that the cost of outsourcing Service Company services is greater than the current arrangement. A brief description of a few of these studies is provided below.

- Belleville Lab Testing - A comparison was made of Virginia-American's 1996 Belleville Lab cost per analysis to that of an outside testing laboratory. If Virginia-American had used the outside lab, its testing costs during 1996 would have been over 78%, or \$73,400 (\$93,200 x 78.8%) higher than that year's charges from the Belleville Lab.
- Bill Printing and Stuffing - A 1995 bid from an outside vendor showed that the Service Company's Hershey Data Center can print and stuff envelopes for 44% less.
- Stock Materials - A comparison of the prices Virginia-American paid in 1998 for stock material to the cost from local suppliers showed savings of over \$200,000.

The results of these studies presents further evidence that the Service Company arrangement is the lowest-cost alternative for Virginia-American.

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## IV - NEED FOR SERVICES

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### ANALYSIS OF SERVICES

The second issue addressed by this study is the need for the services that are rendered to Virginia-American by the Service Company. In Baryenbruch & Company's previous study for Virginia-American (test year ended September 30, 1994), this matter was resolved in several steps. First, it was determined specifically what the Service Company does for Virginia-American. This was ascertained by:

- Reviewing the service agreement between Virginia-American and the Service Company
- Conducting interviews with a number of Service Company employees
- Reviewing the job descriptions for all Service Company employees who charged time to Virginia-American during the twelve months ended September 30, 1994.

Information gathered from these sources was then organized into a matrix, which showed the entity--Virginia-American or a Service Company location--is responsible for each of the functions Virginia-American requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

For this the December 31, 1996 test year study, the responsibility matrix was updated by questioning the President of Virginia-American and Service Company personnel as to what changes had been made between the 1994 and 1996 studies. Only one minor change. That was previously mentioned transition from Hershey, Pennsylvania to the Richmond, Indiana Data Center as the IS service provider to Virginia-American. However, the services are still the same, only the providing Service Company location is different. Thus, the responsibility matrix shown in the 1994 report was determined to be applicable to 1996.

The updated responsibility matrix is shown in Schedule 7. It shows the Service Company locations that provided Virginia-American with service in 1996--the Regional Office, Corporate Office, Data Centers (Hershey, Pa. and Richmond, Ind.) and Belleville Lab.

Upon review of Schedule 7, several conclusions can be drawn. First, it demonstrates that there is no redundancy or overlap in the services provided by the Service Company. Second, information reviewed and interviews conducted as part of the 1994 and this the 1996 study showed there to be a clear delineation of responsibilities among the Service Company locations and between the Service Company and Virginia-American. Finally, the services that the Service Company provides would be necessary if Virginia-American were a stand-alone water utility.











**VIRGINIA-AMERICAN WATER COMPANY  
DESIGNATION OF RESPONSIBILITY FOR WATER UTILITY FUNCTIONS**

Primarily Responsible <input checked="" type="checkbox"/> Provides Input <input type="checkbox"/>	Performed By				
	Virginia-American	Regional Office	Corporate Office	Data Centers	Belleville Lab
<b>Water Company Function</b> <u>Information Systems Services</u> Va-American AS 400 Computer System Operation System Maintenance Software Maintenance Hershey, Pa ES5000 Mainframe Computer System Operations & Maintenance Software Maintenance Corporate AS400 Computer System Operations & Maintenance Software Maintenance Lan Installation Lan Administration PC Acquisition & Setup Help Desk	■          ■ ■		■ ■          ■ ■	■ ■          ■ ■	

## CONTROLS OVER SERVICE COMPANY CHARGES

Several factors were noted that act to control the level of charges from the Service Company to Virginia-American. The most significant of these are described below.

- **Service Company Budgets By Operating Company** - The budget for each Service Company location is allocated to each operating company so it knows what to expect in the way of charges during the next year. Each operating company president must review and approve the budgeted service company charges for the upcoming year.
- **Budget Variance Reporting (Service Company)** - A summary and explanation of year-to-date budget variances is prepared for the entire Service Company on a monthly basis. In addition, a monthly variance report called the “Statement of Expenses and Billed Charges,” is produced by Service Company location and shows budget versus actual spending for the month and year-to-date by cost category.
- **Budget Variance Reporting (Operating Company)** - The “Budget/Plan Analysis” produced monthly by each operating company has a line item for Service Company charges. In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.
- **Close Attention To Service Company Costs Per Customer** - The Corporate Accounting Department prepares a quarterly report that highlights the trend in Service Company costs per customer. Information is broken down in the following ways:
  - Budget versus actual
  - For the month and 12 months ended
  - For the past three years
  - By major Service Company location (Corporate, Belleville Lab and others).
- **Service Company Bill Detail** - The monthly Service Company bill is accompanied by detailed backup to support all charges by each Service Company location. Virginia-American’s Vice President and Manager, who reviews the reasonableness of all charges, scrutinize this detail. Items that appear unusual are noted to the Virginia-American Comptroller, located in the New Jersey Regional office, who investigates them and, if necessary, make a correcting journal entry.

- **Capital Project Authorization** - Capital projects estimated to cost over \$100,000 must be approved by the operating company board of directors before any design and construction work begins.

### **QUALITY OF SERVICE COMPANY SERVICES**

As a conclusion to this section, a comment should be made on the quality of services being provided by the Service Company. While it is difficult to quantitatively measure the quality of Service Company services, there undoubtedly is a strong relationship between Service Company employee years of service and the quality of services they perform. On this basis, the Service Company can be declared a quality provider. As shown in the table below, employees' average years of service with the American system is more than sufficient to provide them with the knowledge and expertise needed to provide value to Virginia-American.

Service Company Location	Average Years With American Waters Works
Corporate and Regional Offices	10.1
Hershey Data Center	19.0
Belleville Lab	4.5

It should be noted that a number of Service Company employees worked for other water companies before joining the American system. If this previous experience were considered, the above years of water industry experience would be even greater.

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**VIRGINIA-AMERICAN WATER COMPANY**  
**EVALUATION OF SERVICE COMPANY SERVICES**

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**TEST YEAR ENDED MARCH 31, 1999**

**BARYENBRUCH & COMPANY**

# VIRGINIA-AMERICAN WATER COMPANY EVALUATION OF SERVICE COMPANY SERVICES

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## I - INTRODUCTION

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### PURPOSE OF THIS STUDY

This study was undertaken to answer two questions:

- What would be the economic impact on Virginia-American Water Company (Virginia-American) if it were to outsource the services that it now receives from American Water Works Service Company, Inc. (Service Company)?
- Are the services Virginia-American receives from the Service Company necessary?

### STUDY APPROACH

The first issue was evaluated by comparing the cost per hour for work performed by Service Company personnel to the hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on the costs and hours that were charged to Virginia-American during the twelve months ended March 31, 1999. Outside providers' billing rates came from surveys of professionals that could perform the services now provided by the Service Company.

The second issue--the necessity of Service Company services--was investigated by determining specifically what the Service Company does for Virginia-American. Next, a comparison was made of the water utility functions performed by Virginia-American versus the Service Company to determine if there was any duplication of effort. Finally, an assessment was made as to whether these services would be required if Virginia-American were a stand-alone utility.

It should be noted that this is the same type of study that Baryenbruch & Company performed for Virginia-American in conjunction with its rate cases for test years ending September 30, 1994 and December 31, 1996. The methodology and information sources for this 1999 study are identical to those used in the 1994 and 1996 studies.

### STUDY RESULTS

Concerning issue 1, the following conclusions can be drawn from this study:

- The Service Company's hourly rates, on average, are **28% less** than those of outside providers of similar services.

- The services performed by the Service Company are vital and could not be procured externally by Virginia-American without careful oversight on the part of Virginia-American. If these services were contracted entirely to outside providers, Virginia-American would have to add at least one more position to coordinate and oversee the activities of those outside providers. This position would be essential to ensure a high level of quality service is being provided.
- If all the services now provided by the Service Company had been outsourced in 1999, Virginia-American and its ratepayers would incur an additional **\$443,700** in annual expenses. This is over **37% higher** than the Service Company's total billings to Virginia-American during the year ended March 31, 1999.
- It is doubtful that Virginia-American could find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Substantially all that Service Company personnel do relates directly to servicing its operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company costs that cannot be charged directly to operating companies are allocated on the basis of number of customers. This is a straightforward and entirely reasonable methodology. The cost to administer this allocation technique is much lower than alternatives that use multiple factors.
- Service Company costs do not include any profit markup. Only its actual cost of service is being recovered from Virginia-American ratepayers.

Concerning issue 2, the following conclusions can be drawn:

- Virginia-American could not function without the services that are provided to it by Service Company. These services are the same type of activities that must be carried out by a stand-alone utility company to ultimately provide customers with service.
- There is no redundancy in the services provided by the Service Company and the activities that are performed by Virginia-American itself.



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## **II - BACKGROUND**

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### **OVERVIEW OF SERVICE COMPANY SERVICES**

The services that the Service Company provides to Virginia-American are described in the contract dated January 1, 1989 between the Service Company and Virginia-American Water Company. These services fall under the categorizes shown below, each of which is described in detail in the Service Agreement:

- Accounting
- Administration
- Communications
- Corporate Secretarial and Legal
- Engineering
- Financial
- Human Resources
- Information Systems
- Operations
- Rates and Revenue
- Risk Management
- Water Quality.

During the test year, Virginia-American was provided services from the following Service Company locations:

- Corporate and Regional Offices – Voorhees, New Jersey
- Belleville Lab – Belleville, Illinois
- Service Company Data Centers.

**DESCRIPTION OF SERVICE COMPANY EXPENSES**

The expenses of each Service Company location are categorized as follows:

- Labor - salaries of managerial, professional and technical employees
- Support - wages and salaries of office support personnel, including secretaries, clerks, telephone operators and mail clerks
- Overhead - costs of employee benefits, including payroll taxes, pensions and medical coverage, and other general office supplies and expenses
- Office Expense - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Travel Expenses - travel expenses incurred by the personnel of an office
- Other Expenses - other items submitted for reimbursement by employees, including professional association dues and moving expenses
- Vouchers/Journal Entries - various expense items, including Hershey Data Center expenses for software licenses and hardware maintenance.

During the twelve months ended March 31, 1999, the Service Company billed Virginia-American \$1,172,074, as detailed below.

	Charges For Year Ended March 31, 1999
Payroll	\$ 411,986
Support	\$ 42,239
Overhead	\$ 205,874
Office Expense	\$ 219,861
Travel Expense	\$ 41,830
Other Expense	\$ 8,313
Vouchers/Journal Entries	\$ 241,971
Total	\$ 1,172,074

## **ASSIGNMENT OF SERVICE COMPANY EXPENSES TO OPERATING COMPANIES**

The expenses of each Service Company location are categorized as follows:

- Labor - salaries of managerial, professional and technical employees
- Support - wages and salaries of office support personnel, including secretaries, clerks, telephone operators and mail clerks
- Overhead - costs of employee benefits, including payroll taxes, pensions and medical coverage, and other general office supplies and expenses
- Office Expense - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Travel Expenses - travel expenses incurred by the personnel of an office
- Other Expenses - other items submitted for reimbursement by employees, including professional association dues and moving expenses
- Vouchers/Journal Entries - various items, including Hershey Data Center expenses for software licenses and hardware maintenance.

In general, these Service Company expenses are either (1) charged directly or (2) allocated to an operating company. Labor charges are based on the reporting of time by managerial, professional and technical Service Company employees. When they perform a service that benefits one operating company, they report their time to that company. When their efforts are in support of more than one operating company, they charge their time to an account whose costs are allocated to the benefiting operating companies. Hours charged by each Service Company employee are costed out at that employee's hourly rate based on base salary. Support, Overhead and Office Expense are charged on the basis of Labor expenses. For example, if 45% of a Service Company office's labor expenses are charged directly to operating companies and 55% to accounts that are allocated, then Support, Overhead and Office Expense would be distributed similarly. Travel Expenses, Other Expenses and Vouchers/Journal Entries may be charged directly or allocated, depending on who receives the benefit from the expenses being incurred.

Every month, expenses of each Service Company office are tabulated and assigned to operating companies. Expenses that have not been charged directly to an operating company are allocated on the basis of number of operating company customers. In the example below, Virginia-American would be allocated 12.65% of non-direct charge Labor expenses because it has 12.65% of the number of customers served by the Regional Office.

<i>Example--Regional Office Calculation of Labor Expenses Charged to Virginia-American</i>						
	Time		Total	Salaries		Charged To Va-Am
	Hours	% of Total				
Hours Charged Directly To Virginia-American	100	20%	x	\$ 10,000	= \$ 2,000 (direct charge)	\$ 2,000
Hours Charged To Region Work	400	80%	x	\$ 10,000	= \$ 8,000 (allocated)	Va-Am Customer 12.65% (below) = \$ 1,012
Total	500	100%				
Total Charged To Virginia-American						<u>\$ 3,012</u>
Virginia-American Percentage Of Region's Customers (12/31/98)						
Va-Am Customers	48,383					
Total Region Customers	382,486					
Percent of Region	12.65%					

Before 1989, the allocation of costs to operating companies was based on a multitude of factors (e.g., number of employees, dollar amount of net plant in service). This arrangement was difficult to administer and difficult to explain. Because of this, a decision was made in 1989 to rely solely on number of customers as the basis for allocation and the affiliate agreement was so modified and approved by the Virginia State Corporation Commission. Number of customers is an entirely appropriate basis for allocating those Service Company charges because it is straightforward, easily understood and is relatively inexpensive to administer. Also, this methodology reasonably reflects how costs are incurred.

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### III - COST COMPARISON

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#### METHODOLOGY

The cost comparison quantifies the economic impact on Virginia-American of outsourcing all the services it now receives from the Service Company. This is accomplished by comparing the cost per hour for Service Company services to those of outside service providers to whom these duties could be assigned.

The first step was to determine which types of outside providers could assume Service Company services. Based on the nature of services it was determined that the following outside service providers would perform the categories of services indicated.

- Management Consultants - executive and administrative management, human resources and communications services
- Attorneys - corporate secretarial and legal services
- Certified Public Accountants - accounting, financial, information systems, rates and revenues and risk management services
- Professional Engineers - engineering, operations and water quality services.

It should be noted that the services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no survey of hourly billing rates for outside professionals that perform the types of services provided by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

The next step was to compile all Service Company charges and employee hours so an average hourly rate could be calculated for each outside service provider category. Hourly billing rates for outside service providers were next determined. This information was gathered from industry survey data. Finally, the Service Company's average cost per hour was compared to the average cost per hour for outsider providers to determine who provided services at a lower cost.

#### COMPILATION OF SERVICE COMPANY HOURS/EXPENSES BY OUTSIDE PROVIDER CATEGORY

During the twelve months ended March 31, 1999, Service Company employees charged 15,730 hours of time to Virginia-American. As indicated previously, the Service Company billed Virginia-American \$1,172,074 during that same period.

Schedule 1 presents the assignment of total test year Service Company expenses and hours to outsider provider categories. Schedule 2 analyzes how travel expenses are split among the four outside provider categories.

With three exceptions, all of these expenses were used in calculating the Service Company's cost per hour. The exclusions represent items that outside service providers customarily do not recover through their hourly rate. The first such item is travel expenses (\$41,830), which are generally billed directly to a client at actual out-of-pocket expenses. The second (\$14,896) is hardware/software lease and maintenance fees associated with the business applications used by Virginia-American. Here too, these costs would be billed directly to a client at the actual incurred cost rather than recovered in the providers hourly rates. Finally, the test year contains (\$43,351) fees from outside professional firms that were retained by the Corporate office to perform certain corporate-wide services (e.g., financial audit, actuarial services). These professional fees are excluded because the related services have already, in effect, been outsourced.

The analysis below summarizes which test year Service Company expenses were and were not included in the hourly rate calculation. Excluded hardware/software and professional fees are included in the Vouchers/Journal Entries category.

	Included In Hourly Rate Calculation	Excluded From Hourly Rate Calculation	Total Charges Year-Ended 3/31/99
Payroll	\$ 411,986		\$ 411,986
Support	\$ 42,239		\$ 42,239
Overhead	\$ 205,874		\$ 205,874
Office Expense	\$ 219,861		\$ 219,861
Travel Expense	\$ 0	\$ 41,830	\$ 41,830
Other Expense	\$ 8,313		\$ 8,313
Vouchers/Journal Entries	\$ 183,724	\$ 58,247	\$ 241,971
Total	\$ 1,071,997	\$ 100,077	\$ 1,172,074

**SERVICE COMPANY COST PER HOUR**

Based on the assignment of expenses and hours shown in Schedule 1, Service Company's equivalent costs per hour for the test year ended March 31, 1999 are calculated below.

	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total
Total expenses (Sch 1)	\$ 255,803	\$ 16,736	\$ 703,373	\$ 196,079	\$ 1,171,991
Less: travel expenses (Sch 2)	\$ (11,746)	\$ (83)	\$ (11,763)	\$ (18,238)	\$ (41,830)
Less: computer hw/sw (Sch 2)			\$ (14,896)		\$ (14,896)
Less: prof svcs fees (Sch 2)	\$ (25,533)	\$ (1,017)	\$ (6,919)	\$ (1,032)	\$ (34,501)
Net expenses	\$ 218,524	\$ 15,636	\$ 669,795	\$ 176,809	\$ 1,080,764
Total hours (Sch 1)	1,741	120	10,594	3,273	15,729
Average rate/hour	\$ 126	\$ 130	\$ 63	\$ 54	

**Virginia-American Water Company**  
**Case No. PUE 99-\_\_\_\_**  
**Test Year Service Company Charges (Year Ended March 31, 1999)**

Service Company Work And Charges				Outside Service Provider To Whom Work Would Be Assigned							
Account Number	AWW Office	Work Description	Total Charges	Mgmt Consultant		Attorney		Certified Public Acct		Prof Engineer	
				Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours
107	Corporate	CWIP	\$ 65,523	873.61				\$65,523	873.61		
107	Corporate	Implementation of ORCOM software 60-00	\$ 34,318	60.41				\$34,318	60.41		
107	Corporate	Implementation of ORCOM reg.co's only	\$ 408	3.51				\$408	3.51		
107	Corporate	Implementation of ORCOM reg.co's/Ind. - Ill.	\$ 31	-				\$31	0.00		
107	Corporate	JD Edwards software implementation	\$ 19,078	280.89				\$19,078	280.89		
107	Corporate	Non-potable supply (w/o a-2790.2)	\$ 3,500	31.80						\$3,500	31.80
146.1	Corporate	Safety training & certification	\$ 1,159	9.20						\$1,159	9.20
186.1	Corporate	1998 financing	\$ 9,035	102.29						\$9,035	102.29
186.46	Corporate	1997 cost of service study	\$ 20	-				\$20	0.00		
186.48	Corporate	1997 depreciation study	\$ 1,176	30.11				\$1,176	30.11		
186.5	Corporate	1997 rate filing	\$ 2,543	58.75				\$2,543	58.75		
426.29	Corporate	Other income deductions (61-00)	\$ 2	-				\$2	0.00		
642.3	Corporate	Water quality lab	\$ 4	-						\$4	0.00
642.3	Corporate	Water quality system	\$ 14,191	129.97						\$14,191	129.97
643.19	Corporate	Other income deductions (61-64)	\$ 5	-				\$5	0.00		
643.19	Corporate	Source water characterization	\$ 29	0.44						\$29	0.44
903.51	Corporate	IS/customer billing	\$ 17	-				\$17	0.00		
923.1	Corporate	Accounting	\$ 163,339	3,276.51				\$163,339	3,276.51		
923.1	Corporate	Administrative	\$ 152,604	867.36				\$152,604	867.36		
923.1	Corporate	Administrative/Internal audit	\$ 16,034	297.53				\$16,034	297.53		
923.1	Corporate	Communications	\$ 2,983	33.93				\$2,983	33.93		
923.1	Corporate	Corporate secretarial	\$ 11,607	111.10				\$11,607	111.10		
923.1	Corporate	Engineering	\$ 13,588	173.37						\$13,588	173.37
923.1	Corporate	Financial	\$ 46,041	646.56				\$46,041	646.56		
923.1	Corporate	Human resources	\$ 54,727	404.62				\$54,727	404.62		
923.1	Corporate	Information systems/financial	\$ 88,159	840.10				\$88,159	840.10		
923.1	Corporate	Operation	\$ 1,126	-						\$1,126	0.00
923.1	Corporate	Rates and revenue	\$ 54,257	773.48				\$54,257	773.48		
923.1	Corporate	Risk management	\$ 18,933	232.32				\$18,933	232.32		
923.1	Corporate	Water quality regional	\$ 17,592	226.35						\$17,592	226.35
923.1	Corporate	Liaison with outside agencies	\$ 359	4.05				\$359	4.05		
923.19	Corporate	Standard contract update	\$ 259	4.79				\$259	4.79		
923.19	Corporate	Personal development education	\$ 841	10.62				\$841	10.62		
926.21	Corporate	Assess part removal filtration	\$ 98	1.62						\$98	1.62
930.39	Corporate	Changes in biostability (surface water)	\$ 16	0.22						\$16	0.22
930.39	Corporate	Enhanced coagulation practices	\$ 814	16.23						\$814	16.23
930.39	Corporate	Enhanced solids contact clarification	\$ 994	17.97						\$994	17.97
930.39	Corporate	Evaluation of filter backwash procedure	\$ 211	0.51						\$211	0.51
930.39	Corporate	Evaluation of washwater (surface water)	\$ 1,992	25.04						\$1,992	25.04
930.39	Corporate	Occurrence and control of mycobacteria	\$ (197)	0.86						(\$197)	0.86
930.39	Corporate	Pathogen intrusion into distribution system	\$ 605	3.18						\$605	3.18
930.39	Corporate	Prolonging the life GAC (surface H2O)	\$ 60	0.67						\$60	0.67
930.39	Corporate	Research & tech development gen program	\$ 11,308	153.02						\$11,308	153.02
930.39	Corporate	SIT variation of giardia and cryptosporidium	\$ 46	0.29						\$46	0.29
930.39	Corporate	Study microbial growth	\$ 275	4.37						\$275	4.37

**Virginia-American Water Company**  
**Case No. PUE 99-\_\_\_\_\_**  
**Test Year Service Company Charges (Year Ended March 31, 1999)**

Service Company Work And Charges				Outside Service Provider To Whom Work Would Be Assigned							
Account Number	AWW Office	Work Description	Total Charges	Mgmt Consultant		Attorney		Certified Public Acct		Prof Engineer	
				Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours
930.39	Corporate	Study of water quality improvements	\$ 244	3.30						\$244	3.30
930.39	Corporate	Study of water quality improvements	\$ 66	1.01						\$66	1.01
930.39	Corporate	Variability of pathogen concentration	\$ (209)	0.65						(\$209)	0.65
930.39	Corporate	Virus detection in ground water	\$ 1	-						\$1	0.00
107	Regional Office	CWIP	\$ 1,368	20.14				\$1,368	20.14		
107	Regional Office	JD Edwards software implementation	\$ 3,964	75.24				\$3,964	75.24		
186	Regional Office	1999 rate filing	\$ 360	7.38				\$360	7.38		
186.5	Regional Office	1997 rate filing	\$ 1,506	31.26				\$1,506	31.26		
186.5	Regional Office	1997 rate filing-data requests	\$ 761	-				\$761	0.00		
923.1	Regional Office	Accounting	\$ 49,650	1,069.71				\$49,650	1,069.71		
923.1	Regional Office	Administrative	\$ 20,200	125.37				\$20,200	125.37		
923.1	Regional Office	Corporate secretarial	\$ 4,512	-			\$4,512	0.00			
923.1	Regional Office	Engineering	\$ 2,226	26.59						\$2,226	26.59
923.1	Regional Office	Financial	\$ 12,664	192.90				\$12,664	192.90		
923.1	Regional Office	Operation	\$ 82	-						\$82	0.00
923.1	Regional Office	Rates and revenue	\$ 13,802	206.05				\$13,802	206.05		
923.1	Regional Office	Risk management	\$ 5,479	65.91				\$5,479	65.91		
923.1	Regional Office	Water quality regional	\$ 5,564	68.14						\$5,564	68.14
107	Richmond Data Ctr	Implementation of ORCOM software 60-00	\$ 204	2.00				\$204	2.00		
107	Richmond Data Ctr	Implementation of ORCOM reg.co's/ind. - III.	\$ 15,602	201.85				\$15,602	201.85		
107	Richmond Data Ctr	JD Edwards software implementation	\$ 1,650	24.81				\$1,650	24.81		
903.51	Richmond Data Ctr	IS/customer billing	\$ 65,134	907.29				\$65,134	907.29		
923.1	Richmond Data Ctr	Information systems/financial	\$ 21,556	287.62				\$21,556	287.62		
107	Hershey Data Ctr	IS/Customer Billing	\$ 80	-				\$80	0.00		
903.51	Hershey Data Ctr	IS/customer billing	\$ 83	2.11				\$83	2.11		
923.1	Hershey Data Ctr	Information systems/financial	\$ 23,083	400.31				\$23,083	400.31		
642.3	Belleville Lab	Water quality lab	\$ 82,675	1,665.53						\$82,675	1,665.53
643.19	Belleville Lab	Microbial impact of carbon filter	\$ (1,172)	-						(\$1,172)	0.00
643.19	Belleville Lab	Other income deductions (61-64)	\$ 1,300	31.17				\$1,300	31.17		
643.19	Belleville Lab	Source water characterization	\$ 34	-						\$34	0.00
665.19	Belleville Lab	Other income deductions (61-80)	\$ 795	9.16						\$795	9.16
930.39	Belleville Lab	Changes in biostability (surface water)	\$ 1,233	33.01						\$1,233	33.01
930.39	Belleville Lab	Cryptosporidium (76-01)	\$ 1,215	16.43						\$1,215	16.43
930.39	Belleville Lab	Enhanced coagulation practices	\$ 24	-						\$24	0.00
930.39	Belleville Lab	Enhanced solids contact clarification	\$ 3	0.09						\$3	0.09
930.39	Belleville Lab	Evaluation of washwater (surface water)	\$ 1,587	43.48						\$1,587	43.48
930.39	Belleville Lab	Occurrence and control of mycobacteria	\$ 1,910	41.69						\$1,910	41.69
930.39	Belleville Lab	Pathogen intrusion into distribution system	\$ 786	21.07						\$786	21.07
930.39	Belleville Lab	Research & tech development gen program	\$ 15,162	252.69						\$15,162	252.69
930.39	Belleville Lab	S/T variation of giardia and cryptosporidium	\$ (702)	-						(\$702)	0.00
930.39	Belleville Lab	Study microbial growth	\$ 2,022	54.23						\$2,022	54.23
930.39	Belleville Lab	Study of water quality improvements	\$ 820	16.45						\$820	16.45
930.39	Belleville Lab	Survey of AOC levels in SWTP	\$ (190)	-						(\$190)	0.00
930.39	Belleville Lab	Variability of pathogen concentration	\$ 112	2.04						\$112	2.04
930.39	Belleville Lab	Virus detection in ground water	\$ 3,874	89.06						\$3,874	89.06



**Virginia-American Water Company  
Case No. PUE 99-\_\_\_\_  
Test Year Service Company Charges (Year Ended March 31, 1999)**

Account Number		Service Company Work And Charges		Outside Service Provider To Whom Work Would Be Assigned									
		AWW Office	Work Description	Total Charges	Hours	Mgmt Consultant Dollars	Mgmt Consultant Hours	Attorney Dollars	Attorney Hours	Certified Public Acct Dollars	Certified Public Acct Hours	Prof Engineer Dollars	Prof Engineer Hours
923.1	New England		Accounting	\$ 934	19.53					\$934	19.53		
146.1	Western		Safety, training & certification	\$ 169	-					\$0	3.53	\$169	0.00
923.1	Western		Accounting	\$ 0	3.53					(\$2)	0.00		
923.1	Western		Financial	\$ (2)	-								
923.1	Western		Human resources	\$ 35	0.77	\$35	0.77						
923.1	Western		Rates and revenue	\$ 110	3.26					\$110	3.26		
Total Service Company Expenses and Hours				\$ 1,172,074	15,730.48	\$255,803	1,741	\$ 16,736	120	\$ 703,373	10,594	\$ 196,079	3,273

Virginia-American Water Company  
Case No. PUE 99-\_\_\_\_\_

Test Year Service Company Expenses Excluded From Hourly Rate Calculation (Year Ended March 31, 1999)

Travel Expense	AWW Office	Work Description	Total Charges	Service Provider Category To Which Expenses Apply		
				Mgmt Consultant	Attorney	Certified Pub Acct
Corporate & Regional Office	Travel expenses - accounting	\$ 2,101			\$2,101	
Corporate & Regional Office	Travel expenses - administrative	\$ 7,929	\$7,929			
Corporate & Regional Office	Travel expenses - admin/internal audit	\$ 1,806			\$1,806	
Corporate & Regional Office	Travel expenses - communications	\$ 26	\$26			
Corporate & Regional Office	Travel expenses - corporate secretary	\$ 83		\$83		
Corporate & Regional Office	Travel expenses - engineering	\$ 516				\$516
Corporate & Regional Office	Travel expenses - financial	\$ 2,799			\$2,799	
Corporate & Regional Office	Travel expenses - human resources	\$ 1,857	\$1,857			
Corporate & Regional Office	Travel expenses - IS/financial	\$ 749			\$749	
Corporate & Regional Office	Travel expenses - rates & revenue	\$ 3,101			\$3,101	
Corporate & Regional Office	Travel expenses - risk management	\$ 1,935	\$1,935			
Corporate & Regional Office	Travel expenses - water quality	\$ 1,964				\$1,964
Corporate & Regional Office	Travel expenses - authorizations/maintenance	\$ 11,335				\$11,335
Hershey Data Center	Travel expenses - water quality/regional	\$ 1,343				\$1,343
Hershey Data Center	Travel expenses - authorizations/maintenance	\$ 883				\$883
Western & Richmond Data Center	Travel expenses - IS/financial	\$ 1,205			\$1,205	
Western & Richmond Data Center	Travel expenses - IS/customer billing & accounting	\$ 2			\$2	
Western & Richmond Data Center	Travel expenses - authorizations/maintenance	\$ 2,197				\$2,197
<b>Total Excluded Travel Expenses</b>			<b>\$ 41,830</b>	<b>\$ 83</b>	<b>\$ 11,763</b>	<b>\$ 18,238</b>

Computer Hardware & Software Expenses	Vendor	Nature of Charge	Total Charges	Service Provider Category To Which Expenses Apply		
				Mgmt Consultant	Attorney	Certified Pub Acct
AT&T	Dedicated phone lines for network connection	\$ 2,548			\$2,548	
Bell & Howell	Hardware maintenance fees	\$ 2,332			\$2,332	
Granville Associates	IMA tape cartridges	\$ 934			\$934	
IBM	Data center hardware/software fees	\$ 8,772			\$8,772	
JD Edwards World Solutions	Financial system software maintenance fees	\$ 310			\$310	
<b>Total Excluded Computer Hardware &amp; Software Expenses</b>			<b>\$ 14,896</b>		<b>\$ 14,896</b>	

Outside Professional Services Fees	Outside Firm	Nature of Work	Total Charges	Service Provider Category To Which Expenses Apply		
				Mgmt Consultant	Attorney	Certified Pub Acct
AON Consulting	Employee benefits consulting	\$ 1,876	\$1,876			
Dechert Price & Rhoads	Outside corporate counsel	\$ 1,017			\$1,017	
Deloitte & Touche	Implementation of ORACOM billing system	\$ 13,174	\$13,174			
Office Team	Temporary accounting staff	\$ 4,180			\$4,180	
Price Waterhouse	Outside auditor	\$ 2,739			\$2,739	
Skelly and Loy	Operations-related services	\$ 1,032			\$1,032	
Towers Perrin	Actuarial services	\$ 2,278	\$2,278			
William Mercer	Employee development program	\$ 8,205	\$8,205			
<b>Total Excluded Outside Professional Services Fees</b>			<b>\$ 34,501</b>	<b>\$ 1,017</b>	<b>\$ 6,919</b>	<b>\$ 1,032</b>

## **OUTSIDE PROVIDER COST PER HOUR**

The next step in the cost comparison was to obtain the average billing rates for each type of outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Management Consultants**

The cost per hour for management consultants was developed from an annual survey performed by the Association of Management Consulting Firms (formerly known as the Council of Consulting Organizations, Inc.)—the industry's trade organization. The first step in the calculation, presented in Schedule 3, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This represents the average for 1997. The resultant cost per hour is an average for all of the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. average is appropriate for comparison.

### **Attorneys**

The cost per hour for attorneys was developed from a survey conducted by the Virginia Lawyers Weekly of the largest 50 law firms in Virginia. These are the firms that Virginia-American would look to in lieu of support from Service Company attorneys. The calculation of an hourly rate is presented in Schedule 4. Not all of the top Virginia firms provided their hourly rates for the Lawyers Weekly survey. Those that did were included in the average hourly rate calculation.

### **Certified Public Accountants**

The average hourly rate for Virginia certified public accountants was developed from a survey dated performed by the Virginia Society of Certified Public Accountants. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 5. Using an assumed percent of time on a typical assignment, a weighted average hourly rate was calculated.

### **Professional Engineers**

Baryenbruch & Company used data from a survey conducted by the Service Company of several engineering firms doing business in the Virginia. Some of these firms have performed work for Virginia-American in the past.

As presented in Schedule 6, an average rate was first developed for each engineering position level. Then, using a typical percentage mix of time by each engineering position that would be spent in performing non-capital engineering, operations and water quality assignments, a weighted average cost per hour was calculated.

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF U.S. MANAGEMENT CONSULTANTS

A. Calculation of Average Hourly Billing Rate by Consultant Position

(Note: survey billing rates were those in effect in 1997)

Average Hourly Rates					
Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$115	\$154	\$196	\$242	\$259

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement

	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (From Above)	\$115	\$154	\$196	\$242	\$259	
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%	Weighted Average
	\$35	\$46	\$39	\$24	\$26	<b>\$170</b>

Escalation to March 31, 1999

CPI at Dec 31, 1997 161.3

CPI at Mar 31, 1999 165.0

Inflation/Escalation 3.7%

Billing Rate At March 31, 1999 **\$176**

Source: "1998 Survey of U.S. Key Management Information," Association of Management Consulting Firms

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA ATTORNEYS

Note: Billing rates are as of December 31, 1998

Firm	Virginia Location	Number of Lawyers (Va)	Billing Rate Range		
			Low	High	Average
Hunton & Williams	Richmond	298	\$90	\$495	\$293
Mays & Valentine	Richmond	127	\$95	\$350	\$223
Williams, Mullen, Christian & Dobbins	Richmond	105	\$90	\$310	\$200
Hazel & Thomas	Falls Church	85	\$80	\$350	\$215
Woods, Rogers & Hazelgrove	Roanoke	68	\$100	\$250	\$175
Wilcox & Savage	Norfolk	57	\$100	\$260	\$180
Sands, Anderson, Marks & Miller	Richmond	55	\$110	\$250	\$180
Hirschler, Fleischer, Weinberg	Richmond	51	\$110	\$430	\$270
Vandeventer, Black	Norfolk	42	\$90	\$185	\$138
Hogan & Hartson	McLean	41	\$125	\$370	\$248
Wright, Robinson, Ostheimer & Tatum	Richmond	34	\$110	\$210	\$160
Shaw, Pittman, Potts & Trowbridge	McClean	34	\$155	\$230	\$193
Birch, Stewart, Kolasch & Birch	Falls Church	28	\$150	\$300	\$225
Penn, Stuart & Eskridge	Abingdon	26	\$80	\$250	\$165
Rees, Broome & Diaz	Vienna	26	\$70	\$225	\$148
Jones, Blechman, Woltz & Kelly	Newport News	23	\$120	\$250	\$185
Durette, Irvin & Bradshaw	Richmond	21	\$75	\$275	\$175
McCandlish & Lillard	Fairfax	18	\$130	\$300	\$215
Taylor & Walker	Norfolk	18	\$85	\$150	\$118
Maloney, Barr & Huennekens	Richmond	17	\$90	\$195	\$143
Michie, Hamlett, Lowry, Rasmussen	Charlottesville	17	\$60	\$300	\$180
Overall Average			\$101	\$283	<b>\$192</b>

Source: Virginia Lawyers Weekly, February 22, 1999

**VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA CERTIFIED PUBLIC ACCOUNTANTS**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position  
(Note: survey billing rates were those in effect in 1997)

Type of Firm	Average Hourly Billing Rate			
	Staff Accountant	Senior Accountant	Manager	Partner
Larger Firms	\$51	\$64	\$89	\$144
Medium-Sized Firms	\$43	\$59	\$74	\$123
Average Hourly Rate	\$47	\$62	\$82	\$134

B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement

	Staff Accountant	Senior Accountant	Manager	Partner	
Average Hourly Billing Rate (From Above)	\$47	\$62	\$82	\$134	
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%	Weighted Average
	\$14	\$18	\$16	\$27	\$76

Escalation to March 31, 1999	
CPI at Dec 31, 1997	161.3
CPI at Mar 31, 1999	165.0
Inflation/Escalation	3.7%
Billing Rate At March 31, 1999	<b>\$78</b>

Source: "1998 Management of Accounting Practice Survey," The Virginia Society of Certified Public Accountants

SCHEDULE 6

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA ENGINEERS

Note: Billing rates were those in effect in 1998

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	CAD Drafter Eng Technician	Engineer III Prin Engineer Project Engineer Des/Const Engineer	Engineer V Sr Prin Engineer Project Manager Sr Engineer	Principal Officer
Black & Vetch Richmond, Va.	\$40	\$75	\$100	\$135
Hazen and Sawyer Richmond & Vienna, Va.	\$47	\$75	\$85	\$130
Gannett Fleming Newport News, Va.	\$48	\$70	\$105	\$150
Overall Average	\$45	\$73	\$97	\$138

B. Calculation of Overall Average Engineering Hourly Billing Rate

Average Hourly Billing Rate (From Above)	CAD Drafter Eng Technician	Engineer III Prin Engineer Project Engineer Des/Const Engineer	Engineer V Sr Prin Engineer Project Manager Sr Engineer	Principal Officer	Weighted Average
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$14	\$26	\$24	\$14	\$77

Source: Survey performed by American Water Works Service Company

**SERVICE COMPANY VERSUS OUTSIDE PROVIDER COST COMPARISON**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Outside Provider	1999 Cost Per Hour		Difference-- Service Co. Greater (Less Than) Outside Prov
	Service Company	Outside Provider	
Management Consultant	\$ 126	\$ 176	\$ (50)
Attorney	\$ 130	\$ 192	\$ (62)
Certified Public Accountant	\$ 63	\$ 78	\$ (15)
Professional Engineer	\$ 54	\$ 77	\$ (23)

Based on these cost per hour differentials and the number of hours that the Service Company billed Virginia-American during the year ended March 31, 1999, the services themselves would cost considerably more--\$328,700--from outside providers (see as calculated in the table below). Thus, on average, outside provider's hourly rates are 28% higher than those of the Service Company (\$328,700/\$1,172,074).

Dollar Difference Associated With Contracting Service Co Services

Outside Provider	Rate Difference-- Service Company Less Than Outside Provider		Hours	Dollar Difference
	Rate Difference	Rate Difference		
Management Consultant	\$ (50)	\$ (50)	1,741	\$ (87,050)
Attorney	\$ (62)	\$ (62)	120	\$ (7,440)
Certified Public Accountant	\$ (15)	\$ (15)	10,594	\$ (158,910)
Professional Engineer	\$ (23)	\$ (23)	3,273	\$ (75,279)
Total Service Company Less Than Outside Providers				\$ (328,679)



Higher hourly rates are not the only negative economic impact that would result from contracting all Service Company services to outside providers. Arranging for outside firms to perform over 15,700 hours of work would add an impossible workload to the existing Virginia-American management team. Thus, it would be necessary for Virginia-American to add at least one position whose duties would include the coordination and oversight of services performed by outside providers. The individual that would fill this position would need to have an administrative background and knowledge of each of the professions being overseen. This person must also have management experience and authority to give them the necessary degree of credibility with the outside service providers. As calculated in the table below, this position would add another \$98,500 per year to Virginia-American's personnel expenses.

Cost of Adding Administrative Position To The Staff Of Virginia-American	
New Position's Salary	\$ 75,700
Benefits (assume 52%)	<u>39,300</u>
Total Cost of the New Position	\$ <u>115,000</u>

Thus, the net effect on the ratepayers of Virginia-American of contracting all services now provided by Service Company would be an increase in their costs of \$443,700 (\$328,700 + \$115,000).

### **OTHER COST COMPARISONS**

The Service Company periodically conducts its own comparisons of the cost of outside service providers. In all instances, these comparisons confirm this study's conclusion—that the cost of outsourcing Service Company services is greater than the current arrangement. A brief description of two recent studies is provided below.

- **Belleville Lab Testing** - A comparison was made of Belleville Lab 1998 cost for performing over 40 major tests to the cost of using outside testing laboratory. If Virginia-American had used the outside lab its annual lab testing costs during the March 31, 1999 test year would have been higher by 53% or \$43,800 (\$82,675 x 53%).
- **Stock Materials** - A comparison of the prices Virginia-American paid in 1998 for stock material to the cost from local suppliers showed savings of over \$200,000.

The results of these studies presents further evidence that the Service Company arrangement is the lowest-cost alternative for Virginia-American.

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## IV - NEED FOR SERVICES

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### ANALYSIS OF SERVICES

The second issue addressed by this study is the need for the services that are rendered to Virginia-American by the Service Company. In Baryenbruch & Company's previous study for Virginia-American (test year ended September 30, 1994), this matter was resolved in several steps. First, it was determined specifically what the Service Company does for Virginia-American. This was ascertained by:

- Reviewing the service agreement between Virginia-American and the Service Company
- Conducting interviews with a number of Service Company employees
- Reviewing the job descriptions for all Service Company employees who charged time to Virginia-American during the twelve months ended September 30, 1994.

Information gathered from these sources was then organized into a matrix, which showed the entity--Virginia-American or a Service Company location--is responsible for each of the functions Virginia-American requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

For this the March 31, 1999 test year study, the responsibility matrix was updated by questioning the President of Virginia-American and Service Company personnel as to what changes had been made between the 1996 and 1999 studies. The only change that occurred was the a transition of all Virginia-American data processing from the Hershey, Pennsylvania and Richmond, Indiana Data Centers to the Corporate Data Center in Voorhees, New Jersey.

The updated responsibility matrix is shown in Schedule 7. It shows the Service Company locations that provided Virginia-American with service in the test year—the Regional Office (Voorhees, New Jersey), Corporate Office (Voorhees, New Jersey), Data Centers (Hershey, Pennsylvania, Richmond, Indiana or Voorhees, New Jersey) and Belleville Lab (Belleville, Illinois).

Upon review of Schedule 7, several conclusions can be drawn. First, it demonstrates that there is no redundancy or overlap in the services provided by the Service Company. Second, information reviewed and interviews conducted as part of the 1994 and this the 1999 study showed there to be a clear delineation of responsibilities among the Service Company locations and between the Service Company and Virginia-American. Finally, the services that the Service Company provides would be necessary if Virginia-American were a stand-alone water utility.





Primarily Responsible <input checked="" type="checkbox"/> Provides Input <input type="checkbox"/>	Performed By				
	Virginia-American	Regional Office	Corporate Office	Data Centers	Belleville Lab
<b>Water Company Function</b> <u>Budgeting and Variance Reporting</u> Corporate Guidelines & Instructions Regional Guidelines & Instructions Budget Preparation--Revenue, O&M, Depreciation, Interest Expense Budget Preparation--Service Company Charges Capital Budget Preparation--Projects Capital Budget Preparation--Non-Project Work Prepare Monthly Budget Variance Report ("Budget/Plan Analysis") Prepare Capital Project Budget Status Report Year-End Projections (A)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>  <input type="checkbox"/> <input type="checkbox"/>		
<u>Accounting and Taxes</u> Accounts Payable Accounting Payroll Accounting Work Order Accounting Fixed Asset Accounting Journal Entry Preparation--Billing Corrections Journal Entry Preparation--All Others Financial Statement Preparation State Commission Reporting Income Taxes--State Income Taxes--Federal Property Taxes Gross Receipts Taxes	<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>  <input checked="" type="checkbox"/>		

Note A: Projections are developed for certain cost types by Virginia-American and by the Service Company for other cost types.



**VIRGINIA-AMERICAN WATER COMPANY  
DESIGNATION OF RESPONSIBILITY FOR WATER UTILITY FUNCTIONS**

	Performed By			
	Virginia-American	Regional Office	Corporate Office	Data Centers
Primarily Responsible <input checked="" type="checkbox"/> Provides Input <input type="checkbox"/>				
Water Company Function <u>Information Systems Services</u> Va-American AS 400 Computer System Operation System Maintenance Software Maintenance Service Company Data Centers System Operations & Maintenance Software Maintenance Lan Administration PC Acquisition & Support Help Desk	■       ■ ■		■ ■ ■ ■ ■	Belleville Lab

## CONTROLS OVER SERVICE COMPANY CHARGES

Several factors were noted that act to control the level of charges from the Service Company to Virginia-American. The most significant of these are described below.

- **Service Company Budgets By Operating Company** - The budget for each Service Company location is allocated to each operating company so it knows what to expect in the way of charges during the next year. Each operating company president must review and approve the budgeted service company charges for the upcoming year.
- **Budget Variance Reporting (Service Company)** - A summary and explanation of year-to-date budget variances is prepared for the entire Service Company on a monthly basis. In addition, a monthly variance report called the “Statement of Expenses and Billed Charges,” is produced by Service Company location and shows budget versus actual spending for the month and year-to-date by cost category.
- **Budget Variance Reporting (Operating Company)** - The “Budget/Plan Analysis” produced monthly by each operating company has a line item for Service Company charges. In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.
- **Close Attention To Service Company Costs Per Customer** - The Corporate Accounting Department prepares a quarterly report that highlights the trend in Service Company costs per customer. Information is broken down in the following ways:
  - Budget versus actual
  - For the month and 12 months ended
  - For the past three years
  - By major Service Company location (e.g., Corporate, Belleville Lab).
- **Service Company Bill Detail** - The monthly Service Company bill is accompanied by detailed backup to support all charges by each Service Company location. Virginia-American’s Vice President and Manager, who reviews the reasonableness of all charges, scrutinize this detail. Items that appear unusual are noted to the Virginia-American Comptroller, located in the New Jersey Regional office, who investigates them and, if necessary, make a correcting journal entry.
- **Capital Project Authorization** - Capital projects estimated to cost over \$100,000 must be approved by the operating company board of directors before any design and construction work begins.



### QUALITY OF SERVICE COMPANY SERVICES

As a conclusion to this section, a comment should be made on the quality of services being provided by the Service Company. While it is difficult to quantitatively measure the quality of Service Company services, there undoubtedly is a strong relationship between Service Company employee years of service and the quality of services they perform. On this basis, the Service Company can be declared a quality provider. As shown in the table below, employees' average years of service with the American system is more than sufficient to provide them with the knowledge and expertise needed to provide value to Virginia-American.

Service Company Location	Average Years With American Waters Works
Parent	17
Corporate	9
Regional Office	8
Belleville Lab	3

It should be noted that a number of Service Company employees worked for other water companies before joining the American system. If this previous experience were considered, the above years of water industry experience would be even greater.

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**VIRGINIA-AMERICAN WATER COMPANY**  
**ASSESSMENT OF SERVICE COMPANY SERVICES**

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**TEST YEAR ENDED DECEMBER 31, 2000**

**BARYENBRUCH & COMPANY**

# VIRGINIA-AMERICAN WATER COMPANY EVALUATION OF SERVICE COMPANY SERVICES

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## I - INTRODUCTION

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### PURPOSE OF THIS STUDY

This study was undertaken to answer two questions:

- What would be the economic impact on Virginia-American Water Company (Virginia-American) if it were to outsource the services that it now receives from American Water Works Service Company, Inc. (Service Company)?
- Are the services Virginia-American receives from the Service Company necessary?

### STUDY APPROACH

The first issue was evaluated by comparing the cost per hour for work performed by Service Company personnel to the hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on the expenses and hours that were charged to Virginia-American during the twelve months ended December 31, 2000. Outside providers' billing rates came from surveys of professionals that could perform the services now provided by the Service Company.

The second issue—the necessity of Service Company services—was first investigated by determining what the Service Company does for Virginia-American. A determination was then made as to whether these services would be required if Virginia-American were a stand-alone utility.

### STUDY RESULTS

Concerning issue 1, the following conclusions can be drawn from this study:

- On average, the hourly rates for outside service providers are **42% higher** (\$635,981 / \$1,503,140) than the Service Company's hourly rates.
- The services performed by the Service Company are vital and could not be procured externally by Virginia-American without careful supervision on the part of Virginia-American. If these services were contracted entirely to outside providers, Virginia-American would have to add at least one more position to manage activities of the outside firms. This position would be essential to ensure a high level of quality service is being provided.

- If all the services now provided by the Service Company had been outsourced during the December 31, 2000 test year, Virginia-American and its ratepayers would incur an additional **\$739,281** in annual expenses. This amount includes the added cost of outside providers and the cost of one Virginia-American position needed to direct this outsourced work. This is over **49% more** (\$739,281 / \$1,503,140) than the Service Company's total billings to Virginia-American during the year ended December 31, 2000.
- It would be difficult for Virginia-American to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company costs that cannot be charged directly to operating companies are allocated on the basis of number of customers. This is a straightforward and entirely reasonable methodology. The cost to administer this allocation technique is lower than alternatives that use multiple factors.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from Virginia-American ratepayers.

Concerning issue 2, the following conclusions can be drawn:

- Virginia-American could not function without the services that are provided to it by the Service Company. These services are the same type of activities that must be carried out by a stand-alone utility company to ultimately provide customers with service.
- There is no redundancy in the services provided by the Service Company and the activities that are performed by Virginia-American itself.

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## II - BACKGROUND

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### OVERVIEW OF SERVICE COMPANY SERVICES

The services that the Service Company provides to Virginia-American are described in the contract dated January 1, 1989 between the Service Company and Virginia-American Water Company. These services fall under the categories shown below, each of which is described in detail in the Service Agreement:

- Accounting
- Administration
- Communications
- Corporate Secretarial and Legal
- Engineering
- Financial
- Human Resources
- Information Systems
- Operations
- Rates and Revenue
- Risk Management
- Water Quality

During the test year, Virginia-American was provided services from the following Service Company locations:

- Corporate Office – Voorhees, New Jersey
- Regional Offices – Marlton, New Jersey Regional Administrative office (through March 2000), Southeast Regional Administrative office in Charleston (after March 2000), West Virginia and the Marlton, New Jersey Financial Services office
- Belleville Lab – Belleville, Illinois
- Data Centers – Haddon Heights, New Jersey and Richmond, Indiana.

The type of services that each Service Company location provides to Virginia-American are detailed later in Section IV of this report.

**DESCRIPTION OF SERVICE COMPANY EXPENSES**

The expenses of each Service Company location are categorized as follows:

- Labor - salaries of managerial, professional and technical employees
- Support - wages and salaries of office support personnel, including secretaries, clerks, telephone operators and mail clerks
- Overhead - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Office Expense - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues and moving expenses and (3) outside service contracts for such things as actuarial services and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

During the twelve months ended December 31, 2000, the Service Company billed Virginia-American \$1,503,140, as detailed below.

Charges For Year Ended December 31, 2000				
	Corporate Office	Regional Offices	Belleville Lab	Total
Payroll	\$ 194,624	\$ 362,996	\$ 29,202	\$ 586,822
Support	\$ 15,843	\$ 14,500	\$ 6,173	\$ 36,516
Overhead	\$ 76,256	\$ 126,782	\$ 28,737	\$ 231,775
Office Expense	\$ 102,600	\$ 189,542	\$ 14,769	\$ 306,911
Vouchers/JEs	\$ 189,458	\$ 137,670	\$ 13,988	\$ 341,116
Total	\$ 578,781	\$ 831,490	\$ 92,869	\$ 1,503,140

**ASSIGNMENT OF SERVICE COMPANY EXPENSES TO OPERATING COMPANIES**

Service Company expenses are either assigned directly or allocated to operating companies. Direct assignment occurs when Service Company work or expenses are incurred in support of only one operating company. Direct assignment examples include work in support of an operating company’s rate case, engineering design work on an operating company’s project and the preparation of an operating company’s financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards. These costs are allocated to operating companies based on number of customers.

As shown in the table below, expense categories may be direct and/or allocated:

Expense Category	Direct	Allocated	Comments
Labor	x	x	Professional personnel working for one or several operating companies
Support		x	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Overhead	x	x	These are primarily employee benefit costs that relate directly to labor
Office Expense		x	Are all allocated on the basis of professional labor
Vouchers/Journals	x	x	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

The Service Company’s time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the reporting of time by managerial, professional and technical Service Company employees. Every week, Service Company professional employees complete a time sheet that shows hours spent by day by:

- Type of service/activity (e.g., rate case data requests),
- Operating company (for direct charge) or allocation formula (for allocation), and
- Work order/authorization number (where applicable).

At month-end, time report information is processed with direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee’s hours times their hourly rate of pay).

Administrative (support) personnel charge their time to the activity “General Admin.” As described in the table above, their labor charges are allocated to operating companies based upon how their office’s professional personnel labor charges are assigned. For instance, if 20% of the Southeast Regional office’s professional labor was assigned to Virginia-American during a month, then the



20% of that office's administrative labor charges are also assigned to Virginia-American.

The overhead cost category is allocated based on professional and administrative labor costs. Overhead charged to Virginia-American during the December 31, 2000 test year averaged around 38%. Thus, during this test year for every \$1.00 of professional and administrative labor charges another \$.38 was added to allow the Service Company to recover employee benefit-related expenses.

Each Service Company location's office expenses are allocated to operating companies based upon how professional labor charges for that office have been assigned. Using the previous example of Southeast Regional office (which had 20% of professional labor assigned to Virginia-American) 20% of that office's office expenses would be assigned to Virginia-American. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/Journal Entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by an accountant in a regional office is allocated to the operating companies served by that office. Travel expenses by that same accountant to a state rate case proceeding are charged directly to the operating company whose case is being heard.

Before 1989, the allocation of costs to operating companies was based on a multitude of factors (e.g., number of employees, dollar amount of net plant in service). The Company found this methodology difficult to administer and difficult to explain to regulators. As a result, a decision was made in 1989 to rely solely on number of customers as the basis for allocation and the affiliate agreement was so modified and approved by the Virginia State Corporation Commission. Number of customers is an entirely appropriate basis for allocating those Service Company charges primarily because it is the most equitable to the customer, it is straightforward, easily understood and is relatively inexpensive to administer. Also, this methodology reasonably reflects how Service Company costs that cannot be directly assigned are incurred.

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### III - COST COMPARISON

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#### METHODOLOGY

The cost comparison quantifies the economic impact on Virginia-American of outsourcing all the services now provided by the Service Company. This is accomplished by comparing the cost per hour for Service Company services to those of outside service providers to whom these duties could be assigned.

The first step was to determine which types of outside providers could assume Service Company services. Based on the nature of these services it was determined that the following outside service providers could perform the categories of services indicated.

- Management Consultants - executive and administrative management, risk management services, human resources and communications services
- Attorneys - corporate secretarial and legal services
- Certified Public Accountants - accounting, financial, information systems and rates and revenues
- Professional Engineers - engineering, operations and water quality services.

It should be noted that the services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for outside professionals that perform the types of services provided by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

The next step was to calculate the Service Company's hourly rate for each of the four outside service provider category, based on the fees and hours charged to Virginia-American during the test year.

Hourly billing rates for outside service providers were next determined using information from pertinent surveys.

Finally, the Service Company's average cost per hour was compared to the average cost per hour for outside providers to determine who provided services at a lower cost.

## **COMPILATION OF SERVICE COMPANY HOURS/EXPENSES BY OUTSIDE PROVIDER CATEGORY**

During the twelve months ended December 31, 2000, Service Company employees charged 23,523 hours of time to Virginia-American. As indicated previously, the Service Company billed Virginia-American \$1,503,140 during that same period.

Certain adjustments to these dollar and hour amounts are necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. These adjustments are described below.

- Support – This expense category includes the cost of Service Company administrative/secretarial staff. To include these dollars and hours in the calculation would understate the Service Company's hourly rate relative to outside providers. Outside service providers generally charge separately for their administrative staff (e.g., CPA's clerical support). The total for this item is \$36,515 and 2,307 hours.
- Travel Expenses – Within the Vouchers/Journal Entries expense category are \$14,923 in travel expenses for Service Company personnel. Outside service providers bill this to a client over in addition their hourly fees. Thus, it is appropriate to remove this amount from the Service Company hourly rate calculation.
- Data Center Hardware/Software/Supplies Expenses – Also within the Vouchers/Journal Entries expense category are \$59,619 in data center hardware/software leases, maintenance fees and customer billing supplies paid to outside companies. Here too, an outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.
- Fees Of Existing Outside Service Providers - The test year includes \$65,166 fees paid by the Service Company to outside professional firms retained to perform certain corporate-wide services (e.g., financial audit, actuarial services). These professional fees are excluded because the related services have effectively been out-sourced already. These expenses are all in the Vouchers/Journal Entries expense category.

The analysis below summarizes which test year expenses and hours are included in the Service Company hourly rate calculation.

Expense Category	Total Service Company Charges	Excluded From Hourly Rate Calculation	Included In Hourly Rate Calculation
Payroll	\$ 586,823		\$ 586,823
Support	\$ 36,515	\$ (36,515)	\$ -
Overhead	\$ 231,775		\$ 231,775
Office Expense	\$ 306,911		\$ 306,911
Vouchers/JEs	\$ 341,116	\$ (139,708)	\$ 201,408
Total Fees	\$ 1,503,140	\$ (176,223)	\$ 1,326,917
Hours	23,523	(2,307)	21,216

Schedule 1 (pages 10-12) details the assignment of total test year Service Company expenses and hours to outsider provider categories. Schedule 2 (pages 13-15) shows the same outside provider assignment for support charges. Finally, Schedule 3 (page 16) shows how travel expenses, data center hardware/software/supplies and outside provider charges are split among the four outside provider categories.

### SERVICE COMPANY HOURLY RATES

Based on the assignment of expenses and hours shown in Schedule 1, Service Company's equivalent costs per hour for the test year ended December 31, 2000 are calculated below.

	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total
Total expenses (Sch 1)	\$ 234,327	\$ 30,802	\$ 902,523	\$ 335,488	\$ 1,503,140
Less: support expenses (Sch 2)	\$ (4,948)	\$ (804)	\$ (15,622)	\$ (15,141)	\$ (36,515)
Less: travel expenses (Sch 3)	\$ (4,401)	\$ (89)	\$ (3,127)	\$ (7,306)	\$ (14,923)
Less: data center hw/sw (Sch 3)			\$ (59,619)		\$ (59,619)
Less: prof svcs fees (Sch 3)	\$ (14,721)	\$ (2,076)	\$ (43,711)	\$ (4,658)	\$ (65,166)
Net expenses (A)	\$ 210,257	\$ 27,833	\$ 780,444	\$ 308,383	\$ 1,326,917
Total hours (Sch 1)	2,060	405	15,321	5,737	23,523
Less: support hours (Sch 2)	(297)	(46)	(956)	(1,008)	(2,307)
Net hours (B)	1,763	359	14,365	4,729	21,216
Average rate/hour (A / B)	\$ 119	\$ 78	\$ 54	\$ 65	

Virginia-American Water Company  
Test Year Service Company Charges (Year Ended December 31, 2000) - Total

Account Number		AWW Office	Work Description	Total Charges	Hours	Service Company Work And Charges						Outside Service Provider To Whom Work Would Be Assigned					
				\$	3,255	Mgmt Consultant	Attorney	Certified Public Acct	Prof Engineer	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours
107	Corporate		CWIP	\$ 187,415	3,255												
107	Corporate		Implement. of ORCOM Software 60-00	\$ 10,534	55			\$ 10,534			55						
183.01	Corporate		Customer Service Consolidation Project	\$ 18,937	61	\$ 18,937											
183.02	Corporate		Financial Services Project	\$ 11,586	62			\$ 11,586			62						
426.2	Corporate		UWR Properties Phase III Integration	\$ 304	0	\$ 304					0						
642.3	Corporate		Water Quality Lab	\$ 14	0						0						
642.3	Corporate		Water Quality System	\$ 11,492	106						106						
903.51	Corporate		I.S./Customer Billing	\$ 0	-			\$ 0			-						
923.1	Corporate		Accounting	\$ 29,563	394			\$ 29,563			394						
923.1	Corporate		Administrative	\$ 47,728	400	\$ 47,728					400						
923.1	Corporate		Administrative/Internal Audit	\$ 14,884	311			\$ 14,884			311						
923.1	Corporate		Communications	\$ 6,028	46	\$ 6,028					46						
923.1	Corporate		Corporate Secretarial	\$ 5,427	31			\$ 5,427			31						
923.1	Corporate		Engineering	\$ 1,482	30						30						
923.1	Corporate		Financial	\$ 11,795	182			\$ 11,795			182						
923.1	Corporate		Human Resources	\$ 64,229	371	\$ 64,229					371						
923.1	Corporate		Information Systems/Financial	\$ 136,056	1,297			\$ 136,056			1,297						
923.1	Corporate		Operation	\$ 698	-						-						
923.1	Corporate		Rates and Revenue	\$ 2,730	57			\$ 2,730			57						
923.1	Corporate		Risk Management	\$ 20	1	\$ 20					1						
923.1	Corporate		Water Quality - Regional	\$ -	-						-						
923.19	Corporate		Liaison W/Outside Agencies	\$ 114	2			\$ 114			2						
923.19	Corporate		Standard Contract Update	\$ 282	5			\$ 282			5						
930.39	Corporate		Cryptosporidium	\$ 44	1						1						
930.39	Corporate		Development of a simplified AOC	\$ 26	1						1						
930.39	Corporate		Early Warning & Source Water Monitoring Systems	\$ 258	5						5						
930.39	Corporate		Filter Media Specifications, Opt of Backwashing Bio-filter	\$ 542	4						4						
930.39	Corporate		Full-Scale Evaluation of Ultraviolet Technology	\$ 752	14						14						
930.39	Corporate		Manganese Control & Permanganate Monitoring	\$ (359)	10						10						
930.39	Corporate		Maintenance and Staffing Programs	\$ 100	2						2						
930.39	Corporate		Research & Tech Development General Program	\$ 10,077	153						153						
930.39	Corporate		Study of Water Quality Improvements	\$ 581	8						8						
930.39	Corporate		Variability of Pathogen Concentration	\$ 3,554	3						3						
930.39	Corporate		Virus Detection in Ground Water	\$ (2)	-						-						
930.39	Corporate		Water Quality Monitoring Davenport	\$ 211	1						1						
107	Haddon Height IS		CWIP	\$ 3,372	25						25						
183.01	Haddon Height IS		Customer Service Consolidation Project	\$ 77	20	\$ 77					20						
183.02	Haddon Height IS		Financial Services Project	\$ 1	0			\$ 1			0						
426.2	Haddon Height IS		UWR Properties Phase III Integration	\$ 577	-	\$ 577					-						
903.51	Haddon Height IS		I.S./Customer Billing	\$ 83,735	281			\$ 83,735			281						

Virginia-American Water Company  
Test Year Service Company Charges (Year Ended December 31, 2000) - Total

Service Company Work And Charges		Outside Service Provider To Whom Work Would Be Assigned										
Account Number	AWW Office	Work Description	Total Charges		Mgmt Consultant		Attorney		Certified Public Acct.		Prof Engineer	
			Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours
923.1	Haddon Heights	Administrative	\$ 5,877	121	\$	82	\$		\$		\$	
923.1	Haddon Heights	Human Resources	\$	82	\$	82	\$		\$		\$	
923.1	Haddon Heights	Information Systems/Financial	\$ 123,706	2,204	\$		\$		\$ 123,706	2,204	\$	
107	Construction	CWIP	\$	142	\$		\$		\$		\$	142
923.1	Construction	Administrative	\$ 1,536	23	\$	1,536	\$		\$		\$	
923.1	Construction	Accounting	\$ 2,204	95	\$		\$		\$ 2,204	95	\$	
923.1	Construction	Rates and Revenue	\$ 1,060	35	\$		\$		\$ 1,060	35	\$	
183.01	Region	Customer Service Consolidation Project	\$	169	\$	169	\$		\$		\$	
186	Region	1999 Rate Case Data Requests RC7	\$ 35,802	1,007	\$		\$		\$ 35,802	1,007	\$	
186.3	Region	Prince William Acquisition	\$ 2,799	64	\$	2,799	\$		\$		\$	
426.2	Region	UWR Properties Phase III Integration	\$	235	\$	235	\$		\$		\$	
923.1	Region	Accounting	\$ 308,683	7,210	\$		\$		\$ 308,683	7,210	\$	
923.1	Region	Administrative	\$ 3,364	120	\$	3,364	\$		\$		\$	
923.1	Region	Corporate Secretarial	\$ 5,270	51	\$		\$ 5,270	\$			\$	
923.1	Region	Engineering	\$ 2,009	27	\$		\$		\$		\$ 2,009	27
923.1	Region	Financial	\$ 26,694	314	\$		\$		\$ 26,694	314	\$	
923.1	Region	Rate and Revenue	\$ 17,283	354	\$		\$		\$ 17,283	354	\$	
923.1	Region	Risk Management	\$ 8,077	87	\$	8,077	\$		\$		\$	
923.1	Region	Water Quality - Regional	\$ 14,785	174	\$		\$		\$ 14,785	174	\$	
923.19	Region	Virginia Eastern (United)	\$ 1,077	25	\$	1,077	\$		\$		\$	
107	Richmond Data Center	CWIP	\$ 2,611	23	\$		\$		\$		\$	23
426.2	Richmond Data Center	UWR Properties Phase III Integration	\$ 1,503	24	\$	1,503	\$		\$		\$	
903.51	Richmond Data Center	I. S. /Customer Billing	\$ 19,040	175	\$		\$		\$ 19,040	175	\$	
923.1	Richmond Data Center	Information Systems/Financial	\$ 15,834	167	\$		\$		\$ 15,834	167	\$	
107	Western Region	CWIP	\$	60	\$		\$		\$		\$	60
642.3	Western Region	Water Quality-Lab	\$ 278	4	\$		\$		\$		\$	4
923.1	Western Region	Accounting	\$ (120)	-	\$		\$		\$ (120)	-	\$	
923.1	Western Region	Financial	\$ 120	12	\$		\$		\$ 120	12	\$	
923.1	Western Region	Human Resources	\$ 440	8	\$	440	\$		\$		\$	
107	Belleville Lab	CWIP	\$ (957)	2	\$		\$		\$		\$ (957)	2
107	Belleville Lab	JD Edwards Software Implementation	\$ (782)	1	\$		\$		\$ (782)	1	\$	
183.01	Belleville Lab	Customer Service Consolidation Project	\$	16	\$	16	\$		\$		\$	
642.3	Belleville Lab	Water Quality Lab	\$ 80,542	1,477	\$		\$		\$ 80,542	1,477	\$	
903.51	Belleville Lab	I. S. /Customer Billing	\$	1	\$		\$		\$	1	\$	
923.1	Belleville Lab	Administrative	\$ (1)	-	\$	(1)	\$		\$	-	\$	
930.39	Belleville Lab	Changes in Bioslability(surface Wat	\$ 241	5	\$		\$		\$		\$ 241	5
930.39	Belleville Lab	Cryptosporidium (76-01)	\$ 936	18	\$		\$		\$		\$ 936	18
930.39	Belleville Lab	Development of a simplified AOC	\$ 388	7	\$		\$		\$		\$ 388	7
930.39	Belleville Lab	Eval of the Box-Crypto PCR	\$ 130	2	\$		\$		\$		\$ 130	2
930.39	Belleville Lab	Full-Scale Evaluation of Ultraviolet Technology	\$ 97	1	\$		\$		\$		\$ 97	1

**Virginia-American Water Company  
Test Year Service Company Charges (Year Ended December 31, 2000) - Total**

Service Company Work And Charges		Outside Service Provider To Whom Work Would Be Assigned										
Account Number	AWW Office	Work Description	Total		Mgmt Consultant		Attorney		Certified Public Acctnt		Prof Engineer	
			Charges	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours
930.39	Belleville Lab	Stand Methods Rapid Detect of Virus	\$ 655	11							\$ 655	11
930.39	Belleville Lab	Study of Water Quality Improvements	\$ (459)	13							\$ (459)	13
930.39	Belleville Lab	Variability of Pathogen Concentrations	\$ (388)	54							\$ (388)	54
930.39	Belleville Lab	Virus Detection in Ground Water	\$ (920)	3							\$ (920)	3
930.39	Belleville Lab	Water Quality Monitoring Davenport	\$ 1,277	11							\$ 1,277	11
923.1	Illinois Region	Operation	\$ (19)	3							\$ (19)	3
183.02	Southeast Region	Financial Services Project	\$ 318	6			\$ 318		6			
186	Southeast Region	1999 Rate Case Data Requests RC7	\$ 2,298	42			\$ 2,298		42			
426.2	Southeast Region	UWR Properties Phase III Integration	\$ 563	11								
923.1	Southeast Region	Accounting	\$ 4,032	80			\$ 4,032		80			
923.1	Southeast Region	Administration	\$ 58,939	439								
923.1	Southeast Region	Corporate Secretarial	\$ 19,709	316			\$ 19,709		316			
923.1	Southeast Region	Engineering	\$ 272	-							\$ 272	-
923.1	Southeast Region	Financial	\$ 16,381	433			\$ 16,381		433			
923.1	Southeast Region	Human Resources	\$ 11,194	209			\$ 11,194		209			
923.1	Southeast Region	Rate and Revenue	\$ 26,320	512			\$ 26,320		512			
923.1	Southeast Region	Water Quality	\$ 1,456	29							\$ 1,456	29
107	Hershey Data Center	Implemen. of ORCOM Software 60.00	\$ 2,310	20			\$ 2,310		20			
183.01	Hershey Data Center	Customer Service Consolidation Project	\$ 97	14			\$ 97		14			
183.01	Hershey Data Center	Customer Service Consolidation Project	\$ 463	9			\$ 463		9			
923.1	Hershey Data Center	Accounting	\$ 402	12			\$ 402		12			
923.1	Hershey Data Center	Information Systems/Financial	\$ 52	1			\$ 52		1			
Total Service Company Expenses and Hours			\$ 1,503,140	23,523	\$ 234,327	2,060	\$ 30,802	405	\$ 902,523	15,321	\$ 335,488	5,737

Virginia-American Water Company  
 Test Year Service Company Charges (Year Ended December 31, 2000) – Support Expenses

Account Number		AWW Office	Service Company Work And Charges		Outside Service Provider To Whom Work Would Be Assigned					
Account Number	AWW Office	Work Description	Total Charges	Hours	Mgmt Consultant	Attorney	Certified Public Acct	Prof Engineer	Dollars	Hours
			\$		Dollars	Dollars	Dollars	Dollars		
107	Corporate	CWIP	\$ 7,067	451					\$ 7,067	451
107	Corporate	Implemen. of ORCOM Software 60-00	\$ 129	8			\$ 129		\$	8
183.01	Corporate	Customer Service Consolidation Project	\$ 160	10	\$ 160					
183.02	Corporate	Financial Services Project	\$ 135	8			\$ 135			8
426.2	Corporate	UWR Properties Phase III Integration	\$ 0	0	\$ 0					0
642.3	Corporate	Water Quality Lab	\$ 1	0					\$ 1	0
642.3	Corporate	Water Quality System	\$ 385	24					\$ 385	24
903.51	Corporate	I.S./Customer Billing	\$ -	-					\$ -	-
923.1	Corporate	Accounting	\$ 927	58			\$ 927			58
923.1	Corporate	Administrative	\$ 1,644	103	\$ 1,644					103
923.1	Corporate	Administrative/Internal Audit	\$ 498	31			\$ 498			31
923.1	Corporate	Communications	\$ 145	9	\$ 145					9
923.1	Corporate	Corporate Secretarial	\$ 150	9		\$ 150				9
923.1	Corporate	Engineering	\$ 60	4					\$ 60	4
923.1	Corporate	Financial	\$ 391	24			\$ 391			24
923.1	Corporate	Human Resources	\$ 995	63	\$ 995					63
923.1	Corporate	Information Systems/Financial	\$ 2,549	160			\$ 2,549			160
923.1	Corporate	Operation	\$ -	-					\$ -	-
923.1	Corporate	Rates and Revenue	\$ 118	7			\$ 118			7
923.1	Corporate	Risk Management	\$ 1	0	\$ 1					0
923.1	Corporate	Water Quality - Regional	\$ -	-					\$ -	-
923.19	Corporate	Liaison W/Outside Agencies	\$ 5	0		\$ 5				0
923.19	Corporate	Standard Contract Update	\$ 11	1		\$ 11				1
930.39	Corporate	Cryptosporidium	\$ 2	0					\$ 2	0
930.39	Corporate	Development of a simplified AOC	\$ 1	0					\$ 1	0
930.39	Corporate	Early Warning & Source Water Monitoring Systems	\$ 10	1					\$ 10	1
930.39	Corporate	Filter Media Specifications, Opt of Backwashing BioFilter	\$ 10	1					\$ 10	1
930.39	Corporate	Full-Scale Evaluation of Ultraviolet Technology	\$ 31	2					\$ 31	2
930.39	Corporate	Manganese Control & Permanganate Monitoring	\$ 18	1					\$ 18	1
930.39	Corporate	Maintenance and Staffing Programs	\$ 4	0					\$ 4	0
930.39	Corporate	Research & Tech Development General Program	\$ 364	23					\$ 364	23
930.39	Corporate	Study of Water Quality Improvements	\$ 19	1					\$ 19	1
930.39	Corporate	Variability of Pathogen Concentration	\$ 10	1					\$ 10	1
930.39	Corporate	Virus Detection in Ground Water	\$ -	-					\$ -	-
930.39	Corporate	Water Quality Monitoring Davenport	\$ 2	0					\$ 2	0
107	Haddon Height IS	CWIP	\$ -	-					\$ -	-
183.01	Haddon Height IS	Customer Service Consolidation Project	\$ -	-					\$ -	-
183.02	Haddon Height IS	Financial Services Project	\$ -	-					\$ -	-
426.2	Haddon Height IS	UWR Properties Phase III Integration	\$ -	-					\$ -	-
903.51	Haddon Height IS	I.S./Customer Billing	\$ -	-					\$ -	-



**Virginia-American Water Company  
 Test Year Service Company Charges (Year Ended December 31, 2000) – Support Expenses**

Service Company Work And Charges		Outside Service Provider To Whom Work Would Be Assigned				
Account Number	AWW Office	Work Description	Total		Prof Engineer Hours	
			Charges	Hours		
			Mgmt Consultant Dollars	Attorney Hours	Certified Public Acctt Dollars	Hours
923.1	Haddon Height IS	Administrative				
923.1	Haddon Height IS	Human Resources				
923.1	Haddon Height IS	Information Systems/Financial				
107	Construction	CWIP				
923.1	Construction	Administrative				
923.1	Construction	Accounting	\$ 272	15	\$ 272	15
183.01	Northeast Region	Rates and Revenue	\$ 118	6	\$ 118	6
186.3	Northeast Region	Customer Service Consolidation Project	\$ 4	0	\$ 4	0
186.3	Region	1999 Rate Case Data Requests RC7	\$ 1,303	79	\$ 1,303	79
426.2	Region	Prince William Acquisition	\$ 68	4	\$ 68	4
923.1	Region	UWR Properties Phase III Integration	\$ 10	1	\$ 10	1
923.1	Region	Accounting	\$ 6,689	417	\$ 6,689	417
923.1	Region	Administrative	\$ 561	33	\$ 561	33
923.1	Region	Corporate Secretarial	\$ 207	12	\$ 207	12
923.1	Region	Engineering	\$ 85	5	\$ 85	5
923.1	Region	Financial	\$ 939	55	\$ 939	55
923.1	Region	Rate and Revenue	\$ 464	29	\$ 464	29
923.1	Region	Risk Management	\$ 226	13	\$ 226	13
923.19	Region	Water Quality - Regional	\$ 841	49	\$ 841	49
107	Richmond Data Center	Virginia Eastern (United)	\$ 64	4	\$ 64	4
426.2	Richmond Data Center	CWIP				
903.51	Richmond Data Center	UWR Properties Phase III Integration				
923.1	Richmond Data Center	I. S. /Customer Billing				
107	Western Region	Information Systems/Financial				
642.3	Western Region	CWIP	\$ 14	1	\$ 14	1
923.1	Western Region	Water Quality-Lab				
923.1	Western Region	Accounting	\$ 19	1	\$ 19	1
923.1	Western Region	Financial	\$ 21	1	\$ 21	1
107	Belleville Lab	Human Resources	\$ 6	0	\$ 6	0
107	Belleville Lab	CWIP	\$ 2	0	\$ 2	0
183.01	Belleville Lab	JD Edwards Software Implementation				
642.3	Belleville Lab	Customer Service Consolidation Project	\$ 4,885	349	\$ 4,885	349
903.51	Belleville Lab	Water Quality Lab				
923.1	Belleville Lab	I. S. /Customer Billing				
923.1	Belleville Lab	Administrative				
930.39	Belleville Lab	Changes in Biostability(surface Wat	\$ 17	1	\$ 17	1
930.39	Belleville Lab	Cryptosporidium (76-01)	\$ 67	5	\$ 67	5
930.39	Belleville Lab	Development of a simplified AOC	\$ 24	2	\$ 24	2
930.39	Belleville Lab	Eval of the Bax-Crypto PCR	\$ 9	1	\$ 9	1
930.39	Belleville Lab	Full-Scale Evaluation of Ultraviolet Technology	\$ 4	0	\$ 4	0

**Virginia-American Water Company**  
**Test Year Service Company Charges (Year Ended December 31, 2000) – Support Expenses**

Account Number		AWW Office	Work Description	Total Charges		Outside Service Provider To Whom Work Would Be Assigned																	
				Charges	Hours	Mgmt Consultant Dollars	Hours	Attorney Dollars	Hours	Certified Public Acct Dollars	Hours	Prof Engineer Dollars	Hours										
930.39		Belleville Lab	Stand Methods Rapid Detec of Virus	\$	39							\$	39										
930.39		Belleville Lab	Study of Water Quality Improvements	\$	39							\$	39										
930.39		Belleville Lab	Variability of Pathogen Concentrations	\$	163							\$	163										
930.39		Belleville Lab	Virus Detection in Ground Water	\$	8							\$	8										
930.39		Belleville Lab	Water Quality Monitoring Davenport	\$	35							\$	35										
923.1		Illinois Region	Operation	\$	14							\$	14										
183.02		Southeast Region	Financial Services Project	\$	6					\$	6		0										
186		Southeast Region	1999 Rate Case Data Requests RC7	\$	45					\$	45		2										
426.2		Southeast Region	UWR Properties Phase III Integration	\$	13		1																
923.1		Southeast Region	Accounting	\$	78					\$	78		4										
923.1		Southeast Region	Administration	\$	797		43																
923.1		Southeast Region	Corporate Secretarial	\$	431		24			\$	431												
923.1		Southeast Region	Engineering	\$	351							\$	351										
923.1		Southeast Region	Human Resources	\$	240		13																
923.1		Southeast Region	Rate and Revenue	\$	588		31					\$	588										
923.1		Southeast Region	Water Quality	\$	31		2																
107		Hershey Data Center	Implemen. of ORCOM Software 60-00																				
183.01		Hershey Data Center	Customer Service Consolidation Project																				
183.01		Hershey Data Center	Customer Service Consolidation Project																				
923.1		Hershey Data Center	Accounting																				
923.1		Hershey Data Center	Information Systems/Financial																				
Total Service Company Expenses and Hours				\$	36,515		2,307	\$	4,948		297	\$	804		46	\$	15,622		956	\$	15,141		1,008

**Virginia-American Water Company**  
**Test Year Service Company Charges (Year Ended December 31, 2000) – Travel, HW/SW and Outside Services**

**Travel Expenses**

Office		Total	Management Consultant	Attorney	CPA	Professional Engineer
Corporate		\$ 11,665	\$ 2,343	\$ 32	\$ 2,680	\$ 6,611
Regional Offices		\$ 2,705	\$ 2,058	\$ 57	\$ 447	\$ 143
Belleville Lab		\$ 553	\$ -	\$ -	\$ -	\$ 553
<b>Total</b>		<b>\$ 14,923</b>	<b>\$ 4,401</b>	<b>\$ 89</b>	<b>\$ 3,127</b>	<b>\$ 7,306</b>

**Computer Hardware and Software Expenses**

Vendor	Type of Services	Total	Management Consultant	Attorney	CPA	Professional Engineer
IBM	Data center hardware/software fees	\$ 15,172			\$ 15,172	
JD Edwards World Solutions	Financial system software mtncfe fees	\$ 7,159			\$ 7,159	
Office Electronics	Customer bills	\$ 27,102			\$ 27,102	
Mail-Well Envelope	Envelopes for customer bills	\$ 5,106			\$ 5,106	
SFI	Customer billing-related supplies	\$ 3,223			\$ 3,223	
Data Systems International	Software	\$ 1,856			\$ 1,856	
<b>Total</b>		<b>\$ 59,619</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 59,619</b>	<b>\$ -</b>

**Outside Professional Services Fees**

Outside Firm	Type of Services	Total	Management Consultant	Attorney	CPA	Professional Engineer
Accountemps	Temporary accounting staff	\$ 12,367	\$ 19		\$ 12,348	
AON Consulting	Employee benefits consulting	\$ 946	\$ 921		\$ 25	
Clancy Envir Consultants	Field scientists for sampling & testing	\$ 4,643				\$ 4,643
Dechert Price & Rhodes	Outside legal counsel	\$ 1,021		\$ 1,021		
Detweiler Consulting	General management consulting	\$ 3,481	\$ 394		\$ 3,087	
Hewitt & Associates	Human resources consulting	\$ 3,133	\$ 3,133			
I/S Computer Services	Support of customer billing system	\$ 22,395			\$ 22,395	
Office Team	Temporary accounting staff	\$ 1,051	\$ 991	\$ 39	\$ 20	
Price Waterhouse Coopers	Outside auditor	\$ 1,422			\$ 1,422	
Right Mgmt Consultants	Consolidation of AWW financial svcs	\$ 4,517	\$ 2,471	\$ 1,016	\$ 1,016	\$ 16
Strategic Management Group	Leadership development program	\$ 3,143	\$ 3,143			
Towers Perrin	Actuarial services	\$ 4,554	\$ 1,157		\$ 3,397	
Wm Mercer	Employee development program	\$ 2,492	\$ 2,492			
<b>Total</b>		<b>\$ 65,166</b>	<b>\$ 14,721</b>	<b>\$ 2,076</b>	<b>\$ 43,711</b>	<b>\$ 4,658</b>

## **OUTSIDE SERVICE PROVIDER HOURLY RATES**

The next step in the cost comparison was to obtain the average billing rates for each type of outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2000 annual survey performed by the Association of Management Consulting Firms—the industry trade organization. The first step in the calculation, presented in Schedule 4, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This represents the average for 1999, which is then escalated one-half year to arrive at an average for 2000—within the test year's range. This is an average for all of the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. average is appropriate for comparison.

### **Attorneys**

The cost per hour for attorneys was developed from an annual survey conducted by the Virginia Lawyers Weekly of the larger law firms in Virginia. These are the firms that Virginia-American would look to in lieu of support from Service Company attorneys. Not all firms revealed their hourly billing rates as of January 1, 2000, which is escalated one-half year to arrive at an average for 2000. Those that did are listed in Schedule 5 where an average hourly rate is calculated.

### **Certified Public Accountants**

The average hourly rate for Virginia certified public accountants was developed from a 1999 survey performed by the Virginia Society of Certified Public Accountants. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 6. Using an assumed percent of time on a typical assignment, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 1998 thus they had to be escalated forward one and one-half years to arrive at an average for 2000.

### **Professional Engineers**

The Service Company provided hourly rate information for two outside engineering firms with offices serving Virginia. Both firms have been retained by Virginia-American in the past.

As presented in Schedule 7, an average rate was first developed for each engineering position level. Then, using a typical percentage mix of time by each engineering position that would be spent in performing engineering, operations and water quality assignments, a weighted average cost per hour was calculated.

SCHEDULE 4

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF U.S. MANAGEMENT CONSULTANTS

A. Calculation of Average Hourly Billing Rate by Consultant Position						
Survey billing rates were those in effect in 1999 (Note A)						
Average Hourly Rates (Note A)						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$148	\$175	\$216	\$265	\$332	
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (From Above)	\$148	\$175	\$216	\$265	\$332	
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%	Weighted Average
	\$44	\$52	\$43	\$27	\$33	<b>\$200</b>
Escalation to June 30, 2000 (Note B)						
						CPI at December 31, 1999
						176.3
						CPI at June 30, 2000
						178.6
						Inflation/Escalation
						2.3%
						Billing Rate At June 30, 2000
						<b>\$204</b>

Note A: source: "2000 Survey of U.S. Key Management Information," Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics; the CPI used excludes energy

SCHEDULE 5

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA ATTORNEYS

Billing rates are as of December 31, 1999 (Note A)					
Firm	Virginia Location	Number of Lawyers (Va)	Billing Rate Range		
			Low	High	Average
McGuire, Woods, Battle & Boothe	Richmond	309	\$210	\$475	\$343
Williams, Mullen, Christian & Dobbins	Richmond	164	\$90	\$310	\$200
Mays & Valentine	Richmond	141	\$100	\$395	\$248
Reed, Smith, Hazel & Thomas	Falls Church	105	\$130	\$475	\$303
Woods, Rogers & Hazelgrove	Roanoke	65	\$100	\$250	\$175
Wilcox & Savage	Norfolk	55	\$110	\$275	\$193
Gentry, Locke, Rakes & Moore	Roanoke	51	\$85	\$325	\$205
Hogan & Hartson	McLean	47	\$160	\$395	\$278
Rees, Broome & Diaz	Vienna	30	\$70	\$225	\$148
Nixon & Vanderhyne	Arlington	29	\$220	\$400	\$310
Penn, Stuart & Eskridge	Abingdon	29	\$65	\$250	\$158
Hofheimer, Nusbaum	Norfolk	27	\$65	\$250	\$158
Wickwire, Gavin	Vienna	26	\$135	\$375	\$255
Birch, Stewart, Kolasch & Birch	Falls Church	25	\$150	\$400	\$275
Bean, Kinney & Korman	Arlington	23	\$110	\$325	\$218
Durette, Irvin & Bradshaw	Richmond	23	\$150	\$285	\$218
Patten, Wornom, Hatten & Diamonstein	Newport News	23	\$100	\$285	\$193
Jones, Blechman, Woltz & Kelly	Newport News	22	\$125	\$225	\$175
McCandlish & Lillard	Fairfax	21	\$130	\$300	\$215
Shaw, Pittman	McClean	19	\$155	\$230	\$193
Taylor & Walker	Norfolk	18	\$100	\$150	\$125
Michie, Hamlett, Lowry, Rasmussen, Tweel	Charlottesville	18	\$60	\$225	\$143
Surovell, Jackson, Colten & Dugan	Fairfax	17	\$150	\$350	\$250
Overall Average			\$120	\$312	<b>\$216</b>
Escalation to June 30, 2000 (Note B)					
					176.3
					178.6
					2.3%
					<b>\$221</b>

Note A: source is Virginia Lawyers Weekly, April 24, 2000

Note B: source is US Bureau of Labor Statistics; the CPI used excludes energy

SCHEDULE 6

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA CERTIFIED PUBLIC ACCOUNTANTS

A. Calculation of Average Hourly Billing Rate by Public Accounting Position				
Survey billing rates were those in effect in 1998 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Larger Firms	\$52	\$68	\$87	\$146
Medium-Sized Firms	\$42	\$58	\$74	\$113
Average Hourly Rate	\$47	\$63	\$81	\$130
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$47	\$63	\$81	\$130
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$14	\$19	\$16	\$26
				Weighted Average
				\$75
Escalation to June 30, 2000 (Note B)				
				CPI at December 31, 1998
				172.9
				CPI at June 30, 2000
				178.6
				Inflation/Escalation
				5.7%
Estimated Average Hourly Billing Rate For Virginia CPAs At June 30, 2000				<b>\$79</b>

Note A: source is "1999 Accounting Practice Survey," Virginia Society of CPAs

Note B: source is US Bureau of Labor Statistics; the CPI used excludes energy



EXHIBIT WITNESS: PLB  
SCHEDULE 7

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA ENGINEERS

Note: Billing rates were those in effect in 2000

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer	Project Manager Sr. Engineer	Officer Principal Engineer
Michael Baker Jr., Inc. Alexandria, Virginia	\$50 (\$45-\$55)	\$70 (\$65-\$76)	\$96 (\$89-\$104)	na
O'Brien & Gere Landover, Maryland	\$47	\$64 (\$57-\$62-\$72)	\$111 (\$96-\$126)	\$170
Overall Average	\$49	\$67	\$104	\$170

B. Calculation of Overall Average Engineering Hourly Billing Rate

Average Hourly Billing Rate (From Above)	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer	Project Manager Sr. Engineer	Officer Principal Engineer	Weighted Average
	\$49	\$67	\$104	\$170	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$15	\$23	\$26	\$17	<b>\$81</b>

Source: Information provided by American Water Works Service Company

**SERVICE COMPANY VERSUS OUTSIDE PROVIDER COST COMPARISON**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Outside Provider	2000 Cost Per Hour		Difference-- Service Co. Greater (Less Than) Outside Provider
	Service Company	Outside Provider	
Management Consultant	\$ 119	\$ 204	\$ (85)
Attorney	\$ 78	\$ 221	\$ (143)
Certified Public Accountant	\$ 54	\$ 79	\$ (25)
Professional Engineer	\$ 65	\$ 81	\$ (16)

Based on these cost per hour differentials and the number of hours that the Service Company billed Virginia-American during the year ended December 31, 2000, the services themselves would cost significantly more—almost \$636,000—from outside providers (see table below). Thus, on average, outside provider's hourly rates are over 42% higher than those of the Service Company (\$635,981 / \$1,503,140).

Dollar Difference Associated With Contracting Service Co Services

Outside Provider	Rate Difference-- Service Company Greater(Less) Than		Hours	Dollar Difference
	Outside Provider	Outside Provider		
Management Consultant	\$ (85)		1,763	\$ (149,855)
Attorney	\$ (143)		359	\$ (51,337)
Certified Public Accountant	\$ (25)		14,365	\$ (359,125)
Professional Engineer	\$ (16)		4,729	\$ (75,664)
Total Service Company Less Than Outside Providers				<b>\$ (635,981)</b>

Higher hourly rates are not the only negative economic impact that would result from contracting all Service Company services to outside providers. Managing outside firms who would perform over 21,000 hours of work would add a considerable workload to the existing Virginia-American management team. Thus, it would be necessary for Virginia-American to add at least one position whose responsibility it would be to supervise the outside firms and ensure they delivered quality services. The individual that would fill this position would need a good understanding of each profession being managed. This person must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$98,800 per year to Virginia-American's personnel expenses.

Cost of Adding Administrative Position To The Staff Of Virginia-American

New Position's Salary	\$ 68,000
Benefits	<u>35,300</u>
Total Cost of the New Position	<u>\$ 103,300</u>

Thus, the total effect on the ratepayers of Virginia-American of contracting all services now provided by Service Company would be an increase in their costs of **\$739,281** (\$635,981 + \$103,300).

**OTHER COST COMPARISONS**

The Service Company periodically conducts its own comparisons of the cost of outside service providers. In all instances, these comparisons confirm this study's conclusion--that the cost of outsourcing Service Company services is greater than the current arrangement. A brief description of several recent studies is provided below.

- Belleville Lab Testing - A comparison was made of Belleville Lab 1998 cost for performing over 40 major tests to the cost of using outside testing laboratory. It was found that the outside labs were 53% more expensive than the Belleville Lab.
- Stock Materials - A comparison of the prices Virginia-American paid in 1998 for stock material to the cost from local suppliers showed savings of over \$200,000.
- Insurance Premiums – In an October 8, 1999 letter to the Service Company, the corporation's insurance consultant indicated that the premiums paid by Virginia-American for property and excess liability insurance would be 264% greater (\$177,540 / \$67,228) if the policies were purchased separately and not as part of the American Water Works' national plan.

These studies present further evidence that the Service Company arrangement is the lowest-cost alternative for Virginia-American.

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## IV - NEED FOR SERVICES

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### ANALYSIS OF SERVICES

The second issue addressed by this study is the need for the services that are rendered to Virginia-American by the Service Company. First, it was determined specifically what the Service Company does for Virginia-American. Based on discussions with Service Company personnel, the matrix in Schedule 8 was created showing which entity--Virginia-American or a Service Company location--is responsible for each of the functions Virginia-American requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Since the last study was conducted for the test year March 31, 1999, the following changes have been made in how Virginia-American is provided services by the Service Company:

- In April 2000, accounting activities previously performed by Virginia-American were transferred to the new Financial Services unit located in Marlton, New Jersey. This was part of a corporate-wide effort to consolidate accounting activities in one location and thereby reduce costs.
- In April 2000, most Service Company regional support was transferred from the Marlton, New Jersey office to the Southern Region office located in Charleston, West Virginia. Only accounting services—as discussed above—continue to be provided to Virginia-American by the Marlton office. This change was undertaken to rebalance regional workloads.
- In May of 2000, Virginia-American's AS-400 computer was retired and customer information processing was transferred to the Service Company Northeastern Regional Data Center located in Haddon Heights, New Jersey. To facilitate this arrangement, Virginia-American's Local Area Network (LAN) was connected to AWW's new Wide Area Network (WAN). Certain data (meter reading information and customer contact orders) continues to be collected at Virginia-American's office is transferred to the New Jersey Data Center via the WAN. This move was made to reduce overall IT-related costs. In addition, the new WAN enabled the entire corporation to transition to Lotus Notes, an e-mail system, and to begin using a new accounting package from J.D. Edwards.

Upon review of Schedule 8, the following conclusions can be drawn:

- There is no redundancy or overlap in the services provided by the Service Company to Virginia-American. For substantially all of the services listed in Schedule 8, there was only one entity that was primarily responsible for the service.
- The services that the Service Company provides would be necessary even if Virginia-American were a stand-alone water utility.

**DESIGNATION OF RESPONSIBILITY FOR WATER UTILITY FUNCTIONS**

	Performed By				
	Virginia-American	Regional Office	Fin'l Svcs Office	Corporate Office	Data Centers
Water Company Function Engineering and Construction Management CPS Preparation Five-Year System Planning Engineering Standards & Policies Development Project Design Major Projects (e.g., new treatment plant) Special Projects Minor Projects (e.g., pipelines) Construction Project Management Major Projects Special Projects Minor Projects Hydraulics Review Developers Extensions Tank Painting Water Quality and Purification Water Quality Standards Development Research Studies Water Quality Program Implementation Water Treatment Operations & Maintenance Compliance Sampling Testing/Other Sampling	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Primarily Responsible ■  
Provides Input □

**DESIGNATION OF RESPONSIBILITY FOR WATER UTILITY FUNCTIONS**

Water Company Function	Performed By					
	Virginia-American	Regional Office	Fin'l Svcs Office	Corporate Office	Data Centers	Belleville Lab
Primarily Responsible <input checked="" type="checkbox"/> Provides Input <input type="checkbox"/>						
<u>Transmission and Distribution</u> Preventive Maintenance Program Development System Maintenance Leak Detection	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>					
<u>Customer Service</u> Customer Contact Community Relations Meter Reading Customer Bill Preparation Bill Collection Customer Payment Processing Meter Standards Development Meter Testing, Maintenance & Replacement	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>Financial Management</u> Financial Planning Financings--Equity Financings--Long Term Debt & Preferred Short Term Lines of Credit Arrangements Investor Relations Insurance Program Administration Loss Control/Safety Program Administration Pension Fund Asset Management Cash Management/Disbursements	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>		
<u>Internal Auditing</u>				<input checked="" type="checkbox"/>		







**VIRGINIA-AMERICAN WATER COMPANY**  
**DESIGNATION OF RESPONSIBILITY FOR WATER UTILITY FUNCTIONS**

	Performed By					
	Virginia-American	Regional Office	Fin'l Svcs Office	Corporate Office	Data Centers	Belleville Lab
Primarily Responsible <input checked="" type="checkbox"/> Provides Input <input type="checkbox"/>  Water Company Function  <u>Information Systems Services</u> Service Company Data Centers System Operations & Maintenance Software Maintenance LAN Administration PC Acquisition & Support Help Desk	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>				<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	

## CONTROLS OVER SERVICE COMPANY CHARGES

Several factors were noted that act to control the level of charges from the Service Company to Virginia-American. The most significant of these are described below.

- **Service Company Budgets By Operating Company** - The budget for each Service Company location is assigned to each operating company so it knows what to expect in the way of charges during the next year. Each operating company president must review and approve the budgeted Service Company charges for the upcoming year.
- **Budget Variance Reporting (Service Company)** - A summary and explanation of year-to-date budget variances is prepared for the entire Service Company on a monthly basis. In addition, a monthly variance report called the "Statement of Expenses and Billed Charges," is produced by Service Company location and shows budget versus actual spending for the month and year-to-date by cost category.
- **Budget Variance Reporting (Operating Company)** - The "Budget/Plan Analysis" produced monthly by each operating company has a line item for Service Company charges. In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.
- **Service Company Bill Detail** - The monthly Service Company bill is accompanied by detailed backup to support all charges by each Service Company location. Virginia-American's Vice President and Manager, who periodically reviews the reasonableness of charges. Items that appear unusual are noted to the Regional VP of Finance, who investigates them and, if necessary, make a correcting journal entry.
- **Capital Project Authorization** - Capital projects estimated to cost over \$100,000 must be approved by the operating company board of directors before any design and construction work begins.

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**VIRGINIA-AMERICAN WATER COMPANY**  
**ASSESSMENT OF SERVICE COMPANY SERVICES**

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**TEST YEAR ENDED DECEMBER 31, 2001**

**BARYENBRUCH & COMPANY**

# VIRGINIA-AMERICAN WATER COMPANY EVALUATION OF SERVICE COMPANY SERVICES

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## I - INTRODUCTION

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### PURPOSE OF THIS STUDY

This study was undertaken to answer two questions:

- What would be the economic impact on Virginia-American Water Company (Virginia-American) if it were to outsource the services that it now receives from American Water Works Service Company, Inc. (Service Company)?
- Are the services Virginia-American receives from the Service Company necessary?

### STUDY APPROACH

The first issue was evaluated by comparing the cost per hour for work performed by Service Company personnel to the hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on the expenses and hours that were charged to Virginia-American during the twelve months ended December 31, 2001. Outside providers' billing rates came from surveys of professionals that could perform the services now provided by the Service Company.

The second issue—the necessity of Service Company services—was first investigated by determining what the Service Company does for Virginia-American. A determination was then made as to whether these services would be required if Virginia-American were a stand-alone utility.

### STUDY RESULTS

Concerning issue 1, the following conclusions can be drawn from this study:

- On average, the hourly rates for outside service providers are **47% higher** (\$669,308 / \$1,418,853) than the Service Company's hourly rates.
- The services performed by the Service Company are vital and could not be procured externally by Virginia-American without careful supervision on the part of Virginia-American. If these services were contracted entirely to outside providers, Virginia-American would have to add at least one more position to manage activities of the outside firms. This position would be essential to ensure a high level of quality service is being provided.

- If all the services now provided by the Service Company had been outsourced during the December 31, 2001 test year, Virginia-American and its ratepayers would incur an additional **\$775,708** in annual expenses. This amount includes the added cost of outside providers and the cost of one Virginia-American position needed to direct this outsourced work. This is over **46% more** ( $\$775,708 / \$1,676,100$ ) than the Service Company's total billings to Virginia-American during the year ended December 31, 2001.
- It would be difficult for Virginia-American to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company costs that cannot be charged directly to operating companies are allocated on the basis of number of customers. This is a straightforward and entirely reasonable methodology. The cost to administer this allocation technique is lower than alternatives that use multiple factors.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from Virginia-American ratepayers.

Concerning issue 2, the following conclusions can be drawn:

- Virginia-American could not function without the services that are provided to it by the Service Company. These services are the same type of activities that must be carried out by a stand-alone utility company to ultimately provide customers with service.
- There is no redundancy in the services provided by the Service Company and the activities that are performed by Virginia-American itself.

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## II - BACKGROUND

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### OVERVIEW OF SERVICE COMPANY SERVICES

The services that the Service Company provides to Virginia-American are described in the contract dated January 1, 1989 between the Service Company and Virginia-American Water Company. These services fall into the categories shown below, each of which is described in detail in the Service Agreement:

- Accounting
- Administration
- Communications
- Corporate Secretarial and Legal
- Engineering
- Financial
- Human Resources
- Information Systems
- Operations
- Rates and Revenue
- Risk Management
- Water Quality

During the test year, Virginia-American was provided services from the following Service Company locations:

- Corporate Office – Voorhees, New Jersey
- Regional Offices – Marlton, New Jersey Regional Administrative office (through March 2000), Southeast Regional Administrative office in Charleston (after March 2000), West Virginia and the Marlton, New Jersey Financial Services office
- Data Centers – Hershey, Pennsylvania, Richmond, Indiana and Haddon Heights, New Jersey
- Belleville Lab – Belleville, Illinois

The services that Service Company locations provide to Virginia-American are detailed later in Section IV of this report.



**DESCRIPTION OF SERVICE COMPANY EXPENSES**

The expenses of each Service Company location are categorized as follows:

- Labor - salaries of managerial, professional and technical employees
- Support - wages and salaries of office support personnel, including secretaries, clerks, telephone operators and mail clerks
- Overhead - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Office Expense - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues and moving expenses and (3) outside service contracts for such things as actuarial services and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

During the twelve months ended December 31, 2001, the Service Company billed Virginia-American \$1,676,100, as detailed below.

Charges For Year Ended December 31, 2000				
	Corporate Office	Regional Offices	Belleville Lab	Total
Payroll	\$ 189,325	\$ 386,417	\$ 33,833	\$ 609,575
Support	\$ 14,826	\$ 12,275	\$ 5,557	\$ 32,658
Overhead	\$ 71,800	\$ 118,385	\$ 27,252	\$ 217,437
Office Expense	\$ 90,383	\$ 171,340	\$ 18,094	\$ 279,817
Vouchers/JEs	\$ 208,731	\$ 306,113	\$ 21,769	\$ 536,613
Total	\$ 575,065	\$ 994,530	\$ 106,505	\$ 1,676,100

**ASSIGNMENT OF SERVICE COMPANY EXPENSES TO OPERATING COMPANIES**

Service Company expenses are either assigned directly or allocated to operating companies. Direct assignment occurs when Service Company work or expenses are incurred in support of only one operating company. Direct assignment examples include work in support of an operating company’s rate case, engineering design work on an operating company’s project and the preparation of an operating company’s financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards. These costs are allocated to operating companies based on number of customers.

As shown in the table below, expense categories may be direct and/or allocated:

Expense Category	Direct	Allocated	Comments
Labor	x	x	Professional personnel working for one or several operating companies
Support		x	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Overhead	x	x	These are primarily employee benefit costs that relate directly to labor
Office Expense		x	Are all allocated on the basis of professional labor
Vouchers/Journals	x	x	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

The Service Company’s time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the reporting of time by managerial, professional and technical Service Company employees. Every week, Service Company professional employees complete a time sheet that shows hours spent by day by:

- Type of service/activity (e.g., rate case data requests),
- Operating company (for direct charge) or allocation formula (for allocation), and
- Work order/authorization number (where applicable).

At month-end, time report information is processed with direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee’s hours times their hourly rate of pay).

Administrative (support) personnel charge their time to the activity “General Admin.” As described in the table above, their labor charges are allocated to operating companies based upon how their office’s professional personnel labor charges are assigned. For instance, if 20% of the Southeast Regional office’s professional labor was assigned to Virginia-American during a month, then the

20% of that office's administrative labor charges are also assigned to Virginia-American.

The overhead cost category is allocated based on professional and administrative labor costs. Overhead charged to Virginia-American during the December 31, 2001 test year averaged around 34%. Thus, during this test year for every \$1.00 of professional and administrative labor charges another \$0.34 was added to allow the Service Company to recover employee benefit-related expenses.

Each Service Company location's office expenses are allocated to operating companies based upon how professional labor charges for that office have been assigned. Using the previous example of Southeast Regional office (which had 20% of professional labor assigned to Virginia-American) 20% of that office's office expenses would be assigned to Virginia-American. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/Journal Entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by an accountant in a regional office is allocated to the operating companies served by that office. Travel expenses by that same accountant to a state rate case proceeding are charged directly to the operating company whose case is being heard.

Before 1989, the allocation of costs to operating companies was based on a multitude of factors (e.g., number of employees, dollar amount of net plant in service). The Company found this methodology difficult to administer and difficult to explain to regulators. As a result, a decision was made in 1989 to rely solely on number of customers as the basis for allocation and the affiliate agreement was so modified and approved by the Virginia State Corporation Commission. Number of customers is an entirely appropriate basis for allocating those Service Company charges primarily because it is the most equitable to the customer, it is straightforward, easily understood and is relatively inexpensive to administer. Also, this methodology reasonably reflects how Service Company costs that cannot be directly assigned are incurred.

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### III - COST COMPARISON

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#### METHODOLOGY

The cost comparison quantifies the economic impact on Virginia-American of outsourcing all the services now provided by the Service Company. This is accomplished by comparing the cost per hour for Service Company services to those of outside service providers to whom these duties could be assigned.

The first step was to determine which types of outside providers could assume Service Company services. Based on the nature of these services it was determined that the following outside service providers could perform the categories of services indicated.

- Management Consultants - executive and administrative management, risk management services, human resources and communications services
- Attorneys - corporate secretarial and legal services
- Certified Public Accountants - accounting, financial, information systems and rates and revenues
- Professional Engineers - engineering, operations and water quality services.

It should be noted that the services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for outside professionals that perform the types of services provided by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

The next step was to calculate the Service Company's hourly rate for each of the four outside service provider category, based on the fees and hours charged to Virginia-American during the test year.

Hourly billing rates for outside service providers were next determined using information from pertinent surveys.

Finally, the Service Company's average cost per hour was compared to the average cost per hour for outside providers to determine who provided services at a lower cost.

## **COMPILATION OF SERVICE COMPANY HOURS/EXPENSES BY OUTSIDE PROVIDER CATEGORY**

During the twelve months ended December 31, 2001, Service Company employees charged 22,467 hours of time to Virginia-American. As indicated previously, the Service Company billed Virginia-American \$1,676,101 during that same period.

Certain adjustments to these dollar and hour amounts are necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. These adjustments are described below.

- Support – This expense category includes the cost of Service Company administrative/secretarial staff. To include these dollars and hours in the calculation would understate the Service Company's hourly rate relative to outside providers. Outside service providers generally charge separately for their administrative staff (e.g., CPA's clerical support). The total for this item is \$32,658 and 1,545 hours.
- Travel Expenses – Within the Vouchers/Journal Entries expense category are \$11,352 in travel expenses for Service Company personnel. Outside service providers bill this to a client over in addition their hourly fees. Thus, it is appropriate to remove this amount from the Service Company hourly rate calculation.
- Data Center Hardware/Software/Supplies Expenses – Also within the Vouchers/Journal Entries expense category are \$65,623 in data center hardware/software leases, maintenance fees and customer billing supplies paid to outside companies. Here too, an outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.
- Fees Of Existing Outside Service Providers - The test year includes \$147,614 fees paid by the Service Company to outside professional firms retained to perform certain corporate-wide services (e.g., financial audit, actuarial services). These professional fees are excluded because the related services have effectively been out-sourced already. These expenses are all in the Vouchers/Journal Entries expense category.

The analysis below summarizes which test year expenses and hours are included in the Service Company hourly rate calculation.

Expense Category	Total Service Company Charges	Excluded From Hourly Rate Calculation	Included In Hourly Rate Calculation
Payroll	\$ 609,575		\$ 609,575
Support	\$ 32,658	\$ (32,658)	\$ -
Overhead	\$ 217,437		\$ 217,437
Office Expense	\$ 279,817		\$ 279,817
Vouchers/JEs	\$ 536,613	\$ (224,589)	\$ 312,024
Total Fees	\$ 1,676,100	\$ (257,247)	\$ 1,418,853
Hours	22,467	(1,545)	20,922

Schedule 1 (pages 10-12) details the assignment of total test year Service Company expenses and hours to outsider provider categories. Schedule 2 (pages 13-14) shows the same outside provider assignment for support charges. Finally, Schedule 3 (page 15) shows how travel expenses, data center hardware/software/supplies and outside provider charges are split among the four outside provider categories.

### SERVICE COMPANY HOURLY RATES

Based on the assignment of expenses and hours shown in Schedule 1, Service Company's equivalent costs per hour for the test year ended December 31, 2001 are calculated below.

	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total
Total expenses (Sch 1)	\$ 394,747	\$ 30,513	\$ 940,493	\$ 310,347	\$ 1,676,100
Less: support expenses (Sch 2)	\$ (3,727)	\$ (175)	\$ (16,274)	\$ (12,482)	\$ (32,658)
Less: travel expenses (Sch 3)	\$ (4,362)	\$ (117)	\$ (2,932)	\$ (3,941)	\$ (11,352)
Less: data center hw/sw (Sch 3)			\$ (65,623)		\$ (65,623)
Less: prof svcs fees (Sch 3)	\$ (29,698)		\$ (113,348)	\$ (4,568)	\$ (147,614)
Net expenses (A)	\$ 356,960	\$ 30,221	\$ 742,316	\$ 289,356	\$ 1,418,853
Total hours (Sch 1)	5,115	403	11,751	5,197	22,467
Less: support hours (Sch 2)	(223)	(9)	(520)	(793)	(1,545)
Net hours (B)	4,893	394	11,231	4,404	20,922
Average rate/hour (A / B)	\$ 73	\$ 77	\$ 66	\$ 66	



Virginia-American Water Company  
Test Year Service Company Charges (Year Ended December 31, 2001) - Total

Service Company Work And Charges		Outside Service Provider To Whom Work Would Be Assigned										
Account Number	AWM Office	Work Description	Total Charges		Mgmt Consultant		Attorney		Certified Public Acct.		Prof Engineer	
			Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours
107	Haddon Height IS	Implemen. of ORCOM Software 60-00	\$ 2,497	37					\$ 2,497	37		
107	Haddon Height IS	Implemen. of ORCOM Software 60-00	\$ 1,056	13					\$ 1,056	13		
183.01	Haddon Height IS	Customer Service Consolidation Project	\$ 1,497	27	\$ 1,497	27						
183.02	Haddon Height IS	Financial Services Project	\$ 5,530	85					\$ 5,530	85		
903.51	Haddon Height IS	I. S./Customer Billing	\$ 67,710	326					\$ 67,710	326		
923.1	Haddon Height IS	Accounting	\$ 30	-					\$ 30	-		
923.1	Haddon Height IS	Administrative	\$ 1,690	33	\$ 1,690	33						
923.1	Haddon Height IS	Information Systems/Financial	\$ 130,869	2,113					\$ 130,869	2,113		
various	Northeast Region	Other Support	\$ 450	-					\$ 450	-		
923.1	Northeast Region	Corporate Secretarial	\$ 3	0			\$ 3	0				
923.1	Northeast Region	Rates and Revenue	\$ 118	4					\$ 118	4		
923.1	Northeast Region	Rate Refund	\$ 1,411	42					\$ 1,411	42		
183.02	Shared Services	Financial Services Report	\$ 55,648	452					\$ 55,648	452		
923.1	Shared Services	Accounting	\$ 1,208	38					\$ 1,208	38		
923.1	Shared Services	Administration	\$ 1,661	43	\$ 1,661	43						
923.1	Shared Services	Finance	\$ 8,797	278					\$ 8,797	278		
923.1	Shared Services	Rates & Revenue	\$ 202	5					\$ 202	5		
923.1	Shared Services	SSC-Current Customer Support	\$ 12,071	322	\$ 12,071	322						
923.1	Shared Services	SSC-Customer Support	\$ 14,155	550	\$ 14,155	550						
various	Region (Marlton)	Other Support	\$ 1,249	33					\$ 1,249	33		
183.02	Region (Marlton)	Financial Services Project	\$ 313	7					\$ 313	7		
923.1	Region (Marlton)	Accounting	\$ 287,799	3,552					\$ 287,799	3,552		
107	Richmond Data Center	Implemen. of ORCOM Software 60-00	\$ 445	5					\$ 445	5		
107	Richmond Data Center	Implemen. of ORCOM Software 60-00	\$ 471	6					\$ 471	6		
53400.162	Richmond Data Center	Rate Refund	\$ 34,051	300					\$ 34,051	300		
903.51	Richmond Data Center	I. S./Customer Billing	\$ 814	-					\$ 814	-		
923.1	Richmond Data Center	Information Systems/Financial	\$ 670	-					\$ 670	-		
183.01	Western Region	Customer Service Consolidation Project	\$ 460	-	\$ 460	-						
183.01	Western Region	Financial Services Project	\$ 1,165	-					\$ 1,165	-		
923.1	Western Region	Human Resources	\$ 6	-	\$ 6	-						
107	Belleville Lab	CWIP	\$ 2,660	100					\$ 2,660	100		
642.3	Belleville Lab	Water Quality Lab	\$ 79,820	1,439					\$ 79,820	1,439		
930.39	Belleville Lab	Development of a simplified AOC	\$ 2,667	47					\$ 2,667	47		
930.39	Belleville Lab	Eval of the Bax-Crypio PCR	\$ 806	8					\$ 806	8		
930.39	Belleville Lab	Field Testing of USEPA Method 1601	\$ 2,395	44					\$ 2,395	44		
930.39	Belleville Lab	Full-Scale Evaluation of Ultraviolet Technology	\$ 4,321	76					\$ 4,321	76		
930.39	Belleville Lab	Maintenance & Staffing Programs	\$ (0)	4					\$ (0)	4		
930.39	Belleville Lab	Research & Technology Development-Gen Program	\$ 10,195	169					\$ 10,195	169		
930.39	Belleville Lab	Stand Methods Rapid Detec of Virus	\$ 2,993	42					\$ 2,993	42		
930.39	Belleville Lab	Study of Water Quality Improvements	\$ (248)	-					\$ (248)	-		
930.39	Belleville Lab	Variability of Pathogen Concentrations	\$ 8	-					\$ 8	-		
930.39	Belleville Lab	Water Quality Monitoring Davenport	\$ 888	44					\$ 888	44		



**Virginia-American Water Company**  
**Test Year Service Company Charges (Year Ended December 31, 2001) - Total**

Service Company Work And Charges		Total				Outside Service Provider To Whom Work Would Be Assigned						
Account Number	AWW Office	Work Description	Charges		Mgmt Consultant		Attorney		Certified Public Acct		Prof Engineer	
			Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours
183.01	Call Center	Customer Service Consolidation Project	\$ 24,163	820	\$ 24,163	820						
923.1	Call Center	SSC-Customer Support	\$ 171	7	\$ 171	7						
923.1	Call Center	Finance	\$ 6	0	\$ 6	0						
923.1	Call Center	CSCP Current Customer Support	\$ 60,327	1,314	\$ 60,327	1,314						
	various	Other Support	\$ 786	17	\$ 786	17						
183.01	Southeast Region	Customer Service Consolidation Project	\$ 2	-	\$ 2	-						
183.02	Southeast Region	Financial Services Project	\$ 121	-	\$ 121	-						
182000	Southeast Region	2001 Rate Case RC8	\$ 46,090	819	\$ 46,090	819						
923.1	Southeast Region	Accounting	\$ 11,218	201	\$ 11,218	201						
923.1	Southeast Region	Administration	\$ 85,327	745	\$ 85,327	745						
923.1	Southeast Region	Corporate Secretarial	\$ 27,623	383	\$ 27,623	383						
923.1	Southeast Region	Engineering	\$ 8,024	53	\$ 8,024	53						
923.1	Southeast Region	Financial	\$ 36,991	908	\$ 36,991	908						
923.1	Southeast Region	Human Resources	\$ 10,984	180	\$ 10,984	180						
923.1	Southeast Region	Rate and Revenue	\$ 11,430	237	\$ 11,430	237						
923.1	Southeast Region	Water Quality Regional	\$ 3,379	60	\$ 3,379	60						
107	Hershey Data Center	Implemen. of ORCOM Software 60-00	\$ 10,310	117	\$ 10,310	117						
107	Hershey Data Center	Implemen. of ORCOM Software 60-00	\$ 1,671	21	\$ 1,671	21						
183.01	Hershey Data Center	Customer Service Consolidation Project	\$ 89	1	\$ 89	1						
183.02	Hershey Data Center	Financial Services Project	\$ 2,198	37	\$ 2,198	37						
642.3	Hershey Data Center	Water Quality - Lab	\$ 144	-	\$ 144	-						
923.1	Hershey Data Center	Accounting	\$ 1,714	44	\$ 1,714	44						
923.1	Hershey Data Center	Financial	\$ 9	1	\$ 9	1						
923.1	Hershey Data Center	Information Systems/Financial	\$ 17,510	63	\$ 17,510	63						
923.1	Hershey Data Center	SSC Customer Support	\$ 201	12	\$ 201	12						
Total Service Company Expenses and Hours			\$ 1,676,101	22,467	\$ 394,747	5,115	\$ 30,513	403	\$ 940,493	11,751	\$ 310,347	5,197

EXHIBIT WITNESS: PLB  
SCHEDULE 2  
Page 1 of 2

Virginia-American Water Company  
Test Year Service Company Charges (Year Ended December 31, 2001) – Support Expenses

Account Number		AWW Office	Work Description	Total Charges	Hours	Outside Service Provider To Whom Work Would Be Assigned							
				Dollars	Hours	Mgmt Consultant Dollars	Hours	Attorney Dollars	Hours	Certified Public Acctt Dollars	Hours	Prof Engineer Dollars	Hours
107	Corporate		CWIP	\$ 5,994	363							\$ 5,994	363
107	Corporate		Implemen. of ORCOM Software 60-00	\$ 90	5					\$ 90	5		
107	Corporate		Implemen. of ORCOM Software 60-00	\$ 473	28					\$ 473	28		
182000	Corporate		2001 Rate Case (RC8)	\$ 17	1					\$ 17	1		
183.01	Corporate		Customer Service Consolidation Project	\$ 200	12	\$ 200	12						
183.02	Corporate		Financial Services Project	\$ 1,001	60					\$ 1,001	60		
642.3	Corporate		Water Quality System	\$ 401	24							\$ 401	24
923.1	Corporate		Accounting	\$ 1,050	62					\$ 1,050	62		
923.1	Corporate		Administrative	\$ 1,693	101								
923.1	Corporate		Administrative/Internal Audit	\$ 545	32					\$ 545	32		
923.1	Corporate		Buried Infrastructure Opt Model	\$ 3	0							\$ 3	0
923.1	Corporate		Buried Infrastructure Opt Model	\$ 45	3							\$ 45	3
923.1	Corporate		Communications	\$ 305	18	\$ 305	18						
923.1	Corporate		Corporate Secretarial	\$ 56	3			\$ 56	3				
923.1	Corporate		Engineering	\$ 72	5							\$ 72	5
923.1	Corporate		FCC License Database 65-01	\$ 8	1					\$ 8	1		
923.1	Corporate		Financial	\$ 527	31					\$ 527	31		
923.1	Corporate		Human Resources	\$ 1,191	70	\$ 1,191	70						
923.1	Corporate		Information Systems/Financial	\$ 740	44					\$ 740	44		
923.1	Corporate		Project Prioritization Initiative	\$ 10	1					\$ 10	1		
923.19	Corporate		Standard Contract Update	\$ 17	1			\$ 17	1				
930.39	Corporate		Evaluation of the Box Crypto PCR	\$ 2	0							\$ 2	0
930.39	Corporate		Field Testing of Surge Modling Pred	\$ 18	1							\$ 18	1
930.39	Corporate		Early Warning & Source Water Monitoring Systems	\$ 31	2							\$ 31	2
930.39	Corporate		Filter Media Specifications	\$ 7	0							\$ 7	0
930.39	Corporate		Full-Scale Evaluation of Ultraviolet Technology	\$ 14	1							\$ 14	1
930.39	Corporate		Manganese Control & Permanganate Monitoring	\$ 13	1							\$ 13	1
930.39	Corporate		Maintenance and Staffing Programs	\$ 12	1							\$ 12	1
930.39	Corporate		Research & Tech Development General Program	\$ 256	15							\$ 256	15
930.39	Corporate		Study of Water Quality Improvements	\$ 11	1							\$ 11	1
930.39	Corporate		Variability of Pathogen Concentration	\$ 17	1							\$ 17	1
930.39	Corporate		Water Quality Monitoring Davenport	\$ 6	0							\$ 6	0
923.1	Northeast Region		Corporate Secretarial	\$ 0	0			\$ 0	0				
923.1	Northeast Region		Rates and Revenue	\$ 14	1					\$ 14	1		
923.1	Northeast Region		Rate Refund	\$ 156	8					\$ 156	8		
183.02	Shared Services		Financial Services Report	\$ 71	8					\$ 71	8		
923.1	Shared Services		Accounting	\$ 4	0							\$ 4	0
923.1	Shared Services		Administration	\$ 5	1	\$ 5	1						
923.1	Shared Services		Finance	\$ 32	6					\$ 32	6		
923.1	Shared Services		Rates & Revenue	\$ 1	0					\$ 1	0		

Virginia-American Water Company  
 Test Year Service Company Charges (Year Ended December 31, 2001) – Support Expenses

Account Number	AWW Office	Work Description	Total		Outside Service Provider To Whom Work Would Be Assigned									
			Charges	Hours	Mgmt Consultant Dollars	Attorney Dollars	Certified Public Acct Hours	Prof Engineer Dollars	Hours					
923.1	Shared Services	SSC-Current Customer Support	\$	48	5	\$	48	5						
923.1	Shared Services	SSC-Customer Support	\$	49	4	\$	49	4						
various	Region (Marion)	Other Support	\$	19	1	\$	19	1						
183.02	Region (Marion)	Financial Services Project	\$	7	0									
923.1	Region (Marion)	Accounting	\$	11,049	211	\$	11,049	211						
107	Belleville Lab	CWIP	\$	276	19									
642.3	Belleville Lab	Water Quality Lab	\$	3,972	267									
930.39	Belleville Lab	Development of a simplified AOC	\$	145	10									
930.39	Belleville Lab	Eval of the Bax-Crypto PCR	\$	29	2									
930.39	Belleville Lab	Field Testing of USEPA Method 1601	\$	121	8									
930.39	Belleville Lab	Full-Scale Evaluation of Ultraviolet Technology	\$	268	18									
930.39	Belleville Lab	Maintenance & Staffing Programs	\$	11	1									
930.39	Belleville Lab	Research & Technology Development-Gen Program	\$	490	33									
930.39	Belleville Lab	Stand Methods Rapid Detect of Virus	\$	132	9									
930.39	Belleville Lab	Water Quality Monitoring Davenport	\$	113	8									
various	Southeast Region	Other Support	\$	15	1	\$	15	1						
182000	Southeast Region	2001 Rate Case RC8	\$	285	11									
923.1	Southeast Region	Accounting	\$	60	2									
923.1	Southeast Region	Administration	\$	193	9	\$	193	9						
923.1	Southeast Region	Corporate Secretarial	\$	102	5	\$	102	5						
923.1	Southeast Region	Engineering	\$	14	0									
923.1	Southeast Region	Financial	\$	64	3	\$	64	3						
923.1	Southeast Region	Human Resources	\$	43	2	\$	43	2						
923.1	Southeast Region	Rate and Revenue	\$	38	2									
923.1	Southeast Region	Water Quality Regional	\$	6	0									
Total Service Company Expenses and Hours			\$	32,658	1,545	\$	3,727	223	\$	175	9	\$	16,274	520
			\$			\$			\$			\$	12,482	793

**Virginia-American Water Company  
Test Year Service Company Charges (Year Ended December 31, 2001) – Travel, HW/SW and Outside Services**

Travel Expenses		Total	Management Consultant	Attorney	CPA	Professional Engineer
Corporate	Office	\$ 9,424	\$ 4,362	\$ 117	\$ 1,245	\$ 3,700
Regional Offices		\$ 1,687		\$	\$ 1,687	
Belleville Lab		\$ 241				\$ 241
	Total	\$ 11,352	\$ 4,362	\$ 117	\$ 2,932	\$ 3,941

Computer Hardware and Software Expenses		Total	Management Consultant	Attorney	CPA	Professional Engineer
Vendor	Type of Services	Total				
AVAYA, Inc	Telephone switch hardware/software exp	\$ 1,534		\$	\$ 1,534	
IBM	Data center hardware and software	\$ 5,853		\$	\$ 5,853	
JD Edwards	Financial system software mtncfees	\$ 2,719		\$	\$ 2,719	
Mail-Well Envelope	Envelopes for customer bills	\$ 23,097		\$	\$ 23,097	
Omicron	Consolidated call center software	\$ 10,299		\$	\$ 10,299	
Oracle	Data base software expense	\$ 1,468		\$	\$ 1,468	
SFI	Customer billing-related supplies	\$ 17,488		\$	\$ 17,488	
Softmart	Software expenses	\$ 3,165		\$	\$ 3,165	
	Total	\$ 65,623	\$ -	\$ -	\$ 65,623	\$ -

Outside Professional Services Fees		Total	Management Consultant	Attorney	CPA	Professional Engineer
Outside Firm	Type of Services	Total				
Accenture	IT Help Desk planning/support	\$ 1,478		\$	\$ 1,478	
Accountants On Call	Temporary accounting staff	\$ 16,264		\$	\$ 16,264	
Accountemps	Temporary accounting staff	\$ 52,177		\$	\$ 52,177	
AON Consulting	Employee benefits consulting	\$ 3,127	\$ 3,127			
Brooks Personnel,	Temporary accounting staff	\$ 3,408		\$	\$ 3,408	
Clancy Environ Consultants	Field scientists for sampling and testing	\$ 1,320			\$ 1,320	
Detweiler Consulting	General management consulting	\$ 2,611	\$ 2,611			
Hewitt & Associates	Human resources consulting	\$ 6,052	\$ 6,052			
I/S Computer Services, Inc.	Support of customer billing system	\$ 28,600		\$	\$ 28,600	
Merrill, Lynch	Benefits consulting	\$ 4,193	\$ 4,193			
Office Team	Temporary accounting staff	\$ 1,607		\$	\$ 1,607	
Point 5 Solutions	Temporary IT personnel	\$ 5,892		\$	\$ 5,892	
Price Waterhouse Coopers	Outside auditor	\$ 1,274		\$	\$ 1,274	
Right Management Consultants	Consolidation of AWW financial services	\$ 954		\$	\$ 954	
Strategic Management Group	Leadership development program	\$ 2,810	\$ 2,810			
Tek Systems	Temporary IT personnel	\$ 1,694		\$	\$ 1,694	
The Duberstein Group	Management consulting support	\$ 1,838	\$ 1,838			
The Working Group, Inc.	Customer satisfaction survey	\$ 1,647			\$ 1,647	
TPMC, Inc	Data mgmt/statistical consulting (research)	\$ 1,601			\$ 1,601	
Towers Perrin	Actuarial services	\$ 7,282	\$ 7,282			
W/m Mercer	Employee development program	\$ 1,785	\$ 1,785			
	Total	\$ 147,614	\$ 29,698	\$ -	\$ 113,348	\$ 4,568

## **OUTSIDE SERVICE PROVIDER HOURLY RATES**

The next step in the cost comparison was to obtain the average billing rates for each type of outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2001 annual survey performed by the Association of Management Consulting Firms—the industry trade organization. The first step in the calculation, presented in Schedule 4, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This represents the average for 2000, which is then escalated one-half year to arrive at an average for 2001—within the test year's range. This is an average for all of the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. average is appropriate for comparison.

### **Attorneys**

The cost per hour for attorneys was developed from an annual survey conducted by the Virginia Lawyers Weekly of the larger law firms in Virginia. These are the firms that Virginia-American would look to in lieu of support from Service Company attorneys. The survey includes rates that were in effect at December 31, 2000, and are escalated one-half year to arrive at an average for 2001. The law firms that provided their rates are listed in Schedule 5 where an average hourly rate is calculated.

### **Certified Public Accountants**

The average hourly rate for Virginia certified public accountants was developed from a 1999 survey performed by the Virginia Society of Certified Public Accountants. The Virginia Society has not conducted this member survey since then.

The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 6. Using an assumed percent of time on a typical assignment, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 1998 thus they had to be escalated forward two and one-half years to arrive at an average for 2001.

### **Professional Engineers**

The Service Company provided hourly rate information for the one outside engineering firm that was used by Virginia-American in 2001. As presented in Schedule 7, an average rate was first developed for each engineering position level. Then, using a typical percentage mix of time by each engineering position that would be spent in performing engineering, operations and water quality assignments, a weighted average cost per hour was calculated.

SCHEDULE 4

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF U.S. MANAGEMENT CONSULTANTS

A. Calculation of Average Hourly Billing Rate by Consultant Position						
Survey billing rates were those in effect in 2000 (Note A)						
Average Hourly Rates (Note A)						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$167	\$188	\$224	\$280	\$339	
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (From Above)	\$167	\$188	\$224	\$280	\$339	
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%	Weighted Average
	\$50	\$56	\$45	\$28	\$34	<b>\$213</b>
Escalation to June 30, 2001 (Note B)						
						CPI at December 31, 2000
						180.7
						CPI at June 30, 2001
						183.4
						Inflation/Escalation
						2.7%
						<b>Billing Rate At June 30, 2001</b>
						<b>\$219</b>

Note A: source: "2001 Survey of U.S. Key Management Information," Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics; the CPI used excludes energy

SCHEDULE 5

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA ATTORNEYS

Billing rates are as of December 31, 2000 (Note A)					
Firm	Virginia Location	Number of Lawyers (Va)	Billing Rate Range		
			Low	High	Average
Troutman Sanders Mays & Valentine	Richmond	157	\$85	\$450	\$268
LeClair Ryan	Richmond	105	\$115	\$350	\$233
Kaufman & Canoles	Norfolk	97	\$110	\$285	\$198
Wilcox & Savage	Norfolk	64	\$120	\$300	\$210
Woods, Rogers & Hazelgrove	Roanoke	64	\$115	\$285	\$200
Gentry, Locke, Rakes & Moore	Roanoke	53	\$75	\$350	\$213
Shaw, Pittman	McLean	53	\$150	\$525	\$338
Birch, Stewart, Kolasch & Birch	Falls Church	40	\$75	\$350	\$213
Nixon & Vanderhyne	Arlington	30	\$170	\$450	\$310
Penn, Stuart & Eskridge	Abingdon	27	\$70	\$285	\$178
Hofheimer, Nusbaum	Norfolk	27	\$60	\$260	\$160
Wright, Robinson, Osthimer & Tatum	Richmond	26	\$110	\$275	\$193
Jones, Blechman, Woltz & Kelly	Newport News	24	\$125	\$250	\$188
Wickwire, Gavin	Vienna	23	\$135	\$375	\$255
Oliff & Berridge	Alexandria	23	\$140	\$380	\$260
Kalbaugh, Pfund & Messersmith	Richmond	23	\$85	\$300	\$193
McCandlish & Lillard	Fairfax	22	\$125	\$325	\$225
Patten, Wornom, Hatten & Diamonstein	Newport News	22	\$135	\$300	\$218
Durette, Irvin & Bradshaw	Richmond	21	\$150	\$325	\$238
Bean, Kinney & Korman	Arlington	20	\$125	\$360	\$243
Glasser & Glasser	Norfolk	20	\$80	\$250	\$165
Holland & Knight	Falls Church	19	\$150	\$380	\$265
Michie, Hamlett, Lowry, Rasmussen, Tweel	Charlottesville	18	\$60	\$225	\$143
Surovell, Jackson, Colten & Dugan	Fairfax	18	\$85	\$350	\$218
Overall Average			\$110	\$333	<b>\$222</b>
Escalation to June 30, 2001 (Note B)					
CPI at December 31, 2000					180.7
CPI at June 30, 2001					183.4
Inflation/Escalation					<u>2.7%</u>
Billing Rate At June 30, 2001					<b>\$228</b>

Note A: source is Virginia Lawyers Weekly, April 30,2001

Note B: source is US Bureau of Labor Statistics; the CPI used excludes energy



SCHEDULE 6

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA CERTIFIED PUBLIC ACCOUNTANTS

A. Calculation of Average Hourly Billing Rate by Public Accounting Position				
Survey billing rates were those in effect in 1998 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Larger Firms	\$52	\$68	\$87	\$146
Medium-Sized Firms	\$42	\$58	\$74	\$113
Average Hourly Rate	\$47	\$63	\$81	\$130
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$47	\$63	\$81	\$130
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$14	\$19	\$16	\$26
				Weighted Average
				\$75
Escalation to June 30, 2001 (Note B)				
				CPI at December 31, 1998
				172.8
				CPI at June 30, 2001
				183.4
				Inflation/Escalation
				10.6%
Estimated Average Hourly Billing Rate For Virginia CPAs At June 30, 2001				<b>\$83</b>

Note A: source is "1999 Accounting Practice Survey," Virginia Society of CPAs

Note B: source is US Bureau of Labor Statistics; the CPI used excludes energy

EXHIBIT WITNESS: PLB  
SCHEDULE 7

VIRGINIA-AMERICAN WATER COMPANY  
BILLING RATES OF VIRGINIA ENGINEERS

Note: Billing rates were those in effect in 2001

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer	Project Manager Sr. Engineer	Officer Principal Engineer
O'Brien & Gere Landover, Maryland	\$54 (\$47-\$60)	\$71 (\$64-\$69-\$80)	\$130 (\$105-\$135-\$150)	\$170
Overall Average	\$54	\$71	\$130	\$170

B. Calculation of Overall Average Engineering Hourly Billing Rate

Average Hourly Billing Rate (From Above)	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer	Project Manager Sr. Engineer	Officer Principal Engineer	Weighted Average
	\$54	\$71	\$130	\$170	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$16	\$25	\$33	\$17	<b>\$90</b>

Source: Information provided by American Water Works Service Company

**SERVICE COMPANY VERSUS OUTSIDE PROVIDER COST COMPARISON**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Outside Provider	2001 Cost Per Hour		Difference-- Service Co. Greater (Less Than) Outside Provider
	Service Company	Outside Provider	
Management Consultant	\$ 73	\$ 219	\$ (146)
Attorney	\$ 77	\$ 228	\$ (151)
Certified Public Accountant	\$ 66	\$ 83	\$ (17)
Professional Engineer	\$ 66	\$ 90	\$ (24)

Based on these cost per hour differentials and the number of hours that the Service Company billed Virginia-American during the year ended December 31, 2001 the services themselves would cost significantly more—over \$669,000—from outside providers (see table below). Thus, on average, outside provider’s hourly rates are 47% higher than those of the Service Company (\$669,308 / \$1,418,855).

Dollar Difference Associated With Contracting Service Co Services

Outside Provider	Rate Difference-- Service Company Greater(Less) Than		Hours	Dollar Difference
	Outside Provider	Outside Provider		
Management Consultant	\$ (146)		1,763	\$ (257,398)
Attorney	\$ (151)		359	\$ (54,209)
Certified Public Accountant	\$ (17)		14,365	\$ (244,205)
Professional Engineer	\$ (24)		4,729	\$ (113,496)
Total Service Company Less Than Outside Providers				<b>\$ (669,308)</b>

Higher hourly rates are not the only negative economic impact that would result from contracting all Service Company services to outside providers. Managing outside firms who would perform almost 21,000 hours of work would add a considerable workload to the existing Virginia-American management team. Thus, it would be necessary for Virginia-American to add at least one position whose responsibility it would be to supervise the outside firms and ensure they delivered quality services. The individual that would fill this position would need a good understanding of each profession being managed. This person must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$106,400 per year to Virginia-American's personnel expenses.

Cost of Adding Administrative Position To The Staff Of Virginia-American

New Position's Salary	\$ 70,000
Benefits	<u>36,400</u>
Total Cost of the New Position	<u>\$ 106,400</u>

Thus, the total effect on the ratepayers of Virginia-American of contracting all services now provided by Service Company would be an increase in their costs of **\$775,708** (\$669,308 + \$106,400).

**OTHER COST COMPARISONS**

The Service Company periodically conducts its own comparisons of the cost of outside service providers. In all instances, these comparisons confirm this study's conclusion--that the cost of outsourcing Service Company services is greater than the current arrangement. A brief description of several recent studies is provided below.

- Belleville Lab Testing (2000) - A comparison was made of Belleville Lab 2000 cost for performing over 26 major tests to the cost of using outside testing laboratory. It was found that the outside labs were 15% more expensive than the Belleville Lab.
- Belleville Lab Testing (2001) – Another comparison Belleville Lab's 2001 cost for performing over 25 major tests to the cost of using outside testing laboratory. It was found that the outside labs were 20% more expensive than the Belleville Lab.
- Stock Materials - A comparison of the prices Virginia-American paid in 1998 for stock material to the cost from local suppliers showed savings of over \$200,000.

- Insurance Premiums – In an October 8, 1999 letter to the Service Company, the corporation's insurance consultant indicated that the premiums paid by Virginia-American for property and excess liability insurance would be 264% greater (\$177,540 / \$67,228) if the policies were purchased separately and not as part of the American Water Works' national plan.

These studies present further evidence that the Service Company arrangement is the lowest-cost alternative for Virginia-American.

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## IV - NEED FOR SERVICES

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### ANALYSIS OF SERVICES

The second issue addressed by this study is the need for the services that are rendered to Virginia-American by the Service Company. First, it was determined specifically what the Service Company does for Virginia-American. Based on discussions with Service Company personnel, the matrix in Schedule 8 was created showing which entity--Virginia-American or a Service Company location-- is responsible for each of the functions Virginia-American requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 8, the following conclusions can be drawn:

- There is no redundancy or overlap in the services provided by the Service Company to Virginia-American. For substantially all of the services listed in Schedule 8, there was only one entity that was primarily responsible for the service.
- The services that the Service Company provides would be necessary even if Virginia-American were a stand-alone water utility.







**DESIGNATION OF RESPONSIBILITY FOR WATER UTILITY FUNCTIONS**

Primarily Responsible <input checked="" type="checkbox"/> Provides Input <input type="checkbox"/>	Performed By					
	Virginia-American	Regional Office	Fin'l Svcs Office	Corporate Office	Data Centers	Belleville Lab
Water Company Function						
<u>Budgeting and Variance Reporting</u>		◆		◆		
Corporate Guidelines & Instructions		◆		□		
Regional Guidelines & Instructions		◆		□		
Budget Preparation		◆				
Revenue and O&M	◆					
Depreciation and Interest Expense						
Budget Preparation--Service Company Charges						
Capital Budget Preparation--Projects	◆					
Capital Budget Preparation--Non-Project Work	◆					
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	□					
Prepare Capital Project Budget Status Report	◆			◆		
Year-End Projections (A)						
<u>Accounting and Taxes</u>						
Accounts Payable Accounting	□		◆			
Payroll Accounting	□		◆			
Work Order Accounting	□		◆			
Fixed Asset Accounting			◆			
Journal Entry Preparation--Billing Corrections	□		◆			
Journal Entry Preparation--All Others			◆			
Financial Statement Preparation			◆			
State Commission Reporting			◆			
Income Taxes--State			◆			
Income Taxes--Federal			◆			
Property Taxes			◆			
Gross Receipts Taxes			◆			

Note A: Projections are developed for certain cost types by Virginia-American and by the Service Company for other cost types.



**VIRGINIA-AMERICAN WATER COMPANY**  
**DESIGNATION OF RESPONSIBILITY FOR WATER UTILITY FUNCTIONS**

	Performed By					
	Virginia-American	Regional Office	Fin'l Svcs Office	Corporate Office	Data Centers	Belleville Lab
Primarily Responsible <input checked="" type="checkbox"/> Provides Input <input type="checkbox"/>  Water Company Function <u>Information Systems Services</u> Service Company Data Centers System Operations & Maintenance Software Maintenance LAN Administration PC Acquisition & Support Help Desk	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>				<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	

## CONTROLS OVER SERVICE COMPANY CHARGES

Several factors were noted that act to control the level of charges from the Service Company to Virginia-American. The most significant of these are described below.

- **Service Company Budgets By Operating Company** - The budget for each Service Company location is assigned to each operating company so it knows what to expect in the way of charges during the next year. Each operating company president must review and approve the budgeted Service Company charges for the upcoming year.
- **Budget Variance Reporting (Service Company)** - A summary and explanation of year-to-date budget variances is prepared for the entire Service Company on a monthly basis. In addition, a monthly variance report called the "Statement of Expenses and Billed Charges," is produced by Service Company location and shows budget versus actual spending for the month and year-to-date by cost category.
- **Budget Variance Reporting (Operating Company)** - The "Budget/Plan Analysis" produced monthly by each operating company has a line item for Service Company charges. In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.
- **Capital Project Authorization** - Capital projects estimated to cost over \$100,000 must be approved by the operating company board of directors before any design and construction work begins.

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**Virginia-American Water Company**  
**Assessment of Service Company Services**  
**Test Year Ended September 30, 2003**

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## **Virginia-American Water Company Evaluation of Service Company Services**

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## I - Introduction

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### Purpose Of This Study

This study was undertaken to answer three questions:

1. What would be the economic impact on Virginia-American Water Company (Virginia-American) if it were to outsource the managerial, professional and technical services that it now receives from American Water Service Company, Inc. (Service Company)?
2. Are the costs of American Water's National Call Center reasonable?
3. Are the services Virginia-American receives from the Service Company necessary?

### Study Results

Concerning question 1, the following conclusions can be drawn from this study:

- On average, the hourly rates for outside service providers are more than **50% higher** (\$793,105 / \$1,565,266) than the Service Company's hourly rates.
  - The managerial, professional and technical services provided by the Service Company are vital and could not be procured externally by Virginia-American without careful supervision on the part of Virginia-American. If these services were contracted entirely to outside providers, Virginia-American would have to add at least one more position to manage activities of the outside firms. This position would be essential to ensure a high level of quality service is being provided.
  - If all the managerial, professional and technical services now provided by the Service Company had been out-sourced during the September 30, 2003 test year, Virginia-American and its ratepayers would incur an **additional \$899,505** in annual expenses. This amount includes the added cost of outside providers and the cost of one Virginia-American position needed to direct this outsourced work. This is over **48% more** (\$899,505 / \$1,847,009) than the Service Company's total billings to Virginia-American during the year ended September 30, 2003.
  - It would be difficult for Virginia-American to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
-

- Service Company costs that cannot be charged directly to operating companies are allocated on the basis of number of customers. This is a straightforward and entirely reasonable methodology. The cost to administer this allocation technique is lower than alternatives that use multiple factors.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from Virginia-American ratepayers.

During the test year, Virginia-American's annual cost for services provided by American Water's National Call Center was \$9.90 per customer, a reasonable per customer cost for this service. Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, **are less than the average of electric utilities in Virginia and surrounding states**. The September 30, 2003 test year customer accounts cost for Virginia-American customers is **\$20.03 compared to the 2002 average of \$27.29** for neighboring electric utilities.

Concerning question 3, the following conclusions can be drawn:

- Virginia-American could not function without the services that are provided to it by the Service Company. These services are the same type of activities that must be carried out by a stand-alone utility company to ultimately provide customers with service.
- There is no redundancy in the services provided by the Service Company and the activities that are performed by Virginia-American itself.
- The services are provided by the Service Company at no profit or mark-up to Virginia-American and are provided at a significantly reduced cost from similar services available in the marketplace from third parties.



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## II - Background

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### Overview Of American Water Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Corporate Office – Includes American Water’s executive management and personnel from the various corporate support services; located in Voorhees, New Jersey.
- National Call Center – Performs customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. This single call center facility, located in Alton, Illinois, went into operation in the second quarter of 2001. Virginia-American transitioned to the National Call Center in May 2003. Previously, this customer service function was performed by employees of Virginia-American, which incurred the expense on its books.
- National Shared Services Center – In the fourth quarter of 2001, the new Shared Service Center assumed responsibility for various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company’s financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide certain support services to smaller-grouped operating companies that do not have sufficient workloads to support a full-time staff for various support services. These services include rates and revenues, engineering and operations. Virginia-American is served by the Southeast Regional office.
- Information Technology Service Centers – These data centers operate mainframes and servers used to run corporate and operating company business applications and the email system. Personnel in the locations also support the application software and provide various IT services (e.g., help desk) to operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categorizes:

- Labor – base pay (salaries) of managerial, professional and technical employees
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Office Expense - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Overhead	X	X	These are primarily employee benefit costs that relate directly to labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company’s rate case, engineering design work on an operating company’s project and the preparation of an operating company’s financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

### **Charging Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges.

Charges originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries.

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial, professional and technical Service Company employees. Every week, Service Company professional employees complete an electronic time sheet (see Schedule 1) that shows:

- Type of service/activity (e.g., rate case data requests, accounting)
- Operating company (for direct charge)
- Work order (where applicable)
- Formula number (for allocation)
- Authorization number (where applicable).

Virginia-American Water Company  
Sample Electronic Time Sheet

Time Sheet for Mike Rink - Lotus Notes

File Edit View Create Actions Section Help

Workspace Mike Rink - Inbox SSC - General Accounting - Inbox Time Sheets - SSC # 2 - Time Sheets11... notes

**Time Sheets - SSC # 2**

Employee's Area

Mike Rink  
Employee  
General Acctg./Rates  
Department

03001289 Emp. No. 6Z Dept. No. 04/20/2003 16 Week Ending

DESCRIPTION OF SERVICES	O. H.	CO. NO.	Pay Type	LOC.	W.O. NO.	Task Order	FORM. NO.	AUTH. NO.	TOT. HRS.	CHARGEABLE HOURS						
										Mo	Tu	We	Th	Fr	Sa	Su
Regular	<input type="checkbox"/>		001	NJ			6100		40	8	8	8	8	8	0	0
OT @ 1.5	<input type="checkbox"/>		106						0	0	0	0	0	0	0	0
OT @ 1.0	<input type="checkbox"/>		100						0	0	0	0	0	0	0	0
OT @ 2.0	<input type="checkbox"/>		125						0	0	0	0	0	0	0	0
Vacation	<input type="checkbox"/>		400						0	0	0	0	0	0	0	0
Float Holiday	<input type="checkbox"/>		430						0	0	0	0	0	0	0	0
Holiday	<input type="checkbox"/>		300						0	0	0	0	0	0	0	0
Funeral	<input type="checkbox"/>		566						0	0	0	0	0	0	0	0
Sick	<input type="checkbox"/>		250	NJ			6100		0	0	0	0	0	0	0	0
Sick without pay (Short-Term Disability)	<input type="checkbox"/>		267						0	0	0	0	0	0	0	0

Microsoft Excel - 2002 ... Time Sheet for Mike ... [09200] - Account Ledg... 2002 Annual Report Dr... Office 1:22 PM

## Cost Accumulation Process

The Service Company cost accumulation process is illustrated in Schedule 2.

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 13, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 4% of the Hershey Data Center's professional labor is assigned to Virginia-American during a month, then 4% of that office's monthly administrative labor charges also is assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 6% of the Corporate Office's accumulated professional and support labor is charged to Virginia-American during the month, then 6% of that month's overhead expenses will be assigned to Virginia-American.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 5% of professional labor from one Service Company office is assigned to Virginia-American, then 5% of that office's office expenses would be assigned to Virginia-American. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a state rate case proceeding are charged directly to the operating company whose case is being heard.



Virginia-American Water Company  
Service Company Cost Accumulation And Assignment Process

Cost Accumulation

Cost Assignment To Operating Companies

Labor

Other Cost Categories

Service Company Managers  
Professional and Technical Labor

Support  
Labor-Related Overheads  
Office Expenses  
Journals and Vouchers

Time (hours) is reported to:  
1. Account (O&M) (direct charged)  
2. Authorizations (O&M) (allocated)  
3. Work Orders (capital) (direct charged)

Ratio calculated for the actual costs for each category  
Support / Labor  
Labor-Related Overheads / Labor  
Office Expenses / Labor  
Journals and Vouchers / Labor

Hours are costed-out based on each person's actual salary  
Dollar amounts accumulated by account, authorization and work order

Ratios are applied to accumulated labor dollars by account, authorization and work order

Cost Accumulation -- Direct Charges

Time Sheet Entries	(a) Labor
Accounting	\$
Administrative	\$
Corporate Secretarial	\$
Engineering	\$
Human Resources	\$
Rate Case	\$
Construction	\$
etc..	

Ratios		
Support	Labor	Office
Ovhds	Exp	J&Vs
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%

Dollar Amounts (b)		
Support	Labor	Office
Ovhds	Exp	J&Vs
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$

(a+b) Total Costs
\$
\$
\$
\$
\$
\$
\$
\$

Cost Accumulation -- Allocated Charges

Time Sheet Entries	(c) Labor
Accounting	\$
Administrative	\$
Corporate Secretarial	\$
Engineering	\$
Human Resources	\$
Rate Case	\$
Construction	\$
etc..	

Ratios		
Support	Labor	Office
Ovhds	Exp	J&Vs
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%

Dollar Amounts (d)		
Support	Labor	Office
Ovhds	Exp	J&Vs
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$

(c+d) Total Costs
\$
\$
\$
\$
\$
\$
\$
\$

Operating Company	(e) Direct Charged Work	Allocated Work (f)		Total Costs (e+f)
		# of Customers	% of Allocated Total Amount etc.	
California	\$	xxx,xxx	%	\$
Tennessee	\$	xxx,xxx	%	\$
Iowa	\$	xxx,xxx	%	\$
Kentucky	\$	xxx,xxx	%	\$
Maryland	\$	xxx,xxx	%	\$
Missouri	\$	xxx,xxx	%	\$
etc.				

**Test Year Service Company Charges**

During the test year ended September 30, 2003, the Service Company charged Virginia-American the following amounts:

	Sept. 30, 2003 Test Year Charges (A)
Labor	\$ 795,790.91
Labor-Related Overheads	\$ 319,671.21
Support	\$ 23,634.43
Office Expenses	\$ 237,189.71
Vouchers/JEs	\$ 470,723.23
Total	<u>\$ 1,847,009.49</u>

Note A: includes both O&M expenses and capitalized costs to Virginia-American

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### **III – Service Company Cost Comparison Approach**

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#### **Study Approach**

The first issue--comparison of Service Company costs to equivalent outside vendors--was evaluated by comparing the cost per hour for work performed by Service Company personnel to the hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on the expenses and hours that were charged to Virginia-American during the twelve months ended September 30, 2003. Outside providers' billing rates came from surveys of professionals that could perform the services now provided by the Service Company.

The second issue--reasonableness of the National Call Center's costs--was addressed by comparing Virginia-American's customer accounts expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of these services are not available to the public. However, electric utility customer account expenses can be obtained from the FERC Form 1.

The third issue--the necessity of Service Company services--was first investigated by determining the services provided to Virginia-American. A determination was then made as to whether these services would be required if Virginia-American were a stand-alone utility.

During the twelve months ended September 30, 2003, Service Company employees charged 26,746 hours of time to Virginia-American. As indicated previously, the Service Company billed Virginia-American \$1,847,009 during that same period.

The cost of Service Company services provided to Virginia-American during the September 30, 2003 test year was compared to the following outside benchmarks:

- **Managerial, Professional and Technical Services** – Includes such services as management, accounting, legal, human resources, information technology, and engineering. The Service Company's cost of these services is compared to the cost that would be charged by outside service providers, including management consultants, attorneys, certified public accountants and professional engineers.
- **Customer Accounts Services** – Includes customer-related services, such as call center, credit, billing, collection and payment processing. The cost of these services is compared to similar costs incurred by investor-owned electric utilities in Virginia and surrounding states.



During the test year ended September 30, 2003, Service Company charges to Virginia-American that fall into these two categories are shown below.

	Sept 30, 2003 Test Year Service Company Charges	
	<u>\$ Amount</u>	<u>Hours</u>
Management, Professional and Technical Services	\$ 1,565,266	17,777
Customer Account Services	\$ 281,743	8,969
Total	<u>\$ 1,847,009</u>	<u>26,746</u>

The cost comparisons are detailed in the next two sections of my report.

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## **IV – Managerial, Professional And Technical Services Cost Comparison**

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### **Methodology**

This cost comparison quantifies the economic impact on Virginia-American of outsourcing all managerial, professional and technical services now provided by the Service Company. This is accomplished by comparing the cost per hour for Service Company services to those of outside service providers to whom these duties could be assigned.

The first step was to determine which types of outside providers could assume Service Company services. Based on the nature of these services it was determined that the following outside service providers could perform the categories of services indicated.

- Management Consultants - executive and administrative management, risk management services, human resources and communications services
- Attorneys - corporate secretarial and legal services
- Certified Public Accountants - accounting, financial, information systems and rates and revenues
- Professional Engineers - engineering, operations and water quality services.

It should be noted that the services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for outside professionals that perform the types of services provided by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

The next step was to calculate the Service Company's hourly rate for each of the four outside service provider category, based on the fees and hours charged to Virginia-American during the test year.

Hourly billing rates for outside service providers were next determined using information from pertinent surveys.

Finally, the Service Company's average cost per hour was compared to the average cost per hour for outside providers to determine who provided services at a lower cost.

### **Service Company Hourly Rates**

Schedule 3 (page 15) details the assignment of management, professional and technical Service Company charges and hours to outsider provider categories for the test year ended September 30, 2003.

Certain adjustments to these dollar and hour amounts are necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. These adjustments are described below.

- Computer Hardware/Software/Supplies Expenses – Within the Vouchers/Journal Entries expense category are \$13,339 in data center hardware/software leases, maintenance fees and other computer-related payments to outside companies. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.
- Contract Services - The test year includes \$148,440 in Service Company charges associated with existing arrangements with outside professional firms who perform certain corporate-wide services (e.g., financial audit, actuarial services). These professional fees are excluded because the related services have effectively been out-sourced already. These expenses are all in the Vouchers/Journal Entries expense category.
- Travel Expenses – Also within the Vouchers/Journal Entries expense category are \$5,006 in travel expenses for Service Company personnel. Outside service providers bill this to a client in addition to their hourly fees. Here too, it is appropriate to remove this amount from the Service Company hourly rate calculation.

Schedule 4 (page 16) shows how computer hardware/software, outside contract services and travel expense-related Service Company charges are split among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 3 and 4, the Service Company's equivalent costs per hour for the test year ended September 30, 2003 are calculated below.

	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 442,017	\$ 10,456	\$ 872,297	\$ 240,496	\$ 1,565,266
Less:					
Computer hardware/software	4	-	(11,343)	-	(11,339)
Contract services	(76,825)	(1,842)	(69,998)	225	(148,440)
Travel expenses	(3,311)	(30)	(1,141)	(524)	(5,006)
Net Expenses (A)	\$ 361,885	\$ 8,583	\$ 789,815	\$ 240,198	\$ 1,400,481
Total Hours (B)	3,127	33	11,667	2,950	17,777
Average Hourly Rate	\$ 116	\$ 257	\$ 68	\$ 81	

Exhibit Witness: PLB  
Schedule 3

**Virginia-American Water Company**  
**Test Year Service Company Charges (September 30, 2003) - Total**

	Test Year Service Company Dollars				Test Year Service Company Hours					
	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total
Belleville Lab				\$ 88,929	\$ 88,929				1,311.20	1,311.20
Call Center				\$ -	\$ -					-
Corporate			\$ 34,872		\$ 34,872			370.35		370.35
Accounting	\$ 124,433		\$ 124,433		\$ 124,433	389.30				389.30
Administration			\$ 10,154		\$ 10,154			179.26		179.26
Audit						72.35				72.35
Communications	\$ 19,670				\$ 19,670					72.35
Corporate Secretary		\$ 10,208			\$ 10,208		33.16			33.16
Engineering				\$ 108,971	\$ 108,971				1,219.37	1,219.37
Finance			\$ 30,420		\$ 30,420			268.53		268.53
Human Resources	\$ 71,920				\$ 71,920	404.71				404.71
Information Systems/Billing					\$ -					-
Information Systems/Financial			\$ 38		\$ 38					-
Operations			\$ 16,034		\$ 16,034				107.21	107.21
Water Quality/Corporate			\$ 13,940		\$ 13,940				134.63	134.63
Illinois	\$ 6				\$ 6					-
Administration		\$ (417)			\$ (417)					-
Corporate Secretary	\$ 803				\$ 803					-
Indiana			\$ (308)		\$ (308)					-
Administration			\$ 86,791		\$ 86,791			0.73		0.73
Finance					\$ 42					-
Accounting	\$ 42				\$ 42					-
Administration					\$ 51					0.28
Corporate Secretary	\$ 69				\$ 69	1.09				1.09
Human Resources					\$ -					-
Information Systems/Billing					\$ 401,436			4,645.42		4,645.42
Information Systems/Financial	\$ 2				\$ 2					-
Administration					\$ 3					-
Corporate Secretary	\$ 9				\$ 9					-
Human Resources					\$ 97,639			2,433.36		2,433.36
Accounting	\$ 46,697				\$ 46,697	621.27				621.27
Administration					\$ 82,059			1,806.06		1,806.06
Finance	\$ 3,223				\$ 3,223	26.20				26.20
Human Resources					\$ 59					-
Information Systems/Financial					\$ 6					-
Accounting	\$ 145,606				\$ 145,606	1,106.95				1,106.95
Administration					\$ 611					-
Corporate Secretary		\$ 611			\$ 611					-
Engineering					\$ 12,622				177.24	177.24
Finance			\$ 54,273		\$ 54,273			923.80		923.80
Human Resources	\$ 28,127				\$ 28,127	503.07				503.07
Human Resources			\$ 74,858		\$ 74,858			1,039.53		1,039.53
Rates and Revenues					\$ 1,250					-
Administration	\$ 1,250				\$ 2					-
Human Resources	\$ 159				\$ 159	2.18				2.18
Risk Management					\$ 2					-
Water Quality/Region					\$ 2					-
<b>Total Service Company Fees</b>	<b>\$ 442,017</b>	<b>\$ 10,456</b>	<b>\$ 872,297</b>	<b>\$ 240,496</b>	<b>\$ 1,565,266</b>	<b>\$ 3,127.12</b>	<b>\$ 33.44</b>	<b>\$ 11,667.04</b>	<b>\$ 2,949.65</b>	<b>\$ 17,777.25</b>

Exhibit Witness: PLB  
Schedule 4

**Virginia-American Water Company**  
**Test Year Service Company Charges (September 30, 2003) – Travel, HW/SW and Outside Services**

Charges By Function	Test Year Service Company Charges			Total	Outside Service Provider Category
	Computer HW/SW	Contract Services	Travel Expenses		
Accounting	\$ -	\$ 6,616	\$ 86	\$ 6,703	Certified Public Accountant
Administration	\$ (4)	\$ 51,359	\$ 2,758	\$ 54,113	Management Consultant
Audit	\$ -	\$ 5	\$ 27	\$ 31	Certified Public Accountant
Communications	\$ -	\$ 9,631	\$ 130	\$ 9,761	Management Consultant
Corporate Secretary	\$ -	\$ 1,842	\$ 30	\$ 1,873	Attorney
Engineering	\$ -	\$ 237	\$ 311	\$ 548	Professional Engineer
Finance	\$ 6	\$ -	\$ 612	\$ 618	Certified Public Accountant
Human Resources	\$ -	\$ 15,835	\$ 423	\$ 16,258	Management Consultant
Information Systems/Financial	\$ 11,337	\$ 45,387	\$ 376	\$ 57,100	Certified Public Accountant
Operations	\$ -	\$ 771	\$ 92	\$ 862	Professional Engineer
Rates and Revenues	\$ -	\$ 17,990	\$ 41	\$ 18,031	Certified Public Accountant
Water Quality/Corporate	\$ -	\$ (1,389)	\$ 77	\$ (1,312)	Professional Engineer
Water Quality/Laboratory	\$ -	\$ 154	\$ 44	\$ 198	Professional Engineer
Water Quality/Regional	\$ -	\$ 2	\$ -	\$ 2	Professional Engineer
<b>Total</b>	<b>\$ 11,339</b>	<b>\$ 148,440</b>	<b>\$ 5,006</b>	<b>\$ 164,785</b>	

Recap By Outside Provider	Test Year Service Company Charges			Total
	Computer HW/SW	Contract Services	Travel Expenses	
Management Consultant	\$ (4)	\$ 76,825	\$ 3,311	\$ 80,132
Attorney	\$ -	\$ 1,842	\$ 30	\$ 1,873
Certified Public Accountant	\$ 11,343	\$ 69,998	\$ 1,141	\$ 82,483
Professional Engineer	\$ -	\$ (225)	\$ 524	\$ 299
<b>Total</b>	<b>\$ 11,339</b>	<b>\$ 148,440</b>	<b>\$ 5,006</b>	<b>\$ 164,785</b>



## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each type of outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow. All escalated amounts are based on the changes in the Consumer Price Index.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2003 annual survey performed by the Association of Management Consulting Firms—the industry trade organization. The first step in the calculation, presented in Schedule 5, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This represents the average for 2002. This average is for all of the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. average is appropriate for comparison. Finally, the 2002 average rate was escalated to March 31, 2003—the test year's midpoint.

### **Attorneys**

The cost per hour for attorneys was developed from an annual survey conducted by the Virginia Lawyers Weekly of the larger law firms in Virginia. These are the firms that Virginia-American would look to in lieu of support from Service Company attorneys. The survey includes rates that were in effect at December 31, 2002. The 2002 average rate was escalated to March 31, 2003—the test year's midpoint. The law firms that provided their rates are listed in Schedule 6 where an average hourly rate is calculated.

### **Certified Public Accountants**

The average hourly rate for Virginia certified public accountants was estimated from a 2002 survey performed by the American Institute of Certified Public Accountants (AICPA). Hourly rates in the AICPA survey are the average of firms in the Southeast.

The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 7. Using an assumed percent of time on a typical assignment, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2001 thus they had to be escalated to March 31, 2003—the test year's midpoint.

### **Professional Engineers**

The Service Company provided hourly rate information for the one outside engineering firm that was used by Virginia-American in 2003. As presented in Schedule 8, an average rate was first developed for each engineering position level. Then, using a typical percentage mix of time by each engineering position that would be spent in performing engineering, operations and water quality assignments, a weighted average cost per hour was calculated.



Schedule 5

Virginia-American Water Company  
Billing Rates of U.S. Management Consultants

A. Calculation of Average Hourly Billing Rate by Consultant Position						
Survey billing rates were those in effect in 2002 (Note A)						
Average Hourly Rates (Note A)						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$ 147	\$ 174	\$ 233	\$ 296	\$ 341	
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)	\$ 147	\$ 174	\$ 233	\$ 296	\$ 341	
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%	Weighted Average
	\$ 44	\$ 52	\$ 47	\$ 30	\$ 34	<b>\$ 206</b>
<u>Escalation to March 31, 2003 (Note B)</u>						
					CPI at December 31, 2002	180.9
					CPI at March 31, 2003	184.2
					Inflation/Escalation	3.3
					Billing Rate At March 31, 2003	<b>\$ 213</b>

Note A: source: "2003 Survey of U.S. Key Management Information," Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Schedule 6

Virginia-American Water Company  
Estimated Billing Rates Of Virginia Attorneys

Billing rates as of December 31, 2002 (Note A)					
Firm	Virginia Location	Number Of Va Lawyers	Billing Rate Range		
			Low	High	Avg
LeClair Ryan	Richmond	111	\$ 130	\$ 375	\$ 253
Wilcox & Savage	Norfolk	66	\$ 130	\$ 340	\$ 235
Birch, Stewart, Kolasch & Birch	Falls Church	57	\$ 125	\$ 430	\$ 278
Gentry, Locke, Rakes & Moore	Roanoke	53	\$ 100	\$ 350	\$ 225
Cooley Godward	Reston	50	\$ 50	\$ 700	\$ 375
Veneable, Baetjer and Howard	Vienna	43	\$ 155	\$ 460	\$ 308
Nixon & Vanderhye	Arlington	33	\$ 180	\$ 500	\$ 340
Wickwire Gavin	Vienna	32	\$ 185	\$ 435	\$ 310
Penstuart	Abingdon	31	\$ 110	\$ 225	\$ 168
McCandlish & Holton	Fairfax	26	\$ 175	\$ 410	\$ 293
Rees Broome & Diaz	Vienna	26	\$ 150	\$ 300	\$ 225
Jones, Blechman, Woltz & Kelly	Newport News	25	\$ 50	\$ 150	\$ 100
Bean, Kinney & Korman	Arlington	24	\$ 175	\$ 400	\$ 288
Frame Law Firm	Richmond	24	\$ 175	\$ 300	\$ 238
Kalbaugh, Pfund & Messersmith	Richmond	23	\$ 100	\$ 300	\$ 200
McCandlish & Lillard	Fairfax	22	\$ 125	\$ 350	\$ 238
Patten, Wornom, Hatten & Diamonstein	Newport News	22	\$ 125	\$ 300	\$ 213
DurretteBradshaw	Richmond	20	\$ 150	\$ 365	\$ 258
Thompson & McMullan	Richmond	19	\$ 140	\$ 350	\$ 245
Cantor Arkema	Richmond	18	\$ 135	\$ 260	\$ 198
Blankenship & Keith	Fairfax	17	\$ 165	\$ 350	\$ 258
Michie Hamlett Lowry Rasmussen	Charlottesville	17	\$ 70	\$ 350	\$ 210
Shuttleworth Ruloff Giordano & Swain	Virginia Beach	17	\$ 125	\$ 375	\$ 250
Cooper Spong & Davis	Portsmouth	16	\$ 105	\$ 210	\$ 158
Vanderpool Forstick & Nishanian	Manassas	15	\$ 145	\$ 260	\$ 203
Trichiol Bancroft McGavin Horvath	Fairfax	14	\$ 110	\$ 250	\$ 180
WootenHart	Roanoke	14	\$ 90	\$ 175	\$ 133
Albo & Oblon	Arlington	13	\$ 175	\$ 250	\$ 213
Parker Pollard & Brown	Richmond	13	\$ 110	\$ 275	\$ 193
Walton & Adams	Reston	13	\$ 150	\$ 325	\$ 238
Bowen Champlin Carr & Rockecharlie	Richmond	12	\$ 125	\$ 250	\$ 188
Crenshaw Ware & Martin	Norfolk	12	\$ 120	\$ 250	\$ 185
Redmon Payton & Braswell	Alexandria	12	\$ 75	\$ 350	\$ 213
Overall Average			\$ 128	\$ 332	\$ 230
<u>Escalation to March 31, 2003 (Note B)</u>					
CPI at December 31, 2002					180.9
CPI at March 31, 2003					184.2
Inflation/Escalation					3.3
Billing Rate At March 31, 2003					<b>\$ 238</b>

Note A: source is Virginia Lawyers Weekly, April 28, 2003

Note B: source is US Bureau of Labor Statistics (ftp://ftp.bls.gov/pub/special.requests/cpi/cpiiai.txt)

Schedule 7

Virginia-American Water Company  
Estimated Billing Rates Of Virginia Certified Public Accountants

A. Calculation of Average Hourly Billing Rate by Public Accounting Position  
Survey billing rates were those in effect in 2001 (Note A)

Type of Firm	Average Hourly Billing Rate (Note A)			
	Staff Accountant	Senior Accountant	Manager	Partner
Larger Firms	\$ 74	\$ 94	\$ 127	\$ 196
Medium-Sized Firms	\$ 64	\$ 79	\$ 104	\$ 156
Small Firms	\$ 63	\$ 79	\$ 94	\$ 135
Average Hourly Rate	\$ 67	\$ 84	\$ 108	\$ 162

B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement

	Staff Accountant	Senior Accountant	Manager	Partner	
Average Hourly Billing Rate (From Above)	\$ 67	\$ 84	\$ 108	\$ 162	
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%	Weighted Average
	\$ 20	\$ 25	\$ 22	\$ 32	\$ 99

Escalation to March 31, 2003 (Note B)

CPI at December 31, 2001	176.7
CPI at March 31, 2003	184.2
Inflation/Escalation	7.5%
Estimated Average Hourly Billing Rate For CPAs At March 31, 2003	<b>\$ 107</b>

Note A: source is AICPA's 2002 National MAP Survey Report

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>)

Exhibit Witness: PLB  
Schedule 8

Virginia-American Water Company  
Billing Rates Of Virginia Engineers

Note: Billing rates were those in effect in 2003

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer
O'Brien & Gere Landover, Maryland	\$54 (\$47-\$60)	\$78 (\$64-\$69- \$80-\$100)	\$129 (\$105-\$125- \$135-\$150)	\$170

B. Calculation of Overall Average Engineering Hourly Billing Rate

Average Hourly Billing Rate (From Above)	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer	Weighted Average
		\$54	\$78	\$129	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$16	\$27	\$32	\$17	<b>\$93</b>

Source: Information provided by American Water Works Service Company

### Service Company Versus Outside Provider Cost Comparison

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	9/30/03 Test Year Cost/Hour		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Management Consultant	\$ 116	\$ 213	\$ (97)
Attorney	\$ 257	\$ 238	\$ 19
Certified Public Accountant	\$ 68	\$ 107	\$ (39)
Professional Engineer	\$ 81	\$ 93	\$ (12)

Based on these cost per hour differentials and the number of hours that the Service Company billed Virginia-American during the year ended September 30, 2003 the services themselves would cost significantly more—over \$793,000—from outside providers (see table below). Thus, on average, outside provider's hourly rates are 50% higher than those of the Service Company (\$793,105 / \$1,565,266).

Service Provider	9/30/03 Test Year		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Management Consultant	\$ (97)	3,127	\$ (303,319)
Attorney	\$ 19	33	\$ 627
Certified Public Accountant	\$ (39)	11,667	\$ (455,013)
Professional Engineer	\$ (12)	2,950	\$ (35,400)
Net Service Co Less Than Outside Providers			\$ (793,105)

Higher hourly rates are not the only negative economic impact that would result from contracting all Service Company services to outside providers. Managing outside firms who would perform 17,777 hours of work would add a considerable workload to the existing Virginia-American management team. Thus, it would be necessary for Virginia-American to add at least one position whose responsibility it would be to supervise the outside firms and ensure they delivered quality services. The individual that would fill this position would need a good understanding of each profession being managed. This person must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$106,400 per year to Virginia-American's personnel expenses.

Cost of Adding Administrative Position To The Staff of Virginia-American

New Position's Salary	\$ 70,000
Benefits	<u>\$ 36,400</u>
Total Cost of the New Position	\$ 106,400

Thus, the total effect on the ratepayers of Virginia-American of contracting all services now provided by Service Company would be an increase in their costs of **\$899,505** (\$793,105 + \$106,400).

**Other Cost Comparisons**

The Service Company periodically conducts its own comparisons of the cost of outside service providers. In all instances, these comparisons confirm this study's conclusion--that the cost of outsourcing Service Company services is greater than the current arrangement. A brief description of several recent studies is provided below.

- Belleville Lab Testing (2000) - A comparison was made of Belleville Lab 2000 cost for performing over 26 major tests to the cost of using outside testing laboratory. It was found that the outside labs were 15% more expensive than the Belleville Lab.
- Belleville Lab Testing (2001) – Another comparison Belleville Lab's 2001 cost for performing over 25 major tests to the cost of using outside testing laboratory. It was found that the outside labs were 19% more expensive than the Belleville Lab.
- Belleville Lab Testing (2002) – Another comparison Belleville Lab's 2002 cost for performing 24 major tests to the cost of using outside testing laboratory. It was found that the outside labs averaged 16% more expensive than the Belleville Lab.

These studies present further evidence that the Service Company arrangement is the lowest-cost alternative for Virginia-American.

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## V – Customer Accounts Cost Comparison

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### Background

It is difficult to compare the cost of American Water’s National Call Center with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, Virginia-American’s National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC’s chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study’s comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer’s portion of FICA).

Schedule 9 provides FERC’s description of what should be charged to these accounts. In questioning one of the neighboring electric utilities, it was determined that they record expenses of the activities below in the designated FERC accounts. This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

#### **903 Records and Collection Expense**

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing and mailing
- Remittance processing – processing of customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

#### **905 Miscellaneous Customer Accounts Expense**

- Customer Information System IT – maintenance and support of the customer information system

## Virginia-American Water Company FERC Account Descriptions

### **903 – Customer Records and Collection Expenses**

This **account** shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

#### Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the **account** appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the **account** appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

#### Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

### **905 – Miscellaneous Customer Accounts Expenses**

This **account** shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

#### Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

#### Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.



### Comparison Group

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

West Virginia	• Wheeling Power	
Kentucky	• Kentucky Power	• Louisville Gas & Electric
	• Kentucky Utilities	• Union Light, Heat & Power
Virginia	• Appalachian Power	• Virginia Electric Power
North Carolina	• Carolina Power & Light	• Duke Power
Maryland	• Baltimore Gas & Electric	• Potomac Electric

Several neighboring electric utilities could not be included in the comparison group because they did not submit the necessary FERC Form 1 data.

### Comparison Approach

The basis for this study’s comparison is 2002 actual cost per customer. In order to develop this, a cost pool was created for Virginia-American that was equivalent to the contents of FERC accounts 903 and 905. As shown in the graphic below, Virginia-American’s cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water	Electric Utilities
<u>Service Company</u> Alton Call Center a. Customer contact b. Customer order processing c. Billing information processing d. Collections e. Correspondence processing  IT Services a. Support expenses for the customer information system (ORCOM)	FERC Acct 903 - Records and Collection Expense <u>and</u> FERC Acct 905 - Misc Customer Accounts Expense a. Customer contact b. Customer order processing c. Bill preparation and mailing d. Collections e. Payment processing f. Correspondence processing
<u>Operating Company Customer</u> a. Payment processing	

## Virginia-American Cost Per Customer

During the test year, Virginia-American's annual cost for services from the National Call Center was \$9.90 per customer (\$543,753 annualized expenses ÷ 54,940 customers).

In order to make a comparison to neighboring electric utilities, certain adjustments had to be made to the test year charges. First, it was necessary to annualize the National Call Center charges because they covered only 5 months of the test year. Another adjustment was necessary because the electric utilities experience an average of 2.5 calls per customer compared to American Water's 1.5 calls per customer. Thus, National Call Center expenses had to be increased to reflect its costs at a 2.5 calls per customer level. Finally, Virginia-American's billing expenses had to be adjusted because most of its customers receive quarterly bills versus monthly bills for electric utilities. As shown below, Virginia-American's adjusted annual expense per customer is \$20.03—the number that can be compared to neighboring electric utilities' expenses.

### Virginia-American 9/30/03 Test Year Cost Per Customer

Cost Component	9/30/03 Test Year Svc Co Charges	Adjustments			Adjusted
		Annualize Call Center Services (A)	Fewer Calls For Water Cos. (B)	Quarterly Bills For Va-Am (C)	
Alton Call Center Customer service	\$ 226,564	\$ 317,189	\$ 362,502		\$ 906,255
IT/Data Centers Bill preparation and mailing	\$ 55,109			\$ 110,217	\$ 165,326
Corporate Customer information system support	\$ 71				\$ 71
Operating Company Customer payment processing					\$ 28,569
					\$ 1,100,221
					54,940
					<b>\$ 20.03</b>

Note A: Adjustment for full year of Call Center expenses

Va-Am transitioned to the National Call Center in May 2003. Thus, the test year charges contain only 5 months of Call Center costs. This adjustment creates a full year of charges

Test Year Alton Call Center Charges (5 months service)	\$ 226,564
Cost per month	\$ 45,313
Additional months	7
Total Adjustment A	\$ 317,189

Note B: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Test year annualized Call Center charges	\$ 543,753	(\$226,564 + \$317,189)
Electric utility industry's avg calls/customer	2.50	(source: PA Consulting Group)
American Water's avg calls/customer	1.50	
Percent different	67%	67%
Total Adjustment B	\$ 362,502	

Note C: Adjustment for American Water's quarterly bills vs electric utilities' monthly bills

This adjustment is necessary because most Va-Am customers receive quarterly bills where most electric utilities bill monthly

Test year bill preparation and mailing expense	\$ 55,109
Electric utility bills per year	12.00
Va-Am bills per year	4.00
Percent different	200%
Total Adjustment C	\$ 110,217

Note D: Estimated customer payment processing expenses

Number of customers	54,940
Number of payments/customer/year	4
Total payments processed/year	219,760
Bank charge per item	\$ 0.13
Total estimated annual expense	\$ 28,569

## Electric Utility Group Cost Per Customer

Schedule 10 shows the customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

## Virginia-American Water Company Comparison Group 2002 Actual Customer Accounts Expense Per Customer

Kentucky				Virginia	
Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	Union Light, Heat & Power	Appalachian Power	Virginia Electric Power
\$ 5,939,656	\$ 5,824,785	\$ 3,041,374	\$ 2,266,316	\$ 27,320,386	\$ 17,672,377
\$ 129,581	\$ 5,512,855	\$ 898,967	\$ 143,208	\$ 740,150	\$ 1,208
\$ 6,069,237	\$ 11,337,640	\$ 3,940,341	\$ 2,409,524	\$ 28,060,536	\$ 17,673,585
\$ 227,634	\$ 1,856,488	\$ 574,078	\$ 180,762	\$ 1,408,109	\$ 3,980,177
\$ 97,172	\$ 302,350	\$ 99,653	\$ 148,789	\$ 661,338	\$ 1,998,602
<b>\$ 6,394,043</b>	<b>\$ 13,496,478</b>	<b>\$ 4,614,072</b>	<b>\$ 2,739,076</b>	<b>\$ 30,129,983</b>	<b>\$ 23,652,364</b>
173,050	502,698	381,358	127,058	920,835	2,171,975
<b>\$ 36.95</b>	<b>\$ 26.85</b>	<b>\$ 12.10</b>	<b>\$ 21.56</b>	<b>\$ 32.72</b>	<b>\$ 10.89</b>
\$ 4,551,631	\$ 16,624,301	\$ 15,872,558	\$ 1,866,527	\$ 22,213,375	\$ 74,277,444
\$ 31,338,538	\$ 43,668,605	\$ 44,439,981	\$ 24,780,314	\$ 168,271,409	\$ 601,574,245
14.5%	38.1%	35.7%	7.5%	13.2%	12.3%
\$ 1,567,290	\$ 4,876,610	\$ 1,607,304	\$ 2,399,828	\$ 10,666,749	\$ 32,235,518
\$ 227,634	\$ 1,856,488	\$ 574,078	\$ 180,762	\$ 1,408,109	\$ 3,980,177
\$ 1,567,290	\$ 4,876,610	\$ 1,607,304	\$ 2,399,828	\$ 10,666,749	\$ 32,235,518
6.20%	6.20%	6.20%	6.20%	6.20%	6.20%
\$ 97,172	\$ 302,350	\$ 99,653	\$ 148,789	\$ 661,338	\$ 1,998,602

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A**

**Note B**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA

Exhibit Witness: PLB  
Schedule 10  
Page 2 of 2

## Virginia-American Water Company Comparison Group 2002 Actual Customer Expense Per Customer

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A**

**Note B**

	Maryland		West Virginia		North Carolina		Group Average
	Baltimore Gas & Electric	Potomac Electric	Wheeling Power	Carolina Power & Light	Duke Power		
\$	27,283,653	\$ 39,390,930	\$ 1,594,123	\$ 21,678,754	\$ 43,600,858	\$	17,783,019
\$	44,049	\$ 2,017	\$ 24,767	\$ 12,107,252	\$ 13,698,609	\$	3,027,515
\$	27,327,702	\$ 39,392,947	\$ 1,618,890	\$ 33,786,006	\$ 57,299,467	\$	20,810,534
\$	7,946,795	\$ 3,027,222	\$ 67,559	\$ 2,424,983	\$ 3,975,117	\$	2,333,539
\$	1,444,107	\$ 1,221,512	\$ 23,585	\$ 920,579	\$ 1,797,504	\$	792,290
<b>\$</b>	<b>36,718,604</b>	<b>\$ 43,641,681</b>	<b>\$ 1,710,034</b>	<b>\$ 37,131,568</b>	<b>\$ 63,072,088</b>	<b>\$</b>	<b>23,936,363</b>
	1,162,033	717,628	41,330	1,290,632	2,159,296		877,081
<b>\$</b>	<b>31.60</b>	<b>\$ 60.81</b>	<b>\$ 41.38</b>	<b>\$ 28.77</b>	<b>\$ 29.21</b>	<b>\$</b>	<b>27.29</b>
\$	74,844,525	\$ 28,103,721	\$ 777,655	\$ 60,626,419	\$ 106,352,332	\$	36,919,135
\$	219,369,189	\$ 182,904,940	\$ 4,378,648	\$ 371,212,525	\$ 775,667,112	\$	224,327,773
	34.1%	15.4%	17.8%	16.3%	13.7%		16.5%
\$	23,292,044	\$ 19,701,799	\$ 380,399	\$ 14,848,049	\$ 28,992,005	\$	12,778,872
\$	7,946,795	\$ 3,027,222	\$ 67,559	\$ 2,424,983	\$ 3,975,117	\$	2,103,105
\$	23,292,044	\$ 19,701,799	\$ 380,399	\$ 14,848,049	\$ 28,992,005	\$	12,778,872
	6.20%	6.20%	6.20%	6.20%	6.20%		6.20%
\$	1,444,107	\$ 1,221,512	\$ 23,585	\$ 920,579	\$ 1,797,504	\$	792,290

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA



**Summary Of Results**

As shown in the table below, American Water's cost per customer is near the low end of the electric utility comparison group. Thus, it can be concluded that the customer accounts-related expenses, including those of the Alton Call Center, assigned by the Service Company to Virginia-American are reasonable.

<b>2002 Average Customer Accounts Expense Per Customer</b>	
Virginia Electric Power	\$ 10.89
Louisville Gas & Electric	\$ 12.10
<b>Va-American Water (A)</b>	<b>\$ 20.03</b>
Union Heat, Light & Power	\$ 21.56
<b>Comparison Group Average</b>	<b>\$ 27.29</b>
Kentucky Utilities	\$ 26.85
Carolina Power & Light	\$ 28.77
Duke Power	\$ 29.21
Baltimore Gas & Electric	\$ 31.60
Appalachian Power	\$ 32.72
Kentucky Power	\$ 36.95
Wheeling Power	\$ 41.38
Potomac Electric	\$ 60.81

Note A: represents per customer cost for test year ended  
September 30, 2003

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## VI - Need For Service Company Services

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### Analysis Of Services

The second issue addressed by this study is the need for the services that are rendered to Virginia-American by the Service Company. First, it was determined specifically what the Service Company does for Virginia-American. Based on discussions with Service Company personnel, the matrix in Schedule 11 was created showing which entity--Virginia-American or a Service Company location--is responsible for each of the functions Virginia-American requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 11, the following conclusions can be drawn:

- There is no redundancy or overlap in the services provided by the Service Company to Virginia-American. For substantially all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.
- The services that the Service Company provides would be necessary even if Virginia-American were a stand-alone water utility.

### Designation Of Responsibility For Water Utility Functions

Water Company Function	Performed By:						
	Virginia-American	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b> P							
<b>Provides Support</b> S							
<b>Water Company Function</b>							
<b>Engineering and Construction Management</b>							
CPS Preparation	S				P		
Five-Year System Planning	S		P		P		
Engineering Standards & Policies Development							
Project Design							
Major Projects (e.g., new treatment plant)	S		S		P		
Special Projects	S		S		P		
Minor Projects (e.g., pipelines)	P						
Construction Project Management					P		
Major Projects					P		
Special Projects							
Minor Projects	P						
Hydraulics Review	P						
Developers Extensions	P						
Tank Painting	P		S				
<b>Water Quality and Purification</b>							
Water Quality Standards Development							P
Research Studies	S		S		S		P
Water Quality Program Implementation	P		S				
Water Treatment Operations & Maintenance	P		S		S		
Compliance Sampling	P		S				S
Testing/Other Sampling	S						P
<b>Transmission and Distribution</b>							
Preventive Maintenance Program Development	P						
System Maintenance	P						
Leak Detection	P						
<b>Customer Service</b>							
Community Relations	P						
Customer Contact	S	P					
Call Processing		P					
Service Order Processing		P					
Customer Credit		P					
Meter Reading							
Customer Bill Preparation	P						P
Bill Collection	S						
Customer Payment Processing				P			
Meter Standards Development							
Meter Testing, Maintenance & Replacement	P				P		

### Designation Of Responsibility For Water Utility Functions

Water Company Function	Performed By:						
	Virginia-American	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible P</b>							
<b>Provides Support S</b>							
<b>Financial Management</b>							
Financial Planning	S		P				
Financings--Equity					S		
Financings--Long Term Debt & Preferred			P				
Short Term Lines of Credit Arrangements			P				
Investor Relations					P		
Insurance Program Administration					P		
Loss Control/Safety Program Administration	P				S		
Pension Fund Asset Management					P		
Cash Management/Disbursements				P			
<b>Internal Auditing</b>							
<b>Budgeting and Variance Reporting</b>							
Corporate Guidelines & Instructions					P		
Regional Guidelines & Instructions			P				
Budget Preparation							
Revenue and O&M	P						
Depreciation and Interest Expense					P		
Budget Preparation--Service Company Charges		S	P	S	S	S	S
Capital Budget Preparation--Projects			S		P		
Capital Budget Preparation--Non-Project Work	P						
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	P						
Prepare Capital Project Budget Status Report	S				P		
Year-End Projections (A)	P		P				
<b>Accounting and Taxes</b>							
Accounts Payable Accounting	S			P			
Payroll Accounting	S			P			
Work Order Accounting	S			P			
Fixed Asset Accounting				P			
Journal Entry Preparation--Billing Corrections	S			P			
Journal Entry Preparation--All Others				P			
Financial Statement Preparation				P			
State Commission Reporting				P			
Income Taxes--State				P			
Income Taxes--Federal				P			
Property Taxes				P			
Gross Receipts Taxes				P			

Note A: Projections are developed for certain cost types by Virginia-American and by the Service Company for other cost types



**Virginia-American Water Company  
 Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:						
	Virginia-American	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible P Provides Support S</b>							
<b>Rates</b>							
Rate Studies & Tariff Change Administration	S		P				
Rate Case Planning and Preparation	S		P				
Rate Case Administration	S		P				
Commission Inquiry Response	S		P				
<b>Legal</b>							
<b>Purchasing and Materials Management</b>							
Specification Development	S			S	P		
Bid Solicitation	S			P			
Contract Administration	S			S			
Ordering	P						
Inventory Management	S			P			
<b>Human Resources Management</b>							
Benefit Program Development					P		
Benefits Program Administration	P						
Management Compensation Administration					P		
Wage & Salary Program Design					P		
Wage & Salary Administration	P		S				
Labor Negotiations--Wages	P		S				
Labor Negotiations--Benefits					P		
Labor Negotiations-- Work Rules	P		S				
Training Program Development					P		
Training--Course Delivery							
Affirmative Action/EEO--Plan Development	P						
Affirmative Action/EEO--Implementation	P						
<b>Information Systems Services</b>							
Service Company Data Centers							
System Operations & Maintenance							P
Software Maintenance							P
Network Administration			P				S
PC Acquisition & Support			P				S
Help Desk							P



## Governance Of Affiliate Transactions

There are several ways by which Virginia-American exercises control over Service Company services and charges. The most important of these are described below.

- **Service Company Board Oversight** – Every operating company president is a director on the Service Company’s board. This gives them a say in major business decisions and the ability to monitor service quality and spending levels.
- **Operating Company Board Oversight** – Virginia-American’s board of directors includes members of Service Company executive management, including its CEO, COO and CFO. This helps ensure that Virginia-American’s needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – Each year, the Service Company presents its budget to its Board of Directors for approval. Every operating company president must formally approve its budgeted Service Company charges for the next year.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by the operating companies that will pay for the initiative. Consultants used on these projects who are hired by the Service Company must also be approved by operating companies.
- **Service Company Bill Scrutiny** – Operating company personnel review the monthly Service Company bill for accuracy and reasonableness.
- **Service Company Budget Variance Reporting-** A summary and explanation of year-to-date budget variances is prepared for the entire Service Company on a monthly basis. In addition, a monthly variance report called the “Statement of Expenses and Billed Charges,” is produced by Service Company location and shows budget versus actual spending for the month and year-to-date by cost category.
- **Operating Company Budget Variance Reporting** - The “Budget/Plan Analysis” produced monthly by each operating company has a line item for Management Fees. In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.
- **Capital Project Authorization** - Capital projects estimated to cost over \$100,000 must be approved by the operating company board of directors before any design and construction work begins.

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## **VII - Conclusion**

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Based on the results of this study, the following major conclusions have been reached:

- The cost of managerial, professional and technical services provided by the Service Company to Virginia-American is much lower than the cost of outside providers of those same services.
- The National Call Center's costs charged to Virginia-American are reasonable.
- Services that Virginia-American receives from the Service Company are necessary.

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**Market Cost Comparison of Service Company Charges to  
Virginia American Water Company**

**12-Months Ended September 30, 2007**

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**Virginia American Water Company  
Market Cost Comparison of Service Company Charges  
12-Months Ended September 30, 2007**

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## I - Introduction

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### **Purpose Of This Study**

This study was undertaken to answer three questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to Virginia American Water Company (VAWC):

1. Was VAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during the 12 months ended September 30, 2007?
2. Was the 12 months ended September 30, 2007 cost of the Service Company's customer accounts services, including those of the National Call Centers, reasonable?
3. Are the services VAWC receives from Service Company necessary?

### **Study Results**

Concerning question 1, the following conclusions can be drawn from this study:

- VAWC was charged the lower of cost or market for managerial and professional services during the 12-months ended September 30, 2007.
- On average, the hourly rates for outside service providers are 46% higher than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by VAWC without careful supervision on the part of VAWC. If these services were contracted entirely to outside providers, VAWC would have to add at least one position to manage activities of outside firms. These positions would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been out-sourced during the 12-months ended September 30, 2007, VAWC and its ratepayers would have incurred more than \$1.2 million in additional expenses. This amount includes the higher cost of outside providers and the cost of an additional VAWC position needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to VAWC from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company exempt personnel, on the other hand, charge a maximum 8 per day even when they work more. If the overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$1.2 million cited above. For instance, if Service Company overtime is conservatively estimated at 5% (2 hours per week), then that work would have cost an estimated \$56,000 in additional charges from outside providers.
- It would be difficult for VAWC to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.

- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from VAWC ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, is within a reasonable range of the average of the neighboring electric utility comparison group. As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of VAWC. During the 12-months ended September 30, 2007, the customer accounts cost for VAWC customers was \$31.03 compared to the 2006 average of \$28.57 for neighboring electric utilities. The highest comparison group per customer cost was \$74.21 and the lowest \$13.46.

Concerning question 3, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if VAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to VAWC. For all of the services listed in Schedule 10, there was only one entity that was primarily responsible for the service.

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## II - Background

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### Overview Of American Water Works Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in 2001 and a second in Pensacola, Florida that went into operation in 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of VAWC, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they are not provided by the National Shared Services Center. Examples of regional office services include rates and revenues, engineering and operations.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the communications systems. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks



- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

**Charging and Assignment Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable)

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 20% of the Southeast Region's professional labor is assigned to VAWC during a month, then 20% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 20% of the Southeast Region's accumulated professional and support labor is charged to VAWC during the month, then 20% of that month's overhead expenses will be assigned to VAWC.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to VAWC, then 2% of that office's office expenses would be assigned to VAWC. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a rate case proceeding are charged directly to the operating company whose case is being heard.

**III – Service Company Cost Comparison Approach**

During the 12 months ended September 30, 2007, the Service Company billed VAWC \$4,458,383 in O&M-related charges, \$265,518 in capital-related charges and \$8,293 other charges. Included in the O&M amount are certain non-recurring expenses and charge from non-Southeast Region charges for which VAWC is not seeking recovery. As calculated in the table below, net Service Company charges of \$3,296,676 were subjected to a market cost comparison.

	12 Months Ended September 30, 2007
Total Management Fees (O&M)	\$ 4,458,383
JE to reclass pension expense	\$ (862,993)
Mgmt Fee Expense per P&L	\$ 3,595,390
Less: Non-Recurring Expenses	
Divestiture & SOX	\$ (516,068)
Business Change	\$ (12,590)
Write-Off of Svc Co Bldg	\$ (8,293)
Net O&M Adjustments	\$ (536,952)
Less: Non-Central Regions	\$ (36,574)
Net Testable O&M	\$ 3,021,865
Total Capital	\$ 266,518
Total Other	\$ 8,293
<b>Total Testable SC Charges</b>	<b>\$ 3,296,676</b>

For purposes of comparing these charges to outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	12 Months Ended Sept. 30, 2007	
	Amount	Hours
Management and Professional Services	\$ 2,474,926	24,399
Customer Account Services	\$ 821,750	22,311
<b>Total Service Company Charges</b>	<b>\$ 3,296,676</b>	<b>46,711</b>

This study's first question—whether the Service Company charges the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to VAWC during the 12 months ended September 30, 2007. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The second question—reasonableness of the National Call Center costs—was addressed by comparing VAWC's customer accounts services expenses to those of neighboring electric

utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The third question—the necessity of Service Company services—was first investigated by determining the services provided to VAWC. A determination was then made as to whether these services would be required if VAWC were a stand-alone utility.

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## IV – Managerial And Professional Services Hourly Rate Comparison

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### Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar, scientific educational backgrounds as Service Company engineering personnel. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to VAWC during the 12 months ended September 30, 2007. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged VAWC during 2006, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### Service Company Hourly Rates

Schedule 1 (page 10) details the assignment of 12 months ended September 30, 2007 management and professional Service Company charges by outsider provider category. Schedule 2 (page 10) shows the same assignment for Service Company management and professional hours charged to VAWC during the 12 months ended September 30, 2007.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2007 test period non-labor Service Company charges:

- Contract Services – 12 months ended September 30, 2007 Service Company charges to VAWC include approximately \$88,000 in expenses associated with the use of outside

professional firms to perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.

- **Travel Expenses** – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- **Computer Hardware and Software Expenses** – Included in the 12 months ended September 30, 2007 Service Company charges to VAWC are charges for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the communications systems. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

Schedule 3 (page 11) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 1 and 2 and the excludable items shown in Schedule 3, the Service Company's equivalent costs per hour for the 12 months ended September 30, 2007 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 79,237	\$ 928,973	\$ 1,020,240	\$ 446,476	\$ 2,474,926
Less:					
Contract services	\$ 1,027	\$ 22,660	\$ 47,621	\$ 16,842	\$ 88,150
Travel expenses	\$ 5,721	\$ 89,271	\$ 110,141	\$ 48,969	\$ 254,101
Computer hardware/software	\$ 0	\$ 12,915	\$ 26,698	\$ 1,880	\$ 41,493
Net Service Charges (A)	\$ 72,488	\$ 804,127	\$ 835,780	\$ 378,785	\$ 2,091,181
Total Hours (B)	372	5,573	12,770	5,684	24,399
<b>Average Hourly Rate (A / B)</b>	<b>\$ 195</b>	<b>\$ 144</b>	<b>\$ 65</b>	<b>\$ 67</b>	

**Virginia American Water Company**  
**Analysis of 12 Months Ended September 30, 2007 Service Company Charges By Location And Function**

Location	Function	12 Months Ended September 30, 2007 Service Company Charges				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality			\$ 75,843	\$ 75,843	
Call Center	Human Resources	\$ 15,541			\$ 15,541	
Corporate	Accounting		\$ 126,492		\$ 126,492	
	Administration	\$ 204,189			\$ 204,189	
	Audit		\$ 20,392		\$ 20,392	
	Communications	\$ 34,533			\$ 34,533	
	Engineering				\$ -	
	Finance		\$ 57,035		\$ 57,035	
	Human Resources	\$ 78,804			\$ 78,804	
	Legal	\$ 37,011			\$ 37,011	
	Operations	\$ 58,678		\$ 17,731	\$ 76,409	
	Rates & Revenue		\$ 43,615		\$ 43,615	
	Risk Management	\$ 29,910			\$ 29,910	
	Water Quality			\$ 18,762	\$ 18,762	
<b>Regional Offices</b>	<b>Accounting</b>		\$ 11,427		\$ 11,427	
	Administration	\$ 207,652			\$ 207,652	
	Communications	\$ 59,289			\$ 59,289	
	Engineering			\$ 99,171	\$ 99,171	
	Finance		\$ 137,488		\$ 137,488	
	Human Resources	\$ 62,735			\$ 62,735	
	Legal	\$ 42,226			\$ 42,226	
	Operations	\$ 81,049		\$ 198,101	\$ 279,150	
	Risk Management	\$ 39,501			\$ 39,501	
	Water Quality			\$ 36,868	\$ 36,868	
Information Technology	Information Technology		\$ 425,025		\$ 425,025	
Shared Services	Accounting		\$ 166,019		\$ 166,019	
	Administration	\$ 57,093			\$ 57,093	
	Finance		\$ 21,678		\$ 21,678	
	Rates & Revenue		\$ 11,069		\$ 11,069	
	<b>Total Dollars Charged</b>	<b>\$ 79,237</b>	<b>\$ 928,973</b>	<b>\$ 1,020,240</b>	<b>\$ 446,476</b>	
					<b>\$ 2,474,926</b>	

Exhibit Witness: PLB-1  
Schedule 2

Virginia American Water Company  
**Analysis of 12 Months Ended September 30, 2007 Service Company Hours By Location And Function**

Location	Function	12 Months Ended September 30, 2007 Service Company Hours				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality			1,080		1,080
Call Center	Human Resources		186			186
Corporate	Accounting			1,489		1,489
	Administration		1			1
	Audit			202		202
	Communications		144			144
	Engineering				47	47
	Finance			468		468
	Human Resources		881			881
	Legal		141			141
	Operations			287	296	583
	Rates & Revenue				112	112
	Risk Management			235		235
	Water Quality				300	300
	Accounting				173	173
	Administration			859		859
Communications			732		732	
Engineering				1,525	1,525	
Finance				2,259	2,259	
Human Resources			734		734	
Legal		231			231	
Operations			611	2,053	2,664	
Risk Management			689		689	
Water Quality				383	383	
Information Technology	Information Technology			3,803		3,803
Shared Services	Accounting			3,478		3,478
	Administration		213			213
	Finance			621		621
	Rates & Revenue			165		165
<b>Total Hours Charged</b>		<b>372</b>	<b>5,573</b>	<b>12,770</b>	<b>5,684</b>	<b>24,399</b>



Exhibit Witness: PLB-1  
Schedule 3

**Virginia American Water Company**  
**12 Months Ended September 30, 2007 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation				Total	Outside Service Provider Category
	Contract Services	Travel Expenses	Computer HW/SW	Computer HW/SW		
Accounting	\$ 2,318	\$ 30,909	\$ 970	\$ 34,197		Certified Public Accountant
Administration	\$ 9,507	\$ 22,812	\$ 476	\$ 32,795		Management Consultant
Audit	\$ -	\$ 232	\$ 2,844	\$ 3,077		Certified Public Accountant
Communications	\$ 4,971	\$ 11,303	\$ -	\$ 16,274		Management Consultant
Engineering	\$ 285	\$ 619	\$ (4)	\$ 900		Professional Engineer
Finance	\$ 931	\$ 31,155	\$ 1	\$ 32,087		Certified Public Accountant
Human Resources	\$ 2,111	\$ 32,475	\$ 392	\$ 34,978		Management Consultant
Information Technology	\$ 44,372	\$ 35,464	\$ 22,888	\$ 102,723		Certified Public Accountant
Legal	\$ 1,027	\$ 5,721	\$ 0	\$ 6,749		Attorney
Operations	\$ 3,860	\$ 59,413	\$ 13,209	\$ 76,482		Management Consultant, Professional Engineer
Rates & Revenue	\$ -	\$ 12,381	\$ (5)	\$ 12,375		Certified Public Accountant
Risk Management	\$ 2,994	\$ 16,623	\$ 159	\$ 19,776		Management Consultant
Water Quality	\$ 15,775	\$ (5,005)	\$ 563	\$ 11,332		Professional Engineer
<b>Total</b>	<b>\$ 88,150</b>	<b>\$ 254,101</b>	<b>\$ 41,493</b>	<b>\$ 383,745</b>		

Recap By Outside Provider	Exclusions From Hourly Rate Calculation				Total
	Contract Services	Travel Expenses	Computer HW/SW	Computer HW/SW	
Attorney	\$ 1,027	\$ 5,721	\$ 0	\$ 6,749	
Management Consultant	\$ 22,660	\$ 89,271	\$ 12,915	\$ 124,845	
Certified Public Accountant	\$ 47,621	\$ 110,141	\$ 26,698	\$ 184,459	
Professional Engineer	\$ 16,842	\$ 48,969	\$ 1,880	\$ 67,691	
<b>Total</b>	<b>\$ 88,150</b>	<b>\$ 254,101</b>	<b>\$ 41,493</b>	<b>\$ 383,745</b>	

## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Attorneys**

The Virginia Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for Virginia attorneys (Virginia Lawyers Weekly used to ask for hourly rates in its annual survey but eliminated that question a few years ago). Therefore, an estimate of Virginia attorney rates was developed from a survey of Michigan lawyers conducted annually by the Michigan Lawyers Weekly. As presented in Schedule 3, the average rate for each Michigan firm respondent was adjusted for the cost of living differential between their location and Richmond, Virginia. The survey includes rates that were in effect at December 31, 2006. Thus, the 2006 average rate was escalated to March 31, 2007—the midpoint of the 12 months ended September 30, 2007.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2006 annual survey performed by the Association of Management Consulting Firms—an industry trade organization. The first step in the calculation, presented in Schedule 5, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2005 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The survey includes rates that were in effect at December 31, 2006. Thus, the 2006 average rate was escalated to March 31, 2007—the midpoint of the 12 months ended September 30, 2007.

### **Certified Public Accountants**

The average hourly rate for Virginia certified public accountants was developed from a 2006 survey conducted by the American Institute of Certified Public Accountants (AICPA) every two years. Hourly rates in the AICPA survey are the average of firms in Virginia. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 4. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2005. Thus, the 2005 average rate was escalated to March 31, 2007—the midpoint of the 12 months ended September 30, 2007.

### **Professional Engineers**

The Service Company provided hourly rate information for outside engineering firms that could have been utilized by VAWC during 2007. As presented in Schedule 7, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Schedule 4

**Virginia American Water Company**  
**Estimated Billing Rates For Virginia Attorneys Based On Michigan Attorney Billing Rates**

Billing rates as of December 31, 2006 (Note A)									
Firm	Michigan Location	Number Of Mich Lawyers	Billing Rate Range				Average	Cost of Living Adjust (C)	Adjusted Rate
			Associate		Partner				
			Low	High	Low	High			
Dickinson Wright PLLC	Detroit	218	\$ 170	\$ 275	\$ 260	\$ 530	\$ 309	85%	\$ 365
Butzel Long	Detroit	212	\$ 165	\$ 400	\$ 220	\$ 550	\$ 334	85%	\$ 395
Bodman LLP	Detroit	130	\$ 125	\$ 215	\$ 210	\$ 495	\$ 261	85%	\$ 309
Jaffe Raitt Heuer & Weiss, PC	Southfield	95	\$ 165	\$ 225	\$ 225	\$ 500	\$ 279	97%	\$ 289
Trott & Trott, PC	Bingham Farms	57	\$ 170	\$ 170	\$ 235	\$ 235	\$ 203	125%	\$ 162
Brooks Kushman PC	Southfield	52	\$ 160	\$ 275	\$ 250	\$ 505	\$ 298	97%	\$ 308
Kemp, Klein, Umphrey, Edelman & May PC	Troy	38	\$ 150	\$ 190	\$ 200	\$ 340	\$ 220	111%	\$ 198
Pepper Hamilton LLP	Detroit	31	\$ 200	\$ 315	\$ 340	\$ 615	\$ 368	85%	\$ 435
Hertz, Schram & Saretsky, PC	Bloomfield Hills	30	\$ 175	\$ 260	\$ 275	\$ 400	\$ 278	139%	\$ 200
Strobl & Sharp, PC	Bloomfield Hills	26	\$ 110	\$ 210	\$ 200	\$ 300	\$ 205	139%	\$ 148
Kupelian Ormond & Magy, PC	Southfield	24	\$ 165	\$ 195	\$ 235	\$ 320	\$ 229	97%	\$ 237
Rader, Fishman & Grauer, PLLC	Bloomfield Hills	23	\$ 130	\$ 250	\$ 275	\$ 495	\$ 288	139%	\$ 207
McShane & Bowie PLC	Grand Rapids	22	\$ 160	\$ 275	\$ 250	\$ 375	\$ 265	96%	\$ 277
Overall Average at December 31, 2006									\$ 271
<u>Escalation to Midpoint of September 30, 2007 Test Period (Note B)</u>									
CPI at December 31, 2006									201.8
CPI at March 31, 2007									205.4
Inflation/Escalation									1.8%
Average Billing Rate At March 31, 2007 - midpoint of 12 months ended September 30, 2007									\$ 276

Note A: Source is Michigan Lawyers Weekly, April 2007

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.ai.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This number represents the cost of living difference between the Michigan city and Richmond, Va. A number over 100% indicates the Michigan city's cost of living is higher than Richmond. A number less than 100% indicates Richmond's cost of living is higher.

Schedule 5

**Virginia American Water Company**  
**Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position						
Survey billing rates were those in effect in 2006 (Note A)						
<b>Average Hourly Rates (Note A)</b>						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$ 142	\$ 187	\$ 235	\$ 306	\$ 358	
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)	\$ 142	\$187	\$235	\$306	\$358	
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%	Weighted Average
	\$ 43	\$ 56	\$ 47	\$ 31	\$ 36	<b>\$ 212</b>
<u>Escalation to Midpoint of September 30, 2007 Test Period (Note B)</u>						
						CPI at December 31, 2006 201.8
						CPI at March 31, 2007 205.4
						Inflation/Escalation 1.8%
Average Hourly Billing Rate For Management Consultants At March 31, 2007						<b>\$ 216</b>

Note A: source: "Operating Ratios For Management Consulting Firms, 2007 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>)

Schedule 6

**Virginia American Water Company**  
**Estimated Billing Rates Of Virginia Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2005 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 70	\$ 87	\$ 125	\$ 160
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 70	\$ 87	\$ 125	\$ 160
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 21	\$ 26	\$ 25	\$ 32
				<b>\$ 104</b>
<u>Escalation to Midpoint of September 30, 2007 Test Period (Note B)</u>				
			CPI at December 31, 2005	196.8
			CPI at March 31, 2007	205.4
			Inflation/Escalation	4.4%
Estimated Average Hourly Billing Rate For Virginia CPAs At March 31, 2007				<b>\$ 109</b>

Note A: Source is AICPA's 2006 National PCPS/TSCPA Management of an Accounting Practice Survey

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.ai.txt>)

Exhibit Witness: PLB-1  
Schedule 7

**Virginia American Water Company**  
**Billing Rates Of Virginia Engineers**

Note: Billing rates were those in effect in 2007

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$71	\$85	\$133	\$168
Firm #2	\$58	\$65	\$90	na
Firm #3	\$53	\$66	\$110	\$148
Firm #4	\$73	\$104	\$130	\$150
Firm #5	\$63	\$90	\$119	\$154

B. Calculation of Overall Average Engineering Hourly Billing Rate

	CAD Drafter	Engineer	Project Manager	Officer	Weighted Average
	Engineer Tech	Design Engineer Project Engineer Elect Proj Engineer	Project Associate Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$63	\$82	\$116	\$155	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$19	\$29	\$29	\$15	<b>\$92</b>

Source: Information provided by American Water Works Service Company

**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	12 Months Ended September 30, 2007		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 195	\$ 276	\$ (82)
Management Consultant	\$ 144	\$ 216	\$ (72)
Certified Public Accountant	\$ 65	\$ 109	\$ (43)
Professional Engineer	\$ 67	\$ 92	\$ (26)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to VAWC during the 12-months ended September 30, 2007, outside service providers would have cost \$1,127,069 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are almost 46% higher than those of the Service Company (\$1,127,069 / \$ 2,474,926).

Service Provider	12 Months Ended September 30, 2007		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (82)	372	\$ (30,356)
Management Consultant	\$ (72)	5,573	\$ (400,089)
Certified Public Accountant	\$ (43)	12,770	\$ (551,278)
Professional Engineer	\$ (26)	5,684	\$ (145,346)
Service Company Less Than Outside Providers			\$ (1,127,069)

If VAWC were to use outside service providers rather than the Services Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 24,399 hours of work (more than 16 full-time equivalents at 1,500 "billable" hours per FTE per year) would add a significant workload to the existing VAWC management team. Thus, it would be necessary for VAWC to add at least one position to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill this position would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$152,700 per year to VAWC's personnel expenses.

Cost of Adding Administrative Positions To VAWC's Staff

	Total
New Positions' Salary	\$ 100,000
Benefits (at 52.7%)	\$ 52,700
Total Cost of the New Position	\$ 152,700

Thus, the total effect on the ratepayers of VAWC of contracting all services now provided by Service Company would be an increase in their costs of **\$1,279,769** (\$1,127,069 + \$152,700).

**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%
2005	24	25%
2006	24	31%

These studies provide additional evidence that the Service Company arrangement is the lowest-cost alternative for VAWC.



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**V – Customer Account Services Cost Comparison**

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**Background**

It is difficult to compare the cost of American Water's National Call Centers with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, VAWC's National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC's chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study's comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA).

Schedule 9 provides FERC's description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

**903 Records and Collection Expense**

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing and mailing
- Remittance processing – processing of customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

**905 Miscellaneous Customer Accounts Expense**

- Customer Information System IT – maintenance and support of the customer information system

This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

**Virginia American Water Company**  
**FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

**Ohio American Water Company**  
**FERC Account Descriptions**

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.



**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

Virginia	• Appalachian Power	• Virginia Electric Power
Kentucky	• Duke Energy Kentucky • Kentucky Power	• Kentucky Utilities • Louisville Gas & Electric
Tennessee	• Kingsport Power	
Maryland	• Baltimore Gas & Electric • Delmarva Power & Light	• Potomac Electric
West Virginia	• Wheeling Power	
North Carolina	• Duke Energy Carolinas	• Progress Energy Carolinas

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. VAWC's cost pool was developed to include the same expenses included in electric utility's FERC accounts 903 and 905. As shown in the graphic below, VAWC's resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water	Electric Utilities
<u>Service Company</u> Pensacola & Alton Call Centers a. Customer contact b. Customer order processing c. Billing information processing d. Collections e. Correspondence processing f. Customer payment processing <u>Operating Company</u> a. Postage and forms	FERC Acct 903 - Records and Collection Expense <u>and</u> FERC Acct 905 - Misc Customer Accounts Expense a. Customer contact b. Customer order processing c. Bill preparation and mailing d. Collections e. Payment processing f. Correspondence processing

**VAWC Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to VAWC. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.33 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, VAWC's adjusted annual expense per customer is \$31.03—the number that can be compared to neighboring electric utilities' expenses.

Virginia American Water Company		Service Co	Adjustment Fewer Calls For	Adjusted
Cost Component		Charges	Water Cos. (A)	
Service Company				
Call Centers	Call processing, order processing, credit, bill collection	\$ 739,456	\$ 652,049	\$ 1,391,505
Regional Offices		\$ 82,294		\$ 82,294
Service Company	Customer payment processing			\$ 40,805 Note B
Operating Company	Postage & forms			\$ 168,786
Cost Pool Total				\$ 1,683,390
Total Customers				54,247
<b>12 Months Ended September 30, 2007 Cost Per Virginia American Customer</b>				<b>\$ 31.03</b>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Test year annualized Call Center charges	\$ 739,456	
Electric utility industry's avg calls/customer	2.50	
American Water's avg calls/customer	1.33	
Percent different	88%	88%
Total Adjustment B	\$ 652,049	

Note B: Estimated customer payment processing expenses

Number of customers	54,247
Number of payments/customer/year	4.3
Total payments processed/year	233,262
Bank charge per item	\$ 0.1749
Total estimated annual expense	\$ 40,805

### Electric Utility Group Cost Per Customer

Schedule 9 shows the actual 2006 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

### Summary Of Results

As shown in the table below, VAWC's cost per customer is within a reasonable range of the average of the neighboring electric utility comparison group. It can therefore be concluded that the customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to VAWC are reasonable.

Average Customer Accounts Expense Per Customer	
Louisville Gas & Electric	\$ 13.46
Virginia Electric Power	\$ 14.89
Duke Power	\$ 22.16
Prog Energy - Carolinas	\$ 24.75
Kentucky Utilities	\$ 27.14
<b>Comparison Group Average</b>	<b>\$ 28.57</b>
Wheeling Power	\$ 29.48
<b>Virginia American Water</b>	<b>\$ 31.03</b>
Baltimore Gas & Electric	\$ 31.26
Appalachian Power	\$ 33.43
Kingsport Power	\$ 33.56
Kentucky Power	\$ 35.75
Duke Energy Kentucky	\$ 39.46
Delmarva Power & Light	\$ 50.81
Potomac Electric	\$ 74.21

**Virginia American Water Company**  
**Comparison Group 2006 Actual Customer Accounts Expense Per Customer**

	Virginia		Kentucky			Tennessee	
	Appalachian Power	Virginia Electric Power	Duke Energy Kentucky	Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	Kingsport Power
	\$ 29,331,456	\$ 27,749,294	\$ 3,332,632	\$ 5,947,615	\$ 11,543,567	\$ 4,361,172	\$ 1,511,496
	\$ 11,100	\$ -	\$ 6,343	\$ 2,104	\$ 70,757	\$ 248,889	\$ 394
	\$ 29,342,556	\$ 27,749,294	\$ 3,338,975	\$ 5,949,719	\$ 11,614,324	\$ 4,610,061	\$ 1,511,890
<b>Note A</b>	\$ 1,619,469	\$ 5,512,149	\$ 1,031,926	\$ 232,836	\$ 2,465,044	\$ 652,046	\$ 23,327
<b>Note B</b>	\$ 632,616	\$ 1,409,136	\$ 274,415	\$ 94,616	\$ 249,993	\$ 87,152	\$ 15,342
<b>Total Cost Pool</b>	\$ 31,594,641	\$ 34,670,579	\$ 4,645,316	\$ 6,277,171	\$ 14,329,361	\$ 5,349,259	\$ 1,550,560
	\$ 945,079	\$ 2,328,219	\$ 117,722	\$ 175,571	\$ 527,907	\$ 397,331	\$ 46,208
<b>Total Customers</b> (page 304, line 43)	\$ 33,433	\$ 14,899	\$ 39,446	\$ 35,755	\$ 27,144	\$ 13,446	\$ 33,556
<b>Customer Account Services Expense per Customer</b>							
	\$ 20,536,170	\$ 151,939,229	\$ 8,999,663	\$ 3,888,690	\$ 28,229,324	\$ 24,717,445	\$ 207,762
	\$ 104,863,883	\$ 507,738,955	\$ 31,284,068	\$ 20,656,477	\$ 37,423,258	\$ 43,185,745	\$ 1,786,218
	19.6%	29.9%	28.8%	18.8%	75.4%	57.2%	11.6%
	\$ 10,675,980	\$ 25,718,017	\$ 2,925,473	\$ 1,496,370	\$ 4,588,293	\$ 880,094	\$ 260,452
	\$ -	\$ -	\$ 1,823,135	\$ -	\$ -	\$ 757,336	\$ -
	\$ 10,675,980	\$ 25,718,017	\$ 4,748,608	\$ 1,496,370	\$ 4,588,293	\$ 1,637,430	\$ 260,452
	\$ 29,331,456	\$ 27,749,294	\$ 3,332,632	\$ 5,947,615	\$ 11,543,567	\$ 4,361,172	\$ 1,511,496
	\$ 11,100	\$ -	\$ 6,343	\$ 2,104	\$ 70,757	\$ 248,889	\$ 394
	\$ 29,342,556	\$ 27,749,294	\$ 3,338,975	\$ 5,949,719	\$ 11,614,324	\$ 4,610,061	\$ 1,511,890
	\$ 8,538,899	\$ 10,994,121	\$ 1,081,142	\$ 1,248,628	\$ 4,692,871	\$ 2,015,982	\$ 451,535
	\$ 37,881,455	\$ 38,743,415	\$ 4,420,117	\$ 7,198,347	\$ 16,307,195	\$ 6,626,043	\$ 1,963,425
	77.5%	71.6%	75.5%	82.7%	71.2%	69.6%	77.0%
	\$ 8,269,496	\$ 18,420,080	\$ 3,587,118	\$ 1,236,809	\$ 3,267,878	\$ 1,139,240	\$ 200,555
	\$ 1,619,469	\$ 5,512,149	\$ 1,031,926	\$ 232,836	\$ 2,465,044	\$ 652,046	\$ 23,327
<b>Note B</b>	\$ 8,269,496	\$ 18,420,080	\$ 3,587,118	\$ 1,236,809	\$ 3,267,878	\$ 1,139,240	\$ 200,555
	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
	\$ 632,616	\$ 1,409,136	\$ 274,415	\$ 94,616	\$ 249,993	\$ 87,152	\$ 15,342

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B:** Calculation of Employer's FICA Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



Exhibit Witness: PLB-1  
Schedule 9  
Page 2 of 2

**Virginia American Water Company**  
**Comparison Group 2006 Actual Customer Accounts Expense Per Customer**

	Maryland		West Virginia		North Carolina		Group Average
	Baltimore Gas & Delmarva Power Electric	Potomac Electric	Wheeling Power	Prog Energy Carolinas	Duke Energy Carolinas		
	\$ 24,951,967	\$ 22,955,724	\$ 1,141,812	\$ 45,691,330	\$ 23,621,392	\$	\$ 244,788,523
	\$ 2,055,350	\$ 132,342	\$ 885	\$ 4,198,373	\$ 3,030,346	\$	\$ 9,756,883
	\$ 27,007,317	\$ 23,088,066	\$ 1,142,697	\$ 49,889,703	\$ 26,651,738	\$	\$ 254,545,406
<b>Note A</b>	\$ 8,600,814	\$ 2,458,773	\$ 57,485	\$ 5,112,756	\$ 3,433,604	\$	\$ 43,005,220
<b>Note B</b>	\$ 2,206,236	\$ 502,937	\$ 19,421	\$ 1,536,425	\$ 842,363	\$	\$ 9,090,242
<b>Total Cost Pool</b>	\$ 37,814,367	\$ 26,049,777	\$ 1,219,603	\$ 56,538,884	\$ 30,927,705	\$	\$ 306,640,868
Total Customers (page 304, line 43)	1,209,559	512,673	41,371	2,284,274	1,395,954		10,732,128
<b>Customer Account Services Expense per Customer</b>	\$ 31.26	\$ 50.81	\$ 29.48	\$ 24.75	\$ 22.16	\$	\$ 28.57
<b>Note A:</b> Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 46,781,318	\$ 13,589,355	\$ 40,935,859	\$ 381,452	\$ 173,527,451	\$	\$ 98,636,568
Total O&M Payroll (page 355, line 65)	\$ 156,864,023	\$ 36,335,641	\$ 55,282,932	\$ 1,684,579	\$ 681,652,343	\$	\$ 316,319,018
Benefits as Percent of Payroll	29.8%	37.4%	74.0%	22.6%	25.5%		31.2%
Payroll Applicable to Customer Account Services	\$ 45,502,505	\$ 13,589,355	\$ 38,141,317	\$ 865,931	\$ 400,072,868	\$	\$ 128,246,751
Total Payroll Charged to Customer Accounts Function	\$ 11,481,793	\$ 1,343,999	\$ -	\$ -	\$ -	\$	\$ 15,406,263
Gas (page 354, line 37)	\$ 34,014,309	\$ 8,959,994	\$ 17,351,748	\$ 343,548	\$ 23,342,805	\$	\$ 148,679,761
Total Payroll Charged to Customer Accounts	\$ 22,532,516	\$ 7,615,995	\$ 17,351,748	\$ 343,548	\$ 23,342,805	\$	\$ 133,273,498
Percent Applicable to Customer Accounts Services (903 and 905):							
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 24,951,967	\$ 22,955,724	\$ 1,141,812	\$ 45,691,330	\$ 23,621,392	\$	\$ 244,788,523
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ 2,055,350	\$ 132,342	\$ 885	\$ 4,198,373	\$ 3,030,346	\$	\$ 9,756,883
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 27,007,317	\$ 23,088,066	\$ 1,142,697	\$ 49,889,703	\$ 26,651,738	\$	\$ 254,545,406
Acct 902 - Meter Reading Expenses (page 322, line 160)	\$ 4,845,852	\$ 8,378,025	\$ 3,770,383	\$ 403,661	\$ 8,095,094	\$	\$ 65,482,882
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	\$ 31,853,169	\$ 31,466,091	\$ 46,419,449	\$ 1,546,358	\$ 57,984,797	\$	\$ 320,028,288
Percent Applicable to Customer Accounts Services (903 and 905)	84.8%	73.4%	91.9%	73.9%	86.0%		100.9%
Customer Account Services Portion of Total Payroll	\$ 28,839,681	\$ 6,574,345	\$ 15,942,366	\$ 253,868	\$ 20,083,982	\$	\$ 118,826,693
Pension & Benefits Pertaining to Customer Accounts Services	\$ 8,600,814	\$ 2,458,773	\$ 11,804,990	\$ 57,485	\$ 5,112,756	\$	\$ 36,472,743
Total Pension & Benefits Pertaining to Customer Accounts Services	\$ 28,839,681	\$ 6,574,345	\$ 15,942,366	\$ 253,868	\$ 20,083,982	\$	\$ 118,826,693
Customer Account Services Portion of Total Payroll	7.65%	7.65%	7.65%	7.65%	7.65%		7.65%
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	\$ 2,206,236	\$ 502,937	\$ 1,219,591	\$ 19,421	\$ 1,536,425	\$	\$ 9,090,242
Estimated Employer's Portion of FICA							

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

  Acct 903 - Customer Records & Collection (page 322, line 161)

  Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

Total Pension & Benefits Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA

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## VI - Need For Service Company Services

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### Analysis Of Services

The final aspect of this study was an assessment of whether the services that are provided to VAWC by the Service Company would be necessary if VAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for VAWC. Based on discussions with Service Company personnel, the matrix in Schedule 10 was created showing which entity—VAWC or a Service Company location—is responsible for each of the functions VAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 10, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if VAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to VAWC. For all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.



**Designation Of Responsibility For Water Utility Functions**

	Primarily Responsible Provides Support	P S	Performed By:							
			VAMC	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab	
<b>Water Company Function</b>										
<b>Engineering and Construction Management</b>										
CPS Preparation	S			P				S		
Five-Year System Planning	S			P				P		
Engineering Standards & Policies Development										
Project Design										
Major Projects (e.g., new treatment plant)	S			P				S		
Special Projects	S			P				S		
Minor Projects (e.g., pipelines)	P									
Construction Project Management										
Major Projects	S			P						
Special Projects	S			P						
Minor Projects	P									
Hydraulics Review	P			S						
Developers Extensions	P									
Tank Painting	S			P						
<b>Water Quality and Purification</b>										
Water Quality Standards Development										
Research Studies	S			S				P		S
Water Quality Program Implementation	P			S				P		S
Water Treatment Operations & Maintenance	P			S				S		
Compliance Tracking and Chemical Testing	S			S				S		P
Sample Collection and Other Testing	P			S				S		S
<b>Transmission and Distribution</b>										
Preventive Maintenance Program Development	P									
System Maintenance	P									
Leak Detection	P			S						
<b>Customer Service</b>										
Community Relations	S			P				S		
Customer Contact	S									
Call Processing										
Service Order Creation	S			S						
Service Order Processing	P			S						
Customer Credit										
Meter Reading	P			S						S
Customer Bill Preparation										P
Bill Collection	S			S						S
Customer Payment Processing	S									
Meter Standards Development										
Meter Testing, Maintenance & Replacement	P			S				P		

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	VAWC	Performed By:							
		Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab		
<b>Primarily Responsible P Provides Support S</b>									
Financial Management									
Financial Planning	S		P	S	S				
Financings—Equity			P	S	S				
Financings—Long Term Debt & Preferred (A)			P	S	S				
Short Term Lines of Credit Arrangements (A)			S	S	S				
Investor Relations			S						
Insurance Program Administration					P				
Loss Control/Safety Program Administration	S		P		S				
Pension Fund Asset Management					P				
Cash Management/Disbursements									
<b>Internal Auditing</b>									
<b>Budgeting and Variance Reporting</b>									
Corporate Guidelines & Instructions									
Regional Guidelines & Instructions			P						
Budget Preparation									
Revenue	S		P						
O&M	S		P						
Depreciation and Interest Expense	S		P						
Budget Preparation--Service Company Charges		S	P	S	S				S
Capital Budget Preparation—Projects	S		P						
Capital Budget Preparation—Non-Project Work	S		P						
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	S		P						
Prepare Capital Project Budget Status Report	S		P						
Year-End Projections (A)	S		P						
<b>Accounting and Taxes</b>									
Accounts Payable Accounting	S		S	P					
Payroll Accounting	S		S	P					
Work Order Accounting	S		S	P					
Fixed Asset Accounting	S		S	P					
Journal Entry Preparation--Billing Corrections	S		S	P					
Journal Entry Preparation--All Others	S		S	P					
Financial Statement Preparation	S		S	P					
State Commission Reporting	S		S	P					
Income Taxes—State									
Income Taxes—Federal									
Property Taxes									
Gross Receipts Taxes	S		S	P					

Note A: Financings and lines of credit are the responsibility of American Capital Corporation

**Virginia American Water Company**  
**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:					
	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible P Provides Support S</b>						
<b>Water Company Function</b>						
<b>Rates</b>						
Rate Studies & Tariff Change Administration		P				
Rate Case Planning and Preparation		P				
Rate Case Administration		P				
Commission Inquiry Response		P		S		
<b>Legal</b>						
<b>Purchasing and Materials Management</b>						
Specification Development		S	S	P		
Bid Solicitation		S		P		
Contract Administration				P		
Ordering						
Inventory Management			S			
<b>Human Resources Management</b>						
Benefit Program Development				P		
Benefits Program Administration		P				
Management Compensation Administration				P		
Wage & Salary Program Design				P		
Wage & Salary Administration	S	P				
Labor Negotiations--Wages	S	P				
Labor Negotiations--Benefits						
Labor Negotiations-- Work Rules	S	P		P		
Training Program Development	S	S				
Training--Course Delivery	S	P				
Affirmative Action/EEO--Plan Development	S	P				
Affirmative Action/EEO--Implementation	S	P				
<b>Information Systems Services</b>						
Service Company Data Centers						
System Operations & Maintenance					P	
Software Maintenance					P	
Network Administration					P	
PC Acquisition & Support					P	
Help Desk			S		P	



### **Governance Practices Associated With Service Company Charges**

There are several ways by which VAWC exercises control over Service Company services and charges. The most important of these are described below.

- **Company President Oversight** – The Company President of the state utility is responsible for the overall performance of the each operating company or district in the state. Through the Executive Vice President of the Eastern Division, each state utility President in the division has a significant voice in major business decisions of American Water and has the ability to monitor Service Company quality and spending.
- **Vice President Finance** – The VP Finance of the Southeast states is responsible for the financial reporting, performance and internal controls of each of the operating companies in the region. The VP Finance monitors the performance and reporting from the Service Company. The VP Finance attends monthly Business Plan Review sessions with the VAWC President and finance group to review actual results and address forecast modifications for the remainder of the year. The VP Finance reports on the quarterly financial results and forecast updates to VAWC's Board of Directors. The rates function reports to the VP Finance, who reviews and authorizes the filing of VAWC rate cases and regularly monitors the status of cases. The operating subsidiary interacts with the VP Finance to discuss various issues.
- **Operating Company Board Oversight** – VAWC's board of directors includes members of American Water's senior executive team and members of the Division management team. This helps ensure that VA American's needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – VAWC's President and the Executive VP sit on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors. VA American's president is also on the local board.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's senior executive team, which includes the Executive VP. The Executive VP, with input from the Division management team (including the president of VAWC), has the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Southeast Finance personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. VAWC's financial analyst has dialogue with regional office personnel concerning the monthly bill and any mistakes or overcharges are credited on a subsequent billing. The Southeast Finance unit prepares an actual to budget comparison of management fees each month for use in identifying unusual variances. Service Company actual to budget comparison is included in the monthly FRP. Unusual variances are researched, explanations are provided and any corrections are made, as necessary.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report, called the "Statement of Expenses and Billed Charges," is produced by Service Company location and shows actual spending for the month.

- **Operating Company Budget Variance Reporting** – The “Budget/Plan Analysis,” produced monthly, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date. Additional information exists that allows more detailed analysis of "Regional" and "Corporate" Management Fees.
  
- **Capital Investment Management (CIM)** – CIMC is one of American Water’s primary business planning processes. It covers capital and asset planning and is employed throughout American Water. CIMC provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIMC ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans
  - The impacts of these plans are understood and affordable, and
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIMC process was designed to optimize the effectiveness of asset investment. The process is managed at three levels for all American Water companies, including all VAWC Operating Units. Monthly meetings of the CIMC are held to review capital spending compared to plan, review new project requests, and review updates or modifications to existing projects. The President of VAWC, VP Finance, and others participate as necessary (e.g. VAWC operations managers and Rates Manager) and provide the data used in the monthly review schedules.

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**Market Cost Comparison of Service Company Charges to  
Virginia American Water Company**

**12-Months Ended September 30, 2009**

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**Virginia American Water Company  
Market Cost Comparison of Service Company Charges  
12-Months Ended September 30, 2009**

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## I – Introduction

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### **Purpose of This Study**

This study was undertaken to answer four questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to Virginia American Water Company (VAWC):

1. Were the Service Company's charges to VAWC during the 12 months ended September 30, 2009 reasonable?
2. Was VAWC charged the lower of cost or market for managerial and professional services provided by the Service Company during the 12 months ended September 30, 2009?
3. Were the 12 months ended September 30, 2009 costs of the Service Company's customer accounts services, including those of the National Call Centers, comparable to those of other utilities?
4. Are the services VAWC receives from the Service Company necessary?

### **Study Results**

Concerning question 1, the following conclusion was reached:

- The Service Company's costs for the 12 months ended September 30, 2009 per VAWC customer was very reasonable. For example, during the 12 months ended September 30, 2009, VAWC was charged \$58 per customer for administrative and general ('A&G')-related services provided by the Service Company. This compares favorably to costs per customer for electric and combination electric/gas service companies that average \$109 for service companies reporting to the Federal Energy Regulatory Commission ("FERC"). Only 3 of the 24 utility service companies that filed a FERC Form 60 for 2008 had a lower A&G cost per customer than VAWC's charges from the Service Company.

Concerning question 2, the following conclusions were drawn from this study:

- VAWC was charged the lower of cost or market for managerial and professional services during the 12 months ended September 30, 2009.
- On average, the hourly rates for outside service providers are 60% higher than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could only be procured effectively by VAWC from outside professionals if it provided careful supervision to those service providers. If these services were contracted entirely to outside providers, VAWC would have to add at least one position to manage activities of outside firms. This position would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been outsourced during the 12 months ended September 30, 2009, VAWC and its ratepayers would have incurred more than \$2.2 million in additional expenses. This amount includes the higher cost of outside providers and the cost of one VAWC position needed to direct the outsourced work.





## I – Introduction

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- This study's hourly rate comparison actually understates the cost advantages that accrue to VAWC from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company exempt personnel, on the other hand, charge a maximum of 8 hours per day even when they work more hours. If the overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$2.2 million cited above. For instance, if Service Company overtime is conservatively estimated at 5% (2 hours per week), then that work would have cost an estimated \$100,000 in additional charges from outside providers.
- It would be difficult for VAWC to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from VAWC customers.

Concerning question 3, the following conclusion was reached:

- The cost of the Service Company's customer accounts services, including those provided by the National Call Center, is below the average of the neighboring electric utility comparison group. As will be explained further, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of the Service Company and VAWC. During the 12-months ended September 30, 2009, the customer accounts cost for VAWC customers was \$27.58 compared to the 2008 average of \$29.13 for neighboring electric utilities. The highest comparison group per customer cost was \$76.47 and the lowest \$15.67.

Concerning question 4, the following conclusions was drawn:

- The services that the Service Company provides are necessary and would be required even if VAWC were a stand-alone water utility.
- Furthermore, there is no redundancy or overlap in the services provided by the Service Company to VAWC. For all of the services listed in Exhibit 11, there was only one entity primarily responsible for the service and thus no duplication of efforts between the Service Company and VAWC.

## II – Background

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### Overview of American Water Works Service Company

American Water's Service Company exists to provide certain shared services to American Water subsidiaries. It follows a service company model used by many utility holding companies that own multiple regulated utilities. By consolidating executive and professional services into a single service company, utility holding companies are able to realize the following benefits for ratepayers:

- Purchasing Economies – Common expenses (e.g., insurance, chemicals, piping) can be procured on a much larger scale thereby providing greater bargaining power for the combined entity compared to individual utility operating companies. A service company facilitates corporate-wide purchasing programs through its procurement and contract administration functions.
- Operating Economies of Scale – A service company is able to deliver services more efficiently because workloads can be balanced across more persons and facilities. For instance, American Water's Service Company is able to maintain one principal data center for the entire corporation. This is much more cost-efficient than each operating utility funding its own data center with its large fixed hardware, software and staffing costs.
- Continuity of Service – Centralizing service company personnel who perform similar services facilitates job cross-training and sharing of knowledge and expertise. This makes it easier to deal with staff turnover and absences and to sustain high levels of service to operating utilities. An individual operating utility might experience considerable disruption if a key professional left and it was necessary to hire outside to fill the vacancy.
- Maintenance of Corporate-Wide Standards – Personnel in American Water's Service Company establish standards for many functions (e.g., engineering designs, operating procedures and maintenance practices). It is easier to ensure these standards are followed by every operating utility because their implementation is overseen by the Service Company.
- Improved Governance – American Water's Service Company provides another dimension of management and financial oversight that supplements local operating utility management. The Service Company facilitates standard planning and reporting that help ensure operating utilities meet the requirements of their customers in a cost effective manner.
- Retention of Personnel – A service company organization provides operating utility personnel with another career path beyond what may be available on a local level. These opportunities tend to improve employee retention.

American Water follows the model for other utility service companies in another important regard. Its services are provided to affiliate operating utilities, like VAWC, at cost. American Water's Service Company is not a profit-making entity. It assigns only its actual expenses to the American Water subsidiaries it services.

The Service Company provides services to American Water operating companies from the following locations:



## II – Background

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- Corporate Office – Includes American Water’s executive management and personnel from the various corporate support services. American Water’s corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One is in Alton, Illinois that went into operation in 2001 and a second is in Pensacola, Florida that went into operation in 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of VAWC in a manner that was not as .comprehensive as that now provided by the national call centers.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company’s financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they are not provided by the National Shared Services Center. Examples of regional office services include rates and revenues, engineering, operations and field resource coordination.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology (“IT”) Service Centers – American Water’s principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the communications systems. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### **Service Company Expense Categories**

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial



## II – Background

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services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct		Comments
	Charged	Allocated	
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company’s rate case, engineering design work on an operating company’s project and the preparation of an operating company’s financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

### **Charging and Assignment Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company
- Formula number
- Work order (where applicable)
- Authorization number (where applicable)

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries

## II – Background

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The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet that shows:

- Formula number (this is linked to operating company within American Water's financial system)
- Employee hours worked
- Account number for non-labor charges

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 5, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 2% of American Water's Shared Services' professional labor is assigned to VAWC during a month, then 2% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 2% of the Shared Services' accumulated professional and support labor is charged to VAWC during the month, then 2% of that month's overhead expenses will be assigned to VAWC.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to VAWC, then 2% of that office's office expenses would be assigned to VAWC. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a rate case proceeding are charged directly to the operating company whose case is being heard.

### III – Service Company Cost Comparison Approach

During the 12 months ended September 30, 2009, the Service Company billed VAWC \$3,814,848 in O&M-related charges and \$645,553 in capital-related charges. Included in the O&M amount are certain non-recurring expenses which are excluded from this market study. As calculated in the table below, net testable Service Company charges of \$4,467,146 were subjected to a market cost comparison.

	12 Months Ended Sep. 30, 2009
Mgmt Fee Expense (O&M)	\$ 3,814,848
Add(Subtract): Non-Recurring Items	
Sarbanes-Oxley	\$ 6,745
Net O&M Expenses	\$ 3,821,593
Mgmt Fees - Capital	\$ 645,553
<b>Total Testable AWWSC Charges</b>	<b>\$ 4,467,146</b>

For purposes of comparing these charges to certain outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	12 Months Ended Sep 30, 2009	
	Amount	Hours
Management and Professional Services	\$ 3,485,883	37,564
Customer Account Services	\$ 981,263	25,779
<b>Total Service Company Charges</b>	<b>\$ 4,467,146</b>	<b>63,343</b>

This study's first question—whether Service Company 12 months ended September 30, 2009 charges were reasonable—was determined by comparing VAWC's A&G-related Service Company charges per customer to the same charges for utility companies that must file the FERC Form 60 – Annual Report of Service Companies.

The second question—whether Service Company charges during the 12 months ended September 3, 2009 were at the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to VAWC during the 12 months ended September 30, 2009. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.



### III – Service Company Cost Comparison Approach

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The third question—whether Service Company's 12 months ended September 30, 2009 customer account services charges, including those of the National Call Center costs, were comparable to other utilities—was addressed by comparing VAWC's customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The fourth question—the necessity of Service Company services—was investigated by defining the services provided to VAWC and determining if these services would be required if VAWC were a stand-alone utility.

IV – Question 1 – Reasonableness of Service Company Charges

**VAWC’s Service Company Cost per Customer**

During the 12 months ended September 30, 2009, VAWC was charged \$58 per customer by the Service Company for A&G/O&M-related services. The calculation of this amount, shown in the table below, starts with total net testable Service Company charges and adjusts for capital and non-A&G functions (engineering, operations and water quality) charges. These adjustments are necessary to develop a per customer cost that is comparable to cost of utility service companies.

	12 Months ended Sep 30, 2009 Svc. Co. Charges
Testable Service Company charges	\$ 4,467,146
Less: Capital charges	\$ (645,553)
Less: Non-A&G function O&M charges	
Engineering	\$ (5,905)
Operations	\$ (511,757)
Water Quality	\$ (128,477)
Net A&G/O&M-related charges	\$ 3,175,454
VAWC customers	54,437
<b>VAWC Cost Per Customer</b>	<b>\$ 58</b>

**Comparison Group Cost Per Customer**

Every centralized service company in a holding company system must file a Form 60 in accordance with the Public Utility Holding Company Act of 2005, Section 1270, Section 390 of the Federal Power Act and 18 C.F.R. paragraph 366.23. This report is designed to collect financial information from service companies that are subject to regulation by the FERC.

For 2008, a Form 60 was filed by 24 utility service companies, all of which serve utilities that provide regulated electric and, in some cases, gas service to retail customers. In order to make a valid comparison of this group’s costs to those of American Water Works Service Company, it was necessary to isolate expenses that that they have in common. These include A&G/O&M-related charges associated with the following FERC accounts:

901 – Supervision	921 – Office supplies and expenses
903 – Customer records and collection expenses	923 – Outside services employed
905 – Miscellaneous customer accounts expenses	926 – Employee pensions and benefits
907 – Supervision	928 – Regulatory commission expenses
910 – Misc customer service and info expenses	930.2 – Miscellaneous general expenses
911 – Supervision	931 – Rents
920 - Administrative and general salaries	935 – Maintenance of structures and equipment

O&M expenses charged to utility affiliates for the comparison group service companies were obtained from Schedule XVI – Analysis of Charges for Service Associate and Non-Associate Companies (p. 303 to 306) of each entity’s FERC Form 60. This schedule shows charges by FERC Account.

Comparison group service company 2008 expenses were also adjusted to remove charges to non-regulated affiliates from the cost pool used to calculate the cost per regulated service customer. This determination was made using information from the FERC Form 60 schedule: Account 457 – Analysis of Billing – Associate Companies.



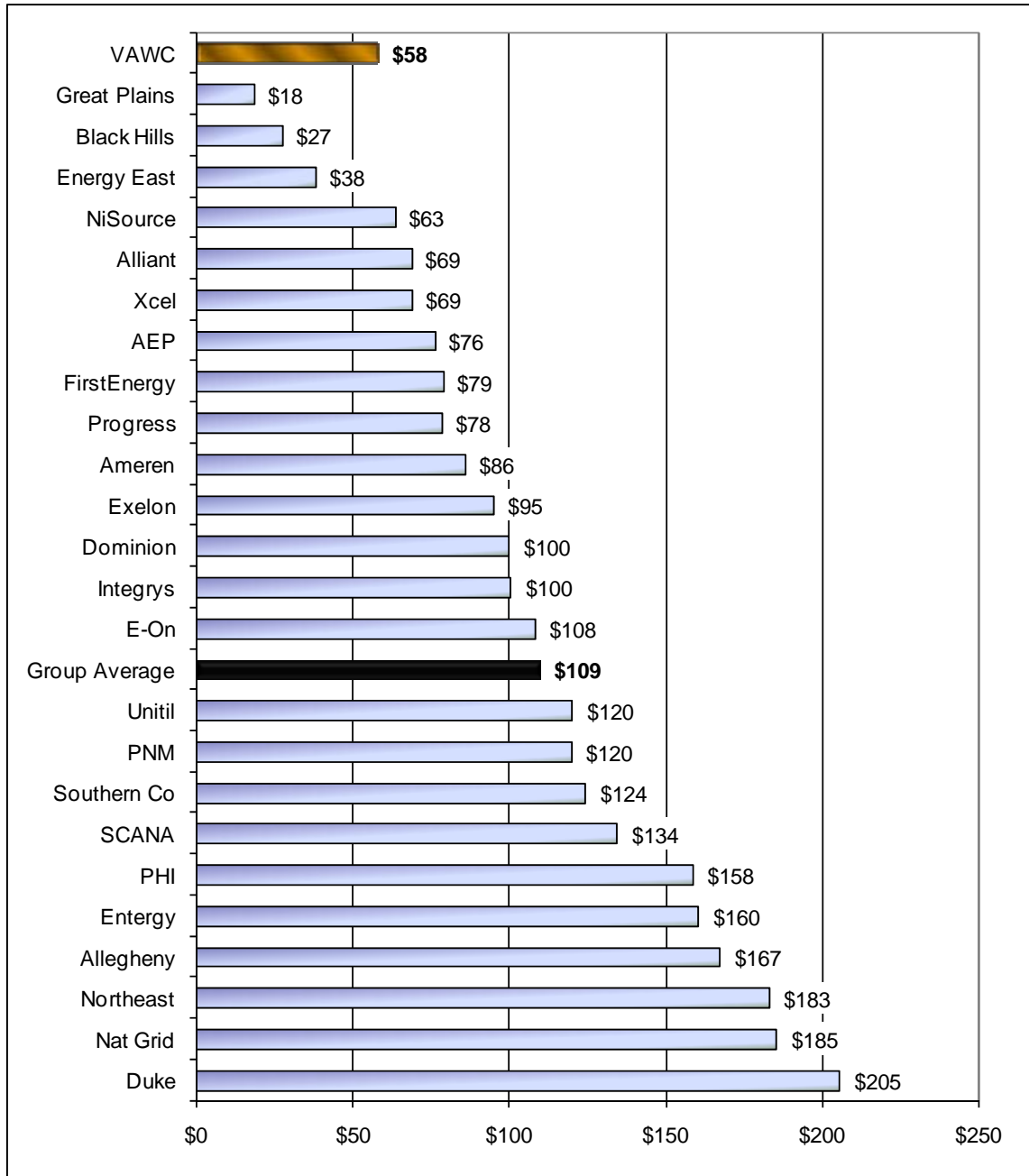
A&G expenses per regulated utility customer for the 24 utility companies that file Form 60 for 2008 are calculated below.

Utility Company	2008 Regulated		Cost per Customer
	Retail Service Company A&G Expenses	Regulated Retail Customers	
AEP	\$396,340,118	5,213,000	\$ 76
Allegheny	\$263,588,707	1,577,873	\$ 167
Alliant	\$205,754,832	3,000,000	\$ 69
Ameren	\$291,684,710	3,400,000	\$ 86
Black Hills	\$20,763,828	759,400	\$ 27
Dominion	\$357,718,046	3,588,500	\$ 100
Duke	\$923,936,645	4,500,000	\$ 205
Energy East	\$113,714,789	2,989,800	\$ 38
Entergy	\$432,575,683	2,700,000	\$ 160
E-On	\$136,276,177	1,263,000	\$ 108
Exelon	\$558,687,014	5,885,000	\$ 95
FirstEnergy	\$354,028,109	4,499,000	\$ 79
Great Plains	\$15,000,708	820,000	\$ 18
Integrus	\$216,364,166	2,157,000	\$ 100
Nat Grid	\$1,240,706,398	6,700,000	\$ 185
NiSource	\$237,380,009	3,750,000	\$ 63
Northeast	\$302,138,730	1,654,000	\$ 183
PHI	\$302,463,412	1,910,000	\$ 158
Progress	\$242,677,256	3,100,000	\$ 78
PNM	\$102,688,385	859,000	\$ 120
SCANA	\$191,207,825	1,424,300	\$ 134
Southern Co	\$546,498,605	4,402,000	\$ 124
Unitil	\$20,341,422	169,600	\$ 120
Xcel	\$367,626,617	5,345,000	\$ 69
<b>Group Total</b>	<b>\$7,840,162,191</b>	<b>71,666,473</b>	<b>\$ 109</b>

Exhibit 1 shows VAWC's 12 months ended September 30, 2009 Service Company cost per customer of \$58 to be considerably lower than the average of \$109 per customer for the comparison group service companies. Only 3 of 24 comparison group service companies had a lower cost per customer than VAWC. Based on this result, it is possible to conclude that the Service Company's 12 months ended September 30, 2009 charges to VAWC were reasonable.

Exhibit 1

**Virginia-American Water Company**  
**Comparison of Service Company Annual Costs Per Customer**



## V – Question 2 – Provision of Services at the Lower of Cost or Market

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### **Methodology**

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar, scientific educational backgrounds as Service Company engineering personnel. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to VAWC during the 12 months ended September 30, 2009. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged VAWC during the 12 months ended September 30, 2009, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### **Service Company Hourly Rates**

Exhibit 2 (page 14) details the assignment of 12 months ended September 30, 2009 management and professional Service Company charges by outsider provider category. Exhibit 3 (page 15) shows the same assignment for Service Company management and professional hours charged to VAWC during the 12 months ended September 30, 2009.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 12 months ended September 30, 2009 test period non-labor Service Company charges:



V – Question 2 – Provision of Services at the Lower of Cost or Market

- Contract Services – 12 months ended September 30, 2009 Service Company charges to VAWC include expenses associated with the use of outside professional firms to perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.
- Travel Expenses – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- Information Technology Infrastructure Expenses – Included in the 12 months ended September 30, 2009 Service Company charges to VAWC are leases, maintenance fees and depreciation related to American Water’s enterprise mainframe, server and network infrastructure and corporate business applications. An outside provider that would take over operation of this infrastructure would recover these expenses over and above the labor necessary to operate the data center.

Exhibit 4 (page 16) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Exhibits 2 and 3 and the excludable items shown in Exhibit 4, the Service Company's equivalent costs per hour for the 12 months ended September 30, 2009 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 92,848	\$ 1,008,025	\$ 1,672,626	\$ 712,384	\$ 3,485,883
Less:					
Contract services	\$ 9,381	\$ 43,756	\$ 174,947	\$ 4,570	\$ 232,653
Travel expenses	\$ 1,204	\$ 28,146	\$ 21,502	\$ 25,144	\$ 75,996
IT infrastructure expenses	\$ 2,957	\$ 116,455	\$ 98,265	\$ 21,465	\$ 239,141
Net Service Charges (A)	\$ 79,306	\$ 819,669	\$ 1,377,912	\$ 661,205	\$ 2,938,092
Total Hours (B)	443	7,391	18,771	10,960	37,564
<b>Average Hourly Rate (A / B)</b>	<b>\$ 179</b>	<b>\$ 111</b>	<b>\$ 73</b>	<b>\$ 60</b>	

**Virginia-American Water Company**  
**Analysis of 12 Months Ended September 30, 2009 Service Company Charges By Location And Function**

		12 Months Ended September 30, 2009 Service Company Charges				
Location	Function	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Belleville Lab	Water Quality		\$ 17,611		\$ 93,478	\$ 93,478
Call Center	Human Resources			\$ 222,392		\$ 17,611
Corporate	Accounting		\$ 144,300			\$ 222,392
	Administration		\$ 43,664	\$ 24,483		\$ 144,300
	Audit					\$ 24,483
	Communications			\$ 128,390		\$ 43,664
	Finance		\$ 122,707			\$ 128,390
	Human Resources			\$ 3,004		\$ 122,707
	Information Technology					\$ 3,004
	Legal	\$ 45,736				\$ 45,736
	Operations		\$ 80,301		\$ 199,542	\$ 279,843
	Rates & Revenue			\$ 35,409		\$ 35,409
	Risk Management		\$ 28,770			\$ 28,770
	Water Quality				\$ 57,122	\$ 57,122
Regional Offices	Accounting		\$ 14,564			\$ 14,564
	Administration	\$ 250,021				\$ 250,021
	Communications	\$ 73,843				\$ 73,843
	Engineering				\$ 93,710	\$ 93,710
	Finance		\$ 287,037			\$ 287,037
	Human Resources		\$ 37,593			\$ 37,593
	Legal	\$ 47,111				\$ 47,111
	Operations		\$ 147,047		\$ 266,427	\$ 413,473
	Risk Management		\$ 9,921			\$ 9,921
	Water Quality				\$ 2,106	\$ 2,106
Information Technology	Information Technology			\$ 698,940		\$ 698,940
Shared Services	Accounting			\$ 196,408		\$ 196,408
	Administration		\$ 52,246			\$ 52,246
	Finance			\$ 33,764		\$ 33,764
	Rates & Revenue			\$ 28,235		\$ 28,235
	<b>Total Dollars Charged</b>	<b>\$ 92,848</b>	<b>\$ 1,008,025</b>	<b>\$ 1,672,626</b>	<b>\$ 712,384</b>	<b>\$ 3,485,883</b>

**Virginia-American Water Company**  
**Analysis of 12 Months Ended September 30, 2009 Service Company Hours By Location And Function**

		12 Months Ended September 30, 2009 Service Company Hours				
Location	Function	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Belleville Lab	Water Quality				1,227	1,227
Call Center	Human Resources	237				237
Corporate	Accounting		2,194			2,194
	Administration	134				134
	Audit		261			261
	Communications	210				210
	Finance			671		671
	Human Resources	1,062				1,062
	Information Technology			11		11
	Legal	210				210
	Operations		371			2,891
	Rates & Revenue			229		229
Regional Offices	Risk Management	337				337
	Water Quality				661	661
	Accounting			174		174
	Administration	1,425				1,425
	Communications	1,036				1,036
	Engineering				1,477	1,477
	Finance			3,469		3,469
	Human Resources		574			574
	Legal	233				233
	Operations		1,617		5,044	6,661
Information Technology	Risk Management	156				156
	Water Quality				31	31
	Information Technology			5,979		5,979
Shared Services	Accounting			4,478		4,478
	Administration		232			232
	Finance			882		882
	Rates & Revenue			422		422
<b>Total Hours Charged</b>		<b>443</b>	<b>7,391</b>	<b>18,771</b>	<b>10,960</b>	<b>37,564</b>

Exhibit 4

**Virginia-American Water Company**  
**12 Months Ended September 30, 2009 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation			Total
	Contract Services	Travel Expenses	IT HW/SW	
Accounting	\$ 77,411	\$ 2,539	\$ 2,724	\$ 82,674
Administration	\$ 13,144	\$ 3,287	\$ 107,895	\$ 124,326
Audit	\$ 1,626	\$ 637	\$ 233	\$ 2,496
Communications	\$ 8,153	\$ 4,557	\$ 794	\$ 13,503
Engineering	\$ -	\$ 184	\$ 81	\$ 265
Finance	\$ 42,266	\$ 6,984	\$ 6,111	\$ 55,361
Human Resources	\$ 20,156	\$ 5,526	\$ 2,448	\$ 28,130
Information Technology	\$ 48,743	\$ 9,580	\$ 87,940	\$ 146,263
Legal	\$ 9,381	\$ 1,204	\$ 2,957	\$ 13,542
Operations	\$ 6,760	\$ 36,046	\$ 10,046	\$ 52,853
Rates & Revenue	\$ 4,900	\$ 1,763	\$ 1,256	\$ 7,919
Risk Management	\$ 603	\$ 1,691	\$ 1,895	\$ 4,188
Water Quality	\$ (490)	\$ 2,000	\$ 14,761	\$ 16,270
<b>Total</b>	<b>\$ 232,653</b>	<b>\$ 75,996</b>	<b>\$ 239,141</b>	<b>\$ 547,791</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Management Consultant,
Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation			Total
	Contract Services	Travel Expenses	IT HW/SW	
Attorney	\$ 9,381	\$ 1,204	\$ 2,957	\$ 13,542
Management Consultant	\$ 43,756	\$ 28,146	\$ 116,455	\$ 188,356
Certified Public Accountant	\$ 174,947	\$ 21,502	\$ 98,265	\$ 294,714
Professional Engineer	\$ 4,570	\$ 25,144	\$ 21,465	\$ 51,179
<b>Total</b>	<b>\$ 232,653</b>	<b>\$ 75,996</b>	<b>\$ 239,141</b>	<b>\$ 547,791</b>

V – Question 2 – Provision of Services at the Lower of Cost or Market

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**Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

It should be noted that professionals working for three of the five outside provider categories may be licensed to practice by state regulatory bodies. However, not every professional working for these firms is licensed. For instance, among Virginia certified public accounting firms, only more experienced staff are predominantly CPAs (see table below). Some Service Company employees also have professional licenses. Thus, it is valid to compare the Service Company's hourly rates to those of the outside professional service providers included in this study.

Position	Virginia Average
Partners/Owners	98%
Directors (11+ years experience)	86%
Managers (6-10 years experience)	88%
Sr Associates (4-5 years experience)	81%
Associates (1-3 years experience)	23%
New Professionals	0%

Source: AICPA's National PCPS/TSCPA Management of an Accounting Practice Survey (2008)

**Attorneys**

The Virginia State Bar does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for Virginia attorneys. Therefore, an estimate of Virginia attorney rates was developed from two surveys conducted by Lawyers Weekly in the states of Michigan and Massachusetts. As presented in Exhibit 5, the average rate for each firm was adjusted for the cost of living differential between its location and Richmond, Virginia. The Lawyers Weekly surveys included rates in effect at December 31, 2007. Thus, the 2007 average rate was escalated to March 31, 2009—the midpoint of the test year ended September 30, 2009.

**Management Consultants**

The cost per hour for management consultants was developed from a 2009 survey performed by the Association of Management Consulting Firms—an industry trade organization. The survey includes rates that were in effect during 2008 for firms throughout the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison.

The first step in the calculation, presented in Exhibit 6, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. The 2008 average rate was escalated to March 31, 2009—the midpoint of the 12 months ended September 30, 2009.



### **Certified Public Accountants**

The average hourly rate for Virginia CPAs was developed from a 2008 survey performed by the American Institute of Certified Public Accountants (AICPA). The Virginia version of this survey was used to develop hourly rates for member firms in Virginia.

As shown in Exhibit 7, a weighted average hourly rate was developed based on a set of accountant positions and a percent of time that is typically applied to an accounting assignment. This survey includes rate information in effect during 2007. Thus, the data had to be escalated to March 31, 2009—the test year’s midpoint.

### **Professional Engineers**

The Company provided hourly rate information for outside engineering firms that could have been used by VAWC in 2009. As presented in Exhibit 8, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

**Virginia-American Water Company**  
**Estimated Billing Rates For Virginia Attorneys Based On**  
**Michigan and Massachusetts Attorney Billing Rates**

Billing rates as of December 31, 2007 (Note A)		Number Of Lawyers	Billing Rate Range				Average	Cost of Living Adjust (C)	Adjusted Rate
Firm	Location		Associate		Partner				
			Low	High	Low	High			
Dickinson Wright PLLC	Detroit, Mi	229	\$ 170	\$ 275	\$ 260	\$ 530	\$ 309	85%	\$ 365
Dykema	Detroit, Mi	222	\$ 185	\$ 390	\$ 245	\$ 625	\$ 361	85%	\$ 427
Butzel Long	Detroit, Mi	209	\$ 165	\$ 400	\$ 220	\$ 550	\$ 334	85%	\$ 395
Bodman LLP	Detroit, Mi	128	\$ 125	\$ 215	\$ 210	\$ 495	\$ 261	85%	\$ 309
Jaffe Raitt Heuer & Weiss, PC	Southfield, Mi	100	\$ 165	\$ 225	\$ 225	\$ 500	\$ 279	97%	\$ 289
Trott & Trott, PC	Bingham Farms, Mi	64	\$ 170	\$ 170	\$ 235	\$ 235	\$ 203	125%	\$ 162
Brooks Kushman PC	Southfield, Mi	52	\$ 160	\$ 275	\$ 250	\$ 505	\$ 298	97%	\$ 308
Kemp, Klein, Umphrey, Edelman & May PC	Troy, Mi	36	\$ 150	\$ 190	\$ 200	\$ 340	\$ 220	111%	\$ 198
Pepper Hamilton LLP	Detroit, Mi	33	\$ 200	\$ 315	\$ 340	\$ 615	\$ 368	85%	\$ 435
Hertz, Schram & Saretsky, PC	Bloomfield Hills, Mi	29	\$ 175	\$ 260	\$ 275	\$ 400	\$ 278	139%	\$ 200
Strobl & Sharp, PC	Bloomfield Hills, Mi	28	\$ 110	\$ 210	\$ 200	\$ 300	\$ 205	139%	\$ 148
Kupelian Ormond & Magy, PC	Southfield, Mi	25	\$ 165	\$ 195	\$ 235	\$ 320	\$ 229	97%	\$ 237
Rader, Fishman & Grauer, PLLC	Bloomfield Hills, Mi	25	\$ 130	\$ 250	\$ 275	\$ 495	\$ 288	139%	\$ 207
McShane & Bowie PLC	Grand Rapids, Mi	22	\$ 160	\$ 275	\$ 250	\$ 375	\$ 265	96%	\$ 277
Edwards Angel Palmer & Dodge	Boston, Ma	259	\$ 144	\$ 321	\$ 474	\$ 474	\$ 353	147%	\$ 241
Sullivan & Worcester	Boston, Ma	137	\$ 245	\$ 530	\$ 415	\$ 700	\$ 473	147%	\$ 322
Burns & Levinson	Boston, Ma	112	\$ 210	\$ 350	\$ 375	\$ 475	\$ 353	147%	\$ 240
Bowditch & Dewey	Worcester, Ma	64	\$ 150	\$ 300	\$ 280	\$ 550	\$ 320	115%	\$ 277
Mirick O'Connell	Worcester, Ma	60	\$ 160	\$ 250	\$ 280	\$ 400	\$ 273	115%	\$ 236
Hinckley, Allen & Snyder	Boston, Ma	58	\$ 200	\$ 330	\$ 300	\$ 480	\$ 328	147%	\$ 223
Prince Lobel Glovsky & Tye	Boston, Ma	52	\$ 175	\$ 265	\$ 275	\$ 475	\$ 298	147%	\$ 203
Robinson & Cole	Boston, Ma	48	\$ 220	\$ 375	\$ 340	\$ 490	\$ 356	147%	\$ 243
Bromberg & Sunstein	Boston, Ma	42	\$ 250	\$ 450	\$ 500	\$ 725	\$ 481	147%	\$ 328
Lawson & Weitzen	Boston, Ma	35	\$ 125	\$ 225	\$ 225	\$ 400	\$ 244	147%	\$ 166
Murtha Cullina	Boston, Ma	34	\$ 165	\$ 290	\$ 250	\$ 500	\$ 301	147%	\$ 205
Marcus Errico Emmer & Brooks	Braintree, Ma	28	\$ 250	\$ 250	\$ 300	\$ 360	\$ 290	137%	\$ 211
Rich May	Boston, Ma	25	\$ 150	\$ 300	\$ 300	\$ 400	\$ 288	147%	\$ 196
Keegan Werlin	Boston, Ma	22	\$ 150	\$ 275	\$ 325	\$ 475	\$ 306	147%	\$ 209
Barron & Stadfeld	Boston, Ma	21	\$ 160	\$ 230	\$ 250	\$ 350	\$ 248	147%	\$ 169
Cain Hibbard Myers & Cook	Pittsfield, Ma	19	\$ 150	\$ 200	\$ 210	\$ 235	\$ 199	116%	\$ 171
Overall Average 2007 Billing Rate								\$	253
<u>Escalation to Test Year's Mid-Point - March 31, 2009 (Note B)</u>									
CPI at December 31, 2007									210.0
CPI at March 31, 2009									212.7
Inflation/Escalation									1.3%
Average Billing Rate At March 31, 2009								\$	<b>256</b>

Note A: Source is Michigan Lawyers Weekly (April 2008) and Massachusetts Lawyers Weekly (April 2008)

Note B: Source is U.S. Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiiai.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This percentage represents the cost of living difference between the Michigan and Massachusetts cities and Richmond, Virginia. A number over 100% indicates the Michigan or Massachusetts city's cost of living is higher than Richmond. A number less than 100% indicates Richmond's cost of living is higher.

**Virginia-American Water Company  
Billing Rates of U.S. Management Consultants**

Survey billing rates in effect in 2008 (Note A)					
A. Calculation of Average Hourly Billing Rate by Consultant Position					
	Average Hourly Rates (Note A)				
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average	\$ 147	\$ 196	\$ 268	\$ 295	\$ 384
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement					
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average Hourly Billing Rate (from above)	\$ 147	\$196	\$268	\$295	\$384
Percent of Consulting Assignment	30%	30%	20%	10%	10%
	\$ 44	\$ 59	\$ 54	\$ 29	\$ 38
					Weighted Average <b>\$ 224</b>
<u>Escalation to the Test Year's Mid-Point (March 31, 2009) (Note B)</u>					
				CPI at December 31, 2008	210.2
				CPI at March 31, 2009	212.7
				Inflation/Escalation	1.2%
Average Hourly Billing Rate For Management Consultants At March 31, 2009					<b>\$ 227</b>

Note A: Source is "Operating Ratios For Management Consulting Firms, 2009 Edition," Association of Management Consulting Firms

**Virginia-American Water Company  
Estimated Billing Rates Of Virginia Certified Public Accountants**

Survey billing rates were those in effect in 2007 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 87	\$ 109	\$ 123	\$ 168
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 87	\$ 109	\$ 123	\$ 168
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 26	\$ 33	\$ 25	\$ 34
				<b>Weighted Average \$ 117</b>
<u>Escalation to Midpoint of March 31, 2009 Test Period (Note B)</u>				
				CPI at December 31, 2007 210.0
				CPI at March 31, 2009 212.7
				Inflation/Escalation 1.3%
				<b>Average Hourly Billing Rate For CPAs At March 31, 2009 \$ 118</b>

Note A: Source is AICPA's 2008 National PCPS/TSCPA Management of an Accounting Practice Survey (Virginia edition)

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Exhibit 8

**Virginia-American Water Company  
Estimated Billing Rates Of Virginia Engineers**

Billing rates in effect in 2009

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$73	\$85	\$135	\$175
Firm #2	\$70	na	\$129	\$160
Firm #3	\$53	\$63	\$118	\$155

B. Calculation of Overall Average Engineering Hourly Billing Rate

	Technician	Engineer	Project Manager	Officer	Weighted Average
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$65	\$74	\$127	\$163	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$20	\$26	\$32	\$16	<b>\$93</b>

Source: Information provided by American Water Works Service Company

V – Question 2 – Provision of Services at the Lower of Cost or Market

**Service Company versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	12 Months Ended September 30, 2009		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 179	\$ 256	\$ (77)
Management Consultant	\$ 111	\$ 227	\$ (116)
Certified Public Accountant	\$ 73	\$ 118	\$ (45)
Professional Engineer	\$ 60	\$ 93	\$ (33)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to VAWC during the 12-months ended September 30, 2009, outside service providers would have cost \$2,094,318 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are 60% higher than those of the Service Company (\$2,094,318 / \$3,485,883).

Service Provider	12 Months Ended September 30, 2009		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (77)	443	\$ (34,228)
Management Consultant	\$ (116)	7,391	\$ (859,040)
Certified Public Accountant	\$ (45)	18,771	\$ (837,603)
Professional Engineer	\$ (33)	10,960	\$ (363,447)
Service Company Less Than Outside Providers			\$ (2,094,318)

It should be noted that the cost differential associated with using outside providers is even greater because Service Company personnel do not charge for more than 8 hours per day even when they work more. Outside providers generally charge clients for all hours worked. If, for instance, Service Company personnel worked 5% overtime (2 hours) per week on VAWC's behalf, that would have amounted to over 1,800 additional hours of work during the 12 months ended September 30, 2009. Based on the hourly rate differentials above, this overtime would have added another \$104,000 to the cost of using outside provider.

If VAWC were to use outside service providers rather than the Service Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform over 37,000 hours of work (more than 25 full-time equivalents at 1,500 "billable" hours per FTE per year) would add a significant workload to the existing VAWC management team. Thus, it would be necessary for VAWC to add at least one position to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill this position would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add almost \$150,000 per year to VAWC's personnel expenses.

V – Question 2 – Provision of Services at the Lower of Cost or Market

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Cost of Adding 1 Professional Position To VAWC's Staff

	<u>Total</u>
New Positions' Salary	\$ 100,000
Benefits (at 49.4%)	\$ 49,400
Office Expenses (15.2%)	\$ 15,200
Cost of One Position	<u>\$ 149,400</u>

Thus, the total effect on the ratepayers of VAWC of contracting all services now provided by Service Company would be an increase in their costs of \$2,243,718 (\$2,094,318 + \$149,400). Based on the results of this comparison, it is possible to conclude that the Service Company charged VAWC at the lower of cost or market for services provided during the 12 months ended September 30, 2009.

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

**Background**

Customer Accounts Services covers the following utility functions:

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing, and mailing
- Remittance processing – processing customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

It is difficult to compare the cost of the Service Company’s customer accounts services-related charges to VAWC with outside providers of the same services because survey data is proprietary and expensive to obtain. For this reason, VAWC’s charges from the Service Company for customer accounts services are compared to those of neighboring electric utilities because the data necessary to make such comparison is available to the public.

Neighboring electric utility cost information comes from the FERC Form 1 that each utility must file. FERC’s chart of accounts is defined in Chapter 18, Part 101 of the Code of Federal Regulations. FERC accounts that contain customer accounts services-related expenses are Account 903 Customer Accounts Expense – Records and Collection Expense and Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense. Exhibit 9 provides FERC’s definition of the type of expenses that should be recorded in these accounts.

In addition to the charges in these FERC accounts, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905:

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer’s portion of FICA)

**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

Virginia	• Appalachian Power	• Virginia Electric Power
West Virginia	• Appalachian Power • Monongahela Power	• Wheeling Power
Maryland	• Baltimore Gas & Electric • Delmarva Power & Light	• Potomac Electric
North Carolina	• Duke Energy Carolinas	• Progress Energy Carolinas
Kentucky	• Duke Energy Kentucky • Kentucky Power	• Kentucky Utilities • Louisville Gas & Electric
Tennessee	• Kingsport Power	



## Virginia-American Water Company FERC Account Descriptions

### 903 – Customer Records and Collection Expenses

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

#### Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

#### Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

## FERC Account Descriptions

### **905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

#### Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

#### Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

**VAWC Cost per Customer**

As calculated below, VAWC's 12 months ended September 30, 2009 customer account services expense per customer was \$27.58. The cost pool used to calculate this average includes charges for Service Company services (e.g., call center, billing, payment processing) and postage and forms expenses, which are incurred directly by VAWC. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.32 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level.

<b>Virginia-American Cost Per Customer</b>		Year Ended	Adjustment	
		9/30/2009	Few er	
		Service Co	Calls For	
Cost Component		Charges	Water Cos. (A)	Adjusted
<b>Service Company</b>				
Call Centers	Call processing, order processing, credit, bill collection	\$ 833,451	\$ 316,716	\$ 1,150,168
Regional Offices		\$ 147,812		\$ 147,812
Operating Company	Customer payment processing			\$ 38,868 Note B
Operating Company	Postage & forms			\$ 164,723
Cost Pool Total				\$ 1,501,570
Total Customers				54,437
<b>12 Months Ended September 30, 2009 Cost Per VAWC Customer</b>				<b>\$ 27.58</b>

Note A: Adjustment for American Water's few er calls per customer

This adjustment is necessary because water utilities experience few er calls per customer than do electric utilities

Call handling expenses		\$ 352,162
Electric utility industry's avg calls/customer	2.50	
American Water's avg calls/customer	1.32	
Percent different	90%	90%
Total Adjustment		\$ 316,716

Note B: Estimated customer payment processing expenses

Number of customers	54,437
Number of payments/customer/year	4.2
Total payments processed/year	228,635
Bank charge per item	\$ 0.1700 (subject to check)
Total estimated annual expense	\$ 38,868

**Electric Utility Group Cost per Customer**

Exhibit 10 shows the actual 2008 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

VI - Question 3 - Reasonableness of Customer Accounts Services Costs

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**Summary of Results**

As shown in the table below, VAWC's cost per customer is below the average cost of the neighboring electric utility comparison group. It can therefore be concluded that VAWC's 12 months ended September 30, 2009 customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to VAWC were comparable to those of other utilities.

<b>Average Customer Accounts Expense Per Customer</b>	
Louisville Gas & Electric	\$ 15.67
Virginia Electric Power	\$ 16.15
Monongahela Power	\$ 16.17
Duke Power	\$ 22.99
Prog Energy - Carolinas	\$ 21.65
Wheeling Power	\$ 26.12
<b>Virginia American Water</b>	<b>\$ 27.58</b>
Kentucky Utilities	\$ 28.42
<b>Comparison Group Average</b>	<b>\$ 29.13</b>
Duke Energy Kentucky	\$ 29.65
Appalachian Power	\$ 32.57
Kingsport Power	\$ 32.60
Baltimore Gas & Electric	\$ 35.46
Kentucky Power	\$ 36.02
Delmarva Power & Light	\$ 69.08
Potomac Electric	\$ 76.47

**Virginia-American Water Company**  
**Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

	Virginia		West Virginia	
	Appalachian Power	Virginia Electric Power	Appalachian Power	Monongahela Power
				Wheeling Power
	\$ 29,231,353	\$ 32,985,338		\$ 5,020,473
	\$ 1,894	\$ -		\$ -
	\$ 29,233,247	\$ 32,985,338		\$ 5,020,473
				\$ 1,013,857
	\$ 1,415,185	\$ 3,978,170		\$ 849,338
	\$ 548,440	\$ 1,573,799		\$ 294,683
	<b>\$ 31,196,872</b>	<b>\$ 38,537,306</b>		<b>\$ 6,164,494</b>
	957,875	2,386,208		381,193
	<b>\$ 32.57</b>	<b>\$ 16.15</b>	see Virginia	<b>\$ 16.17</b>
				<b>\$ 26.12</b>
	\$ 23,000,789	\$124,252,946		\$ 16,659,462
	\$116,519,186	\$642,556,137		\$ 75,556,781
	19.7%	19.3%		22.0%
				19.1%
	\$ 8,480,076	\$ 27,320,711		\$ 6,101,855
	\$ -	\$ -		\$ 339,964
	\$ 8,480,076	\$ 27,320,711		\$ 6,101,855
				\$ 339,964
	\$ 29,231,353	\$ 32,985,338		\$ 5,020,473
	\$ 1,894	\$ -		\$ -
	\$ 29,233,247	\$ 32,985,338		\$ 5,020,473
	\$ 5,345,473	\$ 10,819,819		\$ 2,932,203
	\$ 34,578,720	\$ 43,805,157		\$ 7,952,676
	84.5%	75.3%		63.1%
	\$ 7,169,154	\$ 20,572,530		\$ 3,852,062
	\$ 1,415,185	\$ 3,978,170		\$ 849,338
				\$ 46,865
	\$ 7,169,154	\$ 20,572,530		\$ 3,852,062
	7.65%	7.65%		7.65%
	\$ 548,440	\$ 1,573,799		\$ 294,683
				\$ 18,802

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A**

**Note B**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B:** Calculation of Employer's FICA Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



**Virginia-American Water Company**  
**Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

	Maryland		North Carolina		
	Baltimore Gas & Electric	Delmarva Power & Light	Potomac Electric	Duke Energy Carolinas	Prog Energy Carolinas
	\$ 28,731,040	\$ 32,574,788	\$ 51,049,711	\$ 44,487,077	\$ 25,567,705
	\$ 4,115,795	\$ -	\$ -	\$ 2,782,661	\$ 3,147,580
	\$ 32,846,835	\$ 32,574,788	\$ 51,049,711	\$ 47,269,738	\$ 28,715,285
<b>Note A</b>	\$ 8,208,844	\$ 1,184,741	\$ 6,217,334	\$ 2,666,465	\$ 3,505,221
<b>Note B</b>	\$ 2,528,394	\$ 551,639	\$ 1,009,884	\$ 1,253,668	\$ 1,049,423
<b>Total Cost Pool</b>	<b>\$ 43,584,072</b>	<b>\$ 34,311,168</b>	<b>\$ 58,276,929</b>	<b>\$ 51,189,871</b>	<b>\$ 33,269,929</b>
	1,229,181	496,682	762,094	2,364,417	1,447,424
<b>Customer Account Services Expense per Customer</b>	<b>\$ 35.46</b>	<b>\$ 69.08</b>	<b>\$ 76.47</b>	<b>\$ 21.65</b>	<b>\$ 22.99</b>
	\$ 45,202,255	\$ 6,458,817	\$ 25,000,866	\$ 113,864,381	\$ 104,610,824
	\$ 181,995,810	\$ 39,311,821	\$ 53,083,661	\$ 699,798,490	\$ 409,402,544
	24.8%	16.4%	47.1%	16.3%	25.6%
	\$ 25,480,677	\$ 7,184,790	\$ 13,534,519	\$ 18,553,510	\$ 16,538,900
	\$ 13,071,562	\$ 1,796,197	\$ -	\$ -	\$ -
	\$ 38,552,239	\$ 8,980,987	\$ 13,534,519	\$ 18,553,510	\$ 16,538,900
	\$ 28,731,040	\$ 32,574,788	\$ 51,049,711	\$ 44,487,077	\$ 25,567,705
	\$ 4,115,795	\$ -	\$ -	\$ 2,782,661	\$ 3,147,580
	\$ 32,846,835	\$ 32,574,788	\$ 51,049,711	\$ 47,269,738	\$ 28,715,285
	\$ 5,467,374	\$ 7,995,878	\$ 1,289,369	\$ 6,246,835	\$ 5,904,985
	\$ 38,314,209	\$ 40,570,666	\$ 52,339,080	\$ 53,516,573	\$ 34,620,270
	85.7%	80.3%	97.5%	88.3%	82.9%
	\$ 33,050,899	\$ 7,210,967	\$ 13,201,097	\$ 16,387,812	\$ 13,717,953
	\$ 8,208,844	\$ 1,184,741	\$ 6,217,334	\$ 2,666,465	\$ 3,505,221
	\$ 33,050,899	\$ 7,210,967	\$ 13,201,097	\$ 16,387,812	\$ 13,717,953
	7.65%	7.65%	7.65%	7.65%	7.65%
	\$ 2,528,394	\$ 551,639	\$ 1,009,884	\$ 1,253,668	\$ 1,049,423

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)

Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits, Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B:** Calculation of Employer's FICA, Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



**Virginia-American Water Company**  
**Comparison Group 2008 Actual Customer Accounts Expense Per Customer**

	Kentucky			Tennessee
	Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	Kingsport Power
Duke Energy Kentucky				
\$ 3,221,753	\$ 5,948,209	\$ 12,515,610	\$ 4,626,491	\$ 1,473,158
\$ (46,234)	\$ 4,229	\$ 334,960	\$ 336,884	\$ 425
\$ 3,175,519	\$ 5,952,438	\$ 12,850,570	\$ 4,963,375	\$ 1,473,583
\$ 574,297	\$ 268,710	\$ 1,972,749	\$ 1,054,370	\$ 32,646
\$ 243,542	\$ 105,032	\$ 424,973	\$ 262,847	\$ 24,728
<b>\$ 3,993,358</b>	<b>\$ 6,326,180</b>	<b>\$ 15,248,292</b>	<b>\$ 6,280,591</b>	<b>\$ 1,530,957</b>
134,703	175,646	536,441	400,699	46,961
<b>\$ 29.65</b>	<b>\$ 36.02</b>	<b>\$ 28.42</b>	<b>\$ 15.67</b>	<b>\$ 32.60</b>
				<b>Group Average</b>
				<b>\$330,989,546</b>
				<b>11,360,858</b>
				<b>\$ 29.13</b>

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A**

**Note B**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 187)

Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts Function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

**Note B:** Calculation of Employer's FICA Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA

\$ 6,333,174	\$ 4,765,373	\$ 24,119,043	\$ 22,418,737	\$ 199,803
\$ 35,107,273	\$ 24,348,550	\$ 67,918,514	\$ 73,056,617	\$ 1,978,375
18.0%	19.6%	35.5%	30.7%	10.1%
\$ 2,613,424	\$ 1,602,234	\$ 7,181,104	\$ 2,668,667	\$ 368,129
\$ 1,559,494	\$ -	\$ -	\$ 2,175,749	\$ -
\$ 4,172,918	\$ 1,602,234	\$ 7,181,104	\$ 4,844,416	\$ 368,129
\$ 3,221,753	\$ 5,948,209	\$ 12,515,610	\$ 4,626,491	\$ 1,473,158
\$ (46,234)	\$ 4,229	\$ 334,960	\$ 336,884	\$ 425
\$ 3,175,519	\$ 5,952,438	\$ 12,850,570	\$ 4,963,375	\$ 1,473,583
\$ 986,864	\$ 993,970	\$ 3,761,113	\$ 2,034,678	\$ 204,604
\$ 4,162,383	\$ 6,946,408	\$ 16,611,683	\$ 6,998,053	\$ 1,678,187
76.3%	85.7%	77.4%	70.9%	87.8%
\$ 3,183,556	\$ 1,372,968	\$ 5,555,204	\$ 3,435,906	\$ 323,247
\$ 574,297	\$ 268,710	\$ 1,972,749	\$ 1,054,370	\$ 32,646
\$ 3,183,556	\$ 1,372,968	\$ 5,555,204	\$ 3,435,906	\$ 323,247
7.65%	7.65%	7.65%	7.65%	7.65%
\$ 243,542	\$ 105,032	\$ 424,973	\$ 262,847	\$ 24,728

## VI - Question 4 – Need for Service Company Services

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### **Analysis of Services**

The final aspect of this study was an assessment of whether the services that are provided to VAWC by the Service Company would be necessary if VAWC were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for VAWC. Based on discussions with Service Company personnel, the matrix in Exhibit 11 was created showing which entity—VAWC or a Service Company location—is responsible for each of the functions VAWC requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Exhibit 12, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if VAWC were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to VAWC. For all of the services listed in Exhibit 12, there was only one entity that was primarily responsible for the service.



Primarily Responsible Provides Support	P S	Performed By:						
		VAWC	Customer Call Center	Divisional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
Water Company Function								
<b>Engineering and Construction Management</b>								
CPS Preparation	S					P		
Five-Year System Planning	S		S			P		
Engineering Standards & Policies Development						P		
Project Design								
Major Projects (e.g., new treatment plant)	S					P		
Special Projects	P					S		
Minor Projects (e.g., pipelines)	P							
Construction Project Management								
Major Projects	P					S		
Special Projects	P					S		
Minor Projects	P							
Hydraulics Review	P		S					
Developers Extensions	P							
Tank Painting	P					S		
<b>Water Quality and Purification</b>								
Water Quality Standards Development								S
Research Studies	S					P		S
Water Quality Program Implementation	P					P		S
Water Treatment Operations & Maintenance	P					S		
Compliance Tracking and Chemical Testing	S					S		
Sample Collection and Other Testing	P							P
<b>Transmission and Distribution</b>								
Preventive Maintenance Program Development	P							
System Maintenance	P							
Leak Detection	P							
<b>Customer Service</b>								
Community Relations	S							
Customer Contact	S			P		S		
Call Processing		P						
Service Order Creation	S	P		S				
Service Order Processing	P	S		S				
Customer Credit		P		S				
Meter Reading	P			S				S
Customer Bill Preparation		S						P
Bill Collection	S	P		S				S
Customer Payment Processing								
Meter Standards Development	S							
Meter Testing, Maintenance & Replacement	P					P		

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**Virginia-American Water Company**  
**Designation Of Responsibility For Water Utility Functions**

Water Company Function	VAMC	Performed By:					
		Customer Call Center	Divisional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible P</b>							
<b>Provides Support S</b>							
<b>Rates</b>							
Rate Studies & Tariff Change Administration	S		P				
Rate Case Planning and Preparation	S		P				
Rate Case Administration	S		P				
Commission Inquiry Response	S		P				
<b>Legal</b>							
<b>Purchasing and Materials Management</b>							
Specification Development	S		S				
Bid Solicitation	S		P				
Contract Administration	S		P				
Ordering	P						
Inventory Management	P			S			
<b>Human Resources Management</b>							
Benefit Program Development							
Benefits Program Administration			P		P		
Management Compensation Administration							
Wage & Salary Program Design					P		
Wage & Salary Administration			P				
Labor Negotiations--Wages	S		P				
Labor Negotiations--Benefits	S		P				
Labor Negotiations-- Work Rules							
Training Program Development	S		P				
Training--Course Delivery	S		P				
Affirmative Action/EEO--Plan Development	S		P				
Affirmative Action/EEO--Implementation	S		P				
<b>Information Systems Services</b>							
Service Company Data Centers							
System Operations & Maintenance							P
Software Maintenance							P
Network Administration							P
PC Acquisition & Support							P
Help Desk				S			P

## VI - Question 4 – Need for Service Company Services

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### Governance Practices Associated With Service Company Charges

There are several ways by which VAWC exercises control over Service Company services and charges. The most important of these are described below.

- **President of Regulated Operations Oversight** – The President of Regulated Operations is on the Executive Management Team (EMT) of American Water. This position is responsible for the overall performance of each operating company in American Water. As part of the EMT, the President of Regulated Operations has equal say with other EMT members in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending. The President of Regulated Operations also addresses local concerns with each operating company president.
- **Divisional Vice President & Treasurer** – The Divisional Vice President and Treasurer of the Eastern Division is responsible for the financial reporting, performance and internal controls of each of the operating companies in the division. The Vice President and Treasurer monitors the performance and reporting from the Service Company and follows up on instances where the quality and timeliness of services are not as expected. The operating company interacts with the Divisional VP & Treasurer to discuss any concerns with billings, etc.
- **Operating Company Board Oversight** – VAWC board of directors includes members of American Water's EMT, members of the divisional management team and business and community leaders from outside the Company. VAWC's president is Chairman of the VAWC board. This helps ensure that VAWC's needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – The President of Regulated Operations sits on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors. VAWC's president also sits on the Service Company board.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's Executive Management Team, which includes the President of Regulated Operations. With input from the local presidents and Divisional Vice President & Treasurer, they have the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – VAWC Finance personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. VAWC's financial manager discusses the monthly bill with Shared Services Center office personnel and any mistakes or overcharges are credited on a subsequent billing. The VAWC Finance Manager prepares an actual-to-budget comparison of management fees each month for use in identifying unusual variances. Service Company actual-to-budget comparison is included in the monthly Financial Review Package (FRP). Unusual variances are researched, explanations are provided and any necessary corrections are made.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report, called the "Statement of Expenses and Billed Charges," is produced by Service Company location and shows actual spending for the month.

## VI - Question 4 – Need for Service Company Services

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- **Operating Company Budget Variance Reporting** – The “Budget/Plan Analysis,” produced monthly, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date. Additional information exists that allows more detailed analysis of "Divisional" and "Corporate" Management Fees.
- **Capital Investment Management (“CIM”)** – CIM is one of American Water’s primary business planning processes. It covers capital and asset planning and is employed throughout American Water. CIM provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIM ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans
  - The impacts of these plans are understood and affordable, and
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIM process was designed to optimize the effectiveness of asset investment. The process is managed at two levels for all American Water companies, including all VAWC Operating Units. Monthly meetings of the CIM are held to review capital spending compared to plan, review new project requests, and review updates or modifications to existing projects. The President of VAWC and others participate as necessary (e.g. VAWC operations managers and Rates Manager) and provide the data used in the monthly review schedules.

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**WEST VIRGINIA-AMERICAN WATER COMPANY**  
**ASSESSMENT OF SERVICE COMPANY SERVICES**

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**Test Year Ended December 31, 2002**

## WEST VIRGINIA-AMERICAN WATER COMPANY EVALUATION OF SERVICE COMPANY SERVICES

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## I - Introduction

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### Purpose Of This Study

This study was undertaken to answer three questions:

- What would be the economic impact on West Virginia-American Water Company (West Virginia-American) if it were to outsource the managerial, professional and technical services that it now receives from American Water Service Company, Inc. (Service Company)?
- Are the costs of American Water's National Call Center reasonable?
- Are the services West Virginia-American receives from the Service Company necessary?

### Study Results

Concerning question 1, the following conclusions can be drawn from this study:

- On average, the hourly rates for outside service providers are **60% higher** (\$2,533,068 / \$4,166,661) than the Service Company's hourly rates.
- The managerial, professional and technical services provided by the Service Company are vital and could not be procured externally by West Virginia-American without careful supervision on the part of West Virginia-American. If these services were contracted entirely to outside providers, West Virginia-American would have to add at least one more position to manage activities of the outside firms. This position would be essential to ensure a high level of quality service is being provided.
- If all the managerial, professional and technical services now provided by the Service Company had been out-sourced during the December 31, 2002 test year, West Virginia-American and its ratepayers would incur an **additional \$2,639,468** in annual expenses. This amount includes the added cost of outside providers and the cost of one West Virginia-American position needed to direct this outsourced work. This is over **40% more** (\$2,639,468 / \$6,574,684) than the Service Company's total billings to West Virginia-American during the year ended December 31, 2002.
- It would be difficult for West Virginia-American to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility

operations and regulation that is most likely unavailable from local service providers.

- Service Company costs that cannot be charged directly to operating companies are allocated on the basis of number of customers. This is a straightforward and entirely reasonable methodology. The cost to administer this allocation technique is lower than alternatives that use multiple factors.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from West Virginia-American ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center in Alton, Illinois, **are less than the average of electric utilities in West Virginia and surrounding states**. The 2002 annual customer accounts cost for West Virginia-American customers is **\$23.03 compared to an average of \$26.34** for neighboring electric utilities.

Concerning question 3, the following conclusions can be drawn:

- West Virginia-American could not function without the services that are provided to it by the Service Company. These services are the same type of activities that must be carried out by a stand-alone utility company to ultimately provide customers with service.
- There is no redundancy in the services provided by the Service Company and the activities that are performed by West Virginia-American itself.

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## II - Background

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### Overview Of American Water Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Corporate Office – Includes American Water’s executive management and personnel from the various corporate support services; located in Voorhees, New Jersey.
- National Call Center – Performs customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. This single call center facility, located in Alton, Illinois, went into operation in the second quarter of 2001. West Virginia-American transitioned to the National Call Center on May 29, 2001. Previously, this customer service function was performed by employees of West Virginia-American, which incurred the expense on its books.
- National Shared Services Center – In the fourth quarter of 2001, the new Shared Service Center assumed responsibility for various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company’s financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide certain support services to smaller-grouped operating companies that do not have sufficient workloads to support a full-time staff for various support services. These services include rates and revenues, engineering and operations. West Virginia-American is served by the Southeast Regional office.
- Information Technology Service Centers – These data centers operate mainframes and servers used to run corporate and operating company business applications and the email system. Personnel in the locations also support the application software and provide various IT services (e.g., help desk) to operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categorizes:

- Labor – base pay (salaries) of managerial, professional and technical employees
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Office Expense - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Overhead	X	X	These are primarily employee benefit costs that relate directly to labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company’s rate case, engineering design work on an operating company’s project and the preparation of an operating company’s financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

### **Charging Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges.

Charges originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries.

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial, professional and technical Service Company employees. Every week, Service Company professional employees complete an electronic time sheet (see Schedule 1) that shows:

- Type of service/activity (e.g., rate case data requests, accounting)
- Operating company (for direct charge)
- Work order (where applicable)
- Formula number (for allocation)
- Authorization number (where applicable).

West Virginia-American Water Company  
Sample Electronic Time Sheet

Time Sheet for Mike Rink - Lotus Notes

File Edit View Create Actions Section Help

Workspace Mike Rink - Inbox SSC - General Accounting - Inbox Time Sheets - SSC # 2 - Time Sheets11....

**Time Sheets - SSC # 2**

Employee's Area

Mike Rink  
Employee  
General Acctg./Rates  
Department

Emp. No. 03001289  
W.O. No.  
LOC. NJ  
Pay Type 001  
CO. NO.  
O. H.

6Z  
Dept. No.  
Week Ending 04/20/2003 16

DESCRIPTION OF SERVICES	O. H.	CO. NO.	Pay Type	LOC.	W.O. NO.	Task Order	FORM. NO.	AUTH. NO.	TOT. HRS.	CHARGEABLE HOURS						
										Mo	Tu	We	Th	Fr	Sa	Su
Regular	<input type="checkbox"/>		001	NJ			6100		40	8	8	8	8	8	8	8
OT @ 1.5	<input type="checkbox"/>		106						0	0	0	0	0	0	0	0
OT @ 1.0	<input type="checkbox"/>		100						0	0	0	0	0	0	0	0
OT @ 2.0	<input type="checkbox"/>		125						0	0	0	0	0	0	0	0
Vacation	<input type="checkbox"/>		400						0	0	0	0	0	0	0	0
Float Holiday	<input type="checkbox"/>		430						0	0	0	0	0	0	0	0
Holiday	<input type="checkbox"/>		300						0	0	0	0	0	0	0	0
Funeral	<input type="checkbox"/>		566						0	0	0	0	0	0	0	0
Sick	<input type="checkbox"/>		250	NJ			6100		0	0	0	0	0	0	0	0
Sick without pay (Short-Term Disability)	<input type="checkbox"/>		267						0	0	0	0	0	0	0	0

Microsoft Excel - 2002 ... Time Sheet for Mike ... [09200] - Account Ledg... 2002 Annual Report Dr... Office 1:22 PM

## Cost Accumulation Process

The Service Company cost accumulation process is illustrated in Schedule 2.

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 13, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 4% of the Hershey Data Center's professional labor was assigned to West Virginia-American during a month, then the 4% of that office's administrative labor charges are also assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, 6% of the Corporate Office's accumulated professional and support labor was charged to West Virginia-American during the month, then 6% of overhead expenses will be assigned to West Virginia-American.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 5% of professional labor from one Service Company office is assigned to West Virginia-American, then 5% of that office's office expenses would be assigned to West Virginia-American. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a state rate case proceeding are charged directly to the operating company whose case is being heard.

West Virginia-American Water Company  
Service Company Cost Accumulation And Assignment Process

Cost Accumulation

Cost Assignment To Operating Companies

Labor

Other Cost Categories

Service Company Managers  
Professional and Technical Labor

Support  
Labor-Related Overheads  
Office Expenses  
Journals and Vouchers

Time (hours) is reported to:  
1. Account (O&M) (direct charged)  
2. Authorizations (O&M) (allocated)  
3. Work Orders (capital) (direct charged)

Ratio calculated for the actual costs for each category  
Support / Labor  
Labor-Related Overheads / Labor  
Office Expenses / Labor  
Journals and Vouchers / Labor

Hours are costed-out based on each person's actual salary  
Dollar amounts accumulated by account, authorization and work order

Ratios are applied to accumulated labor dollars by account, authorization and work order

Cost Accumulation -- Direct Charges

Time Sheet Entries	(a) Labor
Accounting	\$
Administrative	\$
Corporate Secretarial	\$
Engineering	\$
Human Resources	\$
Rate Case	\$
Construction	\$
etc..	

Ratios		
Support	Labor	Office
Ovhd's	Exp	J&Vs
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%

Dollar Amounts (b)		
Support	Labor	Office
Ovhd's	Exp	J&Vs
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$

(a+b) Total Costs
\$
\$
\$
\$
\$
\$
\$
\$

Cost Accumulation -- Allocated Charges

Time Sheet Entries	(c) Labor
Accounting	\$
Administrative	\$
Corporate Secretarial	\$
Engineering	\$
Human Resources	\$
Rate Case	\$
Construction	\$
etc..	

Ratios		
Support	Labor	Office
Ovhd's	Exp	J&Vs
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%
%	%	%

Dollar Amounts (d)		
Support	Labor	Office
Ovhd's	Exp	J&Vs
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$
\$	\$	\$

(c+d) Total Costs
\$
\$
\$
\$
\$
\$
\$
\$

Operating Company	(e) Direct Charged Work	Allocated Work (f)		Total Costs (e+f)
		# of Customers	% of Allocated Total Amount	
California	\$	xxx,xxx	%	\$
Tennessee	\$	xxx,xxx	%	\$
Iowa	\$	xxx,xxx	%	\$
Kentucky	\$	xxx,xxx	%	\$
Maryland	\$	xxx,xxx	%	\$
Missouri	\$	xxx,xxx	%	\$
etc.				



**Test Year Service Company Charges**

During 2002, the Service Company charged WV-American the following amounts:

2002 Service Company Charges				
	O&M	Deferred Portion of AU0282 (A)	Capital	Total
Labor	\$ 2,425,065	\$ 67,941	\$ 313,146	\$ 2,806,152
Labor-Related Overheads	\$ 840,336	\$ 20,273	\$ 111,219	\$ 971,828
Support	\$ 51,940	\$ 10	\$ 7,585	\$ 59,536
Office Expenses	\$ 580,118	\$ 15,089	\$ 64,410	\$ 659,617
Vouchers/JEs	\$ 1,588,756	\$ 84,031	\$ 404,764	\$ 2,077,551
Total	\$ 5,486,215	\$ 187,345	\$ 901,123	\$ 6,574,684

Note A: Approximately 25.5% of 2002 Call Center expenses charged to Authorization 0282 were deferred for future recovery

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### **III – Service Company Cost Comparison Approach**

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#### **Study Approach**

The first issue was evaluated by comparing the cost per hour for work performed by Service Company personnel to the hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on the expenses and hours that were charged to West Virginia-American during the twelve months ended December 31, 2002. Outside providers' billing rates came from surveys of professionals that could perform the services now provided by the Service Company.

The second issue—reasonableness of the National Call Center's costs—was addressed by comparing West Virginia-American's customer accounts expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of these services are not available to the public. However, electric utility customer account expenses can easily be obtained from the FERC Form 1.

The third issue—the necessity of Service Company services—was first investigated by determining what the Service Company does for West Virginia-American. A determination was then made as to whether these services would be required if West Virginia-American were a stand-alone utility.

During the twelve months ended December 31, 2002, Service Company employees charged 116,547 hours of time to West Virginia-American. As indicated previously, the Service Company billed West Virginia-American \$6,574,684 during that same period.

The cost of Service Company services provided to West Virginia-American during 2002 was compared to the following outside benchmarks:

- **Managerial, Professional and Technical Services** – Includes such services as management, accounting, legal, human resources, information technology, and engineering. The Service Company's cost of these services is compared to the cost that would be charged by outside service providers, including management consultants, attorneys, certified public accountants and professional engineers.
- **Customer Accounts Services** – Includes customer-related services, such as call center, credit, billing, collection and payment processing. The cost of these services is compared to similar costs incurred by investor-owned electric utilities in West Virginia and surrounding states.

The 2002 dollar value of Service Company charges to West Virginia-American that fall into these two categories are shown below.

	2002 Service Company Charges	
	<u>\$ Amount</u>	<u>Hours</u>
Management, Professional and Technical Services	\$ 4,166,661	50,822
Customer Account Services	\$ 2,408,023	65,725
Total	<u>\$ 6,574,684</u>	<u>116,547</u>

The cost comparisons are detailed in the next two chapters.

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## **IV – Managerial, Professional And Technical Services Cost Comparison**

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### **Methodology**

This cost comparison quantifies the economic impact on West Virginia-American of outsourcing all managerial, professional and technical services now provided by the Service Company. This is accomplished by comparing the cost per hour for Service Company services to those of outside service providers to whom these duties could be assigned.

The first step was to determine which types of outside providers could assume Service Company services. Based on the nature of these services it was determined that the following outside service providers could perform the categories of services indicated.

- Management Consultants - executive and administrative management, risk management services, human resources and communications services
- Attorneys - corporate secretarial and legal services
- Certified Public Accountants - accounting, financial, information systems and rates and revenues
- Professional Engineers - engineering, operations and water quality services.

It should be noted that the services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for outside professionals that perform the types of services provided by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

The next step was to calculate the Service Company's hourly rate for each of the four outside service provider category, based on the fees and hours charged to West Virginia-American during the test year.

Hourly billing rates for outside service providers were next determined using information from pertinent surveys.

Finally, the Service Company's average cost per hour was compared to the average cost per hour for outside providers to determine who provided services at a lower cost.

### **Compilation Of Service Company Hours/Expenses By Outside Provider Category**

Certain adjustments to these dollar and hour amounts are necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. These adjustments are described below.

- **Computer Hardware/Software/Supplies Expenses** – Within the Vouchers/Journal Entries expense category are \$13,793 in data center hardware/software leases, maintenance fees and other computer-related payments to outside companies. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.
- **Contract Services** - The test year includes \$722,971 in Service Company charges associated with existing arrangements with outside professional firms who perform certain corporate-wide services (e.g., financial audit, actuarial services). These professional fees are excluded because the related services have effectively been out-sourced already. These expenses are all in the Vouchers/Journal Entries expense category.
- **Travel Expenses** – Also within the Vouchers/Journal Entries expense category are \$11,401 in travel expenses for Service Company personnel. Outside service providers bill this to a client over in addition their hourly fees. Here too, it is appropriate to remove this amount from the Service Company hourly rate calculation.

### **Service Company Hourly Rates**

Schedule 3 (page 15) details the assignment of total 2002 management, professional and technical Service Company charges and hours to outsider provider categories. Schedule 4 (page 16) shows how computer hardware/software, outside contract services and travel expense-related Service Company charges are split among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedule 3, Service Company's equivalent costs per hour for the test year ended December 31, 2002 are calculated below.

	Management Consultant	Attorney	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 1,498,883	\$ 25,898	\$ 2,058,631	\$ 583,249	\$ 4,166,661
Less:					
Computer hardware/software			\$ (13,793)		\$ (13,793)
Contract Services	\$ (328,286)	\$ (572)	\$ (379,668)	\$ (14,445)	\$ (722,971)
Travel Expenses	\$ (8,374)	\$ (38)	\$ (2,454)	\$ (535)	\$ (11,401)
Net expenses (A)	\$ 1,170,597	\$ 25,326	\$ 1,665,170	\$ 568,804	\$ 3,429,897
Total hours (B)	11,314	95	30,946	8,467	50,822
Average rate/hour (A / B)	\$ 103	\$ 267	\$ 54	\$ 67	



Exhibit Witness: PLB  
Schedule 4

**West Virginia-American Water Company  
Test Year Service Company Charges (December 31, 2002) – Travel, HW/SW and Outside Services**

Charges By Function	Test Year Service Company Charges			Total	Outside Service Provider Category
	Computer HW/SW	Contract Services	Travel Expenses		
Accounting		\$ 708	\$ 14	\$ 722	Certified Public Accountant
Administration		\$ 199,115	\$ 7,209	\$ 206,325	Management Consultant
Audit		\$ 161	\$ 118	\$ 279	Certified Public Accountant
Communications		\$ 27,941	\$ 115	\$ 28,056	Management Consultant
Corporate Secretary		\$ 572	\$ 38	\$ 610	Attorney
Engineering		\$ 99	\$ 257	\$ 356	Professional Engineer
Finance		\$ 191,444	\$ 1,707	\$ 193,151	Certified Public Accountant
Human Resources		\$ 101,229	\$ 1,049	\$ 102,279	Management Consultant
Information Systems/Financial	\$ 13,793	\$ 187,355	\$ 553	\$ 201,701	Certified Public Accountant
Operations		\$ 12,579	\$ 15	\$ 12,594	Professional Engineer
Rates and Revenues		\$ -	\$ 62	\$ 62	Certified Public Accountant
Water Quality/Corporate		\$ 346	\$ 122	\$ 468	Professional Engineer
Water Quality/Laboratory		\$ 1,421	\$ 140	\$ 1,561	Professional Engineer
Water Quality/Regional		\$ -	\$ -	\$ -	Professional Engineer
<b>Total</b>	<b>\$ 13,793</b>	<b>\$ 722,971</b>	<b>\$ 11,401</b>	<b>\$ 748,164</b>	

Recap By Outside Provider	Test Year Service Company Charges			Total
	Computer HW/SW	Contract Services	Travel Expenses	
Management Consultant	\$ -	\$ 328,286	\$ 8,374	\$ 336,659
Attorney	\$ -	\$ 572	\$ 38	\$ 610
Certified Public Accountant	\$ 13,793	\$ 379,668	\$ 2,454	\$ 395,915
Professional Engineer	\$ -	\$ 14,445	\$ 535	\$ 14,980
<b>Total</b>	<b>\$ 13,793</b>	<b>\$ 722,971</b>	<b>\$ 11,401</b>	<b>\$ 748,164</b>





## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each type of outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2002 annual survey performed by the Association of Management Consulting Firms—the industry trade organization. The first step in the calculation, presented in Schedule 5, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This represents the average for 2001. This average is for all of the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. average is appropriate for comparison. Finally, the 2001 average rate was escalated to June 30, 2002—the test year's midpoint.

### **Attorneys**

The West Virginia Bar Association does not survey its members as to their hourly billing rates. Therefore, a West Virginia estimate was developed from a survey of Virginia lawyers conducted annually by the Virginia Lawyers Weekly. The average rate for each Virginia firm responding was adjusted for the cost of living differential between their location and Charleston, West Virginia. The survey includes rates that were in effect at December 31, 2001. Finally, the adjusted 2001 average rate was escalated to June 30, 2002—the test year's midpoint. The average hourly rate calculation is presented in Schedule.

### **Certified Public Accountants**

The average hourly rate for West Virginia certified public accountants was estimated from a 2002 survey performed by the American Institute of Certified Public Accountants (AICPA). Hourly rates in the AICPA survey are the average of firms in the Southeast.

The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 7. Using an assumed percent of time on a typical assignment, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2001 thus they had to be escalated to June 30, 2002—the test year's midpoint.

### **Professional Engineers**

The Service Company provided hourly rate information for the one outside engineering firm that was used by West Virginia-American in 2002. As presented in Schedule 8, an average rate was first developed for each engineering position level. Then, using a typical percentage mix of time by each engineering position that would be spent in performing engineering, operations and water quality assignments, a weighted average cost per hour was calculated.

Schedule 5

West Virginia-American Water Company  
Billing Rates of U.S. Management Consultants

A. Calculation of Average Hourly Billing Rate by Consultant Position						
Survey billing rates were those in effect in 2001 (Note A)						
Average Hourly Rates (Note A)						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$ 134	\$ 162	\$ 210	\$ 255	\$ 313	
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)	\$ 134	\$ 162	\$ 210	\$ 255	\$ 313	
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%	Weighted Average
	\$ 40	\$ 49	\$ 42	\$ 25	\$ 31	\$ 188
<u>Escalation to June 30, 2002 (Note B)</u>						
					CPI at December 31, 2001	176.7
					CPI at June 30, 2002	179.9
					Inflation/Escalation	3.2
					Billing Rate At December 31, 2001	\$ 194

Note A: source: "2002 Survey of U.S. Key Management Information," Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics

Schedule 6

West Virginia-American Water Company  
Estimated Billing Rates Of West Virginia Attorneys

Billing rates are as of December 31, 2001 (Note A)							Cost of Living Adjust (C)	Adjusted Rate
Firm	Virginia Location	Number Of Va Lawyers	Billing Rate Range					
			Low	High	Avg			
Troutman Sanders Mays & Valentine	Richmond	175	\$ 85	\$ 450	\$ 268	109.1	\$ 245	
LeClair Ryan	Richmond	106	\$ 115	\$ 360	\$ 238	109.1	\$ 218	
Woods, Rogers & Hazelgrove	Roanoke	66	\$ 110	\$ 285	\$ 198	115.6	\$ 171	
Wilcox & Savage	Norfolk	62	\$ 125	\$ 325	\$ 225	106.1	\$ 212	
Gentry, Locke, Rakes & Moore	Roanoke	52	\$ 75	\$ 350	\$ 213	115.6	\$ 184	
Veneable, Baetjer and Howard	Vienna	43	\$ 185	\$ 460	\$ 323	135.5	\$ 238	
Birch, Stewart, Kolasch & Birch	Falls Church	38	\$ 175	\$ 400	\$ 288	178.4	\$ 161	
Penstuart	Abingdon	29	\$ 75	\$ 295	\$ 185	115.6	\$ 160	
Hofheimer, Nusbaum	Norfolk	28	\$ 60	\$ 275	\$ 168	106.1	\$ 158	
Jones, Blechman, Woltz & Kelly	Newport News	26	\$ 125	\$ 250	\$ 188	97.3	\$ 193	
Durrettebradshaw	Richmond	24	\$ 140	\$ 350	\$ 245	109.1	\$ 225	
Bean, Kinney & Korman	Arlington	24	\$ 125	\$ 385	\$ 255	153.5	\$ 166	
Wright, Robinson, Ostheimer & Tatum	Richmond	24	\$ 110	\$ 250	\$ 180	109.1	\$ 165	
Oloff & Berridge	Alexandria	23	\$ 140	\$ 420	\$ 280	184.6	\$ 152	
McCandlish & Lillard	Fairfax	22	\$ 125	\$ 350	\$ 238	190.1	\$ 125	
Kalbaugh, Pfund & Messersmith	Richmond	22	\$ 95	\$ 300	\$ 198	109.1	\$ 181	
Patten, Wornom, Hatten & Diamonstein	Newport News	20	\$ 175	\$ 300	\$ 238	97.3	\$ 244	
Taylor & Walker	Norfolk	20	\$ 95	\$ 160	\$ 128	106.1	\$ 120	
Spotts Fain Chappell & Anderson	Richmond	19	\$ 130	\$ 240	\$ 185	109.1	\$ 170	
Overall Average			\$ 119	\$ 327	\$ 223		\$ 184	
<u>Escalation to June 30, 2002 (Note B)</u>								
CPI at December 31, 2001							176.7	
CPI at June 30, 2002							179.9	
Inflation/Escalation							3.2	
Billing Rate At December 31, 2001							<b>\$ 189</b>	

Note A: source is Virginia Lawyers Weekly, April 29, 2002

Note B: source is US Bureau of Labor Statistics

Note C: source is www.homefair.com

Schedule 7

West Virginia-American Water Company  
Estimated Billing Rates Of West Virginia Certified Public Accountants

A. Calculation of Average Hourly Billing Rate by Public Accounting Position  
Survey billing rates were those in effect in 2001 (Note A)

Type of Firm	Average Hourly Billing Rate (Note A)			
	Staff Accountant	Senior Accountant	Manager	Partner
Larger Firms	\$ 73	\$ 94	\$ 127	\$ 196
Medium-Sized Firms	\$ 64	\$ 79	\$ 104	\$ 156
Small Firms	\$ 63	\$ 79	\$ 93	\$ 135
Average Hourly Rate	\$ 67	\$ 84	\$ 108	\$ 162

B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement

	Staff Accountant	Senior Accountant	Manager	Partner	
Average Hourly Billing Rate (From Above)	\$ 67	\$ 84	\$ 108	\$ 162	
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%	Weighted Average
	\$ 20	\$ 25	\$ 22	\$ 32	\$ 99

Escalation to June 30, 2002 (Note B)	
CPI at December 31, 2001	176.7
CPI at June 30, 2002	179.9
Inflation/Escalation	3.2%
Estimated Average Hourly Billing Rate For CPAs At June 30, 2002	<b>\$ 102</b>

Note A: source is AICPA's 2002 National MAP Survey Report

Note B: source is US Bureau of Labor Statistics

Exhibit Witness: PLB  
 Schedule 8

West Virginia-American Water Company  
 Billing Rates Of West Virginia Engineers

Note: Billing rates were those in effect in 2002

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer	Project Manager Sr. Engineer	Officer Principal Engineer
E.L. Robinson Engineering Co.	\$55		\$75	
Potesta & Associates	\$40	\$52 (\$40-\$65)	\$80 (\$65-\$95)	\$110 (\$95-\$125)
Terradon Corporation		\$85	\$95	
Overall Average	\$48	\$69	\$83	\$110

B. Calculation of Overall Average Engineering Hourly Billing Rate

Average Hourly Billing Rate (From Above)	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer	Project Manager Sr. Engineer	Officer Principal Engineer	Weighted Average
		\$48	\$69	\$83	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$14	\$24	\$21	\$11	<b>\$ 70</b>

Source: Information provided by American Water Works Service Company

### Service Company Versus Outside Provider Cost Comparison

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Outside Provider	2002 Cost Per Hour		Difference-- Service Co. Greater (Less Than) Outside Provider
	Service Company	Outside Provider	
Management Consultant	\$ 103	\$ 194	\$ (91)
Attorney	\$ 266	\$ 189	\$ 77
Certified Public Accountant	\$ 54	\$ 102	\$ (48)
Professional Engineer	\$ 67	\$ 70	\$ (3)

Based on these cost per hour differentials and the number of hours that the Service Company billed West Virginia-American during the year ended December 31, 2002 the services themselves would cost significantly more—over \$2,500,000 million—from outside providers (see table below). Thus, on average, outside provider's hourly rates are 60% higher than those of the Service Company (\$2,533,068 / \$4,166,661).

#### Dollar Difference Associated With Contracting Service Co Services

Outside Provider	Rate Difference-- Service Company Greater(Less) Than Outside Provider		Hours	Dollar Difference
	Rate Difference	Rate Difference		
Management Consultant	\$ (91)	\$ (91)	11,314	\$ (1,029,574)
Attorney	\$ 77	\$ 77	95	\$ 7,315
Certified Public Accountant	\$ (48)	\$ (48)	30,946	\$ (1,485,408)
Professional Engineer	\$ (3)	\$ (3)	8,467	\$ (25,401)
Total Service Company Less Than Outside Providers				<b>\$ (2,533,068)</b>

Higher hourly rates are not the only negative economic impact that would result from contracting all Service Company services to outside providers. Managing outside firms who would perform 50,800 hours of work would add a considerable workload to the existing West Virginia-American management team. Thus, it would be necessary for West Virginia-American to add at least one position whose responsibility it would be to supervise the outside firms and ensure they delivered quality services. The individual that would fill this position would need a good understanding of each profession being managed. This person must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$106,400 per year to West Virginia-American's personnel expenses.

Cost of Adding Administrative Position To The Staff Of West Virginia-American

New Position's Salary	\$ 70,000
Benefits	<u>36,400</u>
Total Cost of the New Position	<u>\$106,400</u>

Thus, the total effect on the ratepayers of West Virginia-American of contracting all services now provided by Service Company would be an increase in their costs of **\$2,639,468** (\$2,533,068 + \$106,400).

**Other Cost Comparisons**

The Service Company periodically conducts its own comparisons of the cost of outside service providers. In all instances, these comparisons confirm this study's conclusion--that the cost of outsourcing Service Company services is greater than the current arrangement. A brief description of several recent studies is provided below.

- Belleville Lab Testing (2000) - A comparison was made of Belleville Lab 2000 cost for performing over 26 major tests to the cost of using outside testing laboratory. It was found that the outside labs were 15% more expensive than the Belleville Lab.
- Belleville Lab Testing (2001) – Another comparison Belleville Lab's 2001 cost for performing over 25 major tests to the cost of using outside testing laboratory. It was found that the outside labs were 20% more expensive than the Belleville Lab.
- Belleville Lab Testing (2002) – Another comparison Belleville Lab's 2002 cost for performing 25 major tests to the cost of using outside testing laboratory. It was found that the outside labs averaged 10% more expensive than the Belleville Lab.
- Stock Materials – The Service Company negotiates a national contract for stock materials that are used by operating companies. A comparison



of this contract's prices for 11 commonly used items in various sizes showed West Virginia American's overall costs are 116% lower than the same items from local suppliers.

These studies present further evidence that the Service Company arrangement is the lowest-cost alternative for West Virginia-American.

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## V – Customer Accounts Cost Comparison

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### Background

It is difficult to compare the cost of American Water’s National Call Center with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, West Virginia-American’s National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC’s chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study’s comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer’s portion of FICA).

Schedule 9 provides FERC’s description of what should be charged to these accounts. In questioning one of the neighboring electric utilities, it was determined that they record expenses of the activities below in the designated FERC accounts. This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

#### **903 Records and Collection Expense**

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing and mailing
- Remittance processing – processing of customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

#### **905 Miscellaneous Customer Accounts Expense**

- Customer Information System IT – maintenance and support of the customer information system

## West Virginia-American Water Company FERC Account Descriptions

### **903 – Customer Records and Collection Expenses**

This **account** shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

#### Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the **account** appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the **account** appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

#### Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

### **905 – Miscellaneous Customer Accounts Expenses**

This **account** shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

#### Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

#### Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

### Comparison Group

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

West Virginia	• Wheeling Power	
Kentucky	• Kentucky Power • Kentucky Utilities	• Louisville Gas & Electric • Union Light, Heat & Power
Virginia	• Appalachian Power • Virginia Electric Power	
Ohio	• Cincinnati Gas & Electric • Columbus Southern Power • Ohio Edison • Toledo Edison	• Cleveland Elect. Illuminating • Dayton Power & Light • Ohio Power
Maryland	• Baltimore Gas & Electric • Potomac Electric	
Pennsylvania	• Duquesne Light • Pennsylvania Power	• PECO Energy • PPL Electric Utilities

Several neighboring electric utilities could not be included in the comparison group because they did not submit the necessary FERC Form 1 data.

### Comparison Approach

The basis for this study’s comparison is 2002 actual cost per customer. In order to develop this, a cost pool was created for West Virginia-American that was equivalent to the contents of FERC accounts 903 and 905. As shown in the graphic below, West Virginia-American’s cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u>
Alton Call Center
a. Customer contact
b. Customer order processing
c. Billing information processing
d. Collections
e. Correspondence processing
IT Services
a. Support expenses for the customer information system (ORCOM)
<u>Operating Company Customer</u>
a. Payment processing

Electric Utilities
FERC Acct 903 - Records and Collection Expense and FERC Acct 905 - Misc Customer Accounts Expense
a. Customer contact
b. Customer order processing
c. Bill preparation and mailing
d. Collections
e. Payment processing
f. Correspondence processing

## West Virginia-American Cost Per Customer

West Virginia-American's customer accounts-related cost per customer is calculated below. It was necessary to adjust Alton Call Center's actual 2002 expenses to make the numbers comparable with the electric utility comparison group. The electric utility industry averages 2.5 calls per customer while American Water experiences 1.5 calls per customer. Thus, the Alton Call Center expenses had to be increased to reflect its costs at a 2.5 calls per customer level.

### West Virginia-American 2002 Cost Per Customer

Cost Component		2002		
		Actual/ Estimate	Adjusted	
Alton Call Center	Customer service	\$ 1,698,678	\$ 2,831,130	Note A
IT/Data Centers	Bill preparation and mailing	\$ 701,634	\$ 701,634	
	Customer information system support			
Operating Company	Customer payment processing	\$ 256,686	\$ 256,686	Note B
Cost Pool Total			\$ 3,789,450	
Total Customers			164,542	
<b>2002 Cost Per Customer</b>			<b>\$ 23.03</b>	

Note A: Adjustment for American Water's fewer calls per customer

2002 Actual	\$ 1,698,678
Electric Utility industry's avg calls/customer	2.50
American Water's avg calls/customer	1.50
Multiplier	1.67
Total estimated cost	\$ 2,831,130

Note B: Estimated customer customer payment processing expenses

Number of customers	164,542
Number of payments/customer/year	12
Total payments processed/year	1,974,504
Bank charge per item	\$ 0.13
Total estimated annual expense	\$ 256,686

## Electric Utility Group Cost Per Customer

Schedule 10 shows the customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

### Comparison Group 2002 Actual Customer Accounts Expense Per Customer

	West Virginia				Kentucky				Virginia	
	Wheeling Power	Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	Union Light, Heat & Power	Appalachian Power	Virginia Electric Power			
	\$ 1,594,123	\$ 5,939,656	\$ 5,824,785	\$ 3,041,374	\$ 2,266,316	\$ 27,320,386	\$ 17,672,377			
	\$ 24,767	\$ 129,581	\$ 5,512,855	\$ 898,967	\$ 143,208	\$ 740,150	\$ 1,208			
	\$ 1,618,890	\$ 6,069,237	\$ 11,337,640	\$ 3,940,341	\$ 2,409,524	\$ 28,060,536	\$ 17,673,585			
	\$ 67,559	\$ 227,634	\$ 1,856,488	\$ 574,078	\$ 180,762	\$ 1,408,109	\$ 3,980,177			
	\$ 23,585	\$ 97,172	\$ 302,350	\$ 99,653	\$ 148,789	\$ 661,338	\$ 1,998,602			
	\$ 1,710,034	\$ 6,394,043	\$ 13,496,478	\$ 4,614,072	\$ 2,739,076	\$ 30,129,983	\$ 23,652,364			
	\$ 41,330	\$ 173,050	\$ 502,698	\$ 381,358	\$ 127,058	\$ 920,835	\$ 2,171,975			
	\$ 41.38	\$ 36.95	\$ 26.85	\$ 12.10	\$ 21.56	\$ 32.72	\$ 10.89			

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)

Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

Total Cost Pool

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A**

**Note B**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA

	Ohio				Ohio		Ohio	
	Cin Gas & Electric	Cleveland Electric Illum.	Columbus Southern Pwr	Dayton Power & Light	Ohio Edison	Ohio Power	Toledo Edison	
	\$ 15,391,668	\$ 5,331,957	\$ 20,197,457	\$ 9,383,999	\$ 8,666,153	\$ 20,321,157	\$ 3,855,388	
	\$ 601,148	\$ 119,506	\$ 352,442	\$ -	\$ 372,327	\$ 327,998	\$ 1,128,845	
	\$ 15,992,816	\$ 5,451,463	\$ 20,549,899	\$ 9,383,999	\$ 9,038,480	\$ 20,649,155	\$ 3,968,233	
	\$ 2,341,895	\$ 2,297,237	\$ 779,864	\$ 812,604	\$ 2,620,150	\$ 1,247,219	\$ 1,089,122	
	\$ 823,015	\$ 432,634	\$ 300,934	\$ 482,728	\$ 526,011	\$ 399,686	\$ 227,729	
	\$ 19,157,726	\$ 8,181,334	\$ 21,630,697	\$ 10,679,331	\$ 12,184,642	\$ 22,296,061	\$ 5,285,084	
	\$ 659,442	\$ 751,430	\$ 683,800	\$ 503,157	\$ 1,008,197	\$ 699,519	\$ 305,860	
	\$ 29.05	\$ 10.89	\$ 31.63	\$ 21.22	\$ 12.09	\$ 31.87	\$ 17.28	

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)

Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

Total Cost Pool

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA

**West Virginia-American Water Company  
Comparison Group 2002 Actual Customer Accounts Expense Per Customer**

	Maryland		Pennsylvania				Group Average
	Baltimore Gas & Electric	Potomac Electric	Duquesne Light	PECO Energy	Pennsylvania Power	PPL Electric Utilities	
	\$ 27,283,653	\$ 39,390,930	\$ 7,728,777	\$ 59,043,207	\$ 1,360,036	\$ 20,556,679	\$ 302,170,078
	\$ 44,049	\$ 2,017	\$ -	\$ 15,164,724	\$ (102,364)	\$ 2,034,376	\$ 26,479,804
	\$ 27,327,702	\$ 39,392,947	\$ 7,728,777	\$ 74,207,931	\$ 1,257,672	\$ 22,591,055	\$ 328,649,882
	\$ 7,946,795	\$ 3,027,222	\$ (1,241,728)	\$ 3,576,829	\$ 542,403	\$ 7,022,914	\$ 37,607,159
	\$ 1,444,107	\$ 1,221,512	\$ 490,343	\$ 1,294,553	\$ 104,908	\$ 1,353,661	\$ 12,433,310
	\$ 36,718,604	\$ 43,641,681	\$ 6,977,392	\$ 79,079,312	\$ 1,904,983	\$ 30,967,630	\$ 378,690,352
	\$ 1,162,033	\$ 717,628	\$ 586,184	\$ 1,528,884	\$ 154,281	\$ 1,299,183	\$ 14,377,902
	\$ 31.60	\$ 60.81	\$ 11.90	\$ 51.72	\$ 12.35	\$ 23.84	\$ 26.34
	\$ 74,844,525	\$ 28,103,721	\$ (11,360,482)	\$ 34,582,669	\$ 4,462,726	\$ 53,404,342	\$ 462,497,561
	\$ 219,369,189	\$ 182,904,940	\$ 72,356,724	\$ 201,877,705	\$ 13,921,843	\$ 166,026,490	\$ 2,466,232,401
	\$ 23,292,044	\$ 19,701,799	\$ 7,908,765	\$ 20,879,880	\$ 1,692,071	\$ 21,833,240	\$ 200,537,263
	\$ 7,946,795	\$ 3,027,222	\$ (1,241,728)	\$ 3,576,829	\$ 542,403	\$ 7,022,914	\$ 37,607,159
	\$ 23,292,044	\$ 19,701,799	\$ 7,908,765	\$ 20,879,880	\$ 1,692,071	\$ 21,833,240	\$ 200,537,263
	\$ 1,444,107	\$ 1,221,512	\$ 490,343	\$ 1,294,553	\$ 104,908	\$ 1,353,661	\$ 12,433,310

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Management Expense per Customer**

**Note A**

**Note B**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA

Estimated Employer's Portion of FICA

### Summary Of Results

As shown in the table below, American Water's cost per customer is near the low end of the electric utility comparison group. Thus, it can be concluded that the customer accounts-related expenses, including those of the Alton Call Center, assigned by the Service Company to West Virginia-American are reasonable.

<b>2002 Average Customer Accounts Expense Per Customer</b>	
Cleveland Electric Illuminating	\$ 10.89
Virginia Electric Power	\$ 10.89
Duquesne Light	\$ 11.90
Ohio Edison	\$ 12.09
Louisville Gas & Electric	\$ 12.10
Pennsylvania Power	\$ 12.35
Toledo Edison	\$ 17.28
Dayton Power & Light	\$ 21.22
Union Heat, Light & Power	\$ 21.56
<b>WVa-American Water</b>	<b>\$ 23.03</b>
PPL Electric Utilities	\$ 23.84
<b>Comparison Group Average</b>	<b>\$ 26.34</b>
Kentucky Utilities	\$ 26.85
Cincinnati Gas & Electric	\$ 29.05
Baltimore Gas & Electric	\$ 31.60
Columbus Souther Power	\$ 31.63
Ohio Power	\$ 31.87
Appalachian Power	\$ 32.72
Kentucky Power	\$ 36.95
Wheeling Power	\$ 41.38
PECO Energy	\$ 51.72
Potomac Electric	\$ 60.81



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## VI - Need For Service Company Services

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### Analysis Of Services

The second issue addressed by this study is the need for the services that are rendered to West Virginia-American by the Service Company. First, it was determined specifically what the Service Company does for West Virginia-American. Based on discussions with Service Company personnel, the matrix in Schedule 11 was created showing which entity--West Virginia-American or a Service Company location--is responsible for each of the functions West Virginia-American requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 11, the following conclusions can be drawn:

- There is no redundancy or overlap in the services provided by the Service Company to West Virginia-American. For substantially all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.
- The services that the Service Company provides would be necessary even if West Virginia-American were a stand-alone water utility.

### Designation Of Responsibility For Water Utility Functions

Water Company Function	Performed By:						
	West Virginia-American	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b> P							
<b>Provides Support</b> S							
<b>Water Company Function</b>							
<b>Engineering and Construction Management</b>							
CPS Preparation	S				P		
Five-Year System Planning	S		P		P		
Engineering Standards & Policies Development							
Project Design							
Major Projects (e.g., new treatment plant)	S		S		P		
Special Projects	S		S		P		
Minor Projects (e.g., pipelines)	P						
Construction Project Management					P		
Major Projects					P		
Special Projects							
Minor Projects	P						
Hydraulics Review	P						
Developers Extensions	P						
Tank Painting	P		S				
<b>Water Quality and Purification</b>							
Water Quality Standards Development							P
Research Studies	S		S		S		P
Water Quality Program Implementation	P		S				
Water Treatment Operations & Maintenance	P		S		S		
Compliance Sampling	P		S				S
Testing/Other Sampling	S						P
<b>Transmission and Distribution</b>							
Preventive Maintenance Program Development	P						
System Maintenance	P						
Leak Detection	P						
<b>Customer Service</b>							
Community Relations	P						
Customer Contact	S	P					
Call Processing		P					
Service Order Processing		P					
Customer Credit		P					
Meter Reading							
Customer Bill Preparation							P
Bill Collection		P					
Customer Payment Processing				P			
Meter Standards Development							
Meter Testing, Maintenance & Replacement	P				P		

### Designation Of Responsibility For Water Utility Functions

Water Company Function	Performed By:						
	West Virginia-American	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b> P							
<b>Provides Support</b> S							
<b>Financial Management</b>							
Financial Planning	S		P				
Financings--Equity			P		S		
Financings--Long Term Debt & Preferred			P				
Short Term Lines of Credit Arrangements			P				
Investor Relations					P		
Insurance Program Administration					P		
Loss Control/Safety Program Administration	P				S		
Pension Fund Asset Management					P		
Cash Management/Disbursements				P			
<b>Internal Auditing</b>							
<b>Budgeting and Variance Reporting</b>							
Corporate Guidelines & Instructions			P		P		
Regional Guidelines & Instructions							
Budget Preparation							
Revenue and O&M	P						
Depreciation and Interest Expense							
Budget Preparation--Service Company Charges				P			
Capital Budget Preparation--Projects		S	P	S	S	S	S
Capital Budget Preparation--Non-Project Work	P		S		P		
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	P						
Prepare Capital Project Budget Status Report	S						
Year-End Projections (A)	P		P		P		
<b>Accounting and Taxes</b>							
Accounts Payable Accounting	S			P			
Payroll Accounting	S			P			
Work Order Accounting	S			P			
Fixed Asset Accounting				P			
Journal Entry Preparation--Billing Corrections				P			
Journal Entry Preparation--All Others	S			P			
Financial Statement Preparation				P			
State Commission Reporting				P			
Income Taxes--State				P			
Income Taxes--Federal				P			
Property Taxes				P			
Gross Receipts Taxes				P			

Note A: Projections are developed for certain cost types by West Virginia-American and by the Service Company for other cost types

**West Virginia-American Water Company  
 Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:						
	West Virginia-American	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b>	<b>P</b>						
<b>Provides Support</b>	<b>S</b>						
<b>Rates</b>							
Rate Studies & Tariff Change Administration	S		P				
Rate Case Planning and Preparation	S		P				
Rate Case Administration	S		P				
Commission Inquiry Response	S		P				
<b>Legal</b>							
<b>Purchasing and Materials Management</b>							
Specification Development	S			S	P		
Bid Solicitation	S			P			
Contract Administration	S			S			
Ordering	P						
Inventory Management	S			P			
<b>Human Resources Management</b>							
Benefit Program Development					P		
Benefits Program Administration	P						
Management Compensation Administration					P		
Wage & Salary Program Design					P		
Wage & Salary Administration					P		
Labor Negotiations--Wages	P		S				
Labor Negotiations--Benefits	P		S				
Labor Negotiations-- Work Rules	P		S				
Training Program Development					P		
Training--Course Delivery							
Affirmative Action/EEO--Plan Development	P						
Affirmative Action/EEO--Implementation	P						
<b>Information Systems Services</b>							
Service Company Data Centers							
System Operations & Maintenance							P
Software Maintenance							P
Network Administration			P				S
PC Acquisition & Support			P				S
Help Desk							P



## **Governance Of Affiliate Transactions**

There are several ways by which West Virginia-American exercises control over Service Company services and charges. The most important of these are described below.

- **Service Company Board Oversight** – Every operating company president is a director on the Service Company’s board. This gives them a say in major business decisions and the ability to monitor service quality and spending levels.
- **Operating Company Board Oversight** – West Virginia-American’s board of directors includes members of Service Company executive management, including its CEO, COO and CFO. This helps ensure that West Virginia-American’s needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – Each year, the Service Company presents its budget to its Board of Directors for approval. Every operating company president must formally approve their budgeted Service Company charges for the next year.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by the operating companies that will pay for the initiative. Consultants used on these projects who are hired by the Service Company must also be approved by operating companies.
- **Service Company Bill Scrutiny** – Operating company personnel review the monthly Service Company bill for accuracy and reasonableness.
- **Service Company Budget Variance Reporting-** A summary and explanation of year-to-date budget variances is prepared for the entire Service Company on a monthly basis. In addition, a monthly variance report called the “Statement of Expenses and Billed Charges,” is produced by Service Company location and shows budget versus actual spending for the month and year-to-date by cost category.
- **Operating Company Budget Variance Reporting** - The “Budget/Plan Analysis” produced monthly by each operating company has a line item for Management Fees. In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.
- **Capital Project Authorization** - Capital projects estimated to cost over \$100,000 must be approved by the operating company board of directors before any design and construction work begins.

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## VII - Conclusion

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Based on the results of this study, the following major conclusions have been reached:

- The cost of managerial, professional and technical services provided by the Service Company to West Virginia-American is much lower than the cost of outside providers of those same services.
- The National Call Center's costs charged to West Virginia-American are reasonable.
- Services that West Virginia-American receives from the Service Company are necessary.

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**Market Cost Comparison of Service Company Charges to  
West Virginia-American Water Company**

**12-Months Ended December 31, 2006**

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**West Virginia-American Water Company  
Market Cost Comparison of Service Company Charges  
12-Months Ended December 31, 2006**

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## I - Introduction

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### Purpose Of This Study

This study was undertaken to answer three questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to West Virginia-American Water Company (WV American):

1. Was WV American charged the lower of cost or market for managerial and professional services provided by the Service Company during the 12-months ended December 31, 2006?
2. Were the 12-months ended December 31, 2006 costs of the Service Company's customer accounts services, including those of the National Call Centers, reasonable?
3. Are the services WV American receives from the Service Company reasonably necessary to WV American's provision of service to its customers?

### Study Results

Concerning question 1, the following conclusions can be drawn from this study:

- WV American was charged the lower of cost or market for managerial and professional services during the 12-months ended December 31, 2006.
- On average, the hourly rates for outside service providers are **58% higher** than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by WV American without careful supervision on the part of WV American. If these services were contracted entirely to outside providers, WV American would have to add at least one position to manage activities of outside firms. This position would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been out-sourced during the 12-months ended December 31, 2006, WV American and its ratepayers would have incurred an **additional \$4.3 million** in expenses. This amount includes the higher cost of outside providers and the cost of a WV American position needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to WV American from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company personnel, on the other hand, charge a maximum 8 per day even when they work more. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$4.3 million cited above.
- It would be difficult for WV American to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.

- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from WV American ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, **is within a reasonable range of the neighboring electric utility comparison group average cost per customer.** As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of WV American. During the 12 months ended December 31, 2006, the customer accounts cost for WV American customers was \$32.03 compared to the 2005 average of \$28.09 for neighboring electric utilities. The highest comparison group per customer cost was \$68.26 and the lowest \$12.43. Seven comparison group utilities had higher per customer costs while 15 were lower than WV American.

Concerning question 3, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if WV American were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to WV American.

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## II - Background

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### Overview Of American Water Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers: one in Alton, Illinois that went into operation in the second quarter of 2001 and a second in Pensacola, Florida that went into operation in April 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of WV American, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they have not been consolidated into the National Shared Services Center. Examples of regional office services include rates and revenues, engineering and operations. There are four regional offices—Northeast, Southeast, Central and West.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the email system. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads – employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support – wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks

- Office Expenses – office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

### Charging and Assignment Of Service Company Time and Expenses

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges.

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries.

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet (see example in Schedule 1) that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable).

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 2% of the Voorhees Data Center's professional labor is assigned to WV American during a month, then 2% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 2% of the Corporate Office's accumulated professional and support labor is charged to WV American during the month, then 2% of that month's overhead expenses will be assigned to WV American.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to WV American, then 2% of that office's office expenses would be assigned to WV American. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a state rate case proceeding are charged directly to the operating company whose case is being heard.

West Virginia American Water Company  
Sample Electronic Time Sheet

**American Water Works Company (581020) - 3/23/07**

File Edit Help

15:31:54  
Emp#: 03002531  
View Mode

Week Ending: 2/25/07 Watkins, John M.  
Dept: 036507 NE-Finance

Formula Typ	Mo	Tu	We	Th	Fr	Sa	Su	Total	Meal
Totals:	8.00	8.00	8.00	8.00	8.00			40.00	
100074 001	2/19	2/20	2/21	2/22	2/23	2/24	2/25	Hours	Money
100082 001				4.00				4.00	
100084 001		3.00	3.00	4.00				.00	
100229 001								10.00	
100231 001								.00	
100625 001	8.00	5.00	5.00					.00	
100074 250								18.00	
100074 300	8.00							.00	
100074 400								8.00	
100074 430								.00	

Bottom

F3-Save/Exit F6-Submit F9-Comments  
F1-Search F4-Fold/UnFold F7-Display Errors F10-Save Template

OK Cancel Help

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**III – Service Company Cost Comparison Approach**

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During 2006, the Service Company billed WV American \$9,809,249 in O&M-related and \$633,146 in capital-related charges. Included in the O&M amount is \$1,057,355 of several non-recurring expenses for which WV American will not seek recovery. These non-recurring items have been excluded from this study. As calculated in the table below, net O&M and capital Service Company charges of \$9,385,040 were subjected to a market cost comparison.

Reconciliation to 2006 Testable Service Co Charges

O&M Per WV American G/L	\$ 9,809,249
Net O&M Adjustments	<u>\$ (1,057,355)</u>
Net Testable O&M	\$ 8,751,894
Capital per WV American G/L	<u>\$ 633,146</u>
Net Testable SC Charges	<u>\$ 9,385,040</u>

For purposes of comparing Service Company charges to outside benchmarks, the net testable Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	2006	
	Amount	Hours
Management and Professional Services	\$ 7,243,051	80,523
Customer Account Services	\$ 2,141,989	73,095
Total	<u>\$ 9,385,040</u>	<u>153,618</u>

This study's first question—whether the Service Company charges the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to WV American during 2006. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The second question—reasonableness of the National Call Center costs—was addressed by comparing WV American's customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The third question—the necessity of Service Company services—was first investigated by determining the services provided to WV American. A determination was then made as to whether these services would be required if WV American were a stand-alone utility.

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## IV – Managerial And Professional Services Hourly Rate Comparison

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### Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company hourly rates were calculated for each of the four outside service provider categories, based on the dollars and hours charged to WV American during 2006. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged WV American during 2006, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### Service Company Hourly Rates

Schedule 2 (page 10) details the assignment of 2006 management and professional Service Company charges to outsider provider categories. Schedule 3 (page 11) shows the same assignment for Service Company management and professional hours charged to WV American during 2006.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2006 test year non-labor Service Company charges:



- **Contract Services** – 2006 Service Company charges to WV American include over \$630,000 in charges associated with existing arrangements with outside professional firms who perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.
- **Travel Expenses** – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- **Computer Hardware and Software Expenses** – Included in 2006 Service Company charges to WV American are charges for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the email system. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

Schedule 4 (page 12) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 2 and 3 and the excludable items shown in Schedule 4, the Service Company's equivalent costs per hour for 2006 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 331,705	\$ 2,222,792	\$ 3,293,418	\$ 1,395,135	\$ 7,243,051
Less:					
Contract services	11,825	166,285	434,839	17,192	630,140
Travel expenses	2,032	16,294	15,556	11,803	45,685
Computer hardware/software	6	32,031	73,261	696	105,994
Net Service Charges (A)	\$ 317,843	\$ 2,008,182	\$ 2,769,762	\$ 1,365,445	\$ 6,461,232
Total Hours (B)	2,579	17,990	40,272	19,683	80,523
<b>Average Hourly Rate (A / B)</b>	<b>\$ 123</b>	<b>\$ 112</b>	<b>\$ 69</b>	<b>\$ 69</b>	

**West Virginia American Water Company**  
**Analysis of 2006 Service Company Charges By Location And Function**

Location	Function	2006 Service Company Charges				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality		\$ 52,777		\$ 255,363	\$ 255,363
Call Center	Human Resources					\$ 52,777
Corporate	Accounting			\$ 197,432		\$ 197,432
	Administration	\$ 20,572	\$ 415,126	\$ 321,287	\$ 157,028	\$ 914,014
	Audit			\$ 55,454		\$ 55,454
	Communications		\$ 97,266			\$ 97,266
	Finance			\$ 243,497		\$ 243,497
	Human Resources		\$ 225,472			\$ 225,472
	Legal	\$ 111,178				\$ 111,178
	Operations		\$ 150,788		\$ 105,730	\$ 256,518
	Rates & Revenue			\$ 157,325		\$ 157,325
	Risk Management		\$ 66,449			\$ 66,449
Water Quality				\$ 62,232	\$ 62,232	
Regional Offices	Accounting			\$ 40,651		\$ 40,651
	Administration	\$ 498,977				\$ 498,977
	Communications	\$ 177,297				\$ 177,297
	Customer Service					\$ -
	Engineering				\$ 256,828	\$ 256,828
	Finance			\$ 316,653		\$ 316,653
	Human Resources		\$ 173,346			\$ 173,346
	Legal	\$ 199,955				\$ 199,955
	Operations		\$ 199,645		\$ 327,156	\$ 526,802
	Risk Management		\$ 118,543			\$ 118,543
Water Quality				\$ 230,799	\$ 230,799	
Information Technology	Audit			\$ 16,579		\$ 16,579
	Information Technology			\$ 1,250,554		\$ 1,250,554
Shared Services	Accounting			\$ 605,685		\$ 605,685
	Administration		\$ 47,106			\$ 47,106
	Finance			\$ 57,580		\$ 57,580
	Rates & Revenue			\$ 30,722		\$ 30,722
<b>Total Dollars Charged</b>		<b>\$ 331,705</b>	<b>\$ 2,222,792</b>	<b>\$ 3,293,418</b>	<b>\$ 1,395,135</b>	<b>\$ 7,243,051</b>

Exhibit Witness: PLB-1  
Schedule 3

**West Virginia American Water Company  
Analysis of 2006 Service Company Hours By Location And Function**

Location	Function	2006 Service Company Hours				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality				3,865	3,865
Call Center	Human Resources		693			693
Corporate	Accounting			3,273		3,273
	Administration		522			522
	Audit			843		843
	Communications		338			338
	Finance			2,186		2,186
	Human Resources		2,336			2,336
	Legal	438				438
	Operations		747		1,253	2,001
	Rates & Revenue			482		482
	Risk Management		517			517
Water Quality				1,026	1,026	
Regional Offices	Accounting			717		717
	Administration		1,791			1,791
	Communications		3,292			3,292
	Customer Service					-
	Engineering				4,176	4,176
	Finance			4,365		4,365
	Human Resources		2,348			2,348
	Legal	2,140				2,140
	Operations		2,314		5,032	7,346
	Risk Management		2,690			2,690
Water Quality				4,331	4,331	
Information Technology	Audit			322		322
	Information Technology			13,811		13,811
Shared Services	Accounting			11,713		11,713
	Administration		403			403
	Finance			2,027		2,027
	Rates & Revenue			534		534
<b>Total Hours Charged</b>		<b>2,579</b>	<b>17,990</b>	<b>40,272</b>	<b>19,683</b>	<b>80,523</b>



**West Virginia American Water Company**  
**2006 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation				Total	Outside Service Provider Category
	Contract Services	Travel Expenses	Computer HW/SW	Computer HW/SW		
Accounting	\$ 240,451	\$ 2,106	\$ 1,457	\$ 1,457	\$ 244,014	Certified Public Accountant
Administration	\$ 64,708	\$ 1,716	\$ 13,884	\$ 13,884	\$ 80,308	Management Consultant
Audit	\$ (150)	\$ 621			\$ 471	Certified Public Accountant
Communications	\$ 31,032	\$ 1,055	\$ 332	\$ 332	\$ 32,419	Management Consultant
Engineering		\$ 683	\$ 6	\$ 6	\$ 689	Professional Engineer
Finance	\$ 56,752	\$ 6,389	\$ 886	\$ 886	\$ 64,028	Certified Public Accountant
Human Resources	\$ 58,810	\$ 5,848	\$ 1,661	\$ 1,661	\$ 66,319	Management Consultant
Information Technology	\$ 117,859	\$ 2,763	\$ 70,918	\$ 70,918	\$ 191,540	Certified Public Accountant
Legal	\$ 11,825	\$ 2,032	\$ 6	\$ 6	\$ 13,862	Attorney
Operations	\$ 11,171	\$ 13,987	\$ 651	\$ 651	\$ 25,810	Management Consultant, Professional Engineer
Rates & Revenue	\$ 19,926	\$ 3,676			\$ 23,602	Certified Public Accountant
Risk Management	\$ 5,909	\$ 2,218	\$ 15,948	\$ 15,948	\$ 24,075	Management Consultant
Water Quality	\$ 11,847	\$ 2,590	\$ 243	\$ 243	\$ 14,681	Professional Engineer
<b>Total</b>	<b>\$ 630,140</b>	<b>\$ 45,685</b>	<b>\$ 105,994</b>	<b>\$ 105,994</b>	<b>\$ 781,820</b>	

Recap By Outside Provider	Exclusions From Hourly Rate Calculation				Total
	Contract Services	Travel Expenses	Computer HW/SW	Computer HW/SW	
Attorney	\$ 11,825	\$ 2,032	\$ 6	\$ 6	\$ 13,862
Management Consultant	\$ 166,285	\$ 16,294	\$ 32,031	\$ 32,031	\$ 214,611
Certified Public Accountant	\$ 434,839	\$ 15,556	\$ 73,261	\$ 73,261	\$ 523,656
Professional Engineer	\$ 17,192	\$ 11,803	\$ 696	\$ 696	\$ 29,690
<b>Total</b>	<b>\$ 630,140</b>	<b>\$ 45,685</b>	<b>\$ 105,994</b>	<b>\$ 105,994</b>	<b>\$ 781,820</b>

## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to o

btain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Attorneys**

The West Virginia Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for West Virginia attorneys. Therefore, a West Virginia estimate was developed from a survey of Michigan lawyers conducted annually by the Michigan Lawyers Weekly. As presented in Schedule 5, the average rate for each Michigan firm respondent was adjusted for the cost of living differential between their location and Charleston, West Virginia. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2006 annual survey performed by the Association of Management Consulting Firms—an industry trade organization. The first step in the calculation, presented in Schedule 6, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2005 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Certified Public Accountants**

The average hourly rate for West Virginia certified public accountants was developed from a 2006 survey performed by the American Institute of Certified Public Accountants (AICPA). Hourly rates in the AICPA survey are the average of firms in the south Atlantic region. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 7. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Professional Engineers**

The Service Company provided hourly rate information for outside engineering firms that could have been used by WV American in 2006. As presented in Schedule 8, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Schedule 5

**West Virginia American Water Company**  
**Estimated Billing Rates Of West Virginia Attorneys**

Billing rates as of December 31, 2005 (Note A)							Cost of Living Adjust (C)	Adjusted Rate
Firm	Michigan Location	Number Of Mich Lawyers	Billing Rate Range			Average		
			Associate	Partner	Average			
Dykema	Detroit	228	\$ 250	\$ 408	\$ 329	102%	\$ 323	
Dickinson Wright PLLC	Detroit	218	\$ 208	\$ 385	\$ 296	102%	\$ 291	
Butzel Long	Detroit	212	\$ 283	\$ 385	\$ 334	102%	\$ 328	
Bodman LLP	Detroit	130	\$ 168	\$ 323	\$ 245	102%	\$ 241	
Jaffe Raitt Heuer & Weiss, PC	Southfield	95	\$ 160	\$ 358	\$ 259	118%	\$ 220	
Sommers Schwartz	Southfield	76	\$ 138	\$ 193	\$ 165	118%	\$ 140	
Trott & Trott, PC	Bingham Farms	57	\$ 188	\$ 250	\$ 219	184%	\$ 119	
Brooks Kushman PC	Southfield	52	\$ 218	\$ 375	\$ 296	118%	\$ 252	
Foley & Lardner LLP	Detroit	42	\$ 298	\$ 453	\$ 375	102%	\$ 369	
Kemp, Klein, Umphrey, Edelman & May PC	Troy	38	\$ 155	\$ 263	\$ 209	141%	\$ 148	
Pepper Hamilton LLP	Detroit	31	\$ 255	\$ 448	\$ 351	102%	\$ 345	
Hertz, Schram & Saretsky, PC	Bloomfield Hills	30	\$ 218	\$ 338	\$ 278	156%	\$ 178	
O'Reilly Rancilio PC	Sterling Heights	27	\$ 180	\$ 238	\$ 209	120%	\$ 174	
Thrun Law Firm	East Lansing	27	\$ 190	\$ 220	\$ 205	111%	\$ 184	
Strobl & Sharp, PC	Bloomfield Hills	26	\$ 145	\$ 275	\$ 210	156%	\$ 135	
Kupelian Ormond & Magy, PC	Southfield	24	\$ 173	\$ 263	\$ 218	118%	\$ 185	
Parmenter O'Toole	Muskegon	23	\$ 145	\$ 238	\$ 191	98%	\$ 196	
Rader, Fishman & Grauer, PLLC	Bloomfield Hills	23	\$ 208	\$ 373	\$ 290	156%	\$ 186	
Tanoury, Corbet, Shaw, Nauts & Essad PLLC	Detroit	22	\$ 120	\$ 180	\$ 150	102%	\$ 147	
Williams, Williams, Rattner & Plunkett, PC	Birmingham	22	\$ 200	\$ 313	\$ 256	140%	\$ 183	
Overall Average at December 31, 2005								\$ 217
<u>Escalation to Mid-Point of Year - June 30, 2006 (Note B)</u>								
CPI at December 31, 2005								196.8
CPI at June 30, 2006								202.9
Inflation/Escalation								3.1%
Average Billing Rate At June 30, 2006								<b>\$ 224</b>

Note A: Source is Michigan Lawyers Weekly, April 2006

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.ai.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This number represents the cost of living difference between the Michigan city and Charleston, WV. A number over 100% indicates the Michigan city's cost of living is higher than Columbus. A number less than 100% indicates Charleston's cost of living is higher.

**West Virginia American Water Company**  
**Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position  
Survey billing rates were those in effect in 2005 (Note A)

Average Hourly Rates (Note A)				
Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
\$ 141	\$ 186	\$ 234	\$ 320	\$ 350

Average

B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement

Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
\$ 141	\$186	\$234	\$320	\$350	
30%	30%	20%	10%	10%	Weighted Average
\$ 42	\$ 56	\$ 47	\$ 32	\$ 35	<b>\$ 212</b>

Average Hourly Billing Rate (from above)

Typical Percent of Time Spent on a Consulting Project

Escalation to Test Year Mid-Point June 30, 2006 (Note B)

CPI at December 31, 2005	196.8
CPI at June 30, 2006	202.9
Inflation/Escalation	3.1%
Estimated Average Hourly Billing Rate For Consultants At June 30, 2006	<b>\$ 218</b>

Note A: source: "Operating Ratios For Management Consulting Firms, 2006 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>)

Schedule 7

**West Virginia American Water Company**  
**Estimated Billing Rates Of West Virginia Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2005 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 71	\$ 89	\$ 112	\$ 164
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 71	\$ 89	\$ 112	\$ 164
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 21	\$ 27	\$ 22	\$ 33
				<b>Weighted Average</b>
				<b>\$ 103</b>
			CPI at December 31, 2005	196.8
			CPI at June 30, 2006	202.9
			Inflation/Escalation	3.1%
			Average Hourly Billing Rate For West Virginia CPAs At June 30, 2006	<b>\$ 107</b>

Note A: Source is AICPA's 2006 National PCPS/TSCPA Management of an Accounting Practice Survey

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)



Exhibit Witness: PLB-1  
Schedule 8

**West Virginia American Water Company**  
**Billing Rates Of West Virginia Engineers**

Note: Billing rates were those in effect in 2006

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$62	\$102	\$160	\$173
Firm #2	\$53	\$67	\$119	\$157
Firm #3	\$63	\$89	\$146	\$192
Firm #4	\$70	\$82	\$131	\$168
Firm #5	\$73	\$80	\$129	\$158
Firm #6	\$80	\$94	\$137	\$192
Firm #7	\$58	\$77	\$122	\$156
Firm #8	\$67	\$70	\$108	\$154
Firm #9	\$53	\$82	\$134	\$183
Firm #10	\$61	\$63	\$87	na

B. Calculation of Overall Average Engineering Hourly Billing Rate

	CAD Drafter	Engineer	Project Manager	Officer	Weighted Average
	Engineer Tech	Design Engineer Project Engineer Elect Proj Engineer	Project Associate Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$64	\$80	\$127	\$170	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$19	\$28	\$32	\$17	<b>\$96</b>

Source: Information provided by American Water Works Service Company

**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

Service Provider	12 Months Ended December 31, 2006		
	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 123	\$ 224	\$ (101)
Management Consultant	\$ 112	\$ 218	\$ (107)
Certified Public Accountant	\$ 69	\$ 107	\$ (38)
Professional Engineer	\$ 69	\$ 96	\$ (27)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to WV American during the 12-months ended December 31, 2006, outside service providers would have cost \$4,222,408 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are almost 58% higher than those of the Service Company (\$4,222,408 / \$ 7,243,051).

Service Provider	12 Months Ended December 31, 2006		
	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (101)	2,579	\$ (259,354)
Management Consultant	\$ (107)	17,990	\$ (1,919,333)
Certified Public Accountant	\$ (38)	40,272	\$ (1,519,633)
Professional Engineer	\$ (27)	19,683	\$ (524,088)
Service Company Less Than Outside Providers			\$ (4,222,408)

If WV American were to use outside service providers rather than the Service Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 80,523 hours of work (around 53 full-time equivalents at 1,500 billable hours per FTE) would add a significant workload to the existing WV American management team. Thus, it would be necessary for WV American to add at least one position to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill these positions would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$121,400 per year to WV American's personnel expenses.

Cost of Adding Administrative Positions To KAWC's Staff

	Total
New Positions' Salary	\$ 85,000
Benefits (at 52%)	\$ 36,400
Total Cost of the New Position	\$ 121,400

Thus, the total effect on the ratepayers of WV American of contracting all services now provided by Service Company would be an increase in their costs of **\$4,343,808** (\$4,222,408 + \$121,400).

**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%
2005	24	25%
2006	24	31%

These surveys show the cost of Belleville Lab's testing services to be consistently lower than the cost of outside service providers.

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**V – Customer Account Services Cost Comparison**

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**Background**

It is difficult to compare the cost of American Water's National Call Centers with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, WV American's National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC's chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study's comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA).

Schedule 9 provides FERC's description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

<p><b><u>903 Records and Collection Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls</li><li>• Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications</li><li>• Customer billing – bill printing, stuffing and mailing</li><li>• Remittance processing – processing of customer payments received in the mail</li><li>• Bill payment centers – locations where customers can pay their bills in person</li></ul> <p><b><u>905 Miscellaneous Customer Accounts Expense</u></b></p> <ul style="list-style-type: none"><li>• Customer Information System IT – maintenance and support of the customer information system</li></ul>
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This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

**West Virginia American Water Company**  
**FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

**West Virginia American Water Company**  
**FERC Account Descriptions**

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.



**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

West Virginia	<ul style="list-style-type: none"> <li>• Wheeling Power</li> </ul>
Kentucky	<ul style="list-style-type: none"> <li>• Kentucky Power</li> <li>• Kentucky Utilities</li> <li>• Louisville Gas &amp; Electric</li> <li>• Union Light, Heat &amp; Power</li> </ul>
Virginia	<ul style="list-style-type: none"> <li>• Appalachian Power</li> <li>• Virginia Electric Power</li> </ul>
Ohio	<ul style="list-style-type: none"> <li>• Cincinnati Gas &amp; Electric</li> <li>• Cleveland Electric</li> <li>• Columbus Southern Power</li> <li>• Dayton Power &amp; Light</li> <li>• Ohio Edison</li> <li>• Ohio Power</li> <li>• Toledo Edison</li> </ul>
Pennsylvania	<ul style="list-style-type: none"> <li>• Duquesne Light</li> <li>• PECO Energy</li> <li>• Pennsylvania Electric</li> <li>• Pennsylvania Power</li> <li>• PPL Electric</li> </ul>
Maryland	<ul style="list-style-type: none"> <li>• Baltimore Gas &amp; Electric</li> <li>• Delmarva Power &amp; Light</li> <li>• Potomac Electric</li> </ul>

Some neighboring electric utilities could not be included in the comparison group because they did not submit the necessary FERC Form 1 data.

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. WV American’s cost pool was developed to include the same expenses included in the electric utilities’ FERC accounts 903 and 905. As shown in the graphic below, WV American’s resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u>
Pensacola & Alton Call Centers
a. Customer contact
b. Customer order processing
c. Billing information processing
d. Collections
e. Correspondence processing
f. Customer payment processing
<u>IT Service Centers</u>
a. Support expenses for the customer information system (ORCOM)
<u>Operating Company</u>
a. Postage and forms

Electric Utilities
FERC Acct 903 - Records and Collection Expense <u>and</u> FERC Acct 905 - Misc Customer Accounts Expense
a. Customer contact
b. Customer order processing
c. Bill preparation and mailing
d. Collections
e. Payment processing
f. Correspondence processing

**WV American Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to WV American. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.28 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, WV American's adjusted annual expense per customer is \$32.03—the number that can be compared to neighboring electric utilities' expenses.

**West Virginia American 2006 Cost Per Customer**

Cost Component		2006 Service Co Charges	Adjustment Fewer Calls For Water Cos. (A)	Adjusted
<b>Service Company</b>				
Call Centers	Call processing, order processing, credit, bill collection	\$ 1,904,766	\$ 1,815,480	\$ 3,720,246
Regional Offices		\$ 237,223		\$ 237,223
IT/Data Centers	Bill preparation and mailing	\$ 391,488		\$ 391,488
Service Company	Customer payment processing			\$ 244,921
Operating Company	Postage & forms			\$ 738,329
Cost Pool Total				\$ 5,332,207
Total Customers				166,477
<b>2006 Cost Per West Virginia American Customer</b>				<b>\$ 32.03</b>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Test year annualized Call Center charges		\$ 1,904,766
Electric utility industry's avg calls/customer	2.50	
American Water's avg calls/customer	1.28	
Percent different	95%	95%
Total Adjustment B		\$ 1,815,480

Note B: Estimated customer payment processing expenses

Number of customers	166,477
Number of payments/customer/year	12
Total payments processed/year	1,997,724
Bank charge per item	\$ 0.1226
Total estimated annual expense	\$ 244,921



### Electric Utility Group Cost Per Customer

Schedule 10 shows the actual 2005 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data were taken from the utilities' FERC Form 1.

### Summary Of Results

As shown in the table below, WV American's cost per customer is within a reasonable range of electric utility comparison group average. Seven comparison group utilities had higher per customer costs while 15 were lower than WV American. It can therefore be concluded that the customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to WV American are reasonable.

<b>Average Customer Accounts Expense Per Customer</b>	
Louisville Gas & Electric	\$ 12.43
Duquesne Light	\$ 15.52
Virginia Electric Power	\$ 15.77
Ohio Edison	\$ 16.68
Cleveland Electric Illuminating	\$ 17.15
Pennsylvania Electric	\$ 19.13
Pennsylvania Power	\$ 19.69
Dayton Power & Light	\$ 19.72
Toledo Edison	\$ 21.45
PPL Electric	\$ 22.28
Kentucky Utilities	\$ 24.87
Union Light, Heat & Power	\$ 25.64
Baltimore Gas & Electric	\$ 27.17
<b>Comparison Group Average</b>	<b>\$ 28.09</b>
Wheeling Power	\$ 29.20
Cin Gas & Electric	\$ 30.50
<b>West Virginia American Water</b>	<b>\$ 32.03</b>
Ohio Power	\$ 32.30
Appalachian Power	\$ 32.40
Kentucky Power	\$ 34.25
Columbus Southern Power	\$ 35.49
PECO Energy	\$ 46.94
Delmarva Power & Light	\$ 51.68
Potomac Electric	\$ 68.26



**West Virginia American Water Company**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

	West Virginia		Kentucky				Virginia	
	Wheeling Power	Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	Union Light, Heat & Power	Appalachian Power	Virginia Electric Power	
	\$ 1,124,907	\$ 5,669,498	\$ 10,832,569	\$ 4,279,581	\$ 2,787,640	\$ 28,324,797	\$ 27,055,213	
	\$ -3,916	\$ 15,566	\$ 130,794	\$ 276,482	\$ 96,072	\$ 65,026	\$ -	
	\$ 1,128,823	\$ 5,685,064	\$ 10,963,363	\$ 4,556,063	\$ 2,883,712	\$ 28,389,823	\$ 27,055,213	
<b>Note A</b>	\$ 45,742	\$ 180,973	\$ 1,641,361	\$ 265,773	\$ 279,291	\$ 1,155,330	\$ 6,548,241	
<b>Note B</b>	\$ 31,178	\$ 135,759	\$ 358,923	\$ 62,820	\$ 195,943	\$ 850,432	\$ 2,461,320	
<b>Total Cost Pool</b>	\$ 1,205,743	\$ 6,001,796	\$ 12,963,648	\$ 4,884,656	\$ 3,358,947	\$ 30,395,584	\$ 36,064,774	
Total Customers (page 304, line 43)	41,294	175,255	521,342	392,998	131,028	938,029	2,287,193	
<b>Customer Account Services Expense per Customer</b>	\$ 29.20	\$ 34.25	\$ 24.87	\$ 12.43	\$ 25.64	\$ 32.40	\$ 15.77	
<b>Note A:</b> Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt								
Account 926 - Employee Pension & Benefits (page 323, line 158)	\$ 486,262	\$ 3,634,365	\$ 22,757,866	\$ 21,039,968	\$ 3,124,822	\$ 17,426,702	\$ 130,305,500	
Total Payroll (page 355, line 96)	\$ 4,332,473	\$ 35,638,655	\$ 65,053,063	\$ 65,008,192	\$ 28,657,418	\$ 167,682,274	\$ 640,242,951	
Total Benefits as Percent of Payroll	11.2%	10.2%	35.0%	32.4%	10.9%	10.4%	20.4%	
Payroll Charged to Customer Accts Expenses (page 354, line 6)	\$ 407,551	\$ 1,774,628	\$ 4,691,810	\$ 821,173	\$ 2,561,351	\$ 11,116,753	\$ 32,174,121	
Pension & Benefits Pertaining to Customer Accts Expenses	\$ 45,742	\$ 180,973	\$ 1,641,361	\$ 265,773	\$ 279,291	\$ 1,155,330	\$ 6,548,241	
<b>Note B:</b> Calculation of Employer's FICA Pertaining to Customer Acct Mgmt								
Payroll Charged to Customer Accts Expenses (page 354, line 6)	\$ 407,551	\$ 1,774,628	\$ 4,691,810	\$ 821,173	\$ 2,561,351	\$ 11,116,753	\$ 32,174,121	
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	
Estimated Employer's Portion of FICA	\$ 31,178	\$ 135,759	\$ 358,923	\$ 62,820	\$ 195,943	\$ 850,432	\$ 2,461,320	

**Customer Account Management Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)

Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA

**West Virginia American Water Company**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

<b>Ohio</b>							
Cin Gas & Electric	Cleveland Electric Illum.	Columbus Southern Pwr	Dayton Power & Light	Ohio Edison	Ohio Power	Toledo Edison	
\$ 16,957,239	\$ 11,230,608	\$ 23,820,271	\$ 8,492,898	\$ 14,841,763	\$ 21,665,275	\$ 5,303,736	
\$ 330,392	\$ 548,454	\$ 43,621	\$ -	\$ 606,191	\$ 57,486	\$ 473,314	
\$ 17,287,631	\$ 11,779,062	\$ 23,863,892	\$ 8,492,898	\$ 15,447,954	\$ 21,722,761	\$ 5,777,050	
<b>Note A</b>	<b>Note B</b>	<b>Note B</b>	<b>Note B</b>	<b>Note B</b>	<b>Note B</b>	<b>Note B</b>	
\$ 2,385,460	\$ 950,879	\$ 861,354	\$ 1,102,139	\$ 1,332,841	\$ 675,068	\$ 745,337	
\$ 994,470	\$ 333,890	\$ 447,526	\$ 491,627	\$ 471,882	\$ 497,301	\$ 183,541	
<b>\$ 20,667,561</b>	<b>\$ 13,063,831</b>	<b>\$ 25,172,772</b>	<b>\$ 10,086,663</b>	<b>\$ 17,252,677</b>	<b>\$ 22,895,130</b>	<b>\$ 6,705,928</b>	
677,662	761,559	709,305	511,595	1,034,352	708,823	312,698	
<b>\$ 30.50</b>	<b>\$ 17.15</b>	<b>\$ 35.49</b>	<b>\$ 19.72</b>	<b>\$ 16.68</b>	<b>\$ 32.30</b>	<b>\$ 21.45</b>	
\$ 47,475,767	\$ 15,685,439	\$ 12,034,999	\$ 15,099,058	\$ 18,208,700	\$ 17,071,647	\$ 9,733,958	
\$ 258,720,076	\$ 71,996,883	\$ 81,737,364	\$ 88,041,518	\$ 84,269,929	\$ 164,393,699	\$ 31,333,451	
18.4%	21.8%	14.7%	17.1%	21.6%	10.4%	31.1%	
\$ 12,999,608	\$ 4,364,576	\$ 5,850,008	\$ 6,426,492	\$ 6,168,392	\$ 6,500,661	\$ 2,399,227	
\$ 2,385,460	\$ 950,879	\$ 861,354	\$ 1,102,139	\$ 1,332,841	\$ 675,068	\$ 745,337	
\$ 12,999,608	\$ 4,364,576	\$ 5,850,008	\$ 6,426,492	\$ 6,168,392	\$ 6,500,661	\$ 2,399,227	
7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	
\$ 994,470	\$ 333,890	\$ 447,526	\$ 491,627	\$ 471,882	\$ 497,301	\$ 183,541	

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)  
Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)  
Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)  
Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



**West Virginia American Water Company**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

Pennsylvania					
	Duquesne Light	PECO Energy	Pennsylvania Electric	Pennsylvania Power	PPL Electric
	\$ 7,630,920	\$ 51,262,973	\$ 10,706,242	\$ 2,660,189	\$ 24,785,789
	\$ -	\$ 17,091,051	\$ 98,990	\$ 121,055	\$ 602,445
	\$ 7,630,920	\$ 68,354,024	\$ 10,805,232	\$ 2,781,244	\$ 25,388,234
<b>Note A</b>	\$ 729,457	\$ 2,946,156	\$ 11,831	\$ 227,639	\$ 3,320,449
<b>Note B</b>	\$ 732,520	\$ 1,155,943	\$ 419,574	\$ 94,893	\$ 1,618,783
	<b>\$ 9,092,897</b>	<b>\$ 72,456,123</b>	<b>\$ 11,236,637</b>	<b>\$ 3,103,776</b>	<b>\$ 30,327,466</b>
	586,050	1,543,543	587,533	157,660	1,361,407
	<b>\$ 15.52</b>	<b>\$ 46.94</b>	<b>\$ 19.13</b>	<b>\$ 19.69</b>	<b>\$ 22.28</b>
	\$ 8,677,884	\$ 36,605,786	\$ 136,028	\$ 2,618,720	\$ 37,811,499
	\$ 113,912,649	\$ 187,745,320	\$ 63,058,697	\$ 14,269,687	\$ 240,965,158
	7.6%	19.5%	0.2%	18.4%	15.7%
	\$ 9,575,422	\$ 15,110,369	\$ 5,484,627	\$ 1,240,430	\$ 21,160,563
	\$ 729,457	\$ 2,946,156	\$ 11,831	\$ 227,639	\$ 3,320,449
	\$ 9,575,422	\$ 15,110,369	\$ 5,484,627	\$ 1,240,430	\$ 21,160,563
	7.65%	7.65%	7.65%	7.65%	7.65%
	\$ 732,520	\$ 1,155,943	\$ 419,574	\$ 94,893	\$ 1,618,783

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)  
Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)  
Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's FICA Pertaining to Customer Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)  
Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA





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## VI - Need For Service Company Services

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### Analysis Of Services

The final aspect of this study was an assessment of whether the services that are provided to WV American by the Service Company would be necessary if WV American were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for WV American. Based on interviews of Service Company personnel, the matrix in Schedule 11 was created showing which entity—WV American or a Service Company location—is responsible for each of the functions WV American requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 11, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if WV American were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to WV American. For all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:						
	West Virginia American	Customer Call Centers	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b> P							
<b>Provides Support</b> S							
<b>Engineering and Construction Management</b>							
GPS Preparation	S		P		S		
Five-Year System Planning	S		S		P		
Engineering Standards & Policies Development							
Project Design							
Major Projects (e.g., new treatment plant)	S		P		S		
Special Projects	P		S		S		
Minor Projects (e.g., pipelines)	P						
Construction Project Management							
Major Projects	S		P				
Special Projects	S		P				
Minor Projects	P		P				
Hydraulics Review	S		P				
Developers Extensions	P						
Tank Painting	P		S				
<b>Water Quality and Purification</b>							
Water Quality Standards Development			S		S		P
Research Studies	S				S		P
Water Quality Program Implementation	P		S		S		
Water Treatment Operations & Maintenance	P		S		S		
Compliance Sampling	P		S		S		S
Testing/Other Sampling	S		S		S		P
<b>Transmission and Distribution</b>							
Preventive Maintenance Program Development	P						
System Maintenance	P						
Leak Detection	P		S				
<b>Customer Service</b>							
Community Relations	P		S		S		
Customer Contact	S	P					
Call Processing	P	P					
Service Order Creation	S	P	S				
Service Order Processing	P	S					
Customer Credit	P	P					
Meter Reading	P						S
Customer Bill Preparation	S	S					P
Bill Collection	S	P					S
Customer Payment Processing				P			
Meter Standards Development	S		S				
Meter Testing, Maintenance & Replacement	P		S		P		

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:						
	West Virginia American	Customer Call Centers	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b> P							
<b>Provides Support</b> S							
<b>Financial Management</b>							
Financial Planning	P		P		S		
Financings—Equity					S		
Financings--Long Term Debt & Preferred (A)	S		P				
Short Term Lines of Credit Arrangements (A)	S		P				
Investor Relations			S		P		
Insurance Program Administration					P		
Loss Control/Safety Program Administration	S		P		S		
Pension Fund Asset Management					P		
Cash Management/Disbursements				P			
<b>Internal Auditing</b>							
<b>Budgeting and Variance Reporting</b>							
Corporate Guidelines & Instructions					P		
Regional Guidelines & Instructions			P				
Budget Preparation			S				
Revenue	P						
O&M	P		S				
Depreciation and Interest Expense	S		S		P		
Budget Preparation--Service Company Charges		S	P		S		S
Capital Budget Preparation—Projects	P		S				
Capital Budget Preparation--Non-Project Work	P						
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	P		S				
Prepare Capital Project Budget Status Report	S						
Year-End Projections	P		S				
<b>Accounting and Taxes</b>							
Accounts Payable Accounting	S			P			
Payroll Accounting	S			P			
Work Order Accounting	S			P			
Fixed Asset Accounting	S			P			
Journal Entry Preparation--Billing Corrections	S			P			
Journal Entry Preparation--All Others	S			P			
Financial Statement Preparation	S			P			
State Commission Reporting	S		S				
Income Taxes—State				P			
Income Taxes—Federal				P			
Property Taxes	S			P			
Gross Receipts Taxes	S			P			

Note A: Financings and lines of credit are the responsibility of American Capital Corporation



**West Virginia American Water Company  
 Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:						
	West Virginia American	Customer Call Centers	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b> P							
<b>Provides Support</b> S							
<b>Rates</b>							
Rate Studies & Tariff Change Administration	S						
Rate Case Planning and Preparation	S						
Rate Case Administration	S						
Commission Inquiry Response	S						
<b>Legal</b>							
<b>Purchasing and Materials Management</b>							
Specification Development	S			S	P		
Bid Solicitation	S			P			
Contract Administration	S			P			
Ordering	P						
Inventory Management	P			S			
<b>Human Resources Management</b>							
Benefit Program Development					P		
Benefits Program Administration	S						
Management Compensation Administration							
Wage & Salary Program Design			P		P		
Wage & Salary Administration							
Labor Negotiations--Wages	S		P				
Labor Negotiations--Benefits	S		P		P		
Labor Negotiations--Work Rules	S		P				
Training Program Development	S						
Training--Course Delivery	P						
Affirmative Action/EEO--Plan Development	P		S				
Affirmative Action/EEO--Implementation	P						
<b>Information Systems Services</b>							
Service Company Data Centers							
System Operations & Maintenance							P
Software Maintenance							P
Network Administration			P				S
PC Acquisition & Support			P				S
Help Desk			S				P



## **Governance Practices Associated With Service Company Charges**

There are several ways by which WV American exercises control over Service Company services and charges. The most important of these are described below.

- **Regional President Oversight** – The Regional President of the Southeast Region is on the Executive Management Team (EMT) of American Water. The Regional President is responsible for the overall performance of each operating company in the region, including Pennsylvania American, Virginia American, West Virginia American, Kentucky American, Tennessee American and Maryland American. As part of the EMT, each Regional President has equal say with other EMT members in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending. The regional president has dialogue with each operating subsidiary president to address their local concerns.
- **Regional Vice President Finance and Treasurer** – The Regional VP Finance and Treasurer of the Southeast Region is responsible for the financial reporting, performance and internal controls of each of the operating companies in the region. The VP Finance and Treasurer monitors the performance and reporting from the Service Company and pushes back whenever the quality and service are not appropriate. The Regional VP Finance and Treasurer attends monthly Business Plan Review sessions with the WV American President and finance group to review actual results and address forecast modifications for the remainder of the year. The Regional VP Finance and Treasurer reports on the quarterly the financial results and Business Plan updates to WV American's Board of Directors. The rates function reports to the Regional VP Finance and Treasurer, who reviews and authorizes the filing of WV American rate cases, including regular involvement with status of the cases. The operating subsidiary interacts with the Regional VP & Treasurer to discuss various issues.
- **Operating Company Board Oversight** – WV American's board of directors includes members of American Water's EMT, members of the regional management team and business and community leaders from outside the Company. This helps ensure that WV American's needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – Every operating company's regional president sits on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors. WV American's president is chairman of the local board.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's Executive Management Team, which includes the Regional President. The Regional President, with input from the regional management team (including the president of WV American), has the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Regional office personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. WV American's financial analyst has dialogue with regional office personnel concerning the monthly bill and any mistakes or overcharges are credited on a subsequent billing. The Regional Office Finance unit prepares an actual to budget comparison of management fees each month for use in identifying unusual variances. These schedules are reviewed at the monthly BPR. Unusual variances are researched, explanations are provided and any corrections are made, as necessary.

- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report, called the “Statement of Expenses and Billed Charges,” is produced by Service Company location and shows actual spending for the month.
- **Operating Company Budget Variance Reporting** – The “Budget/Plan Analysis,” produced monthly by each operating company, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.
- **Capital Investment Management Committee (CIMC)** – CIMC is one of American Water’s primary business planning processes. It covers capital and asset planning and is employed throughout American Water. The current CIMC process and procedures were established in 2003 as part of an initiative to implement leading water industry practices. CIMC provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIMC ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business,
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans,
  - The impacts of these plans are understood and affordable, and
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIMC process was designed to optimize the effectiveness of asset investment. The process is managed at three levels for all American Water companies, including all WV American Operating Units.

Monthly meetings of the CIMC are held to review capital spending compared to plan, review new project requests, review updates or modifications to existing projects and address the Capital Spending Plan over the five year planning horizon. The President of WV American, Manager of Rates, WV American engineers, and WV American operations managers participate in the meetings and provide the data used in the monthly review schedules

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**Market Cost Comparison of Service Company Charges to  
West Virginia-American Water Company**

**12-Months Ended December 31, 2007**

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**West Virginia-American Water Company  
Market Cost Comparison of Service Company Charges  
12-Months Ended December 31, 2007**

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## I - Introduction

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### **Purpose Of This Study**

This study was undertaken to answer four questions concerning the services provided by American Water Works Service Company, Inc. ("Service Company") to West Virginia-American Water Company ("WV American"), each of which bears on the reasonableness of those charges as incurred during the 2007 test in Case No. 08-0900-W-42-T pending before the Public Service Commission of West Virginia:

1. Was WV American charged the lower of cost or market for managerial and professional services provided by the Service Company during 2007?
2. Was the 2007 cost of the Service Company's customer accounts services, including those of the National Call Centers, comparable to those of other utilities?
3. Are the services WV American receives from Service Company necessary?
4. Were the Service Company's charges to WV American during the 12-months ended December 31, 2007 reasonable by other comparative measures?

### **Study Results**

Concerning question 1, the following conclusions can be drawn from this study:

- WV American was charged the lower of cost or market for managerial and professional services during the 12-months ended December 31, 2007.
- On average, the hourly rates for outside service providers are 44% higher than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by WV American without careful supervision on the part of WV American. If these services were contracted entirely to outside providers, WV American would have to add at least one position to manage activities of outside firms. This position would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been outsourced during the 12-months ended December 31, 2007, WV American and its ratepayers would have incurred more than \$3,354,359 in additional expenses. This amount includes the higher cost of outside providers and the cost of an additional one half WV American position needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to WV American from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company exempt personnel, on the other hand, charge a maximum of 8 hours per day even when they work more hours. If the overtime hours of Service Company personnel were factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$3,354,359 cited above. For instance, if Service Company overtime is conservatively estimated at 5% (2 hours per week), then that work would have cost an estimated \$160,000 in additional charges from outside providers.

- It would be difficult for WV American to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from WV American ratepayers.

Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, is within a reasonable range of the average of the neighboring electric utility comparison group. As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of the Service Company and WV American. During the 12-months ended December 31, 2007, the customer accounts cost for WV American customers was \$33.31 compared to the 2007 average of \$31.27 for neighboring electric utilities. The highest comparison group per customer cost was \$70.37 and the lowest \$13.71.

Concerning question 3, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if WV American were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to WV American. For all of the services listed in Schedule 10, there was only one entity that was primarily responsible for the service.

Concerning question 4, the following conclusions were reached:

- The Service Company provides WV American with services similar to those provided by other utility service companies. This was determined based on service company information included in the Form 60, which must be filed with the Federal Energy Regulatory Commission ("FERC") by electric and combination electric/gas utility holding companies.
- American Water's 2007 cost per WV American customer was reasonable compared to cost per customer for electric and combination electric/gas service companies. During 2007, WV American was charged an average of \$55 per customer by the Service Company compared to an average of \$122 per customer for service companies reporting to the FERC.

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## II - Background

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### Overview Of American Water Works Service Company

American Water's Service Company exists to provide certain shared services to American Water subsidiaries. It follows a service company model used by many utility holding companies that own multiple regulated utilities. By consolidating executive and professional services into a single service company, utility holding companies are able to realize the following benefits for ratepayers:

- Purchasing Economies – Common expenses (e.g., insurance, chemicals, piping) can be procured on a much larger scale thereby providing greater bargaining power for the combined entity compared to individual utility operating companies. A service company facilitates corporate-wide purchasing programs through its procurement and contract administration functions.
- Operating Economies of Scale – A service company is able to deliver services more efficiently because workloads can be balanced across more persons and facilities. For instance, American Water's Service Company is able to maintain one principal data center for the entire corporation. This is much more cost-efficient than each operating utility funding its own data center with its large fixed hardware, software and staffing costs.
- Continuity of Service – Centralizing service company personnel who perform similar services facilitates job cross-training and sharing of knowledge and expertise. This makes it easier to deal with staff turnover and absences and to sustain high levels of service to operating utilities. An individual operating utility might experience considerable disruption if a key professional left and it was necessary to hire outside to fill the vacancy.
- Maintenance of Corporate-Wide Standards – Personnel in American Water's Service Company establish standards for many functions (e.g., engineering designs, operating procedures and maintenance practices). It is easier to ensure these standards are followed by every operating utility because their implementation is overseen by the Service Company.
- Improved Governance – American Water's Service Company provides another dimension of management and financial oversight that supplements local operating utility management. The Service Company facilitates standard planning and reporting that help ensure operating utilities meet the requirements of their customers in a cost effective manner.
- Retention of Personnel – A service company organization provides operating utility personnel with another career path beyond what may be available on a local level. These opportunities tend to improve employee retention.

American Water follows the model for other utility service companies in another important regard. Its services are provided to affiliate operating utilities, like WV American, at cost. American Water's Service Company is not a profit-making entity. It assigns only its actual expenses to the American Water subsidiaries it services.

The Service Company provides services to American Water operating companies from the following locations:



- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers: one in Alton, Illinois that went into operation in 2001 and a second in Pensacola, Florida that went into operation in 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of WV American, which incurred the expense on its books.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they are not provided by the National Shared Services Center. Examples of regional office services include rates and revenues, engineering and operations.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois, and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the communications systems. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### **Service Company Expense Categories**

The Service Company renders a monthly bill to American Water's operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks
- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company's rate case, engineering design work on an operating company's project and the preparation of an operating company's financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

### **Charging and Assignment Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable)

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 20% of American Water's Southeast Region's professional labor is assigned to WV American during a month, then 20% of that office's monthly administrative labor charges also are assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 20% of the Southeast Region's accumulated professional and support labor is charged to WV American during the month, then 20% of that month's overhead expenses will be assigned to WV American.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to WV American, then 2% of that office's office expenses would be assigned to WV American. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a rate case proceeding are charged directly to the operating company whose case is being heard.

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**III – Service Company Cost Comparison Approach**

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During the 12 months ended December 31, 2007, the Service Company billed WV American \$10,909,934 in O&M-related charges, \$673,657 in capital-related charges and \$11,283 in other charges. Included in the O&M amount are certain non-recurring expenses and non-Southeast Region charges which are excluded from this market study. As calculated in the table below, net Service Company charges of \$9,909,212 were subjected to a market cost comparison.

	12 Months Ended December 31, 2007
Mgmt Fee Expense (O&M)	\$ 10,909,934
Less: Non-Recurring Expenses	
Business Change	\$ 3,590
Divestiture & SOX	\$ (1,607,454)
Total Non-Recurring Expenses	\$ (1,603,864)
Less: Non-Southeast Regions	\$ (81,799)
Net Testable O&M	\$ 9,224,272
Total Capital	\$ 673,657
Total Other	\$ 11,283
<b>Total Testable SC Charges</b>	<b>\$ 9,909,212</b>

For purposes of comparing these charges to outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	12 Months Ended Dec. 31, 2007	
	Amount	Hours
Management and Professional Services	\$ 7,338,635	71,137
Customer Account Services	\$ 2,570,577	73,349
Total Service Company Charges	\$ 9,909,212	144,486

This study's first question—whether Service Company 2007 charges the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to WV American during the 12 months ended December 31, 2007. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The second question—whether Service Company 2007 customer account services charges, including those of the National Call Center costs, were comparable to other utilities—was addressed by comparing WV American's customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account

services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The third question—the necessity of Service Company services—was first investigated by determining the services provided to WV American. A determination was then made as to whether these services would be required if WV American were a stand-alone utility.

The fourth question—whether Service Company 2007 charges were reasonable by other comparative measures—was determined by comparing WV American's net testable O&M Service Company charges per customer to those of electric and combination electric/gas utilities that file FERC Form 60 – Annual Report of Service Companies.

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## IV – Managerial And Professional Services Hourly Rate Comparison

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### Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar, scientific educational backgrounds as Service Company engineering personnel. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

The Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to WV American during the 12 months ended December 31, 2007. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged WV American during 2007, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, then Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### Service Company Hourly Rates

Schedule 1 (page 11) details the assignment of 12 months ended December 31, 2007 management and professional Service Company charges by outsider provider category. Schedule 2 (page 12) shows the same assignment for Service Company management and professional hours charged to WV American during the 12 months ended December 31, 2007.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2007 test period non-labor Service Company charges:

- Contract Services – 12 months ended December 31, 2007 Service Company charges to WV American include almost \$432,000 in expenses associated with the use of

outside professional firms to perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.

- **Travel Expenses** – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- **Computer Hardware and Software Expenses** – Included in the 12 months ended December 31, 2007 Service Company charges to WV American are charges for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the communications systems. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

Schedule 3 (page 13) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 1 and 2 and the excludable items shown in Schedule 3, the Service Company's equivalent costs per hour for the 12 months ended December 31, 2007 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 376,485	\$ 2,443,080	\$ 3,318,764	\$ 1,200,306	\$ 7,338,635
Less:					
Contract services	\$ 9,241	\$ 105,513	\$ 303,907	\$ 13,634	\$ 432,295
Travel expenses	\$ 6,090	\$ 81,313	\$ 51,406	\$ 40,671	\$ 179,480
Computer hardware/software	\$ 1	\$ 31,987	\$ 56,482	\$ 18,759	\$ 107,229
Net Service Charges (A)	\$ 361,154	\$ 2,224,266	\$ 2,906,968	\$ 1,127,242	\$ 6,619,630
Total Hours (B)	2,418	16,815	39,098	12,807	71,137
<b>Average Hourly Rate (A / B)</b>	<b>\$ 149</b>	<b>\$ 132</b>	<b>\$ 74</b>	<b>\$ 88</b>	

**West Virginia American Water Company**  
**Analysis of 12 Months Ended December 31, 2007 Service Company Charges By Location And Function**

Location	Function	12 Months Ended December 31, 2007 Service Company Charges				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality		\$ 48,872	\$	\$ 253,900	\$ 253,900
Call Center	Human Resources			\$ 486,358	\$	\$ 486,358
Corporate	Accounting		\$ 308,042	\$	\$ 81,810	\$ 308,042
	Administration					\$ 81,810
	Audit					\$ 102,810
	Communications				\$ 32,691	\$ 32,691
	Engineering					\$ 194,551
	Finance					\$ 312,413
	Human Resources		\$ 116,264			\$ 116,264
	Legal					\$ 109,540
	Operations		\$ 218,864	\$ 109,540		\$ 328,552
	Rates & Revenue					\$ 109,540
	Risk Management		\$ 124,667			\$ 124,667
	Water Quality				\$ 78,538	\$ 78,538
	<b>Regional Offices</b>			\$ 35,904		\$ 35,904
	Accounting				\$ 150,210	\$ 150,210
	Administration		\$ 150,210			\$ 150,210
	Communications		\$ 223,821			\$ 223,821
	Engineering				\$ 324,467	\$ 324,467
	Finance			\$ 381,629		\$ 381,629
	Human Resources		\$ 121,944			\$ 121,944
	Legal	\$ 260,220				\$ 260,220
	Operations		\$ 455,277		\$ 214,148	\$ 669,425
	Risk Management		\$ 254,126			\$ 254,126
	Water Quality				\$ 186,874	\$ 186,874
Information Technology	Information Technology			\$ 1,393,970		\$ 1,393,970
Shared Services	Accounting			\$ 527,951		\$ 527,951
	Administration		\$ 122,034			\$ 122,034
	Finance			\$ 71,213		\$ 71,213
	Rates & Revenue			\$ 35,838		\$ 35,838
	<b>Total Dollars Charged</b>	<b>\$ 376,485</b>	<b>\$ 2,443,080</b>	<b>\$ 3,318,764</b>	<b>\$ 1,200,306</b>	<b>\$ 7,338,635</b>



**West Virginia American Water Company**  
**Analysis of 12 Months Ended December 31, 2007 Service Company Hours By Location And Function**

Location	Function	12 Months Ended December 31, 2007 Service Company Hours				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality		602		3,527	3,527
Call Center	Human Resources			4,984		602
Corporate	Accounting		6			4,984
	Administration					6
	Audit			576		576
	Communications		530			530
	Engineering				227	227
	Finance			1,388		1,388
	Human Resources		2,716			2,716
	Legal	421				421
	Operations		940		941	1,882
	Rates & Revenue			353		353
	Risk Management		781			781
	Water Quality				948	948
Regional Offices	Accounting			557		557
	Administration		697			697
	Communications		2,533			2,533
	Engineering				3,390	3,390
	Finance			3,359		3,359
	Human Resources		869			869
	Legal	1,996				1,996
	Operations		3,439		1,900	5,339
	Risk Management		2,968			2,968
	Water Quality				1,872	1,872
Information Technology	Information Technology			14,433		14,433
Shared Services	Accounting			11,268		11,268
	Administration		736			736
	Finance			1,732		1,732
	Rates & Revenue			448		448
	<b>Total Hours Charged</b>	<b>2,418</b>	<b>16,815</b>	<b>39,098</b>	<b>12,807</b>	<b>71,137</b>

**West Virginia American Water Company**  
**12 Months Ended December 31, 2007 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Accounting	\$ 132,594	\$ 12,962	\$ 4,041	\$ 149,596
Administration	\$ 19,515	\$ 13,224	\$ (1,279)	\$ 31,460
Audit	\$ 14,635	\$ 2,004	\$ -	\$ 16,640
Communications	\$ 13,125	\$ 7,679	\$ 176	\$ 20,980
Engineering	\$ (523)	\$ 3,269	\$ 277	\$ 3,023
Finance	\$ 26,949	\$ 6,655	\$ 273	\$ 33,877
Human Resources	\$ 65,469	\$ 15,689	\$ 4,132	\$ 85,290
Information Technology	\$ 108,932	\$ 22,340	\$ 52,145	\$ 183,417
Legal	\$ 9,241	\$ 6,090	\$ 1	\$ 15,331
Operations	\$ 6,917	\$ 60,281	\$ 7,658	\$ 74,856
Rates & Revenue	\$ 20,797	\$ 7,445	\$ 24	\$ 28,266
Risk Management	\$ 3,316	\$ 9,086	\$ 26,087	\$ 38,489
Water Quality	\$ 11,328	\$ 12,757	\$ 13,696	\$ 37,781
<b>Total</b>	<b>\$ 432,295</b>	<b>\$ 179,480</b>	<b>\$ 107,229</b>	<b>\$ 719,005</b>

Outside Service Provider Category
Certified Public Accountant
Management Consultant
Certified Public Accountant
Management Consultant
Professional Engineer
Certified Public Accountant
Management Consultant
Certified Public Accountant
Attorney
Management Consultant, Professional Engineer
Certified Public Accountant
Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation		
	Contract Services	Travel Expenses	Computer HW/SW
Attorney	\$ 9,241	\$ 6,090	\$ 1
Management Consultant	\$ 105,513	\$ 81,313	\$ 31,987
Certified Public Accountant	\$ 303,907	\$ 51,406	\$ 56,482
Professional Engineer	\$ 13,634	\$ 40,671	\$ 18,759
<b>Total</b>	<b>\$ 432,295</b>	<b>\$ 179,480</b>	<b>\$ 107,229</b>

**Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs below.

It should be noted that professionals working for 3 of the 4 outside providers may be licensed to practice by state regulatory bodies. However, not every professional working for these firms is licensed. For instance, among certified public accounting firms within West Virginia’s region, only partner/owners are predominantly CPAs, as shown in the table below. Some employees of the Service Company also have professional licenses. Thus, it is valid to compare the Service Company’s hourly rates to those of the outside professional service providers included in this study.

Position	Firm Size		
	Small	Medium	Large
Partners/Owners	90.1%	93.0%	98.4%
Directors (over 10 years experience)	42.9%	60.9%	78.6%
Managers (6-10 years experience)	37.5%	51.2%	86.6%
Sr Associates (4-5 years experience)	0.0%	60.9%	64.5%
Associates (1-3 years experience)	0.0%	17.9%	19.2%
New Professionals	0.0%	0.0%	7.9%

**Attorneys**

The West Virginia Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for West Virginia attorneys. Therefore, an estimate of West Virginia attorney rates was developed from a survey of Michigan lawyers conducted annually by the Michigan Lawyers Weekly. As presented in Schedule 4, the average rate for each Michigan firm respondent was adjusted for the cost of living differential between their location and Charleston, West Virginia. The survey includes rates that were in effect during 2007.

**Management Consultants**

The cost per hour for management consultants was developed from the 2007 annual survey performed by the Association of Management Consulting Firms, an industry trade organization. The first step in the calculation, presented in Schedule 5, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2006 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client’s location. Thus, the U.S. national average is appropriate for comparison. The survey includes rates that were in effect at December 31, 2006. Thus, the 2006 average rate was escalated to June 30, 2007—the midpoint of the 12 months ended December 31, 2007.

**Certified Public Accountants**

The average hourly rate for West Virginia certified public accountants was developed from a 2006 survey performed by the American Institute of Certified Public Accountants (AICPA). Hourly rates in the AICPA survey are the average of firms in the south Atlantic region. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 6. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. This survey covered hourly rates in effect during 2005. Thus, the 2005 average rate was escalated to June 30, 2007, the midpoint of 2007.

### **Professional Engineers**

The Service Company provided hourly rate information for outside engineering firms that could have been used by WV American in 2007. As presented in Schedule 7, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Schedule 4

**West Virginia American Water Company  
Estimated Billing Rates For West Virginia Attorneys Based On  
Michigan Attorney Billing Rates**

Billing rates as of December 31, 2007 (Note A)									
Firm	Michigan Location	Number Of Mich Lawyers	Billing Rate Range				Average	Cost of Living Adjust (C)	Adjusted Rate
			Associate		Partner				
			Low	High	Low	High			
Dickinson Wright PLLC	Detroit	229	\$ 170	\$ 275	\$ 260	\$ 530	\$ 309	96%	\$ 320
Dykema	Detroit	222	\$ 185	\$ 390	\$ 245	\$ 625	\$ 361	96%	\$ 375
Butzel Long	Detroit	209	\$ 165	\$ 400	\$ 220	\$ 550	\$ 334	96%	\$ 346
Bodman LLP	Detroit	128	\$ 125	\$ 215	\$ 210	\$ 495	\$ 261	96%	\$ 271
Jaffe Raitt Heuer & Weiss, PC	Southfield	100	\$ 165	\$ 225	\$ 225	\$ 500	\$ 279	110%	\$ 253
Trott & Trott, PC	Bingham Farms	64	\$ 170	\$ 170	\$ 235	\$ 235	\$ 203	143%	\$ 142
Brooks Kushman PC	Southfield	52	\$ 160	\$ 275	\$ 250	\$ 505	\$ 298	110%	\$ 270
Kemp, Klein, Umphrey, Edelman & May PC	Troy	36	\$ 150	\$ 190	\$ 200	\$ 340	\$ 220	127%	\$ 174
Pepper Hamilton LLP	Detroit	33	\$ 200	\$ 315	\$ 340	\$ 615	\$ 368	96%	\$ 381
Hertz, Schram & Saretsky, PC	Bloomfield Hills	29	\$ 175	\$ 260	\$ 275	\$ 400	\$ 278	158%	\$ 176
Strobl & Sharp, PC	Bloomfield Hills	28	\$ 110	\$ 210	\$ 200	\$ 300	\$ 205	158%	\$ 130
Kupelian Ormond & Magy, PC	Southfield	25	\$ 165	\$ 195	\$ 235	\$ 320	\$ 229	110%	\$ 208
Rader, Fishman & Grauer, PLLC	Bloomfield Hills	25	\$ 130	\$ 250	\$ 275	\$ 495	\$ 288	158%	\$ 182
McShane & Bowie PLC	Grand Rapids	22	\$ 160	\$ 275	\$ 250	\$ 375	\$ 265	109%	\$ 243
Overall Average 2007 Billing Rate									\$ 248

Note A: Source is Michigan Lawyers Weekly, April 2007

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiat.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This number represents the cost of living difference between the Michigan city and Charleston, West Virginia. A number over 100% indicates the Michigan city's cost of living is higher than Charleston. A number less than 100% indicates Charleston's cost of living is higher.

Schedule 5

**West Virginia American Water Company  
Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position						
Survey billing rates were those in effect in 2006 (Note A)						
Average Hourly Rates (Note A)						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average	\$ 142	\$ 187	\$ 235	\$ 306	\$ 358	
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement						
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner	
Average Hourly Billing Rate (from above)	\$ 142	\$187	\$235	\$306	\$358	
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%	Weighted Average
	\$ 43	\$ 56	\$ 47	\$ 31	\$ 36	<b>\$ 212</b>
<u>Escalation to Midpoint of December 31, 2007 Test Period (Note B)</u>						
						CPI at December 31, 2006
						201.8
						CPI at June 30, 2007
						208.4
						Inflation/Escalation
						3.3%
Average Hourly Billing Rate For Management Consultants At June 30, 2007						<b>\$ 219</b>

Note A: source: "Operating Ratios For Management Consulting Firms, 2007 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>)

Schedule 6

**West Virginia American Water Company  
 Billing Rates Of West Virginia Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2005 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 71	\$ 89	\$ 112	\$ 164
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 71	\$ 89	\$ 112	\$ 164
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 21	\$ 27	\$ 22	\$ 33
				<b>Weighted Average \$ 103</b>
			CPI at December 31, 2005	196.8
			CPI at June 30, 2007	208.4
			Inflation/Escalation	5.9%
Average Hourly Billing Rate For West Virginia CPAs At June 30, 2007				<b>\$ 109</b>

Exhibit PLB-1  
Schedule 7

**West Virginia American Water Company  
Billing Rates Of West Virginia Engineers**

Note: Billing rates were those in effect in 2007

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	Technician	Engineer	Project Manager	Officer
	Senior Technician	Design Engineer Project Engineer	Sr. Mgr. Engineer	Principal Engineer
Firm #1	\$73	\$108	\$163	\$87
Firm #2	\$55	\$70	\$124	\$163
Firm #3	\$65	\$93	\$152	\$200
Firm #4	\$73	\$85	\$136	\$175
Firm #5	\$76	\$84	\$134	\$164
Firm #6	\$83	\$98	\$143	\$200
Firm #7	\$60	\$80	\$127	\$162
Firm #8	\$70	\$73	\$112	\$160
Firm #9	\$55	\$86	\$139	\$190
Firm #10	\$63	\$65	\$90	na

B. Calculation of Overall Average Engineering Hourly Billing Rate

	CAD Drafter	Engineer	Project Manager	Officer	Weighted Average
	Engineer Tech	Design Engineer Project Engineer Elect Proj Engineer	Project Associate Sr. Mgr. Engineer	Principal Engineer	
Average Hourly Billing Rate (From Above)	\$67	\$84	\$132	\$167	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$20	\$29	\$33	\$17	<b>\$99</b>

Source: Information provided by American Water Works Service Company



**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

12 Months Ended December 31, 2007			
Service Provider	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 149	\$ 244	\$ (95)
Management Consultant	\$ 132	\$ 219	\$ (87)
Certified Public Accountant	\$ 74	\$ 109	\$ (35)
Professional Engineer	\$ 88	\$ 99	\$ (11)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to WV American during the 12-months ended December 31, 2007, outside service providers would have cost \$3,204,959 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are almost 44% higher than those of the Service Company (\$3,204,959 / \$ 1,031,624).

12 Months Ended December 31, 2007			
Service Provider	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (95)	2,418	\$ (228,648)
Management Consultant	\$ (87)	16,815	\$ (1,462,293)
Certified Public Accountant	\$ (35)	39,098	\$ (1,370,273)
Professional Engineer	\$ (11)	12,807	\$ (143,746)
Service Company Less Than Outside Providers			\$ (3,204,959)

If WV American were to use outside service providers rather than the Service Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 71,137 hours of work (more than 47 full-time equivalents at 1,500 "billable" hours per FTE per year) would add a significant workload to the existing WV American management team. Thus, it would be necessary for WV American to add at least one half of one position to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill this position would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$149,400 per year to WV American's personnel expenses.

<u>Cost of Adding a Professional Position To WVA's Sta</u>	
	Total
New Positions' Salary	\$ 100,000
Benefits (at 49.4%)	\$ 49,400
Office Expenses (15.2%)	\$ 15,200
<b>Total Cost of Full Time Position</b>	<b>\$ 149,400</b>

Thus, the total effect on the ratepayers of WV American of contracting all services now provided by the Service Company would be an increase in their costs of \$3,354,359 (\$3,204,959 + \$149,400). Based on the results of this comparison, it is possible to conclude that the Service Company charged WV American at the lower of cost or market for services provided during 2007.

**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%
2005	24	25%
2006	24	31%

These studies provide additional evidence that the Service Company arrangement is the lowest-cost alternative for WV American.

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**V – Customer Account Services Cost Comparison**

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**Background**

It is difficult to compare the cost of American Water's National Call Centers with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, WV American's National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from the FERC Form 1 that each must file. FERC's chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study's comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA).

Schedule 8 provides FERC's description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

**903 Records and Collection Expense**

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing and mailing
- Remittance processing – processing of customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

**905 Miscellaneous Customer Accounts Expense**

- Customer Information System IT – maintenance and support of the customer information system

This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

**West Virginia American Water Company  
FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

**West Virginia American Water Company  
FERC Account Descriptions**

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.

**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 shows amounts for accounts 903 and 905.

West Virginia	• Wheeling Power	
Kentucky	• Kentucky Power	• Louisville Gas & Electric
	• Kentucky Utilities	• Union Light, Heat & Power
Virginia	• Appalachian Power	• Virginia Electric Power
Ohio	• Cincinnati Gas & Electric	• Ohio Edison
	• Cleveland Electric	• Ohio Power
	• Columbus Southern Power	• Toledo Edison
	• Dayton Power & Light	
Pennsylvania	• Duquesne Light	• Pennsylvania Power
	• PECO Energy	• PPL Electric
	• Pennsylvania Electric	
Maryland	• Baltimore Gas & Electric	• Potomac Electric
	• Delmarva Power & Light	

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. WV American’s cost pool was developed to include the same expenses included in electric utility’s FERC accounts 903 and 905. As shown in the graphic below, WV American’s resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u>
Pensacola & Alton Call Centers
a. Customer contact
b. Customer order processing
c. Billing information processing
d. Collections
e. Correspondence processing
f. Customer payment processing
<u>Operating Company</u>
a. Postage and forms

Electric Utilities
FERC Acct 903 - Records and Collection Expense <u>and</u> FERC Acct 905 - Misc Customer Accounts Expense
a. Customer contact
b. Customer order processing
c. Bill preparation and mailing
d. Collections
e. Payment processing
f. Correspondence processing

**WV American Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to WV American. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.33 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, WV American's adjusted annual expense per customer is \$32.48—the number that can be compared to neighboring electric utilities' expenses. WV American's 2007 unadjusted annual expense per customer is \$21.90.

West Virginia American Water Company		Service Co	Adjustment Fewer Calls For	Adjusted
Cost Component	Charges	Water Cos. (A)		
Service Company				
Call Centers	Call processing, order processing, credit, bill collection	\$ 2,174,942	\$ 1,917,855	\$ 4,092,797
Regional Offices		\$ 395,635		\$ 395,635
Service Company	Customer payment processing			\$ 102,473 Note B
Operating Company	Postage & forms			\$ 1,007,341
			Cost Pool Total	\$ 5,598,246
			Total Customers	168,060
				<b>\$ 33.31</b>

**12 Months Ended December 31, 2007 Cost Per WV American Customer**

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Test year annualized Call Center charges		\$ 2,174,942
Electric utility industry's avg calls/customer	2.50	
American Water's avg calls/customer	1.33	
Percent different	88%	88%
Total Adjustment B		\$ 1,917,855

Note B: Estimated customer payment processing expenses

Number of customers	168,060
Number of payments/customer/year	4.3
Total payments processed/year	722,658
Bank charge per item	\$ 0.1418
Total estimated annual expense	\$ 102,473

**Electric Utility Group Cost Per Customer**

Schedule 9 shows the actual 2007 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data were taken from each utility's FERC Form 1.

## Summary Of Results

As shown in the table below, WV American's cost per customer is within a reasonable range of the average of the neighboring electric utility comparison group. It can therefore be concluded that WV American's 2007 customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to WV American were comparable to those of other utilities.

<b>Average Customer Accounts Expense Per Customer</b>		
Louisville Gas & Electric	\$	13.71
Pennsylvania Electric	\$	13.97
Virginia Electric Power	\$	15.89
Duquesne Light	\$	17.18
Pennsylvania Power	\$	17.24
Ohio Edison	\$	19.04
Dayton Power & Light	\$	19.15
Cleveland Electric Illuminating	\$	21.33
Toledo Edison	\$	25.77
Kentucky Utilities	\$	25.91
PPL Electric	\$	27.14
Wheeling Power	\$	28.08
<b>Comparison Group Average</b>	<b>\$</b>	<b>31.27</b>
Baltimore Gas & Electric	\$	32.50
<b>West Virginia American Water</b>	<b>\$</b>	<b>33.31</b>
Duke Energy Kentucky	\$	34.88
Appalachian Power	\$	34.99
Ohio Power	\$	35.00
Duke Energy Ohio	\$	36.10
Kentucky Power	\$	37.59
Columbus Southern Power	\$	38.57
PECO Energy	\$	55.42
Delmarva Power & Light	\$	61.87
Potomac Electric	\$	70.37



**West Virginia American Water Company**  
**Comparison Group 2007 Actual Customer Accounts Expense Per Customer**

	West Virginia			Kentucky			Maryland		
	Wheeling Power	Duke Energy Kentucky	Kentucky Power	Kentucky Utilities	Louisville Gas & Electric	Baltimore Gas & Electric	Delmarva Power & Light	Potomac Electric	
\$	1,083,477	3,247,759	6,205,360	11,681,015	4,642,565	26,325,591	30,683,864	46,795,233	
\$	1,480	75,852	2,888	173,641	2,888	2,886,642	6,566	-	
\$	1,084,957	3,323,611	6,208,248	11,854,656	4,858,099	29,212,233	30,690,430	46,795,233	
\$	55,868	1,080,370	285,983	1,738,946	542,390	8,173,002	675,718	5,348,590	
\$	19,665	264,982	111,009	230,888	94,002	2,300,977	561,925	1,108,174	
\$	<b>1,160,489</b>	<b>4,668,963</b>	<b>6,605,240</b>	<b>13,824,490</b>	<b>5,494,491</b>	<b>39,686,212</b>	<b>31,928,073</b>	<b>53,251,987</b>	
\$	41,332	133,868	175,705	533,512	400,703	1,221,284	516,058	756,711	
\$	<b>28,08</b>	<b>34,88</b>	<b>37,59</b>	<b>25,91</b>	<b>13,71</b>	<b>32,50</b>	<b>61,87</b>	<b>70,37</b>	
\$	369,460	9,725,767	4,466,809	22,618,725	20,138,689	44,787,999	3,579,071	21,362,833	
\$	1,699,949	31,182,162	22,664,819	39,257,367	45,624,056	164,827,958	38,906,442	57,858,348	
	21.7%	31.2%	19.7%	57.6%	44.1%	27.2%	9.2%	36.9%	
\$	357,852	1,323,882	1,702,053	4,110,913	960,068	23,435,975	8,109,529	15,271,688	
\$	357,852	4,436,687	1,702,053	4,110,913	1,731,124	35,443,224	9,540,622	15,271,688	
\$	1,083,477	3,247,759	6,205,360	11,681,015	4,642,565	26,325,591	30,683,864	46,795,233	
\$	1,480	75,852	2,888	173,641	2,888	2,886,642	6,566	-	
\$	1,084,957	3,323,611	6,208,248	11,854,656	4,858,099	29,212,233	30,690,430	46,795,233	
\$	425,426	933,492	1,073,679	4,292,201	1,986,061	5,210,641	9,171,909	2,538,291	
\$	1,510,383	4,257,103	7,281,927	16,146,857	6,844,160	34,422,874	39,862,339	49,333,524	
\$	257,057	3,463,816	1,451,095	3,018,139	1,228,781	30,078,131	7,345,424	14,485,935	
\$	55,868	1,080,370	285,983	1,738,946	542,390	8,173,002	675,718	5,348,590	
\$	257,057	3,463,816	1,451,095	3,018,139	1,228,781	30,078,131	7,345,424	14,485,935	
\$	19,665	264,982	111,009	230,888	94,002	2,300,977	561,925	1,108,174	

**Customer Account Services Cost Pool**

FERC Account Balances:  
 Acct 903 - Customer Records & Collection (page 322, line 161)  
 Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal  
 Add: Employee Benefits & Employer FICA (not included in above amounts)  
 Account 926 - Employee Pension & Benefits  
 Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A: Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt**

Account 926 - Employee Pension & Benefits (page 323, line 187)  
 Total O&M Payroll (page 355, line 65)  
 Benefits as Percent of Payroll

**Payroll Applicable to Customer Account Services**

Total Payroll Charged to Customer Accounts F function  
 Electric (page 354, line 7)  
 Gas (page 354, line 37)

**Total Payroll Charged to Customer Accounts**

Percent Applicable to Customer Accounts  
 Acct 903 - Customer Records & Collection (page 322, line 161)  
 Acct 905 - Misc Customer Accounts (page 322, line 163)

**Subtotal - Total Charges Applicable to Customer Accounts Services**

Acct 902 - Meter Reading Expenses (page 322, line 160)  
 Total Charges Applicable to Customer Accounts Svcs & Meter Reading  
 Percent Applicable to Customer Accounts Services (903 and 905)

**Customer Account Services Portion of Total Payroll**

Pension & Benefits Pertaining to Customer Accounts Services  
 Calculation of Employer's FICA Pertaining to Customer Accounts Services  
 Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA

**West Virginia American Water Company**  
**Comparison Group 2007 Actual Customer Accounts Expense Per Customer**

		Ohio						
		Cleveland Electric Illum.	Columbus Southern Pwr	Dayton Power & Light	Duke Energy - Ohio	Ohio Edison	Ohio Power	Toledo Edison
		\$ 14,571,985	\$ 27,013,658	\$ 8,528,580	\$ 18,251,514	\$ 20,280,096	\$ 23,346,691	\$ 6,786,566
		\$ 493,177	\$ 30,647	\$ -	\$ 7,279	\$ 507,437	\$ 36,717	\$ 156,298
		\$ 15,065,162	\$ 27,044,305	\$ 8,528,580	\$ 18,258,793	\$ 20,787,533	\$ 23,383,408	\$ 6,942,864
<b>Note A</b>		\$ 836,948	\$ 1,264,559	\$ 991,292	\$ 5,237,196	\$ (1,424,285)	\$ 1,098,295	\$ 982,446
<b>Note B</b>		\$ 274,236	\$ 428,016	\$ 333,191	\$ 1,290,860	\$ 450,184	\$ 418,833	\$ 150,795
		\$ 16,176,347	\$ 28,736,880	\$ 9,853,063	\$ 24,786,849	\$ 19,813,432	\$ 24,900,536	\$ 8,076,105
		758,319	745,133	514,405	686,578	1,040,662	711,406	313,413
		\$ 21,33	\$ 38,57	\$ 19,15	\$ 36,10	\$ 19,04	\$ 35,00	\$ 25,77
		\$ 7,650,920	\$ 11,597,859	\$ 18,464,446	\$ 52,482,158	\$ (11,505,519)	\$ 22,732,455	\$ 7,749,820
		\$ 32,770,179	\$ 51,314,234	\$ 81,127,271	\$ 169,094,889	\$ 47,537,720	\$ 113,320,078	\$ 15,549,239
		23.3%	22.6%	22.8%	31.0%	-24.2%	20.1%	49.8%
		\$ 4,890,691	\$ 6,589,685	\$ 6,193,463	\$ 8,774,665	\$ 8,447,511	\$ 6,727,321	\$ 2,640,178
		\$ 4,890,691	\$ 6,589,685	\$ 6,193,463	\$ 13,561,352	\$ 8,447,511	\$ 6,727,321	\$ 2,640,178
		\$ 14,571,985	\$ 27,013,658	\$ 8,528,580	\$ 18,251,514	\$ 20,280,096	\$ 23,346,691	\$ 6,786,566
		\$ 493,177	\$ 30,647	\$ -	\$ 7,279	\$ 507,437	\$ 36,717	\$ 156,298
		\$ 15,065,162	\$ 27,044,305	\$ 8,528,580	\$ 18,258,793	\$ 20,787,533	\$ 23,383,408	\$ 6,942,864
		\$ 5,488,077	\$ 4,808,046	\$ 3,599,111	\$ 5,910,289	\$ 9,052,734	\$ 5,348,894	\$ 2,356,336
		\$ 20,553,239	\$ 31,852,351	\$ 12,127,691	\$ 24,169,082	\$ 29,840,267	\$ 28,732,302	\$ 9,299,200
		73.3%	84.9%	70.3%	75.5%	69.7%	81.4%	74.7%
		\$ 3,584,790	\$ 5,594,986	\$ 4,355,441	\$ 16,873,984	\$ 5,884,763	\$ 5,474,942	\$ 1,971,180
		\$ 836,948	\$ 1,264,559	\$ 991,292	\$ 5,237,196	\$ (1,424,285)	\$ 1,098,295	\$ 982,446
		\$ 3,584,790	\$ 5,594,986	\$ 4,355,441	\$ 16,873,984	\$ 5,884,763	\$ 5,474,942	\$ 1,971,180
		7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
		\$ 274,236	\$ 428,016	\$ 333,191	\$ 1,290,860	\$ 450,184	\$ 418,833	\$ 150,795

**Customer Account Services Cost Pool**

FERC Account Balances:  
 Acct 903 - Customer Records & Collection (page 322, line 161)  
 Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal  
 Add: Employee Benefits & Employer FICA (not included in above amounts)  
 Account 926 - Employee Pension & Benefits  
 Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt  
 Account 926 - Employee Pension & Benefits (page 323, line 187)  
 Total O&M Payroll (page 355, line 65)

Benefits as Percent of Payroll

Payroll Applicable to Customer Account Services

Total Payroll Charged to Customer Accounts F function

Electric (page 354, line 7)

Gas (page 354, line 37)

Total Payroll Charged to Customer Accounts

Percent Applicable to Customer Accounts Services (903 and 905):

Acct 903 - Customer Records & Collection (page 322, line 161)

Acct 905 - Misc Customer Accounts (page 322, line 163)

Subtotal - Total Charges Applicable to Customer Accounts Services

Acct 902 - Meter Reading Expenses (page 322, line 160)

Total Charges Applicable to Customer Accounts Svcs & Meter Reading

Percent Applicable to Customer Accounts Services (903 and 905)

Customer Account Services Portion of Total Payroll

Pension & Benefits Pertaining to Customer Accounts Services

Customer Account Services Portion of Total Payroll

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA



**West Virginia American Water Company**  
**Comparison Group 2007 Actual Customer Accounts Expense Per Customer**

	Virginia		Pennsylvania					Group Average
	Appalachian Power	Virginia Electric Power	Duquesne Light	PECO Energy	Pennsylvania Electric	Pennsylvania Power	PPL Electric	
<b>Customer Account Services Cost Pool</b>								
FERC Account Balances:								
Acct 903 - Customer Records & Collection (page 322, line 131)	\$ 31,314,061	\$ 32,253,336	\$ 6,737,679	\$ 44,969,347	\$ 10,340,968	\$ 2,890,828	\$ 28,563,240	\$ 406,513,413
Acct 905 - Misc Customer Accounts (page 322, line 133)	\$ 18,238	\$ -	\$ -	\$ 34,562,550	\$ 129,987	\$ 120,019	\$ 990,261	\$ 40,415,213
Subtotal	\$ 31,332,299	\$ 32,253,336	\$ 6,737,679	\$ 79,531,897	\$ 10,470,955	\$ 3,010,847	\$ 29,553,501	\$ 446,928,626
Add: Employee Benefits & Employer FICA (not included in above amounts)	\$ 1,429,385	\$ 3,831,664	\$ 2,882,751	\$ 5,141,143	\$ (2,549,675)	\$ (352,049)	\$ 6,625,261	\$ 43,896,801
Account 926 - Employee Pension & Benefits	\$ 534,319	\$ 1,451,975	\$ 443,792	\$ 1,524,935	\$ 303,672	\$ 82,837	\$ 1,414,208	\$ 13,793,475
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)	\$ 33,296,003	\$ 37,536,975	\$ 10,064,222	\$ 86,197,975	\$ 8,224,953	\$ 2,741,635	\$ 37,592,970	\$ 504,617,902
Total Customers (page 304, line 43)	951,693	2,362,318	585,837	1,555,342	588,871	158,987	1,385,081	16,137,218
<b>Customer Account Services Expense per Customer</b>	\$ 34.99	\$ 15.89	\$ 17.18	\$ 55.42	\$ 13.97	\$ 17.24	\$ 27.14	\$ 31.27
<b>Note A:</b> Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt								
Account 926 - Employee Pension & Benefits (page 323, line 187)	\$ 21,499,955	\$ 120,865,073	\$ 31,719,047	\$ 32,224,495	\$ (23,125,715)	\$ (2,234,231)	\$ 32,626,364	\$ 449,796,480
Total O&M Payroll (page 355, line 65)	\$ 105,057,647	\$ 598,702,458	\$ 63,830,893	\$ 124,944,222	\$ 36,004,272	\$ 6,872,052	\$ 91,036,928	\$ 1,939,183,183
Benefits as Percent of Payroll	20.5%	20.2%	49.7%	25.8%	-64.2%	-32.5%	35.8%	23.2%
Payroll Applicable to Customer Account Services	\$ 8,227,618	\$ 25,945,148	\$ 9,475,692	\$ 19,294,311	\$ 6,944,688	\$ 1,675,705	\$ 20,006,926	\$ 191,105,562
Total Payroll Charged to Customer Accounts Function	\$ 8,227,618	\$ 25,945,148	\$ 9,475,692	\$ 19,294,311	\$ 6,944,688	\$ 1,675,705	\$ 20,006,926	\$ 191,105,562
Electric (page 354, line 7)				\$ 4,308,224				\$ 35,191,779
Gas (page 354, line 37)				\$ 23,602,535				\$ 226,297,341
Percent Applicable to Customer Accounts								
Total Payroll Charged to Customer Accounts (903 and 905):								
Acct 903 - Customer Records & Collection (page 322, line 161)	\$ 31,314,061	\$ 32,253,336	\$ 6,737,679	\$ 44,969,347	\$ 10,340,968	\$ 2,890,828	\$ 28,563,240	\$ 406,513,413
Acct 905 - Misc Customer Accounts (page 322, line 163)	\$ 18,238	\$ -	\$ -	\$ 34,562,550	\$ 129,987	\$ 120,019	\$ 990,261	\$ 40,415,213
Subtotal - Total Charges Applicable to Customer Accounts Services	\$ 31,332,299	\$ 32,253,336	\$ 6,737,679	\$ 79,531,897	\$ 10,470,955	\$ 3,010,847	\$ 29,553,501	\$ 446,928,626
Acct 902 - Meter Reading Expenses (page 322, line 160)	\$ 5,576,254	\$ 11,835,960	\$ 4,267,657	\$ 14,637,596	\$ 7,847,777	\$ 1,648,497	\$ 2,430,838	\$ 110,439,766
Total Charges Applicable to Customer Accounts Svcs & Meter Reading	\$ 36,908,553	\$ 44,089,296	\$ 11,005,336	\$ 94,169,493	\$ 18,318,732	\$ 4,659,344	\$ 31,984,339	\$ 557,368,392
Percent Applicable to Customer Accounts Services (903 and 905)	84.9%	73.2%	61.2%	84.5%	57.2%	64.6%	92.4%	80.2%
Customer Account Services Portion of Total Payroll	\$ 6,984,565	\$ 18,980,062	\$ 5,801,201	\$ 19,933,785	\$ 3,969,571	\$ 1,082,833	\$ 18,486,382	\$ 180,306,864
Pension & Benefits Pertaining to Customer Accounts Services	\$ 1,429,385	\$ 3,831,664	\$ 2,882,751	\$ 5,141,143	\$ (2,549,675)	\$ (352,049)	\$ 6,625,261	\$ 41,822,451
Total of Employer's FICA Pertaining to Customer Accounts Services	\$ 6,984,565	\$ 18,980,062	\$ 5,801,201	\$ 19,933,785	\$ 3,969,571	\$ 1,082,833	\$ 18,486,382	\$ 180,306,864
Customer Account Services Portion of Total Payroll	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
Employer's Portion of FICA (6.20%) and Medicare (1.45%)	\$ 534,319	\$ 1,451,975	\$ 443,792	\$ 1,524,935	\$ 303,672	\$ 82,837	\$ 1,414,208	\$ 13,793,475
Estimated Employer's Portion of FICA								

**Customer Account Services Cost Pool**  
FERC Account Balances:  
Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)  
Subtotal  
Add: Employee Benefits & Employer FICA (not included in above amounts)  
Account 926 - Employee Pension & Benefits  
Account 408 - Taxes Other Than Income (Employer's Portion of FICA)  
Total Customers (page 304, line 43)  
**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt  
Account 926 - Employee Pension & Benefits (page 323, line 187)  
Total O&M Payroll (page 355, line 65)  
Benefits as Percent of Payroll  
Payroll Applicable to Customer Account Services  
Total Payroll Charged to Customer Accounts Function  
Electric (page 354, line 7)  
Gas (page 354, line 37)  
Total Payroll Charged to Customer Accounts  
Percent Applicable to Customer Accounts Services (903 and 905):  
Acct 903 - Customer Records & Collection (page 322, line 161)  
Acct 905 - Misc Customer Accounts (page 322, line 163)  
Subtotal - Total Charges Applicable to Customer Accounts Services  
Acct 902 - Meter Reading Expenses (page 322, line 160)  
Total Charges Applicable to Customer Accounts Svcs & Meter Reading  
Percent Applicable to Customer Accounts Services (903 and 905)  
Customer Account Services Portion of Total Payroll  
Pension & Benefits Pertaining to Customer Accounts Services  
Total of Employer's FICA Pertaining to Customer Accounts Services  
Customer Account Services Portion of Total Payroll  
Employer's Portion of FICA (6.20%) and Medicare (1.45%)  
Estimated Employer's Portion of FICA

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## VI - Need For Service Company Services

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### Analysis Of Services

The third aspect of this study was an assessment of whether the services that are provided to WV American by the Service Company would be necessary if WV American were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for WV American. Based on discussions with Service Company personnel, the matrix in Schedule 10 was created showing which entity—WV American or a Service Company location—is responsible for each of the functions WV American requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 10, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if WV American were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to WV American. For all of the services listed in Schedule 12, there was only one entity that was primarily responsible for the service.

**Designation Of Responsibility For Water Utility Functions**

	Primarily Responsible		Performed By:					
	P	S	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Water Company Function</b>								
<b>Engineering and Construction Management</b>								
CPS Preparation	S			P		S		
Five-Year System Planning	S			P		P		
Engineering Standards & Policies Development								
Project Design				P		S		
Major Projects (e.g., new treatment plant)	S			P		S		
Special Projects	S			P		S		
Minor Projects (e.g., pipelines)	P			S				
Construction Project Management								
Major Projects	S			P				
Special Projects	S			P				
Minor Projects	P							
Hydraulics Review	P			S				
Developers Extensions	P			S				
Tank Painting	S			P				
<b>Water Quality and Purification</b>								
Water Quality Standards Development				S		P		S
Research Studies	S			S		P		S
Water Quality Program Implementation	P			S		S		
Water Treatment Operations & Maintenance	P			S		S		
Compliance Tracking and Chemical Testing	S			S		S		P
Sample Collection and Other Testing	P			S		S		S
<b>Transmission and Distribution</b>								
Preventive Maintenance Program Development	P							
System Maintenance	P							
Leak Detection	P			S				
<b>Customer Service</b>								
Community Relations	P			S		S		
Customer Contact	S		P					
Call Processing			P					
Service Order Creation	S		P	S				
Service Order Processing	P		S	S				
Customer Credit			P	S				
Meter Reading	P			S			S	
Customer Bill Preparation			S				P	
Bill Collection	S		P	S			S	
Customer Payment Processing	S				P			
Meter Standards Development				S				
Meter Testing, Maintenance & Replacement	P			S		P		

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	WV AMERICAN	Performed By:							
		Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab		
<b>Primarily Responsible P Provides Support S</b>									
Financial Management									
Financial Planning	S		P	S	S				
Financings—Equity			P	S	S				
Financings—Long Term Debt & Preferred (A)			P	S	S				
Short Term Lines of Credit Arrangements (A)			S	S	S				
Investor Relations			S						
Insurance Program Administration					P				
Loss Control/Safety Program Administration	S		P		S				
Pension Fund Asset Management					P				
Cash Management/Disbursements					P				
<b>Internal Auditing</b>									
<b>Budgeting and Variance Reporting</b>									
Corporate Guidelines & Instructions							P		
Regional Guidelines & Instructions			P						
Budget Preparation									
Revenue	S		P						
O&M	S		P						
Depreciation and Interest Expense	S		P						
Budget Preparation--Service Company Charges		S	P	S	S		S	S	S
Capital Budget Preparation—Projects	S		P						
Capital Budget Preparation—Non-Project Work	S		P						
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	S		P						
Prepare Capital Project Budget Status Report	S		P						
Year-End Projections (A)	S		P						
<b>Accounting and Taxes</b>									
Accounts Payable Accounting	S		S						
Payroll Accounting	S		S						
Work Order Accounting	S		S						
Fixed Asset Accounting	S		S						
Journal Entry Preparation--Billing Corrections	S		S						
Journal Entry Preparation--All Others	S		S						
Financial Statement Preparation	S		S						
State Commission Reporting	S		S						
Income Taxes—State									
Income Taxes—Federal									
Property Taxes	S		S						
Gross Receipts Taxes	S		S						

Note A: Financings and lines of credit are the responsibility of American Capital Corporation

**West Virginia American Water Company**  
**Designation Of Responsibility For Water Utility Functions**

Water Company Function	Performed By:					
	Customer Call Center	Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab
<b>Primarily Responsible</b> P						
<b>Provides Support</b> S						
<b>Rates</b>						
Rate Studies & Tariff Change Administration		P				
Rate Case Planning and Preparation		P				
Rate Case Administration		P				
Commission Inquiry Response		P				
<b>Legal</b>						
<b>Purchasing and Materials Management</b>						
Specification Development		S	S			
Bid Solicitation		S				
Contract Administration				P		
Ordering				P		
Inventory Management			S			
<b>Human Resources Management</b>						
Benefit Program Development				P		
Benefits Program Administration		P				
Management Compensation Administration						
Wage & Salary Program Design				P		
Wage & Salary Administration		P				
Training Program Development		S				
Training--Course Delivery		P				
Affirmative Action/EEO--Plan Development		P				
Affirmative Action/EEO--Implementation		P				
<b>Information Systems Services</b>						
Service Company Data Centers						
System Operations & Maintenance					P	
Software Maintenance					P	
Network Administration					P	
PC Acquisition & Support					P	
Help Desk			S		P	



### **Governance Practices Associated With Service Company Charges**

There are several ways by which WV American exercises control over Service Company services and charges. The most important of these are described below.

- **Company President Oversight** – The Company President of the state utility is responsible for the overall performance of the each operating company or district in the state. Through the Executive Vice President of the Western Division, each state utility President in the division has a significant voice in major business decisions of American Water and has the ability to monitor Service Company quality and spending.
- **Vice President Finance** – The VP Finance of the Western states is responsible for the financial reporting, performance and internal controls of each of the operating companies in the region. The VP Finance monitors the performance and reporting from the Service Company. The VP Finance attends monthly Business Plan Review sessions with the WV American President and finance group to review actual results and address forecast modifications for the remainder of the year. The VP Finance reports on the quarterly financial results and forecast updates to WV American's Board of Directors. The rates function reports to the VP Finance, who reviews and authorizes the filing of WV American rate cases and regularly monitors the status of cases. The operating subsidiary interacts with the VP Finance to discuss various issues.
- **Operating Company Board Oversight** – WV American's board of directors includes members of American Water's senior executive team and members of the Division management team. This helps ensure that WV American's needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – WV American's President and the Executive VP sit on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company's own spending into an overall budget which must be approved by the operating company's board of directors. WV American's president is also on the local board.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water's senior executive team, which includes the Executive VP. The Executive VP, with input from the Division management team (including the president of WV American), has the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Western Region Finance personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. WV American's financial analyst has dialogue with regional office personnel concerning the monthly bill and any mistakes or overcharges are credited on a subsequent billing. The Western Region Finance unit prepares an actual to budget comparison of management fees each month for use in identifying unusual variances. Service Company actual to budget comparison is included in the monthly FRP. Unusual variances are researched, explanations are provided and any corrections are made, as necessary.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report, called the "Statement of Expenses and Billed Charges," is produced by Service Company location and shows actual spending for the month.



- **Operating Company Budget Variance Reporting** – The “Budget/Plan Analysis,” produced monthly, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date. Additional information exists that allows more detailed analysis of "Regional" and "Corporate" Management Fees.
  
- **Capital Investment Management (“CIM”)** – CIM is one of American Water’s primary business planning processes. It covers capital and asset planning and is employed throughout American Water. CIM provides a full range of governance practices, including a formal protocol for assessing system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIM ensures that:
  - Capital expenditure plans are aligned with the strategic intent of the business
  - The impact of capital expenditure and income plans are fully reflected in operating expense plans
  - The impacts of these plans are understood and affordable, and
  - Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIM process was designed to optimize the effectiveness of asset investment. The process is managed at three levels for all American Water companies, including all WV American Operating Units. Monthly meetings of the CIM are held to review capital spending compared to plan, review new project requests, and review updates or modifications to existing projects. The President of WV American, VP Finance, and others participate as necessary (e.g. WV American operations managers and Rates Manager) and provide the data used in the monthly review schedules.

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**VII – Other Comparative Measures Of Reasonableness Of Service Company Charges**

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**WV American’s Service Company Cost Per Customer**

During 2007, WV American was charged \$55 per customer in O&M expenses by the Service Company. As shown in the table below, this calculation is based on net testable O&M, which eliminates certain O&M items for which WV American has not requested cost recovery.

	<u>2007</u>
Net Testable Service Company O&M Expenses	\$ 9,224,272
WV American Customers (12/31/07)	<u>168,060</u>
WV American Cost Per Customer	\$ 55

**Comparison Group Cost Per Customer**

Every centralized service company in a holding company system must file a Form 60 in accordance with the Public Utility Holding Company Act of 2005, Section 1270, Section 390 of the Federal Power Act and 18 C.F.R. paragraph 366.23. This report is designed to collect financial information from service companies that are subject to regulation by the FERC.

Twenty-three utility holding companies filed a Form 60 for 2007. All but two were included in the comparison group. The service company for PNM Resources, Inc. was excluded because its 2007 service company cost per regulated utility customer was clearly an anomaly as a negative number. This result is likely due to the unique manner by which PNM’s service company expenses are reported on Form 60. Duke Energy was also excluded from the comparison group because one of its two service companies did not provide numbers for its Form 60. Thus, it was not possible to develop Duke’s consolidated service company cost per customer for 2007.

Schedule 11 compares the services provided by American Water’s Service Company to the services provided by comparison group service companies. In general, the types of services provided by American Water’s Service Company are similar to those provided by comparison group service companies.

O&M expenses charged to utility affiliates for the comparison group service companies were obtained from Schedule XVII – Schedule of Expense Distribution by Department or Service Function (p. 305 to 305c) of each entity’s FERC Form 60. This schedule shows charges by category of service (e.g., accounting, information technology) and type of cost (e.g., labor, benefits, outside services). The following were eliminated from the comparison group’s total expenses because they are not in American Water Service Company’s 2007 charges to WV American:

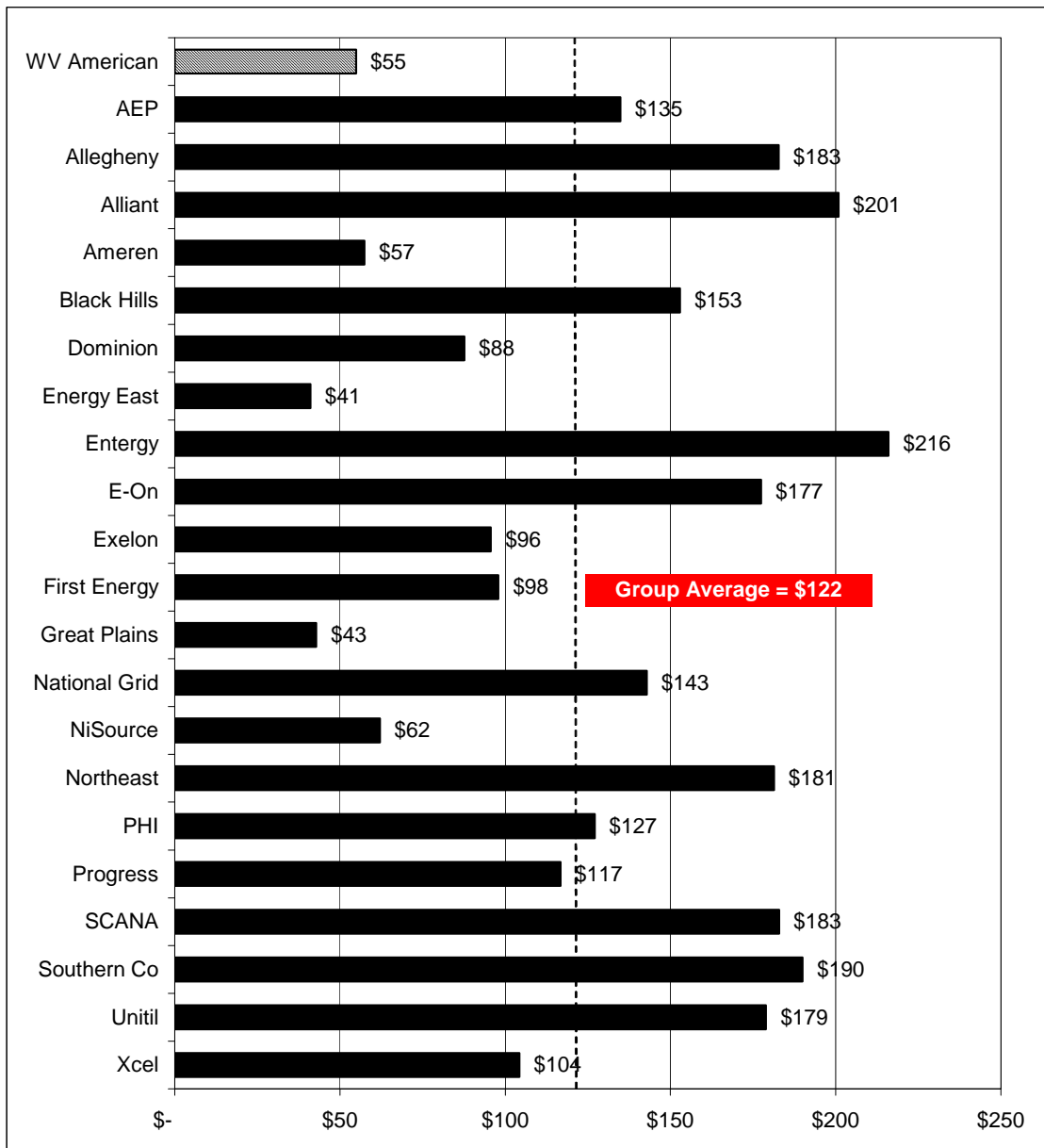
- All electric- and gas-related services
- Income taxes (account 409), provision for deferred income taxes (account 410), provision for deferred income taxes – credit (account 411) and investment tax credit (account 411.5).
- Donations (account 426.1)
- Interest on long-term debt (account 427), interest on debt to associate companies (account 430) and other interest expense (account 431)

Comparison group service company 2007 expenses were also adjusted to remove charges to non-regulated affiliates from the cost pool used to calculate the cost per regulated service customer. This determination was made using information from the FERC Form 60 schedule: Account 457 – Analysis of Billing – Associate Companies.

Schedule 12 shows WV American's 2007 Service Company cost per customer of \$55 to be considerably lower than the average of \$122 per customer for the comparison group service companies. Only 2 of 21 comparison group service companies had a lower 2007 cost per customer than WV American. These results further support the conclusion that the Service Company's 2007 charges to WV American were reasonable.

**West Virginia American Water Company  
Analysis of Service Company Services**

	American Water	AEP	Allegheny	Alliant	Ameren	Black Hills	Dominion	Energy East	Energy	F-On	Exelon	First Energy	Great Plains	National Grid	NiSource	Northeast	PHI	Progress	SCANA	Southern Co	Unitil	Xcel
Accounting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Audit Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Corporate Planning	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Customer Service	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Engineering	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Environmental	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Executive	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
External Affairs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Facilities Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Finance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Human Resources	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Information Technology	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Investor Relations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Legal	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Operations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Regulatory Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Risk Management	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Security	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Service Co Overhead	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Shared Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Supply Chain	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Transportation Services	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Treasury	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	17	17	15	16	14	15	17	8	7	19	14	17	8	19	20	16	10	13	13	11	7	17



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**Market Cost Comparison of Service Company Charges to  
Long Island American Water**

**12-Months Ended December 31, 2006**

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**Long Island American Water  
Market Cost Comparison of Service Company Charges  
12-Months Ended December 31, 2006**

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## I - Introduction

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### Purpose Of This Study

This study was undertaken to answer three questions concerning the services provided by American Water Works Service Company, Inc. (Service Company) to Long Island American Water (LIAW):

1. Was LIAW charged the lower of cost or market for managerial and professional services provided by the Service Company during 2006?
2. Were the 2006 cost of the Service Company's customer accounts services, including those of the National Call Centers, reasonable?
3. Are the services LIAW receives from Service Company necessary?

### Study Results

Concerning question 1, the following conclusions can be drawn from this study:

- LIAW was charged the lower of cost or market for managerial and professional services during the 12-months ended December 31, 2006.
- On average, the hourly rates for outside service providers are **59% higher** than the Service Company's hourly rates.
- The managerial and professional services provided by the Service Company are vital and could not be procured externally by LIAW without careful supervision on the part of LIAW. If these services were contracted entirely to outside providers, LIAW would have to add at least one position to manage activities of outside firms. These positions would be necessary to ensure the quality and timeliness of services provided.
- If all the managerial and professional services now provided by the Service Company had been out-sourced during the 12-months ended December 31, 2006, LIAW and its ratepayers would have incurred an **additional \$1.8 million** in expenses. This amount includes the higher cost of outside providers and the cost of a LIAW position needed to direct the outsourced work.
- This study's hourly rate comparison actually understates the cost advantages that accrue to LIAW from its use of the Service Company. Outside service providers generally bill for every hour worked. Service Company personnel, on the other hand, charge a maximum 8 per day even when they work more. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, the Service Company would have had an even greater annual dollar advantage than the \$1.8 million cited above.
- It would be difficult for LIAW to find local service providers with the same specialized water industry expertise as that possessed by the Service Company staff. Service Company personnel spend substantially all their time serving operating water companies. This specialization brings with it a unique knowledge of water utility operations and regulation that is most likely unavailable from local service providers.
- Service Company fees do not include any profit markup. Only its actual cost of service is being recovered from LIAW ratepayers.



Concerning question 2, it was determined that the cost of the Service Company's customer accounts services, including those provided by the National Call Center, **is below the average of the comparison group of neighboring electric utilities.** As will be explained further herein, this group of companies provides a reasonable proxy group for comparison to a regulated utility of the size and scope of LIAW. During the 12-months ended December 31, 2006, the customer accounts cost for LIAW customers was \$26.98 compared to the 2005 average of \$29.32 for neighboring electric utilities. The highest comparison group per customer cost was \$77.79 and the lowest \$13.83.

Concerning question 3, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if LIAW were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to LIAW. For all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.

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## II - Background

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### Overview Of American Water Service Company

The Service Company maintains several types of offices from which it provides services to American Water operating companies. They include:

- Corporate Office – Includes American Water's executive management and personnel from the various corporate support services. American Water's corporate office is located in Voorhees, New Jersey.
- National Call Centers – Perform customer service functions, including: customer call processing, service order processing, correspondence processing, credit and collections. American Water maintains two call centers. One in Alton, Illinois that went into operation in the second quarter of 2001 and a second in Pensacola, Florida that went into operation in April 2005. Prior to the establishment of these national call centers, customer service functions were performed by employees of LIAW, which incurred the expense on its books. LIAW transitioned to the Call Center in October 2003.
- National Shared Services Center – The Shared Services Center, located in Cherry Hill, New Jersey, provides various financial, accounting and treasury functions that had been performed by individual operating companies. This arrangement has improved and streamlined the Company's financial processes and allowed operating companies to focus on providing utility service.
- Regional Offices – Regional offices provide operating companies with certain support services that can be performed more effectively on a regional basis because individual operating company/center workloads are not sufficient to warrant a full-time staff for these activities. At the same time, these services require closer proximity to operating companies served so they have not been consolidated into the National Shared Services Center. Examples of regional office services include rates and revenues, engineering and operations.
- Belleville Lab – The national trace substance laboratory is located in Belleville, Illinois and performs testing for all American Water operating companies.
- Information Technology Service Centers – American Water's principal data center, located in Hershey, Pennsylvania, supports the IT infrastructure required to run corporate and operating company business applications and the email system. IT personnel rotate, as needed, throughout the regional offices and operating companies.

### Service Company Expense Categories

The Service Company renders a monthly bill to operating companies. Charges are broken down into the following expense categories:

- Labor – base pay (salaries) of managerial and professional employees
- Labor-Related Overheads - employee benefit costs (payroll taxes, medical coverage, pensions, disability insurance) and other general expenses
- Support - wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks

- Office Expenses - office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance
- Vouchers/Journal Entries – (1) travel expenses incurred by Service Company personnel, (2) other items submitted for reimbursement by employees, including professional association dues, (3) outside service contracts for such things as actuarial services, and (4) various other expenditures, including data center expenses for software licenses and hardware maintenance.

Service Company expenses are either assigned directly or allocated to operating companies, as shown in the table below.

Expense Category	Direct Charged	Allocated	Comments
Labor	X	X	Professional personnel working for one or several operating companies
Labor-Related Overheads	X	X	These are primarily employee benefit costs that relate directly to labor
Support		X	Administrative personnel support the professional staff, thus support costs are allocated on the basis of professional labor
Office Expense		X	Are all allocated on the basis of professional labor
Vouchers/Journals	X	X	May be either directly in support of one operating company (e.g., an engineer traveling from the Corporate Office to the operating company) or allocated to several operating companies

A direct charge occurs when Service Company work or expenses are incurred in support of only one operating company. Direct charge examples include work in support of an operating company’s rate case, engineering design work on an operating company’s project and the preparation of an operating company’s financial statements.

Service Company expenses are allocated when more than one operating company benefits from the underlying work. Examples include assessments of new Federal water quality regulations, development of the company-wide materials procurement contracts and creation of company-wide engineering design standards.

**Charging and Assignment Of Service Company Time and Expenses**

Service Company transactions are assigned with the following information so there is a proper accounting and eventual charging to an operating company:

- Operating company number, if transaction is a direct charge
- Formula number if transaction is allocated
- Employee hours worked
- Account number for non-labor charges

Charges can originate from the following systems:

- Payroll System
- RVI System (outside vendor payments)
- PCard System (credit card payments)
- Internal Purchase Order System
- Journal entries

The Service Company's time reporting process enables labor and support charges to be assigned to the proper operating company. Labor charges are based on the time reported by managerial and professional Service Company employees. Every week, Service Company professional employees complete an electronic time sheet (see example in Schedule 1) that shows:

- Operating company (for direct charge)
- Formula number (for allocation)
- Work order (where applicable)
- Authorization number (where applicable)

At month-end, time report information is processed and direct and allocated professional labor hours tabulated for each operating company. Dollar charges are then calculated using the hourly rate of each Service Company professional employee based upon their base salary (i.e., an employee's hours times their hourly rate of pay).

Support (administrative) personnel charge their time to the activity "General Admin." As described in the table on page 4, their labor charges are allocated to operating companies based upon how their office's professional personnel labor charges are assigned. For instance, if 2% of the Voorhees Data Center's professional labor is assigned to LIAW during a month, then 2% of that office's monthly administrative labor charges also is assigned to the operating company.

The overhead cost category is next assigned based on professional and administrative labor costs. Thus, if 2% of the Corporate Office's accumulated professional and support labor is charged to LIAW during the month, then 2% of that month's overhead expenses will be assigned to LIAW.

Each Service Company location's office expenses are allocated to operating companies based on how professional labor charges for that office have been assigned. For instance, if 2% of professional labor from one Service Company office is assigned to LIAW, then 2% of that office's office expenses would be assigned to LIAW. Thus, office expenses are allocated in the very same way as administrative labor.

Vouchers/journal entries may be charged directly or allocated, depending on who benefits from the expenditure. For instance, the cost of a continuing professional education course taken by a professional in a regional office is allocated to the operating companies served by that office. Travel expenses by that same professional to a state rate case proceeding are charged directly to the operating company whose case is being heard.



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**III – Service Company Cost Comparison Approach**

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During 2006, the Service Company billed LIAW \$4,089,726 in O&M-related and \$208,686 in capital-related charges. Included in the O&M amount is \$513,501 for which LIAW will not seek recovery. As calculated in the table below, the net O&M and capital charges of \$3,784,911 were subjected to a market cost comparison.

Reconciliation to 2006 Testable Service Co Charges

O&M Per LIAW G/L	\$	4,089,726
Net O&M Adjustments	\$	(513,501)
Net Testable O&M	\$	3,576,225
Capital per LIAW G/L	\$	208,686
Net Testable SC Charges	\$	3,784,911

For purposes of comparing these charges to outside benchmarks, Service Company services were placed into two categories:

- Managerial and Professional Services – Includes such services as management, accounting, legal, human resources, information technology, and engineering.
- Customer Accounts Services – Includes customer-related services, such as call center, credit, billing, collection and payment processing.

Total test period Service Company charges break down between management/professional services and customer account services as follows:

	2006	
	Amount	Hours
Management and Professional Services	\$ 2,876,809	28,705
Customer Account Services	\$ 908,103	30,197
Total	\$ 3,784,911	58,902

This study’s first question—whether the Service Company charges the lower of cost or market—was evaluated by comparing the cost per hour for managerial and professional services provided by Service Company personnel to hourly billing rates that would be charged by outside providers of equivalent services. Service Company costs per hour were based on actual charges to LIAW during 2006. Outside providers' billing rates came from surveys or other information from professionals that could perform the services now provided by the Service Company.

The second question—reasonableness of the National Call Center costs—was addressed by comparing LIAW’s customer accounts services expenses to those of neighboring electric utilities. This approach was selected because the costs of outside providers of call center services are not publicly available. However, electric utility customer account services expenses can be obtained from the FERC Form 1. The availability and transparency of FERC data adds to the validity of its use in this comparison.

The third question—the necessity of Service Company services—was first investigated by determining the services provided to LIAW. A determination was then made as to whether these services would be required if LIAW were a stand-alone utility.

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## IV – Managerial And Professional Services Hourly Rate Comparison

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### Methodology

The lower-of-cost-or-market comparison is accomplished by comparing the cost per hour for Service Company managerial and professional services to those of outside service providers to whom these duties could be assigned. Based on the nature of the Service Company services it was determined that the following outside providers could perform the categories of services indicated below:

- Management Consultants – executive and administrative management, risk management services, human resources and communications services
- Attorneys – legal services
- Certified Public Accountants – accounting, financial, information technology and rates and revenues services
- Professional Engineers – engineering, operations and water quality services.

The services provided by the Belleville lab are assumed to be transferable to professional engineers for purposes of this cost comparison. This was done for two reasons. First, there is no readily available survey of hourly billing rates for testing services such as those performed by Belleville. Second, Belleville personnel have similar educational backgrounds as Service Company engineering personnel. In fact, many Belleville employees have engineering degrees. Thus, it is valid to compare the hourly rates of Belleville services to those of outside engineering firms.

Service Company's hourly rate were calculated for each of the four outside service provider categories, based on the dollars and hours charged to LIAW during 2006. Hourly billing rates for outside service providers were developed using third party surveys or directly from information furnished by outside providers themselves.

It should be noted that by using the Service Company's hours charged LIAW during 2006, its hourly rates are actually overstated because Service Company personnel charge a maximum 8 per day even when they work more. Outside service providers generally bill for every hour worked. If the overtime hours of Service Company personnel had been factored into the hourly rate calculation, Service Company hourly rates would have been lower.

The last step in the market cost comparison was to compare the Service Company's average cost per hour to the average cost per hour for outside providers.

### Service Company Hourly Rates

Schedule 2 (page 10) details the assignment of 2006 management and professional Service Company charges to outsider provider categories. Schedule 3 (page 11) shows the same assignment for Service Company management and professional hours charged to LIAW during 2006.

Certain adjustments to these dollar amounts were necessary to calculate Service Company hourly rates that are directly comparable to those of outside providers. Adjustments were made to the following 2006 test period non-labor Service Company charges:

- **Contract Services** – 2006 Service Company charges to LIAW include over \$350,000 in charges associated with existing arrangements with outside professional firms who perform certain corporate-wide services (e.g., legal, financial audit, actuarial services). These professional fees are excluded from the Service Company hourly rate calculation because the related services have effectively been out-sourced already.
- **Travel Expenses** – In general, client-related travel expenses are not recovered by outside service providers through their hourly billing rate. Rather, actual out-of-pocket travel expenses are billed to clients in addition to fees for professional services. Thus, it is appropriate to remove these Service Company charges from the hourly rate calculation.
- **Computer Hardware and Software Expenses** – Included in 2006 Service Company charges to LIAW are charges for outside expenses related to leases and maintenance fees related to mainframe, server and network infrastructure, corporate business applications and the email system. An outside provider that would take over operation of a data center would recover these expenses over and above the labor necessary to operate the data center.

Schedule 4 (page 12) shows how contract services, travel expenses and computer hardware/software-related Service Company charges are assigned among the four outside provider categories.

Based on the assignment of expenses and hours shown in Schedules 2 and 3 and the excludable items shown in Schedule 4, the Service Company's equivalent costs per hour for 2006 are calculated below.

	Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	Total
Total management, professional & technical services charges	\$ 124,825	\$ 969,933	\$ 1,442,053	\$ 339,998	\$ 2,876,809
Less:					
Contract services	\$ 3,840	\$ 129,633	\$ 202,147	\$ 16,455	\$ 352,074
Travel expenses	\$ 1,180	\$ 10,745	\$ 6,009	\$ 2,021	\$ 19,955
Computer hardware/software	\$ 3	\$ 14,014	\$ 38,751	\$ 306	\$ 53,074
Net Service Charges (A)	\$ 119,803	\$ 815,540	\$ 1,195,146	\$ 321,217	\$ 2,451,706
Total Hours (B)	1,139	7,681	16,109	3,776	28,705
<b>Average Hourly Rate (A / B)</b>	<b>\$ 105</b>	<b>\$ 106</b>	<b>\$ 74</b>	<b>\$ 85</b>	



**Long Island American Water  
Analysis of 2006 Service Company Charges By Location And Function**

Location	Function	2006 Service Company Charges				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality			\$	113,087	\$ 113,087
Call Center	Human Resources		\$ 23,399			\$ 23,399
Corporate	Accounting			\$ 87,694		\$ 87,694
	Administration	\$ 11,963	\$ 249,597	\$ 169,128	\$ 39,641	\$ 470,329
	Audit			\$ 24,684		\$ 24,684
	Communications		\$ 46,969			\$ 46,969
	Finance			\$ 104,329		\$ 104,329
	Human Resources		\$ 100,540			\$ 100,540
	Legal	\$ 49,234				\$ 49,234
	Operations		\$ 69,376		\$ 68,283	\$ 137,658
	Rates & Revenue			\$ 70,022		\$ 70,022
	Risk Management		\$ 29,498			\$ 29,498
	Water Quality				\$ 27,228	\$ 27,228
Regional Offices	Accounting			\$ 15,269		\$ 15,269
	Administration		\$ 148,995			\$ 148,995
	Communications		\$ 42,207			\$ 42,207
	Customer Service					\$ -
	Engineering				\$ 20,088	\$ 20,088
	Finance			\$ 147,578		\$ 147,578
	Human Resources		\$ 110,059			\$ 110,059
	Legal	\$ 63,628				\$ 63,628
	Operations		\$ 38,470		\$ 52,397	\$ 90,867
	Risk Management		\$ 71,627			\$ 71,627
	Water Quality				\$ 19,274	\$ 19,274
Information Technology	Audit			\$ 6,542		\$ 6,542
	Information Technology			\$ 522,204		\$ 522,204
Shared Services	Accounting			\$ 256,550		\$ 256,550
	Administration		\$ 39,197			\$ 39,197
	Finance			\$ 25,472		\$ 25,472
	Rates & Revenue			\$ 12,582		\$ 12,582
	<b>Total Dollars Charged</b>	<b>\$ 124,825</b>	<b>\$ 969,933</b>	<b>\$ 1,442,053</b>	<b>\$ 339,998</b>	<b>\$ 2,876,809</b>

Exhibit Witness: PLB-1  
Schedule 3

**Long Island American Water  
Analysis of 2006 Service Company Hours By Location And Function**

Location	Function	2006 Service Company Hours				Total
		Attorney	Management Consultant	Certified Public Accountant	Professional Engineer	
Belleville Lab	Water Quality				1,711	1,711
Call Center	Human Resources		328			328
Corporate	Accounting			1,458		1,458
	Administration		704			704
	Audit			412		412
	Communications		265			265
	Finance			1,030		1,030
	Human Resources		1,111			1,111
	Legal	325				325
	Operations		477		1,012	1,488
	Rates & Revenue			292		292
	Risk Management		267			267
	Water Quality				476	476
<b>Regional Offices</b>	Accounting			263		263
	Administration		969			969
	Communications		892			892
	Customer Service					-
	Engineering				219	219
	Finance			1,971		1,971
	Human Resources		1,075			1,075
	Legal	815				815
	Operations		320		358	677
	Risk Management		998			998
	Water Quality				-	-
Information Technology	Audit			110		110
	Information Technology			4,352		4,352
Shared Services	Accounting			5,115		5,115
	Administration		276			276
	Finance			898		898
	Rates & Revenue			207		207
	<b>Total Hours Charged</b>	<b>1,139</b>	<b>7,681</b>	<b>16,109</b>	<b>3,776</b>	<b>28,705</b>

Exhibit Witness: PLB-1  
Schedule 4

**Long Island American Water  
2006 Service Company Charges Excludable From The Hourly Rate Calculation**

Charges By Function	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Accounting	\$ 95,996	\$ 1,109	\$ 646	\$ 97,750
Administration	\$ 37,019	\$ 4,693	\$ 6,131	\$ 47,843
Audit	\$ (68)	\$ 274	\$ -	\$ 207
Communications	\$ 13,323	\$ 329	\$ 137	\$ 13,788
Engineering	\$ -	\$ -	\$ -	\$ -
Finance	\$ 30,379	\$ 2,064	\$ 391	\$ 32,834
Human Resources	\$ 62,699	\$ 3,221	\$ 775	\$ 66,695
Information Technology	\$ 67,009	\$ 934	\$ 37,714	\$ 105,656
Legal	\$ 3,840	\$ 1,180	\$ 3	\$ 5,022
Operations	\$ 21,101	\$ 2,644	\$ 242	\$ 23,987
Rates & Revenue	\$ 8,831	\$ 1,628	\$ -	\$ 10,459
Risk Management	\$ 2,613	\$ 1,390	\$ 6,927	\$ 10,931
Water Quality	\$ 9,333	\$ 489	\$ 108	\$ 9,930
<b>Total</b>	<b>\$ 352,074</b>	<b>\$ 19,955</b>	<b>\$ 53,074</b>	<b>\$ 425,103</b>

Outside Service Provider Category
Certified Public Accountant Management Consultant
Certified Public Accountant Management Consultant
Professional Engineer
Certified Public Accountant Management Consultant
Certified Public Accountant Attorney
Management Consultant, Professional Engineer
Certified Public Accountant Management Consultant
Professional Engineer

Recap By Outside Provider	Exclusions From Hourly Rate Calculation			
	Contract Services	Travel Expenses	Computer HW/SW	Total
Attorney	\$ 3,840	\$ 1,180	\$ 3	\$ 5,022
Management Consultant	\$ 129,633	\$ 10,745	\$ 14,014	\$ 154,392
Certified Public Accountant	\$ 202,147	\$ 6,009	\$ 38,751	\$ 246,907
Professional Engineer	\$ 16,455	\$ 2,021	\$ 306	\$ 18,781
<b>Total</b>	<b>\$ 352,074</b>	<b>\$ 19,955</b>	<b>\$ 53,074</b>	<b>\$ 425,103</b>



## **Outside Service Provider Hourly Rates**

The next step in the cost comparison was to obtain the average billing rates for each outside service provider. The source of this information and the determination of the average rates are described in the paragraphs that follow.

### **Attorneys**

The New York Bar Association does not survey its members as to their hourly billing rates. In addition, publicly available billing rate information could not be found for New York attorneys. Therefore, a New York estimate was developed from a survey of Massachusetts lawyers conducted annually by the Massachusetts Lawyers Weekly. As presented in Schedule 5, the average rate for each Massachusetts firm respondent was adjusted for the cost of living differential between their location and Lynbrook, New York. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Management Consultants**

The cost per hour for management consultants was developed from the 2006 annual survey performed by the Association of Management Consulting Firms—an industry trade organization. The first step in the calculation, presented in Schedule 6, was to determine an average rate by consultant position level. From these rates, a single weighted average hourly rate was calculated based upon the percent of time that is typically applied to a consulting assignment by each consultant position level. This survey includes rates that were in effect during 2005 for firms in the United States. Consultants typically do not limit their practice to any one region and must travel to a client's location. Thus, the U.S. national average is appropriate for comparison. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Certified Public Accountants**

The average hourly rate for New York certified public accountants was developed from a 2006 survey conducted by the American Institute of Certified Public Accountants (AICPA) every two years. Hourly rates in the AICPA survey are the average of firms in New York. The average hourly rate was calculated for a set of typical accountant positions, as shown in Schedule 7. Based on a typical staff assignment by each accountant position, a weighted average hourly rate was calculated. The survey includes rates that were in effect at December 31, 2005. Thus, the 2005 average rate was escalated to June 30, 2006—the midpoint of 2006.

### **Professional Engineers**

The Service Company provided hourly rate information for outside engineering firms that could have been utilized by LIAW 2006. As presented in Schedule 8, an average rate was developed for each engineering position level. Then, using a typical percentage mix of project time by engineering position, a weighted average cost per hour was calculated.

Schedule 5

**Long Island American Water  
Estimated Billing Rates Of New York Attorneys**

Billing rates as of December 31, 2005 (Note A)							Cost of Living Adjust (C)	Adjusted Rate
Firm	Massachusetts Location	Number Of Mass Lawyers	Billing Rate Range					
			Associate	Partner	Average			
Edwards Angel Palmer & Dodge	Boston	264	\$ 315	\$ 513	\$ 414	87%	\$ 476	
Foley Hoag	Boston	225	\$ 333	\$ 503	\$ 418	87%	\$ 480	
Holland & Knight	Boston	140	\$ 378	\$ 438	\$ 408	87%	\$ 469	
Sullivan & Worcester	Boston	129	\$ 335	\$ 525	\$ 430	87%	\$ 494	
Burns & Levinson	Boston	121	\$ 258	\$ 388	\$ 323	87%	\$ 371	
Hinckley, Allen & Snyder	Boston	61	\$ 235	\$ 395	\$ 315	87%	\$ 362	
Robinson & Cole	Boston	55	\$ 275	\$ 400	\$ 338	87%	\$ 388	
Prince Lobel Glosky & Tye	Boston	50	\$ 243	\$ 375	\$ 309	87%	\$ 355	
DLA Piper Rudnick Gray Cary US	Boston	49	\$ 365	\$ 560	\$ 463	87%	\$ 532	
Murtha Cullina	Boston	33	\$ 185	\$ 338	\$ 261	87%	\$ 300	
Lawson & Weitzen	Boston	32	\$ 175	\$ 288	\$ 231	87%	\$ 266	
Lahive & Cockfield	Boston	31	\$ 313	\$ 488	\$ 400	87%	\$ 460	
Melick, Porter & Shea	Boston	31	\$ 158	\$ 188	\$ 173	87%	\$ 198	
Bernkopf Goodman	Boston	27	\$ 238	\$ 393	\$ 315	87%	\$ 362	
Marcus Errico Emmer & Brooks	Braintree	26	\$ 300	\$ 325	\$ 313	87%	\$ 359	
Eckert Seamans Cherin & Mellott	Boston	22	\$ 323	\$ 323	\$ 323	87%	\$ 371	
Keegan Werlin	Boston	22	\$ 225	\$ 388	\$ 306	87%	\$ 352	
Barron & Stadfeld	Boston	21	\$ 195	\$ 300	\$ 248	87%	\$ 285	
Cain Hibbard Myers & Cook	Great Barrington	20	\$ 175	\$ 278	\$ 226	74%	\$ 304	
Cushing & Dolan	Boston	20	\$ 225	\$ 295	\$ 260	87%	\$ 299	
Lowrie, Lando & Anastasi	Cambridge	20	\$ 260	\$ 388	\$ 324	100%	\$ 325	
Donovan & O'Connor	North Adams	19	\$ 175	\$ 175	\$ 175	67%	\$ 263	
Overall Average at December 31, 2005								\$ 367
<u>Escalation to Mid-Point of Year - June 30, 2006 (Note B)</u>								
CPI at December 31, 2005								196.8
CPI at June 30, 2006								202.9
Inflation/Escalation								3.1%
Average Billing Rate At June 30, 2006								<b>\$ 378</b>

Note A: Source is Massachusetts Lawyers Weekly, April 2006

Note B: Source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Note C: Source is Sperling's Best Places (<http://www.bestplaces.net/col/col.aspx>). This number represents the cost of living difference between the Massachusetts city and Lynbrook, NY. A number over 100% indicates the Massachusetts city's cost of living is higher than Lynbrook. A number less than 100% indicates Lynbrook's cost of living is higher.

**Long Island American Water**  
**Billing Rates of U.S. Management Consultants**

A. Calculation of Average Hourly Billing Rate by Consultant Position					
Survey billing rates were those in effect in 2005 (Note A)					
	Average Hourly Rates (Note A)				
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average	\$ 141	\$ 186	\$ 234	\$ 320	\$ 350
B. Calculation of Overall Average Hourly Billing Rate Based on a Typical Distribution of Time on an Engagement					
	Entry-Level Consultant	Associate Consultant	Senior Consultant	Junior Partner	Senior Partner
Average Hourly Billing Rate (from above)	\$ 141	\$186	\$234	\$320	\$350
Typical Percent of Time Spent on a Consulting Project	30%	30%	20%	10%	10%
	\$ 42	\$ 56	\$ 47	\$ 32	\$ 35
					<b>Weighted Average \$ 212</b>
<u>Escalation to Test Year Mid-Point June 30, 2006 (Note B)</u>					
				CPI at December 31, 2005	196.8
				CPI at June 30, 2006	202.9
				Inflation/Escalation	3.1%
Estimated Average Hourly Billing Rate For Consultants At June 30, 2006					<b>\$ 218</b>

Note A: source: "Operating Ratios For Management Consulting Firms, 2006 Edition" Association of Management Consulting Firms

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt>)

Schedule 7

**Long Island American Water**  
**Estimated Billing Rates Of New York Certified Public Accountants**

A. Calculation of Average Hourly Billing Rate by Public Accounting Position Survey billing rates were those in effect in 2005 (Note A)				
	Average Hourly Billing Rate (Note A)			
Type of Firm	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Rate	\$ 64	\$ 90	\$ 109	\$ 166
B. Calculation of Overall Average Accountant Billing Rate Based Upon Typical Distribution of Time on an Engagement				
	Staff Accountant	Senior Accountant	Manager	Partner
Average Hourly Billing Rate (From Above)	\$ 64	\$ 90	\$ 109	\$ 166
Typical Percent of Time Spent on an Accounting Assignment	30%	30%	20%	20%
	\$ 19	\$ 27	\$ 22	\$ 33
				Weighted Average \$ 101
				CPI at December 31, 2005 196.8
				CPI at June 30, 2006 202.9
				Inflation/Escalation 3.1%
Estimated Average Hourly Billing Rate For New York CPAs At June 30, 2006				<b>\$ 104</b>

Note A: Source is AICPA's 2006 National PCPS/TSCPA Management of an Accounting Practice Survey

Note B: source is US Bureau of Labor Statistics (<ftp://ftp.bls.gov/pub/special.requests/cpi/cpi.txt>)

Exhibit Witness: PLB-1  
Schedule 8

**Long Island American Water**  
**Billing Rates Of New York Engineers**

Note: Billing rates were those in effect during 2006

A. Calculation of Average Hourly Rate by Engineer Position

Name of Firm	Average Hourly Billing Rates			
	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer
Firm #1	\$62	\$104	\$168	\$180
Firm #2	\$53	\$67	\$118	\$165
Firm #3	\$65	\$85	\$148	\$200
Firm #4	\$62	\$80	\$129	\$170
Firm #5	\$76	\$86	\$135	\$180
Firm #6	\$62	\$81	\$121	\$170
Firm #7	\$64	\$94	\$147	\$185

B. Calculation of Overall Average Engineering Hourly Billing Rate

	CAD Drafter Engineer Tech	Engineer Design Engineer Project Engineer Elect Proj Engineer	Project Manager Project Associate Sr. Mgr. Engineer	Officer Principal Engineer	Weighted Average
	Average Hourly Billing Rate (From Above)	\$63	\$85	\$138	
Typical Percent of Time on an Engineering Assignment	30%	35%	25%	10%	
	\$19	\$30	\$34	\$18	<b>\$101</b>

Source: Information provided by American Water Works Service Company. Firm names have not been disclosed to preserve the confidentiality of their hourly rates.



**Service Company Versus Outside Provider Cost Comparison**

As shown in the table below, Service Company costs per hour are considerably lower than those of outside providers.

12 Months Ended December 31, 2006			
Service Provider	Service Company	Outside Provider	Difference-- Service Co. Greater(Less) Than Outside
Attorney	\$ 105	\$ 378	\$ (273)
Management Consultant	\$ 106	\$ 218	\$ (112)
Certified Public Accountant	\$ 74	\$ 104	\$ (30)
Professional Engineer	\$ 85	\$ 101	\$ (16)

Based on these cost per hour differentials and the number of managerial and professional services hours billed to LIAW during the 12-months ended December 31, 2006, outside service providers would have cost \$1,710,628 more than the Service Company (see table below). Thus, on average, outside provider's hourly rates are almost 59% higher than those of the Service Company (\$1,710,628/ \$ 2,876,809).

12 Months Ended December 31, 2006			
Service Provider	Hourly Rate Difference-- Service Co. Greater(Less) Than Outside	Service Company Hours Charged	Dollar Difference
Attorney	\$ (273)	1,139	\$ (310,921)
Management Consultant	\$ (112)	7,681	\$ (858,841)
Certified Public Accountant	\$ (30)	16,109	\$ (480,198)
Professional Engineer	\$ (16)	3,776	\$ (60,668)
Service Company Less Than Outside Providers			\$ (1,710,628)

If LIAW were to use outside service providers rather than the Services Company for managerial and professional services, it would incur other additional expenses besides those associated with higher hourly rates. Managing outside firms who would perform 28,705 hours of work (about 19 full-time equivalents at 1,500 billable hours per FTE) would add a significant workload to the existing LIAW management team. Thus, it would be necessary for LIAW to add at least one position to supervise the outside firms and ensure they delivered quality and timely services. The individuals that would fill this position would need a good understanding of each profession being managed. They must also have management experience and the authority necessary to give them credibility with the outside firms. As calculated in the table below, this position would add another \$121,400 per year to LIAW's personnel expenses.

Cost of Adding Administrative Positions To LIAWC's Staff

	Total
New Positions' Salary	\$ 85,000
Benefits (at 52%)	\$ 36,400
Total Cost of the New Position	\$ 121,400

Thus, the total effect on the ratepayers of LIAW of contracting all services now provided by Service Company would be an increase in their costs of **\$1,832,028** (\$1,710,628 + \$121,400).

**Other Cost Comparisons**

Every year, the Belleville Lab conducts a comparison of its cost for performing major tests to the cost of using outside testing laboratories. Over the past several years, these surveys have shown the following results been as follows:

Year	Number of Major Tests Surveyed	Percent Belleville Lower Than Outside Labs
2000	26	15%
2001	25	19%
2002	24	16%
2003	23	10%
2004	24	9%
2005	24	25%

These studies provide additional evidence that the Service Company arrangement is the lowest-cost alternative for LIAW.

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**V – Customer Account Services Cost Comparison**

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**Background**

It is difficult to compare the cost of American Water's National Call Centers with outside providers of the same call center-related services. Call center survey data is proprietary and expensive to obtain. For this reason, LIAW's National Call Center costs are compared to those of neighboring electric utilities because the data necessary to make this comparison is readily available to the public.

Electric utility cost information comes from their FERC Form 1. FERC's chart of accounts is defined in chapter 18, part 101 of Code of Federal Regulations. FERC accounts that contain call center-related expenses and are used in this study's comparison are:

- Account 903 Customer Accounts Expense – Records and Collection Expense
- Account 905 Customer Accounts Expense – Miscellaneous Customer Accounts Expense.

In addition, labor-related overheads charged to the following FERC accounts must be added to the labor components of Accounts 903 and 905.

- Account 926 Employee Pension and Benefits
- Account 408 Taxes Other Than Income (employer's portion of FICA).

Schedule 9 provides FERC's description of what should be charged to these accounts. In questioning the controller of a large Southeastern electric utility, it was determined that expenses of the activities described below are recorded in the designated FERC accounts.

**903 Records and Collection Expense**

- Customer Call Center – customer calls/contact, credit, order taking/disposition, bill collection efforts, outage calls
- Call Center IT – maintenance of phone banks, voice recognition units, call center software applications, telecommunications
- Customer billing – bill printing, stuffing and mailing
- Remittance processing – processing of customer payments received in the mail
- Bill payment centers – locations where customers can pay their bills in person

**905 Miscellaneous Customer Accounts Expense**

- Customer Information System IT – maintenance and support of the customer information system

This study assumes the FERC accounts for other electric and gas utilities contain expenses for the same activities.

**Long Island American Water**  
**FERC Account Descriptions**

**903 – Customer Records and Collection Expenses**

This account shall include the cost of labor, materials used and expenses incurred in work on customer applications, contracts, orders, credit investigations, billing and accounting, collections and complaints.

Labor

1. Receiving, preparing, recording and handling routine orders for service, disconnections, transfers or meter tests initiated by the customer, excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
2. Investigations of customers' credit and keeping of records pertaining thereto, including records of uncollectible accounts written off.
3. Receiving, refunding or applying customer deposits and maintaining customer deposit, line extension, and other miscellaneous records.
4. Checking consumption shown by meter readers' reports where incidental to preparation of billing data.
5. Preparing address plates and addressing bills and delinquent notices.
6. Preparing billing data.
7. Operating billing and bookkeeping machines.
8. Verifying billing records with contracts or rate schedules.
9. Preparing bills for delivery, and mailing or delivering bills.
10. Collecting revenues, including collection from prepayment meters unless incidental to meter reading operations.
11. Balancing collections, preparing collections for deposit, and preparing cash reports.
12. Posting collections and other credits or charges to customer accounts and extending unpaid balances.
13. Balancing customer accounts and controls.
14. Preparing, mailing, or delivering delinquent notices and preparing reports of delinquent accounts.
15. Final meter reading of delinquent accounts when done by collectors incidental to regular activities.
16. Disconnecting and reconnecting services because of nonpayment of bills.
17. Receiving, recording, and handling of inquiries, complaints, and requests for investigations from customers, including preparation of necessary orders, but excluding the cost of carrying out such orders, which is chargeable to the account appropriate for the work called for by such orders.
18. Statistical and tabulating work on customer accounts and revenues, but not including special analyses for sales department, rate department, or other general purposes, unless incidental to regular customer accounting routines.
19. Preparing and periodically rewriting meter reading sheets.
20. Determining consumption and computing estimated or average consumption when performed by employees other than those engaged in reading meters.

Materials and expenses

21. Address plates and supplies.
22. Cash overages and shortages.
23. Commissions or fees to others for collecting.
24. Payments to credit organizations for investigations and reports.
25. Postage.
26. Transportation expenses, including transportation of customer bills and meter books under centralized billing procedure.
27. Transportation, meals, and incidental expenses.
28. Bank charges, exchange, and other fees for cashing and depositing customers' checks.
29. Forms for recording orders for services, removals, etc.
30. Rent of mechanical equipment.

**Long Island American Water**  
**FERC Account Descriptions**

**905 – Miscellaneous Customer Accounts Expenses**

This account shall include the cost of labor, materials used and expenses incurred not provided for in other accounts.

Labor

1. General clerical and stenographic work.
2. Miscellaneous labor.

Materials and expenses

3. Communication service.
4. Miscellaneous office supplies and expenses and stationery and printing other than those specifically provided for in accounts 902 and 903.



**Comparison Group**

Electric utilities included in the comparison group are shown in the table below. These are companies whose FERC Form 1 show amounts for accounts 903 and 905.

Connecticut	<ul style="list-style-type: none"> <li>• Connecticut Light &amp; Power</li> </ul>	<ul style="list-style-type: none"> <li>• United Illuminating</li> </ul>
Massachusetts	<ul style="list-style-type: none"> <li>• Boston Edison</li> <li>• Commonwealth Electric</li> <li>• Fitchburg Electric &amp; Gas</li> </ul>	<ul style="list-style-type: none"> <li>• Massachusetts Electric</li> <li>• Western Massachusetts Electric</li> </ul>
New Jersey	<ul style="list-style-type: none"> <li>• Atlantic City Electric</li> <li>• Jersey Central Power</li> </ul>	<ul style="list-style-type: none"> <li>• Rockland Electric</li> </ul>
New York	<ul style="list-style-type: none"> <li>• Central Hudson Electric &amp; Gas</li> <li>• Consolidated Edison</li> </ul>	<ul style="list-style-type: none"> <li>• NY State Electric &amp; Gas</li> <li>• Niagara Mohawk</li> <li>• Rochester Gas &amp; Electric</li> </ul>
Pennsylvania	<ul style="list-style-type: none"> <li>• Duquesne Light</li> <li>• Philadelphia Electric</li> <li>• Pennsylvania Electric</li> </ul>	<ul style="list-style-type: none"> <li>• Pennsylvania Power</li> <li>• Pennsylvania Power &amp; Light</li> <li>• West Penn Power</li> </ul>
Vermont	<ul style="list-style-type: none"> <li>• Central Vermont Public Svc</li> </ul>	<ul style="list-style-type: none"> <li>• Green Mountain Power</li> </ul>

Some neighboring electric utilities could not be included in the comparison group because they did not submit the necessary FERC Form 1 data.

**Comparison Approach**

The basis for this comparison is customer account services expenses per customer. LIAW’s cost pool was developed to include the same expenses included in electric utility’s FERC accounts 903 and 905. As shown in the graphic below, LIAW’s resultant cost pool contains the expenses of Service Company locations and certain operating company expenses.

American Water
<u>Service Company</u> Pensacola & Alton Call Centers a. Customer contact b. Customer order processing c. Billing information processing d. Collections e. Correspondence processing f. Payment processing  <u>IT Service Centers</u> a. Support expenses for the customer information system (ORCOM)

Electric Utilities
FERC Acct 903 - Records and Collection Expense <u>and</u> FERC Acct 905 - Misc Customer Accounts Expense a. Customer contact b. Customer order processing c. Bill preparation and mailing d. Collections e. Payment processing f. Correspondence processing

**LIAW Cost Per Customer**

In order to make a valid comparison to neighboring electric utilities, certain adjustments had to be made to the applicable Service Company charges to LIAW. It was necessary to adjust the National Call Center charges because electric utilities experience an average of 2.50 calls per customer compared to American Water's 1.28 calls per customer. Thus, National Call Center expenses had to be increased, for comparison purposes, to reflect its costs at a 2.50 calls per customer level. As shown below, LIAW's adjusted annual expense per customer is \$26.98—the number that can be compared to neighboring electric utilities' expenses.

**Long Island American Water 2006 Cost Per Customer**

Cost Component		2006 Service Co Charges	Adjustment Fewer Calls For Water Cos. (A)	Adjusted
<b>Service Company</b>				
Call Centers	Call processing, order processing, credit, bill collection	\$ 845,905	\$ 806,254	\$ 1,652,159
Regional Offices		\$ 62,197		\$ 62,197
IT/Data Centers	Bill preparation and mailing	\$ 172,533		\$ 172,533
Operating Company	Customer payment processing			\$ 95,715
Cost Pool Total				\$ 1,982,605
Total Customers				73,495
<b>2006 Cost Per Long Island American Water Customer</b>				<b>\$ 26.98</b>

Note A: Adjustment for American Water's fewer calls per customer

This adjustment is necessary because water utilities experience fewer calls per customer than do electric utilities

Test year annualized Call Center charges	\$ 845,905
Electric utility industry's avg calls/customer	2.50
American Water's avg calls/customer	1.28
Percent different	95%
Total Adjustment B	\$ 806,254

Note B: Estimated customer payment processing expenses

Number of customers	73,495
Number of payments/customer/year	12
Total payments processed/year	881,940
Bank charge per item	\$ 0.1085
Total estimated annual expense	\$ 95,715

### Electric Utility Group Cost Per Customer

Schedule 9 shows the actual 2005 customer accounts expense per customer calculation for the electric utility comparison group. All of the underlying data was taken from the utilities' FERC Form 1.

### Summary Of Results

As shown in the table below, LIAW's cost per customer is below the average of the electric utility comparison group. It can therefore be concluded that the customer accounts-related expenses, including those of the Alton and Pensacola Call Centers, assigned by the Service Company to LIAW are reasonable.

<b>Average Customer Accounts Expense Per Customer</b>	
West Penn Power	\$ 13.83
Central Vermont Pub Service	\$ 14.90
Duquesne Light	\$ 15.52
Massachusetts Electric	\$ 16.68
Jersey Central Power	\$ 16.96
Pennsylvania Electric	\$ 19.13
Pennsylvania Power	\$ 19.69
Green Mountain Power	\$ 20.44
Connecticut Light & Power	\$ 21.58
PPL Electric	\$ 22.28
Rochester Gas & Electric	\$ 25.52
Central Hudson Gas & Electric	\$ 26.91
<b>Long Island American Water</b>	<b>\$ 26.98</b>
Commonwealth Electric	\$ 27.83
Western Mass Electric	\$ 28.44
New York State Electric & Gas	\$ 28.87
<b>Comparison Group Average</b>	<b>\$ 29.32</b>
Niagra Mohawk Power	\$ 32.59
United Illuminating	\$ 36.63
Consolidated Edison	\$ 37.29
Boston Edison	\$ 37.49
PECO Energy	\$ 46.94
Atlantic City Electric	\$ 49.33
Fitchburg Gas & Electric	\$ 50.85
Rockland Electric	\$ 77.79



**Long Island American Water**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

**Customer Account Services Cost Pool**

FERC Account Balances:

Acct 903 - Customer Records & Collection (page 322, line 131)  
Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's Payroll Taxes Pertaining to Cust. Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA and Medicare

New York						
Central Hudson Gas & Electric	Consolidated Edison	New York State Electric & Gas	Niagara Mohawk Power	Rochester Gas & Electric		
\$ 5,905,516	\$ 102,727,772	\$ 21,597,780	\$ 36,083,949	\$ 8,735,793		
\$ 1,808,920	\$ 471,463	\$ 1,651,337	\$ 754,473	\$ 7,122		
\$ 7,714,436	\$ 103,199,235	\$ 23,249,117	\$ 36,838,422	\$ 8,742,915		
\$ (374,830)	\$ 7,792,121	\$ 153,908	\$ 9,149,442	\$ 159,601		
\$ 463,522	\$ 7,468,619	\$ 1,421,815	\$ 2,348,143	\$ 252,708		
<b>\$ 7,803,128</b>	<b>\$ 118,459,974</b>	<b>\$ 24,824,841</b>	<b>\$ 48,336,007</b>	<b>\$ 9,155,224</b>		
289,956	3,176,355	859,868	1,483,040	358,785		
<b>\$ 26.91</b>	<b>\$ 37.29</b>	<b>\$ 28.87</b>	<b>\$ 32.59</b>	<b>\$ 25.52</b>		
\$ (4,404,273)	\$ 87,983,157	\$ 1,564,876	\$ 99,508,678	\$ 3,696,707		
\$ 71,194,915	\$ 1,102,358,207	\$ 188,972,981	\$ 333,833,107	\$ 76,513,025		
-6.2%	8.0%	0.8%	29.8%	4.8%		
\$ 6,059,108	\$ 97,629,004	\$ 18,585,821	\$ 30,694,676	\$ 3,303,368		
\$ (374,830)	\$ 7,792,121	\$ 153,908	\$ 9,149,442	\$ 159,601		
\$ 6,059,108	\$ 97,629,004	\$ 18,585,821	\$ 30,694,676	\$ 3,303,368		
7.65%	7.65%	7.65%	7.65%	7.65%		
\$ 463,522	\$ 7,468,619	\$ 1,421,815	\$ 2,348,143	\$ 252,708		



**Long Island American Water**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

Pennsylvania					
	Duquesne Light	PECO Energy	Pennsylvania Electric	Pennsylvania Power	PPL Electric
	\$ 7,630,920	\$ 51,262,973	\$ 10,706,242	\$ 2,660,189	\$ 24,785,789
	\$ -	\$ 17,091,051	\$ 98,990	\$ 121,055	\$ 602,445
	\$ 7,630,920	\$ 68,354,024	\$ 10,805,232	\$ 2,781,244	\$ 25,388,234
<b>Note A</b>	\$ 729,457	\$ 2,946,156	\$ 11,831	\$ 227,639	\$ 3,320,449
<b>Note B</b>	\$ 732,520	\$ 1,155,943	\$ 419,574	\$ 94,893	\$ 1,618,783
	\$ <b>9,092,897</b>	\$ <b>72,456,123</b>	\$ <b>11,236,637</b>	\$ <b>3,103,776</b>	\$ <b>30,327,466</b>
	586,050	1,543,543	587,533	157,660	1,361,407
	\$ <b>15.52</b>	\$ <b>46.94</b>	\$ <b>19.13</b>	\$ <b>19.69</b>	\$ <b>22.28</b>
	\$ 8,677,884	\$ 36,605,786	\$ 136,028	\$ 2,618,720	\$ 37,811,499
	\$ 113,912,649	\$ 187,745,320	\$ 63,058,697	\$ 14,269,687	\$ 240,965,158
	7.6%	19.5%	0.2%	18.4%	15.7%
	\$ 9,575,422	\$ 15,110,369	\$ 5,484,627	\$ 1,240,430	\$ 21,160,563
	\$ 729,457	\$ 2,946,156	\$ 11,831	\$ 227,639	\$ 3,320,449
	\$ 9,575,422	\$ 15,110,369	\$ 5,484,627	\$ 1,240,430	\$ 21,160,563
	7.65%	7.65%	7.65%	7.65%	7.65%
	\$ 732,520	\$ 1,155,943	\$ 419,574	\$ 94,893	\$ 1,618,783

**Customer Account Services Cost Pool**

FERC Account Balances:

- Acct 903 - Customer Records & Collection (page 322, line 131)
- Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's Payroll Taxes Pertaining to Cust. Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA and Medicare



**Long Island American Water**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

	Pennsylvania			New Jersey		
	West Penn Power	Atlantic City Electric	Jersey Central Power	Rockland Electric		
	\$ 7,219,187	\$ 24,903,319	\$ 15,935,970	\$ 2,588,716		
	\$ -	\$ 15,492	\$ 641,165	\$ 1,010,864		
	\$ 7,219,187	\$ 24,918,811	\$ 16,577,135	\$ 3,599,580		
	\$ 1,860,894	\$ 968,590	\$ 781,635	\$ 1,811,442		
	\$ 637,822	\$ 171,115	\$ 736,750	\$ 153,635		
	<b>\$ 9,717,903</b>	<b>\$ 26,058,516</b>	<b>\$ 18,095,520</b>	<b>\$ 5,564,656</b>		
	702,792	528,271	1,067,246	71,533		
	<b>\$ 13.83</b>	<b>\$ 49.33</b>	<b>\$ 16.96</b>	<b>\$ 77.79</b>		
	\$ 17,383,598	\$ 24,202,520	\$ 8,893,834	\$ 11,348,816		
	\$ 77,885,393	\$ 55,891,648	\$ 109,583,104	\$ 12,582,149		
	22.3%	43.3%	8.1%	90.2%		
	\$ 8,337,540	\$ 2,236,796	\$ 9,630,718	\$ 2,008,300		
	\$ 1,860,894	\$ 968,590	\$ 781,635	\$ 1,811,442		
	\$ 8,337,540	\$ 2,236,796	\$ 9,630,718	\$ 2,008,300		
	7.65%	7.65%	7.65%	7.65%		
	\$ 637,822	\$ 171,115	\$ 736,750	\$ 153,635		

**Customer Account Services Cost Pool**

FERC Account Balances:

- Acct 903 - Customer Records & Collection (page 322, line 131)
- Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

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Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A**

**Note B**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

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Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's Payroll Taxes Pertaining to Cust. Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA and Medicare



**Long Island American Water**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

		Massachusetts					Western Mass Electric
	Boston Edison	Commonwealth Electric	Fitchburg Gas & Electric	Massachusetts Electric			
	\$ 20,638,108	\$ 7,444,540	\$ 1,333,809	\$ 18,581,920	\$ 4,884,652		
	\$ 1,204,133	\$ 477,905	\$ -	\$ 82,379	\$ 71,304		
	\$ 21,842,241	\$ 7,922,445	\$ 1,333,809	\$ 18,664,299	\$ 4,955,956		
	\$ 3,506,628	\$ 1,764,043	\$ 64,987	\$ 1,165,079	\$ 608,959		
	\$ 991,277	\$ 445,248	\$ 23,703	\$ 242,974	\$ 241,374		
	\$ <b>26,340,146</b>	\$ <b>10,131,736</b>	\$ <b>1,422,499</b>	\$ <b>20,072,352</b>	\$ <b>5,806,288</b>		
	702,551	364,081	27,973	1,203,637	204,134		
	\$ <b>37.49</b>	\$ <b>27.83</b>	\$ <b>50.85</b>	\$ <b>16.68</b>	\$ <b>28.44</b>		
	\$ 41,548,735	\$ 14,712,905	\$ 1,024,678	\$ 38,460,497	\$ 6,540,025		
	\$ 153,532,940	\$ 48,543,337	\$ 4,885,476	\$ 104,847,578	\$ 33,886,005		
	27.1%	30.3%	21.0%	36.7%	19.3%		
	\$ 12,957,865	\$ 5,820,233	\$ 309,846	\$ 3,176,134	\$ 3,155,213		
	\$ 3,506,628	\$ 1,764,043	\$ 64,987	\$ 1,165,079	\$ 608,959		
	\$ 12,957,865	\$ 5,820,233	\$ 309,846	\$ 3,176,134	\$ 3,155,213		
	7.65%	7.65%	7.65%	7.65%	7.65%		
	\$ 991,277	\$ 445,248	\$ 23,703	\$ 242,974	\$ 241,374		

**Customer Account Services Cost Pool**

FERC Account Balances:

- Acct 903 - Customer Records & Collection (page 322, line 131)
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Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A**  
**Note B**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

Account 926 - Employee Pension & Benefits (page 323, line 158)

Total Payroll (page 355, line 96)

Total Benefits as Percent of Payroll

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Pension & Benefits Pertaining to Customer Accts Expenses

**Note B:** Calculation of Employer's Payroll Taxes Pertaining to Cust. Acct Mgmt

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Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA and Medicare



Exhibit Witness: PLB-1  
Schedule 10  
Page 5 of 5

**Long Island American Water**  
**Comparison Group 2005 Actual Customer Accounts Expense Per Customer**

	Vermont			Connecticut			Group Average
	Central Vermont Pub Service	Green Mountain Power	Connecticut Light & Power	United Illuminating			
\$	1,581,249	\$ 1,555,251	\$ 21,335,988	\$ 9,169,343	\$ 409,268,975		
\$	38,699	\$ 249,491	\$ 1,319,778	\$ -	\$ 27,718,066		
\$	1,619,948	\$ 1,804,742	\$ 22,655,766	\$ 9,169,343	\$ 436,987,041		
\$	764,945	\$ 64,614	\$ 1,968,068	\$ 2,054,857	\$ 41,500,515		
\$	199,722	\$ 31,424	\$ 929,600	\$ 522,927	\$ 21,304,089		
\$	<b>2,584,615</b>	\$ <b>1,900,780</b>	\$ <b>25,553,434</b>	\$ <b>11,747,126</b>	\$ <b>499,791,645</b>		
\$	173,459	92,994	1,184,032	320,672	17,047,572		
\$	<b>14,90</b>	\$ <b>20.44</b>	\$ <b>21.58</b>	\$ <b>36.63</b>	\$ <b>29.32</b>		
\$	10,307,260	\$ 2,363,604	\$ 30,525,226	\$ 22,533,403	\$ 504,044,163		
\$	35,178,479	\$ 15,026,234	\$ 188,474,934	\$ 74,959,127	\$ 3,308,100,150		
\$	29.3%	15.7%	16.2%	30.1%	15.2%		
\$	2,610,744	\$ 410,773	\$ 12,151,635	\$ 6,835,642	\$ 278,484,827		
\$	764,945	\$ 64,614	\$ 1,968,068	\$ 2,054,857	\$ 42,431,802		
\$	2,610,744	\$ 410,773	\$ 12,151,635	\$ 6,835,642	\$ 278,484,827		
\$	7.65%	7.65%	7.65%	7.65%	7.65%		
\$	199,722	\$ 31,424	\$ 929,600	\$ 522,927	\$ 21,304,089		

**Customer Account Services Cost Pool**

FERC Account Balances:

- Acct 903 - Customer Records & Collection (page 322, line 131)
- Acct 905 - Misc Customer Accounts (page 322, line 133)

Subtotal

Add: Employee Benefits & Employer FICA (not included in above amounts)

Account 926 - Employee Pension & Benefits

Account 408 - Taxes Other Than Income (Employer's Portion of FICA)

**Total Cost Pool**

Total Customers (page 304, line 43)

**Customer Account Services Expense per Customer**

**Note A:** Calculation of Pension & Benefits Pertaining to Customer Acct Mgmt

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**Note B:** Calculation of Employer's Payroll Taxes Pertaining to Cust. Acct Mgmt

Payroll Charged to Customer Accts Expenses (page 354, line 6)

Employer's Portion of FICA (6.20%) and Medicare (1.45%)

Estimated Employer's Portion of FICA and Medicare



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**VI - Need For Service Company Services**

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**Analysis Of Services**

The final aspect of this study was an assessment of whether the services that are provided to LIAW by the Service Company would be necessary if LIAW were a stand-alone water utility. The first step in this evaluation was to determine specifically what the Service Company does for LIAW. Based on discussions with Service Company personnel, the matrix in Schedule 11 was created showing which entity—LIAW or a Service Company location—is responsible for each of the functions LIAW requires to ultimately provide service to its customers. This matrix was reviewed to determine: (1) if there was redundancy or overlap in the services being provided by the Service Company and (2) if Service Company services are typical of those needed by a stand-alone water utility.

Upon review of Schedule 11, the following conclusions can be drawn:

- The services that the Service Company provides are necessary and would be required even if LIAW were a stand-alone water utility.
- There is no redundancy or overlap in the services provided by the Service Company to LIAW. For all of the services listed in Schedule 11, there was only one entity that was primarily responsible for the service.

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	L/AW	Performed By:					Belleville Lab
		Customer Call Center	Northeast Regional Office	Shared Services	Corporate Office	IT Service Centers	
<b>Engineering and Construction Management</b>							
CPS Preparation	S				P		
Five-Year System Planning	P		S		P		
Engineering Standards & Policies Development							
Project Design							
Major Projects (e.g., new treatment plant)	P				S		
Special Projects	P				S		
Minor Projects (e.g., pipelines)	P						
Construction Project Management							
Major Projects	P		S				
Special Projects	P		S				
Minor Projects	P						
Hydraulics Review	P		S				
Developers Extensions	P						
Tank Painting	P		S				
<b>Water Quality and Purification</b>							
Water Quality Standards Development			S		P		S
Research Studies	S		S		P		S
Water Quality Program Implementation	P		S		S		
Water Treatment Operations & Maintenance	P		S				
Compliance Sampling	P		S				S
Testing/Other Sampling	S		S				P
<b>Transmission and Distribution</b>							
Preventive Maintenance Program Development	P						
System Maintenance	P						
Leak Detection	S		P				
<b>Customer Service</b>							
Community Relations	P		S				
Customer Contact	S						
Call Processing		P					
Service Order Processing	S	P					
Customer Credit		P					
Meter Reading	P						
Customer Bill Preparation							P
Bill Collection	S	P					
Customer Payment Processing	S			P			
Meter Standards Development							
Meter Testing, Maintenance & Replacement	P		S		P		

**Designation Of Responsibility For Water Utility Functions**

Water Company Function	L/IAW	Performed By:							
		Customer Call Center	Northeast Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab		
<b>Primarily Responsible</b> P									
<b>Provides Support</b> S									
<b>Financial Management</b>									
Financial Planning	S		P		S				
Financings—Equity	S		S		S				
Financings--Long Term Debt & Preferred (A)	S		S						
Short Term Lines of Credit Arrangements (A)	S		S						
Investor Relations					P				
Insurance Program Administration			S		P				
Loss Control/Safety Program Administration	S		P		S				
Pension Fund Asset Management					P				
Cash Management/Disbursements					P				
<b>Internal Auditing</b>									
<b>Budgeting and Variance Reporting</b>									
Corporate Guidelines & Instructions							P		
Regional Guidelines & Instructions			P				P		
Budget Preparation									
Revenue and O&M	P		S						
Depreciation and Interest Expense	S		S		P				
Budget Preparation--Service Company Charges		S	P		S		S		S
Capital Budget Preparation—Projects	P		S						
Capital Budget Preparation--Non-Project Work	P		S						
Prepare Monthly Budget Variance Report ("Budget/Plan Analysis")	P		S						
Prepare Capital Project Budget Status Report	P		S						
Year-End Projections	P		S						
<b>Accounting and Taxes</b>									
Accounts Payable Accounting	S				P				
Payroll Accounting	S				P				
Work Order Accounting	S		S		P				
Fixed Asset Accounting	S		S		P				
Journal Entry Preparation--Billing Corrections	S		S		P				
Journal Entry Preparation--All Others	S		S		P				
Financial Statement Preparation	S		S		P				
State Commission Reporting	S		S		P				
Income Taxes—State					P				
Income Taxes—Federal					P				
Property Taxes			S		P				
Town Taxes	S		S		P				

Note A: Financings and lines of credit are the responsibility of American Capital Corporation



**Long Island American Water**  
**Designation Of Responsibility For Water Utility Functions**

Water Company Function	LIAW	Performed By:							
		Customer Call Center	Northeast Regional Office	Shared Services	Corporate Office	IT Service Centers	Belleville Lab		
<b>Primarily Responsible P</b>									
<b>Provides Support S</b>									
<b>Rates</b>									
Rate Studies & Tariff Change Administration	S		P	S					
Rate Case Planning and Preparation	S		P	S					
Rate Case Administration	S		P						
Commission Inquiry Response	S		P						
<b>Legal</b>									
<b>Purchasing and Materials Management</b>									
Specification Development	S		S	S					
Bid Solicitation	S			P					
Contract Administration	S			P					
Ordering	P								
Inventory Management	P			S					
<b>Human Resources Management</b>									
Benefit Program Development			S				P		
Benefits Program Administration			P	S					
Management Compensation Administration			P				S		
Wage & Salary Program Design			S				P		
Wage & Salary Administration			P				S		
Labor Negotiations--Wages			S						
Labor Negotiations--Benefits			S				S		
Labor Negotiations-- Work Rules			S						
Training Program Development			P				S		
Training--Course Delivery			P						
Affirmative Action/EEO--Plan Development			P						
Affirmative Action/EEO--Implementation			P						
<b>Information Systems Services</b>									
Service Company Data Centers									P
System Operations & Maintenance									P
Software Maintenance									P
Network Administration									P
PC Acquisition & Support									P
Help Desk									P

## **Governance Practices Associated With Service Company Charges**

There are several ways by which LIAW exercises control over Service Company services and charges. The most important of these are described below.

- **Regional President Oversight** – The Regional President of the Northeast Region is on the Executive Management Team (EMT) of American Water. The Regional President is responsible for the overall performance of each operating company in the region, including LIAW. As part of the EMT, each Regional President has equal say with other EMT members in major business decisions of American Water and has the ability to monitor Service Company performance quality and spending.
- **Regional Vice President & Treasurer** – The Regional Vice President and Treasurer of the Northeast Region is responsible for the financial reporting, performance and internal controls of each of the operating companies in the region. The Vice President and Treasurer monitor the performance and reporting from the Service Company and pushes back whenever the quality and service are not appropriate.
- **Operating Company Board Oversight** – LIAW board of directors includes members of American Water’s EMT, members of the regional management team and business and community leader(s) from outside the Company. This helps ensure that Northeast Region’s needs are a factor in the delivery of Service Company services.
- **Service Company Budget Review/Approval** – Every Regional President sits on the Service Company board and that board must formally approve the budget for Service Company charges for the next year. These budgeted charges are consolidated with the operating company’s own spending into an overall budget which must be approved by the operating company’s board of directors.
- **Major Project Review And Approval** – Major projects undertaken by the Service Company must first be reviewed by American Water’s Executive Management Team, which includes the Regional President. The Regional President, with input from the regional management team has the ability to impact all new initiatives and projects before they are authorized.
- **Service Company Bill Scrutiny** – Operating company personnel review the monthly Service Company bill for accuracy and reasonableness on a monthly basis. Any mistakes or overcharges are credited on a subsequent billing.
- **Service Company Budget Variance Reporting** – Each month, a summary variance analysis is prepared that explains differences between budgeted and actual Service Company spending. In addition, a more detailed monthly variance report, called the “Statement of Expenses and Billed Charges,” is produced by Service Company location and shows actual spending for the month.
- **Operating Company Budget Variance Reporting** – The “Budget/Plan Analysis,” produced monthly by each operating company, has a line item for Management Fees (i.e., Service Company charges). In this way, Service Company budget versus actual charges can be monitored for the month and year-to-date.
- **Capital Investment Management (CIM)** – CIM is one of American Water’s primary business planning processes. It covers capital and asset planning and is employed throughout American Water. The current CIM process and procedures were established in 2003 as part of an initiative to implement leading water industry practices. CIM provides a full range of governance practices, including a formal protocol for assessing

system needs, prioritizing expenditures, managing the capital program, approving project spending, delivering projects and measuring outputs. CIM ensures that:

- Capital expenditure plans are aligned with the strategic intent of the business,
- The impact of capital expenditure and income plans are fully reflected in operating expense plans,
- The impacts of these plans are understood and affordable, and
- Effective controls are in place over budgets (through business plans) and individual capital projects (through appropriate authorization thresholds, management and reporting processes).

The CIM process was designed to optimize the effectiveness of asset investment. The process is managed at three levels for all American Water companies, including LIAW.