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VIA HAND DELIVERY

November 15, 2010

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

RECEIVED
NOV 15 2010
PUBLIC SERVICE
COMMISSION

CASE No. 2010-00445

Re: *FILING OF THE ANNUAL STATUS REPORT, ADJUSTMENT OF THE DSM COST RECOVERY MECHANISM WITH FILING OF THE AMENDED TARIFF SHEETS FOR GAS RIDER DSM (SIXTH REVISED SHEET NO. 62) AND ELECTRIC RIDER DSMR (SIXTH REVISED SHEET NO. 78)*

Dear Mr. Derouen:

Enclosed please find an original and twelve copies of the Annual Status Report and Adjustment of the 2010 DSM Cost Recovery Mechanism, as captioned above.

Please date-stamp the extra two copies of each of the copies of the filing and return in the enclosed envelope.

Sincerely,

Dianne B. Kuhnell
Senior Paralegal

cc: Parties of Record

RECEIVED

NOV 15 2010

PUBLIC SERVICE
COMMISSION

**BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION**

In The Matter Of:)
)
THE ANNUAL COST RECOVERY FILING) CASE NO. 2010-00445
FOR DEMAND SIDE MANAGEMENT BY)
DUKE ENERGY KENTUCKY, INC.)

**FILING OF THE ANNUAL STATUS REPORT, ADJUSTMENT OF THE DSM COST
RECOVERY MECHANISM WITH FILING OF THE AMENDED TARIFF SHEETS FOR
GAS RIDER DSMR (SIXTH REVISED SHEET NO. 62) AND ELECTRIC RIDER DSMR
(SIXTH REVISED SHEET NO. 78),
AND
APPLICATION TO IMPLEMENT THE RESIDENTIAL SMART SAVER PROGRAM**

Now comes Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the Company) with the consensus of the Residential Collaborative and the Commercial and Industrial Collaborative, and pursuant to this Commission's November 4, 2004 Order in Case No. 2003-00367, February 14, 2005, Order in Case No. 2004-00389, April 4, 2006, Order in Case No. 2005-00402, May 15, 2007, Order in Case No. 2006-00426, May 14, 2008, Order in Case No. 2007-00369, May 12, 2009, Order in Case No. 2008-00473, and March 22, 2010, Order in Case No. 2009-00044 hereby files the annual status report and proposes an adjustment to the 2008 Demand Side Management (DSM) Cost Recovery Riders (Application). The Applicant is Duke Energy Kentucky, having a principal place of business at 139 East Fourth Street, Cincinnati, Ohio 45202.¹

The Residential Collaborative members are: Heather Kash (Kentucky Attorney General's Office), Jock Pitts (People Working Cooperatively), Florence Tandy (Northern Kentucky Community Action Commission), Laura Pleiman (Boone County), Talia Frye (Brighton Center), Carl Melcher (Northern Kentucky Legal Aid), Carolyn Bergs (Kentucky NEED Project), Pat Dressman (Campbell County Fiscal Court), Lee Colten (Department of Energy Development and

¹ Applicant's Kentucky business office address is Duke Energy Envision Center, 4580 Olympic

Independence) and Tim Duff and Trisha Haemmerle (Duke Energy). The Commercial & Industrial Collaborative members are Heather Kash (Kentucky Attorney General's Office), Jock Pitts (People Working Cooperatively), Pam Proctor (Kentucky NEED Project), Pat Dressman, and Lee Colten (Department of Energy Development and Independence) and Tim Duff and Trisha Haemmerle (Duke Energy). Please note that the Boone County Fiscal Court is an ongoing member of both Collaboratives whose representative left the agency. We will make an effort to replace the representative from Boone County Fiscal Court for future Collaboratives. This position has not been filled on the Collaboratives at this time.

With the exception of the Kentucky Attorney General's Office, which will indicate its opinion at a later date, the members of both the Residential Collaborative and the Commercial & Industrial Collaborative agreed with this Application. Unless otherwise stated, the Residential Collaborative and the Commercial & Industrial Collaborative are jointly referred to herein as "Collaborative."

In addition to filing the annual status report, Duke Energy Kentucky and the Collaborative respectfully request a modification of Duke Energy Kentucky's DSM Riders to reflect the reconciliation of planned and actual expenditures, lost revenues, and shared savings. For this filing, Duke Energy Kentucky will be using results of recent impact evaluation studies to provide estimates of lost revenues and shared savings. In the previous year's filing, the Company requested Commission approval to continue the existing programs under the current DSM model until such time as the Commission approves the new programs proposed in its application under the save-a-watt model in Case No. 2008-00495 or until December 31, 2012. On January 30, 2010, the Commission approved Duke Energy Kentucky's request to Voluntarily Dismiss, Without Prejudice, its then pending save-a-watt Application. The Commission approved the

Company's request to continue its existing programs through December 31, 2012, by Order Dated March 22, 2010, in Case No. 2009-00444.

I. INTRODUCTION

A. Background

On December 17, 2002, the Commission issued its Order in Case No. 2002-00358 approving Duke Energy Kentucky's plan to continue the following DSM programs: Residential Conservation and Energy Education, Residential Home Energy House Call, and Residential Comprehensive Energy Education for a three-year period ending December 31, 2005; to continue to fund the expansion and improvement of existing programs and the development of new programs; and to implement a revised low-income home energy assistance program as a pilot through May 31, 2004. These programs were extended through 2009 by the April 4, 2006, Order in Case No. 2005-00402. The Commission, in its November 30, 2003, Order in Case No. 2003-00367, also approved the implementation of Power Manager, a residential direct load control program, through 2007. The Commission's April 4, 2006, Order in Case No. 2005-00402 authorized the Personalized Energy Report (PER) program as a pilot program. The Commission's May 14, 2008, Order in Case No. 2007-00369 approved the Company's Power Manager program through 2012 and approved the PER program for recovery of lost revenues and shared savings. Finally, the Commission's March 22, 2010, Order in Case No. 2009-00044 approved continuation of all programs through December 31, 2012.

This filing specifically addresses the requirements in prior Commission Orders: November 20, 2003, Order in Case No. 2003-00367, February 14, 2005, Order in Case 2004-00389, April 4, 2006, Order in Case No. 2005-00402, May 15, 2007, Order in Case No. 2006-00426, and May 14, 2008, Order in Case No. 2007-00369. In addition, this filing is being made consistent with the

Commission's September 18, 2007, Order in Case 2007-00369 granting Duke Energy Kentucky's request to file annual DSM applications no later than November 15. In the status and reconciliation portion of this report, expenses are reported for the period July 1, 2009 through June 30, 2010.

In Case No. 2009-00444, Duke Energy Kentucky was granted an Order approving continuation of the Company's existing DSM portfolio of programs until the earlier of Commission approval of the Company's application in Case No. 2008-495 or December 31, 2012.

Duke Energy Kentucky is seeking approval to implement a new energy efficiency program called Residential Smart Saver as further described below.

Duke Energy Kentucky also requests an Order in this proceeding approving the proposed adjustments to the DSM rider and addition of the proposed new program to the Company's existing DSM portfolio of programs.

B. Definitions

For the purposes of this Application, the following terms will have the meanings established in the Principles of Agreement, Demand Side Management (Exhibit 1 to the Application in Case No. 95-312, dated July 15, 1995):

- 1) **"DSM Revenue Requirements"** shall mean the revenue requirements associated with all Program Costs, Administrative Costs, Lost Revenues (less fuel savings), and the Shareholder Incentive.
- 2) **"Collaborative"** shall mean the Duke Energy Kentucky DSM Collaborative, which was established by the Signatories and other parties separately from this process.
- 3) **"Program Costs"** shall mean the costs incurred for planning, developing, implementing, monitoring and evaluating the DSM programs described in Section XI

of the Principles of Agreement, Demand Side Management (pp. 11-19) and the DSM programs that have been approved by the Collaborative.

- 4) **“Administrative Costs”** shall mean the costs incurred by or on behalf of the collaborative process and that are approved by the Collaborative, including, but not limited to, costs for consultants, employees and administrative expenses.
- 5) **“Lost Revenues”** shall have the meaning in Section IV of the Principles of Agreement, Demand Side Management.
- 6) **“Shareholder Incentive”** shall have the meaning in Section IV of the Principles of Agreement, Demand Side Management.
- 7) **“DSM Cost Recovery Mechanism”** shall have the meaning in Section IV of the Principles of Agreement, Demand Side Management.
- 8) **“Voucher”** shall mean the credit receipt the customer receives from a social service agency. The voucher can be used by the customer as a partial payment toward the utility bill.

II. STATUS OF CURRENT DSM PROGRAMS

Duke Energy Kentucky currently offers the following programs, the costs of which are recoverable through the DSM Cost Recovery Rider mechanism approved by the Commission in Case No. 2004-00389 and in subsequent proceedings.

- Program 1: Residential Conservation and Energy Education
- Program 2: Residential Home Energy House Call
- Program 3: Residential Comprehensive Energy Education Program (NEED)
- Program 4: Program Administration, Development & Evaluation Funds
- Program 5: Payment Plus

- Program 6: PowerManager
- Program 7: Energy Star Products
- Program 8: Energy Efficiency Website
- Program 9: Personalized Energy Report (PER)
- Program 10: C&I High Efficiency Incentive (for Businesses and Schools)
- Program 11: PowerShare

Under the current DSM Agreement and prior Commission Orders, all of these programs will remain in effect through December 31, 2012, as Ordered in Case No. 2009-00444.

This section of the Application provides a brief description of each current program, a review of the current status of each program, and information on any changes that may have been made to the programs. The following table provides a brief summary of the load impacts achieved and level of participation obtained during this filing period.

	Incremental Participation	Load Impacts Net of Free Riders	
		kWh	kW
<u>Residential Programs</u>			
Home Energy House Call	482	181,714	28.9
Energy Efficient Website	314	70,675	19.4
Energy Star Products*	28,890	1,629,955	278.2
Low Income Program	199	123,977	34.1
Refrigerator Replacement	92	100,004	24.1
Personalized Energy Report	7,010	2,559,447	620.3
Power Manager**	9,792		13,464.0
NEED	488	56,750	4.9
Total Residential	47,267	4,722,522	14,474.0

	Incremental	Load Impacts Net of Free Riders	
<u>Non-Residential Programs</u>	<u>Participation</u>	<u>kWh</u>	<u>kW</u>
C&I Lighting	24,801	336,409	886.8
C&I HVAC	89	69,086	140.5
C&I Motors	18	502,278	1,016.6
C&I Other	4,782	58,858	122.0
Custom Incentive Schools	25	13,188,212	433.5
Power Share	12		2,924.3
Total Non-Residential	29,727	14,154,843	5,523.6
Total	76,994	18,877,365	19,997.6
*Energy Star Products is number of bulbs not participants.			
**Cumulative number of controlled devices installed			

Results of the current cost-effectiveness test results for each of the programs are provided in Appendix A.

Program 1: Residential Conservation and Energy Education

The Residential Conservation and Energy Education program is designed to help the Company's income-qualified customers reduce their energy consumption and lower their energy cost. This program specifically focuses on LIHEAP (Low Income Home Energy Assistance Program) customers that meet the income qualification level (*i.e.*, income below 130% of the federal poverty level). This program uses the LIHEAP intake process as well as other community outreach to improve participation. The program provides direct installation of weatherization and energy-efficiency measures and educates Duke Energy Kentucky's income-qualified customers about their energy usage and other opportunities to reduce energy consumption and lower their costs. The program has provided weatherization services to 251 homes in 2000; 283 in 2001; 203 in 2002; 252 in 2003; 252 in 2004; 130 in 2005; 232 in 2006;

252 in 2007; 265 in 2008 and 222 in 2009. For the fiscal year 2010², 199 homes were weatherized.

The program is structured so that the homes needing the most work, and having the highest energy use per square foot, receive the most funding. The program does this by placing each home into one of two “Tiers.” This allows the implementing agencies to spend the limited budgets where there is the most significant potential for savings that is also cost effective. For each home in Tier 2, the field auditor uses the National Energy Audit Tool (NEAT) to determine which specific measures are cost effective for that home. The specific services provided within each Tier are described below.

The tier structure is defined as follows:

	Therm / square foot	kWh use/ square foot	Investment Allowed
Tier 1	0 < 1 therm / ft2	0 < 7 kWh / ft2	Up to \$600
Tier 2	1 + therms / ft2	7 + kWh / ft2	All SIR* \geq 1.5 up to \$4K

*SIR = Savings - Investment Ratio

Tier One Services

Tier 1 services are provided to customers by Duke Energy Kentucky, through its subcontractors. Customers are considered Tier 1, if they use less than 1 therm per square foot per year or less than 7 kWh per square foot per year based on the last year of usage (weather adjusted) of Company supplied fuels. Square footage of the dwelling is based on conditioned space only, whether occupied or unoccupied. It does not include unconditioned or semi-conditioned space (non-heated basements). The total program dollars allowed per home for Tier One services is \$600.00 per home.

² July 1, 2009 to June 30, 2010.

Tier One services are as follows:

- Furnace Tune-up & Cleaning
- Furnace replacement if investment in repair over \$500
- Venting check & repair
- Water Heater Wrap
- Pipe Wrap
- Waterbed mattress covers
- Cleaning of refrigerator coils
- Cleaning of dryer vents
- Compact Fluorescent Light (CFL) Bulbs
- Low-flow shower heads and aerators
- Weather-stripping doors & windows
- Limited structural corrections that affect health, safety, and energy up to \$100
- Energy Education

Tier Two Services

Duke Energy Kentucky will provide Tier Two services to a customer, if they use at least 1 therm or at least 7 kWh per square foot per year based on the last year of usage of Duke Energy Kentucky supplied fuels.

Tier Two services are as follows:

- Tier One services plus:
- Additional cost-effective measures (with $SIR \geq 1.5$) based upon the results of the NEAT audit. Through the NEAT audit, the utility can determine if the cost of energy saving measures pay for themselves over the life of the measure as

determined by a standard heat loss/economic calculation (NEAT audit) utilizing the cost of gas and electric as provided by Duke Energy Kentucky. Such items can include but are not limited to attic insulation, wall insulation, crawl space insulation, floor insulation and sill box insulation. Safety measures applying to the installed technologies can be included within the scope of work considered in the NEAT audit as long as the SIR is greater than 1.5 including the safety changes.

Regardless of placement in a specific tier, Duke Energy Kentucky provides energy education to all customers in the program.

To increase the cost-effectiveness of this program and to provide more savings and bill control for the customer, the Collaborative and Duke Energy Kentucky proposed in the September 27, 2002, filing in Case No. 2002-00358, and subsequently received approval to expand this program, to include refrigerators as a qualified measure in owner-occupied homes. Refrigerators consume a large amount of electricity within the home, and the program impacts have been updated during this year to reflect current energy savings and refrigerator replacements. To determine replacement, the program weatherization provider performs a two-hour meter test of the existing refrigerator unit. If it is a high-energy consuming refrigerator, as determined by this test, the unit is replaced. The program replaces about half of the units tested. Replacing with a new Energy Star qualified refrigerator, which uses approximately 400 kWh, results in an overall savings to the average customer typically in excess of 1,000 kWh per year.

Refrigerators tested and replaced:

- 2003 = 116 tested and 47 replaced
- 2004 = 163 tested and 73 replaced

- 2005 = 115 tested and 39 replaced
- 2006 = 116 tested and 52 replaced
- 2007 = 136 tested and 72 replaced
- 2008 = 173 tested and 85 replaced
- 2009 = 153 tested and 66 replaced
- 2010 = 167 tested and 92 replaced

The existing refrigerator being replaced is removed from the home and destroyed in an environmentally appropriate manner to assure that the units are not used as a second refrigerator in the home or do not end up in the secondary appliance market.

Program 2: Residential Home Energy House Call

The Home Energy House Call (HEHC) program is administered by Duke Energy Kentucky contractor Wisconsin Energy Conservation Corporation, Inc. (WECC). WECC has been administering and implementing programs for 25 years. It is one of the largest program operators in the region. WECC's knowledge of home energy audits comes from years of experience administering weatherization programs for income eligible customers and implemented through subcontractor Thermal Scan Inspections, Inc. (TSI). TSI is located in Carmel, Indiana. TSI has been in the business of providing a wide array of inspection services for commercial and industrial businesses, municipalities, contractors and homeowners to identify, repair and protect homes, buildings, equipment and structures from moisture, leaks, corrosion and inefficient energy usage since 1979. They received the **Energy Star** for Homes **Outstanding Achievement Award** two years in a row recognizing the important contribution they make to energy efficient construction and environmental protection. Together, WECC and TSI provide the administration, marketing, staff, tracking, systems, logistics, training, customer

service, scheduling and technical support required to support Duke Energy Kentucky's HEHC program. The HEHC program provides a comprehensive walk through in-home analysis by a qualified home energy specialist to identify energy savings opportunities in homes. The energy specialist analyzes the total home energy usage, checks the home for air infiltration, examines insulation levels in different areas of the home, and checks appliances and heating/cooling systems. A comprehensive report specific to the customer's home and energy usage is then provided to the customer at the time of the audit. The report focuses on the building envelope improvements as well as low-cost and no-cost improvements to save energy. At the time of the home audit, the customer receives a kit containing several energy saving measures at no cost. The measures include a low-flow showerhead, two aerators, outlet gaskets, and three compact fluorescent bulbs. The auditors will offer to install these measures, if approved by the customer, so that the customer can begin realizing an immediate savings on their electric bill, and to help insure proper installation and use.

For the period of July 1, 2009 through June 30, 2010, a total of 482 audits were completed in Kentucky. During this filing period, direct mail brochures were mailed to customers in an effort to acquire the proposed participation for this program process. To date, customer satisfaction ratings for the program continue to remain high.

The auditors carry laptop computers on-site and can enter the data collected into the software directly, eliminating error from third party interpretation, and also allows a customer to receive their energy audit information immediately on site.

Program 3: Residential Comprehensive Energy Education

The Residential Comprehensive Energy Education program is operated under subcontract by the National Energy Education Development (NEED). Launched in 1980, NEED promotes

student understanding of the scientific, economic, and environmental impacts of energy. The program is currently available in 50 states, and the U.S. territories. NEED operates on a limited basis internationally. The program has provided comprehensive information on all energy sources and issues, with an emphasis on efficiency and conservation in both the residential and institutional market. State standards based Energy curriculum and hands-on kits, emphasizing inquiry science and the application of energy knowledge, are provided to teachers for use in their classrooms. Teachers can utilize the kits and curriculum over many years. In addition, Home Energy Efficiency Kits are delivered to families to install energy efficiency measures and to record energy savings. All students that participated in the curriculum are eligible for the Home Energy Efficiency kits. Energy Workshops are designed to provide educators (teaching grades K-12) with the content knowledge and process skills to return to their classrooms and communities, energize and educate their students and provide outreach to families and to conduct energy education programs that assist families in implementing behavioral changes that reduce energy consumption.

The Kentucky NEED Project has been active in the Commonwealth's schools for 14 years. Kentucky NEED delivers curriculum, teacher training, and school support services to local schools. In addition, Kentucky NEED manages the overall implementation for the Duke Energy Kentucky program and works with individual schools, teachers, and students to gain the maximum impact for the program. Kentucky NEED has received numerous accolades for its support of energy efficiency and conservation in local schools, for its support of Energy Star's Change the World Campaign, and for the integration of a student/family approach to conservation education. Overall, the program has reached teachers and students across the service territory. In 2009-10, three teacher workshops were held in Northern Kentucky reaching

86 teachers who teach 9,326 students.

Due to efforts of the Kentucky NEED Project, energy and facility managers with the Kenton County School District implemented a voluntary program that garnered national recognition for their energy management plans - incorporating student energy teams and classroom energy education. This led to the construction of a Leadership in Energy and Environmental Design (LEED) certified school building and the design and construction of additional high performance schools in the county and elsewhere in the Commonwealth. Kenton County's latest project is the new Turkey Foot Middle School, designed to be a net-zero energy school with the installation of the required number of solar panels and other energy conservation and efficiency features. NEED Curriculum is being implemented at the school and supports a STEM (Science, Technology, Engineering and Mathematics) focus. In addition to providing safe and effective learning environments that are more efficient and cost effective than traditional schools, these schools are also designed as 'learning laboratories.' Students work with architects, engineers and contractors to learn about the buildings before, during and after construction. Once in the building, the students on the energy team lead tours of the buildings for visitors and community members.

Kentucky NEED's partnership with the Kentucky Department for Energy Development and Independence (DEDI) has expanded to include funds to hire four regional energy education coordinators to assist with the facilitation of energy programming and the development of student energy teams across the Commonwealth. The coordinator for Northern Kentucky works with schools, teachers and students requesting energy education and curriculum integration assistance. The DEDI partnership continues to promote high performance school construction and the implementation of low cost measures as a foundation for larger, more cost-saving

projects. The program addresses: (1) building energy efficiency improvements through retrofits financed by use of energy saving performance contracts (ESPC) and improved new construction; (2) school transportation practices; (3) educational programs; (4) procurement practices; and (5) linkages between school facilities and activities within the surrounding community. This program is now called Kentucky High Performance Sustainable Schools Program and the training programs for it are supported by Kentucky NEED. During the 2008-09 school year, this program expanded the partnership to include KEEPS (KY Energy Efficiency Program for Schools) and Kentucky School Plant Management Association (KSPMA). These workshops focused more on energy saving operations and maintenance opportunities that included establishing school energy teams consisting of maintenance/custodial staff, teacher advisor(s) and student energy teams. The student teams are encouraged to focus their efforts on developing an energy plan for their schools to encourage energy saving behaviors by all members of the school community. In July of 2010, a fifth partner joined the team. DEDI provided funding for the Kentucky School Energy Managers Project (SEMP) that provides support for school districts to hire energy managers. Kentucky NEED works closely with the energy managers across the state, to assist in the development of student energy teams, and integration of energy curriculum that addresses energy behaviors in their schools in partnership with the district level energy team.

To improve and better document the energy savings associated with the program, a change was made in 2004 adding a new survey instrument for use in the classroom and Saving Energy at Home and School Kit that serves as a companion to the Home Energy Efficiency Kits delivered to families in the Duke Energy Kentucky service area. A curriculum was developed, piloted, improved with teacher feedback, and delivered to schools participating in the Duke Energy sponsored program. In addition to the curriculum content delivered, the program

includes household surveys, to allow teachers and families to encourage and implement in-home adoption of energy efficiency measures. Data collected from the home survey is collected and provided to Duke Energy annually. Setting these metrics and collecting the data has shown that the measures included in the Home Energy Efficiency Kits are being installed and utilized. The Home Energy Efficiency Kits include CFL bulbs, low-flow shower heads, faucet aerators, water temperature gauge, outlet insulation pads, and a flow meter bag. During the 2009-10 school year, 488 kits were distributed.

In partnership with DEDI, NEED continues to promote school participation in ENERGY STAR's Change the World, Start with Energy Star campaign. To support, recognize and encourage student energy leadership, Kentucky NEED hosts the annual Kentucky NEED Youth Awards for Energy Achievement Luncheon in Frankfort each May, honoring teams of students who have successfully planned and facilitated energy projects in their schools and communities. One hundred twenty-seven students participated on these teams, reaching 7,148 students and 40,664 community members. Students and teachers from Phillip Sharp Middle School, Tichenor Middle School, and Summit View Elementary School attended the 30th Annual NEED Youth Awards for Energy Achievement to represent Kentucky's success.

Program 4: Program Administration, Development, & Evaluation

This program is responsible for designing, implementing and capturing costs related to the administration, evaluation and support of the Collaborative and Duke Energy Kentucky's overall DSM effort. Program development funds are utilized for the redesign of programs and for the development of new programs, or program enhancements, such as the refrigerator replacement portion of the Residential Conservation and Energy Education program. Evaluation funds are used for cost effectiveness analysis and evaluation, impact evaluation and process

evaluation of program activities, such as those included as appendices to this filing and the reports provided in past filings. Funds going forward will be used to again monitor, evaluate and analyze these programs to improve cost effectiveness and program design. Therefore, Duke Energy Kentucky expects, and has planned for, the continuation of funding for this program to cover evaluation study costs for the current year's activities as well as future evaluations. Duke Energy Kentucky strives to optimize and balance the use of these program funds, such that program development and redesign continues, that all programs are analyzed every year for cost effectiveness, and that programs are generally afforded the opportunity for a full scale impact evaluation and energy savings assessment once every two to three years. Duke Energy Kentucky believes that it is unnecessary to spend funds on impact evaluations every year for all programs, but also understands that all programs must undergo impact evaluation scrutiny and review at least once every two to three years.

To be able to conduct the evaluation methods necessary in accordance with IPMVP (International Performance Measurement and Verification Protocol), Duke Energy Kentucky seeks approval to increase this portion of the budget by \$60,000 and that the costs allocated to this budget be used to assess the viability of the commercial programs. Recovery of this increase in the budget would be attributed to the commercial programs.

Program 5: Payment Plus

Over the past few years, the Residential Collaborative and Duke Energy Kentucky have tested an innovative home energy assistance program called Payment Plus. The program was designed to impact participants' behavior (*e.g.*, encourage meeting utility bill payments as well as eliminate arrearages) and to generate energy conservation impacts. That program was extended with the Commission's Order in Case No. 2004-00389 to include both the early

participants and new participants each year.

The program has three parts:

1. Energy & Budget Counseling – to help customers understand how to control their energy usage and how to manage their household bills, a combined education/counseling approach is used.
2. Weatherization – participants in this program are required to have their homes weatherized as part of the normal Residential Conservation and Energy Education (low-income weatherization) program unless weatherized in past program years.
3. Bill Assistance – to provide an incentive for these customers to participate in the education and weatherization, and to help them get control of their bills, payment assistance credits are provided to each customer when they complete the other aspects of the program. The credits are: \$200 for participating in the EE counseling, \$150 for participating in the budgeting counseling, and \$150 to participate in the Residential Conservation and Energy Education program. If all of the requirements are completed, a household could receive up to a total of \$500. This allows for approximately 125 homes to participate per year as some customers do not complete all three steps or have already had the weatherization completed prior to the program.

This program is offered over six winter months per year, starting in August. Customers are tracked and the energy savings is evaluated after two years to see if customer energy consumption dropped, and whether changes in bill paying habits have occurred. Previous participants' energy savings have been evaluated and compared to a control group of customers with similar arrearages and incomes. This analysis is the longest-running impact and process evaluation in the country looking at both energy savings and arrearages from a single program.

From this analysis, there is long-term evidence that the program is effective at reducing energy usage and arrearages. Copies of the evaluation report were included in the 2006 filing. Given the positive evaluation results, the Collaborative proposed and the Commission approved in May 2007 continuation of the program at a cost of \$150,000 per year through 2009; this was extended through December 31, 2012, in Case No. 2009-00444. Follow-up educational reinforcement took place for all participants beginning in the fall of 2007. For the filing period beginning in the fall of 2009, 90 participants attended energy education counseling, 66 participants attended budget counseling and 44 participant homes have been weatherized. Test scores for this program will be updated upon completion of the next impact evaluation. Weatherization load impacts and program costs for the participants were included in the test scores for the Residential Conservation and Energy Education program.

Program 6: Power Manager®

The purpose of the Power Manager® program is to reduce demand by controlling residential air conditioning usage during peak demand conditions in the summer months. It is available to residential customers with central air conditioning. Duke Energy Kentucky attaches a load control device to the outdoor unit of a customer's air conditioner. This enables Duke Energy Kentucky to cycle the customer's air conditioner off and on when the load on Duke Energy Kentucky's system reaches peak levels.

Customers participating in this program receive a one-time enrollment incentive and a bill credit for each Power Manager® event. Customers who select Option A, which cycles their air conditioner to achieve a 1 kW reduction in load, receive a \$25 credit at installation. Customers selecting Option B, which cycles their air conditioner to achieve a 1.5 kW load reduction, receive a \$35 credit at installation. For both options, a Variable Daily Event Incentive

based upon marginal costs is also provided for each cycling event.

The load control devices have built-in safe guards to prevent the “short cycling” of the air-conditioning system. The air-conditioning system will always run the minimum amount of time required by the manufacturer. The cycling simply causes the air-conditioning system to run less, which is no different than what it does on milder days. Additionally, the indoor fan will continue to run and circulate air during the cycling event.

Given our supply position in Kentucky, the Company did not actively promote Power Manager® to our customers during the July 2009 through June 2010 fiscal year. We will re-evaluate whether or not to resume promotion of the program based on our IRP (Integrated Resource Plan) analysis to be completed and filed on July 1, 2011. Without directly marketing the program, 86 customers enrolled in Power Manager® during the past fiscal year. For these new participants and for replacements of existing load control devices, we continue to use switches manufactured by Cooper Power Systems/Cannon Technologies. With the Cannon devices we are achieving an average reduction of .99 kW per switch.

During the past fiscal year we continued quality control testing, consisting of a general inspection of the air conditioner and switch installation, and retrieval of the event performance data stored in the switch. Over 2400 devices were checked; and of these, slightly over 500 were found to be not performing properly and were replaced. This ongoing quality management effort provides assurance that the program is operating as intended, and at a load reduction level that continues to be cost effective. These quality assurance efforts will continue.

Ongoing measurement and verification is conducted through a sample of Power Manager® customers with switches that record hourly run-time of the air conditioner unit and with load research interval meters that measure the household kWh usage in 15-minute intervals.

Annual operability studies are used to measure the performance of Power Manager® load control devices in Kentucky. While this year's study is focused on Cannon switches, we will update our 2009 study of CSE devices next year. Switch performance is assessed by analysis of scan data showing the contents of key switch registers. An initial collection of scan data for the full sample was completed in July, 2010. Before final operability results are determined, there will be a second scan data collection at the end of the control season for some devices in the sample.

Program 7: ENERGY STAR Products

As approved in Order 2004-00389, the ENERGY STAR Products program provides incentives and market support through manufacturer and retailer partners to build market share and usage of ENERGY STAR products, particularly CFLs. Incentives to buyers, along with educational materials, stimulate demand for the products, and make it easier for partners to participate. The program targets residential customers' purchase of specified ENERGY STAR technologies at local retail stores.

Price continues to be the primary market barrier to CFL adoption. While the average price of CFL's has dropped slightly in the last 12 months, the cost of a CFL is generally much higher than traditional incandescent alternatives (*e.g.*, \$2.50 vs. \$.75). This cost difference is more exaggerated for specialty CFLs such as "can lights," 3-way bulbs and outdoor lights.

In the fall of 2009, Duke Energy Kentucky partnered with GE offering customers discount coupon offers. Mailing discount coupons directly to customers' homes allows Duke Energy Kentucky to reach customers beyond those customers who had previously participated in prior promotions.

The GE campaign kicked-off on September 10th, 2009, with coupons valid through December 31st, 2009. The goal of this campaign was to encourage more customers to participate,

by presenting an offer that allowed those customers to use the coupons at the retailer of their choice, further expanding the program's reach. Working closely with our manufacturing partner, GE, Duke Energy Kentucky identified the most popular package size that gave the greatest variety to customers, while at the same time encouraged customers to purchase and install multiple CFL bulbs. Duke Energy Kentucky customers received a coupon mailer with four coupons each offering \$3 off the purchase of two GE CFL 2-packs. In addition to having retailer options, this promotional offer gave customers the chance to purchase the wattage and bulb style of their choice, at a discount.

Program 8: Energy Efficiency Website, On-line Energy Assessment

As approved in Order 2004-00389, Duke Energy Kentucky is authorized to offer opportunities for customers to assess their energy usage and obtain recommendations for more efficient use of energy in their homes at the Duke Energy Kentucky website. This Kentucky program fits suitably into our new multi-state program design now referred to as our Residential Energy Assessment Program.

Duke Energy Kentucky customers visiting their Online Services account at duke-energy.com are encouraged to take a short Energy Efficiency survey (EE survey). Participants receive an immediate, online, printable Energy Efficiency report (EE report) and are also sent a package of six, free Compact Fluorescent Light (CFL) bulbs. The customized online EE report gives the customer information on the home's energy usage, providing the customer energy tips and information regarding how they use energy and what simple, low cost/no cost measures can be undertaken to lower their energy bill. The report also contains information on month-to-month comparisons of energy usage, trend chart showing usage of electric and/or gas by kWh/ccf by month, a disaggregation of how the customer uses electricity and/or gas in the most important

appliances, and customized energy tips based on the customer's answers to questions in the survey.

After several months of revising the Duke Energy Kentucky website to include new content from our energy efficiency website vendor, ACLARA™, the online EE Survey and free CFL offer was rolled out to Duke Energy Kentucky customers in March of 2010. From March through June, 314 Duke Energy Kentucky customers completed the online EE Survey and received a pack of six CFLs.

Participants in this program respond to an online offer that appears when they visit their Online Services account. The offer shows up for any Online Services customer who has not yet participated in this program. It should be noted that another Duke Energy program called the Personalized Energy Report (PER) is similar, but involves a mailed offer instead of an online offer (see Program 9).

Program 9: Personalized Energy Report (PER)

The PER program provides Duke Energy Kentucky customers with a customized Energy Efficiency report aimed at helping them better manage their energy costs. This is similar to the online EE Survey and CFL offer described in Program 8, except that this program utilizes a mailed offer for those who do not have computer access or choose not to use the online programs. The EE report and six CFLs are mailed to those customers who mail in a completed survey.

This program targets single family residential customers in the Duke Energy Kentucky market that have not received measures through the Home Energy House Call home audit or Residential Conservation & Energy Education programs within the last three years. Duke Energy Kentucky has been working with ACLARA™ software to coordinate the customer's

energy efficiency experiences between the online offer, described under the Online Energy Assessment program above, and this mailed version, or “paper” offer. (Marketing activities under this program were suspended in 2008 and 2009 pending the reorganization and harmonization of the website with the new vendor ACLARA™. The PER program rolled out in May 2010 to Kentucky customers.)

To receive the paper version of the EE report (*i.e.*, the PER), a customer completes an EE survey that generates the PER. The EE survey stimulates the customer to think about how they use energy, and then the mailed report provides them with tools and information to lower their energy costs. The program commences with a letter to the customer, offering the PER if they would return the enclosed short, energy survey about their home. The survey asks very simple questions such as age of home, number of occupants, types of fuel used to cool, heat, and cook. Once the survey is returned, the information is used to generate a customized PER. The PER contains the same information as the EE survey described under the Online Energy Assessment program above, but is mailed to the home instead of viewed online. To lower mailing costs, customers who receive the mailed survey and PER offer are encouraged to visit Duke Energy Kentucky’s website instead and fill in the same survey online instead of returning the paper survey and waiting for the mailed PER report. The online report is immediately available in a printable format. The online option saves costs in the long run, and provides a source for customers to reprint their report, if desired. All participants also receive a free package of six CFLs. The bulbs are two different sizes to accommodate different lighting needs in the home.

The Kentucky PER offer was mailed to 53,000 customers on May 25, 2010. Results for this campaign will be divided into two reporting periods. For the current period of July 2009 through June 2010, there were 7,010 participants. Since July 1, there have been an additional

3664 participants for a campaign total of 10,374. This represents an outstanding response rate of about 20%. Of the 10,374 participants campaign-to-date, 1926 or about 19% of all responses chose to use the online survey and view the online report instead of requesting the mailed report.

Program 10: C&I High Efficiency Incentive (Business and Schools)

The Commission's Order in Case No. 2004-00389 approved a program for Duke Energy Kentucky to provide incentives to small commercial and industrial customers to install high efficiency equipment in applications involving new construction, retrofit, and replacement of failed equipment. The approval included a portfolio of nearly 100 lighting, HVAC, Motors/Pumps/VFDs, Process, Food Services equipment and Energy Star Commercial clothes washers.

Program operations began in October of 2005. However, the portfolio was downsized to some degree until a similar expanded program was approved in either Indiana or Ohio to gain efficiencies in administration costs. Results in the first 9 month of program rollout were beyond expectation. Thirty-six applications were processed totaling \$313,350 in incentives. Duke Energy Kentucky attributed this to a pent-up demand in the marketplace and the installation of the High Bay T-8 and T-5 lighting fixtures. In response to the market, the following adjustments were made to the program in order to serve more customers and remain cost effective:

- Incentives for T-8, T-5 and High Bay fixtures were no longer eligible in a "new construction" application, only retrofit applications. The new construction market was utilizing these technologies as the standard so incentives were no longer necessary.
- The incentive levels for T-8 High Bay and T-5 High Output High Bay fixtures were adjusted to align with price changes in the market.
- A cap of \$50,000 per facility per calendar year was implemented in an effort to serve

more customers.

- A reservation system was instituted during the proposal stage, to ensure that customers will receive their incentives once the project is complete.

In April of 2007, the program funds had exhausted again and Duke had to carryover \$81,248 in incentives for customers until the new fiscal year budget became available. On May 15, 2007, the Commission approved Duke Energy Kentucky's application to increase funding for 100% with an additional \$451,885 for a Kentucky Schools program.

Duke Energy Kentucky continues to contract with WECC to provide the back office support for implementation of this program. This program is jointly implemented with the Duke Energy Indiana and Duke Energy Ohio territories to reduce administrative costs and leverage promotion. WECC, located in Madison, Wisconsin, has 25 years experience in delivering programs similar to this. They have an office in the Midwest and are able to support Duke Energy programs in this region. The primary delivery of the program is through the existing market channels, equipment providers and contractors. WECC had an existing network of relationships with Vendors and Trade Ally organizations in Duke Energy Kentucky's service territory that have helped promote the sale of energy efficient equipment during these difficult economic times.

During the current reporting period July 2009 through June 2010, the Kentucky Smart Saver program continued to be successful. Eighty customers received \$411,606 in incentives.

Schools: assessments, prescriptive and custom efforts

The Schools program, approved on May 15, 2007, provides schools funding for facility assessments, custom and prescriptive measures rebates and EE education from the NEED organization.

Between July 2009 and June 2010, two school districts took advantage of incentives through the custom incentive application. Kenton County School District received \$118,307 in incentives for a total of 24 energy efficiency projects at 15 different facilities, and Ft.Thomas School District received \$3,800 in incentives for a project at Highland Middle School.

Duke Energy Kentucky Schools Custom Program was well-received. It provided an additional funding source for EE measures that are not included in Duke Energy Kentucky's portfolio of Prescriptive Incentives. The program helped motivate additional custom EE within schools.

Upon receiving a Custom Incentive application, Duke Energy Kentucky reviews the application and performs a technical evaluation as necessary to validate energy savings. Measures submitted by the customer are then modeled in DSMore to determine an acceptable incentive that ensures cost effectiveness to the program overall, given the energy savings, and improves a customer's payback to move them to invest in energy efficiency. Evaluation follow-up and review includes application review, site visits and/or onsite metering and verification of baseline energy consumption, customer interviews, and/or use of loggers/sub-meters. As use of Custom Incentives increases, Duke Energy Kentucky will evaluate applications and determine if additional measures can be included in the Prescriptive Incentives program. Including measures that repeatedly arise in Custom Incentive applications in the Prescriptive Incentives makes planning and applying for measure incentives easier for customers.

Program 11: PowerShare®

PowerShare® is the brand name given to Duke Energy Kentucky's Peak Load Management Program (Rider PLM, Peak Load Management Program KY.P.S.C. Electric No. 2, Sheet No. 77). The PLM Program is voluntary and offers customers the opportunity to reduce

their electric costs by managing their electric usage during the Company's peak load periods. Customers and the Company will enter into a service agreement under this Rider, specifying the terms and conditions under which the customer agrees to reduce usage. There are two product options offered for PowerShare® called CallOption® and QuoteOption®:

- CallOption®
 - A customer served under a CallOption® product agrees, upon notification by the Company, to reduce its demand.
 - Each time the Company exercises its option under the agreement, the Company will provide the customer a credit for the energy reduced.
 - There are two types of events.
 - Economic events are primarily implemented to capture savings for customers and not necessarily for reliability concerns. Participants are not required to curtail during economic events. However, if participants do not curtail, they must pay a market based price for the energy not curtailed. This is called "buy through energy."
 - Emergency events are implemented due to reliability concerns. Participants are required to curtail during emergency events.
 - If available, the customer may elect to buy through the reduction at a market-based price. The buy through option is not always available as specified in the 2010 PowerShare® Agreements. During Midwest Independent System Operator, Inc. (Midwest ISO) declared emergency events, customers are not provided the option to buy through.
 - In addition to the energy credit, customers on the CallOption® will receive an

option premium credit.

- For 2010, there are three different enrollment choices for customers to select between. All three choices require curtailment availability for up to five emergency events per Midwest ISO requirements for capacity participation. Economic events vary among the choices. Customers can select exposure of zero, five, or ten economic events.
- Only customers able to provide a minimum of 100 kW load response qualify for CallOption®.
- QuoteOption®
 - Under the QuoteOption® products, the customer and the Company agree that when the average wholesale market price for energy during the notification period is greater than a pre-determined strike price, the Company may notify the customer of a QuoteOption® event and provide a Price Quote to the customer for each event hour.
 - The customer will decide whether to reduce demand during the event period. If they decide to do so, the customer will notify the Company and provide an estimate of the customer's projected load reduction.
 - Each time the Company exercises the option, the Company will provide the customer an energy credit.
 - There is no option premium for the QuoteOption® product since customer load reductions are voluntary.
 - Only customers able to provide a minimum of 100 kW load response qualify for QuoteOption®.

Rider PLM was approved pursuant as part of the settlement agreement in Case No. 2006-00172. In the Commission's Order in Case No. 2006-00426, approval was given to include the PowerShare® program within the DSM programs.

PowerShare® 2010

Duke Energy Kentucky's customer participation goal for 2010 was to retain all customers that currently participate and to promote customer migration to the CallOption® program. As seen in the table below, QuoteOption participation decreased this year. Due to a switch in system vendors, it became necessary for QuoteOption customers to enroll in the Energy Profiler Online product. This product carries a small monthly fee. The small monthly fee is the primary reason customers left the program.

The table below compares account participation levels for 2009 and 2010, as well as MW's enrolled in the program. The MW values are Duke Energy Kentucky's estimate of the curtailment capability across the summer of 2010.

Kentucky PowerShare® Participation Update					
Enrolled Customers					
CallOption			QuoteOption		
<u>2009</u>	<u>2010</u>	<u>Change</u>	<u>2009</u>	<u>2010</u>	<u>Change</u>
10	12	2	33	23	-10
Summer Curtailment Capability (MW's)*					
CallOption			QuoteOption		
<u>2009</u>	<u>2010</u>	<u>Change</u>	<u>2009</u>	<u>2010</u>	<u>Change</u>

12.2 13.6 1.4 6.1 6.3 0.2

*Capability for QuoteOption is 80% of enrolled load curtailment estimate

CallOption numbers reported are adjusted for losses

During the summer of 2010, there were five CallOption® events and no QuoteOption® events. All CallOption events were economic events. There were no CallOption emergency events. The table below summarizes event participation.³

Duke Energy Kentucky - PowerShare® CallOption Economic Events						
Summer 2010 Activity						
Date	Event Hours	Participants	Participants Reducing Load Partially or Fully	Average Hourly Load Reduction Available - Before Losses	Average Hourly Load Reduction - Before Losses	Average Hourly Load Reduction - After Losses
7/7/2010	Noon to 8 PM	12	6	15.4	2.7	2.8
7/23/2010	Noon to 8 PM	12	9	15.4	1.1	1.2
8/10/2010	Noon to 8 PM	12	7	16.6	1.7	1.8
8/12/2010	Noon to 8 PM	12	5	16.5	1.1	1.1
8/13/2010	Noon to 8 PM	12	5	16.1	1.6	1.7

³ “PowerShare CallOption participants are presented with the option to “buy-through” economic events since system reliability is not a concern during economic events. As can be seen above, several customers took full advantage or partial advantage of this option given that actual curtailment amounts are less than the available amounts. For energy consumed under this buy-through option, customers pay a market based price for energy. Buy-through is not available during emergency events.”

For PowerShare® 2010, there were several significant changes implemented as anticipated last year. These changes included:

- An earlier start to the enrollment period to accommodate Duke Energy Kentucky and Midwest ISO requirements;
- The new CallOption 0/5 added to customer participation choices; and
- Annual testing requirements for participants using a generator as the source of their load curtailment.

For PowerShare® 2011, Duke Energy Kentucky currently is not anticipating any changes from the 2010 program structure. It should be noted that Duke Energy Kentucky is currently researching the changes that may be needed to the programs in order to transition from MISO to PJM starting on January 1, 2012. Changes to the PowerShare® program structure for this transition are not fully known at this time but will be detailed in next year's filing.

III. APPLICATION FOR APPROVAL TO IMPLEMENT RESIDENTIAL SMART SAVER PROGRAM

Program 12: Residential Smart Saver

Duke Energy Kentucky, along with the support of the Residential Collaborative (with the exception of the Office of the Attorney General, who abstained) seeks authority from the Commission for Duke Energy Kentucky to implement a new Residential Energy Efficiency/DSM program, the Residential Smart Saver, and to recover costs including net lost revenues and incentives related to this program. The Company requests that the program be implemented for an initial three year term through December 31, 2013. The objective of this program is to offer additional incentives to qualifying residential customers in support of the Kentucky Housing Corporation's Kentucky Home Performance conservation program.

In support of this Application, Duke Energy Kentucky states as follows:

1. **Background:** The Kentucky Housing Corporation, KHC, is launching a statewide single family energy conservation program called Kentucky Home Performance (KYHP). KYHP takes a whole-house approach to improve energy efficiency, health, and comfort. This state-wide program targets households at or above 200% of poverty in order to initiate energy conservation and to stimulate the residential home improvement market. KHC aims to increase whole-house energy efficiency and renewable energy improvements to residences across the Commonwealth.
2. **Partnership:** Duke Energy Kentucky has partnered with KHC to support the establishment and growth of KYHP within the Company's Kentucky service area. The new program, Residential Smart Saver, will be complimentary to KYHP by offering incentives on a suite of energy home improvements that support the objectives of KYHP. The program encourages the customer to install the improvement measures that are not only right for their home, but also provide the greatest opportunity for energy savings.
3. **Measures:** Improvement measures in the program are the envelope improvements of attic insulation and air sealing, duct sealing and tune-ups for central air conditioning and heat pump equipment. For those customers who need more than an equipment tune-up, the program offers incentives for the installation of high efficiency heat pumps or air conditioners in both existing homes and new construction.
4. **Target Market:** Eligible customers are those Duke Energy Kentucky customers living in owner occupied residences. Duke Energy Kentucky will offer incentives to customers when one or more of the qualifying energy efficient improvements are

installed in their home by a qualified contractor. While customers are encouraged to participate in the KYHP program, it is not a requirement in order to receive the Duke Energy Kentucky Residential Smart Saver incentive.

5. **Incentives:** Incentives are paid for the installation of qualifying and defined energy home improvement measures. The table below outlines the incentive structure:

Qualifying Improvement Measure	Customer Incentive	Contractor Incentive
Attic Insulation and air sealing	\$250	
Duct Sealing	\$100	
Heat Pump Tune Up	\$50	
Air Conditioner Tune Up	\$50	
High Efficiency Heat Pump *	\$200	\$100
High Efficiency Central Air Conditioner*	\$200	\$100

*In new homes the builder can apply to receive the entire \$300 incentive

6. **Cost Effectiveness:** The benefit/cost ratios based on the best available information at the time of the program design are as follows:

Program Name	UCT Cost Based Norm	TRC Cost Based Norm	RIM(Net Fuel)Cost Based Norm	Participant Test Today's Value
KY_ ResSmartSaver	2.20	1.38	0.91	2.35

7. **Expected Savings/ Benefits:** Projected energy savings and demand reductions are estimated based on the anticipated number of installations of various types of energy efficient measures. The estimated effects of T& D losses are included and Free riders are included. The projected total program benefits at the end of the three-year period are an energy savings of 5,532,146 KWh.

8. **Implementation Plan:** Duke Energy Kentucky will employ third party companies to administrator (Program Administrator) the Residential Smart Saver program. The Program Administrator Company is responsible for working with “Trade Allies” such as heating contractors or insulation companies who are in direct contact with the residential customers. Once the customer decides to purchase a qualifying improvement measure, an incentive application is prepared by the “Trade Ally” and sent to the Program Administrator where it is processed and verified. The verification includes the confirmation that the applicant is a Duke Energy Kentucky customer and that the improvement installed is a part of the program. Once this is complete, the incentive payments are made by the Program Administrator to the customer and contractor as applicable. A third party vendor, Customer Link, is employed by Duke Energy Kentucky to handle customer calls on the program, answering the questions and or directing the caller to the proper person.

The proposed methods for measurement and verification are provided in Appendix C.

9. **Annual budget:**

	Projected Program <u>Costs</u>	<u>Lost</u> <u>Revenues</u>	<u>Shared</u> <u>Savings</u>	<u>Energy</u> <u>Impacts</u>
2011	\$448,520	\$533,499	\$53,822	971,550 kWh
2012	\$747,007	\$1,134,748	\$89,641	2,203,503 kWh
2013	\$731,609	\$1,138,283	\$87,793	2,357,093 kWh

10. Duke Energy Kentucky requests authorization to recover the program costs, lost revenue and incentive in a manner consistent with the Company’s existing DSM Rider.

IV. CALCULATION OF THE 2010 DSM COST RECOVERY MECHANISM

The reconciliation of the DSM rider involves a comparison of projected vs. actual program expenses, lost revenues, and shared savings as well as inclusion of the prior year's reconciliation. The actual cost of residential and non-residential program expenditures, lost revenues, and shared savings for this reporting period was \$5.0 million. The projected level of expenditures was \$6.1 million. Economic conditions have negatively impacted customer participation for programs that require an investment or longer-term commitment from the customer.

Lost revenues are computed using the applicable marginal block rate net of fuel costs and other variable costs times the estimated kWh savings for a three-year period from installation of the DSM measure. The estimate of kWh savings is based upon the results from any recently completed impact evaluation studies and actual customer participation. Lost revenues accumulate over a three-year period from the installation of each measure, unless a general rate case has occurred.

With respect to shared savings, Duke Energy Kentucky utilized the shared incentive of 10% of the total savings net of the costs of measures, incentives to customers, marketing, impact evaluation, and administration. The savings are estimated by multiplying the program spending times the UCT value and then subtracting the program costs. Shared savings are only valued for installation of new DSM measures.

Outline of DSM Activity

Duke Energy Kentucky is planning to offer the following DSM programs in Duke Energy Kentucky's service territory in 2011 as part of its current DSM model:

Program 1: Residential Conservation and Energy Education

Program 2: Residential Home Energy House Call

- Program 3: Residential Comprehensive Energy Education Program (NEED)
- Program 4: Program Administration, Development & Evaluation Funds Program 5:
Payment Plus
- Program 6: PowerManager
- Program 7: Energy Star Products
- Program 8: Energy Efficiency Website
- Program 9: Personalized Energy Report (PER)
- Program 10: C&I High Efficiency Incentive (including School Incentives)
- Program 11: PowerShare®
- Program 12: Residential Smart Saver

The Company is also offering the Home Energy Assistance (HEA) Program as approved by the Commission in its September 30, 2008 Order in Case No. 2008-00100. The program reconciliation is in this application in Appendix B. This program began collecting funds in November of 2008. A total of \$247,847.50 was collected from Duke Energy customers (\$143,342.30 electric and \$104,505.20 gas) through June of 2010. For this reporting period, the HEA program provided assistance to approximately 1,467 customers. The funds collected from the period beginning June 2009, were depleted in April 2010. The total disbursement between electric and gas accounts was approximately \$116,129.05(electric) and \$85,134.47 (gas). These funds are distributed throughout the year by Northern Kentucky Community Action Committee to assist low income customers' energy bill payments. The administrative costs for this period (2009-2010) totaled \$30,189.53.

2010 DSM Riders

In accordance with the Commission's Order in Case No. 95-312, the Joint Applicants

submit the proposed DSM Riders (Appendices D and E). The Riders are intended to recover projected 2011 program costs, lost revenues and shared savings and to reconcile the actual DSM revenue requirement, as previously defined, to the revenue recovered under the DSM Riders for the period July 1, 2009 through June 30, 2010. Appendix B, page 1 of 5, tabulates the reconciliation of the DSM Revenue Requirement associated with the prior reconciliation, Duke Energy Kentucky's program costs, lost revenues, and shared savings between July 1, 2009 and June 30, 2010, and the revenues collected through the DSM Riders over the same period. The true-up adjustment is based upon the difference between the actual DSM revenue requirement and the revenues collected during the period July 1, 2009 through June 30, 2010.

The actual DSM revenue requirement for the period July 1, 2009 through June 30, 2010 consists of: (1) program expenditures, lost revenues, and shared savings; and (2) amounts approved for recovery in the previous reconciliation filing. The actual program costs incurred are reflected in column (1) labeled "Projected Program Costs 7/2009 to 6/2010."

Appendix B, page 5 of 5 contains the calculation of the 2010 Residential DSM Riders. The calculation includes the reconciliation adjustments calculated in Appendix B, page 1 of 5 and the DSM revenue requirement for 2011. The residential DSM revenue requirement for 2011 includes the costs associated with the Residential DSM programs, the program development funds, the Energy Education and Bill Assistance Program (Payment Plus), the PowerManager program, the Energy Star Products program, the Energy Efficiency Website program, the PER program, and any applicable net lost revenues and shared savings (Appendix B, pages 2 and 3 of 5). Total revenue requirements are incorporated along with the projected electric and gas volumes (Appendix B, page 4 of 5) in the calculation of the Residential DSM Rider.

Appendix B, page 5 of 5 also contains the calculation of the 2011 Commercial and

Industrial DSM Rider. The calculation includes the reconciliation adjustments calculated in Appendix B, page 1 of 5 and the DSM revenue requirement for 2011. The Commercial & Industrial DSM revenue requirement for 2011 includes the costs associated with the commercial and industrial DSM program (C&I High Efficiency Incentive), the PowerShare® program, the High Efficiency School Incentive program, and the associated net lost revenues and shared savings (Appendix B, pages 2 and 3 of 5). The 2011 Commercial and Industrial DSM Rider is calculated in two parts. One part (Part A) is based upon the revenue requirements for the C&I High Efficiency Incentive Program (Business and Schools). This part is only recovered from all non-residential rate classes except rate TT. The other part (Part B) is based upon the revenue requirements for the PowerShare® program and is recovered from all non-residential rate classes including rate TT.

Total revenue requirements are incorporated along with the projected electric volumes (Appendix B, page 4 of 5) in the calculation of the Residential DSM Rider.

The Company's proposed DSM Riders, shown as Appendices D and E, replace the current DSM Riders, which were implemented in the first available billing cycle of April 2010. The electric DSM rider, proposed to be effective with the first billing cycle in January 2011, is applicable to service provided under Duke Energy Kentucky's electric service tariffs as follows:

- Residential Electric Service provided under:
 - Rate RS, Residential Service, Sheet No. 30
- Non-Residential Electric Service provided under:
 - Rate DS, Service at Secondary Distribution Voltage, Sheet No. 40
 - Rate DT, Time-of-Day Rate for Service at Distribution Voltage, Sheet No. 41
 - Rate EH, Optional Rate for Electric Space Heating, Sheet No. 42

- Rate SP, Seasonal Sports, Sheet No. 43
- Rate GS-FL, Optional Unmetered General Service Rate for Small Fixed Loads, Sheet No. 44
- Rate DP, Service at Primary Distribution Voltage, Sheet No. 45
- Rate RTP-M, Real Time Pricing – Market-Based Pricing, Sheet No. 59
- Rate RTP, Experimental Real Time Pricing Program, Sheet No. 99
- Rate TT, Service at Transmission Voltage, Sheet No. 51

The gas DSM rider is applicable to service provided under the following residential gas service tariff:

- Rate RS, Residential Service, Sheet No. 30

Calculation of the Residential Charge

The proposed residential charge per kWh for 2011 was calculated by dividing the sum of: (1) the reconciliation amount calculated in Appendix B, page 1 of 5; and (2) the DSM Revenue Requirement associated with the DSM programs projected for calendar year 2011, by the projected sales for calendar year 2011. DSM Program Costs for 2011 include the total implementation costs plus program rebates, lost revenues, and shared savings. The calculations in support of the residential recovery mechanism are provided in Appendix B, page 5 of 5.

Calculation of the Non-Residential Charge

The proposed non-residential charge per kWh for 2011 was calculated in two parts. The first part (Part A), applicable to all non-residential rate classes except Rate TT, is calculated by dividing the sum of: (1) the reconciliation amount calculated in Appendix B, page 1 of 5; and (2) the DSM Revenue Requirement associated with the C&I High Efficiency Incentive Program projected for calendar year 2011, by the respective projected sales for calendar year 2011. The

second part (Part B), applicable to all non-residential rate classes including Rate TT, is calculated by dividing the DSM Revenue Requirement associated with the PowerShare® program projected for calendar year 2011, by total non-residential projected sales for calendar year 2011. DSM Program Cost for 2011 includes the total implementation costs plus program rebates, lost revenues and shared savings.

The rider applicable to all non-residential rate classes except Rate TT is the sum of Part A and Part B. The rider applicable to all non-residential rate classes including Rate TT is only Part B.

Allocation of the DSM Revenue Requirement

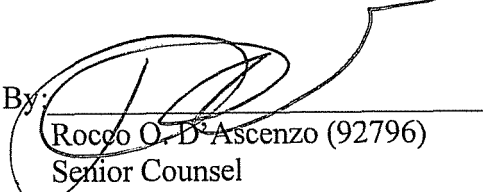
As required by KRS 278.285(3), the DSM Cost Recovery Mechanism attributes the costs to be recovered to the respective class that benefits from the programs. The amounts associated with the reconciliation of the Rider are similarly allocated as demonstrated in Appendix B, page 2 of 5. The costs for the PowerManager program are fully allocated to the residential electric class, since this is the class benefiting from the implementation of the program. As required, qualifying industrial customers are permitted to “opt-out” of participation in, and payment for, the C&I High Efficiency Incentive Program. All of Duke Energy Kentucky’s Rate TT customers met the “opt-out” requirements prior to the implementation of the DSM Riders in May 1996, and are not subject to this portion of the DSM Cost Recovery Mechanism. However, all non-residential customers, including Rate TT customers, will be charged for the PowerShare® program.

WHEREFORE, the Joint Applicants respectfully request that the Commission review and approve this Application and Duke Energy Kentucky gives notice that the new rates will take effect thirty days from the date of this Application.

Respectfully submitted,

DUKE ENERGY KENTUCKY, INC.

By:



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CERTIFICATE OF SERVICE

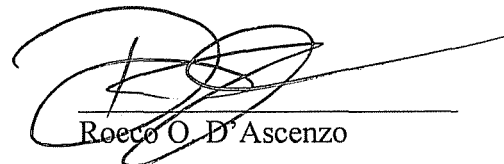
I hereby certify that a copy of the foregoing filing was served on the following via ordinary mail, postage prepaid, this 15th day of November, 2010:

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Appendix A

Cost Effectiveness Test Results

Program	UCT	TRC	RIM	Participant
Residential Conservation and Energy Education	1.40	1.40	0.92	NA
Refrigerator Replacement	0.95	0.95	0.53	NA
Residential Home Energy House Call	0.98	1.19	0.58	NA
Residential Comprehensive Energy Education Program (NEED)	0.37	0.37	0.30	NA
Power Manager	1.95	2.20	1.95	NA
Energy Star Products	6.25	3.56	0.89	NA
Energy Efficiency Website	2.51	3.32	0.73	NA
Personal Energy Report (PER)	4.19	8.87	0.83	NA
C&I High Efficiency Incentive (for Businesses and Schools)				
Lighting	4.72	2.00	1.30	2.41
HVAC	1.08	1.57	0.72	3.54
Motors	19.57	10.91	1.63	12.35
Other	1.67	0.90	0.86	1.44
Custom Incentives for Schools	4.20	0.41	1.41	0.43
PowerShare	2.92	2.92	1.15	NA

Appendix B
Kentucky DSM Rider

Comparison of Revenue Requirement to Rider Recovery

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Projected Program Costs 7/2009 to 6/2010 (A)	Projected Lost Revenues 7/2009 to 6/2010 (A)	Projected Shared Savings 7/2009 to 6/2010 (A)	Program Expenditures 7/09 through 6/10 (B)	Gas	Electric	Lost Revenues 7/09 through 6/10 (B)	Shared Savings 7/09 through 6/10 (B)	2009 Reconciliation Gas (D)	Electric (E)	Rider Collection Gas	Electric	(Over)/Under Gas (G)	Electric (H)
Residential Programs														
Res. Conservation & Energy Education	\$ 499,800	\$ 16,525	\$ (3,499)	\$ 389,007	\$ 244,695	\$ 144,322	\$ 18,903	\$ 15,560						
Refrigerator Replacement	\$ 100,000	\$ 6,145	\$ 300	\$ 83,481	\$ -	\$ 83,481	\$ 11,273	\$ (417)						
Residential Home Energy House Call	\$ 150,000	\$ 49,810	\$ -	\$ 191,893	\$ 120,700	\$ 71,193	\$ 30,643	\$ (384)						
Res. Comprehensive Energy Education	\$ 81,500	\$ -	\$ -	\$ 77,570	\$ 48,791	\$ 28,779	\$ -	\$ -						
Payment Plus	\$ 875,000	\$ -	\$ -	\$ 80,426	\$ -	\$ 80,426	\$ -	\$ 53,117						
Power Manager	\$ 150,000	\$ -	\$ 174,000	\$ 559,090	\$ -	\$ 559,090	\$ -	\$ -						
Program Development Funds	\$ 875,000	\$ -	\$ -	\$ 58,433	\$ 36,754	\$ 21,679	\$ 777,516	\$ 41,103						
Energy Star Products	\$ 140,000	\$ -	\$ -	\$ 78,320	\$ 49,263	\$ 29,057	\$ 7,701	\$ 1,920						
Energy Efficiency Website	\$ 243,000	\$ 690,225	\$ 63,450	\$ 12,715	\$ 7,997	\$ 4,718	\$ 10,867	\$ 54,317						
Personalized Energy Report Program (Residential SmartSaver)	\$ 31,110	\$ 26,781	\$ 2,955	\$ 170,253	\$ 107,088	\$ 63,165	\$ -	\$ -						
Home Energy Assistance Pilot Program (I)	\$ 153,000	\$ 121,547	\$ 73,134	\$ -	\$ -	\$ -	\$ -	\$ -						
Revenues collected except for HEA	\$ -	\$ -	\$ -	\$ 247,848	\$ 104,505	\$ 143,342	\$ -	\$ -						
Total	\$ 2,423,410	\$ 911,033	\$ 346,040	\$ 1,949,037	\$ 719,783	\$ 1,229,254	\$ 856,903	\$ 165,216	\$ 3,852,699	\$ (257,957)	\$ 4,576,680	\$ 3,034,199	\$ (4,197)	\$ (1,040,783)

- (A) Amounts identified in report filed on November 15, 2009.
- (B) Actual program expenditures, lost revenues, and shared savings for the period July 1, 2009 through June 30, 2010 and lost revenues for this period and from prior period DSM measure installations.
- (C) Allocation of program expenditures to gas and electric. Uses 62.9% gas based upon saturation of gas space heating.
- (D) Recovery allowed in accordance with the Commission's Order in Case No. 2004-00389.
- (E) Recovery allowed in accordance with the Commission's Order in Case No. 2004-00389.
- (F) Revenues collected through the DSM Rider between July 1, 2009 and June 30, 2010.
- (G) Column (5) + Column (9) - Column(11).
- (H) Column (6) + Column (7) + Column (8) + Column (10) - Column(12).
- (I) Revenues and expenses for the Home Energy Assistance Pilot Program.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Projected Program Costs 7/2009 to 6/2010 (A)	Projected Lost Revenues 7/2009 to 6/2010 (A)	Projected Shared Savings 7/2009 to 6/2010 (A)	Program Expenditures 7/09 through 6/10 (B)	Lost Revenues 7/09 through 6/10 (B)	Shared Savings 7/09 through 6/10 (B)	2009 Reconciliation (C)	Rider Collection (D)	((Over)/Under Collection (E))
Commercial Programs									
High Efficiency Program									
Lighting	\$ 209,520	\$ 308,352	\$ 10,698	\$ -	\$ 648,945	\$ 166,868			
HVAC	\$ 142,760	\$ 29,247	\$ 14,588	\$ -	\$ 37,248	\$ 437			
Motors	\$ 100,678	\$ 21,031	\$ 25,718	\$ -	\$ 15,200	\$ 38,965			
Other	\$ 450,814	\$ 298,836	\$ 448,830	\$ -	\$ 114,532	\$ 53,449			
(Program Development Funds)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			
Total for High Efficiency Program	\$ 903,772	\$ 657,466	\$ 499,834	\$ 719,739	\$ 815,924	\$ 259,718	\$ (233,569)	\$ 1,365,066	\$ 196,746
PowerShare®	\$ 265,000	\$ -	\$ 107,641	\$ 73,320	\$ -	\$ 14,077.46	\$ (183,533)	\$ 11,159	\$ (107,295)

- (A) Amounts identified in report filed on November 15, 2009.
- (B) Actual program expenditures, lost revenues, and shared savings for the period July 1, 2009 through June 30, 2010 and lost revenues for this period and from prior period DSM measure installations.
- (C) Recovery allowed in accordance with the Commission's Order in Case No. 2004-00389.
- (D) Revenues collected through the DSM Rider between July 1, 2009 and June 30, 2010.
- (E) Column (4) + Column (5) + Column (6) + Column (7) - Column (8)

Appendix B

2010 Projected Program Costs, Lost Revenues, and Shared Savings

Residential Program Summary

	Costs	Lost Revenues	Shared Savings	Total
Residential - Current Programs/Measures	\$ 499,800	\$ 16,525	\$ (3,499)	\$ 512,826
Residential Conservation & Energy Education	\$ 100,000	\$ 6,145	\$ 300	\$ 106,445
Refrigerator Replacement	\$ 150,000	\$ 49,810	\$ 35,700	\$ 235,510
Home Energy House Call	\$ 81,500	\$ -	\$ -	\$ 81,500
Residential Comprehensive Energy Education	\$ 150,000	\$ -	\$ -	\$ 150,000
Home Energy Assistance Plus (continuing)	\$ 875,000	\$ -	\$ 174,000	\$ 1,049,000
Power Manager	\$ 140,000	\$ -	\$ -	\$ 140,000
Program Development Funds	\$ 243,000	\$ 690,225	\$ 63,450	\$ 996,675
Energy Star Products				
CFL's (Compact Fluorescent Lights)				
Torchieres (Floor lamps)	\$ 31,110	\$ 26,781	\$ 2,955	\$ 60,846
Energy Efficiency Web Site	\$ 153,000	\$ 121,547	\$ 73,134	\$ 347,681
Personalized Energy Report Pilot Program	\$ 448,520	\$ 533,499	\$ 53,822	\$ 1,035,841
Residential SmartSaver	\$ 2,871,930	\$ 1,444,532	\$ 399,862	\$ 4,716,324
Total Costs, Net Lost Revenues, Shared Savings	\$ 247,283			
Home Energy Assistance Pilot Program				

Allocation of Costs		Budget (Costs, Lost Revenues, & Shared Savings)		
Electric	Gas	Electric Costs	Electric	Gas Costs
37.1%	62.9%	\$ 185,426	\$ 198,452	\$ 314,374
100.0%	0.0%	\$ 100,000	\$ 106,445	\$ -
37.1%	62.9%	\$ 55,650	\$ 141,160	\$ 94,350
37.1%	62.9%	\$ 30,237	\$ 30,237	\$ 51,264
37.1%	62.9%	\$ 55,650	\$ 55,650	\$ 94,350
100.0%	0.0%	\$ 875,000	\$ 1,049,000	\$ -
37.1%	62.9%	\$ 51,940	\$ 51,940	\$ 88,060
100.0%	0.0%	\$ 243,000	\$ 996,675	\$ -
37.1%	62.9%	\$ 11,542	\$ 41,278	\$ 19,568
37.1%	62.9%	\$ 56,763	\$ 251,444	\$ 96,237
37.1%	62.9%	\$ 166,401	\$ 753,722	\$ 282,119
		\$ 1,831,608	\$ 3,676,002	\$ 1,040,322
			\$ 143,674	\$ 103,609

C&I DSM Program Summary

	Costs	Lost Revenues	Shared Savings	Total
High Efficiency Program	\$ 104,760	\$ 273,388	\$ 5,349	\$ 383,497
Lighting	\$ 71,380	\$ 15,925	\$ 7,294	\$ 94,598
HVAC	\$ 50,339	\$ 10,610	\$ 12,859	\$ 73,808
Motors	\$ 225,407	\$ 149,418	\$ 224,415	\$ 599,240
Other	\$ 60,000	\$ -	\$ -	\$ 60,000
Program Development Funds	\$ 511,885	\$ 449,341	\$ 249,916	\$ 1,211,143
Total for the High Efficiency Program				

Allocations		Budget (Costs, Lost Revenues, & Shared Savings)		
Electric	Gas	Electric Costs	Electric	Gas
100.0%	0.0%	\$ 104,760	\$ 383,497	NA
100.0%	0.0%	\$ 71,380	\$ 94,598	NA
100.0%	0.0%	\$ 50,339	\$ 73,808	NA
100.0%	0.0%	\$ 225,407	\$ 599,240	NA
100.0%	0.0%	\$ 60,000	\$ 60,000	NA
		\$ 511,885	\$ 1,211,143	

	Costs	Lost Revenues	Shared Savings	Total
High Efficiency School Incentive Program	\$ 104,760	\$ 34,963	\$ 5,349	\$ 145,072
Lighting	\$ 71,380	\$ 13,323	\$ 7,294	\$ 91,996
HVAC	\$ 50,339	\$ 10,421	\$ 12,859	\$ 73,619
Motors	\$ 225,407	\$ 149,418	\$ 224,415	\$ 599,240
Other	\$ 451,885	\$ 208,125	\$ 249,916	\$ 909,927
Total for the High Efficiency School Incentive Program				

Allocations		Budget (Costs, Lost Revenues, & Shared Savings)		
Electric	Gas	Electric Costs	Electric	Gas
100.0%	0.0%	\$ 104,760	\$ 145,072	NA
100.0%	0.0%	\$ 71,380	\$ 91,996	NA
100.0%	0.0%	\$ 50,339	\$ 73,619	NA
100.0%	0.0%	\$ 225,407	\$ 599,240	NA
		\$ 451,885	\$ 909,927	

	Costs	Lost Revenues	Shared Savings	Total
PowerShare® Program	\$ 265,000		\$ 107,641	\$ 372,641
Total C&I DSM Program	\$ 1,228,771	\$ 657,466	\$ 607,474	\$ 2,493,710
Total Program	\$ 4,100,701	\$ 2,101,998	\$ 1,007,336	\$ 7,210,034

Allocations		Budget (Costs, Lost Revenues, & Shared Savings)		
Electric	Gas	Electric Costs	Electric	Gas
100.0%	0.0%	\$ 265,000	\$ 372,641	NA
			\$ 2,493,710	

Duke Energy Kentucky
Demand Side Management Cost Recovery Rider (DSMR)
Summary of Calculations for Programs

January, 2011 through December, 2011

	Program Costs (A)
<u>Electric Rider DSM</u>	
Residential Rate RS	\$ 3,676,002
Distribution Level Rates Part A DS, DP, DT, GS-FL, EH & SP	\$ 2,121,069
Transmission Level Rates & Distribution Level Rates Part B	\$ 372,641
<u>Gas Rider DSM</u>	
Residential Rate RS	\$ 1,040,322

(A) See Appendix B, page 2 of 5.

Duke Energy Kentucky
Demand Side Management Cost Recovery Rider (DSMR)
Summary of Billing Determinants

Year	2011
Projected Annual Electric Sales kWh	
Rates RS	1,419,793,000
Rates DS, DP, DT, GS-FL, EH, & SP	2,237,744,041
Rates DS, DP, DT, GS-FL, EH, SP, & TT	2,453,380,000
Projected Annual Gas Sales CCF	
Rate RS	62,760,920

Appendix B

Duke Energy Kentucky
Demand Side Management Cost Recovery Rider (DSMR)
Summary of Calculations

January, 2010 through December, 2010

Rate Schedule Riders	True-Up Amount (A)	Expected Program Costs (B)	Total DSM Revenue Requirements	Estimated Billing Determinants (C)	DSM Cost Recovery Rider (DSMR)
<u>Electric Rider DSM</u> Residential Rate RS	\$ (1,043,628)	\$ 3,676,002	\$ 2,632,374	1,419,793,000 kWh	\$ 0.001854 \$/kWh
Distribution Level Rates Part A DS, DP, DT, GS-FL, EH & SP	\$ 197,284	\$ 2,121,069	\$ 2,318,353	2,237,744,041 kWh	\$ 0.001036 \$/kWh
Transmission Level Rates & Distribution Level Rates Part B TT	\$ (107,588)	\$ 372,641	\$ 265,053	2,453,380,000 kWh	\$ 0.000108 \$/kWh
Distribution Level Rates Total DS, DP, DT, GS-FL, EH & SP					\$ 0.001144 \$/kWh
<u>Gas Rider DSM</u> Residential Rate RS	\$ (4,209)	\$ 1,040,322	\$ 1,036,113	62,760,920 CCF	\$ 0.016509 \$/CCF
Total Rider Recovery			\$ 6,251,894		
Customer Charge for HEA Program			Annual Revenues	Number of Customers	Monthly Customer Charge
<u>Electric No.4</u> Residential Rate RS			\$ 143,674	119,728	\$ 0.10
<u>Gas No. 5</u> Residential Rate RS			\$ 103,609	86,341	\$ 0.10
Total Customer Charge Revenues			\$ 247,283		
Total Recovery			\$ 6,499,176		

(A) (Over)/Under of Appendix J page 1 multiplied by 1.002733 for 2010 for the average three-month commercial paper rate to include interest on over or under-recovery.
 (B) Appendix B, page 2.
 (C) Appendix B, page 4.

Appendix C

Proposed Evaluation Approach for Residential Smart Saver Program

Residential Smart Saver[®] Program provides incentives for the installation of more efficient central air conditioners and electric heat pumps , as well as AC and heat pump tune-ups and the installation of attic insulation, air sealing, duct sealing and duct insulation. For new construction installation of air conditioners or heat pumps, prototypical customer homes will be modeled using an engineering simulation model designed for residential applications calibrated to post measure installation usage. Building energy simulations will be conducted for equipment replacement applications, equipment tune ups and building shell improvements as well, augmented by a statistical billing analysis when the participant population is large enough to provide statistically sound analysis. A comparison of estimates derived under the two methods will form the basis for insights into the predictive power of the statistical and engineering models. To maximize the estimation power of the billing analysis, a statistically adjusted engineering model will be developed that uses prior engineering estimates as explanatory variables, plus weather normalization and household-specific usage factors. Participant and non-participant surveys will be conducted, along with vendor satisfaction surveys or interviews, to estimate free ridership and uncover potential vendor issues that might impact customer satisfaction or program effectiveness. These surveys will also provide inputs to the statistical adjusted engineering models (e.g., equipment that was replaced, any changes in usage or house occupancy). A process evaluation of this program will be conducted during the three year time frame. This evaluation plan is consistent with IPMVP (International Performance Measurement and Verification Protocol) Options C (retrofit) and D (new construction).

Appendix D

Duke Energy Envision Center
4580 Olympic Blvd.
Erlanger, Kentucky 41018

KY.P.S.C. Gas No. 2
Sixth Revised Sheet No. 62
Cancels and Supersedes
Fifth Revised Sheet No. 62
Page 1 of 1

RIDER DSMR

DEMAND SIDE MANAGEMENT RATE

The Demand Side Management Rate (DSMR) shall be determined in accordance with the provisions of Rider DSM, Demand Side Management Cost Recovery Rider, Sheet No. 61 of this Tariff.

The DSMR to be applied to residential customer bills is \$0.016509 per hundred cubic feet.

A Home Energy Assistance Program (HEA) charge of \$0.10 will be applied monthly to residential customer bills through September 2011.

The DSMR to be applied to non-residential service customer bills is \$0.00 per hundred cubic feet.

Issued by authority of an Order by the Kentucky Public Service Commission dated _____ in Case No. _____

Issued:

Effective:

Issued by Julie Janson, President

Appendix E

Duke Energy Envision Center
4580 Olympic Blvd.
Erlanger, Kentucky 41018

KY.P.S.C. Electric No. 2
Sixth Revised Sheet No. 78
Cancels and Supersedes
Fifth Revised Sheet No. 78
Page 1 of 1

RIDER DSMR

DEMAND SIDE MANAGEMENT RATE

The Demand Side Management Rate (DSMR) shall be determined in accordance with the provisions of Rider DSM, Demand Side Management Cost Recovery Rider, Sheet No. 75 of this Tariff.

The DSMR to be applied to residential customer bills is \$0.001854 per kilowatt-hour.

A Home Energy Assistance Program (HEA) charge of \$0.10 will be applied monthly to residential customer bills through September 2011.

The DSMR to be applied to non-residential distribution service customer bills is \$0.001144 per kilowatt-hour.

The DSMR to be applied for transmission service customer bills is \$0.000108 per kilowatt-hour.

Issued by authority of the Kentucky Public Service Commission in Case No. _____ dated _____

Issued:

Issued by Julie Janson, President

Effective: