

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

APPLICATION OF DELTA NATURAL)
GAS COMPANY, INC. FOR AN) 2007-00089
ADJUSTMENT OF RATES)

ATTORNEY GENERAL'S INITIAL REQUEST FOR
INFORMATION
DATED JUNE 7, 2007

VOLUME 5 OF 5

FILED IN SUPPORT OF PROPOSED
CHANGES IN RATES

JUNE 28, 2007

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

272. With reference to page 1, lines 6-24, please provide copies of the three previous testimonies in which Mr. Blake provided a return on equity recommendations. Please provide direct, rebuttal, and surrebuttal testimony, as well as all associated exhibits and schedules.

RESPONSE:

The requested documents are attached.

Responsible Witness:

Martin J. Blake

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

SOUTHERN INDIANA GAS AND ELECTRIC
COMPANY

DOCKET No. ER01-_____-000

DIRECT TESTIMONY OF
MARTIN J. BLAKE
ON BEHALF OF
SOUTHERN INDIANA GAS & ELECTRIC COMPANY

1 Q. Please state your name and business address.

2 A. My name is Martin J. Blake. My business address is 6711 Fallen Leaf, Louisville,
3 Kentucky 40241.

4 Q. By whom and in what capacity are you employed?

5 A. I am a Member and Principal of The Prime Group, LLC. The Prime Group
6 provides consulting services in the areas of marketing, market research, rate and
7 regulatory support, training, and strategic planning for energy industry clients.
8 The Prime Group is focused on helping clients to prepare for the transition to a
9 more competitive utility industry environment.

10 Q. Please outline your testimony.

11 A. I describe my background and qualifications (pages 2-8) and the background to
12 the Southern Indiana Gas and Electric Company ("SIGECO") transmission rate
13 filing (pages 8-10). I support the claimed fair common equity return and fair
14 overall return embodied in the rate filing (pages 10-22); the changes in
15 SIGECO's open-access transmission tariff ("OATT") (pages 22-27); and the cost
16 of service underlying SIGECO's filing (pages 27-30).

1 negotiation, as well as presentations in ratemaking and utility finance seminars
2 and workshops regarding basic utility marketing. I have provided marketing,
3 market research and marketing support services for utility clients and have
4 assisted them in assessing their marketing capabilities and processes.

5 **Q. Please briefly summarize your areas of professional experience prior to**
6 **joining the prime group.**

7 A. I have professional experience as an economist and professor of economics, as
8 a utility regulator, and as a utility manager and executive.

9 **Q. Please describe your professional experience as an economist.**

10 A. From January 1977 to December 1986, I was employed first as an Assistant
11 Professor, then as an Associate Professor, and finally as a Professor of
12 Agricultural Economics at New Mexico State University in Las Cruces, New
13 Mexico ("NMSU"). I was the head of the undergraduate program and taught
14 economics, agricultural economics and econometrics. While at NMSU, I also
15 worked as a consultant for various clients, providing price forecasting, load
16 forecasting, and marketing services. Since 1992, I have taught mathematical
17 economics and econometrics as an Adjunct Professor in the Economics
18 Department at the University of Louisville. Prior to my joining the faculty at
19 NMSU, I served in the U. S. Army as an instructor of economics, statistics, and
20 accounting at the U. S. Army Institute of Administration at Fort Benjamin
21 Harrison, Indianapolis, Indiana.

22 I also have a variety of experience with the application of economics to
23 utility public policy issues. In addition to my experience as a utility regulator and
24 executive, which I describe below, I have, for example, taught ratemaking since
25 1993 for electric utilities at the NARUC Annual Regulatory Studies Program at

1 Michigan State University. From May 1983 to August 1983, while on a sabbatical
2 leave from NMSU, I served as a Policy Analyst for the Assistant Secretary for
3 Land and Water at the U. S. Department of Interior.

4 **Q. Please describe your professional experience as a utility regulator.**

5 A. From January 1987 to November 1990, I served as a Commissioner and as the
6 Chairman of the New Mexico Public Service Commission. As a Commissioner,
7 my duties included making policy and adjudicatory decisions regarding rates,
8 terms of service, financing, certificates of public convenience and necessity, and
9 complaints for electric, gas, water, and sewer utilities. As Chairman, I supervised
10 a staff of thirty-two professionals and sixteen support staff. During my tenure on
11 the New Mexico Commission, I also served as Chairman of the Western
12 Conference of Public Service Commissioners Electric Committee and as
13 Chairman of the Committee on Regional Electric Power Cooperation, a group
14 composed of state public service commissioners and representatives from the
15 state energy offices of the thirteen western states.

16 As a Commissioner, I interpreted legislation, reviewed prior Commission
17 cases to determine the precedents that they provided, drafted rules and
18 regulations, wrote Orders, conducted hearings, ruled on motions, and served as
19 an arbitrator in alternative dispute resolution proceedings. Although I do not
20 have a law degree, I performed adjudicatory and regulatory functions for the four
21 years that I served on the Commission.

22 **Q. Please describe your professional experience as a utility manager.**

23 A. From December 1990 to June 1996, I was employed by Louisville Gas and
24 Electric Company ("LG&E"). Initially, I served as LG&E's Director of Regulatory
25 Planning. In this position, I was responsible for coordinating all of LG&E's state

1 and federal regulatory efforts, and advised and presented testimony to
2 regulators. In performing my duties in the federal regulatory area, I performed
3 the market power analysis in LG&E's original market-based rate filing at the
4 Commission, which was one of the first applications of the "hub and spoke"
5 methodology that the Commission now uses in assessing generation market
6 dominance in market-based rate filings; supervised the preparation of the
7 market-based rate filings; and served as LG&E's principal witness. I also helped
8 develop the electronic bulletin board that the Commission required as a condition
9 for approving the market-based tariff. Additionally, I helped to develop LG&E's
10 comparable transmission tariff filing, which provided third parties with access to
11 LG&E's transmission system at the same price, terms and conditions as LG&E.
12 This was the first tariff providing comparable transmission service that was filed
13 and approved by the Commission and was filed before Order No. 888 was issued
14 by the Commission. In this comparable transmission tariff filing, I served as
15 LG&E's principal witness and negotiated the settlement in this case with the
16 Commission staff. When LG&E Power Marketing filed for the ability to charge
17 market-based rates, I helped to develop the codes of conduct that were
18 submitted to the Commission as a part of the filing.

19 My areas of responsibility were expanded in April 1994 to include
20 marketing and strategic planning. As the Director, Marketing, Planning and
21 Regulatory Affairs, I was responsible for coordinating LG&E's retail gas and
22 electric marketing, strategic planning, and state and federal regulatory efforts. I
23 continued to be employed in that capacity at LG&E until June 1996, when I joined
24 the Prime Group as one of its Principals.

25 **Q. Please describe the industry groups in which you have participated.**

1 A. I have served on several regional transmission coordination groups such as the
2 Interregional Transmission Coordination Forum, and the General Agreement on
3 Parallel Paths, as well as the following committees of the Edison Electric Institute
4 ("EEI") -- Economics and Public Policy Executive Advisory Committee, Strategic
5 Planning Executive Advisory Committee, Transmission Task Force, and Power
6 Supply Policy Technical Task Force. Recently, I have worked with a group of
7 utilities developing the Midwest ISO.

8 **Q. Have you taught any courses or seminars in the area of utility**
9 **restructuring?**

10 A. Yes. In addition to teaching ratemaking for electric utilities at the NARUC Annual
11 Regulatory Studies Program since 1993, I have also taught a course regarding
12 the institutions and organizations of the new electric utility industry. Each year, I
13 also teach and conduct numerous workshops and programs, and deliver invited
14 presentations to utility managers and regulators on a variety of subjects including
15 industry restructuring.

16 **Q. In which cases have you previously testified?**

17 A. I testified before the Kentucky Public Service Commission in the rehearing in
18 Case No. 90-158, an LG&E rate case; in Case No. 92-494, a biennial fuel
19 adjustment clause review; in Case No. 93-150, an application for approval of a
20 DSM cost recovery mechanism and a set of initial programs; in Case No. 94-332,
21 an application for an environmental cost recovery mechanism; in case No. 92-
22 494-B, regarding the confidentiality of coal bid data; and in case No. 95-455, a
23 biannual review of the environmental cost recovery mechanism. I participated in
24 the conference to review LG&E's first integrated resource plan in Case No. 91-
25 423 and testified in a number of fuel adjustment clause proceedings. I also

1 testified on behalf of Blazer Energy Corp. in Case No. 98-489 which was an
2 application for an adjustment in that company's natural gas rates. I prepared and
3 filed testimony before this Commission in Docket NO. ER92-533-000, in which
4 LG&E provided open transmission access and also received authority to charge
5 market-based rates for its generation, and Docket No. ER94-1380-000, the first
6 comparability tariff which was approved by the Commission. I prepared a market
7 power analysis that was filed in support of OGE Energy Resources, Inc.'s
8 request for the authority to charge market based rates in Docket No. ER97-4345-
9 000. I prepared a market power analysis that was filed in support of Oklahoma
10 Gas and Electric Co.'s request for the authority to charge market based rates in
11 Docket No. ER98-511-000. I prepared and filed an affidavit in support of
12 Commonwealth Edison Company's request for authority to charge cost based
13 rates to its affiliates in Docket No. ER99-51-000.

14 I prepared and filed rebuttal testimony in Cause No. PUD 960000116,
15 Oklahoma Gas and Electric Company's last rate case before the Oklahoma
16 Corporation Commission. In that case, I rebutted intervenor and staff proposals
17 to disallow certain marketing, advertising, economic development and research
18 and development expenses. I have prepared and filed direct and rebuttal
19 testimony for Southern California Edison Company in Case Number 90-12-018
20 (phase 5). In this testimony, I reviewed the reasonableness of contracting by
21 Southern California Edison with Integrated Energy Group (IEG) to provide
22 marketing services to Southern California Edison and the reasonableness of the
23 resulting marketing services performed by IEG. I prepared and filed direct and
24 rebuttal testimony for Oklahoma Gas and Electric in Arkansas Public Service
25 Commission Docket No. 96-360-U regarding recovery of stranded cost by Entergy

1 Arkansas, Inc. In this testimony, I recommended recovery of 100% of stranded
2 costs at such time as costs are actually stranded. I also testified before the New
3 Mexico Public Utility Commission in Docket No. 2797, a general rate case for
4 Plains Electric Generation and Transmission Cooperative, Inc.
5

6 I testified in Illinois Commerce Commission ("ICC") Dockets 98-0013 and
7 98-0035, which were concerned with ensuring non-discrimination with regard to
8 affiliate transactions for electric utilities. In that case, I sponsored ComEd's
9 proposed affiliate transactions rules and suggested some basic principles that the
10 Illinois Commerce Commission should follow in developing rules and regulations
11 for ensuring non-discrimination and non-cross subsidization in transactions with
12 affiliated and unaffiliated alternative retail electric suppliers (ARES). I testified in
13 ICC Docket 98-0036, which was a rulemaking to develop rules and regulations for
14 assessing and assuring the reliability of the transmission and distribution systems
15 as a part of electric utility restructuring in Illinois. I also testified in Docket Nos.
16 98-0147 and 98-0148 which were concerned with developing standards of
17 conduct and rules for functional separation. In this case, I sponsored ComEd's
18 proposed standards of conduct and functional separation rules. I have prepared
19 and filed cost of money testimony on behalf of SIGECO Natural Gas Company in
20 its rate case filed with the Kentucky PSC in Docket No. 99-176.

21 **Background to the Filing**

22 **Q. What is the purpose of your testimony in this proceeding?**

1 A. SIGECO engaged The Prime Group to conduct an analysis of and to provide a
2 recommendation regarding the appropriate cost of common equity for application
3 to SIGECO's net cost rate base. My testimony contains the results of this
4 analysis and identifies the fair rate of return on equity that SIGECO should be
5 given the opportunity to earn during the period when the new rates will be in
6 effect. I also explain the revisions that SIGECO is proposing to its Open Access
7 Transmission Tariff ("OATT") and to the Schedules and Attachments to the
8 OATT. I sponsor the cost of service to support the changes in the OATT rates.

9 **Q. Please describe SIGECO and the services that it provides.**

10 A. SIGECO is a public utility that provides electric generation, transmission and
11 distribution services and the distribution and sale of natural gas to over 120,000
12 retail electric customers and 104,000 natural gas customers in a ten-county area
13 of southwest Indiana. SIGECO uses the network transmission service provisions
14 in its OATT to provide bundled wholesale electric power service to five municipal
15 electric systems in southwest Indiana. The transmission service that SIGECO
16 currently provides to others is principally point-to-point service for "through" and
17 "out" transactions under its OATT. SIGECO is a wholly owned subsidiary of
18 Vectren.

19 Vectren is a public utility holding company with two operating public
20 utilities, Indiana Gas and SIGECO. Vectren is also involved in non-regulated
21 activities through its non-regulated subsidiaries: Vectren Energy Services, Inc.
22 Vectren Financial Group, Inc., Vectren Generation Services, Inc., Vectren

1 Resources, LLC, Vectren Utility Services, Inc., Vectren Ventures, Inc., Vectren
2 Communications, Inc. and Vectren Capital Corporation. These non-regulated
3 activities provide energy, telecommunications, and finance services throughout
4 the Midwest.

5 **Rate of Return**

6 **Q. What methodology did you use to determine the appropriate return on**
7 **equity for SIGECO?**

8 A. I used the same one step, constant growth DCF model that the Commission
9 used to determine the rate of return on equity for Southern California Edison
10 Company in Opinion No. 445 issued on July 26, 2000 in Docket Nos. ER97-
11 2355-000, *et al.* In that Opinion, the Commission stated that it has consistently
12 used this methodology for calculating ROEs for electric utilities.

13 The DCF methodology determines the ROE by summing
14 the dividend yield (with an adjustment for the quarterly
15 payment of dividends) and expected growth rate. The
16 resulting formula is $D/P(1+.5g) + g = k$, where "D/P" is the
17 dividend yield, "g" is the sustainable growth rate of
18 dividends per share, and "k" is the resulting ROE. The
19 sustainable growth rate is calculated by the following
20 formula: $g = br + sv$, where "b" is the expected retention
21 ratio, "r" is the expected earned rate of return on common
22 equity, "s" is the percent of common equity expected to be
23 issued annually as new common stock, and "v" is the equity
24 accretion rate. 92 FERC ¶ 61,070.

25
26 I applied these formulas to data for Vectren Corp., SIGECO's parent
27 company, taken from Value Line dated January 5, 2001. The Commission
28 utilized data for Edison International, SoCal Edison's parent company, taken from

1 Value Line to calculate the ROE for SoCal Edison in the case cited above. Thus,
2 both the methodology and the data source that I used are the same as those
3 utilized by the Commission in prior cases.

4 **Q. Please summarize your findings.**

5 A. The range for the appropriate ROE that I calculated is between 12.82% and
6 10.34%. The midpoint of this range is 11.58%. I am recommending a return on
7 equity of 11.6% which is the midpoint of the range of ROE for SIGECO in this
8 proceeding rounded to the nearest tenth of a percentage point.

9 **Q. What is Exhibit SIG-2?**

10 A. Exhibit SIG-2 shows the calculations leading to the derivation of the 11.58%
11 common equity return.

12 **Q. Please explain Exhibits SIG-3 and SIG-4.**

13 A. These exhibits contain common stock data that were used in the development of
14 Exhibit SIG-2.

15 **Q. How did you calculate the sustainable growth rate.**

16 A. I calculated the expected payout ratio by dividing the expected dividends per
17 share by the expected earnings per share. I subtracted the expected payout
18 ratio from 1 to obtain the expected retention ratio, the "b" in the $br + sv$ model. I
19 multiplied the expected retention ratio by the expected return on common equity,
20 the "r" in the $br + sv$ model, to obtain the sustainable growth rate, "g". Because
21 Vectren is not issuing any new common stock, the second term in the formula for
22 calculating sustainable growth, "sv" in the $br + sv$ model, is zero.

1 These calculations were made using Value Line data for 2001 and 2003-
2 05. Data from 2000 were not used because there were significant one-time
3 expenses during the year associated with the merger that formed Vectren. This
4 made the financials for 2000 atypical, and in my opinion, not representative data
5 for use in the DCF analysis. The 2001 and 2003-05 data represent the best
6 estimate of the necessary inputs to the DCF model on a going forward basis
7 when the rates will be in effect and are a good estimate of the expected values
8 called for in the sustainable growth formula.

9 **Q. What is the sustainable growth rate that you calculated?**

10 A. As shown on Exhibit SIG-2, I calculated a sustainable growth rate of 6.7%. This
11 was obtained by dividing the estimated 2001 dividends per share of \$1.03 by the
12 estimated earnings per share of \$1.70 to obtain an expected payout ratio of
13 0.6059. The estimated 2003-05 dividends per share of \$1.15 were divided by the
14 estimated earnings per share of \$2.45 to obtain an expected payout ratio of
15 0.4694. The expected payout ratios for 2001 and 2003-05 were averaged to
16 obtain an expected payout ratio of 0.5376. This expected payout ratio was
17 subtracted from 1 to obtain an expected retention ratio of 0.4624, the "b" in the
18 sustainable growth formula. The expected return on equity of 13.5% for 2001
19 was averaged with the expected return on equity of 15.5% for 2003-05 to obtain
20 an average expected return on equity of 14.5%, the "r" in the sustainable growth
21 formula. Multiplying 0.145 by 0.4624 resulted in a sustainable growth estimate of
22 6.7%.

1 **Q. How did you calculate the dividend yield?**

2 A. I calculated the dividend yield for the 52 week high stock price and the 52 week
3 low stock price using the formula $D/P(1+.5g) + g = k$ to obtain a range for ROE
4 for use in this proceeding. The 52 week high and low of \$26.50 and \$15.75,
5 respectively, are shown in Exhibit SIG-3. The dividend used in the calculation
6 was \$0.995, which is the sum of the last four actual dividends paid by Vectren
7 (Exhibit SIG-4). The growth rate used in calculating the dividend yield was the
8 6.7% sustainable growth rate that was discussed previously.

9 Using the 52 week low stock price of \$15.75 resulted in a dividend yield of
10 6.11%. The growth rate of 6.7% was added to this dividend yield to obtain an
11 estimate of the high end of the range for ROE of 12.82%. Using the 52 week high
12 stock price of \$26.50 resulted in a dividend yield of 3.63%. The growth rate of
13 6.7% was added to this dividend yield to obtain an estimate of the low end of the
14 range for ROE of 10.34%.

15 **Q. Based on these calculations, what is your recommended ROE for SIGECO**
16 **in this proceeding?**

17 A. I am recommending an allowed ROE of 11.6% for SIGECO in this proceeding.
18 The midpoint of the ROE range calculated above is 11.58%, which I rounded to
19 11.6%. In this case, the midpoint of the range provides a better indication of the
20 appropriate ROE than would a point estimate calculated using a stock price from
21 a single day. Additionally, an allowed ROE of 11.6% for SIGECO would be
22 consistent with the 11.6% ROE allowed SoCal Edison in Opinion No. 445.

1 **Q. Did you check the reasonableness of these calculations by comparing**
2 **them to ROE calculations for a comparable group of utilities?**

3 A. Yes. I selected a panel of five companies that I regarded as similar to SIGECO.
4 The five companies included in my panel are: (1) Energy East Corp., (2) Utilicorp
5 United, (3) CMS Energy Corp., (4) NISOURCE Inc., and (5) OGE Energy Corp.
6 These five companies are all mid-cap companies with regard to their market
7 capitalization according to Value Line, all are located on the eastern
8 interconnected grid, all have significant revenues from both natural gas and
9 electric operations and all are holding companies similar to Vectren, the parent
10 company of SIGECO. I could not use calculated beta values to compare risk, as
11 Value Line did not have a beta value calculated for Vectren.

12 **Q. Please explain Exhibit SIG-5.**

13 A. Exhibit SIG-5 contains the calculations of ranges of ROEs for the five comparison
14 companies along with the dividend and stock price data used to make these
15 calculations. The forecasted earnings per share, dividends per share and return
16 on common equity used to make the calculations were obtained from the most
17 recent Value Line.

18 **Q. What Value Line data did you use for Exhibits SIG-1 and SIG-5?**

19 A. The Value Line data were from the January 5, 2001 Value Line for all companies,
20 including Vectren but excluding Energy East for which the March 9, 2001 Value
21 Line was used.

22 **Q. What data are provided by Exhibit SIG-6?**

1 the generation construction needed in the region in which SIGECO is located.
2 This financial strength cannot be acquired on an overnight basis. It can be
3 achieved only through consistent earnings experience that meets investor
4 expectations over a sustained period of time. Exhibit No. SIG-7 contains the
5 inventory of merchant plants that have been announced and are being planned
6 or constructed in the East Central Area Reliability Coordination Agreement
7 ("ECAR"). This inventory shows that 39,298 MW of new merchant generation
8 plants have been announced for the ECAR region, with 11,320 MW in Indiana.
9 The Tenaska, Enviropower, Mt. Vernon and Sugar Creek projects are likely to
10 have a significant impact on SIGECO. This new generation construction may
11 entail the construction of new transmission which may also be needed to
12 accommodate the higher volume of transmission transactions that will
13 accompany the evolution of competitive retail markets in Michigan and Ohio.

14 As shown by Exhibit SIG-8, SIGECO is at the cross roads for both north-
15 south and east-west transmission transactions. Moreover, SIGECO already
16 experiences significant parallel flows and heavy line loading when there are large
17 north-south transmission flows, such as ComEd to TVA or AEP to TVA. When
18 these parallel flows are considered in the Midwest ISO and Alliance RTO
19 planning processes, there is a strong likelihood that SIGECO will need to
20 upgrade existing lines or build additional lines to help mitigate these constraints.
21 Much of this new transmission will be for the new merchant plants, to address
22 problems resulting from parallel flows, and for the purpose of accommodating

1 regional power flows (and not necessarily for SIGECO's own direct benefit). The
2 problems that utilities have had in siting and permitting transmission additions
3 across the country is well documented. It is essential that these problems not be
4 exacerbated by the financial weakness of transmission constructing utilities such
5 as SIGECO and that the ROEs allowed those utilities enable them to embark on
6 the time consuming and difficult task of getting new transmission sited, permitted
7 and built. The Commission should allow SIGECO an ROE that is at least at the
8 midpoint of the range of calculated ROEs in order to give SIGECO the financial
9 capacity to construct new transmission as and when it is needed.

10 **Q. Does membership in the Midwest ISO result in an increase in risk for**
11 **SIGECO?**

12 A. In my opinion it does because SIGECO has entered upon a period of significant
13 operating uncertainty. SIGECO is a member of the Midwest ISO that is
14 scheduled to become operational on December 15, 2001. The Midwest ISO and
15 Alliance RTO have recently filed a settlement agreement at the Commission that
16 preserves the separate organizations and features of these two organizations
17 while creating the potential for them to operate as a seamless market. The Inter-
18 RTO Cooperation Agreement ("IRCA") is a part of this settlement agreement and
19 provides for the parties to develop procedures and protocols in several areas,
20 including: coordinated transmission planning; security coordination; congestion
21 management; independent market monitoring; accommodation of one-stop
22 shopping; compatible real-time balancing markets; a common generation

1 interconnection agreement; compatible business practices; and dispute
2 resolution procedures for resolving real-time operational disputes. However,
3 many of these procedures and protocols have not yet been developed. Thus,
4 their impact on SIGECO and the conditions of operation and burdens they will
5 impose on SIGECO is uncertain.

6 Additionally, the Settlement Agreement provides for the development and
7 application of single (non-pancaked) rates, based on the Alliance Companies'
8 rate methodology and principles, that would apply to transmission service within
9 the Alliance-Midwest ISO Super Region ("Super Region") during a transition
10 period. Part of this rate methodology requires that MISO and Alliance members
11 pay a surcharge, called a zonal transmission adjustment (ZTA), on all loads,
12 including bundled retail native load, to recover revenues that are lost due to the
13 elimination of transmission charges for purchased power by the formation of the
14 single super-region zone. Section 5.5 of the settlement states that:

15 State Commissions shall take reasonable
16 action consistent with state law, including
17 state-approved settlements, after giving due
18 consideration to the positions of all persons, to
19 consider petitions filed at the state level for
20 cost recovery of the ZTAs that result from the
21 Alliance-Midwest ISO Super Region rate
22 methodology.
23

24 There is no certainty that SIGECO will be allowed to recover these ZTA
25 charges in state regulatory proceedings. Based on data submitted during
26 settlement negotiations, SIGECO's ZTA would be about \$950,000 annually,

1 which is a very substantial percentage of SIGECO's annual transmission revenue
2 requirement of \$12,478,094 as calculated in SIGECO's filing in this proceeding.
3 The potential non-recovery of this ZTA represents an increase in risk as a result
4 of MISO membership.

5 Still further, the post-transition pricing for transmission service throughout
6 the Alliance-Midwest ISO Super Region has yet to be developed. SIGECO
7 incurs the risk that, once these new rates are developed, they could
8 disadvantage SIGECO strategically in wholesale power markets relative to its
9 competitors. In Section 2.2.1 of the settlement agreement, the Midwest ISO and
10 Alliance RTO committed to negotiate with the PJM transmission owners to
11 develop a joint rate methodology for transactions involving all three RTOs and
12 associated revenue distribution. There is no assurance that SIGECO will benefit
13 from this as yet undeveloped methodology or that it would recover all of its
14 current transmission revenues under this new pricing and revenue distribution
15 methodology. SIGECO joined the MISO because it believes that it is necessary
16 for large, market-wide organizations to coordinate grid activity. However,
17 because of the uncertainty regarding many of the protocols and procedures of
18 the MISO and because of the uncertainty regarding the financial impact on
19 SIGECO of many of these unresolved issues regarding MISO membership, it is
20 clear that MISO membership has resulted in increased risk for SIGECO.

21 **Q. Is there any additional risk associated with MISO membership?**

1 A. Yes. The Midwest transmission owning utilities who are MISO members hope
2 that Commission approval of the settlement agreement and the successful
3 negotiation and development of the IRCA protocols, procedures and rates will
4 enable the Midwest ISO to attain financial viability. However, the settlement
5 agreement also provides for the departure from the Midwest ISO of three large
6 Illinois and Missouri members representing about 46% of the Midwest ISO load.
7 Even if additional utilities to the west join the Midwest ISO, the loss of these
8 large, centrally located utilities could make it difficult if not impossible for the
9 Midwest ISO to survive. The demise of the Midwest ISO could threaten SIGECO
10 with significant financial liabilities.

11 **Q. Are there risks associated with organizations like the MISO that are created**
12 **as part of the utility restructuring effort?**

13 A. Yes. Absent the settlement agreement, it is likely that the MISO would have had
14 to wind up its activities. In California, the California Power Exchange has filed for
15 bankruptcy. Although it is not a restructuring entity, Pacific Gas and Electric
16 Company, which was heavily involved in restructuring activity, has filed for
17 bankruptcy. Southern California Edison Company is also in a condition of
18 financial distress. These events have spill-over effects on the entire community
19 of regulated electric utilities and are likely to result in an increase in investor
20 perception of risk. In short, although a restructured industry holds the promise of
21 very substantial ratepayer benefits, the transition to a restructured industry is not
22 without substantial pitfalls.

1 **Q. Please summarize your recommendation regarding the ROE that should be**
2 **established for SIGECO in this proceeding.**

3 A. Consistent with the U.S. Supreme Court decisions in *Hope* and *Bluefield* cases
4 cited above, this increased risk from MISO membership that I noted above would
5 warrant the use of the midpoint of the range of ROEs that I calculated as the
6 minimum that SIGECO should be allowed to earn in this proceeding. In the
7 SoCal Edison case cited above, the Commission established a ROE at the
8 midpoint of the upper half of the zone of reasonableness, which if applied in this
9 case, would result in a higher ROE than I am recommending. Because of the
10 risk factors for SIGECO noted above and as an incentive to construct new
11 transmission facilities when they are needed, I recommend that the Commission
12 establish a ROE of 11.6% for SIGECO in this proceeding.

13 **Q. Please describe SIGECO's capital structure.**

14 A. SIGECO'S capital structure is 51.56% common stock, 2.98% preferred stock and
15 45.47% debt as shown in the table below.

16
17

	Dollar Value	Percentage	Annual Rate	Weighted Average Cost
18 Common Stock	\$334,048,753	51.56%	11.60%	5.98%
19 Preferred Stock	\$19,281,200	2.98%	5.59%	0.17%
20 Long Term Debt	<u>\$294,615,000</u>	45.47%	5.63%	<u>2.56%</u>
	\$647,944,953			8.71%

21 The data to calculate SIGECO's capital structure were taken from the FERC
22 Form 1 filed by SIGECO in 2000. The calculation of the capital structure is

1 shown in more detail on page 5 of Exhibit SIG-9. Using the interest on long term
2 debt of 5.63% and the dividends on preferred stock of 5.59%, my recommended
3 ROE of 11.6% results in an overall return of 8.71%.

4 **Tariff Provisions**

5 **Q. What principal OATT revisions does SIGECO propose?**

6 A. Aside from changes in OATT rates, SIGECO is proposing to: (1) restate and
7 amend OATT Schedule 4 to make Schedule 4 more consistent with recent
8 Commission decisions regarding Energy Imbalance Service; (2) establish a new
9 OATT Attachment J that provides procedures for interconnecting new generating
10 facilities to SIGECO's system; (3) establish a Schedule 9 for Power Factor
11 Correction Service; and (4) establish a new Dynamic Scheduling Tariff in
12 Schedule 10. SIGECO has also made other changes to conform its tariff
13 provisions to Order 888-A.

14 **Q. Please explain how Schedules 7 and 8 and Attachment H of the OATT were**
15 **amended.**

16 A. Schedule 7 is amended to include a charge of 200% of the applicable Schedule 7
17 demand charge if the transmission customer exceeds its reserved transmission
18 capacity. There is currently no remedy specified in Schedule 7 if a customer
19 exceeds its reserved transmission capacity. With the large volume of
20 transmission service transactions currently taking place to accommodate a
21 vigorous wholesale power market, it is essential that customers have a strong
22 incentive to operate within their transmission reservations.

1 **Q. Why was OATT Schedule 4 amended?**

2 A. OATT Schedule 4 was amended to make it consistent with Commission
3 precedents regarding Energy Imbalance Service. The Commission's approach
4 to Energy Imbalance Service has changed since the original Schedule 4 was
5 included in the pro forma tariffs in Order No. 888. The revised Schedule 4 will
6 allow SIGECO to recover the costs associated with Energy Imbalance Service.
7 More importantly, the proposed revisions are designed to deter customers from
8 using imbalance service as a source of energy in times when the market price
9 fluctuates dramatically. In recent decisions, the Commission has permitted
10 cashing out imbalances within the 1.5% band on an hourly basis to avoid
11 customers using return in kind provisions to game the system. The revisions to
12 Schedule 4 in SIGECO's filing are consistent with Schedule 4W for wholesale
13 energy imbalance service which was contained in a settlement that the
14 Commission recently approved for Illinois Power Company in a letter order
15 issued on October 12, 2000 in Docket No. ER99-4415.

16 **Q. Please explain the new tariff provisions for power factor correction service.**

17 A. Section 24.3 of SIGECO's existing OATT states that, "Unless otherwise agreed,
18 the Transmission Customer is required to maintain a power factor within the
19 same range as the Transmission Provider pursuant to Good Utility Practices."
20 There is no remedy specified if the customer does not maintain a power factor
21 within the same range as SIGECO. SIGECO believes that it is better to handle
22 deficiencies in customers' power factors with a charge that reflects the cost of the

1 facilities needed to provide such Power Factor Correction Service. If such a
2 charge is not available, it would appear that the only other remedy would be to
3 deny transmission service to a customer that had a lower power factor than
4 SIGECO's. Denial of transmission service is an extreme remedy for a problem
5 that is more suitably addressed through an additional charge. The tariff for
6 Power Factor Correction Service is also consistent with past Commission
7 precedent. The Commission approved a similar tariff for Power Factor
8 Correction Service in an Order issued on February 9, 2000 in *FirstEnergy*
9 *Operating Companies* Docket Nos. ER97-412-000, ER97-413-000, ER98-1932-
10 000 and ER97-412-001. The data and calculations to support the charge for
11 Power Factor Correction Service are contained in Exhibit SIG-15.

12 **Q. Schedule 2 charges customers for reactive power and Schedule 9 provides**
13 **the Power Factor Correction Service. Is the customer paying twice for the**
14 **same service?**

15 A. No. The customer is not paying twice for the same service. The reactive power
16 in Schedule 2 is the reactive power necessary to support transmission
17 transactions and to maintain the system power factor within the tolerances for
18 which SIGECO designed and operates the system. This service is provided
19 using SIGECO's generation capacity, and this service is priced based upon the
20 cost of the generation capacity used to produce this reactive power. A certain
21 amount of reactive power is necessary to operate the transmission system
22 consistent with the tolerances used by SIGECO and the charge for this reactive

1 power is included in Schedule 2. The tolerance used in constructing the rate for
2 Schedule 2 is a system power factor of at least .90. SIGECO has not
3 experienced problems regarding power factor for "through" and "out"
4 transactions, which are the bulk of transmission transactions served under
5 SIGECO's OATT at the current time.

6 By contrast, if Indiana restructures its electric utility industry and provides
7 retail choice to customers, transmission will be used to deliver electric power to
8 customers located within SIGECO's service territory. Some of these customers
9 may have a much lower power factor than the tolerances used by SIGECO for its
10 transmission system. The price for reactive power included in Schedule 9 is
11 based on the cost of capacitors necessary to correct low power factors and
12 protects against customers with power factors that are well outside of system
13 tolerances from shifting the financial burden of correcting low power factors to
14 other customers.

15 If the customer has a power factor within system tolerances, the customer
16 will be paying for the reactive power necessary to support these transactions
17 under Schedule 2 and Schedule 9 will not apply. However, if the customer has a
18 low power factor and is operating outside of system tolerances, the reactive
19 power in Schedule 2 will not be sufficient to meet the customers needs and the
20 additional reactive power provided under Schedule 9 will also be necessary.
21 Because Schedule 9 only applies to reactive power outside of the 0.90 system
22 tolerance used by SIGECO and Schedule 2 applies only to the reactive power

1 necessary to operate within the 0.90 system tolerance, there is no duplication in
2 the service received by the customer or in the charge. As a further indication that
3 there is no duplication, Schedule 2 is priced based on using generation capacity
4 to provide the necessary reactive power to the transmission system and
5 Schedule 9 is priced based on using capacitors to provide Var support in the
6 proximity of the load.

7 **Q. Please explain the new tariff provision for interconnecting new generating**
8 **facilities to SIGECO's system.**

9 A. Attachment J establishes a new tariff that specifies the procedures for
10 interconnecting new generating facilities to SIGECO's system. These
11 procedures are similar to procedures for interconnecting new generating facilities
12 that the Commission has approved in *Commonwealth Edison* in Docket Number
13 ER00-1820 and *Entergy* Docket Number ER00-1743.

14 **Q. Please describe the new Dynamic Scheduling Tariff provision established**
15 **in Schedule 10.**

16 A. The Dynamic Scheduling Tariff is included to provide a means for customers to
17 match loads and resources on a real time basis. The tariff specifies that the
18 customer will pay the actual cost of the metering, telemetry, hardware additions,
19 software modifications and any on-going expenses necessary to perform
20 dynamic scheduling. If a customer already has a SCADA system, the additional
21 cost to the customer may be much smaller than in the case when all of the
22 equipment necessary to perform dynamic scheduling must be installed. Because

1 of these significant differences in cost, it is not possible to specify a single charge
2 for providing dynamic scheduling service. However, SIGECO commits to
3 providing such service with the customer paying the actual cost of the equipment
4 and on-going expenses necessary to perform this service?

5 **Q. What other OATT changes has SIGECO?**

6 A. SIGECO has also made revisions, which inadvertently had not previously been
7 made, to conform its OATT to Order 888-A.

8 **Cost of Service and Rate Development**

9 **Q. Please explain the OATT rate revisions.**

10 A. The rates for the ancillary services in Schedules 1, 2, 3, 5 and 6 were revised to
11 more closely reflect the cost of providing these services based on Exhibit SIG-9,
12 which is my transmission cost of service study. The following table identifies the
13 affected services, the pertinent rate schedule number, and the particular exhibit
14 for deriving the rate:

15	<u>Service</u>	<u>Schedule</u>	<u>Exhibit No.</u>
16	Scheduling, System Control and		
17	Dispatch Service	1	SIG-10
18	Reactive Supply and Voltage		
19	Control for Generation Service	2	SIG-11
20	Regulation and Frequency		
21	Response Service	3	SIG-12
22	Operating Reserve – Spinning		
23	Reserve Service	5	SIG-13
24	Operating Reserve – Supplement		
25	Reserve Service	6	SIG-14
26			

1 In addition, the Schedule 7 rates for Firm Point-to-Point Transmission
2 Service have been revised to better reflect the cost of providing service as shown
3 in Exhibit SIG-9. The Schedule 8 rates for Non-Firm Point-to-Point Transmission
4 Service were revised to better reflect the cost of providing that service as also
5 shown in Exhibit SIG-9. The annual transmission revenue requirement contained
6 in Attachment H, which is used in pricing Network Integration Transmission
7 Service, was revised to better reflect the cost of providing service. Cost support
8 for and development of the new annual transmission revenue requirement is
9 included in Exhibit SIG-9 to the filing.

10 **Q. Please describe the development of the transmission revenue requirement**
11 **contained in Exhibit SIG-9.**

12 A. SIGECO's filing is based upon a 1999 test year and uses a standard embedded,
13 non-levelized cost-of-service methodology to develop the OATT transmission
14 revenue requirement. We have requested a waiver to permit the use of the 1999
15 data since data for the year 2000 was not available when we were preparing the
16 rate filing.

17 **Q. What is the primary source of data used to develop both the transmission**
18 **revenue requirement and the cost analysis underlying the ancillary service**
19 **rates?**

20 A. The balance sheet and cost items underpinning the calculation of SIGECO's
21 OATT transmission revenue requirement and the costs used to calculate
22 ancillary services are primarily derived from the 1999 FERC Form No. 1 as filed

1 by SIGECO. Each exhibit identifies the specific page references from Form 1 for
2 total company and/or transmission amounts. Once the revenue requirement is
3 developed, it is divided by demonstrated capability.

4 **Q. Please describe the development of demonstrated capability.**

5 A. Demonstrated capability is the average of SIGECO's 12 coincident peaks
6 adjusted by the transmission system loss factor of 1.6%. This figure is in turn
7 used as the divisor to calculate rates. This calculation is shown on Exhibit
8 SIG-16.

9 **Q. Are there other adjustments made to FERC form 1 data that should be**
10 **described?**

11 A. Yes. The following describes other adjustments made to the calculation of
12 transmission revenue requirement:

- 13 • Total and Net Transmission Plant in Service, as well as, Transmission
14 Expenses, have been reduced by SIGECO's investment in step-up
15 transformers. This has been done in accordance with recent FERC policy.
- 16 • Net Transmission Plant includes transmission related Materials and
17 Supplies.
- 18 • Cash working capital for transmission is developed using the FERC
19 method of one-eighth of transmission O & M expenses.
- 20 • Page 4 of Exhibit SIG-9 develops allocation factors for Plant, Depreciation,
21 Construction Work in Progress, Accumulated Deferred Income Taxes, and
22 other expenses.

- 1 • Non-firm transmission revenue has been credited against the transmission
2 revenue requirement.
- 3 • The calculation of the weighted average cost of capital is discussed
4 elsewhere in my Testimony and is developed in Page 5 of Exhibit SIG-9.

5 **Q. What kind of transmission services has SIGECO provided?**

6 A. SIGECO has principally provided relatively short-term point-to-point services.
7 For that reason, it is not possible to calculate the revenue impact of the filing.
8 SIGECO provides network service to itself for purposes of providing bundled
9 wholesale requirements service to certain customers. However, SIGECO does
10 not provide such service to any affiliated or non-affiliated entities.

11 **Q. Were Exhibits SIG-2 through SIG-15 prepared by you or under your
12 supervision?**

13 A. They were.

14 **Q. Does this conclude your testimony?**

15 A. Yes.
16

EXHIBIT SIG-2
DCF CALCULATION FOR
SOUTHERN INDIANA GAS & ELECTRIC COMPANY

Exhibit SIG-2

**DCF Calculation For
Southern Indiana Gas and Electric Company**

	2001	2003-05	Average	Dividends
Earnings Per share	\$1.70	\$2.45		3/1/2001 \$0.2550
Dividends per share	\$1.03	\$1.15		12/1/2000 \$0.2550
Payout ratio	0.6059	0.4694	0.5376	9/1/2000 \$0.2425
Retention ratio "b"			0.4624	6/1/2000 \$0.2425
Return on common equity "r"	13.50%	15.50%	14.50%	Sum \$0.9950
b x r			6.70%	
52 week low	\$15.75			
52 week high	\$26.50			
Dividend yield using 52 week low stock price	6.11%			
Dividend yield using 52 week high stock price	3.63%			
Return on equity using 52 week low stock price	12.82%			
Return on equity using 52 week high stock price	10.34%			
Midpoint of range	11.58%			

EXHIBIT SIG-3

52-WEEK PRICE RANGE FOR SHARES OF VECTREN CORPORATION

Exhibit SIG-3



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Saturday, April 14 2001 8:39am ET - U.S. Markets Closed.

VECTREN CORP (NYSE:VVC) - More Info: News , Msgs , Profile , Research , Insider - Trade Now! Choose Brokerage					
Last Trade Apr 12 · 22.50	Change 0.00 (0.00%)		Prev Cls 22.50	Volume 67,200	Div Date Mar 1
Day's Range 22.13 - 22.55	Bid N/A	Ask N/A	Open 22.13	Avg Vol 161,909	Ex-Div Feb 13
52-week Range 15.7500 - 26.5000	Earn/Shr 1.17	P/E 19.23	Mkt Cap 1.524B	Div/Shr 1.02	Yield 4.53

Vectren Corp as of 12-Apr-2001

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EXHIBIT SIG-4

DIVIDEND SUMMARY OF VECTREN CORPORATION

Investor Relations

Dividend History

Cash dividends on common stock are considered quarterly by the board of directors and historically have been paid on March 1, June 1, September 1 and December 1 of each year.

Dividend Summary for ticker VVC Vectren Corporation					
Declared	Ex-Date	Record	Payable	Amount	Type
24-Jan-2001	11-Feb-2001	15-Feb-2001	1-Mar-2001	\$0.255	Regular Cash
30-Oct-2000	13-Nov-2000	15-Nov-2000	1-Dec-2000	\$0.255	Regular Cash
26-Jul-2000	11-Aug-2000	15-Aug-2000	1-Sep-2000	\$0.2425	Regular Cash
26-Apr-2000	11-May-2000	15-May-2000	1-Jun-2000	\$0.2425	Regular Cash

Common Dividend Summary for ticker IEI Indiana Energy, Inc.					
Declared	Ex-Date	Record	Payable	Amount	Type
26-Jan-2000	11-Feb-2000	15-Feb-2000	1-Mar-2000	\$0.2425	Regular Cash
29-Oct-1999	9-Nov-1999	12-Nov-1999	1-Dec-1999	\$0.2425	Regular Cash
29-Jul-1999	11-Aug-1999	13-Aug-1999	1-Sep-1999	\$0.2425	Regular Cash
29-Apr-1999	12-May-1999	14-May-1999	1-Jun-1999	\$0.2325	Regular Cash
27-Jan-1999	10-Feb-1999	15-Feb-1999	1-Mar-1999	\$0.2325	Regular Cash
30-Oct-1998	10-Nov-1998	13-Nov-1998	1-Dec-1998	\$0.2325	Regular Cash
31-Jul-1998		18-Sep-1998	2-Oct-1998	4-for-3 stock split	
31-Jul-1998	12-Aug-1998	14-Aug-1998	1-Sep-1998	\$0.3100	Regular Cash
24-Apr-1998	13-May-1998	15-May-1998	1-Jun-1998	\$0.2950	Regular Cash
28-Jan-1998	11-Feb-1998	13-Feb-1998	1-Mar-1998	\$0.2950	Regular Cash
31-Oct-1997	12-Nov-1997	14-Nov-1997	1-Dec-1997	\$0.2950	Regular Cash
25-Jul-1997	13-Aug-1997	15-Aug-1997	1-Sep-1997	\$0.2950	Regular Cash
25-Apr-1997	13-May-1997	15-May-1997	1-Jun-1997	\$0.2850	Regular Cash
22-Jan-1997	12-Feb-1997	14-Feb-1997	1-Mar-1997	\$0.2850	Regular Cash
1-Nov-1996	13-Nov-1996	15-Nov-1996	1-Dec-1996	\$0.2850	Regular Cash
26-Jul-1996	13-Aug-1996	15-Aug-1996	1-Sep-1996	\$0.2850	Regular Cash
26-Apr-1996	13-May-1996	15-May-1996	1-Jun-1996	\$0.2750	Regular Cash
26-Jan-1996	13-Feb-1996	15-Feb-1996	1-Mar-1996	\$0.2750	Regular Cash
27-Oct-1995	13-Nov-1995	15-Nov-1995	1-Dec-1995	\$0.2750	Regular Cash

Page 2 of 2

28-Jul-1995	11-Aug-1995	15-Aug-1995	1-Sep-1995	\$0.2750	Regular Cash
28-Apr-1995	9-May-1995	15-May-1995	1-Jun-1995	\$0.2850	Regular Cash
9-Jan-1995	9-Feb-1995	15-Feb-1995	1-Mar-1995	\$0.2850	Regular Cash
28-Oct-1994	8-Nov-1994	15-Nov-1994	1-Dec-1994	\$0.2850	Regular Cash
29-Jul-1994	9-Aug-1994	15-Aug-1994	1-Sep-1994	\$0.2650	Regular Cash
29-Apr-1994	9-May-1994	13-May-1994	1-Jun-1994	\$0.2550	Regular Cash
10-Jan-1994	9-Feb-1994	15-Feb-1994	1-Mar-1994	\$0.2550	Regular Cash
29-Oct-1993	10-Nov-1993	17-Nov-1993	1-Dec-1993	\$0.2550	Regular Cash
30-Jul-1993		17-Sep-1993	1-Oct-1993	3-for-2 stock split	
30-Jul-1993	12-Aug-1993	18-Aug-1993	1-Sep-1993	\$0.3825	Regular Cash
30-Apr-1993	12-May-1993	18-May-1993	1-Jun-1993	\$0.3700	Regular Cash
13-Jan-1993	8-Feb-1993	15-Feb-1993	1-Mar-1993	\$0.3700	Regular Cash
30-Oct-1992	10-Nov-1992	17-Nov-1992	1-Dec-1992	\$0.3700	Regular Cash
31-Jul-1992	12-Aug-1992	18-Aug-1992	1-Sep-1992	\$0.3700	Regular Cash
24-Apr-1992	12-May-1992	18-May-1992	1-Jun-1992	\$0.3550	Regular Cash
13-Jan-1992	10-Feb-1992	17-Feb-1992	1-Mar-1992	\$0.3550	Regular Cash
25-Oct-1991	12-Nov-1991	18-Nov-1991	1-Dec-1991	\$0.3550	Regular Cash
26-Jul-1991	13-Aug-1991	19-Aug-1991	1-Sep-1991	\$0.3550	Regular Cash
26-Apr-1991	13-May-1991	17-May-1991	1-Jun-1991	\$0.3400	Regular Cash
14-Jan-1991	11-Feb-1991	15-Feb-1991	1-Mar-1991	\$0.3400	Regular Cash
26-Oct-1990	5-Nov-1990	9-Nov-1990	1-Dec-1990	\$0.3400	Regular Cash
27-Jul-1990	6-Aug-1990	10-Aug-1990	1-Sep-1990	\$0.3400	Regular Cash
27-Apr-1990	7-May-1990	11-May-1990	1-Jun-1990	\$0.3200	Regular Cash
28-Jan-1990	12-Feb-1990	16-Feb-1990	1-Mar-1990	\$0.3200	Regular Cash

EXHIBIT SIG-5

**CALCULATION OF RETURN ON EQUITY OF
ENERGY EAST CORP., UTILICORP UNITED,
CMS ENERGY CORP., NISOURCE INC.
AND OGE ENERGY CORP.**

	2001	2002	2004-06	Average	
Earnings Per share	\$2.20	\$2.35	\$2.75		
Dividends per share	\$0.92	\$0.96	\$1.08		
Payout ratio	0.4182	0.4085	0.3927	0.4065	
Retention ratio "b"				0.5935	
Return on common equity "r"	16.00%	16.00%	14.50%	15.50%	Dividends \$0.9200
b x r				9.20%	
52 week low					\$16.96
52 week high					\$23.50
Dividend yield using 52 week low stock price				5.19%	
Dividend yield using 52 week high stock price				3.74%	
Return on equity using 52 week low stock price				14.39%	
Return on equity using 52 week high stock price				12.94%	
Midpoint of range				13.66%	



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ENERGY EAST CP (NYSE:EAS) - More Info: News , Msgs , Profile , Research , Insider , Options - Trade: Choose Brokerage					
Last Trade Apr 24 · 19.45	Change 0.00 (0.00%)		Prev Cls 19.45	Volume 0	Div Date May 15
Day's Range 0.00 - 0.00	Bid N/A	Ask N/A	Open 0.00	Avg Vol 400,045	Ex-Div Apr 19
52-week Range 16.9600 - 23.5000	Earn/Shr 2.06	P/E 9.44	Mkt Cap 2.281B	Div/Shr 0.92	Yield 4.73

EAS 24-Apr-2001 (C) Yahoo!

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- Thu Apr 12 EAS [Energy East Declares Quarterly Dividend](#) - *PR Newswire*
- Thu Apr 12 EAS [NYSEG Declares Quarterly Dividends](#) - *PR Newswire*
- Thu Apr 5 EAS [Utility says not enough supply in NY for power competition](#) - *Reuters Securities*
- Wed Apr 4 EAS [NYSEG Publishes Report on New York's Evolving Electric Energy Crisis](#) - *PR Newswire*

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	2001	2003-05	Average	
Earnings Per share	\$2.25	\$2.75		
Dividends per share	\$1.20	\$1.20		
Payout ratio	0.5333	0.4364	0.4848	
Retention ratio "b"			0.5152	Dividends \$1,2000
Return on common equity "r"	12.00%	12.50%	12.25%	
b x r			6.31%	
52 week low	\$18.63			
52 week high	\$35.78			
Dividend yield using 52 week low stock price	6.25%			
Dividend yield using 52 week high stock price	3.25%			
Return on equity using 52 week low stock price	12.56%			
Return on equity using 52 week high stock price	9.56%			
Midpoint of range	11.06%			

Exhibit SIG-5
Page 4 of 10



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UTILICORP (NYSE:UCU) - More Info: News , Msgs , Profile , Research , Insider , Options - Trade: Choose Brokerage						
Last Trade Apr 24 · 35.00	Change 0.00 (0.00%)		Prev Cls 35.00	Volume 0	Div Date Mar 12	
Day's Range 0.00 - 0.00	Bid N/A	Ask N/A	Open 0.00	Avg Vol 579,818	Ex-Div Feb 20	
52-week Range 18.6250 - 35.7800	Earn/Shr 2.21	P/E 15.84	Mkt Cap 3.942B	Div/Shr 1.20	Yield 3.43	

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- Tue Apr 24 UCU [UtiliCorp ceases efforts to sell unit - Reuters Securities](#)
- Tue Apr 24 UCU [UtiliCorp Discontinues Plans to Sell Its U.S. Network Construction and Maintenance Business - Business Wire](#)
- Tue Apr 24 UCU [\[external\] Aquila shares garner an opening premium - at CBS MarketWatch](#)
- Tue Apr 24 UCU [Aquila surges nearly 25 percent on debut - Reuters Securities](#)

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DCF Calculation For
CMS Energy Corp.

	2001	2003-05	Average	
Earnings Per share	\$2.75	\$3.50		
Dividends per share	\$1.46	\$1.50		
Payout ratio	0.5309	0.4286	0.4797	
Retention ratio "b"			0.5203	Dividends \$1.4600
Return on common equity "r"	13.50%	12.50%	13.00%	
b x r			6.76%	
52 week low	\$18.38			
52 week high	\$32.25			
Dividend yield using 52 week low stock price	7.68%			
Dividend yield using 52 week high stock price	4.38%			
Return on equity using 52 week low stock price	14.45%			
Return on equity using 52 week high stock price	11.14%			
Midpoint of range	12.79%			

Exhibit SIG-5
Page 6 of 10



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CMS ENERGY CORP (NYSE:CMS) - More Info: News , Msgs , Profile , Research , Insider , Options - Trade: Choose Brokerage						
Last Trade Apr 24 · 30.30	Change 0.00 (0.00%)		Prev Cls 30.30	Volume 0	Div Date Feb 22	
Day's Range 0.00 - 0.00	Bid N/A	Ask N/A	Open 0.00	Avg Vol 788,000	Ex-Div Feb 5	
52-week Range 18.3750 - 32.2500	Earn/Shr 2.53	P/E 11.98	Mkt Cap 3.982B	Div/Shr 1.46	Yield 4.82	

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	2001	2003-05	Average	
Earnings Per share	\$2.10	\$2.75		
Dividends per share	\$1.16	\$1.50		
Payout ratio	0.5524	0.5455	0.5489	
Retention ratio "b"			0.4511	Dividends \$1.1600
Return on common equity "r"	11.00%	12.50%	11.75%	
b x r			5.30%	
52 week low	\$16.13			
52 week high	\$32.55			
Dividend yield using 52 week low stock price	7.01%			
Dividend yield using 52 week high stock price	3.47%			
Return on equity using 52 week low stock price	12.31%			
Return on equity using 52 week high stock price	8.77%			
Midpoint of range	10.54%			

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Wednesday, April 25 2001 7:47am ET - U.S. Markets open in 1 hour and 43 minutes.

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Last Trade Apr 23 · 30.00	Change 0.00 (0.00%)	Prev Cls 30.00	Volume 0	Div Date May 18	<p>NI 24-Apr-2001 (C) Yahoo!</p> <p>Small: [1d 5d 1y none]</p> <p>Big: [1d 5d 3m 6m 1y 2y 5y max]</p>	
Day's Range 0.00 - 0.00	Bid N/A	Ask N/A	Open 0.00	Avg Vol 899,454		Ex-Div Apr 26
52-week Range 16.1250 - 32.5500	Earn/Shr 1.08	P/E 27.78	Mkt Cap 6.167B	Div/Shr 1.16		Yield 3.87

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DCF Calculation For
OGE Energy Corp.

Earnings Per share	2001	2003-05	Average
Dividends per share	\$2.05	\$2.50	
Payout ratio	\$1.33	\$1.45	
Retention ratio "b"	0.6488	0.5800	0.6144
			0.3856
Return on common equity "r"	14.00%	15.50%	14.75%
b x r			5.69%

Dividends
 \$1.3300

52 week low
 52 week high

\$18.31
 \$24.75

Dividend yield using 52 week low stock price
 Dividend yield using 52 week high stock price

7.06%
 5.23%

Return on equity using 52 week low stock price
 Return on equity using 52 week high stock price

12.75%
 10.91%

Midpoint of range

11.83%



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Wednesday, April 25 2001 8:14am ET - U.S. Markets open in 1 hour and 16 minutes.

OGE ENERGY (NYSE:OGE) - More Info: News , Msgs , Profile , Research , Insider - Trade: Choose Brokerage						
Last Trade Apr 24 · 21.72	Change 0.00 (0.00%)	Prev Cls 21.72	Volume 0	Div Date Apr 30	<p>OGE 24-Apr-2001 (C) Yahoo!</p> <p>May Jul Sep Nov Jan Mar</p> <p>Small: [1d 5d 1y none]</p> <p>Big: [1d 5d 3m 6m 1y 2y 5y max]</p>	
Day's Range 0.00 - 0.00	Bid N/A	Ask N/A	Open 0.00	Avg Vol 232,227		Ex-Div Apr 6
52-week Range 18.3125 - 24.7500	Earn/Shr 1.69	P/E 12.87	Mkt Cap 1.692B	Div/Shr 1.33		Yield 6.12

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- Mon Apr 23 OGE [Q1 2001 OGE Energy Earnings Release](#) - *Time Not Supplied* - *CCBN*
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- Tue Apr 10 OGE [Correction -- OGE Energy Corp.](#) - *PR Newswire*

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EXHIBIT SIG-6

**SUMMARY OF DCF CALCULATIONS OF FIVE COMPANIES COMPARED
TO SOUTHERN INDIANA GAS & ELECTRIC COMPANY**

Exhibit SIG-6

Summary of DCF Calculations

	Growth	Dividend Yield 52 Week Low	Dividend Yield 52 Week High	ROE Using 52 Week Low	ROE Using 52 Week Low	Midpoint of Range of ROEs	Midpoint of Top Half of Range of ROEs
Energy East Corp.	9.20%	5.19%	3.74%	14.39%	12.94%	13.67%	14.03%
Utilicorp United	6.31%	6.25%	3.25%	12.56%	9.56%	11.06%	11.81%
CMS Energy Corp.	6.76%	7.68%	4.38%	14.45%	11.14%	12.80%	13.62%
NISOURCE Inc.	5.30%	7.01%	3.47%	12.31%	8.77%	10.54%	11.43%
OGE Energy Corp.	5.69%	7.06%	5.23%	12.75%	10.91%	11.83%	12.29%
Average	6.65%	6.64%	4.01%	13.29%	10.66%	11.98%	12.64%
SIGECO	6.70%	6.11%	3.63%	12.82%	10.34%	11.58%	12.20%

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF AN ADJUSTMENT
OF RATES OF DELTA NATURAL
GAS COMPANY, INC.

)
)
)

CASE NO. 99-176

DIRECT TESTIMONY OF

MARTIN J. BLAKE

AFFIDAVIT

The affiant, Martin J. Blake, being duly sworn, deposes and states that the prepared testimony attached hereto and made a part hereof, constitutes the prepared Direct Testimony of this affiant in Case No. 99-176, in the matter of: Adjustment of Gas Service Rates of Delta Natural Gas Company, Inc. and that if asked the questions propounded therein, this affiant would make the answers set forth in the attached prepared Direct Testimony.

Affiant further states that he will be present and available for cross-examination and for such additional direct examination as may be appropriate at any hearing in Case No. 99-176 scheduled by the Commission, at which time affiant will further reaffirm the attached testimony as his Direct Testimony in such case.

Martin J Blake
Martin J. Blake

STATE OF KENTUCKY)
)
COUNTY OF JEFFERSON)

Subscribed and sworn to before me by Martin J Blake, this the
25th day of June, 1999.

My Commission Expires: Elizabeth Andriot
Notary Public, State at Large, KY
My Commission Expires July 14, 2002

Elizabeth Andriot
Notary Public, State at Large, Kentucky

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF

**GENERAL ADJUSTMENT OF GAS)
SERVICE RATES OF DELTA)
NATURAL GAS COMPANY, INC.)**

CASE NO. 99-176

DIRECT TESTIMONY OF DR. MARTIN J. BLAKE

1 Q: PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

2 A: My name is Martin J. Blake. My business address is 6711 Fallen Leaf, Louisville,
3 Kentucky 40241.

4 Q: BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?

5 A: I am a Member and Principal of The Prime Group, LLC. The Prime Group provides
6 consulting services in the areas of marketing, market research, rate and regulatory
7 support, training, and strategic planning for energy industry clients. The Prime Group is
8 focused on helping clients to prepare for the transition to a more competitive utility
9 industry environment.

Professional Qualifications & Experience

10 Q: PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

11 A: I received my Ph.D. in Agricultural Economics in 1976 from the University of Missouri,
12 Columbia. My doctoral work centered on the areas of marketing and econometrics. I
13 also hold a Master of Arts in Economics from the University of Missouri, Columbia,
14

which I received in 1972. In addition, I received a Bachelor of Arts degree in Economics from Illinois Benedictine College in 1970.

2
3 Q: IN WHAT AREAS DOES YOUR PRACTICE CONCENTRATE?

4 A: As a member of The Prime Group, I have prepared and filed Order No. 888 and Order
5 No. 889 compliance filings at the Federal Energy Regulatory Commission ("FERC") for a
6 number of electric utilities as well as Order No. 888 and Order No. 889 waiver requests
7 for other utilities. I have prepared market power analyses in support of market-based rate
8 filings at FERC for utilities and their marketing affiliates, as well as assisting other utilities
9 with their market-based rate filings. I have also assisted several utilities in addressing both
10 FERC and state affiliate transactions concerns and have provided training regarding
11 standards of conduct. I have assisted utilities with developing strategic marketing plans
12 and implementing these plans. I have provided utility clients with assistance regarding
13 regulatory policy, strategy and liaison; state and federal regulatory filing development,
14 testimony and support; cost of service development and support; the development of
15 innovative rates to achieve strategic objectives; the unbundling of rates and the
16 development of menus of rate alternatives for use with customers; performance-based rate
17 and incentive rate development; and energy marketing and brokering capability
18 development. I have made presentations to train account executives in sales and customer
19 negotiation, as well as presentations in ratemaking and utility finance seminars and
20 workshops regarding basic utility marketing. I have provided marketing, market research
21 and marketing support services for utility clients and have assisted them in assessing their
22 marketing capabilities and processes.

Q: PLEASE BRIEFLY SUMMARIZE YOUR AREAS OF PROFESSIONAL
EXPERIENCE PRIOR TO JOINING THE PRIME GROUP.

A: I have professional experience as an economist and professor of economics, as a utility regulator, and as a utility manager and executive.

Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS AN ECONOMIST.

A: From January 1977 to December 1986, I was employed first as an Assistant Professor, then as an Associate Professor, and finally as a Professor of Agricultural Economics at New Mexico State University in Las Cruces, New Mexico ("NMSU"). I was the head of the undergraduate program and taught economics, agricultural economics and econometrics. While at NMSU, I also worked as a consultant for various clients, providing price forecasting, load forecasting, and marketing services. Since 1992, I have taught mathematical economics and econometrics as an Adjunct Professor in the Economics Department at the University of Louisville. Prior to my joining the faculty at NMSU, I served in the U. S. Army as an instructor of economics, statistics, and accounting at the U. S. Army Institute of Administration at Fort Benjamin Harrison, Indianapolis, Indiana.

I also have a variety of experience with the application of economics to utility public policy issues. In addition to my experience as a utility regulator and executive, which I describe below, I have taught ratemaking for utilities at the NARUC Annual Regulatory Studies Program at Michigan State University since 1993. From May 1983 to August 1983, while on a sabbatical leave from NMSU, I served as a Policy Analyst for the Assistant Secretary for Land and Water at the U. S. Department of Interior.

Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY
REGULATOR.

A: From January 1987 to November 1990, I served as a Commissioner and as the Chairman of the New Mexico Public Service Commission. As a Commissioner, my duties included making policy and adjudicatory decisions regarding rates, terms of service, financing, certificates of public convenience and necessity, and complaints for electric, gas, water, and sewer utilities. As Chairman, I supervised a staff of thirty-two professionals and sixteen support staff. During my tenure on the New Mexico Commission, I also served as Chairman of the Western Conference of Public Service Commissioners Electric Committee and as Chairman of the Committee on Regional Electric Power Cooperation, a group composed of state public service commissioners and representatives from the state energy offices of the thirteen western states.

As a Commissioner, I interpreted legislation, reviewed prior Commission cases to determine the precedents that they provided, drafted rules and regulations, wrote Orders, conducted hearings, ruled on motions, and served as an arbitrator in alternative dispute resolution proceedings. Although I do not have a law degree, I performed adjudicatory and regulatory functions for the four years that I served on the Commission.

Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY
MANAGER.

A: From December, 1990 to June 1996, I was employed by Louisville Gas and Electric Company ("LG&E"). Initially, I served as LG&E's Director of Regulatory Planning. In this position, I was responsible for coordinating all of LG&E's state and federal regulatory

efforts, and prepared and presented testimony to regulators. In performing my duties in
2 the federal regulatory area, I performed the market power analysis in LG&E's original
3 market-based rate filing at the FERC, which was one of the first applications of the "hub
4 and spoke" methodology that the FERC now uses in assessing generation market
5 dominance in market-based rate filings; supervised the preparation of the market-based
6 rate filings; and served as LG&E's principal witness in this case. I also helped develop the
7 electronic bulletin board that the FERC required as a condition for approving the market-
8 based tariff. Additionally, I helped to develop LG&E's comparable transmission tariff
9 filing, which provided third parties with access to LG&E's transmission system at the
10 same price, terms and conditions as LG&E. This was the first tariff providing comparable
11 transmission service that was filed and approved by the FERC and was filed before Order
12 No. 888 was issued by FERC. In this comparable transmission tariff filing, I served as
13 LG&E's principal witness and negotiated the settlement in this case with FERC staff.
14 When LG&E Power Marketing filed for the ability to charge market-based rates, I helped
15 to develop the codes of conduct that were submitted to the FERC as a part of the filing.
16 My areas of responsibility were expanded in April 1994 to include marketing and strategic
17 planning. As the Director, Marketing, Planning and Regulatory Affairs, I was responsible
18 for coordinating LG&E's retail gas and electric marketing, strategic planning, and state
19 and federal regulatory efforts. I continued to be employed in that capacity at LG&E until
20 June 1996, when I joined the Prime Group as one of its Principals.

21 Q: PLEASE DESCRIBE THE INDUSTRY GROUPS IN WHICH YOU HAVE
22 PARTICIPATED.

1 A: I have served on several regional transmission coordination groups such as the
2 Interregional Transmission Coordination Forum, and the General Agreement on Parallel
3 Paths, as well as the following committees of the Edison Electric Institute ("EEI") --
4 Economics and Public Policy Executive Advisory Committee, Strategic Planning
5 Executive Advisory Committee, Transmission Task Force, and Power Supply Policy
6 Technical Task Force. Recently, I have worked with a group of utilities developing the
7 Midwest ISO.

8 Q: HAVE YOU TAUGHT ANY COURSES OR SEMINARS IN THE AREA OF UTILITY
9 RESTRUCTURING?

10 A: Yes. In addition to teaching ratemaking for electric utilities at the NARUC Annual
11 Regulatory Studies Program since 1993, I have also taught a course regarding the
12 institutions and organizations of the new electric utility industry. Each year, I also teach
13 and conduct numerous workshops and programs, and deliver invited presentations to
14 utility managers and regulators on a variety of subjects including industry restructuring.

15 Q. IN WHICH CASES HAVE YOU PREVIOUSLY TESTIFIED?

16 A. I testified before the Kentucky Public Service Commission in the rehearing in Case No. 90-
17 158, an LG&E rate case; in Case No. 92-494, a biennial fuel adjustment clause review; in
18 Case No. 93-150, an application for approval of a DSM cost recovery mechanism and a set
19 of initial programs; in Case No. 94-332, an application for an environmental cost recovery
20 mechanism; in case No. 92-494-B, regarding the confidentiality of coal bid data; and in
21 case No. 95-455, a biannual review of the environmental cost recovery mechanism. I
22 participated in the conference to review LG&E's first integrated resource plan in Case No.

91-423 and testified in a number of fuel adjustment clause proceedings. I also testified on behalf of Blazer Energy Corp. in Case No. 98-489 which was an application for an adjustment in rates.

I prepared and filed testimony before the FERC in cases ER92-533, in which LG&E provided open transmission access and also received authority to charge market-based rates for its generation, and ER 94-1380, the first comparability tariff which was approved by the FERC. I prepared and filed rebuttal testimony in Cause No. PUD 960000116, Oklahoma Gas and Electric Company's last rate case before the Oklahoma Corporation Commission. In that case, I rebutted intervenor and staff proposals to disallow certain marketing, advertising, economic development and research and development expenses. I have prepared and filed direct and rebuttal testimony for Southern California Edison Company in Case Number 90-12-018 (phase 5). In this testimony, I reviewed the reasonableness of contracting by Southern California Edison with Integrated Energy Group (IEG) to provide marketing services to Southern California Edison and the reasonableness of the resulting marketing services performed by IEG. I prepared and filed direct and rebuttal testimony for Oklahoma Gas and Electric in Arkansas Public Service Commission Docket No. 96-360-U regarding recovery of stranded cost by Entergy Arkansas, Inc. In this testimony, I recommended recovery of 100% of stranded costs at such time as costs are actually stranded. I also testified before the New Mexico Public Utility Commission in Docket No. 2797, a general rate case for Plains Electric Generation and Transmission Cooperative, Inc.

I testified in Illinois Commerce Commission ("ICC") Dockets 98-0013 and 98-0035, which

2 were concerned with ensuring non-discrimination with regard to affiliate transactions for
3 electric utilities. In this case, I sponsored ComEd's proposed affiliate transactions rules and
4 suggested some basic principles that the Illinois Commerce Commission should follow in
5 developing rules and regulations for ensuring non-discrimination and non-cross
6 subsidization in transactions with affiliated and unaffiliated alternative retail electric
7 suppliers (ARES). I testified in ICC Docket 98-0036, which was a rulemaking to develop
8 rules and regulations for assessing and assuring the reliability of the transmission and
9 distribution systems as a part of electric utility restructuring in Illinois. I also testified in
10 Dockets 98-0147 and 98-0148 which were concerned with developing standards of
11 conduct and rules for functional separation. In this case, I sponsored ComEd's proposed
standards of conduct and functional separation rules.

12 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

13 A. Delta Natural Gas Company, Inc. ("Delta") engaged The Prime Group to conduct an
14 analysis of and to provide a recommendation regarding the appropriate cost of common
15 equity for application to Delta's original cost rate base. My testimony contains the results
16 of this analysis and identifies the fair rate of return on equity that Delta should be given
17 the opportunity to earn during the period when the new rates will be in effect. My analysis
18 utilizes commonly accepted financial valuation techniques and incorporates the factors
19 that affect Delta's overall investment risk.

20 Q. IS THERE A PUBLIC BENEFIT TO PROVIDING NATURAL GAS SERVICE TO
21 RURAL AREAS?

22 A. Yes. If natural gas service is available in an area, customers have a choice whether to use

natural gas or electricity for particular applications. Customers' ability to switch between natural gas and electricity helps to keep downward pressure on the prices of both products. Furthermore, the availability of natural gas service can help in attracting industrial loads to an area and thus assist in economic development efforts. However, if natural gas service is to be provided to rural areas, the companies providing such service must have the opportunity to earn adequate returns or they will no longer be able and willing to provide such service.

Q. HOW SHOULD THE RATE OF RETURN BE DETERMINED UNDER PUBLIC UTILITY REGULATION?

A. The purpose of public utility regulation with respect to rate of return is to permit a utility to earn its cost of capital while avoiding monopoly profits. Long-run earnings above the cost of capital would imply monopoly profits, while long-run earnings below the cost of capital would impair a utility's ability to attract capital on reasonable terms. A rate of return based on a utility's cost of capital is consistent with the guidelines established by the U.S. Supreme Court in *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923) and *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1944). These cases require that a utility be allowed to earn a rate of return that: 1) is comparable to alternative investment opportunities of corresponding risk, 2) will permit capital attraction on reasonable terms, and 3) will maintain a utility's financial integrity.

Q. IS AN OPPORTUNITY TO EARN A FAIR RATE OF RETURN THE SAME AS A GUARANTEE TO EARN A FAIR RATE OF RETURN?

2 A. No. Having an opportunity to earn a fair rate of return allows for more uncertainty than
3 does having a guarantee to earn a fair rate of return. A guarantee of earning a fair return
4 would imply no variability in the rate of return, with the utility earning the specified rate
5 of return every year. An opportunity to earn a fair rate of return implies that a utility has a
6 reasonable assurance that it will be allowed to earn a rate of return that is sufficient to
7 attract capital, that will maintain its financial integrity and that is comparable to the return
8 earned by alternative investments of comparable risk. While factors such as temperature
9 variability and changes in the number of customers may result in an actual rate of return
10 that is higher or lower than the allowed rate of return in any given year, a utility that
11 consistently earns less than the allowed rate of return or which has averaged significantly
12 less than the allowed rate of return for a long period of time cannot be said to have a
13 reasonable assurance of earning the allowed rate of return. Thus, an assurance of earning a
14 fair and reasonable rate of return could be viewed statistically as the arithmetic average of
15 a series of returns over a period of time equaling the allowed rate of return. The problem
16 with this approach is that, if there is significant variability in the returns, several years of
17 earning below the allowed rate of return could cause severe financial harm to a utility
18 while waiting for the years of above average returns to materialize. Thus, it may make
19 sense for regulators to not only deal with the mean value of the distribution of returns, as
20 they do when they set the allowed rate of return in a rate case, but to also deal with the
21 variability of the returns through some alternative regulatory mechanism.

22 Q. WOULD YOU REGARD DELTA'S CURRENT RATES AS PROVIDING AN
OPPORTUNITY TO EARN AN ADEQUATE RETURN FOR PROVIDING NATURAL

GAS SERVICE TO RURAL AREAS?

2 A. No, I do not. In December, 1997 the Commission issued an Order in Case No. 97-066
3 which set new rates for Delta which became effective in January, 1998. In this case, the
4 Commission allowed a return on common equity of 11.6%. However, Exhibit MJB-2
5 shows that Delta actually earned a return of 8.22% during the first year that these new
6 rates were in effect. Additionally, Delta had a payout ratio of nearly 110% during 1998. In
7 fact, Delta has had a payout ratio of greater than 100% in 6 of the last 10 years with an
8 average payout of 105%. Such a payout ratio cannot be maintained in the long run.
9 Admittedly, in the current regulatory framework, when the Commission sets rates, it
10 provides a company with the opportunity to earn a rate of return, it does not guarantee that
11 a given rate of return will be earned. However, Delta's return on equity has averaged
12 10.1% over the last 10 years, and this, combined with the payout history and the return on
13 equity that Delta earned in 1998 during the first year that the new rates were in effect,
14 does not indicate to me that Delta has a sufficient opportunity to earn the allowed rate of
15 return.

16 Q. WHAT FACTORS DO YOU BELIEVE HAVE CAUSED DELTA TO UNDER EARN
17 COMPARED TO ITS ALLOWED RATE OF RETURN ON EQUITY?

18 A. I believe that there are three factors: 1) Delta's equity is low as a percentage of total
19 capitalization, 2) Delta's predominantly rural service territory, and 3) weather variability.

20 Q. PLEASE DESCRIBE DELTA'S EQUITY AS A PERCENTAGE OF TOTAL
21 CAPITALIZATION COMPARED TO OTHER NATURAL GAS DISTRIBUTION
22 COMPANIES.

2 A. Exhibit MJB-1 shows the common equity ratios for a panel of 29 natural gas distribution
3 utilities. The data was taken from a report titled Natural Gas Industry Summary Monthly
4 Financial & Common Stock Information published by Edward Jones. The first column of
5 data contains the reported capitalization of the company which consists of long term debt
6 and common equity. The short term debt reported in the second column is not included in
7 the capitalization reported in the first column. The third column shows common equity as
8 a percentage of long term debt and equity. The mean percentage of equity calculated on
9 this basis is 51% with a median of 50%. The capitalization for Delta that is utilized in this
10 proceeding includes short term capital as well as long term capital and common equity. To
11 provide the percentage of equity for the panel based on a capitalization including short
12 term debt, the short term debt in column two was added to the capitalization reported in
13 column one to get total capitalization. Equity as a percentage of total capitalization was
14 calculated by dividing the company's common equity by the capitalization which included
15 short term debt. This calculation resulted in the data reported as the new equity percentage
16 in the last column of Schedule 1. The ratio of common equity to total capitalization of
17 30.6% for Delta is consistent with the original capital structure from the test year that is
18 utilized in this proceeding. The mean percentage of common equity relative to total
19 capitalization of the panel is 43.2% with a median of 43.9%. It should be noted that
20 Delta's percentage of common equity relative to total capitalization is the second lowest
21 in the panel which makes Delta more heavily leveraged than other natural gas distribution
22 utilities.

22 Q. DOES A LOW PERCENTAGE OF EQUITY RELATIVE TO TOTAL

CAPITALIZATION MAKE DELTA A RISKIER INVESTMENT?

2 A. Yes. The more debt that a firm has as a part of its total capitalization, the greater are the
3 fixed interest payments that the firm will have to make to bond holders out of any given
4 revenue stream that it generates. A company is required to make payments to the bond
5 holders in specified amounts at specified times, while it is under no such obligation to its
6 common equity holders. Thus, the more equity the firm has, the greater is its ability to
7 weather revenue fluctuations. However, this flexibility comes at a cost, as equity is more
8 expensive than debt because of the greater risk that shareholders bear. As a company's
9 business environment becomes riskier and its business risk becomes greater, the company
10 should increase its equity and lower its debt ratio. By reducing its debt ratio, its fixed
11 obligations to bond holders would be reduced and the company would be better able to
12 manage the financial fluctuations that result from a riskier business environment.
13 Furthermore, a utility's equity ratio must be high enough to allow additional debt capital
14 to be issued without an adverse effect on its credit rating. This would be consistent with
15 the criteria established in the Bluefield and Hope cases that the rate of return be sufficient
16 to permit capital attraction on reasonable terms. If the capital structure does not permit
17 some margin for additional debt financing at all times, a utility is subject to the potential
18 adverse impact of unanticipated tight credit conditions, thus making it a riskier
19 investment. Because I believe that Delta's existing capital structure would make it
20 difficult to secure additional debt financing on reasonable terms, it is my opinion that the
21 Commission needs to allow a higher rate of return that will permit Delta to improve its
22 equity ratio.

Q. HOW WOULD DELTA'S LOW EQUITY RATIO AFFECT THE RETURN ON EQUITY THAT IT EARNS?

A. Because Delta is about 70% debt financed, its fixed obligations to bondholders are high, thus exacerbating the impact on the return on equity resulting from any revenue reductions that Delta might experience.

Q. HOW WOULD DELTA'S PREDOMINANTLY RURAL SERVICE TERRITORY AFFECT THE RETURN ON EQUITY THAT IT EARNS?

A. Delta serves an area that is predominantly rural with low population density. This low population density results in higher fixed cost per customer for serving rural areas compared to the fixed cost per customer incurred in an urban area. This higher fixed cost per customer results from both a higher cost of installing the pipe needed to serve a customer and the higher cost of maintaining the lines. Additionally, Delta has been adding customers at a rapid rate, as demonstrated in Exhibit-MJB3. These customer additions result in significant additional fixed cost being added before any additional revenue is generated. Thus, the high fixed cost per customer combined with customer growth is putting financial pressure on Delta through these fixed cost additions. Furthermore, these rural customers tend to have a lower annual usage and a larger proportion of temperature sensitive load than urban customers. This relatively high fixed cost to serve small highly temperature sensitive loads translates to a higher fixed cost burden for Delta and a more variable revenue stream. The higher fixed costs resulting from operations compounds the problem of high fixed obligations to bond holders resulting from a low equity ratio, and exacerbates the impact on the return on equity resulting from any revenue reductions that

Delta might experience. Thus, the low population density in rural areas that results in a higher fixed cost burden for Delta with more variability in the return stream due to the large amount of temperature sensitive load for these rural customers makes Delta a riskier investment. This added risk would justify a higher rate of return to compensate for the additional risk. Because I have not quantified the separate impact on rate of return resulting from the rural character of Delta's service territory, I would suggest accounting for the impacts of this risk factor by using an allowed rate of return in the high end of the reasonable range of returns based on my analysis.

Q. HOW WOULD WEATHER VARIABILITY AFFECT THE RETURN ON EQUITY THAT DELTA EARNS?

A. Because a large portion of Delta's load is space conditioning and is very temperature sensitive, a warmer than normal heating season results in significantly reduced revenue and earnings while a cooler than normal heating season results in increased revenue and earnings. This impact can be seen on page 1 of Exhibit MJB-2. The earnings available for common equity fluctuate widely from a 111% increase in 1992 to a 35% decrease in 1997. It should be noted that the earnings available for common equity in 1998 of \$2,451,272 is still below the 1996 level of earnings available for common equity even though it represents a 42% increase over 1997. The 1998 level is also below the earnings available for common equity in 1993 and 1994. Thus, temperature variability has a major effect on the return on equity that Delta actually earns.

Q. ARE THERE ANY REMEDIES THAT CAN BE APPLIED TO CORRECT FOR THE THREE FACTORS AFFECTING DELTA'S EARNINGS THAT YOU HAVE

DESCRIBED ABOVE?

2 A. Yes. There are potential remedies for two of the three factors that I have described above.
3 With regard to Delta's low percentage of equity, there are two potential remedies. The
4 first is to use an imputed capital structure and the second is to incorporate a leverage
5 premium into the rate of return if an imputed capital structure is not used. With regard to
6 the impact of weather variability on earnings and on return on equity, a temperature
7 normalization adjustment can be utilized. However, a temperature normalization
8 adjustment will not correct for the rural nature of Delta's service territory and the higher
9 fixed costs that result. These characteristics of Delta's operation, which increase its risk,
10 should be reflected by a rate of return in the high end of the acceptable range in
11 calculating Delta's cost of equity.

12 Q. PLEASE EXPLAIN HOW AN IMPUTED CAPITAL STRUCTURE COULD BE
13 UTILIZED TO ADJUST FOR THE EFFECT OF DELTA'S LOW EQUITY RATIO.

14 A. Currently, Delta has a capital structure consisting of 30% common equity. As discussed
15 above, this is significantly lower than the industry average. If an imputed capital structure
16 is utilized in determining Delta's revenue requirement, I would recommend an imputed
17 capital structure consisting of 43.5% common equity and 56.5% debt. I arrived at my
18 recommendation of utilizing 43.5% common equity by taking the midpoint between the
19 mean of 43.2% and the median of 43.9% in Exhibit MJB-1. Based on my experience, an
20 equity ratio of 43.5% would be reasonable, but would lie in the low end of the reasonable
21 range. As additional verification of the reasonableness of this imputed capital structure, in
22 their article evaluating utility capital structures, Brigham, Gapenski, and Aberwald noted

that:

2 The data did not permit analysis outside the 42.5 to 54 percent debt
3 ratio range, so we cannot state exactly what would happen to
4 interest rates if debt were below 42.5 or above 54 percent. (Eugene
5 F. Brigham, Louis C. Gapenski and Dana A. Aberwald, "Capital
6 Structure, Cost of Capital, and Revenue Requirements", Public
7 Utilities Fortnightly, January 8, 1987, p. 18)

8 The 56.5% debt that I am recommending as a part of the imputed capital structure would
9 lie above the top end of the range in which adequate data was available for the statistical
10 work described in the Brigham, Gapenski and Aberwald article.

11 Q. PLEASE EXPLAIN HOW A LEVERAGE PREMIUM COULD BE UTILIZED TO
12 ADJUST FOR THE EFFECT OF DELTA'S LOW EQUITY RATIO.

13 A. If an imputed capital structure is not utilized, a premium could be added to the return on
14 equity to adjust for Delta's high level of debt. The magnitude of such an adjustment can
15 be derived from the Brigham, Gapenski and Aberwald article which states that:

16 The basis change is smaller toward the high end of the equity ratio
17 range, so an increase in equity from 49 to 50 per cent would only
18 lower the cost of equity by about seven basis points, but an increase
19 in the ratio from 40 to 41 per cent would lower the cost of equity by
20 about 15 basis points. (Brigham, Gapenski and Aberwald, p. 23)

21
22 The imputed capital structure that I recommend would increase the percentage of equity
23 from 30% to 43.5% which would make the 15 basis point per one percent change in
24 equity a reasonable, and possibly a conservative, estimate of the leverage premium that
25 should be used. The leverage premium that would provide the same result as a 13.5%
26 increase in the imputed capital structure would be 202.5 basis points. Thus, if an imputed
27 capital structure is not used, a leverage premium of about 2% should be added to the

allowed rate of return to adjust for Delta's low percentage of equity.

2 Q. PLEASE EXPLAIN HOW A TEMPERATURE NORMALIZATION ADJUSTMENT
3 COULD BE UTILIZED TO ADJUST FOR THE EFFECT OF TEMPERATURE
4 VARIABILITY.

5 A. Although a temperature normalization has been employed historically in determining the
6 revenue requirement and in calculating rates, a temperature normalization has not been
7 applied to the rates prospectively to adjust for the vagaries of weather. Without a
8 temperature normalization incorporated into the rates as they are applied prospectively,
9 Delta is subject to the earnings and return on equity variations shown in Exhibit MJB-2.
10 Temperature normalizing to calculate the rates but not to apply them in essence amounts
11 to a bet that normal temperature will occur with Delta experiencing significant financial
12 distress if warmer than normal weather occurs. Delta's low equity ratio and high fixed
13 operating costs have the effect of magnifying the impact of this temperature variability. I
14 recommend the use of a temperature normalization adjustment in Delta's rates to adjust
15 for the significant impact that weather has on its earnings and return on equity.

16 Q. HOW WOULD YOU ASSESS THE BUSINESS ENVIRONMENT WITHIN WHICH
17 DELTA OPERATES?

18 A. Beginning with Order No. 436 and continuing through Order Nos. 500 and 636, the
19 Federal Energy Regulatory Commission (FERC) established competition in the
20 transportation of natural gas and allowed large customers and local distribution companies
21 to purchase natural gas directly from producers. Currently, some state regulatory
22 commissions are unbundling natural gas service at the retail level and are beginning to

allow retail competition in natural gas. Competition at the retail level increases the business risk for natural gas distribution companies. Additionally, Delta provides natural gas service in a service territory that substantially overlaps the electric service territory of Kentucky Utilities Company, which has some of the lowest electric rates in the nation. This direct competition with a low cost electric utility also increases Delta's business risk. Finally, Delta is a small company with a capitalization that would fall in the micro-cap stock range as defined in the Stocks, Bonds, Bills and Inflation 1999 Yearbook published by Ibbotson Associates. A micro-cap stock includes companies with market capitalizations at or below \$252,109,000 (Ibbotson, p. 137).

Q. IS A HIGHER RISK PREMIUM AND THUS A HIGHER ALLOWED RATE OF RETURN APPROPRIATE FOR SMALL COMPANIES?

A. Yes. There are several sources that indicate that a size premium is appropriate for smaller companies. Fama and French reported that:

If assets are priced rationally, our results suggest that stock risks are multidimensional. One dimension of risk is proxied by size, ME. Another dimension of risk is proxied by BE/ME, the ratio of the book value of common equity to its market value. (Eugene F. Fama and Kenneth R. French, "The Cross-Section of Expected Stock Returns", The Journal of Finance, Vol. 47, June, 1992, p. 428.)

Fama and French went on to report that:

The size effect (smaller stocks have higher average returns) is thus robust in the 1963-1990 returns on NYSE, AMEX, and NASDAQ stocks. In contrast to the consistent explanatory power of size, the FM [Fama-MacBeth] regressions show that market β does not help explain average stock returns for 1963-1990. (Fama and French, p. 438)

Regarding this size effect, Ibbotson stated that:

3 The betas for small companies tend to be larger than those for
4 larger companies; however, they do not account for all of the risks
5 faced by investors in small companies. This premium can be added
6 directly to the results obtained using the CAPM... . (Stocks, Bonds,
7 Bills and Inflation 1999 Yearbook, Ibbotson Associates, p. 161

8 Ibbotson goes on to quantify the expected micro-capitalization equity size premium as
9 2.6% as shown in Exhibit MJB-6. Not only does Delta fall within the micro-capitalization
10 group as defined by Ibbotson, but as can be seen from Exhibit MJB-1, Delta has one of
11 the smallest total capitalizations of the investor owned natural gas distribution companies
12 in the panel. Thus, small companies such as Delta are riskier than companies with larger
13 capitalizations and a higher rate of return on equity would be appropriate for such
14 companies.

15 Q. PLEASE DESCRIBE THE DISCOUNTED CASH FLOW (DCF) METHOD FOR
16 ESTIMATING THE APPROPRIATE RETURN ON EQUITY.

17 A. The DCF method for estimating an appropriate return on equity is based on the following
18 equation, which defines the long run expected return (the appropriate return on equity) as
19 the discount rate that equates the stock price with the stream of expected future dividends:

20 Equation 1:
$$P = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \frac{D_3}{(1+k)^3} + \dots$$

21 where,

22 P = the price of the stock,

23 D_i = the dividend in year i, and

24 k = the discount rate or expected long run return.

If dividends grow at a constant rate, g, the dividend in each period can be expressed as a

function of the dividend in the immediately preceding period multiplied by the growth rate, so that:

$$D_2 = D_1g,$$

$$D_3 = D_1g^2,$$

...

$$D_n = D_1g^{n-1}$$

By substituting and solving as the sum of an infinite geometric series, the constant growth form of the DCF equation can be expressed as:

Equation 2:
$$k = \frac{D_1}{P} + g$$

Although the assumption of constant growth may be reasonable for utilities that come close to approximating the assumption of constant growth, it is not appropriate for a utility that is experiencing changes in the rate of growth. When there are changes in the growth rate, a multistage form of the DCF model is more appropriate. The two-stage DCF model allows dividends to grow at the growth rate currently reported by analysts in the first stage and to grow dividends at the same nominal rate as the industry or the national economy as a whole in the second stage. This assumes that over time the rate of growth for a company will tend toward the growth rate for the industry as a whole. Currently, Delta is tracked by only two analysts, one from Hilliard Lyons and one from Edward Jones. The two-stage DCF model utilizes the analysts growth rates as well as a composite growth rate for the natural gas distribution industry obtained from Ibbotson's Cost of Capital Quarterly, which is calculated using estimates from analysts from over 200 firms. Thus, the two-stage DCF model applies a broader base of information to the task of

calculating Delta's cost of capital. The two-stage DCF model assumes that dividends grow at the analyst's projected growth rate during the first stage and grow at the expected growth rate for the industry as a whole in the second stage. After the estimated dividend stream for a sufficiently long period is generated using the growth rates employed in the two-stage DCF model, the dividend estimates and the current stock price are substituted into equation 1 above which is solved iteratively for k, the estimated return on equity.

Q. DO YOU BELIEVE THAT THE CONSTANT GROWTH FORM OF THE DCF MODEL SHOULD BE USED IN DETERMINING DELTA'S ALLOWED RETURN ON EQUITY?

A. No. Looking at Exhibit MJB-2, the percentage change in dividends per share has been variable and has not been growing at a constant rate. Furthermore, the underlying financial variables exhibit tremendous variability. The percentage change in the earnings available for common stock range from a high of 111% to a low of -35%. The percentage change in the earnings per share range from a high of 108% to a low of -47%. Such variation in dividends per share and in the underlying financial data are not consistent with an assumption of constant growth that is the key assumption in the constant growth form of the DCF model.

Q. WHAT WOULD THE CONSTANT GROWTH FORM OF THE DCF MODEL YIELD AS AN EXPECTED RETURN ON EQUITY FOR DELTA?

A. The results of the constant growth DCF model are shown on page 1 of Exhibit MJB-4. The expected growth rate of 3% for Delta was obtained from a Hilliard Lyons Analyst report dated March 11, 1998 and the expected growth rate of 2% for Delta was obtained

1 from an Edward Jones Analyst report dated March 3, 1999. Delta's stock price quote for
2 May 28, 1999, annual dividend, 52 week high and 52 week low were obtained from the
3 NASDAQ/AMEX web site. The expected natural gas distribution industry growth rate
4 was obtained from Cost of Capital Quarterly, Ibbotson Associates, March, 1999. The
5 analysts' forecasts upon which the calculated natural gas distribution industry composite
6 growth rate is based are obtained from Standard and Poor's Analyst's Consensus Estimate
7 (ACE) database. The ACE database contains growth estimates and recommendations
8 from over 200 contributing firms. The industry composite growth rate is a weighted
9 average of the ACE growth rates using the latest equity market capitalization as the
10 weighting factors. The estimate for Delta's return on equity using the analysts' expected
11 growth rates in the constant growth DCF model ranges from 8.0% to 9.9% as shown on
12 pages 1 and 2 of Exhibit MJB-4. The constant growth DCF model yields an estimated
13 return on equity of 9.71% for the current stock price of \$17.00 using the Hilliard Lyons
14 expected growth rate, and an estimated return on equity of 8.71% for the current stock
15 price of \$17.00 using the Edward Jones expected growth rate. The estimate for Delta's
16 return on equity using Ibbotson's composite natural gas distribution industry expected
17 growth rate in the constant growth DCF model ranges from 11.7% to 12.63% as shown on
18 page 1 of Exhibit MJB-4. The constant growth DCF model yields an estimated return on
19 equity of 12.41% for the current stock price of \$17.00 using Ibbotson's composite natural
20 gas distribution industry expected growth rate.

21 Q. WHAT WOULD THE TWO-STAGE FORM OF THE DCF MODEL YIELD AS AN
22 EXPECTED RETURN ON EQUITY FOR DELTA?

1 A. The results of the two-stage form of the DCF model are shown on page 3 of Exhibit MJB-
2 4. The two-stage DCF model utilized in this analysis assumes that dividends grow for the
3 first five years at the expected rate projected by the analysts who track Delta and grow at
4 the expected growth rate for the industry as a whole after five years. This in effect blends
5 the information provided by the two sources and produces a lower estimate of the rate of
6 return than using the composite natural gas distribution industry growth rate alone. The
7 estimate for Delta's return on equity using the two-stage form of the DCF model ranges
8 from 10.2% to 12.05% as shown on page 3 of Exhibit MJB-4. The two-stage form of the
9 DCF model yields an estimated return on equity ranging from 10.75% to 11.85% for the
10 current stock price of \$17.00.

11 Because of the rural nature of Delta's service territory and the additional risk that this
12 generates, as described above, I believe that a return on equity near the top end of the
13 10.2% to 12.05% range resulting from the multistage DCF should be used in calculating
14 Delta's revenue requirement. I suggest utilizing a 11.9% return on equity with an added
15 2% leverage adjustment which results in a 13.9% return on equity for calculating Delta's
16 revenue requirement.

17 Q. WHAT RATE OF RETURN ON EQUITY WOULD THE RISK PREMIUM INDICATE
18 WAS APPROPRIATE?

19 A. Stocks, Bonds, Bills and Inflation 1999 Yearbook reports that the long-horizon expected
20 equity risk premium for large company stock total returns minus long-term government
21 bond income returns is 8.0% for the period 1926 to 1998 (see Exhibit MJB-6). This
22 estimate of the risk premium from Ibbotson is calculated using a past average of ex-post

1 risk premiums over a sufficiently long period of time to include several ups and downs in
2 dividend yields and provides a good estimate of the future risk premium. This long-
3 horizon expected equity risk premium was calculated using stock market data for the
4 companies in the Standard and Poor's 500 Index and for U. S. Treasury Bonds having a
5 20-year maturity. The 20-year U.S. Treasury bond yield for May, 1999 as reported by
6 FRED® [Federal Reserve Economic Data] available on the Federal Reserve Bank of St.
7 Louis web site is 6.08% (Exhibit MJB-7). Adding the long-horizon risk premium of 8% to
8 the 20-year U.S. Treasury bond yield of 6.08% produces a return on equity of 14.08%.
9 Ibbotson also reports a short horizon expected equity risk premium calculated using large
10 company stock total returns and subtracting U.S. Treasury bill total returns. This short
11 horizon expected equity risk premium is 9.4% for the period 1926 to 1998 (see exhibit
12 MJB-6). This can be added to the May, 1999 U.S. Treasury bill rate of 4.51% (see Exhibit
13 MJB-8) to obtain an estimated return on equity of 13.91%. This is consistent with the long
14 horizon estimate for return on equity of 14.08% derived above. These estimated returns
15 on equity for the market as a whole demonstrate that the estimated returns on equity for
16 Delta using the composite industry growth rate and the two-stage DCF model are well
17 within the reasonable range.

18 Q. HOW WOULD YOU ADJUST THE ESTIMATED RETURNS ON EQUITY FOR THE
19 MARKET AS A WHOLE TO APPLY TO A GAS DISTRIBUTION UTILITY SUCH
20 AS DELTA?

21 A. The CAPM approach could be utilized to adjust the risk premia for the market as a whole
22 to produce an estimate of the return on equity for a natural gas distribution utility. The

basic CAPM formula is:

$$K = R_f + B(R_m - R_f)$$

where:

K = the prospective market cost of equity for a specific investment,

R_f = the risk free rate of return (usually U.S. Treasury bonds for estimating ROE),

β = the company specific beta coefficient, and

R_m = the overall stock market return (usually the S&P 500 Index for estimating ROE).

The Value Line Investment Survey and the Extended Value Line Investment Survey ("Value Line") provide β estimates for a panel of gas distribution utilities. The March 26, 1999 Value Line reported estimated β 's for the panel of natural gas distribution

companies ranging from 0.4 to 0.8 with the following distribution:

β Estimate	Number
0.40	1
0.45	3
0.50	4
0.55	8
0.60	6
0.65	1
0.70	1
0.75	5
0.80	1

Value Line does not track Delta and thus an estimated β for Delta was not available.

Based on the distribution of estimated β 's reported above, I chose to use a β of 0.55 in calculating Delta's estimated return on equity using CAPM. With a long-horizon risk premium above 20-year U.S. Treasury bonds of 8.0% and a beta coefficient of 0.55, the CAPM model produces an estimated return on equity of 10.48% calculated as:

$$K = 6.08 + 0.55 \times 8.0 = 10.48$$

However, because Delta is a micro-cap stock an additional size premium of 2.6% must be added to this estimate (see Exhibit MJB-6) which results in an estimated return on equity for Delta of 13.08%. Using the lowest beta coefficient reported in the panel of 0.40 results in an estimated return on equity of 11.88% once the size premium is added. Using the highest beta coefficient reported in the panel of 0.80 results in an estimated return on equity of 15.08% once the size premium is added.

Q. WHAT RETURN ON EQUITY DO YOU RECOMMEND BE UTILIZED IN CALCULATING THE REVENUE REQUIREMENT IN THIS PROCEEDING?

A. I recommend using a 13.9% return on equity, which is derived by adding a 2% leverage adjustment to the 11.9% rate of return resulting from the two-stage DCF model as discussed in my testimony above. This is well within the reasonable range as indicated by my analysis. Alternatively, if an imputed capital structure is utilized, an allowed return on equity of 11.9% with an imputed capital structure consisting of 43.5% equity and 56.5% debt could be used in calculating Delta's revenue requirement. However, subtracting the 2% leverage adjustment would only be justified if an imputed capital structure is utilized.

Q. DOES THE RETURN ON EQUITY THAT YOU RECOMMEND PRODUCE A REASONABLE RESULT?

A. Yes. Exhibit MJB-5 shows the interest coverage for the 29 natural gas distribution companies in the panel reported by Edward Jones, which is calculated by dividing net income by the interest on long term debt for the 12 months ending December 31, 1998, coinciding with the test year utilized in this proceeding. Delta has an interest coverage of 1.75x, which is second lowest in the panel of natural gas distribution utilities. The mean interest coverage for the panel is 2.85x with a median interest coverage of 2.65x. If the revenue requirement for Delta is determined based on a 13.9% return on equity and based on an unadjusted capital structure, the resulting interest coverage would be 2.00x. If the revenue requirement for Delta is determined based on the 11.9% return on equity and based on an imputed capital structure consisting of 43.5% equity and 56.5% debt, the resulting interest coverage would be 2.01x. As can be seen from Exhibit MJB-5, the resulting interest coverage from using a 13.9% rate of return would still be the fourth lowest in the panel. Based on the resulting level of interest coverage, I believe that the 13.9% rate of return on equity that I am recommending be applied to the unadjusted capital structure is reasonable. An 11.9% return on equity applied to an imputed capital structure also produces a similar reasonable result. It would take even a higher rate of return on equity to produce a level of interest coverage that is more representative of the other companies in the panel of natural gas distribution companies. In fact, with regard to almost every key financial measure, Delta is one of the lowest in the panel of natural gas distribution companies. As shown in Exhibit MJB-1 and MJB-5, Delta has one of the highest payout ratios while having one of the lowest percentages of equity, one of the lowest interest coverages, one of the lowest earned returns on equity, and one of the

lowest market to book value ratios of the natural gas distribution companies in the panel.

2 The revenue requirement that would result from utilizing the 13.9% return on equity that I
3 recommend would be a start to turning these poor financial results around. As discussed
4 above, the use of an 11.9% rate of return with an imputed capital structure would produce
5 the same type of financial improvement. However, even when these rates are placed into
6 effect, it will take several years before there is significant improvement in these key
7 financial measures.

8 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

9 A. Yes it does.

Exhibit MJB-1. Common Equity Ratios For Natural Gas Distribution Companies, 12 Months Ending December 31, 1998

	Short Term		Original		Equity (000)		New	
	Cap (000)	Debt (000)	Equity	Pct.	Equity (000)	Cap (000)	Equity	Pct.
Peoples Energy Corp.	\$1,272,330	\$57,445	59		\$750,675	\$1,329,775		56.5%
North Carolina Natural Gas	\$185,190	\$38,000	68		\$125,929	\$223,190		56.4%
Indiana Energy, Inc.	\$492,676	\$66,649	63		\$310,386	\$559,325		55.5%
Piedmont Natural Gas Company	\$865,193	\$74,000	57		\$493,160	\$939,193		52.5%
Washington Gas Light Co.	\$1,157,819	\$148,229	58		\$671,535	\$1,306,048		51.4%
Connecticut Energy Corp.	\$330,556	\$31,121	55		\$181,806	\$361,677		50.3%
EnergyNorth, Inc.	\$97,217	\$12,243	55		\$53,469	\$109,460		48.8%
EnergySouth, Inc.	\$123,432	\$5,631	50		\$61,716	\$129,063		47.8%
Roanoke Gas Company	\$47,808	\$10,174	57		\$27,251	\$57,982		47.0%
Public Service of North Carolina	\$388,524	\$103,800	58		\$225,344	\$492,324		45.8%
Cascade Natural Gas Corp.	\$232,244	\$23,713	50		\$116,122	\$255,957		45.4%
Laclede Gas Company	\$441,778	\$136,157	59		\$260,649	\$577,935		45.1%
Northwest Natural Gas Company	\$831,963	\$97,264	50		\$415,982	\$929,227		44.8%
Providence Energy Corp.	\$173,117	\$30,496	52		\$90,021	\$203,613		44.2%
Yankee Energy System, Inc.	\$301,384	\$90,317	57		\$171,789	\$391,701		43.9%
AGL Resources Inc.	\$1,392,800	\$113,000	47		\$654,616	\$1,505,800		43.5%
Colonial Gas Company	\$249,885	\$52,722	52		\$129,940	\$302,607		42.9%
New Jersey Resources, Inc.	\$635,410	\$94,957	47		\$298,643	\$730,367		40.9%
Pennsylvania Enterprises, Inc.	\$235,397	\$87,548	56		\$131,822	\$322,945		40.8%
Atmos Energy Corp.	\$775,262	\$185,955	50		\$387,631	\$961,217		40.3%
Fall River Gas Company	\$37,309	\$9,000	48		\$17,908	\$46,309		38.7%
NUI Corp.	\$504,271	\$108,185	45		\$226,922	\$612,456		37.1%
Berkshire Energy Resources	\$67,951	\$23,960	50		\$33,976	\$91,911		37.0%
CTG Resources Inc.	\$345,326	\$18,234	37		\$127,771	\$363,560		35.1%
South Union Company	\$807,169	\$52,004	37		\$298,653	\$859,173		34.8%
Energy West	\$29,387	\$6,237	42		\$12,343	\$35,624		34.6%
South Jersey Industries Inc.	\$401,078	\$105,876	42		\$168,453	\$506,954		33.2%
Delta Natural Gas Company	\$80,110	\$11,480	35		\$28,039	\$91,590		30.6%
Corning Natural Gas Corp.	\$17,328	\$2,840	31		\$5,372	\$20,168		26.6%
		mean	51		mean			43.2%
		median	50		median			43.9%

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information, Edward Jones Co., April 30, 1999

Exhibit JJB-2

**Selected Financial Statistics For
Delta Natural Gas Company**

Year Ended June 30	Earnings Available For Common	Percent Change	Average # of Shares O/S	EPS	Percent Change	Common Dividends	Dividends	
							Per Share	Percent Change
1989	1,535,077	4.04%	1,430,608	1.07	-17.05%	1,558,751	1.07	2.88%
1990	1,195,512	-22.12%	1,563,588	0.76	-28.97%	1,688,681	1.08	0.93%
1991	1,162,582	-2.75%	1,586,235	0.73	-3.95%	1,713,405	1.08	0.00%
1992	2,453,813	111.07%	1,612,437	1.52	108.22%	1,741,661	1.08	0.00%
1993	2,620,664	6.80%	1,635,945	1.60	5.26%	1,775,411	1.09	0.46%
1994	2,671,001	1.92%	1,775,068	1.50	-6.25%	1,972,368	1.11	1.84%
1995	1,917,735	-28.20%	1,850,986	1.04	-30.67%	2,073,374	1.12	1.36%
1996	2,661,349	38.78%	1,886,629	1.41	35.58%	2,113,414	1.12	0.00%
1997	1,724,265	-35.21%	2,294,134	0.75	-46.81%	2,651,073	1.14	1.79%
1998	2,451,272	42.16%	2,359,598	1.04	38.67%	2,690,233	1.14	0.00%

Exhibit WJB-2

Selected Financial Statistics For
Delta Natural Gas Company

Year Ended June 30	End of Year Common S/H Equity	% Return on Equity	Payout Ratio	Retention
1989	15,663,078	9.80%	101.54%	-1.54%
1990	15,369,126	7.78%	141.25%	-41.25%
1991	15,147,551	7.68%	147.38%	-47.38%
1992	16,227,158	15.12%	70.98%	29.02%
1993	17,501,045	14.97%	67.75%	32.25%
1994	22,164,791	12.05%	73.84%	26.16%
1995	22,511,513	8.52%	108.12%	-8.12%
1996	23,628,323	11.26%	79.41%	20.59%
1997	29,474,569	5.85%	153.75%	-53.75%
1998	29,810,294	8.22%	109.75%	-9.75%
		10.13%	105.38%	

**Exhibit MJB-3
Number of Customers
Delta Natural Gas Company**

	Residential Customers	Commercial Customers	Industrial Customers	Total Customers	Percent Change
1991	26,394	4,152	68	30,614	
1992	27,051	4,190	68	31,309	2.27%
1993	27,852	4,279	75	32,206	2.86%
1994	28,615	4,387	76	33,078	2.71%
1995	29,544	4,467	72	34,083	3.04%
1996	30,363	4,641	73	35,077	2.92%
1997	31,733	4,856	73	36,662	4.52%
1998	32,111	4,894	69	37,074	1.12%

Exhibit MJB-4
Results From The Constant Growth Form Of the DCF Model
Delta Natural Gas Company

1998 Annual Dividend	\$1.14	
Stock Price On May 28, 1998	\$17.00	
52 Week High	\$19.00	
52 Week Low	\$16.44	
Expected Delta Growth Rate	3.0%	Hilliard Lyons Analyst Report
Expected Delta Growth Rate	2.0%	Edward Jones Analyst Report
Expected Industry Growth Rate	5.7%	<u>Cost of Capital Quarterly</u> , Ibbotson Associates

Using the formula: $ROE = D/P + g$

Using Expected Natural Gas Distribution Industry Growth Rate

Based on the current stock price:	$ROE = 1.14/17.00 + .057 =$	12.41%
Based on 52 week low:	$ROE = 1.14/16.44 + .057 =$	12.63%
Based on 52 week high:	$ROE = 1.14/19.00 + .057 =$	11.70%

Exhibit MJB-4
Results From The Constant Growth Form Of the DCF Model
Delta Natural Gas Company

Using Hilliard and Lyons Analyst Growth Rate

Based on the current stock price: ROE = $1.14/17.00 + .03 = 9.71\%$

Based on 52 week low: ROE = $1.14/16.44 + .03 = 9.93\%$

Based on 52 week high: ROE = $1.14/19.00 + .03 = 9.00\%$

Using Edward Jones Analyst Growth Rate

Based on the current stock price: ROE = $1.14/17.00 + .02 = 8.71\%$

Based on 52 week low: ROE = $1.14/16.44 + .03 = 8.93\%$

Based on 52 week high: ROE = $1.14/19.00 + .03 = 8.00\%$

Data Sources

The stock price, 52 week high, 52 week low, and annual dividend were obtained from the NASDAQ/AMEX internet web site on May 28, 1999.

The expected growth rates for Delta Natural Gas were obtained from a Hilliard Lyons Analyst report dated March 11, 1998 and an Edward Jones Analyst Report dated March 3, 1999.

The expected natural gas distribution industry growth rate was obtained from Cost of Capital Quarterly, Ibbotson Associates, March, 1999. The analysts' forecasts upon which the industry composite growth rate is based are obtained from Standard and Poor's Analyst's Consensus Estimate (ACE) database. The ACE database contains growth estimates and recommendations from over 200 contributing firms. The industry composite growth rate is a weighted average of the ACE growth rates based on the latest equity market capitalization.

Exhibit MJB-4
Results From the Two-Stage Form of the DCF Model

1998 Annual Dividend	\$1.14	
Stock Price On May 28, 1998	\$17.00	
52 Week High	\$19.00	
52 Week Low	\$16.44	
Expected Growth Rate	3.0%	Hilliard Lyons Analyst Report
Expected Delta Growth Rate	2.0%	Edward Jones Analyst Report
Expected Industry Growth Rate	5.7%	<u>Cost of Capital Quarterly</u> , Ibbotson Associates

Assumptions:

Delta grows at analyst's projected growth rate for the first five years and at the industry average thereafter.

Results of solving the two-stage DCF model iteratively for the rate of return using Hilliard Lyons

Rate of return that equates the estimated dividend stream to the current stock price:	11.85%
Rate of return that equates the estimated dividend stream to the 52 week high:	11.18%
Rate of return that equates the estimated dividend stream to the 52 week low:	12.05%

Results of solving the two-stage DCF model iteratively for the rate of return using Edward Jones

Rate of return that equates the estimated dividend stream to the current stock price:	10.75%
Rate of return that equates the estimated dividend stream to the 52 week high:	10.20%
Rate of return that equates the estimated dividend stream to the 52 week low:	10.95%

Exhibit MJB-5
Natural Gas Distribution Companies Sorted By Interest Coverage
12 Months Ending December 31, 1998

	Interest Coverage	Payout Ratio	Earned Return on Equity	Market to Book Value	
North Carolina Natural Gas	6.33	64	13.2	251	
New Jersey Resources, Inc.	4.61	71	14.2	219	
Indiana Energy, Inc.	4.35	78	11.7	207	
Peoples Energy Corp.	4.02	103	9.0	177	
Piedmont Natural Gas Company	3.93	72	12.1	199	
EnergySouth, Inc.	3.66	46	15.2	160	
Washington Gas Light Co.	3.32	100	8.0	161	
Atmos Energy Corp.	3.32	66	13.1	201	
Colonial Gas Company	3.08	101	9.5	242	
Public Service of North Carolina	2.92	91	9.6	260	
AGL Resources Inc.	2.88	87	10.8	159	
Connecticut Energy Corp.	2.84	73	10.5	214	
Fall River Gas Company	2.78	112	10.5	205	
Laclede Gas Company	2.74	99	9.2	137	
Cascade Natural Gas Corp.	2.65	105	8.8	151	
Energy West	2.54	75	11.7	174	
Roanoke Gas Company	2.49	96	7.9	133	
CTG Resources Inc.	2.46	72	10.0	164	
EnergyNorth, Inc.	2.42	104	8.4	170	
South Jersey Industries Inc.	2.36	113	8.2	153	
Northwest Natural Gas Company	2.22	120	6.0	136	
Pennsylvania Enterprises, Inc.	2.13	160	5.7	201	
NUI Corp.	2.09	105	5.2	121	
Providence Energy Corp.	2.01	126	5.7	133	
Yankee Energy System, Inc.	2.00	152	5.7	172	
Corning Natural Gas Corp.	1.85	101	11.1	190	
Berkshire Energy Resources	1.83	118	6.7	158	
Delta Natural Gas Company	1.75	121	7.9	144	
South Union Company	1.27	None	1.9	224	
	Mean	2.86	98	9.22	180
	Median	2.65	101	9.20	172

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information,
Edward Jones Co., April 30, 1999

Exhibit MJB-5
Natural Gas Distribution Companies Sorted By Payout Ratio
12 Months Ending December 31, 1998

	Interest Coverage	Payout Ratio	Earned Return on Equity	Market to Book Value
Pennsylvania Enterprises, Inc.	2.13	160	5.7	201
Yankee Energy System, Inc.	2.00	152	5.7	172
Providence Energy Corp.	2.01	126	5.7	133
Delta Natural Gas Company	1.75	121	7.9	144
Northwest Natural Gas Company	2.22	120	6.0	136
Berkshire Energy Resources	1.83	118	6.7	158
South Jersey Industries Inc.	2.36	113	8.2	153
Fall River Gas Company	2.78	112	10.5	205
Cascade Natural Gas Corp.	2.65	105	8.8	151
NUI Corp.	2.09	105	5.2	121
EnergyNorth, Inc.	2.42	104	8.4	170
Peoples Energy Corp.	4.02	103	9.0	177
Colonial Gas Company	3.08	101	9.5	242
Corning Natural Gas Corp.	1.85	101	11.1	190
Washington Gas Light Co.	3.32	100	8.0	161
Laclede Gas Company	2.74	99	9.2	137
Roanoke Gas Company	2.49	96	7.9	133
Public Service of North Carolina	2.92	91	9.6	260
AGL Resources Inc.	2.88	87	10.8	159
Indiana Energy, Inc.	4.35	78	11.7	207
Energy West	2.54	75	11.7	174
Connecticut Energy Corp.	2.84	73	10.5	214
Piedmont Natural Gas Company	3.93	72	12.1	199
CTG Resources Inc.	2.46	72	10.0	164
New Jersey Resources, Inc.	4.61	71	14.2	219
Atmos Energy Corp.	3.32	66	13.1	201
North Carolina Natural Gas	6.33	64	13.2	251
EnergySouth, Inc.	3.66	46	15.2	160
South Union Company	1.27	None	1.9	224
Mean	2.91	98	9.49	178
Median	2.70	101	9.35	171

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information,
Edward Jones Co., April 30, 1999

Exhibit MJB-5
Natural Gas Distribution Companies Sorted By Return on Equity
12 Months Ending December 31, 1998

	Interest Coverage	Payout Ratio	Earned Return on Equity	Market to Book Value	
EnergySouth, Inc.	3.66	46	15.2	160	
New Jersey Resources, Inc.	4.61	71	14.2	219	
North Carolina Natural Gas	6.33	64	13.2	251	
Atmos Energy Corp.	3.32	66	13.1	201	
Piedmont Natural Gas Company	3.93	72	12.1	199	
Indiana Energy, Inc.	4.35	78	11.7	207	
Energy West	2.54	75	11.7	174	
Coming Natural Gas Corp.	1.85	101	11.1	190	
AGL Resources Inc.	2.88	87	10.8	159	
Connecticut Energy Corp.	2.84	73	10.5	214	
Fall River Gas Company	2.78	112	10.5	205	
CTG Resources Inc.	2.46	72	10.0	164	
Public Service of North Carolina	2.92	91	9.6	260	
Colonial Gas Company	3.08	101	9.5	242	
Laclede Gas Company	2.74	99	9.2	137	
Peoples Energy Corp.	4.02	103	9.0	177	
Cascade Natural Gas Corp.	2.65	105	8.8	151	
EnergyNorth, Inc.	2.42	104	8.4	170	
South Jersey Industries Inc.	2.36	113	8.2	153	
Washington Gas Light Co.	3.32	100	8.0	161	
Roanoke Gas Company	2.49	96	7.9	133	
Delta Natural Gas Company	1.75	121	7.9	144	
Berkshire Energy Resources	1.83	118	6.7	158	
Northwest Natural Gas Company	2.22	120	6.0	136	
Pennsylvania Enterprises, Inc.	2.13	160	5.7	201	
Providence Energy Corp.	2.01	126	5.7	133	
Yankee Energy System, Inc.	2.00	152	5.7	172	
NUI Corp.	2.09	105	5.2	121	
South Union Company	1.27	None	1.9	224	
	Mean	2.86	98	9.22	180
	Median	2.65	101	9.20	172

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information,
Edward Jones Co., April 30, 1999

Exhibit MJB-5
Natural Gas Distribution Companies Sorted By Market to Book Value
Most Recent Fiscal Year

	Interest Coverage	Payout Ratio	Earned Return on Equity	Market to Book Value
Public Service of North Carolina	2.92	91	9.6	260
North Carolina Natural Gas	6.33	64	13.2	251
Colonial Gas Company	3.08	101	9.5	242
South Union Company	1.27	None	1.9	224
New Jersey Resources, Inc.	4.61	71	14.2	219
Connecticut Energy Corp.	2.84	73	10.5	214
Indiana Energy, Inc.	4.35	78	11.7	207
Fall River Gas Company	2.78	112	10.5	205
Atmos Energy Corp.	3.32	66	13.1	201
Pennsylvania Enterprises, Inc.	2.13	160	5.7	201
Piedmont Natural Gas Company	3.93	72	12.1	199
Corning Natural Gas Corp.	1.85	101	11.1	190
Peoples Energy Corp.	4.02	103	9.0	177
Energy West	2.54	75	11.7	174
Yankee Energy System, Inc.	2.00	152	5.7	172
EnergyNorth, Inc.	2.42	104	8.4	170
CTG Resources Inc.	2.46	72	10.0	164
Washington Gas Light Co.	3.32	100	8.0	161
EnergySouth, Inc.	3.66	46	15.2	160
AGL Resources Inc.	2.88	87	10.8	159
Berkshire Energy Resources	1.83	118	6.7	158
South Jersey Industries Inc.	2.36	113	8.2	153
Cascade Natural Gas Corp.	2.65	105	8.8	151
Delta Natural Gas Company	1.75	121	7.9	144
Laclede Gas Company	2.74	99	9.2	137
Northwest Natural Gas Company	2.22	120	6.0	136
Roanoke Gas Company	2.49	96	7.9	133
Providence Energy Corp.	2.01	126	5.7	133
NUI Corp.	2.09	105	5.2	121
Mean	2.86	98	9.22	180
Median	2.65	101	9.20	172

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information,
Edward Jones Co., April 30, 1999

Table 8-1 **Key Variables in Estimating
the Cost of Capital**

	Value
Yields (Riskless Rates)[†]	
Long-term (20-year) U.S. Treasury Coupon Bond Yield	5.4%
Intermediate-term (5-year) U.S. Treasury Coupon Note Yield	4.7
Short-term (30-day) U.S. Treasury Bill Yield	4.5
Risk Premia^{**}	
Long-horizon expected equity risk premium: large company stock total returns minus long-term government bond income returns	8.0
Intermediate-horizon expected equity risk premium: large company stock total returns minus intermediate-term government bond income returns	8.4
Short-horizon expected equity risk premium: large company stock total returns minus U.S. Treasury bill total returns [†]	9.4
Expected default premium: long-term corporate bond total returns minus long-term government bond total returns	0.4
Expected long-term horizon premium: long-term government bond income returns minus U.S. Treasury bill total returns [†]	1.4
Expected intermediate-term horizon premium: intermediate-term government bond income returns minus U.S. Treasury bill total returns [†]	1.0
Size Premia^{***}	
Expected mid-capitalization equity size premium: capitalization between \$918 and \$4,200 million	0.5
Expected low-capitalization equity size premium: capitalization between \$252 and \$918 million	1.1
Expected micro-capitalization equity size premium: capitalization below \$252 million	2.6

• As of December 31, 1998. Maturities are approximate.

** Expected risk premia for equities are based on the differences of historical arithmetic mean returns from 1926-1998. Expected risk premia for fixed income are based on the differences of historical arithmetic mean returns from 1970-1998.

***See Chapter 7 for complete methodology.

† For U.S. Treasury bills, the income return and total return are the same.

Note: An example of how these variables can be used is found with equation (35).

Exhibit MJB - 7

20-Year Treasury Constant Maturity Rate
Averages of Business Days
Percent
Source: H.15 Release -- Federal Reserve Board of Governors

DATE	GS20
1998.05	6.01
1998.06	5.80
1998.07	5.78
1998.08	5.66
1998.09	5.38
1998.10	5.30
1998.11	5.48
1998.12	5.36
1999.01	5.45
1999.02	5.66
1999.03	5.87
1999.04	5.82
1999.05	6.08

Exhibit MJB - 8

3-Month Treasury Bill Rate, Auction Average
Averages of Business Days, Discount Basis
Percent
Source: H.15 Release --- Federal Reserve Board of Governors

DATE	TB3MA
1998.05	5.03
1998.06	4.99
1998.07	4.96
1998.08	4.94
1998.09	4.74
1998.10	4.08
1998.11	4.44
1998.12	4.42
1999.01	4.34
1999.02	4.45
1999.03	4.48
1999.04	4.28
1999.05	4.51

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ADJUSTMENT OF THE)
RATES OF DELTA NATURAL)
GAS COMPANY, INC.)

CASE NO. 2004-00067

DIRECT TESTIMONY OF

MARTIN J. BLAKE

AFFIDAVIT

The affiant, Martin J. Blake, being duly sworn, deposes and states that the prepared testimony attached hereto and made a part hereof, constitutes the prepared direct testimony of this affiant in Case No. 2004-00067, in the Matter of: An Adjustment of Rates of Delta Natural Gas Company, Inc. and that if asked the questions propounded therein, this affiant would make the answers set forth in the attached prepared direct testimony.

Affiant further states that he will be present and available for cross-examination and for such additional direct examination as may be appropriate at the hearing in Case No. 2004-00067 scheduled by the Commission, at which time affiant will further reaffirm the attached prepared testimony as his direct testimony in such case.

Martin J. Blake
MARTIN J. BLAKE

STATE OF KENTUCKY)
)
COUNTY OF JEFFERSON)

Subscribed and sworn to before me by Martin J. Blake, this the 25th day of March, 2004.

My Commission Expires: 1/21/2005

Meredith A. Aikens
Notary Public, State at Large, Kentucky

1 Q: PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

2 A: My name is Martin J. Blake. My business address is 6435 W. Highway 146, Suite 2,
3 Crestwood, Kentucky 40014.

4 Q: BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?

5 A: I am a Member and Principal of The Prime Group, LLC. The Prime Group provides
6 consulting services in the areas of marketing, market research, rate and regulatory
7 support, training, and strategic planning for energy industry clients.

8 **Professional Qualifications & Experience**

9 Q: PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

10 A: I received my Ph.D. in Agricultural Economics in 1976 from the University of Missouri,
11 Columbia. My doctoral work centered on the areas of marketing and econometrics. I
12 also hold a Master of Arts in Economics from the University of Missouri, Columbia,
13 which I received in 1972. In addition, I received a Bachelor of Arts degree in Economics
14 from Illinois Benedictine College in 1970.

15 Q: IN WHAT AREAS DOES YOUR PRACTICE CONCENTRATE?

16 A: As a member of The Prime Group, I have prepared and filed Order No. 888 and Order
17 No. 889 compliance filings at the Federal Energy Regulatory Commission ("FERC") for
18 a number of electric utilities as well as Order No. 888 and Order No. 889 waiver requests
19 for other utilities. I have prepared market power analyses in support of market-based rate
20 filings at FERC for utilities and their marketing affiliates, as well as assisting other
21 utilities with their market-based rate filings. I have also assisted several utilities in
22 addressing both FERC and state affiliate transactions concerns and have provided
23 training regarding standards of conduct. I have assisted utilities with developing strategic
24 marketing plans and implementing these plans. I have provided utility clients with
25 assistance regarding regulatory policy, strategy and liaison; state and federal regulatory
filing development, testimony and support; cost of service development and support; the

development of innovative rates to achieve strategic objectives; the unbundling of rates and the development of menus of rate alternatives for use with customers; performance-based rate and incentive rate development; and energy marketing and brokering capability development. I have made presentations to train account executives in sales and customer negotiation, as well as presentations in ratemaking and utility finance seminars and workshops regarding basic utility marketing. I have provided marketing, market research and marketing support services for utility clients and have assisted them in assessing their marketing capabilities and processes.

Q: PLEASE BRIEFLY SUMMARIZE YOUR AREAS OF PROFESSIONAL EXPERIENCE PRIOR TO JOINING THE PRIME GROUP.

A: I have professional experience as an economist and professor of economics, as a utility regulator, and as a utility manager and executive.

Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS AN ECONOMIST.

A: From January 1977 to December 1986, I was employed first as an Assistant Professor, then as an Associate Professor, and finally as a Professor of Agricultural Economics at New Mexico State University in Las Cruces, New Mexico ("NMSU"): I was the head of the undergraduate program and taught economics, agricultural economics and econometrics. While at NMSU, I also worked as a consultant for various clients, providing price forecasting, load forecasting, and marketing services. Since 1992, I have taught mathematical economics and econometrics as an Adjunct Professor in the Economics Department at the University of Louisville. Prior to my joining the faculty at NMSU, I served in the U. S. Army as an instructor of economics, statistics, and accounting at the U. S. Army Institute of Administration at Fort Benjamin Harrison, Indianapolis, Indiana.

I also have a variety of experience with the application of economics to utility public policy issues. In addition to my experience as a utility regulator and executive, which I describe below, I have taught ratemaking for utilities at the NARUC Annual Regulatory

2 Studies Program at Michigan State University since 1993. From May 1983 to August
3 1983, while on a sabbatical leave from NMSU, I served as a Policy Analyst for the
4 Assistant Secretary for Land and Water at the U. S. Department of Interior.

5 Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY
6 REGULATOR.

7 A: From January 1987 to November 1990, I served as a Commissioner and as the Chairman
8 of the New Mexico Public Service Commission. As a Commissioner, my duties included
9 making policy and adjudicatory decisions regarding rates, terms of service, financing,
10 certificates of public convenience and necessity, and complaints for electric, gas, water,
11 and sewer utilities. As Chairman, I supervised a staff of thirty-two professionals and
12 sixteen support staff. During my tenure on the New Mexico Commission, I also served
13 as Chairman of the Western Conference of Public Service Commissioners Electric
14 Committee and as Chairman of the Committee on Regional Electric Power Cooperation,
15 a group composed of state public service commissioners and representatives from the
16 state energy offices of the thirteen western states.

17 As a Commissioner, I interpreted legislation, reviewed prior Commission cases to
18 determine the precedents that they provided, drafted rules and regulations, wrote Orders,
19 conducted hearings, ruled on motions, and served as an arbitrator in alternative dispute
20 resolution proceedings. I performed adjudicatory and regulatory functions for the four
21 years that I served on the Commission.

22 Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY
23 MANAGER.

24 A: From December, 1990 to June 1996, I was employed by Louisville Gas and Electric
25 Company ("LG&E"). Initially, I served as LG&E's Director of Regulatory Planning. In
26 this position, I was responsible for coordinating all of LG&E's state and federal
27 regulatory efforts, and prepared and presented testimony to regulators. In performing my
28 duties in the federal regulatory area, I performed the market power analysis in LG&E's

original market-based rate filing at the FERC, which was one of the first applications of the "hub and spoke" methodology that the FERC now uses in assessing generation market dominance in market-based rate filings; supervised the preparation of the market-based rate filings; and served as LG&E's principal witness in this case. I also helped develop the electronic bulletin board that the FERC required as a condition for approving the market-based tariff. Additionally, I helped to develop LG&E's comparable transmission tariff filing, which provided third parties with access to LG&E's transmission system at the same price, terms and conditions as LG&E. This was the first tariff providing comparable transmission service that was filed and approved by the FERC and was filed before Order No. 888 was issued by FERC. In this comparable transmission tariff filing, I served as LG&E's principal witness and negotiated the settlement in this case with FERC staff. When LG&E Power Marketing filed for the ability to charge market-based rates, I helped to develop the codes of conduct that were submitted to the FERC as a part of the filing.

My areas of responsibility were expanded in April 1994 to include marketing and strategic planning. As the Director, Marketing, Planning and Regulatory Affairs, I was responsible for coordinating LG&E's retail gas and electric marketing, strategic planning, and state and federal regulatory efforts. I continued to be employed in that capacity at LG&E until June 1996, when I joined the Prime Group as one of its Principals.

Q: PLEASE DESCRIBE THE INDUSTRY GROUPS IN WHICH YOU HAVE PARTICIPATED.

A: I have served on several regional transmission coordination groups such as the Interregional Transmission Coordination Forum, and the General Agreement on Parallel Paths, as well as the following committees of the Edison Electric Institute ("EEI") -- Economics and Public Policy Executive Advisory Committee, Strategic Planning Executive Advisory Committee, Transmission Task Force, and Power Supply Policy Technical Task Force. Currently, I am a member of the Midwest ISO Transmission

2 Owners Committee and the Transmission Owners Tariff Working Group representing
3 Southern Illinois Power Cooperative and Hoosier Energy. I serve as the Vice-Chairman
4 of the Transmission Owners Tariff Working Group.

5 Q: HAVE YOU TAUGHT ANY COURSES OR SEMINARS IN THE AREA OF UTILITY
6 RESTRUCTURING?

7 A: Yes. In addition to teaching ratemaking for electric utilities at the NARUC Annual
8 Regulatory Studies Program since 1993, I have also taught a course regarding the
9 institutions and organizations of the new electric utility industry. Each year, I also teach
10 and conduct numerous workshops and programs, and deliver invited presentations to
11 utility managers and regulators on a variety of subjects including ratemaking, marketing,
12 utility finance, and industry restructuring.

13 Q. IN WHICH CASES HAVE YOU PREVIOUSLY TESTIFIED?

14 A. A list of the cases in which I have previously testified is included in Exhibit MJB-1.

15 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

16 A. Delta Natural Gas Company, Inc. ("Delta") engaged The Prime Group to conduct an
17 analysis of and to provide a recommendation regarding the appropriate cost of common
18 equity for application to Delta's original cost rate base. My testimony contains the results
19 of this analysis and identifies the fair rate of return on equity that Delta should be given
20 the opportunity to earn during the period when the new rates will be in effect. My analysis
21 utilizes commonly accepted financial valuation techniques and incorporates the factors
22 that affect Delta's overall investment risk.

23 Q. PLEASE DESCRIBE DELTA'S BUSINESS OPERATIONS.

24 A. Delta purchases, produces and stores gas for distribution to retail customers, and also
25 provides transportation service to industrial customers and interconnected pipelines
26 through facilities located in 23 counties in central and southeastern Kentucky. The
27 company had about 39,600 retail customers at the end of 2003. Its service territory is more
28 rural than most publicly traded, investor owned natural gas distribution companies and

2 consists mainly of light industry, farming and coal mining operations. More than 99% of
3 Delta's customers are residential and commercial. Exhibit MJB-2 shows Delta's total
4 capitalization compared to other publicly traded, investor owned natural gas distribution
5 utilities. The data in Exhibit MJB-2 was taken from a report titled Natural Gas Industry
6 Summary Monthly Financial & Common Stock Information issued by Edward Jones Co.
7 in 2003. This report classifies companies that provide natural gas into three categories: 1)
8 diversified companies, 2) combination gas and electric companies and 3) natural gas
9 distribution companies. Delta is classified as a natural gas distribution company. Among
10 the publicly traded, investor owned natural gas distribution utilities included in this report
11 Delta was the third lowest with respect to total capitalization. It is important to note that
12 the two natural gas distribution companies that have a smaller total capitalization than
13 Delta both have expected negative growth rates for earnings according to the most recent
14 Value Line. In the most recent Value Line, the five year expected earnings growth for
15 EnergyWest is -2% and the expected earnings growth rate for RGC Resources is -1.5%.
16 Exhibit MJB-3 shows Delta's percentage equity compared to other publicly traded,
17 investor owned natural gas distribution utilities. The data in Exhibit MJB-3 was taken
18 from the same Edward Jones report. Delta had the second lowest percentage of equity
19 among the fifteen publicly traded, investor owned natural gas distribution utilities
20 included in this report. The only natural gas distribution utility with a lower percentage
21 equity was also ranked the highest in total capitalization. The two natural gas distribution
22 utilities in Exhibit MJB-2 with a lower total capitalization than Delta also had percentages
23 of equity of 50% or higher. Thus, Delta can be characterized as a small publicly traded,
24 investor owned natural gas distribution utility with an essentially rural service territory
25 and with a relatively highly leveraged capital structure relative to most natural gas
26 distribution utilities.

Q. IS THERE A PUBLIC BENEFIT TO PROVIDING NATURAL GAS SERVICE TO
RURAL AREAS?

1 A. Yes. If natural gas service is available in an area, customers have a choice whether to use
2 natural gas or electricity for particular applications. Customers' ability to switch between
3 natural gas and electricity helps to keep downward pressure on the prices of both products.
4 Furthermore, the availability of natural gas service can help in attracting industrial loads to
5 an area and thus assist in economic development efforts. However, if natural gas service is
6 to be provided to rural areas, the companies providing such service must have the
7 opportunity to earn adequate returns or they will no longer be able or willing to provide
8 such service.

9 Q. HOW SHOULD THE RATE OF RETURN BE DETERMINED UNDER PUBLIC
10 UTILITY REGULATION?

11 A. The purpose of public utility regulation with respect to rate of return is to permit a utility
12 to earn its cost of capital while avoiding monopoly profits. Long-run earnings above the
13 cost of capital would imply monopoly profits, while long-run earnings below the cost of
14 capital would impair a utility's ability to attract capital on reasonable terms. A rate of
15 return based on a utility's cost of capital is consistent with the guidelines established by
16 the U.S. Supreme Court in *Bluefield Water Works & Improvement Co. v. Public Service*
17 *Commission of West Virginia*, 262 U.S. 679 (1923) and *Federal Power Commission v.*
18 *Hope Natural Gas Company*, 320 U.S. 591 (1944). These cases require that a utility be
19 allowed to earn a rate of return that: 1) is comparable to alternative investment
20 opportunities of corresponding risk, 2) will permit capital attraction on reasonable terms,
21 and 3) will maintain a utility's financial integrity.

22 Q. IS AN OPPORTUNITY TO EARN A FAIR RATE OF RETURN THE SAME AS A
23 GUARANTEE TO EARN A FAIR RATE OF RETURN?

24 A. No. Having an opportunity to earn a fair rate of return allows for more uncertainty than
25 does having a guarantee to earn a fair rate of return. A guarantee of earning a fair return
26 would imply no variability in the rate of return, with the utility earning the specified rate
27 of return every year. An opportunity to earn a fair rate of return implies that a utility has a

shareholder equity with the return on equity in any single year never equaling or exceeding 11.6%. This is especially distressing in the years immediately following these two rate cases that were the first years that the new rates went into effect. In 1998, the first year that new rates were in effect pursuant to Case No. 97-066, Delta actually earned a return on shareholder equity of 8.2% which is 340 basis points below the Commission allowed ROE of 11.6%. In 2000, the first year that new rates were in effect pursuant to Case No. 99-046, Delta actually earned a return on shareholder equity of 11.1% which is 50 basis points below the Commission allowed ROE of 11.6%. If there was ever a time when it could be expected that a utility would earn its allowed rate of return, it would be the first year that new rates went into effect. When Delta has not earned a return on shareholder equity as high as the allowed rate of return in any of the last nine years, even though it has been in twice during that period of time for rate cases, it cannot be said to have a reasonable assurance of earning the allowed rate of return. Furthermore, in 2003, Delta earned a return on equity of 8.6% which is significantly below its allowed return on equity.

Q. WHAT FACTORS DO YOU BELIEVE HAVE CAUSED DELTA TO UNDER EARN COMPARED TO ITS ALLOWED RATE OF RETURN ON EQUITY?

A. I believe that there are two principal factors: 1) Delta's equity is low as a percentage of total capitalization and 2) Delta's predominantly rural service territory.

Q. PLEASE DESCRIBE DELTA'S EQUITY AS A PERCENTAGE OF TOTAL CAPITALIZATION COMPARED TO OTHER NATURAL GAS DISTRIBUTION COMPANIES.

A. As described above, Exhibits MJB-2 and MJB-3 provide data for natural gas distribution companies ranked by total capitalization and percentage equity, respectively taken from Natural Gas Industry Summary Monthly Financial & Common Stock Information published by Edward Jones. The mean percentage of equity is calculated as 45.67% for the panel of fifteen natural gas distribution utilities with a median of 49%. Delta's reported

percentage of equity of 34% is 11.67% below the mean and 15% below the median for this panel. It should be noted that Delta's percentage of common equity relative to total capitalization is the second lowest in the panel which makes Delta more heavily leveraged than most other natural gas distribution utilities. Additionally, as noted above, the two natural gas distribution utilities in the panel with total capitalization lower than Delta both had a percentage of equity above these mean and median values. These two natural gas distribution utilities with smaller total capitalization than Delta had percentages of equity that were 22% higher and 16% higher than Delta.

Q. DOES A LOW PERCENTAGE OF EQUITY RELATIVE TO TOTAL CAPITALIZATION MAKE DELTA A RISKIER INVESTMENT?

A. Yes. The more debt that a firm has as a part of its total capitalization, the greater are the fixed interest payments that the firm will have to make to bond holders out of any given revenue stream that it generates. A company is required to make payments to the bond holders in specified amounts at specified times, while it is under no such obligation to its common equity holders. Thus, the more equity the firm has, the greater is its ability to weather revenue fluctuations. However, this flexibility comes at a cost, as equity is more expensive than debt because of the greater risk that shareholders bear. As a company's business environment becomes riskier and its business risk becomes greater, the company should increase its equity and lower its debt ratio. By reducing its debt ratio, its fixed obligations to bond holders would be reduced and the company would be better able to manage the financial fluctuations that result from a riskier business environment. Furthermore, a utility's equity ratio must be high enough to allow additional debt capital to be issued without an adverse effect on its credit rating. This would be consistent with the criteria established in the Bluefield and Hope cases that the rate of return be sufficient to permit capital attraction on reasonable terms. If the capital structure does not permit some margin for additional debt financing at all times, a utility is subject to the potential adverse impact of unanticipated tight credit conditions, thus making it a riskier

investment. Delta has increased the percent of equity in its overall capitalization since its last rate case, but it is still well below the average percentage equity for natural gas distribution companies. Getting Delta's percentage of equity closer to the average for natural gas distribution companies will be a long process and will only occur if the Commission allows a high enough rate of to accommodate this long term improvement in Delta's equity ratio.

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7 Q. HOW WOULD DELTA'S LOW EQUITY RATIO AFFECT THE RETURN ON
8 EQUITY THAT IT EARNS?

9 A. Because Delta is about 63% debt financed based on the capital structure in this
10 proceeding, its fixed obligations to bondholders are high, thus exacerbating the impact on
11 the return on equity resulting from any revenue reductions that Delta might experience.
12 This is likely an important factor that contributes to the fact that Delta has not earned its
13 allowed rate of return in any of the past nine years.

14 Q. COULD YOU GIVE AN EXAMPLE OF HOW LEVERAGE MIGHT AFFECT THE
15 ACTUAL RETURN ON EQUITY EARNED BY DELTA?

16 A. Yes. Exhibit MJB-5 provides several examples of how a change in the percentage of
17 equity in Delta's overall capitalization would affect the actual return on equity earned by
18 Delta. All three examples in Exhibit MJB-5 have the same total capitalization, but have
19 different equity ratios. The first example in Exhibit MJB-5, uses the same percentage of
20 equity and debt as Delta's capital structure in this proceeding and assumes a return on
21 equity of 12.5% and an interest rate of 7% on the debt. The dollar value of the return
22 elements for equity and debt are calculated by multiplying the dollar value of the equity
23 and debt capitalization by their respective rates of return and interest. In Example 1, the
24 dollar value of the return element for equity would be \$5,358,131 and the dollar value of
25 the return element for debt would be \$5,077,232. Next assume that Delta experiences a
26 decrease in earnings of \$2,000,000. Delta would still have to pay \$5,077,232 to debt
27 holders and now would have only \$3,358,131 to provide to shareholders. Dividing

2 \$3,358,131 by the \$42,865,046 of equity capitalization would result in an actual return on equity of 7.83%.

3 Example 2 uses a capital structure that reflects the industry average as calculated in
4 Exhibit MJB-2 and uses the same rates of return and interest as in Example 1. Thus, the
5 only factor that is changing is the equity and debt ratios. Again a decrease in earnings of
6 \$2,000,000 is assumed. Delta would still have to pay \$4,388,661 to debt holders and now
7 would have only \$4,587,723 to provide to shareholders. Dividing \$4,587,723 by the
8 \$52,701,780 of equity capitalization would result in an actual return on equity of 8.71%.

9 In both Examples 1 and 2, the \$2,000,000 decrease in earnings is a result of operations and
10 is not influenced by the capital structure used to finance the company. However, this same
11 \$2,000,000 decrease in earnings has a very different impact on the actual return on equity
12 depending on the debt leverage of the company.

13 A comparison of Examples 1 and 2 also illustrates another important point. In Example 2,
14 the return element included in the revenue requirement would be \$10,976,383, while in
15 Example 1 the return element included in the revenue requirement would be \$10,435,363,
16 which is \$541,020 lower. Thus, with a lower percentage equity ratio than the industry as a
17 whole, Delta's customers pay lower rates while Delta experiences a significant adverse
18 effect on its ability to earn its allowed rate of return if it experiences any earnings
19 shortfalls. This is simply not an equitable result.

20 Example 3 simply repeats the above example for a capital structure consisting solely of
21 equity. In Example 3, the \$2,000,000 decrease in earnings would result in an actual return
22 on equity of 10.77%.

23 These three examples illustrate that Delta's equity ratio, which is significantly below the
24 industry average, has a significant adverse effect on its ability to earn its allowed rate of
25 return. Any given earnings shortfall for Delta will result in a much lower actual return on
26 equity than for the average natural gas distribution company. These examples help in
27 understanding why Delta has not earned its allowed rate of return in any of the past 9

years. This significant adverse impact on Delta's ability to earn its allowed rate of return must be considered by the Commission in setting an appropriate rate of return for Delta.

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3 Q. HOW WOULD DELTA'S PREDOMINANTLY RURAL SERVICE TERRITORY
4 AFFECT THE RETURN ON EQUITY THAT IT EARNS?

5 A. Delta serves an area that is predominantly rural with low population density. This low
6 population density results in higher fixed cost per customer for serving rural areas
7 compared to the fixed cost per customer incurred in an urban area. This higher fixed cost
8 per customer results from both a higher cost of installing the pipe needed to serve a
9 customer and the higher cost of maintaining the lines. Furthermore, these rural customers
10 tend to have a lower annual usage and a larger proportion of temperature sensitive load
11 than urban customers. This relatively high fixed cost to serve small highly temperature
12 sensitive loads translates to a higher fixed cost burden for Delta and a more variable
13 revenue stream. The higher fixed costs resulting from operations compounds the problem
14 of high fixed obligations to bond holders resulting from a low equity ratio, and
15 exacerbates the impact on the return on equity resulting from any revenue reductions that
16 Delta might experience, as demonstrated above. Thus, the low population density in rural
17 areas that results in a higher fixed cost burden for Delta with more variability in the return
18 stream due to the large amount of temperature sensitive load for these rural customers
19 makes Delta a riskier investment. This additional risk would justify a higher allowed rate
20 of return for Delta. Because I have not quantified the separate impact on return on equity
21 resulting from the rural character of Delta's service territory, I would suggest accounting
22 for the impacts of this risk factor by using an allowed rate of return in the high end of the
23 reasonable range of returns based on my analysis.

24 Q. ARE THERE ANY REMEDIES THAT CAN BE APPLIED TO CORRECT FOR THE
25 TWO FACTORS AFFECTING DELTA'S EARNINGS THAT YOU HAVE
26 DESCRIBED ABOVE?

27 A. Yes. There is a potential remedy for one of the two factors that I have described above.

2 With regard to Delta's low percentage of equity, the Commission should incorporate a
3 leverage premium into the rate of return to account for the significant adverse impact that
4 Delta's lower equity ratio imposes on its ability to earn its allowed rate of return. As noted
5 above, the impact of the rural character of Delta's service area is difficult to quantify and
6 should be accounted for by using an allowed rate of return in the high end of the
7 reasonable range of returns.

8 Q. PLEASE EXPLAIN HOW A LEVERAGE PREMIUM COULD BE UTILIZED TO
9 ADJUST FOR THE EFFECT OF DELTA'S LOW EQUITY RATIO.

10 A. A leverage premium could be added to the return on equity to adjust for Delta's high level
11 of debt. There are two methods that could be used to estimate an appropriate leverage
12 premium. The first method uses a leverage premium derived from a Public Utilities
13 Fortnightly article which states that:

14 The basis change is smaller toward the high end of the equity ratio
15 range, so an increase in equity from 49 to 50 per cent would only
16 lower the cost of equity by about seven basis points, but an increase
17 in the ratio from 40 to 41 per cent would lower the cost of equity by
18 about 15 basis points. (Eugene F. Brigham, Louis C. Gapenski and
19 Dana A. Aberwald, "Capital Structure, Cost of Capital, and Revenue
20 Requirements", Public Utilities Fortnightly, January 8, 1987, p. 23)
21

22 Based on the results of this research, the leverage premium that would adjust for an equity
23 ratio that is 8% below the industry average would be 120 basis points (calculated as 8 x 15
24 basis points). Thus, based on this approach to estimating the leverage premium, a leverage
25 premium of about 1.2% should be added to the allowed rate of return to adjust for Delta's
26 low percentage of equity.

27 Another method of estimating the appropriate leverage premium is to use the difference in
28 the allowed rate of return on equity and the actual earned return on equity in the first year
29 that the new rates have gone into effect historically. In 1998, the first year that new rates
were in effect pursuant to Case No. 97-066, Delta actually earned a return on shareholder

equity of 8.2% which is 340 basis points below the Commission allowed ROE of 11.6%.
2 In 2000, the first year that new rates were in effect pursuant to Case No. 99-176, Delta
3 actually earned a return on shareholder equity of 11.1% which is 50 basis points below the
4 Commission allowed ROE of 11.6%. Thus, a conservative estimate of the leverage
5 premium that the Commission should add to Delta's allowed rate of return would be 50
6 basis points. Another way of looking at it is that if the Commission had allowed Delta a
7 12.1% ROE in the last rate case, Delta would have actually earned about an 11.6% return
8 on equity, which is what the Commission found to be just and reasonable. An alternative
9 to using a leverage premium that I am not recommending in this proceeding is for the
10 Commission to use an imputed capital structure with 45% equity and 55% debt. The
11 Commission has been reluctant to make such adjustments to the capital structure in the
12 past and the problem of actually earning the allowed rate of return illustrated in Exhibit
13 MJB-5 can be taken care of through a return on equity adjustment instead.

14 Q. HOW WOULD YOU ASSESS THE BUSINESS ENVIRONMENT WITHIN WHICH
15 DELTA OPERATES?

16 A. Delta provides natural gas service in a service territory that substantially overlaps the
17 electric service territory of Kentucky Utilities Company, which has some of the lowest
18 electric rates in the nation. This direct competition with a low cost electric utility increases
19 Delta's business risk. Additionally, Delta is a small company with a capitalization that
20 would fall in the micro-cap stock range as defined in the Risk Premia Over Time Report:
21 2004 published by Ibbotson Associates. A micro-cap stock includes companies with
22 market capitalizations at or below \$330,608,000 (Ibbotson, p. 6). Small companies
23 generally regarded as riskier than larger companies and have correspondingly higher rates
24 of return. Fama and French reported that:

25 If assets are priced rationally, our results suggest that stock risks are
26 multidimensional. One dimension of risk is proxied by size, ME.
27 Another dimension of risk is proxied by BE/ME, the ratio of the
book value of common equity to its market value. (Eugene F. Fama

and Kenneth R. French, "The Cross-Section of Expected Stock Returns", The Journal of Finance, Vol. 47, June, 1992, p. 428.)

3

4

Fama and French went on to report that:

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The size effect (smaller stocks have higher average returns) is thus robust in the 1963-1990 returns on NYSE, AMEX, and NASDAQ stocks. In contrast to the consistent explanatory power of size, the FM [Fama-MacBeth] regressions show that market β does not help explain average stock returns for 1963-1990. (Fama and French, p. 438)

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Thus, small companies such as Delta are riskier than companies with larger capitalizations

13

and a higher rate of return on equity would be appropriate for such companies.

14

Additionally, natural gas commodity prices have become much more volatile since the

15

decision issued by the Commission in Delta's last rate case. As the September, 2003 report

16

issued by the National Petroleum Council noted, "There has been a fundamental shift in

17

the natural gas supply/demand balance that has resulted in higher prices and volatility in

18

recent years. This situation is expected to continue, but can be moderated." (Balancing

19

Natural Gas Policy: Fueling the Demands of a Growing Economy, Volume 1, National

20

Petroleum Council, September 2003, p. 6)

21

Q. DOES THE INCREASED VOLATILITY IN NATURAL GAS PRICES AFFECT THE

22

RETURN ON EQUITY THAT DELTA SHOULD BE ALLOWED TO EARN?

23

A. Yes. Exhibit MJB-6 is a graph that shows the Henry Hub Index for the last ten years. This

24

graph illustrates that, since the Order issued by the Commission in Delta's last rate case in

25

December 1999, natural gas commodity prices have both increased and become much

26

more volatile. As the National Petroleum Council report noted, this volatility of natural

27

gas commodity prices is likely to continue. Delta has a Gas Cost Recovery (GCR)

28

mechanism that is calculated quarterly. Any under or over recoveries during a quarter are

29

recovered over the next twelve months. Delta is not allowed to earn a return on any money

2 that it has devoted to funding such under-recoveries. The increased price volatility since
3 its last rate case has resulted in significant under-recoveries and deferred gas costs that
4 Delta has had to finance with no interest. In June 2001, 2002 and 2003, Delta had deferred
5 gas costs of about \$4 million, and in December 2003, Delta had deferred gas costs of
6 about \$7.3 million. Delta has had to finance these under-recoveries with a mix of internal
7 financing and short term borrowing. As noted above, the interest that Delta incurs in
8 financing any under-recoveries is an expense that is not recovered by Delta through the
9 GCR. This has helped to generate earnings shortfalls that are exacerbated by Delta's low
10 equity ratio as demonstrated above. A higher return on equity would provide a larger pool
11 of internal resources to finance such under-recoveries and would help to mitigate Delta's
12 reliance on short term borrowing. This natural gas commodity price volatility is a risk
13 factor that was not as prevalent in Delta's last rate case. The Commission should allow a
14 return on equity near the top end of the range to help provide Delta with the internal
15 capital necessary to fund such under-recoveries and mitigate the necessity of using short
16 term debt for these purposes.

16 Q. PLEASE DESCRIBE THE DISCOUNTED CASH FLOW (DCF) METHOD FOR
17 ESTIMATING THE APPROPRIATE RETURN ON EQUITY.

18 A. The DCF method for estimating an appropriate return on equity is based on the following
19 equation, which defines the long run expected return (the appropriate return on equity) as
20 the discount rate that equates the stock price with the stream of expected future dividends:
21

$$22 \quad P_0 = \frac{D_1}{(1+k)^1} + \frac{D_2}{(1+k)^2} + \frac{D_3}{(1+k)^3} + \frac{D_4}{(1+k)^4} + \dots$$

23 where,

P = the recent price of the stock,

2 D_i = the dividend in year i, and

3 k = the investors' discount rate or expected rate of return.

4
5 If the growth is a constant rate, g , this equation can be expressed as the sum of an infinite
6 geometric series:

7
$$k = \frac{D_1}{P} + g$$

8
9 Q. WHAT WOULD THE DCF MODEL YIELD AS AN EXPECTED RETURN ON
10 EQUITY FOR DELTA?

11 A. The results of the DCF analysis for Delta are shown in Exhibit MJB-7. The expected
12 growth rate of 6.5% for Delta's earnings was obtained from Value Line. The high and low
13 stock price for the year and the most recent annual dividend were also obtained from
14 Value Line. The high and low annual stock prices during 2003 were used in calculating a
15 range of estimated returns in the DCF analysis. Use of the high stock price in the DCF
16 analysis resulted in an estimated ROE of 11.40% and use of the low stock price in the
17 DCF analysis resulted in an estimated ROE of 12.12%. Thus, the estimated range on ROE
18 for Delta based on this DCF analysis is between 11.4% and 12.12%.

19 Q. WHAT WOULD THE CAPITAL ASSET PRICING MODEL YIELD AS AN
20 EXPECTED RETURN ON EQUITY FOR DELTA?

21 A. The CAPM approach could be utilized to estimate the return on equity for Delta. The
22 basic CAPM formula is:

23
$$K = R_f + \beta (R_m - R_f)$$

24 where:

25 K = the prospective market cost of equity for a specific investment,

β = the company specific beta coefficient,

1 R_f = the risk free rate of return (usually U.S. Treasury bonds),

2 R_m = the overall stock market return, and

3 $R_m - R_f$ = the equity risk premium.

4 The Value Line Investment Survey - Small and Mid-Cap Edition ("Value Line") provided
5 an estimate for β of 0.45 for Delta. Ibbotson's Risk Premia Over Time Report: 2004
6 calculated a long-horizon expected equity risk premium of 7.2% which was calculated as
7 the difference between large company stock total returns minus long-term government
8 bond returns for the period 1926 through 2003. With an interest rate on 20-Year U.S.
9 Treasury bonds of 5.1% on December 31, 2003 and a beta coefficient of 0.45, the Capital
10 Asset Pricing Model produces an initial estimated return on equity of 8.34% as shown in
11 Exhibit MJB-8.

12 However, as noted in the Stocks, Bonds, Bills and Inflation 2003 Yearbook:

13
14 Based on historical return data on the NYSE/AMEX/NASDAQ decile portfolios,
15 the smaller deciles have had returns that are not fully explainable by the CAPM.
16 This return in excess of CAPM, grows larger as one moves from the largest
17 companies in decile 1 to the smallest in decile 10. The excess return is especially
18 pronounced for micro-cap stocks (deciles 9-10). This size related phenomenon
19 has prompted a revision to the CAPM, which includes the addition of a size
20 premium. (Stocks, Bonds, Bills and Inflation 2003 Yearbook, Ibbotson
21 Associates, 2003, p. 135.)

22 The size premium that must be added to CAPM calculations to obtain the appropriate
23 ROE estimates for micro-cap companies, such as Delta, is reported in Ibbotson's Risk
24 Premia Over Time Report: 2004 as 4.01%. This size premium was calculated from data
25 for the period 1926 through 2003. When this 4.01% micro-cap size premium is added to
26 the initial ROE estimate, the final estimate for ROE using the Capital Asset Pricing Model
27 is 12.35% as shown in Exhibit MJB-8 and is calculated as:

28 ROE Estimate Including Micro-Cap Size Premium = $5.1 + (0.45 \times 7.2) + 4.01 = 12.35$.

29 Inclusion of this size premium is appropriate because not only does Delta fall within the
micro-capitalization group as defined by Ibbotson, but as can be seen from Exhibit MJB-2,

Delta has one of the smallest total capitalizations of the investor owned natural gas distribution companies in the panel.

Q. WHAT RATE OF RETURN ON EQUITY WOULD THE RISK PREMIUM INDICATE WAS APPROPRIATE?

A. The long-horizon expected equity risk premium reported in Risk Premia Over Time Report: 2004 by Ibbotson Associates is 7.2% calculated by subtracting long-term government bond returns from large company stock total returns for the period 1926 to 2003. This estimate of the risk premium is calculated using a past average of ex-post risk premiums over a sufficiently long period of time to include several ups and downs in dividend yields and provides a good estimate of the future risk premium. This long-horizon expected equity risk premium was calculated using stock market data for the companies in the Standard and Poor's 500 Index and for U. S. Treasury Bonds having a 20-year maturity. The 20-year U.S. Treasury bond yield for December, 2003 as reported by FRED® [Federal Reserve Economic Data] available on the Federal Reserve Bank of St. Louis web site is 5.11%. Adding the long-horizon risk premium of 7.2% to the 20-year U.S. Treasury bond yield of 5.11% produces a return on equity of 12.31%. These estimated returns on equity for the market as a whole demonstrate that the estimated returns on equity for Delta using the DCF and capital asset pricing model results discussed earlier are reasonable.

Q. WHAT IS A REASONABLE RANGE FOR THE RETURN ON EQUITY IN THIS PROCEEDING?

A. Based on the above analysis, a reasonable range for return on equity in this proceeding would be between 11.9% and 12.85% as summarized in the table below.

Method	<u>Initial ROE Estimate</u>		<u>Leverage Adjustment</u>	<u>ROE Range</u>	
	<u>High</u>	<u>Low</u>		<u>High</u>	<u>Low</u>
DCF	12.12%	11.4%	0.50%	12.65%	11.9%
CAPM	12.35%	12.25%	0.50%	12.85%	12.85%
Risk Prem.	12.31%	12.31%	0.50%	12.81%	12.81%

2 As demonstrated earlier in Exhibit MJB-5, it is essential to add a leverage premium if
3 Delta is to going to have a reasonable opportunity to earn its allowed rate of return. It is
4 important for the Commission to note that Delta has not earned its allowed rate of return
5 in any of the past 9 years. Just like shooting at a target a long way off, it is necessary for
6 the Commission to aim a bit high in order to hit what it is really aiming at, and this is what
the leverage premium accomplishes.

7 Q. WHAT RETURN ON EQUITY DO YOU RECOMMEND BE UTILIZED IN
8 CALCULATING THE REVENUE REQUIREMENT IN THIS PROCEEDING?

9 A. I recommend using a 12.5% return on equity in this proceeding. This is well within the
10 reasonable range as indicated by my analysis. As noted earlier, because of the rural
11 character of Delta's service territory and because of the increased volatility in natural gas
12 commodity prices, the Commission should allow a return on equity in the high end of the
13 reasonable range. Both of these factors increase the risk for Delta and are difficult to
14 quantify with respect to the impact on ROE. One method of dealing with these difficult to
15 quantify factors is for the Commission to allow a return on equity near the top end of the
16 reasonable range. In determining the appropriate return on equity for Delta, the
17 Commission needs to consider that Delta is different than the other investor owned
18 utilities that the Commission regulates. Delta is the smallest investor owned natural gas
19 utility that the Commission regulates with one of the lowest equity ratios in the industry.
20 The size premium for small companies is well documented and has been calculated based
21 on a data set that covers a number of economic cycles that include both wars and a
22 depression. Delta's low equity makes it extremely difficult to earn any rate of return
23 allowed by the Commission as illustrated in Exhibit MJB-5. After analyzing all of the
24 relevant factors, I believe that 12.5% is a reasonable return on equity for Delta in this
25 proceeding.

26 Q. DOES THE RETURN ON EQUITY THAT YOU RECOMMEND PRODUCES A
REASONABLE RESULT?

1 A. Yes. Exhibit MJB-10 shows the interest coverage for the 15 natural gas distribution
2 companies in the panel reported by Edward Jones, which is calculated by dividing net
3 income by the interest on long term debt. Delta has an interest coverage of 2.36x, which is
4 fourth lowest in the panel of natural gas distribution utilities covered in the report. The
5 mean interest coverage for the panel is 3.44x with a median interest coverage of 3.41x. If
6 the revenue requirement for Delta is determined based on a 12.5% return on equity and
7 based on the capital structure in this proceeding, the resulting interest coverage would be
8 2.77x. As can be seen from Exhibit MJB-10, the resulting interest coverage from using a
9 12.5% rate of return would still be the fifth lowest in the panel and well below the mean
10 and median interest coverages for the fifteen natural gas distribution companies included
11 in the Edward Jones report. Based on the resulting level of interest coverage compared to
12 natural gas distribution industry averages, I believe that the 12.5% rate of return on equity
13 that I am recommending be applied to the existing capital structure is reasonable. It would
14 take even a higher rate of return on equity to produce a level of interest coverage and an
15 equity ratio that is more representative of the other companies in the panel of natural gas
16 distribution companies. The revenue requirement that would result from utilizing the
17 12.5% return on equity that I recommend would be a start to increasing Delta's equity ratio
18 and interest coverage to more closely reflect industry averages. However, even when this
19 recommended ROE is placed into effect, it will take several years before there is
20 significant improvement in these key financial measures.

21 Q. CAN YOU PROVIDE ADDITIONAL EVIDENCE THAT THE RETURN ON EQUITY
22 THAT YOU RECOMMEND PRODUCES A REASONABLE RESULT?

23 A. Yes. Exhibit MJB-11 calculates estimated returns on equity for the other fourteen
24 companies in the Edward Jones panel of natural gas distribution companies using a
25 discounted cash flow analysis and the capital asset pricing model. All of the data for
26 calculating estimated returns on equity using the DCF model come from the most recent
27 edition of Value Line. If Energy West and RGC are eliminated because of their anticipated

1 negative growth rates, the estimated range for return on equity would be from a low of
2 7.57% to a high of 13.27%. As noted earlier in my testimony, because of its higher risk
3 and lower equity ratio, Delta's return on equity should be near the top end of the range of
4 reasonable returns. The 12.5% return on equity that I recommend for Delta is well within
5 the range of estimated ROEs based on the discounted cash flow analysis of the other
6 fourteen natural gas distribution utilities in the Edward Jones panel.

7 The CAPM results in Exhibit MJB-11 are calculated using a risk free rate of return of
8 5.1% which was the yield on 20-Year Treasury Bonds on the last day of the test year. It
9 also uses a long-horizon equity premium of 7.2% and a size premium that is appropriate
10 for the utility's total capitalization from Risk Premia Over Time Report: 2004 by Ibbotson
11 Associates. The estimated range of returns on equity using CAPM for the other fourteen
12 natural gas distribution companies in the Edward Jones panel is 10.69% to 14.15%. Again,
13 the 12.5% return on equity that I recommend for Delta is well within this range. Based on
14 this comparison to other natural gas distribution utilities with regard to their estimated
15 returns on equity and with regard to their interest coverage, as discussed above, I believe
16 that a 12.5% return on equity that I recommend for Delta is reasonable.

17 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

18 A. Yes it does.

Prior Testimony of Dr. Martin J. Blake

Federal Energy Regulatory Commission

- ER92-533 LG&E's open transmission access and authority to charge market-based rates for its generation.
- ER94-1380 The first comparability tariff approved by the FERC.
- ER97-4345 A market power analysis that was filed in support of OGE Energy Resources, Inc.'s request for the authority to charge market based rates.
- ER98-511 A market power analysis that was filed in support of Oklahoma Gas and Electric Co.'s request for the authority to charge market based rates.
- ER99-51 An affidavit in support of Commonwealth Edison Co.'s request for authority to charge cost based rates to its affiliates.
- ER01-1938 Testimony in support of Southern Indiana Gas and Electric Company's request for a revision in transmission and ancillary service rates including cost of capital testimony
- ER02-708 Testimony in support of Central Illinois Power Company's request for a revision in transmission and ancillary service rates including cost of capital testimony
- NJ03-2 Testimony in support of Southern Illinois Power Company's request for a revision in ancillary service rates

Arkansas Public Service Commission

- 96-360-U Direct and rebuttal testimony for Oklahoma Gas and Electric regarding recovery of stranded costs by Entergy Arkansas, Inc.

California Public Utility Commission

- 90-12-018 Direct and rebuttal testimony for Southern California
(phase 5) Edison Company concerning the reasonableness of contracting by
Southern California Edison with Integrated Energy Group ("IEG") to
provide marketing services to Southern California Edison and the
reasonableness of the resulting marketing services performed by IEG.

Illinois Commerce Commission

- 98-0013 and Testimony regarding non-discrimination with
98-0035 regard to affiliate transactions for electric utilities. I sponsored ComEd's
proposed affiliate transactions rules and suggested some basic principles
that the Illinois Commerce Commission should follow in developing rules
and regulations for ensuring non-discrimination and non-cross
subsidization in transactions with affiliated and unaffiliated alternative
retail electric suppliers ("ARES").
- 98-0036 Testimony in a rulemaking to develop rules and regulations for assessing
and assuring the reliability of the transmission and distribution systems as
a part of electric utility restructuring in Illinois.
- 98-0147 and Testimony concerning standards of conduct and
98-0148 rules for functional separation. I sponsored ComEd's proposed standards
of conduct and functional separation rules.

Kentucky Public Service Commission

- 90-158 An LG&E rate case.
- 92-494 An LG&E biennial fuel adjustment clause review.
- 93-150 An application for approval of a DSM cost recovery mechanism
and a set of initial programs.
- 94-332 An application for an environmental cost recovery mechanism.
- 92-494-B Testimony regarding the confidentiality of coal bid data.
- 95-455 A biannual review of the environmental cost recovery mechanism.
- 91-423 Participation in the conference with Commission staff and intervenors to
review LG&E's first integrated resource plan.
- Other Several fuel adjustment clause proceedings on behalf of LG&E.

98-489 Testimony on behalf of Blazer Energy Corp. in an application for an adjustment in their natural gas rates.

99-046 Direct and rebuttal testimony regarding Return on equity in support of Delta Natural Gas Company's request for an adjustment in rates

Nevada Public Utility Commission

01-10001 Direct testimony on behalf of Shareholders Association to support Nevada Power Company's request for return on equity

New Mexico Public Utility Commission

2797 Direct and rebuttal testimony in a general rate case for Plains Electric Generation and Transmission Cooperative, Inc.

Oklahoma Corporation Commission

PUD 960000116 Testimony in an Oklahoma Gas and Electric Company rate case, including rebuttal of intervenor and staff proposals to disallow certain marketing, advertising, economic development and research and development expenses.

Indiana Utility Regulatory Commission

41884 Direct and rebuttal testimony to support a request by eleven gas local distribution companies for switching from a quarterly gas cost adjustment mechanism to a monthly gas cost adjustment mechanism

42027 Direct testimony in support of a transfer of functional control of transmission assets from electric utilities in Indiana to the Midwest System Operator, Inc.

Exhibit JB - 2

Summary of Edward Jones Report
 Natural Gas Distribution Companies Ranked by Total Capitalization

	12 Months Ending	Total Cap (000)	Percent Equity
South Union Company	8/30/2003	\$2,859,896	24%
AGL Resources Inc.	9/30/2003	\$2,038,700	35%
Atmos Energy Corp.	8/30/2003	\$1,721,435	39%
Peoples Energy Corp.	9/30/2003	\$1,592,344	51%
WGL Holdings, Inc.	8/30/2003	\$1,483,041	54%
Piedmont Natural Gas Company	7/30/2003	\$1,105,144	58%
Northwest Natural Gas Company	9/30/2003	\$939,960	51%
New Jersey Resources, Inc.	9/30/2003	\$675,840	57%
Laclede Gas Company	9/30/2003	\$604,955	49%
South Jersey Industries Inc.	8/30/2003	\$586,867	41%
Cascade Natural Gas Corp.	9/30/2003	\$255,490	46%
EnergySouth, Inc.	9/30/2003	\$181,437	44%
Delta Natural Gas Company	9/30/2003	\$97,705	34%
RGC Resources, Inc.	8/30/2003	\$64,077	52%
Energy West	9/30/2003	\$29,671	50%
	Mean	\$949,104	45.67%
	Median	\$675,840	49.00%

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information, Edward Jones Co., 2003

Exhibit JB - 3

Summary of Edward Jones Report
 Natural Gas Distribution Companies Ranked by Percent Equity

	12 Months Ending	Total Cap (000)	Percent Equity
Piedmont Natural Gas Company	7/30/2003	\$1,105,144	58%
New Jersey Resources, Inc.	9/30/2003	\$675,840	57%
WGL Holdings, Inc.	8/30/2003	\$1,483,041	54%
RGC Resources, Inc.	8/30/2003	\$64,077	52%
Peoples Energy Corp.	9/30/2003	\$1,592,344	51%
Northwest Natural Gas Company	9/30/2003	\$939,960	51%
Energy West	9/30/2003	\$29,671	50%
Laclede Gas Company	9/30/2003	\$604,955	49%
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South Union Company	8/30/2003	\$2,859,896	24%
	Mean	\$949,104	45.67%
	Median	\$675,840	49.00%

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information, Edward Jones Co., 2003

Exhibit MJB - 4
Historical Comparison of Allowed and Actual ROE
Delta Natural Gas Company

	Return on Shareholder Equity	Allowed ROE	Difference
1995	8.50%	Black box settlement in last rate case	
1996	11.30%	Black box settlement in last rate case	
1997	5.80%	Black box settlement in last rate case	
1998	8.20%	11.60%	-3.40% New Rates Effective Jan. 1998
1999	7.20%	11.60%	-4.40%
2000	11.10%	11.60%	-0.50% New Rates Effective Jan. 2000
2001	11.10%	11.60%	-0.50%
2002	10.60%	11.60%	-1.00%
2003	8.60%	11.60%	-3.00%
Mean	9.16%		

Data Source:

The Value Line Investment Survey - Small and Mid-Cap Edition, Dec. 19, 2003

Exhibit MJB - 5

Examples of the Impact of Leverage on Actual Return on Equity

Example 1

	Capitalization	Ratios	Cost Rates	Return Element in Dollars
Equity	\$42,865,046	0.3715	12.50%	\$ 5,358,131
Debt	\$72,531,889	0.6285	7.00%	\$ 5,077,232
	<u>\$115,396,935</u>	<u>1</u>		<u>\$ 10,435,363</u>

Assume \$2,000,000 shortfall in earnings

$$\begin{aligned} \text{Actual Return on Equity} &= \$3,358,131 / \$42,865,046 \\ &= 7.83\% \end{aligned}$$

Example 2

	Capitalization	Ratios	Cost Rates	Return Element in Dollars
Equity	\$52,701,780	0.4567	12.50%	\$ 6,587,723
Debt	\$62,695,155	0.5433	7.00%	\$ 4,388,661
	<u>\$115,396,935</u>	<u>1</u>		<u>\$ 10,976,383</u>

Assume \$2,000,000 shortfall in earnings

$$\begin{aligned} \text{Actual Return on Equity} &= \$4,587,723 / \$52,701,780 \\ &= 8.71\% \end{aligned}$$

Example 3

	Capitalization	Ratios	Cost Rates	Return Element in Dollars
Equity	\$115,396,935	1.0000	12.50%	\$ 14,424,617
Debt	\$0	0.0000	7.00%	\$ -
	<u>\$115,396,935</u>	<u>1</u>		<u>\$ 14,424,617</u>

Assume \$2,000,000 shortfall in earnings

$$\begin{aligned} \text{Actual Return on Equity} &= \$12,424,617 / \$115,396,935 \\ &= 10.77\% \end{aligned}$$

**Exhibit MJB - 6
Henry Hub Index Prices**

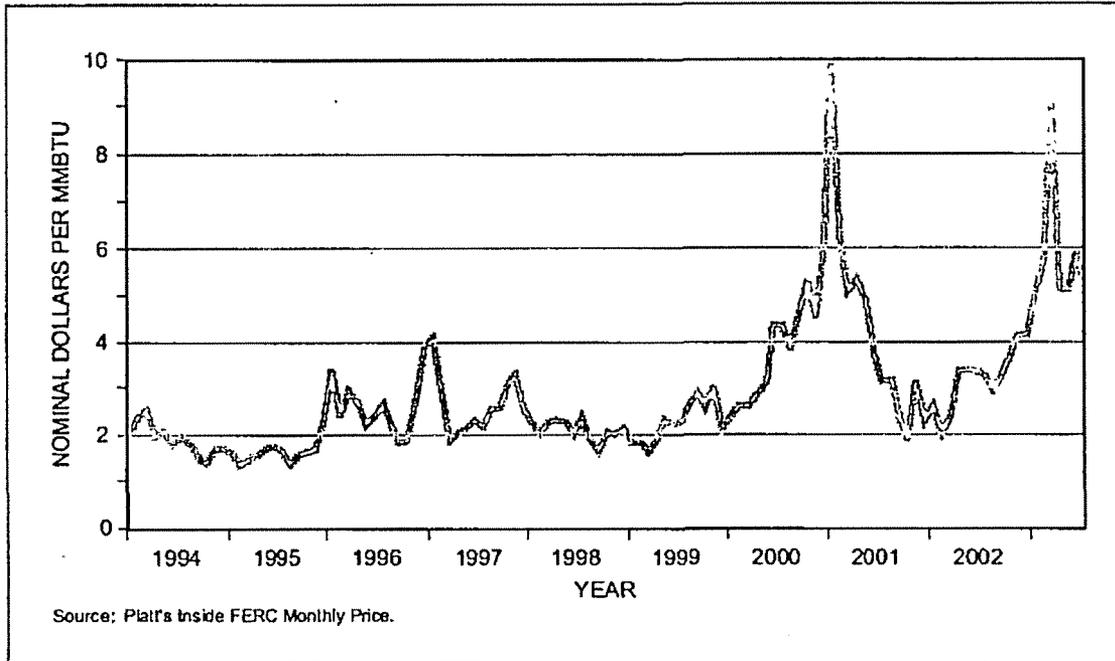


Figure 45. Henry Hub Monthly Index Prices

Source: Balancing Natural Gas Policy: Fueling the Demands of a Growing Economy, Volume 1, National Petroleum Council, September 2003

**Exhibit MJB - 7
Results of DCF Model
Delta Natural Gas Company**

		Variable Name
2003 Annual Dividend	1.18	D
High Price During 2003	24.1	P
Low Price During 2003	21	P
5 Year Forecasted Earnings Growth	0.065	g

Using the DCF formula: $ROE = D/P + g$

Based on the 2003 High Stock Price

$$ROE = (1.18 / 24.10) + .065 = 11.40\%$$

Based on the 2003 Low Stock Price

$$ROE = (1.18 / 21.00) + .065 = 12.12\%$$

Data Source:

The Value Line Investment Survey - Small and Mid-Cap Edition, Dec. 19, 2003.

Exhibit MJB - 8
Results of the CAPM Analysis
Delta Natural Gas Company

		Variable Name	Data Source
20 - Year U. S. Treasury Bond Yield	5.10%	Rf	1
Long - Horizon Expected Equity Risk Premium for Large Companies	7.20%	Rm - Rf	2
Calculated Beta Coefficient for Delta Natural Gas	0.45	B	3
Micro-Cap Size Premium	4.01%		

Using the CAPM Formula: $ROE = Rf + B (Rm - Rf)$

CAPM Calculation

Initial ROE Estimate = $0.051 + 0.45 (0.072) =$ 8.3400%

ROE Estimate Including Micro-Cap Size Premium = 12.3500%

Data Sources:

1. December 31, 2003 Yield for 20-Year Treasury Constant Maturity Rate,
Federal Reserve Bank of St. Louis Economic Research
2. Risk Premium Over Time Report : 2004, Ibbotson Associates, 2004
3. The Value Line Investment Survey - Small and Mid-Cap Edition, Dec. 19, 2003

Exhibit MJB - 9
Results of the Risk Premium Analysis
Delta Natural Gas Company

		Data Source
20 - Year U. S. Treasury Bond Yield	5.11%	1
Long - Horizon Expected Equity Risk Premium for Large Companies	7.20%	2

Risk Premium Calculation

$$\text{ROE} = 0.0511 + 0.072 = 12.31\%$$

Data Sources:

1. 20-Year Treasury Constant Maturity, December 2003,
Federal Reserve Economic Data (FRED), Federal Reserve Bank of St. Louis
2. Risk Premium Over Time Report : 2004, Ibbotson Associates, 2004, p. 6

Exhibit AJB - 10

Summary of Edward Jones Report Natural Gas Distribution Companies Ranked By Interest Coverage

	12 Months Ending	Interest Coverage
New Jersey Resources, Inc.	9/30/2003	8.67
WGL Holdings, Inc.	8/30/2003	5.79
South Jersey Industries Inc.	8/30/2003	3.91
Peoples Energy Corp.	9/30/2003	3.88
RGC Resources, Inc.	8/30/2003	3.71
EnergySouth, Inc.	9/30/2003	3.59
Piedmont Natural Gas Company	7/30/2003	3.56
Northwest Natural Gas Company	9/30/2003	3.41
Laclede Gas Company	9/30/2003	2.98
Atmos Energy Corp.	8/30/2003	2.95
AGL Resources Inc.	9/30/2003	2.42
Delta Natural Gas Company	9/30/2003	2.36
Cascade Natural Gas Corp.	9/30/2003	2.07
South Union Company	8/30/2003	1.53
Energy West	9/30/2003	0.72
	Mean	3.44
	Median	3.41

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information, Edward Jones Co., 2003

Estimated Return on Equity for Edward Jones Panel of Natural Gas Distribution Companies

Company Data Source	Beta	Dividend	Growth	High	Low	Premium	DCF High	DCF Low	CAPM
	1	1	1	Stock Price 1	Stock Price 1	Size 2			
AGL	0.75	\$ 1.11	6.50%	\$ 29.00	\$ 21.90	0.91%	11.57%	10.33%	11.41%
Atmos	0.65	\$ 1.20	7.50%	\$ 25.50	\$ 20.80	0.91%	13.27%	12.21%	10.69%
Cascade	0.70	\$ 0.96	4.50%	\$ 21.00	\$ 18.00	4.01%	9.83%	9.07%	14.15%
Energy South	0.50	\$ 1.14	4.50%	\$ 37.14	\$ 24.59	4.01%	9.14%	7.57%	12.71%
Energy West	0.40	\$ 0.41	-2.00%	\$ 9.00	\$ 4.74	4.01%	6.65%	2.56%	11.99%
Laclede	0.70	\$ 1.34	5.00%	\$ 29.90	\$ 21.80	1.70%	11.15%	9.48%	11.84%
New Jersey Resources	0.70	\$ 1.23	8.00%	\$ 39.30	\$ 30.00	0.91%	12.10%	11.13%	11.05%
Northwest Natural Gas	0.60	\$ 1.27	5.00%	\$ 30.80	\$ 24.00	1.70%	10.29%	9.12%	11.12%
Peoples	0.75	\$ 2.12	4.00%	\$ 45.30	\$ 34.90	0.91%	10.07%	8.68%	11.41%
Piedmont	0.70	\$ 1.66	7.50%	\$ 41.80	\$ 33.20	0.91%	12.50%	11.47%	11.05%
RGC	0.50	\$ 1.14	-1.50%	\$ 20.75	\$ 16.99	4.01%	5.21%	3.99%	12.71%
South Jersey	0.55	\$ 1.56	6.50%	\$ 39.60	\$ 30.50	1.70%	11.61%	10.44%	10.76%
Southern Union	0.90	none							
WGL Holdings	0.70	\$ 1.28	4.00%	\$ 28.80	\$ 23.20	0.91%	9.52%	8.44%	11.05%
						High Range	13.27%	12.21%	14.15%
						Low Range	5.21%	2.56%	10.69%

Data Sources:

1. The Value Line Investment Survey - Small and Mid-Cap Edition, Dec. 19, 2003
2. Risk Premium Over Time Report : 2004, Ibbotson Associates, 2004

Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY
REGULATOR.

A: From January 1987 to November 1990, I served as a Commissioner and as the Chairman of the New Mexico Public Service Commission. As a Commissioner, my duties included making policy and adjudicatory decisions regarding rates, terms of service, financing, certificates of public convenience and necessity, and complaints for electric, gas, water, and sewer utilities. As Chairman, I supervised a staff of thirty-two professionals and sixteen support staff. During my tenure on the New Mexico Commission, I also served as Chairman of the Western Conference of Public Service Commissioners Electric Committee and as Chairman of the Committee on Regional Electric Power Cooperation, a group composed of state public service commissioners and representatives from the state energy offices of the thirteen western states.

As a Commissioner, I interpreted legislation, reviewed prior Commission cases to determine the precedents that they provided, drafted rules and regulations, wrote Orders, conducted hearings, ruled on motions, and served as an arbitrator in alternative dispute resolution proceedings. Although I do not have a law degree, I performed adjudicatory and regulatory functions for the four years that I served on the Commission.

Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY
MANAGER.

A: From December, 1990 to June 1996, I was employed by Louisville Gas and Electric Company ("LG&E"). Initially, I served as LG&E's Director of Regulatory Planning. In this position, I was responsible for coordinating all of LG&E's state and federal regulatory

efforts, and prepared and presented testimony to regulators. In performing my duties in the federal regulatory area, I performed the market power analysis in LG&E's original market-based rate filing at the FERC, which was one of the first applications of the "hub and spoke" methodology that the FERC now uses in assessing generation market dominance in market-based rate filings; supervised the preparation of the market-based rate filings; and served as LG&E's principal witness in this case. I also helped develop the electronic bulletin board that the FERC required as a condition for approving the market-based tariff. Additionally, I helped to develop LG&E's comparable transmission tariff filing, which provided third parties with access to LG&E's transmission system at the same price, terms and conditions as LG&E. This was the first tariff providing comparable transmission service that was filed and approved by the FERC and was filed before Order No. 888 was issued by FERC. In this comparable transmission tariff filing, I served as LG&E's principal witness and negotiated the settlement in this case with FERC staff. When LG&E Power Marketing filed for the ability to charge market-based rates, I helped to develop the codes of conduct that were submitted to the FERC as a part of the filing. My areas of responsibility were expanded in April 1994 to include marketing and strategic planning. As the Director, Marketing, Planning and Regulatory Affairs, I was responsible for coordinating LG&E's retail gas and electric marketing, strategic planning, and state and federal regulatory efforts. I continued to be employed in that capacity at LG&E until June 1996, when I joined the Prime Group as one of its Principals.

Q: PLEASE DESCRIBE THE INDUSTRY GROUPS IN WHICH YOU HAVE PARTICIPATED.

1 A: I have served on several regional transmission coordination groups such as the
2 Interregional Transmission Coordination Forum, and the General Agreement on Parallel
3 Paths, as well as the following committees of the Edison Electric Institute ("EEI") --
4 Economics and Public Policy Executive Advisory Committee, Strategic Planning
5 Executive Advisory Committee, Transmission Task Force, and Power Supply Policy
6 Technical Task Force. Recently, I have worked with a group of utilities developing the
7 Midwest ISO.

8 Q: HAVE YOU TAUGHT ANY COURSES OR SEMINARS IN THE AREA OF UTILITY
9 RESTRUCTURING?

10 A: Yes. In addition to teaching ratemaking for electric utilities at the NARUC Annual
11 Regulatory Studies Program since 1993, I have also taught a course regarding the
12 institutions and organizations of the new electric utility industry. Each year, I also teach
13 and conduct numerous workshops and programs, and deliver invited presentations to
14 utility managers and regulators on a variety of subjects including industry restructuring.

15 Q: IN WHICH CASES HAVE YOU PREVIOUSLY TESTIFIED?

16 A. I testified before the Kentucky Public Service Commission in the rehearing in Case No. 90-
17 158, an LG&E rate case; in Case No. 92-494, a biennial fuel adjustment clause review; in
18 Case No. 93-150, an application for approval of a DSM cost recovery mechanism and a set
19 of initial programs; in Case No. 94-332, an application for an environmental cost recovery
20 mechanism; in case No. 92-494-B, regarding the confidentiality of coal bid data; and in
21 case No. 95-455, a biannual review of the environmental cost recovery mechanism. I
22 participated in the conference to review LG&E's first integrated resource plan in Case No.

91-423 and testified in a number of fuel adjustment clause proceedings. I also testified on behalf of Blazer Energy Corp. in Case No. 98-489 which was an application for an adjustment in rates.

I prepared and filed testimony before the FERC in cases ER92-533, in which LG&E provided open transmission access and also received authority to charge market-based rates for its generation, and ER 94-1380, the first comparability tariff which was approved by the FERC. I prepared and filed rebuttal testimony in Cause No. PUD 960000116, Oklahoma Gas and Electric Company's last rate case before the Oklahoma Corporation Commission.

In that case, I rebutted intervenor and staff proposals to disallow certain marketing, advertising, economic development and research and development expenses. I have prepared and filed direct and rebuttal testimony for Southern California Edison Company in Case Number 90-12-018 (phase 5). In this testimony, I reviewed the reasonableness of contracting by Southern California Edison with Integrated Energy Group (IEG) to provide marketing services to Southern California Edison and the reasonableness of the resulting marketing services performed by IEG. I prepared and filed direct and rebuttal testimony for Oklahoma Gas and Electric in Arkansas Public Service Commission Docket No. 96-360-U regarding recovery of stranded cost by Entergy Arkansas, Inc. In this testimony, I recommended recovery of 100% of stranded costs at such time as costs are actually stranded. I also testified before the New Mexico Public Utility Commission in Docket No. 2797, a general rate case for Plains Electric Generation and Transmission Cooperative, Inc.

I testified in Illinois Commerce Commission ("ICC") Dockets 98-0013 and 98-0035, which

2 were concerned with ensuring non-discrimination with regard to affiliate transactions for
3 electric utilities. In this case, I sponsored ComEd's proposed affiliate transactions rules and
4 suggested some basic principles that the Illinois Commerce Commission should follow in
5 developing rules and regulations for ensuring non-discrimination and non-cross
6 subsidization in transactions with affiliated and unaffiliated alternative retail electric
7 suppliers (ARES). I testified in ICC Docket 98-0036, which was a rulemaking to develop
8 rules and regulations for assessing and assuring the reliability of the transmission and
9 distribution systems as a part of electric utility restructuring in Illinois. I also testified in
10 Dockets 98-0147 and 98-0148 which were concerned with developing standards of
11 conduct and rules for functional separation. In this case, I sponsored ComEd's proposed
standards of conduct and functional separation rules.

12 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

13 A. Delta Natural Gas Company, Inc. ("Delta") engaged The Prime Group to conduct an
14 analysis of and to provide a recommendation regarding the appropriate cost of common
15 equity for application to Delta's original cost rate base. My testimony contains the results
16 of this analysis and identifies the fair rate of return on equity that Delta should be given
17 the opportunity to earn during the period when the new rates will be in effect. My analysis
18 utilizes commonly accepted financial valuation techniques and incorporates the factors
19 that affect Delta's overall investment risk.

20 Q. IS THERE A PUBLIC BENEFIT TO PROVIDING NATURAL GAS SERVICE TO
21 RURAL AREAS?

22 A. Yes. If natural gas service is available in an area, customers have a choice whether to use

2 natural gas or electricity for particular applications. Customers' ability to switch between
3 natural gas and electricity helps to keep downward pressure on the prices of both
4 products. Furthermore, the availability of natural gas service can help in attracting
5 industrial loads to an area and thus assist in economic development efforts. However, if
6 natural gas service is to be provided to rural areas, the companies providing such service
7 must have the opportunity to earn adequate returns or they will no longer be able and
8 willing to provide such service.

9 Q. HOW SHOULD THE RATE OF RETURN BE DETERMINED UNDER PUBLIC
10 UTILITY REGULATION?

11 A. The purpose of public utility regulation with respect to rate of return is to permit a utility
12 to earn its cost of capital while avoiding monopoly profits. Long-run earnings above the
13 cost of capital would imply monopoly profits, while long-run earnings below the cost of
14 capital would impair a utility's ability to attract capital on reasonable terms. A rate of
15 return based on a utility's cost of capital is consistent with the guidelines established by
16 the U.S. Supreme Court in *Bluefield Water Works & Improvement Co. v. Public Service*
17 *Commission of West Virginia*, 262 U.S. 679 (1923) and *Federal Power Commission v.*
18 *Hope Natural Gas Company*, 320 U.S. 591 (1944). These cases require that a utility be
19 allowed to earn a rate of return that: 1) is comparable to alternative investment
20 opportunities of corresponding risk, 2) will permit capital attraction on reasonable terms,
21 and 3) will maintain a utility's financial integrity.

22 Q. IS AN OPPORTUNITY TO EARN A FAIR RATE OF RETURN THE SAME AS A
GUARANTEE TO EARN A FAIR RATE OF RETURN?

2 A. No. Having an opportunity to earn a fair rate of return allows for more uncertainty than
3 does having a guarantee to earn a fair rate of return. A guarantee of earning a fair return
4 would imply no variability in the rate of return, with the utility earning the specified rate
5 of return every year. An opportunity to earn a fair rate of return implies that a utility has a
6 reasonable assurance that it will be allowed to earn a rate of return that is sufficient to
7 attract capital, that will maintain its financial integrity and that is comparable to the return
8 earned by alternative investments of comparable risk. While factors such as temperature
9 variability and changes in the number of customers may result in an actual rate of return
10 that is higher or lower than the allowed rate of return in any given year, a utility that
11 consistently earns less than the allowed rate of return or which has averaged significantly
12 less than the allowed rate of return for a long period of time cannot be said to have a
13 reasonable assurance of earning the allowed rate of return. Thus, an assurance of earning a
14 fair and reasonable rate of return could be viewed statistically as the arithmetic average of
15 a series of returns over a period of time equaling the allowed rate of return. The problem
16 with this approach is that, if there is significant variability in the returns, several years of
17 earning below the allowed rate of return could cause severe financial harm to a utility
18 while waiting for the years of above average returns to materialize. Thus, it may make
19 sense for regulators to not only deal with the mean value of the distribution of returns, as
20 they do when they set the allowed rate of return in a rate case, but to also deal with the
21 variability of the returns through some alternative regulatory mechanism.

22 Q. WOULD YOU REGARD DELTA'S CURRENT RATES AS PROVIDING AN
OPPORTUNITY TO EARN AN ADEQUATE RETURN FOR PROVIDING NATURAL

GAS SERVICE TO RURAL AREAS?

2 A. No, I do not. In December, 1997 the Commission issued an Order in Case No. 97-066
3 which set new rates for Delta which became effective in January, 1998. In this case, the
4 Commission allowed a return on common equity of 11.6%. However, Exhibit MJB-2
5 shows that Delta actually earned a return of 8.22% during the first year that these new
6 rates were in effect. Additionally, Delta had a payout ratio of nearly 110% during 1998. In
7 fact, Delta has had a payout ratio of greater than 100% in 6 of the last 10 years with an
8 average payout of 105%. Such a payout ratio cannot be maintained in the long run.
9 Admittedly, in the current regulatory framework, when the Commission sets rates, it
10 provides a company with the opportunity to earn a rate of return, it does not guarantee that
11 a given rate of return will be earned. However, Delta's return on equity has averaged
12 10.1% over the last 10 years, and this, combined with the payout history and the return on
13 equity that Delta earned in 1998 during the first year that the new rates were in effect,
14 does not indicate to me that Delta has a sufficient opportunity to earn the allowed rate of
15 return.

16 Q. WHAT FACTORS DO YOU BELIEVE HAVE CAUSED DELTA TO UNDER EARN
17 COMPARED TO ITS ALLOWED RATE OF RETURN ON EQUITY?

18 A. I believe that there are three factors: 1) Delta's equity is low as a percentage of total
19 capitalization, 2) Delta's predominantly rural service territory, and 3) weather variability.

20 Q. PLEASE DESCRIBE DELTA'S EQUITY AS A PERCENTAGE OF TOTAL
21 CAPITALIZATION COMPARED TO OTHER NATURAL GAS DISTRIBUTION
22 COMPANIES.

2 A. Exhibit MJB-1 shows the common equity ratios for a panel of 29 natural gas distribution
3 utilities. The data was taken from a report titled Natural Gas Industry Summary Monthly
4 Financial & Common Stock Information published by Edward Jones. The first column of
5 data contains the reported capitalization of the company which consists of long term debt
6 and common equity. The short term debt reported in the second column is not included in
7 the capitalization reported in the first column. The third column shows common equity as
8 a percentage of long term debt and equity. The mean percentage of equity calculated on
9 this basis is 51% with a median of 50%. The capitalization for Delta that is utilized in this
10 proceeding includes short term capital as well as long term capital and common equity. To
11 provide the percentage of equity for the panel based on a capitalization including short
12 term debt, the short term debt in column two was added to the capitalization reported in
13 column one to get total capitalization. Equity as a percentage of total capitalization was
14 calculated by dividing the company's common equity by the capitalization which included
15 short term debt. This calculation resulted in the data reported as the new equity percentage
16 in the last column of Schedule 1. The ratio of common equity to total capitalization of
17 30.6% for Delta is consistent with the original capital structure from the test year that is
18 utilized in this proceeding. The mean percentage of common equity relative to total
19 capitalization of the panel is 43.2% with a median of 43.9%. It should be noted that
20 Delta's percentage of common equity relative to total capitalization is the second lowest
21 in the panel which makes Delta more heavily leveraged than other natural gas distribution
22 utilities.

Q. DOES A LOW PERCENTAGE OF EQUITY RELATIVE TO TOTAL

CAPITALIZATION MAKE DELTA A RISKIER INVESTMENT?

2 A. Yes. The more debt that a firm has as a part of its total capitalization, the greater are the
3 fixed interest payments that the firm will have to make to bond holders out of any given
4 revenue stream that it generates. A company is required to make payments to the bond
5 holders in specified amounts at specified times, while it is under no such obligation to its
6 common equity holders. Thus, the more equity the firm has, the greater is its ability to
7 weather revenue fluctuations. However, this flexibility comes at a cost, as equity is more
8 expensive than debt because of the greater risk that shareholders bear. As a company's
9 business environment becomes riskier and its business risk becomes greater, the company
10 should increase its equity and lower its debt ratio. By reducing its debt ratio, its fixed
11 obligations to bond holders would be reduced and the company would be better able to
12 manage the financial fluctuations that result from a riskier business environment.
13 Furthermore, a utility's equity ratio must be high enough to allow additional debt capital
14 to be issued without an adverse effect on its credit rating. This would be consistent with
15 the criteria established in the Bluefield and Hope cases that the rate of return be sufficient
16 to permit capital attraction on reasonable terms. If the capital structure does not permit
17 some margin for additional debt financing at all times, a utility is subject to the potential
18 adverse impact of unanticipated tight credit conditions, thus making it a riskier
19 investment. Because I believe that Delta's existing capital structure would make it
20 difficult to secure additional debt financing on reasonable terms, it is my opinion that the
21 Commission needs to allow a higher rate of return that will permit Delta to improve its
22 equity ratio.

Q. HOW WOULD DELTA'S LOW EQUITY RATIO AFFECT THE RETURN ON EQUITY THAT IT EARNS?

A. Because Delta is about 70% debt financed, its fixed obligations to bondholders are high, thus exacerbating the impact on the return on equity resulting from any revenue reductions that Delta might experience.

Q. HOW WOULD DELTA'S PREDOMINANTLY RURAL SERVICE TERRITORY AFFECT THE RETURN ON EQUITY THAT IT EARNS?

A. Delta serves an area that is predominantly rural with low population density. This low population density results in higher fixed cost per customer for serving rural areas compared to the fixed cost per customer incurred in an urban area. This higher fixed cost per customer results from both a higher cost of installing the pipe needed to serve a customer and the higher cost of maintaining the lines. Additionally, Delta has been adding customers at a rapid rate, as demonstrated in Exhibit-MJB3. These customer additions result in significant additional fixed cost being added before any additional revenue is generated. Thus, the high fixed cost per customer combined with customer growth is putting financial pressure on Delta through these fixed cost additions. Furthermore, these rural customers tend to have a lower annual usage and a larger proportion of temperature sensitive load than urban customers. This relatively high fixed cost to serve small highly temperature sensitive loads translates to a higher fixed cost burden for Delta and a more variable revenue stream. The higher fixed costs resulting from operations compounds the problem of high fixed obligations to bond holders resulting from a low equity ratio, and exacerbates the impact on the return on equity resulting from any revenue reductions that

Delta might experience. Thus, the low population density in rural areas that results in a higher fixed cost burden for Delta with more variability in the return stream due to the large amount of temperature sensitive load for these rural customers makes Delta a riskier investment. This added risk would justify a higher rate of return to compensate for the additional risk. Because I have not quantified the separate impact on rate of return resulting from the rural character of Delta's service territory, I would suggest accounting for the impacts of this risk factor by using an allowed rate of return in the high end of the reasonable range of returns based on my analysis.

Q. HOW WOULD WEATHER VARIABILITY AFFECT THE RETURN ON EQUITY THAT DELTA EARNS?

A. Because a large portion of Delta's load is space conditioning and is very temperature sensitive, a warmer than normal heating season results in significantly reduced revenue and earnings while a cooler than normal heating season results in increased revenue and earnings. This impact can be seen on page 1 of Exhibit MJB-2. The earnings available for common equity fluctuate widely from a 111% increase in 1992 to a 35% decrease in 1997. It should be noted that the earnings available for common equity in 1998 of \$2,451,272 is still below the 1996 level of earnings available for common equity even though it represents a 42% increase over 1997. The 1998 level is also below the earnings available for common equity in 1993 and 1994. Thus, temperature variability has a major effect on the return on equity that Delta actually earns.

Q. ARE THERE ANY REMEDIES THAT CAN BE APPLIED TO CORRECT FOR THE THREE FACTORS AFFECTING DELTA'S EARNINGS THAT YOU HAVE

DESCRIBED ABOVE?

2 A. Yes. There are potential remedies for two of the three factors that I have described above.
3 With regard to Delta's low percentage of equity, there are two potential remedies. The
4 first is to use an imputed capital structure and the second is to incorporate a leverage
5 premium into the rate of return if an imputed capital structure is not used. With regard to
6 the impact of weather variability on earnings and on return on equity, a temperature
7 normalization adjustment can be utilized. However, a temperature normalization
8 adjustment will not correct for the rural nature of Delta's service territory and the higher
9 fixed costs that result. These characteristics of Delta's operation, which increase its risk,
10 should be reflected by a rate of return in the high end of the acceptable range in
11 calculating Delta's cost of equity.

12 Q. PLEASE EXPLAIN HOW AN IMPUTED CAPITAL STRUCTURE COULD BE
13 UTILIZED TO ADJUST FOR THE EFFECT OF DELTA'S LOW EQUITY RATIO.

14 A. Currently, Delta has a capital structure consisting of 30% common equity. As discussed
15 above, this is significantly lower than the industry average. If an imputed capital structure
16 is utilized in determining Delta's revenue requirement, I would recommend an imputed
17 capital structure consisting of 43.5% common equity and 56.5% debt. I arrived at my
18 recommendation of utilizing 43.5% common equity by taking the midpoint between the
19 mean of 43.2% and the median of 43.9% in Exhibit MJB-1. Based on my experience, an
20 equity ratio of 43.5% would be reasonable, but would lie in the low end of the reasonable
21 range. As additional verification of the reasonableness of this imputed capital structure, in
22 their article evaluating utility capital structures, Brigham, Gapenski, and Aberwald noted

that:

2 The data did not permit analysis outside the 42.5 to 54 percent debt
3 ratio range, so we cannot state exactly what would happen to
4 interest rates if debt were below 42.5 or above 54 percent. (Eugene
5 F. Brigham, Louis C. Gapenski and Dana A. Aberwald, "Capital
6 Structure, Cost of Capital, and Revenue Requirements", Public
7 Utilities Fortnightly, January 8, 1987, p. 18)

8 The 56.5% debt that I am recommending as a part of the imputed capital structure would
9 lie above the top end of the range in which adequate data was available for the statistical
10 work described in the Brigham, Gapenski and Aberwald article.

11 Q. PLEASE EXPLAIN HOW A LEVERAGE PREMIUM COULD BE UTILIZED TO
12 ADJUST FOR THE EFFECT OF DELTA'S LOW EQUITY RATIO.

13 A. If an imputed capital structure is not utilized, a premium could be added to the return on
14 equity to adjust for Delta's high level of debt. The magnitude of such an adjustment can
15 be derived from the Brigham, Gapenski and Aberwald article which states that:

16 The basis change is smaller toward the high end of the equity ratio
17 range, so an increase in equity from 49 to 50 per cent would only
18 lower the cost of equity by about seven basis points, but an increase
19 in the ratio from 40 to 41 per cent would lower the cost of equity by
20 about 15 basis points. (Brigham, Gapenski and Aberwald, p. 23)

21 The imputed capital structure that I recommend would increase the percentage of equity
22 from 30% to 43.5% which would make the 15 basis point per one percent change in
23 equity a reasonable, and possibly a conservative, estimate of the leverage premium that
24 should be used. The leverage premium that would provide the same result as a 13.5%
25 increase in the imputed capital structure would be 202.5 basis points. Thus, if an imputed
26 capital structure is not used, a leverage premium of about 2% should be added to the
27

allowed rate of return to adjust for Delta's low percentage of equity.

2 Q. PLEASE EXPLAIN HOW A TEMPERATURE NORMALIZATION ADJUSTMENT
3 COULD BE UTILIZED TO ADJUST FOR THE EFFECT OF TEMPERATURE
4 VARIABILITY.

5 A. Although a temperature normalization has been employed historically in determining the
6 revenue requirement and in calculating rates, a temperature normalization has not been
7 applied to the rates prospectively to adjust for the vagaries of weather. Without a
8 temperature normalization incorporated into the rates as they are applied prospectively,
9 Delta is subject to the earnings and return on equity variations shown in Exhibit MJB-2.
10 Temperature normalizing to calculate the rates but not to apply them in essence amounts
11 to a bet that normal temperature will occur with Delta experiencing significant financial
12 distress if warmer than normal weather occurs. Delta's low equity ratio and high fixed
13 operating costs have the effect of magnifying the impact of this temperature variability. I
14 recommend the use of a temperature normalization adjustment in Delta's rates to adjust
15 for the significant impact that weather has on its earnings and return on equity.

16 Q. HOW WOULD YOU ASSESS THE BUSINESS ENVIRONMENT WITHIN WHICH
17 DELTA OPERATES?

18 A. Beginning with Order No. 436 and continuing through Order Nos. 500 and 636, the
19 Federal Energy Regulatory Commission (FERC) established competition in the
20 transportation of natural gas and allowed large customers and local distribution companies
21 to purchase natural gas directly from producers. Currently, some state regulatory
22 commissions are unbundling natural gas service at the retail level and are beginning to

allow retail competition in natural gas. Competition at the retail level increases the
2 business risk for natural gas distribution companies. Additionally, Delta provides natural
3 gas service in a service territory that substantially overlaps the electric service territory of
4 Kentucky Utilities Company, which has some of the lowest electric rates in the nation.
5 This direct competition with a low cost electric utility also increases Delta's business risk.
6 Finally, Delta is a small company with a capitalization that would fall in the micro-cap
7 stock range as defined in the Stocks, Bonds, Bills and Inflation 1999 Yearbook published
8 by Ibbotson Associates. A micro-cap stock includes companies with market
9 capitalizations at or below \$252,109,000 (Ibbotson, p. 137).

10 Q. IS A HIGHER RISK PREMIUM AND THUS A HIGHER ALLOWED RATE OF
11 RETURN APPROPRIATE FOR SMALL COMPANIES?

12 A. Yes. There are several sources that indicate that a size premium is appropriate for smaller
13 companies. Fama and French reported that:

14 If assets are priced rationally, our results suggest that stock risks are
15 multidimensional. One dimension of risk is proxied by size, ME.
16 Another dimension of risk is proxied by BE/ME, the ratio of the
17 book value of common equity to its market value. (Eugene F. Fama
18 and Kenneth R. French, "The Cross-Section of Expected Stock
19 Returns", The Journal of Finance, Vol. 47, June, 1992, p. 428.)

20
21 Fama and French went on to report that:

22 The size effect (smaller stocks have higher average returns) is thus
23 robust in the 1963-1990 returns on NYSE, AMEX, and NASDAQ
24 stocks. In contrast to the consistent explanatory power of size, the
25 FM [Fama-MacBeth] regressions show that market β does not help
26 explain average stock returns for 1963-1990. (Fama and French, p.
27 438)

28
29 Regarding this size effect, Ibbotson stated that:

3 The betas for small companies tend to be larger than those for
4 larger companies; however, they do not account for all of the risks
5 faced by investors in small companies. This premium can be added
6 directly to the results obtained using the CAPM... . (Stocks, Bonds,
7 Bills and Inflation 1999 Yearbook, Ibbotson Associates, p. 161

8 Ibbotson goes on to quantify the expected micro-capitalization equity size premium as
9 2.6% as shown in Exhibit MJB-6. Not only does Delta fall within the micro-capitalization
10 group as defined by Ibbotson, but as can be seen from Exhibit MJB-1, Delta has one of
11 the smallest total capitalizations of the investor owned natural gas distribution companies
12 in the panel. Thus, small companies such as Delta are riskier than companies with larger
13 capitalizations and a higher rate of return on equity would be appropriate for such
14 companies.

14 Q. PLEASE DESCRIBE THE DISCOUNTED CASH FLOW (DCF) METHOD FOR
15 ESTIMATING THE APPROPRIATE RETURN ON EQUITY.

16 A. The DCF method for estimating an appropriate return on equity is based on the following
17 equation, which defines the long run expected return (the appropriate return on equity) as
18 the discount rate that equates the stock price with the stream of expected future dividends:

19 Equation 1:
$$P = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \frac{D_3}{(1+k)^3} + \dots$$

20 where,

21 P = the price of the stock,

22 D_i = the dividend in year i, and

23 k = the discount rate or expected long run return.

24 If dividends grow at a constant rate, g, the dividend in each period can be expressed as a

function of the dividend in the immediately preceding period multiplied by the growth rate, so that:

$$D_2 = D_1g,$$

$$D_3 = D_1g^2,$$

...

$$D_n = D_1g^{n-1}$$

By substituting and solving as the sum of an infinite geometric series, the constant growth form of the DCF equation can be expressed as:

Equation 2:
$$k = \frac{D_1}{P} + g$$

Although the assumption of constant growth may be reasonable for utilities that come close to approximating the assumption of constant growth, it is not appropriate for a utility that is experiencing changes in the rate of growth. When there are changes in the growth rate, a multistage form of the DCF model is more appropriate. The two-stage DCF model allows dividends to grow at the growth rate currently reported by analysts in the first stage and to grow dividends at the same nominal rate as the industry or the national economy as a whole in the second stage. This assumes that over time the rate of growth for a company will tend toward the growth rate for the industry as a whole. Currently, Delta is tracked by only two analysts, one from Hilliard Lyons and one from Edward Jones. The two-stage DCF model utilizes the analysts growth rates as well as a composite growth rate for the natural gas distribution industry obtained from Ibbotson's Cost of Capital Quarterly, which is calculated using estimates from analysts from over 200 firms. Thus, the two-stage DCF model applies a broader base of information to the task of

calculating Delta's cost of capital. The two-stage DCF model assumes that dividends grow at the analyst's projected growth rate during the first stage and grow at the expected growth rate for the industry as a whole in the second stage. After the estimated dividend stream for a sufficiently long period is generated using the growth rates employed in the two-stage DCF model, the dividend estimates and the current stock price are substituted into equation 1 above which is solved iteratively for k, the estimated return on equity.

Q. DO YOU BELIEVE THAT THE CONSTANT GROWTH FORM OF THE DCF MODEL SHOULD BE USED IN DETERMINING DELTA'S ALLOWED RETURN ON EQUITY?

A. No. Looking at Exhibit MJB-2, the percentage change in dividends per share has been variable and has not been growing at a constant rate. Furthermore, the underlying financial variables exhibit tremendous variability. The percentage change in the earnings available for common stock range from a high of 111% to a low of -35%. The percentage change in the earnings per share range from a high of 108% to a low of -47%. Such variation in dividends per share and in the underlying financial data are not consistent with an assumption of constant growth that is the key assumption in the constant growth form of the DCF model.

Q. WHAT WOULD THE CONSTANT GROWTH FORM OF THE DCF MODEL YIELD AS AN EXPECTED RETURN ON EQUITY FOR DELTA?

A. The results of the constant growth DCF model are shown on page 1 of Exhibit MJB-4. The expected growth rate of 3% for Delta was obtained from a Hilliard Lyons Analyst report dated March 11, 1998 and the expected growth rate of 2% for Delta was obtained

1 from an Edward Jones Analyst report dated March 3, 1999. Delta's stock price quote for
2 May 28, 1999, annual dividend, 52 week high and 52 week low were obtained from the
3 NASDAQ/AMEX web site. The expected natural gas distribution industry growth rate
4 was obtained from Cost of Capital Quarterly, Ibbotson Associates, March, 1999. The
5 analysts' forecasts upon which the calculated natural gas distribution industry composite
6 growth rate is based are obtained from Standard and Poor's Analyst's Consensus Estimate
7 (ACE) database. The ACE database contains growth estimates and recommendations
8 from over 200 contributing firms. The industry composite growth rate is a weighted
9 average of the ACE growth rates using the latest equity market capitalization as the
10 weighting factors. The estimate for Delta's return on equity using the analysts' expected
11 growth rates in the constant growth DCF model ranges from 8.0% to 9.9% as shown on
12 pages 1 and 2 of Exhibit MJB-4. The constant growth DCF model yields an estimated
13 return on equity of 9.71% for the current stock price of \$17.00 using the Hilliard Lyons
14 expected growth rate, and an estimated return on equity of 8.71% for the current stock
15 price of \$17.00 using the Edward Jones expected growth rate. The estimate for Delta's
16 return on equity using Ibbotson's composite natural gas distribution industry expected
17 growth rate in the constant growth DCF model ranges from 11.7% to 12.63% as shown on
18 page 1 of Exhibit MJB-4. The constant growth DCF model yields an estimated return on
19 equity of 12.41% for the current stock price of \$17.00 using Ibbotson's composite natural
20 gas distribution industry expected growth rate.

21 Q. WHAT WOULD THE TWO-STAGE FORM OF THE DCF MODEL YIELD AS AN
22 EXPECTED RETURN ON EQUITY FOR DELTA?

2 A. The results of the two-stage form of the DCF model are shown on page 3 of Exhibit MJB-
3 4. The two-stage DCF model utilized in this analysis assumes that dividends grow for the
4 first five years at the expected rate projected by the analysts who track Delta and grow at
5 the expected growth rate for the industry as a whole after five years. This in effect blends
6 the information provided by the two sources and produces a lower estimate of the rate of
7 return than using the composite natural gas distribution industry growth rate alone. The
8 estimate for Delta's return on equity using the two-stage form of the DCF model ranges
9 from 10.2% to 12.05% as shown on page 3 of Exhibit MJB-4. The two-stage form of the
10 DCF model yields an estimated return on equity ranging from 10.75% to 11.85% for the
11 current stock price of \$17.00.

12 Because of the rural nature of Delta's service territory and the additional risk that this
13 generates, as described above, I believe that a return on equity near the top end of the
14 10.2% to 12.05% range resulting from the multistage DCF should be used in calculating
15 Delta's revenue requirement. I suggest utilizing a 11.9% return on equity with an added
16 2% leverage adjustment which results in a 13.9% return on equity for calculating Delta's
17 revenue requirement.

18 Q. WHAT RATE OF RETURN ON EQUITY WOULD THE RISK PREMIUM INDICATE
19 WAS APPROPRIATE?

20 A. Stocks, Bonds, Bills and Inflation 1999 Yearbook reports that the long-horizon expected
21 equity risk premium for large company stock total returns minus long-term government
22 bond income returns is 8.0% for the period 1926 to 1998 (see Exhibit MJB-6). This
estimate of the risk premium from Ibbotson is calculated using a past average of ex-post

risk premiums over a sufficiently long period of time to include several ups and downs in dividend yields and provides a good estimate of the future risk premium. This long-horizon expected equity risk premium was calculated using stock market data for the companies in the Standard and Poor's 500 Index and for U. S. Treasury Bonds having a 20-year maturity. The 20-year U.S. Treasury bond yield for May, 1999 as reported by FRED® [Federal Reserve Economic Data] available on the Federal Reserve Bank of St. Louis web site is 6.08% (Exhibit MJB-7). Adding the long-horizon risk premium of 8% to the 20-year U.S. Treasury bond yield of 6.08% produces a return on equity of 14.08%. Ibbotson also reports a short horizon expected equity risk premium calculated using large company stock total returns and subtracting U.S. Treasury bill total returns. This short horizon expected equity risk premium is 9.4% for the period 1926 to 1998 (see exhibit MJB-6). This can be added to the May, 1999 U.S. Treasury bill rate of 4.51% (see Exhibit MJB-8) to obtain an estimated return on equity of 13.91%. This is consistent with the long horizon estimate for return on equity of 14.08% derived above. These estimated returns on equity for the market as a whole demonstrate that the estimated returns on equity for Delta using the composite industry growth rate and the two-stage DCF model are well within the reasonable range.

Q. HOW WOULD YOU ADJUST THE ESTIMATED RETURNS ON EQUITY FOR THE MARKET AS A WHOLE TO APPLY TO A GAS DISTRIBUTION UTILITY SUCH AS DELTA?

A. The CAPM approach could be utilized to adjust the risk premia for the market as a whole to produce an estimate of the return on equity for a natural gas distribution utility. The

basic CAPM formula is:

$$K = R_f + B(R_m - R_f)$$

where:

K = the prospective market cost of equity for a specific investment,

R_f = the risk free rate of return (usually U.S. Treasury bonds for estimating ROE),

β = the company specific beta coefficient, and

R_m = the overall stock market return (usually the S&P 500 Index for estimating ROE).

The Value Line Investment Survey and the Extended Value Line Investment Survey ("Value Line") provide β estimates for a panel of gas distribution utilities. The March 26, 1999 Value Line reported estimated β 's for the panel of natural gas distribution companies ranging from 0.4 to 0.8 with the following distribution:

β Estimate	Number
0.40	1
0.45	3
0.50	4
0.55	8
0.60	6
0.65	1
0.70	1
0.75	5
0.80	1

Value Line does not track Delta and thus an estimated β for Delta was not available.

2 Based on the distribution of estimated β 's reported above, I chose to use a β of 0.55 in
3 calculating Delta's estimated return on equity using CAPM. With a long-horizon risk
4 premium above 20-year U.S. Treasury bonds of 8.0% and a beta coefficient of 0.55, the
5 CAPM model produces an estimated return on equity of 10.48% calculated as:

$$K = 6.08 + 0.55 \times 8.0 = 10.48$$

6 However, because Delta is a micro-cap stock an additional size premium of 2.6% must be
7 added to this estimate (see Exhibit MJB-6) which results in an estimated return on equity
8 for Delta of 13.08%. Using the lowest beta coefficient reported in the panel of 0.40 results
9 in an estimated return on equity of 11.88% once the size premium is added. Using the
10 highest beta coefficient reported in the panel of 0.80 results in an estimated return on
11 equity of 15.08% once the size premium is added.

12 Q. WHAT RETURN ON EQUITY DO YOU RECOMMEND BE UTILIZED IN
13 CALCULATING THE REVENUE REQUIREMENT IN THIS PROCEEDING?

14 A. I recommend using a 13.9% return on equity, which is derived by adding a 2% leverage
15 adjustment to the 11.9% rate of return resulting from the two-stage DCF model as
16 discussed in my testimony above. This is well within the reasonable range as indicated by
17 my analysis. Alternatively, if an imputed capital structure is utilized, an allowed return on
18 equity of 11.9% with an imputed capital structure consisting of 43.5% equity and 56.5%
19 debt could be used in calculating Delta's revenue requirement. However, subtracting the
20 2% leverage adjustment would only be justified if an imputed capital structure is utilized.

21 Q. DOES THE RETURN ON EQUITY THAT YOU RECOMMEND PRODUCE A
22 REASONABLE RESULT?

2 A. Yes. Exhibit MJB-5 shows the interest coverage for the 29 natural gas distribution
3 companies in the panel reported by Edward Jones, which is calculated by dividing net
4 income by the interest on long term debt for the 12 months ending December 31, 1998,
5 coinciding with the test year utilized in this proceeding. Delta has an interest coverage of
6 1.75x, which is second lowest in the panel of natural gas distribution utilities. The mean
7 interest coverage for the panel is 2.85x with a median interest coverage of 2.65x. If the
8 revenue requirement for Delta is determined based on a 13.9% return on equity and based
9 on an unadjusted capital structure, the resulting interest coverage would be 2.00x. If the
10 revenue requirement for Delta is determined based on the 11.9% return on equity and
11 based on an imputed capital structure consisting of 43.5% equity and 56.5% debt, the
12 resulting interest coverage would be 2.01x. As can be seen from Exhibit MJB-5, the
13 resulting interest coverage from using a 13.9% rate of return would still be the fourth
14 lowest in the panel. Based on the resulting level of interest coverage, I believe that the
15 13.9% rate of return on equity that I am recommending be applied to the unadjusted
16 capital structure is reasonable. An 11.9% return on equity applied to an imputed capital
17 structure also produces a similar reasonable result. It would take even a higher rate of
18 return on equity to produce a level of interest coverage that is more representative of the
19 other companies in the panel of natural gas distribution companies. In fact, with regard to
20 almost every key financial measure, Delta is one of the lowest in the panel of natural gas
21 distribution companies. As shown in Exhibit MJB-1 and MJB-5, Delta has one of the
22 highest payout ratios while having one of the lowest percentages of equity, one of the
lowest interest coverages, one of the lowest earned returns on equity, and one of the

lowest market to book value ratios of the natural gas distribution companies in the panel.

2

The revenue requirement that would result from utilizing the 13.9% return on equity that I

3

recommend would be a start to turning these poor financial results around. As discussed

4

above, the use of an 11.9% rate of return with an imputed capital structure would produce

5

the same type of financial improvement. However, even when these rates are placed into

6

effect, it will take several years before there is significant improvement in these key

7

financial measures.

8

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

9

A. Yes it does.

Exhibit MJB-1. Common Equity Ratios For Natural Gas Distribution Companies, 12 Months Ending December 31, 1998

	Short Term		Original		Equity (000)		Total		New	
	Cap (000)	Debt (000)	Equity	Pct.	Equity (000)	Pct.	Cap (000)	Equity (000)	Equity	Pct.
Peoples Energy Corp.	\$1,272,330	\$57,445		59	\$750,675	\$1,329,775				56.5%
North Carolina Natural Gas	\$185,190	\$38,000		68	\$125,929	\$223,190				56.4%
Indiana Energy, Inc.	\$492,676	\$66,649		63	\$310,386	\$559,325				55.5%
Piedmont Natural Gas Company	\$865,193	\$74,000		57	\$493,160	\$939,193				52.5%
Washington Gas Light Co.	\$1,157,819	\$148,229		58	\$671,535	\$1,306,048				51.4%
Connecticut Energy Corp.	\$330,556	\$31,121		55	\$181,806	\$361,677				50.3%
EnergyNorth, Inc.	\$97,217	\$12,243		55	\$53,469	\$109,460				48.8%
EnergySouth, Inc.	\$123,432	\$5,631		50	\$61,716	\$129,063				47.8%
Roanoke Gas Company	\$47,808	\$10,174		57	\$27,251	\$57,982				47.0%
Public Service of North Carolina	\$388,524	\$103,800		58	\$225,344	\$492,324				45.8%
Cascade Natural Gas Corp.	\$232,244	\$23,713		50	\$116,122	\$255,957				45.4%
Laclede Gas Company	\$441,778	\$136,157		59	\$260,649	\$577,935				45.1%
Northwest Natural Gas Company	\$831,963	\$97,264		50	\$415,982	\$929,227				44.8%
Providence Energy Corp.	\$173,117	\$30,496		52	\$90,021	\$203,613				44.2%
Yankee Energy System, Inc.	\$301,384	\$90,317		57	\$171,789	\$391,701				43.9%
AGL Resources Inc.	\$1,392,800	\$113,000		47	\$654,616	\$1,505,800				43.5%
Colonial Gas Company	\$249,885	\$52,722		52	\$129,940	\$302,607				42.9%
New Jersey Resources, Inc.	\$635,410	\$94,957		47	\$298,643	\$730,367				40.9%
Pennsylvania Enterprises, Inc.	\$235,397	\$87,548		56	\$131,822	\$322,945				40.8%
Atmos Energy Corp.	\$775,262	\$185,955		50	\$387,631	\$961,217				40.3%
Fall River Gas Company	\$37,309	\$9,000		48	\$17,908	\$46,309				38.7%
NUI Corp.	\$504,271	\$108,185		45	\$226,922	\$612,456				37.1%
Berkshire Energy Resources	\$67,951	\$23,960		50	\$33,976	\$91,911				37.0%
CTG Resources Inc.	\$345,326	\$18,234		37	\$127,771	\$363,560				35.1%
South Union Company	\$807,169	\$52,004		37	\$298,653	\$859,173				34.8%
Energy West	\$29,387	\$6,237		42	\$12,343	\$35,624				34.6%
South Jersey Industries Inc.	\$401,078	\$105,876		42	\$168,453	\$506,954				33.2%
Delta Natural Gas Company	\$80,110	\$11,480		35	\$28,039	\$91,590				30.6%
Corning Natural Gas Corp.	\$17,328	\$2,840		31	\$5,372	\$20,168				26.6%
		mean		51		mean				43.2%
		median		50		median				43.9%

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information, Edward Jones Co., April 30, 1999

Exhibit 10.1 JB-2
Selected Financial Statistics For
Delta Natural Gas Company

Year Ended June 30	Earnings Available For Common	Percent Change	Average # of Shares O/S	EPS	Percent Change	Common Dividends	Dividends	
							Per Share	Percent Change
1989	1,535,077	4.04%	1,430,608	1.07	-17.05%	1,558,751	1.07	2.88%
1990	1,195,512	-22.12%	1,563,588	0.76	-28.97%	1,688,681	1.08	0.93%
1991	1,162,582	-2.75%	1,586,235	0.73	-3.95%	1,713,405	1.08	0.00%
1992	2,453,813	111.07%	1,612,437	1.52	108.22%	1,741,661	1.08	0.00%
1993	2,620,664	6.80%	1,635,945	1.60	5.26%	1,775,411	1.09	0.46%
1994	2,671,001	1.92%	1,775,068	1.50	-6.25%	1,972,368	1.11	1.84%
1995	1,917,735	-28.20%	1,850,986	1.04	-30.67%	2,073,374	1.12	1.36%
1996	2,661,349	38.78%	1,886,629	1.41	35.58%	2,113,414	1.12	0.00%
1997	1,724,265	-35.21%	2,294,134	0.75	-46.81%	2,651,073	1.14	1.79%
1998	2,451,272	42.16%	2,359,598	1.04	38.67%	2,690,233	1.14	0.00%

Exhibit WJB-2

Selected Financial Statistics For
Delta Natural Gas Company

Year Ended June 30	End of Year Common S/H Equity	% Return on Equity	Payout Ratio	Retention
1989	15,663,078	9.80%	101.54%	-1.54%
1990	15,369,126	7.78%	141.25%	-41.25%
1991	15,147,551	7.68%	147.38%	-47.38%
1992	16,227,158	15.12%	70.98%	29.02%
1993	17,501,045	14.97%	67.75%	32.25%
1994	22,164,791	12.05%	73.84%	26.16%
1995	22,511,513	8.52%	108.12%	-8.12%
1996	23,628,323	11.26%	79.41%	20.59%
1997	29,474,569	5.85%	153.75%	-53.75%
1998	29,810,294	8.22%	109.75%	-9.75%
		10.13%	105.38%	

Exhibit MJB-3
Number of Customers
Delta Natural Gas Company

	Residential Customers	Commercial Customers	Industrial Customers	Total Customers	Percent Change
1991	26,394	4,152	68	30,614	
1992	27,051	4,190	68	31,309	2.27%
1993	27,852	4,279	75	32,206	2.86%
1994	28,615	4,387	76	33,078	2.71%
1995	29,544	4,467	72	34,083	3.04%
1996	30,363	4,641	73	35,077	2.92%
1997	31,733	4,856	73	36,662	4.52%
1998	32,111	4,894	69	37,074	1.12%

Exhibit MJB-4
Results From The Constant Growth Form Of the DCF Model
Delta Natural Gas Company

1998 Annual Dividend	\$1.14	
Stock Price On May 28, 1998	\$17.00	
52 Week High	\$19.00	
52 Week Low	\$16.44	
Expected Delta Growth Rate	3.0%	Hilliard Lyons Analyst Report
Expected Delta Growth Rate	2.0%	Edward Jones Analyst Report
Expected Industry Growth Rate	5.7%	<u>Cost of Capital Quarterly</u> , Ibbotson Associates

Using the formula: $ROE = D/P + g$

Using Expected Natural Gas Distribution Industry Growth Rate

Based on the current stock price:	$ROE = 1.14/17.00 + .057 =$	12.41%
Based on 52 week low:	$ROE = 1.14/16.44 + .057 =$	12.63%
Based on 52 week high:	$ROE = 1.14/19.00 + .057 =$	11.70%

Exhibit MJB-4
Results From The Constant Growth Form Of the DCF Model
Delta Natural Gas Company

Using Hilliard and Lyons Analyst Growth Rate

Based on the current stock price:	ROE =	$1.14/17.00 + .03$	=	9.71%
Based on 52 week low:	ROE =	$1.14/16.44 + .03$	=	9.93%
Based on 52 week high:	ROE =	$1.14/19.00 + .03$	=	9.00%

Using Edward Jones Analyst Growth Rate

Based on the current stock price:	ROE =	$1.14/17.00 + .02$	=	8.71%
Based on 52 week low:	ROE =	$1.14/16.44 + .03$	=	8.93%
Based on 52 week high:	ROE =	$1.14/19.00 + .03$	=	8.00%

Data Sources

The stock price, 52 week high, 52 week low, and annual dividend were obtained from the NASDAQ/AMEX internet web site on May 28, 1999.

The expected growth rates for Delta Natural Gas were obtained from a Hilliard Lyons Analyst report dated March 11, 1998 and an Edward Jones Analyst Report dated March 3, 1999.

The expected natural gas distribution industry growth rate was obtained from Cost of Capital Quarterly, Ibbotson Associates, March, 1999. The analysts' forecasts upon which the industry composite growth rate is based are obtained from Standard and Poor's Analyst's Consensus Estimate (ACE) database. The ACE database contains growth estimates and recommendations from over 200 contributing firms. The industry composite growth rate is a weighted average of the ACE growth rates based on the latest equity market capitalization.

Exhibit MJB-4
Results From the Two-Stage Form of the DCF Model

1998 Annual Dividend	\$1.14	
Stock Price On May 28, 1998	\$17.00	
52 Week High	\$19.00	
52 Week Low	\$16.44	
Expected Growth Rate	3.0%	Hilliard Lyons Analyst Report
Expected Delta Growth Rate	2.0%	Edward Jones Analyst Report
Expected Industry Growth Rate	5.7%	<u>Cost of Capital Quarterly</u> , Ibbotson Associates

Assumptions:

Delta grows at analyst's projected growth rate for the first five years and at the industry average thereafter.

Results of solving the two-stage DCF model iteratively for the rate of return using Hilliard Lyons

Rate of return that equates the estimated dividend stream to the current stock price:	11.85%
Rate of return that equates the estimated dividend stream to the 52 week high:	11.18%
Rate of return that equates the estimated dividend stream to the 52 week low:	12.05%

Results of solving the two-stage DCF model iteratively for the rate of return using Edward Jones

Rate of return that equates the estimated dividend stream to the current stock price:	10.75%
Rate of return that equates the estimated dividend stream to the 52 week high:	10.20%
Rate of return that equates the estimated dividend stream to the 52 week low:	10.95%

Exhibit MJB-5
Natural Gas Distribution Companies Sorted By Interest Coverage
12 Months Ending December 31, 1998

	Interest Coverage	Payout Ratio	Earned Return on Equity	Market to Book Value
North Carolina Natural Gas	6.33	64	13.2	251
New Jersey Resources, Inc.	4.61	71	14.2	219
Indiana Energy, Inc.	4.35	78	11.7	207
Peoples Energy Corp.	4.02	103	9.0	177
Piedmont Natural Gas Company	3.93	72	12.1	199
EnergySouth, Inc.	3.66	46	15.2	160
Washington Gas Light Co.	3.32	100	8.0	161
Atmos Energy Corp.	3.32	66	13.1	201
Colonial Gas Company	3.08	101	9.5	242
Public Service of North Carolina	2.92	91	9.6	260
AGL Resources Inc.	2.88	87	10.8	159
Connecticut Energy Corp.	2.84	73	10.5	214
Fall River Gas Company	2.78	112	10.5	205
Laclede Gas Company	2.74	99	9.2	137
Cascade Natural Gas Corp.	2.65	105	8.8	151
Energy West	2.54	75	11.7	174
Roanoke Gas Company	2.49	96	7.9	133
CTG Resources Inc.	2.46	72	10.0	164
EnergyNorth, Inc.	2.42	104	8.4	170
South Jersey Industries Inc.	2.36	113	8.2	153
Northwest Natural Gas Company	2.22	120	6.0	136
Pennsylvania Enterprises, Inc.	2.13	160	5.7	201
NUI Corp.	2.09	105	5.2	121
Providence Energy Corp.	2.01	126	5.7	133
Yankee Energy System, Inc.	2.00	152	5.7	172
Corning Natural Gas Corp.	1.85	101	11.1	190
Berkshire Energy Resources	1.83	118	6.7	158
Delta Natural Gas Company	1.75	121	7.9	144
South Union Company	1.27	None	1.9	224
Mean	2.86	98	9.22	180
Median	2.65	101	9.20	172

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information,
Edward Jones Co., April 30, 1999

Exhibit MJB-5
Natural Gas Distribution Companies Sorted By Payout Ratio
12 Months Ending December 31, 1998

	Interest Coverage	Payout Ratio	Earned Return on Equity	Market to Book Value
Pennsylvania Enterprises, Inc.	2.13	160	5.7	201
Yankee Energy System, Inc.	2.00	152	5.7	172
Providence Energy Corp.	2.01	126	5.7	133
Delta Natural Gas Company	1.75	121	7.9	144
Northwest Natural Gas Company	2.22	120	6.0	136
Berkshire Energy Resources	1.83	118	6.7	158
South Jersey Industries Inc.	2.36	113	8.2	153
Fall River Gas Company	2.78	112	10.5	205
Cascade Natural Gas Corp.	2.65	105	8.8	151
NUI Corp.	2.09	105	5.2	121
EnergyNorth, Inc.	2.42	104	8.4	170
Peoples Energy Corp.	4.02	103	9.0	177
Colonial Gas Company	3.08	101	9.5	242
Corning Natural Gas Corp.	1.85	101	11.1	190
Washington Gas Light Co.	3.32	100	8.0	161
Laclede Gas Company	2.74	99	9.2	137
Roanoke Gas Company	2.49	96	7.9	133
Public Service of North Carolina	2.92	91	9.6	260
AGL Resources Inc.	2.88	87	10.8	159
Indiana Energy, Inc.	4.35	78	11.7	207
Energy West	2.54	75	11.7	174
Connecticut Energy Corp.	2.84	73	10.5	214
Piedmont Natural Gas Company	3.93	72	12.1	199
CTG Resources Inc.	2.46	72	10.0	164
New Jersey Resources, Inc.	4.61	71	14.2	219
Atmos Energy Corp.	3.32	66	13.1	201
North Carolina Natural Gas	6.33	64	13.2	251
EnergySouth, Inc.	3.66	46	15.2	160
South Union Company	1.27	None	1.9	224
Mean	2.91	98	9.49	178
Median	2.70	101	9.35	171

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information,
Edward Jones Co., April 30, 1999

Exhibit MJB-5
Natural Gas Distribution Companies Sorted By Return on Equity
12 Months Ending December 31, 1998

	Interest Coverage	Payout Ratio	Earned Return on Equity	Market to Book Value
EnergySouth, Inc.	3.66	46	15.2	160
New Jersey Resources, Inc.	4.61	71	14.2	219
North Carolina Natural Gas	6.33	64	13.2	251
Atmos Energy Corp.	3.32	66	13.1	201
Piedmont Natural Gas Company	3.93	72	12.1	199
Indiana Energy, Inc.	4.35	78	11.7	207
Energy West	2.54	75	11.7	174
Corning Natural Gas Corp.	1.85	101	11.1	190
AGL Resources Inc.	2.88	87	10.8	159
Connecticut Energy Corp.	2.84	73	10.5	214
Fall River Gas Company	2.78	112	10.5	205
CTG Resources Inc.	2.46	72	10.0	164
Public Service of North Carolina	2.92	91	9.6	260
Colonial Gas Company	3.08	101	9.5	242
Laclede Gas Company	2.74	99	9.2	137
Peoples Energy Corp.	4.02	103	9.0	177
Cascade Natural Gas Corp.	2.65	105	8.8	151
EnergyNorth, Inc.	2.42	104	8.4	170
South Jersey Industries Inc.	2.36	113	8.2	153
Washington Gas Light Co.	3.32	100	8.0	161
Roanoke Gas Company	2.49	96	7.9	133
Delta Natural Gas Company	1.75	121	7.9	144
Berkshire Energy Resources	1.83	118	6.7	158
Northwest Natural Gas Company	2.22	120	6.0	136
Pennsylvania Enterprises, Inc.	2.13	160	5.7	201
Providence Energy Corp.	2.01	126	5.7	133
Yankee Energy System, Inc.	2.00	152	5.7	172
NUI Corp.	2.09	105	5.2	121
South Union Company	1.27	None	1.9	224
Mean	2.86	98	9.22	180
Median	2.65	101	9.20	172

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information,
Edward Jones Co., April 30, 1999

Exhibit MJB-5
Natural Gas Distribution Companies Sorted By Market to Book Value
Most Recent Fiscal Year

	Interest Coverage	Payout Ratio	Earned Return on Equity	Market to Book Value	
Public Service of North Carolina	2.92	91	9.6	260	
North Carolina Natural Gas	6.33	64	13.2	251	
Colonial Gas Company	3.08	101	9.5	242	
South Union Company	1.27	None	1.9	224	
New Jersey Resources, Inc.	4.61	71	14.2	219	
Connecticut Energy Corp.	2.84	73	10.5	214	
Indiana Energy, Inc.	4.35	78	11.7	207	
Fall River Gas Company	2.78	112	10.5	205	
Atmos Energy Corp.	3.32	66	13.1	201	
Pennsylvania Enterprises, Inc.	2.13	160	5.7	201	
Piedmont Natural Gas Company	3.93	72	12.1	199	
Corning Natural Gas Corp.	1.85	101	11.1	190	
Peoples Energy Corp.	4.02	103	9.0	177	
Energy West	2.54	75	11.7	174	
Yankee Energy System, Inc.	2.00	152	5.7	172	
EnergyNorth, Inc.	2.42	104	8.4	170	
CTG Resources Inc.	2.46	72	10.0	164	
Washington Gas Light Co.	3.32	100	8.0	161	
EnergySouth, Inc.	3.66	46	15.2	160	
AGL Resources Inc.	2.88	87	10.8	159	
Berkshire Energy Resources	1.83	118	6.7	158	
South Jersey Industries Inc.	2.36	113	8.2	153	
Cascade Natural Gas Corp.	2.65	105	8.8	151	
Delta Natural Gas Company	1.75	121	7.9	144	
Laclede Gas Company	2.74	99	9.2	137	
Northwest Natural Gas Company	2.22	120	6.0	136	
Roanoke Gas Company	2.49	96	7.9	133	
Providence Energy Corp.	2.01	126	5.7	133	
NUI Corp.	2.09	105	5.2	121	
	Mean	2.86	98	9.22	180
	Median	2.65	101	9.20	172

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information,
Edward Jones Co., April 30, 1999

Table 8-1 **Key Variables in Estimating
the Cost of Capital**

	Value
Yields (Riskless Rates)*	
<i>Long-term (20-year) U.S. Treasury Coupon Bond Yield</i>	5.4%
<i>Intermediate-term (5-year) U.S. Treasury Coupon Note Yield</i>	4.7
<i>Short-term (30-day) U.S. Treasury Bill Yield</i>	4.5
Risk Premia**	
<i>Long-horizon expected equity risk premium: large company stock total returns minus long-term government bond income returns</i>	8.0
<i>Intermediate-horizon expected equity risk premium: large company stock total returns minus intermediate-term government bond income returns</i>	8.4
<i>Short-horizon expected equity risk premium: large company stock total returns minus U.S. Treasury bill total returns†</i>	9.4
<i>Expected default premium: long-term corporate bond total returns minus long-term government bond total returns</i>	0.4
<i>Expected long-term horizon premium: long-term government bond income returns minus U.S. Treasury bill total returns†</i>	1.4
<i>Expected intermediate-term horizon premium: intermediate-term government bond income returns minus U.S. Treasury bill total returns†</i>	1.0
Size Premia***	
<i>Expected mid-capitalization equity size premium: capitalization between \$918 and \$4,200 million</i>	0.5
<i>Expected low-capitalization equity size premium: capitalization between \$252 and \$918 million</i>	1.1
<i>Expected micro-capitalization equity size premium: capitalization below \$252 million</i>	2.6

* As of December 31, 1998. Maturities are approximate.

** Expected risk premia for equities are based on the differences of historical arithmetic mean returns from 1926-1998. Expected risk premia for fixed income are based on the differences of historical arithmetic mean returns from 1970-1998.

*** See Chapter 7 for complete methodology.

† For U.S. Treasury bills, the income return and total return are the same.

Note: An example of how these variables can be used is found with equation (35).

Exhibit MJB - 7

20-Year Treasury Constant Maturity Rate
Averages of Business Days
Percent
Source: H.15 Release -- Federal Reserve Board of Governors

DATE	GS20
1998.05	6.01
1998.06	5.80
1998.07	5.78
1998.08	5.66
1998.09	5.38
1998.10	5.30
1998.11	5.48
1998.12	5.36
1999.01	5.45
1999.02	5.66
1999.03	5.87
1999.04	5.82
1999.05	6.08

Exhibit MJB - 8

3-Month Treasury Bill Rate, Auction Average
Averages of Business Days, Discount Basis
Percent
Source: H.15 Release -- Federal Reserve Board of Governors

DATE	TB3MA
1998.05	5.03
1998.06	4.99
1998.07	4.96
1998.08	4.94
1998.09	4.74
1998.10	4.08
1998.11	4.44
1998.12	4.42
1999.01	4.34
1999.02	4.45
1999.03	4.48
1999.04	4.28
1999.05	4.51

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ADJUSTMENT OF THE)
RATES OF DELTA NATURAL)
GAS COMPANY, INC.)

CASE NO. 2004-00067

DIRECT TESTIMONY OF

MARTIN J. BLAKE

AFFIDAVIT

The affiant, Martin J. Blake, being duly sworn, deposes and states that the prepared testimony attached hereto and made a part hereof, constitutes the prepared direct testimony of this affiant in Case No. 2004-00067, in the Matter of: An Adjustment of Rates of Delta Natural Gas Company, Inc. and that if asked the questions propounded therein, this affiant would make the answers set forth in the attached prepared direct testimony.

Affiant further states that he will be present and available for cross-examination and for such additional direct examination as may be appropriate at the hearing in Case No. 2004-00067 scheduled by the Commission, at which time affiant will further reaffirm the attached prepared testimony as his direct testimony in such case.

Martin J. Blake
MARTIN J. BLAKE

STATE OF KENTUCKY)
)
COUNTY OF JEFFERSON)

Subscribed and sworn to before me by Martin J. Blake, this the 25th day of March, 2004.

My Commission Expires: 1/21/2005

Meredith A. Aikens
Notary Public, State at Large, Kentucky

1 Q: PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

2 A: My name is Martin J. Blake. My business address is 6435 W. Highway 146, Suite 2,
3 Crestwood, Kentucky 40014.

4 Q: BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?

5 A: I am a Member and Principal of The Prime Group, LLC. The Prime Group provides
6 consulting services in the areas of marketing, market research, rate and regulatory
7 support, training, and strategic planning for energy industry clients.

8 **Professional Qualifications & Experience**

9 Q: PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

10 A: I received my Ph.D. in Agricultural Economics in 1976 from the University of Missouri,
11 Columbia. My doctoral work centered on the areas of marketing and econometrics. I
12 also hold a Master of Arts in Economics from the University of Missouri, Columbia,
13 which I received in 1972. In addition, I received a Bachelor of Arts degree in Economics
14 from Illinois Benedictine College in 1970.

15 Q: IN WHAT AREAS DOES YOUR PRACTICE CONCENTRATE?

16 A: As a member of The Prime Group, I have prepared and filed Order No. 888 and Order
17 No. 889 compliance filings at the Federal Energy Regulatory Commission ("FERC") for
18 a number of electric utilities as well as Order No. 888 and Order No. 889 waiver requests
19 for other utilities. I have prepared market power analyses in support of market-based rate
20 filings at FERC for utilities and their marketing affiliates, as well as assisting other
21 utilities with their market-based rate filings. I have also assisted several utilities in
22 addressing both FERC and state affiliate transactions concerns and have provided
23 training regarding standards of conduct. I have assisted utilities with developing strategic
24 marketing plans and implementing these plans. I have provided utility clients with
25 assistance regarding regulatory policy, strategy and liaison; state and federal regulatory
filing development, testimony and support; cost of service development and support; the

development of innovative rates to achieve strategic objectives; the unbundling of rates and the development of menus of rate alternatives for use with customers; performance-based rate and incentive rate development; and energy marketing and brokering capability development. I have made presentations to train account executives in sales and customer negotiation, as well as presentations in ratemaking and utility finance seminars and workshops regarding basic utility marketing. I have provided marketing, market research and marketing support services for utility clients and have assisted them in assessing their marketing capabilities and processes.

Q: PLEASE BRIEFLY SUMMARIZE YOUR AREAS OF PROFESSIONAL EXPERIENCE PRIOR TO JOINING THE PRIME GROUP.

A: I have professional experience as an economist and professor of economics, as a utility regulator, and as a utility manager and executive.

Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS AN ECONOMIST.

A: From January 1977 to December 1986, I was employed first as an Assistant Professor, then as an Associate Professor, and finally as a Professor of Agricultural Economics at New Mexico State University in Las Cruces, New Mexico ("NMSU"): I was the head of the undergraduate program and taught economics, agricultural economics and econometrics. While at NMSU, I also worked as a consultant for various clients, providing price forecasting, load forecasting, and marketing services. Since 1992, I have taught mathematical economics and econometrics as an Adjunct Professor in the Economics Department at the University of Louisville. Prior to my joining the faculty at NMSU, I served in the U. S. Army as an instructor of economics, statistics, and accounting at the U. S. Army Institute of Administration at Fort Benjamin Harrison, Indianapolis, Indiana.

I also have a variety of experience with the application of economics to utility public policy issues. In addition to my experience as a utility regulator and executive, which I describe below, I have taught ratemaking for utilities at the NARUC Annual Regulatory

2 Studies Program at Michigan State University since 1993. From May 1983 to August
3 1983, while on a sabbatical leave from NMSU, I served as a Policy Analyst for the
4 Assistant Secretary for Land and Water at the U. S. Department of Interior.

5 Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY
6 REGULATOR.

7 A: From January 1987 to November 1990, I served as a Commissioner and as the Chairman
8 of the New Mexico Public Service Commission. As a Commissioner, my duties included
9 making policy and adjudicatory decisions regarding rates, terms of service, financing,
10 certificates of public convenience and necessity, and complaints for electric, gas, water,
11 and sewer utilities. As Chairman, I supervised a staff of thirty-two professionals and
12 sixteen support staff. During my tenure on the New Mexico Commission, I also served
13 as Chairman of the Western Conference of Public Service Commissioners Electric
14 Committee and as Chairman of the Committee on Regional Electric Power Cooperation,
15 a group composed of state public service commissioners and representatives from the
16 state energy offices of the thirteen western states.

17 As a Commissioner, I interpreted legislation, reviewed prior Commission cases to
18 determine the precedents that they provided, drafted rules and regulations, wrote Orders,
19 conducted hearings, ruled on motions, and served as an arbitrator in alternative dispute
20 resolution proceedings. I performed adjudicatory and regulatory functions for the four
21 years that I served on the Commission.

22 Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY
23 MANAGER.

24 A: From December, 1990 to June 1996, I was employed by Louisville Gas and Electric
25 Company ("LG&E"). Initially, I served as LG&E's Director of Regulatory Planning. In
26 this position, I was responsible for coordinating all of LG&E's state and federal
regulatory efforts, and prepared and presented testimony to regulators. In performing my
duties in the federal regulatory area, I performed the market power analysis in LG&E's

original market-based rate filing at the FERC, which was one of the first applications of the "hub and spoke" methodology that the FERC now uses in assessing generation market dominance in market-based rate filings; supervised the preparation of the market-based rate filings; and served as LG&E's principal witness in this case. I also helped develop the electronic bulletin board that the FERC required as a condition for approving the market-based tariff. Additionally, I helped to develop LG&E's comparable transmission tariff filing, which provided third parties with access to LG&E's transmission system at the same price, terms and conditions as LG&E. This was the first tariff providing comparable transmission service that was filed and approved by the FERC and was filed before Order No. 888 was issued by FERC. In this comparable transmission tariff filing, I served as LG&E's principal witness and negotiated the settlement in this case with FERC staff. When LG&E Power Marketing filed for the ability to charge market-based rates, I helped to develop the codes of conduct that were submitted to the FERC as a part of the filing.

My areas of responsibility were expanded in April 1994 to include marketing and strategic planning. As the Director, Marketing, Planning and Regulatory Affairs, I was responsible for coordinating LG&E's retail gas and electric marketing, strategic planning, and state and federal regulatory efforts. I continued to be employed in that capacity at LG&E until June 1996, when I joined the Prime Group as one of its Principals.

Q: PLEASE DESCRIBE THE INDUSTRY GROUPS IN WHICH YOU HAVE PARTICIPATED.

A: I have served on several regional transmission coordination groups such as the Interregional Transmission Coordination Forum, and the General Agreement on Parallel Paths, as well as the following committees of the Edison Electric Institute ("EEI") -- Economics and Public Policy Executive Advisory Committee, Strategic Planning Executive Advisory Committee, Transmission Task Force, and Power Supply Policy Technical Task-Force. Currently, I am a member of the Midwest ISO Transmission

2 Owners Committee and the Transmission Owners Tariff Working Group representing
3 Southern Illinois Power Cooperative and Hoosier Energy. I serve as the Vice-Chairman
4 of the Transmission Owners Tariff Working Group.

5 Q: HAVE YOU TAUGHT ANY COURSES OR SEMINARS IN THE AREA OF UTILITY
6 RESTRUCTURING?

7 A: Yes. In addition to teaching ratemaking for electric utilities at the NARUC Annual
8 Regulatory Studies Program since 1993, I have also taught a course regarding the
9 institutions and organizations of the new electric utility industry. Each year, I also teach
10 and conduct numerous workshops and programs, and deliver invited presentations to
11 utility managers and regulators on a variety of subjects including ratemaking, marketing,
12 utility finance, and industry restructuring.

13 Q. IN WHICH CASES HAVE YOU PREVIOUSLY TESTIFIED?

14 A. A list of the cases in which I have previously testified is included in Exhibit MJB-1.

15 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

16 A. Delta Natural Gas Company, Inc. ("Delta") engaged The Prime Group to conduct an
17 analysis of and to provide a recommendation regarding the appropriate cost of common
18 equity for application to Delta's original cost rate base. My testimony contains the results
19 of this analysis and identifies the fair rate of return on equity that Delta should be given
20 the opportunity to earn during the period when the new rates will be in effect. My analysis
21 utilizes commonly accepted financial valuation techniques and incorporates the factors
22 that affect Delta's overall investment risk.

23 Q. PLEASE DESCRIBE DELTA'S BUSINESS OPERATIONS.

24 A. Delta purchases, produces and stores gas for distribution to retail customers, and also
25 provides transportation service to industrial customers and interconnected pipelines
26 through facilities located in 23 counties in central and southeastern Kentucky. The
company had about 39,600 retail customers at the end of 2003. Its service territory is more
rural than most publicly traded, investor owned natural gas distribution companies and

2 consists mainly of light industry, farming and coal mining operations. More than 99% of
3 Delta's customers are residential and commercial. Exhibit MJB-2 shows Delta's total
4 capitalization compared to other publicly traded, investor owned natural gas distribution
5 utilities. The data in Exhibit MJB-2 was taken from a report titled Natural Gas Industry
6 Summary Monthly Financial & Common Stock Information issued by Edward Jones Co.
7 in 2003. This report classifies companies that provide natural gas into three categories: 1)
8 diversified companies, 2) combination gas and electric companies and 3) natural gas
9 distribution companies. Delta is classified as a natural gas distribution company. Among
10 the publicly traded, investor owned natural gas distribution utilities included in this report
11 Delta was the third lowest with respect to total capitalization. It is important to note that
12 the two natural gas distribution companies that have a smaller total capitalization than
13 Delta both have expected negative growth rates for earnings according to the most recent
14 Value Line. In the most recent Value Line, the five year expected earnings growth for
15 EnergyWest is -2% and the expected earnings growth rate for RGC Resources is -1.5%.
16 Exhibit MJB-3 shows Delta's percentage equity compared to other publicly traded,
17 investor owned natural gas distribution utilities. The data in Exhibit MJB-3 was taken
18 from the same Edward Jones report. Delta had the second lowest percentage of equity
19 among the fifteen publicly traded, investor owned natural gas distribution utilities
20 included in this report. The only natural gas distribution utility with a lower percentage
21 equity was also ranked the highest in total capitalization. The two natural gas distribution
22 utilities in Exhibit MJB-2 with a lower total capitalization than Delta also had percentages
23 of equity of 50% or higher. Thus, Delta can be characterized as a small publicly traded,
24 investor owned natural gas distribution utility with an essentially rural service territory
25 and with a relatively highly leveraged capital structure relative to most natural gas
26 distribution utilities.

Q. IS THERE A PUBLIC BENEFIT TO PROVIDING NATURAL GAS SERVICE TO
RURAL AREAS?

1 A. Yes. If natural gas service is available in an area, customers have a choice whether to use
2 natural gas or electricity for particular applications. Customers' ability to switch between
3 natural gas and electricity helps to keep downward pressure on the prices of both products.
4 Furthermore, the availability of natural gas service can help in attracting industrial loads to
5 an area and thus assist in economic development efforts. However, if natural gas service is
6 to be provided to rural areas, the companies providing such service must have the
7 opportunity to earn adequate returns or they will no longer be able or willing to provide
8 such service.

9 Q. HOW SHOULD THE RATE OF RETURN BE DETERMINED UNDER PUBLIC
10 UTILITY REGULATION?

11 A. The purpose of public utility regulation with respect to rate of return is to permit a utility
12 to earn its cost of capital while avoiding monopoly profits. Long-run earnings above the
13 cost of capital would imply monopoly profits, while long-run earnings below the cost of
14 capital would impair a utility's ability to attract capital on reasonable terms. A rate of
15 return based on a utility's cost of capital is consistent with the guidelines established by
16 the U.S. Supreme Court in *Bluefield Water Works & Improvement Co. v. Public Service*
17 *Commission of West Virginia*, 262 U.S. 679 (1923) and *Federal Power Commission v.*
18 *Hope Natural Gas Company*, 320 U.S. 591 (1944). These cases require that a utility be
19 allowed to earn a rate of return that: 1) is comparable to alternative investment
20 opportunities of corresponding risk, 2) will permit capital attraction on reasonable terms,
21 and 3) will maintain a utility's financial integrity.

22 Q. IS AN OPPORTUNITY TO EARN A FAIR RATE OF RETURN THE SAME AS A
23 GUARANTEE TO EARN A FAIR RATE OF RETURN?

24 A. No. Having an opportunity to earn a fair rate of return allows for more uncertainty than
25 does having a guarantee to earn a fair rate of return. A guarantee of earning a fair return
26 would imply no variability in the rate of return, with the utility earning the specified rate
27 of return every year. An opportunity to earn a fair rate of return implies that a utility has a

2 reasonable assurance that it will be allowed to earn a rate of return that is sufficient to
3 attract capital, that will maintain its financial integrity and that is comparable to the return
4 earned by alternative investments of comparable risk. While there are numerous factors
5 that may result in an actual rate of return that is higher or lower than the allowed rate of
6 return in any given year, a utility that consistently earns less than the allowed rate of return
7 or which has averaged significantly less than the allowed rate of return for a long period of
8 time cannot be said to have a reasonable assurance of earning the allowed rate of return.
9 Thus, an assurance of earning a fair and reasonable rate of return could be viewed
10 statistically as the arithmetic average of a series of returns over a period of time equaling
11 the allowed rate of return. The problem with this approach is that, if there is significant
12 variability in the returns, several years of earning below the allowed rate of return could
13 cause severe financial harm to a utility while waiting for the years of above average
14 returns to materialize. Thus, it may make sense for regulators to not only deal with the
15 mean value of the distribution of returns, as they do when they set the allowed rate of
16 return in a rate case; but to also deal with the variability of the returns through some
17 alternative regulatory mechanism.

18 Q. WOULD YOU REGARD DELTA'S CURRENT RATES AS PROVIDING AN
19 OPPORTUNITY TO EARN AN ADEQUATE RETURN FOR PROVIDING NATURAL
20 GAS SERVICE TO RURAL AREAS?

21 A. No, I do not. In December, 1997, the Commission issued an Order in Case No. 97-066
22 which set new rates for Delta which became effective in January, 1998. In this case, the
23 Commission allowed a return on common equity of 11.6%. In December, 1999, the
24 Commission issued an Order in Case No. 99-046 which set new rates for Delta which
25 became effective in January, 2000. In this case, the Commission also allowed a return on
26 common equity of 11.6%. However, Exhibit MJB-4 shows that since 1995, Delta has
27 never earned an actual return on shareholders equity that was as high as the 11.6% ROE
allowed by the Commission. For the last nine years, Delta has averaged a 9.16% return on

shareholder equity with the return on equity in any single year never equaling or exceeding 11.6%. This is especially distressing in the years immediately following these two rate cases that were the first years that the new rates went into effect. In 1998, the first year that new rates were in effect pursuant to Case No. 97-066, Delta actually earned a return on shareholder equity of 8.2% which is 340 basis points below the Commission allowed ROE of 11.6%. In 2000, the first year that new rates were in effect pursuant to Case No. 99-046, Delta actually earned a return on shareholder equity of 11.1% which is 50 basis points below the Commission allowed ROE of 11.6%. If there was ever a time when it could be expected that a utility would earn its allowed rate of return, it would be the first year that new rates went into effect. When Delta has not earned a return on shareholder equity as high as the allowed rate of return in any of the last nine years, even though it has been in twice during that period of time for rate cases, it cannot be said to have a reasonable assurance of earning the allowed rate of return. Furthermore, in 2003, Delta earned a return on equity of 8.6% which is significantly below its allowed return on equity.

Q. WHAT FACTORS DO YOU BELIEVE HAVE CAUSED DELTA TO UNDER EARN COMPARED TO ITS ALLOWED RATE OF RETURN ON EQUITY?

A. I believe that there are two principal factors: 1) Delta's equity is low as a percentage of total capitalization and 2) Delta's predominantly rural service territory.

Q. PLEASE DESCRIBE DELTA'S EQUITY AS A PERCENTAGE OF TOTAL CAPITALIZATION COMPARED TO OTHER NATURAL GAS DISTRIBUTION COMPANIES.

A. As described above, Exhibits MJB-2 and MJB-3 provide data for natural gas distribution companies ranked by total capitalization and percentage equity, respectively taken from Natural Gas Industry Summary Monthly Financial & Common Stock Information published by Edward Jones. The mean percentage of equity is calculated as 45.67% for the panel of fifteen natural gas distribution utilities with a median of 49%. Delta's reported

percentage of equity of 34% is 11.67% below the mean and 15% below the median for this panel. It should be noted that Delta's percentage of common equity relative to total capitalization is the second lowest in the panel which makes Delta more heavily leveraged than most other natural gas distribution utilities. Additionally, as noted above, the two natural gas distribution utilities in the panel with total capitalization lower than Delta both had a percentage of equity above these mean and median values. These two natural gas distribution utilities with smaller total capitalization than Delta had percentages of equity that were 22% higher and 16% higher than Delta.

Q. DOES A LOW PERCENTAGE OF EQUITY RELATIVE TO TOTAL CAPITALIZATION MAKE DELTA A RISKIER INVESTMENT?

A. Yes. The more debt that a firm has as a part of its total capitalization, the greater are the fixed interest payments that the firm will have to make to bond holders out of any given revenue stream that it generates. A company is required to make payments to the bond holders in specified amounts at specified times, while it is under no such obligation to its common equity holders. Thus, the more equity the firm has, the greater is its ability to weather revenue fluctuations. However, this flexibility comes at a cost, as equity is more expensive than debt because of the greater risk that shareholders bear. As a company's business environment becomes riskier and its business risk becomes greater, the company should increase its equity and lower its debt ratio. By reducing its debt ratio, its fixed obligations to bond holders would be reduced and the company would be better able to manage the financial fluctuations that result from a riskier business environment. Furthermore, a utility's equity ratio must be high enough to allow additional debt capital to be issued without an adverse effect on its credit rating. This would be consistent with the criteria established in the Bluefield and Hope cases that the rate of return be sufficient to permit capital attraction on reasonable terms. If the capital structure does not permit some margin for additional debt financing at all times, a utility is subject to the potential adverse impact of unanticipated tight credit conditions, thus making it a riskier

1 investment. Delta has increased the percent of equity in its overall capitalization since its
2 last rate case, but it is still well below the average percentage equity for natural gas
3 distribution companies. Getting Delta's percentage of equity closer to the average for
4 natural gas distribution companies will be a long process and will only occur if the
5 Commission allows a high enough rate of to accommodate this long term improvement in
6 Delta's equity ratio.

7 Q. HOW WOULD DELTA'S LOW EQUITY RATIO AFFECT THE RETURN ON
8 EQUITY THAT IT EARNS?

9 A. Because Delta is about 63% debt financed based on the capital structure in this
10 proceeding, its fixed obligations to bondholders are high, thus exacerbating the impact on
11 the return on equity resulting from any revenue reductions that Delta might experience.
12 This is likely an important factor that contributes to the fact that Delta has not earned its
13 allowed rate of return in any of the past nine years.

14 Q. COULD YOU GIVE AN EXAMPLE OF HOW LEVERAGE MIGHT AFFECT THE
15 ACTUAL RETURN ON EQUITY EARNED BY DELTA?

16 A. Yes. Exhibit MJB-5 provides several examples of how a change in the percentage of
17 equity in Delta's overall capitalization would affect the actual return on equity earned by
18 Delta. All three examples in Exhibit MJB-5 have the same total capitalization, but have
19 different equity ratios. The first example in Exhibit MJB-5, uses the same percentage of
20 equity and debt as Delta's capital structure in this proceeding and assumes a return on
21 equity of 12.5% and an interest rate of 7% on the debt. The dollar value of the return
22 elements for equity and debt are calculated by multiplying the dollar value of the equity
23 and debt capitalization by their respective rates of return and interest. In Example 1, the
24 dollar value of the return element for equity would be \$5,358,131 and the dollar value of
25 the return element for debt would be \$5,077,232. Next assume that Delta experiences a
26 decrease in earnings of \$2,000,000. Delta would still have to pay \$5,077,232 to debt
27 holders and now would have only \$3,358,131 to provide to shareholders. Dividing

2 \$3,358,131 by the \$42,865,046 of equity capitalization would result in an actual return on
equity of 7.83%.

3 Example 2 uses a capital structure that reflects the industry average as calculated in
4 Exhibit MJB-2 and uses the same rates of return and interest as in Example 1. Thus, the
5 only factor that is changing is the equity and debt ratios. Again a decrease in earnings of
6 \$2,000,000 is assumed. Delta would still have to pay \$4,388,661 to debt holders and now
7 would have only \$4,587,723 to provide to shareholders. Dividing \$4,587,723 by the
8 \$52,701,780 of equity capitalization would result in an actual return on equity of 8.71%.

9 In both Examples 1 and 2, the \$2,000,000 decrease in earnings is a result of operations and
10 is not influenced by the capital structure used to finance the company. However, this same
11 \$2,000,000 decrease in earnings has a very different impact on the actual return on equity
12 depending on the debt leverage of the company.

13 A comparison of Examples 1 and 2 also illustrates another important point. In Example 2,
the return element included in the revenue requirement would be \$10,976,383, while in
15 Example 1 the return element included in the revenue requirement would be \$10,435,363,
16 which is \$541,020 lower. Thus, with a lower percentage equity ratio than the industry as a
17 whole, Delta's customers pay lower rates while Delta experiences a significant adverse
18 effect on its ability to earn its allowed rate of return if it experiences any earnings
19 shortfalls. This is simply not an equitable result.

20 Example 3 simply repeats the above example for a capital structure consisting solely of
21 equity. In Example 3, the \$2,000,000 decrease in earnings would result in an actual return
22 on equity of 10.77%.

23 These three examples illustrate that Delta's equity ratio, which is significantly below the
24 industry average, has a significant adverse effect on its ability to earn its allowed rate of
25 return. Any given earnings shortfall for Delta will result in a much lower actual return on
equity than for the average natural gas distribution company. These examples help in
understanding why Delta has not earned its allowed rate of return in any of the past 9

years. This significant adverse impact on Delta's ability to earn its allowed rate of return must be considered by the Commission in setting an appropriate rate of return for Delta.

2
3 Q. HOW WOULD DELTA'S PREDOMINANTLY RURAL SERVICE TERRITORY
4 AFFECT THE RETURN ON EQUITY THAT IT EARNS?

5 A. Delta serves an area that is predominantly rural with low population density. This low
6 population density results in higher fixed cost per customer for serving rural areas
7 compared to the fixed cost per customer incurred in an urban area. This higher fixed cost
8 per customer results from both a higher cost of installing the pipe needed to serve a
9 customer and the higher cost of maintaining the lines. Furthermore, these rural customers
10 tend to have a lower annual usage and a larger proportion of temperature sensitive load
11 than urban customers. This relatively high fixed cost to serve small highly temperature
12 sensitive loads translates to a higher fixed cost burden for Delta and a more variable
13 revenue stream. The higher fixed costs resulting from operations compounds the problem
14 of high fixed obligations to bond holders resulting from a low equity ratio, and
15 exacerbates the impact on the return on equity resulting from any revenue reductions that
16 Delta might experience, as demonstrated above. Thus, the low population density in rural
17 areas that results in a higher fixed cost burden for Delta with more variability in the return
18 stream due to the large amount of temperature sensitive load for these rural customers
19 makes Delta a riskier investment. This additional risk would justify a higher allowed rate
20 of return for Delta. Because I have not quantified the separate impact on return on equity
21 resulting from the rural character of Delta's service territory, I would suggest accounting
22 for the impacts of this risk factor by using an allowed rate of return in the high end of the
23 reasonable range of returns based on my analysis.

24 Q. ARE THERE ANY REMEDIES THAT CAN BE APPLIED TO CORRECT FOR THE
25 TWO FACTORS AFFECTING DELTA'S EARNINGS THAT YOU HAVE
26 DESCRIBED ABOVE?

27 A. Yes. There is a potential remedy for one of the two factors that I have described above.

2 With regard to Delta's low percentage of equity, the Commission should incorporate a
3 leverage premium into the rate of return to account for the significant adverse impact that
4 Delta's lower equity ratio imposes on its ability to earn its allowed rate of return. As noted
5 above, the impact of the rural character of Delta's service area is difficult to quantify and
6 should be accounted for by using an allowed rate of return in the high end of the
7 reasonable range of returns.

8 Q. PLEASE EXPLAIN HOW A LEVERAGE PREMIUM COULD BE UTILIZED TO
9 ADJUST FOR THE EFFECT OF DELTA'S LOW EQUITY RATIO.

10 A. A leverage premium could be added to the return on equity to adjust for Delta's high level
11 of debt. There are two methods that could be used to estimate an appropriate leverage
12 premium. The first method uses a leverage premium derived from a Public Utilities
13 Fortnightly article which states that:

14 The basis change is smaller toward the high end of the equity ratio
15 range, so an increase in equity from 49 to 50 per cent would only
16 lower the cost of equity by about seven basis points, but an increase
17 in the ratio from 40 to 41 per cent would lower the cost of equity by
18 about 15 basis points. (Eugene F. Brigham, Louis C. Gapenski and
19 Dana A. Aberwald, "Capital Structure, Cost of Capital, and Revenue
20 Requirements", Public Utilities Fortnightly, January 8, 1987, p. 23)
21

22 Based on the results of this research, the leverage premium that would adjust for an equity
23 ratio that is 8% below the industry average would be 120 basis points (calculated as 8 x 15
24 basis points). Thus, based on this approach to estimating the leverage premium, a leverage
25 premium of about 1.2% should be added to the allowed rate of return to adjust for Delta's
26 low percentage of equity.

27 Another method of estimating the appropriate leverage premium is to use the difference in
28 the allowed rate of return on equity and the actual earned return on equity in the first year
29 that the new rates have gone into effect historically. In 1998, the first year that new rates
were in effect pursuant to Case No. 97-066, Delta actually earned a return on shareholder

equity of 8.2% which is 340 basis points below the Commission allowed ROE of 11.6%.
2 In 2000, the first year that new rates were in effect pursuant to Case No. 99-176, Delta
3 actually earned a return on shareholder equity of 11.1% which is 50 basis points below the
4 Commission allowed ROE of 11.6%. Thus, a conservative estimate of the leverage
5 premium that the Commission should add to Delta's allowed rate of return would be 50
6 basis points. Another way of looking at it is that if the Commission had allowed Delta a
7 12.1% ROE in the last rate case, Delta would have actually earned about an 11.6% return
8 on equity, which is what the Commission found to be just and reasonable. An alternative
9 to using a leverage premium that I am not recommending in this proceeding is for the
10 Commission to use an imputed capital structure with 45% equity and 55% debt. The
11 Commission has been reluctant to make such adjustments to the capital structure in the
12 past and the problem of actually earning the allowed rate of return illustrated in Exhibit
13 MJB-5 can be taken care of through a return on equity adjustment instead.

Q. HOW WOULD YOU ASSESS THE BUSINESS ENVIRONMENT WITHIN WHICH
15 DELTA OPERATES?

16 A. Delta provides natural gas service in a service territory that substantially overlaps the
17 electric service territory of Kentucky Utilities Company, which has some of the lowest
18 electric rates in the nation. This direct competition with a low cost electric utility increases
19 Delta's business risk. Additionally, Delta is a small company with a capitalization that
20 would fall in the micro-cap stock range as defined in the Risk Premia Over Time Report:
21 2004 published by Ibbotson Associates. A micro-cap stock includes companies with
22 market capitalizations at or below \$330,608,000 (Ibbotson, p. 6). Small companies
23 generally regarded as riskier than larger companies and have correspondingly higher rates
24 of return. Fama and French reported that:

25
26 If assets are priced rationally, our results suggest that stock risks are
27 multidimensional. One dimension of risk is proxied by size, ME.
Another dimension of risk is proxied by BE/ME, the ratio of the
book value of common equity to its market value. (Eugene F. Fama

and Kenneth R. French, "The Cross-Section of Expected Stock Returns", The Journal of Finance, Vol. 47, June, 1992, p. 428.)

Fama and French went on to report that:

The size effect (smaller stocks have higher average returns) is thus robust in the 1963-1990 returns on NYSE, AMEX, and NASDAQ stocks. In contrast to the consistent explanatory power of size, the FM [Fama-MacBeth] regressions show that market β does not help explain average stock returns for 1963-1990. (Fama and French, p. 438)

Thus, small companies such as Delta are riskier than companies with larger capitalizations and a higher rate of return on equity would be appropriate for such companies.

Additionally, natural gas commodity prices have become much more volatile since the decision issued by the Commission in Delta's last rate case. As the September, 2003 report issued by the National Petroleum Council noted, "There has been a fundamental shift in the natural gas supply/demand balance that has resulted in higher prices and volatility in recent years. This situation is expected to continue, but can be moderated." (Balancing Natural Gas Policy: Fueling the Demands of a Growing Economy, Volume 1, National Petroleum Council, September 2003, p. 6)

Q. DOES THE INCREASED VOLATILITY IN NATURAL GAS PRICES AFFECT THE RETURN ON EQUITY THAT DELTA SHOULD BE ALLOWED TO EARN?

A. Yes. Exhibit MJB-6 is a graph that shows the Henry Hub Index for the last ten years. This graph illustrates that, since the Order issued by the Commission in Delta's last rate case in December 1999, natural gas commodity prices have both increased and become much more volatile. As the National Petroleum Council report noted, this volatility of natural gas commodity prices is likely to continue. Delta has a Gas Cost Recovery (GCR) mechanism that is calculated quarterly. Any under or over recoveries during a quarter are recovered over the next twelve months. Delta is not allowed to earn a return on any money

2 that it has devoted to funding such under-recoveries. The increased price volatility since
3 its last rate case has resulted in significant under-recoveries and deferred gas costs that
4 Delta has had to finance with no interest. In June 2001, 2002 and 2003, Delta had deferred
5 gas costs of about \$4 million, and in December 2003, Delta had deferred gas costs of
6 about \$7.3 million. Delta has had to finance these under-recoveries with a mix of internal
7 financing and short term borrowing. As noted above, the interest that Delta incurs in
8 financing any under-recoveries is an expense that is not recovered by Delta through the
9 GCR. This has helped to generate earnings shortfalls that are exacerbated by Delta's low
10 equity ratio as demonstrated above. A higher return on equity would provide a larger pool
11 of internal resources to finance such under-recoveries and would help to mitigate Delta's
12 reliance on short term borrowing. This natural gas commodity price volatility is a risk
13 factor that was not as prevalent in Delta's last rate case. The Commission should allow a
14 return on equity near the top end of the range to help provide Delta with the internal
15 capital necessary to fund such under-recoveries and mitigate the necessity of using short
16 term debt for these purposes.

16 Q. PLEASE DESCRIBE THE DISCOUNTED CASH FLOW (DCF) METHOD FOR
17 ESTIMATING THE APPROPRIATE RETURN ON EQUITY.

18 A. The DCF method for estimating an appropriate return on equity is based on the following
19 equation, which defines the long run expected return (the appropriate return on equity) as
20 the discount rate that equates the stock price with the stream of expected future dividends:
21

$$22 \quad P_0 = \frac{D_1}{(1+k)^1} + \frac{D_2}{(1+k)^2} + \frac{D_3}{(1+k)^3} + \frac{D_4}{(1+k)^4} + \dots$$

23 where,

P = the recent price of the stock,

2 D_i = the dividend in year i , and

3 k = the investors' discount rate or expected rate of return.

4
5 If the growth is a constant rate, g , this equation can be expressed as the sum of an infinite
6 geometric series:

$$k = \frac{D_1}{P} + g$$

7
8
9 Q. WHAT WOULD THE DCF MODEL YIELD AS AN EXPECTED RETURN ON
10 EQUITY FOR DELTA?

11 A. The results of the DCF analysis for Delta are shown in Exhibit MJB-7. The expected
12 growth rate of 6.5% for Delta's earnings was obtained from Value Line. The high and low
13 stock price for the year and the most recent annual dividend were also obtained from
14 Value Line. The high and low annual stock prices during 2003 were used in calculating a
15 range of estimated returns in the DCF analysis. Use of the high stock price in the DCF
16 analysis resulted in an estimated ROE of 11.40% and use of the low stock price in the
17 DCF analysis resulted in an estimated ROE of 12.12%. Thus, the estimated range on ROE
18 for Delta based on this DCF analysis is between 11.4% and 12.12%.

19 Q. WHAT WOULD THE CAPITAL ASSET PRICING MODEL YIELD AS AN
20 EXPECTED RETURN ON EQUITY FOR DELTA?

21 A. The CAPM approach could be utilized to estimate the return on equity for Delta. The
22 basic CAPM formula is:

$$K = R_f + \beta (R_m - R_f)$$

23
24 where:

25 K = the prospective market cost of equity for a specific investment,

β = the company specific beta coefficient,

1 R_f = the risk free rate of return (usually U.S. Treasury bonds),

2 R_m = the overall stock market return, and

3 $R_m - R_f$ = the equity risk premium.

4 The Value Line Investment Survey - Small and Mid-Cap Edition ("Value Line") provided
5 an estimate for β of 0.45 for Delta. Ibbotson's Risk Premia Over Time Report: 2004
6 calculated a long-horizon expected equity risk premium of 7.2% which was calculated as
7 the difference between large company stock total returns minus long-term government
8 bond returns for the period 1926 through 2003. With an interest rate on 20-Year U.S.
9 Treasury bonds of 5.1% on December 31, 2003 and a beta coefficient of 0.45, the Capital
10 Asset Pricing Model produces an initial estimated return on equity of 8.34% as shown in
11 Exhibit MJB-8.

12 However, as noted in the Stocks, Bonds, Bills and Inflation 2003 Yearbook:

13
14 Based on historical return data on the NYSE/AMEX/NASDAQ decile portfolios,
15 the smaller deciles have had returns that are not fully explainable by the CAPM.
16 This return in excess of CAPM, grows larger as one moves from the largest
17 companies in decile 1 to the smallest in decile 10. The excess return is especially
18 pronounced for micro-cap stocks (deciles 9-10). This size related phenomenon
19 has prompted a revision to the CAPM, which includes the addition of a size
20 premium. (Stocks, Bonds, Bills and Inflation 2003 Yearbook, Ibbotson
21 Associates, 2003, p. 135.)

22 The size premium that must be added to CAPM calculations to obtain the appropriate
23 ROE estimates for micro-cap companies, such as Delta, is reported in Ibbotson's Risk
24 Premia Over Time Report: 2004 as 4.01%. This size premium was calculated from data
25 for the period 1926 through 2003. When this 4.01% micro-cap size premium is added to
26 the initial ROE estimate, the final estimate for ROE using the Capital Asset Pricing Model
27 is 12.35% as shown in Exhibit MJB-8 and is calculated as:

28 ROE Estimate Including Micro-Cap Size Premium = $5.1 + (0.45 \times 7.2) + 4.01 = 12.35$.

29 Inclusion of this size premium is appropriate because not only does Delta fall within the
micro-capitalization group as defined by Ibbotson, but as can be seen from Exhibit MJB-2,

Delta has one of the smallest total capitalizations of the investor owned natural gas distribution companies in the panel.

Q. WHAT RATE OF RETURN ON EQUITY WOULD THE RISK PREMIUM INDICATE WAS APPROPRIATE?

A. The long-horizon expected equity risk premium reported in Risk Premia Over Time Report: 2004 by Ibbotson Associates is 7.2% calculated by subtracting long-term government bond returns from large company stock total returns for the period 1926 to 2003. This estimate of the risk premium is calculated using a past average of ex-post risk premiums over a sufficiently long period of time to include several ups and downs in dividend yields and provides a good estimate of the future risk premium. This long-horizon expected equity risk premium was calculated using stock market data for the companies in the Standard and Poor's 500 Index and for U. S. Treasury Bonds having a 20-year maturity. The 20-year U.S. Treasury bond yield for December, 2003 as reported by FRED® [Federal Reserve Economic Data] available on the Federal Reserve Bank of St. Louis web site is 5.11%. Adding the long-horizon risk premium of 7.2% to the 20-year U.S. Treasury bond yield of 5.11% produces a return on equity of 12.31%. These estimated returns on equity for the market as a whole demonstrate that the estimated returns on equity for Delta using the DCF and capital asset pricing model results discussed earlier are reasonable.

Q. WHAT IS A REASONABLE RANGE FOR THE RETURN ON EQUITY IN THIS PROCEEDING?

A. Based on the above analysis, a reasonable range for return on equity in this proceeding would be between 11.9% and 12.85% as summarized in the table below.

Method	Initial ROE Estimate		Leverage Adjustment	ROE Range	
	High	Low		High	Low
DCF	12.12%	11.4%	0.50%	12.65%	11.9%
CAPM	12.35%	12.25%	0.50%	12.85%	12.85%
Risk Prem.	12.31%	12.31%	0.50%	12.81%	12.81%

2 As demonstrated earlier in Exhibit MJB-5, it is essential to add a leverage premium if
3 Delta is to going to have a reasonable opportunity to earn its allowed rate of return. It is
4 important for the Commission to note that Delta has not earned its allowed rate of return
5 in any of the past 9 years. Just like shooting at a target a long way off, it is necessary for
6 the Commission to aim a bit high in order to hit what it is really aiming at, and this is what
the leverage premium accomplishes.

7 Q. WHAT RETURN ON EQUITY DO YOU RECOMMEND BE UTILIZED IN
8 CALCULATING THE REVENUE REQUIREMENT IN THIS PROCEEDING?

9 A. I recommend using a 12.5% return on equity in this proceeding. This is well within the
10 reasonable range as indicated by my analysis. As noted earlier, because of the rural
11 character of Delta's service territory and because of the increased volatility in natural gas
12 commodity prices, the Commission should allow a return on equity in the high end of the
13 reasonable range. Both of these factors increase the risk for Delta and are difficult to
14 quantify with respect to the impact on ROE. One method of dealing with these difficult to
15 quantify factors is for the Commission to allow a return on equity near the top end of the
16 reasonable range. In determining the appropriate return on equity for Delta, the
17 Commission needs to consider that Delta is different than the other investor owned
18 utilities that the Commission regulates. Delta is the smallest investor owned natural gas
19 utility that the Commission regulates with one of the lowest equity ratios in the industry.
20 The size premium for small companies is well documented and has been calculated based
21 on a data set that covers a number of economic cycles that include both wars and a
22 depression. Delta's low equity makes it extremely difficult to earn any rate of return
23 allowed by the Commission as illustrated in Exhibit MJB-5. After analyzing all of the
24 relevant factors, I believe that 12.5% is a reasonable return on equity for Delta in this
25 proceeding.

26 Q. DOES THE RETURN ON EQUITY THAT YOU RECOMMEND PRODUCES A
REASONABLE RESULT?

1 A. Yes. Exhibit MJB-10 shows the interest coverage for the 15 natural gas distribution
2 companies in the panel reported by Edward Jones, which is calculated by dividing net
3 income by the interest on long term debt. Delta has an interest coverage of 2.36x, which is
4 fourth lowest in the panel of natural gas distribution utilities covered in the report. The
5 mean interest coverage for the panel is 3.44x with a median interest coverage of 3.41x. If
6 the revenue requirement for Delta is determined based on a 12.5% return on equity and
7 based on the capital structure in this proceeding, the resulting interest coverage would be
8 2.77x. As can be seen from Exhibit MJB-10, the resulting interest coverage from using a
9 12.5% rate of return would still be the fifth lowest in the panel and well below the mean
10 and median interest coverages for the fifteen natural gas distribution companies included
11 in the Edward Jones report. Based on the resulting level of interest coverage compared to
12 natural gas distribution industry averages, I believe that the 12.5% rate of return on equity
13 that I am recommending be applied to the existing capital structure is reasonable. It would
14 take even a higher rate of return on equity to produce a level of interest coverage and an
15 equity ratio that is more representative of the other companies in the panel of natural gas
16 distribution companies. The revenue requirement that would result from utilizing the
17 12.5% return on equity that I recommend would be a start to increasing Delta's equity ratio
18 and interest coverage to more closely reflect industry averages. However, even when this
19 recommended ROE is placed into effect, it will take several years before there is
20 significant improvement in these key financial measures.

21 Q. CAN YOU PROVIDE ADDITIONAL EVIDENCE THAT THE RETURN ON EQUITY
22 THAT YOU RECOMMEND PRODUCES A REASONABLE RESULT?

23 A. Yes. Exhibit MJB-11 calculates estimated returns on equity for the other fourteen
24 companies in the Edward Jones panel of natural gas distribution companies using a
25 discounted cash flow analysis and the capital asset pricing model. All of the data for
26 calculating estimated returns on equity using the DCF model come from the most recent
27 edition of Value Line. If Energy West and RGC are eliminated because of their anticipated

2 negative growth rates, the estimated range for return on equity would be from a low of
3 7.57% to a high of 13.27%. As noted earlier in my testimony, because of its higher risk
4 and lower equity ratio, Delta's return on equity should be near the top end of the range of
5 reasonable returns. The 12.5% return on equity that I recommend for Delta is well within
6 the range of estimated ROEs based on the discounted cash flow analysis of the other
7 fourteen natural gas distribution utilities in the Edward Jones panel.

8 The CAPM results in Exhibit MJB-11 are calculated using a risk free rate of return of
9 5.1% which was the yield on 20-Year Treasury Bonds on the last day of the test year. It
10 also uses a long-horizon equity premium of 7.2% and a size premium that is appropriate
11 for the utility's total capitalization from Risk Premia Over Time Report: 2004 by Ibbotson
12 Associates. The estimated range of returns on equity using CAPM for the other fourteen
13 natural gas distribution companies in the Edward Jones panel is 10.69% to 14.15%. Again,
14 the 12.5% return on equity that I recommend for Delta is well within this range. Based on
15 this comparison to other natural gas distribution utilities with regard to their estimated
16 returns on equity and with regard to their interest coverage, as discussed above, I believe
17 that a 12.5% return on equity that I recommend for Delta is reasonable.

18 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.

Prior Testimony of Dr. Martin J. Blake

Federal Energy Regulatory Commission

- ER92-533 LG&E's open transmission access and authority to charge market-based rates for its generation.
- ER94-1380 The first comparability tariff approved by the FERC.
- ER97-4345 A market power analysis that was filed in support of OGE Energy Resources, Inc.'s request for the authority to charge market based rates.
- ER98-511 A market power analysis that was filed in support of Oklahoma Gas and Electric Co.'s request for the authority to charge market based rates.
- ER99-51 An affidavit in support of Commonwealth Edison Co.'s request for authority to charge cost based rates to its affiliates.
- ER01-1938 Testimony in support of Southern Indiana Gas and Electric Company's request for a revision in transmission and ancillary service rates including cost of capital testimony
- ER02-708 Testimony in support of Central Illinois Power Company's request for a revision in transmission and ancillary service rates including cost of capital testimony
- NJ03-2 Testimony in support of Southern Illinois Power Company's request for a revision in ancillary service rates

Arkansas Public Service Commission

- 96-360-U Direct and rebuttal testimony for Oklahoma Gas and Electric regarding recovery of stranded costs by Entergy Arkansas, Inc.

California Public Utility Commission

- 90-12-018 Direct and rebuttal testimony for Southern California
(phase 5) Edison Company concerning the reasonableness of contracting by
Southern California Edison with Integrated Energy Group ("IEG") to
provide marketing services to Southern California Edison and the
reasonableness of the resulting marketing services performed by IEG.

Illinois Commerce Commission

- 98-0013 and Testimony regarding non-discrimination with
98-0035 regard to affiliate transactions for electric utilities. I sponsored ComEd's
proposed affiliate transactions rules and suggested some basic principles
that the Illinois Commerce Commission should follow in developing rules
and regulations for ensuring non-discrimination and non-cross
subsidization in transactions with affiliated and unaffiliated alternative
retail electric suppliers ("ARES").
- 98-0036 Testimony in a rulemaking to develop rules and regulations for assessing
and assuring the reliability of the transmission and distribution systems as
a part of electric utility restructuring in Illinois.
- 98-0147 and Testimony concerning standards of conduct and
98-0148 rules for functional separation. I sponsored ComEd's proposed standards
of conduct and functional separation rules.

Kentucky Public Service Commission

- 90-158 An LG&E rate case.
- 92-494 An LG&E biennial fuel adjustment clause review.
- 93-150 An application for approval of a DSM cost recovery mechanism
and a set of initial programs.
- 94-332 An application for an environmental cost recovery mechanism.
- 92-494-B Testimony regarding the confidentiality of coal bid data.
- 95-455 A biannual review of the environmental cost recovery mechanism.
- 91-423 Participation in the conference with Commission staff and intervenors to
review LG&E's first integrated resource plan.
- Other Several fuel adjustment clause proceedings on behalf of LG&E.

98-489 Testimony on behalf of Blazer Energy Corp. in an application for an adjustment in their natural gas rates.

99-046 Direct and rebuttal testimony regarding Return on equity in support of Delta Natural Gas Company's request for an adjustment in rates

Nevada Public Utility Commission

01-10001 Direct testimony on behalf of Shareholders Association to support Nevada Power Company's request for return on equity

New Mexico Public Utility Commission

2797 Direct and rebuttal testimony in a general rate case for Plains Electric Generation and Transmission Cooperative, Inc.

Oklahoma Corporation Commission

PUD 960000116 Testimony in an Oklahoma Gas and Electric Company rate case, including rebuttal of intervenor and staff proposals to disallow certain marketing, advertising, economic development and research and development expenses.

Indiana Utility Regulatory Commission

41884 Direct and rebuttal testimony to support a request by eleven gas local distribution companies for switching from a quarterly gas cost adjustment mechanism to a monthly gas cost adjustment mechanism

42027 Direct testimony in support of a transfer of functional control of transmission assets from electric utilities in Indiana to the Midwest System Operator, Inc.

Exhibit JJB - 2

Summary of Edward Jones Report
 Natural Gas Distribution Companies Ranked by Total Capitalization

	12 Months Ending	Total Cap (000)	Percent Equity
South Union Company	8/30/2003	\$2,859,896	24%
AGL Resources Inc.	9/30/2003	\$2,038,700	35%
Atmos Energy Corp.	8/30/2003	\$1,721,435	39%
Peoples Energy Corp.	9/30/2003	\$1,592,344	51%
WGL Holdings, Inc.	8/30/2003	\$1,483,041	54%
Piedmont Natural Gas Company	7/30/2003	\$1,105,144	58%
Northwest Natural Gas Company	9/30/2003	\$939,960	51%
New Jersey Resources, Inc.	9/30/2003	\$675,840	57%
Laclede Gas Company	9/30/2003	\$604,955	49%
South Jersey Industries Inc.	8/30/2003	\$586,867	41%
Cascade Natural Gas Corp.	9/30/2003	\$255,490	46%
EnergySouth, Inc.	9/30/2003	\$181,437	44%
Delta Natural Gas Company	9/30/2003	\$97,705	34%
RGC Resources, Inc.	8/30/2003	\$64,077	52%
Energy West	9/30/2003	\$29,671	50%
Mean		\$949,104	45.67%
Median		\$675,840	49.00%

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information, Edward Jones Co., 2003

Exhibit JB - 3

Summary of Edward Jones Report
 Natural Gas Distribution Companies Ranked by Percent Equity

	12 Months Ending	Total Cap (000)	Percent Equity
Piedmont Natural Gas Company	7/30/2003	\$1,105,144	58%
New Jersey Resources, Inc.	9/30/2003	\$675,840	57%
WGL Holdings, Inc.	8/30/2003	\$1,483,041	54%
RGC Resources, Inc.	8/30/2003	\$64,077	52%
Peoples Energy Corp.	9/30/2003	\$1,592,344	51%
Northwest Natural Gas Company Energy West	9/30/2003	\$939,960	51%
Laclede Gas Company	9/30/2003	\$29,671	50%
Cascade Natural Gas Corp.	9/30/2003	\$604,955	49%
EnergySouth, Inc.	9/30/2003	\$255,490	46%
South Jersey Industries Inc.	9/30/2003	\$181,437	44%
Atmos Energy Corp.	8/30/2003	\$586,867	41%
AGL Resources Inc.	8/30/2003	\$1,721,435	39%
Delta Natural Gas Company	9/30/2003	\$2,038,700	35%
South Union Company	8/30/2003	\$97,705	34%
		\$2,859,896	24%
	Mean	\$949,104	45.67%
	Median	\$675,840	49.00%

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information, Edward Jones Co., 2003

Exhibit MJB - 4
Historical Comparison of Allowed and Actual ROE
Delta Natural Gas Company

	Return on Shareholder Equity	Allowed ROE	Difference
1995	8.50%	Black box settlement in last rate case	
1996	11.30%	Black box settlement in last rate case	
1997	5.80%	Black box settlement in last rate case	
1998	8.20%	11.60%	-3.40% New Rates Effective Jan. 1998
1999	7.20%	11.60%	-4.40%
2000	11.10%	11.60%	-0.50% New Rates Effective Jan. 2000
2001	11.10%	11.60%	-0.50%
2002	10.60%	11.60%	-1.00%
2003	8.60%	11.60%	-3.00%
Mean	9.16%		

Data Source:

The Value Line Investment Survey - Small and Mid-Cap Edition, Dec. 19, 2003

Exhibit MJB - 5

Examples of the Impact of Leverage on Actual Return on Equity

Example 1

	Capitalization	Ratios	Cost Rates	Return Element in Dollars
Equity	\$42,865,046	0.3715	12.50%	\$ 5,358,131
Debt	\$72,531,889	0.6285	7.00%	\$ 5,077,232
	<u>\$115,396,935</u>	<u>1</u>		<u>\$ 10,435,363</u>

Assume \$2,000,000 shortfall in earnings

$$\begin{aligned} \text{Actual Return on Equity} &= \$3,358,131 / \$42,865,046 \\ &= 7.83\% \end{aligned}$$

Example 2

	Capitalization	Ratios	Cost Rates	Return Element in Dollars
Equity	\$52,701,780	0.4567	12.50%	\$ 6,587,723
Debt	\$62,695,155	0.5433	7.00%	\$ 4,388,661
	<u>\$115,396,935</u>	<u>1</u>		<u>\$ 10,976,383</u>

Assume \$2,000,000 shortfall in earnings

$$\begin{aligned} \text{Actual Return on Equity} &= \$4,587,723 / \$52,701,780 \\ &= 8.71\% \end{aligned}$$

Example 3

	Capitalization	Ratios	Cost Rates	Return Element in Dollars
Equity	\$115,396,935	1.0000	12.50%	\$ 14,424,617
Debt	\$0	0.0000	7.00%	\$ -
	<u>\$115,396,935</u>	<u>1</u>		<u>\$ 14,424,617</u>

Assume \$2,000,000 shortfall in earnings

$$\begin{aligned} \text{Actual Return on Equity} &= \$12,424,617 / \$115,396,935 \\ &= 10.77\% \end{aligned}$$

Exhibit MJB - 6
Henry Hub Index Prices

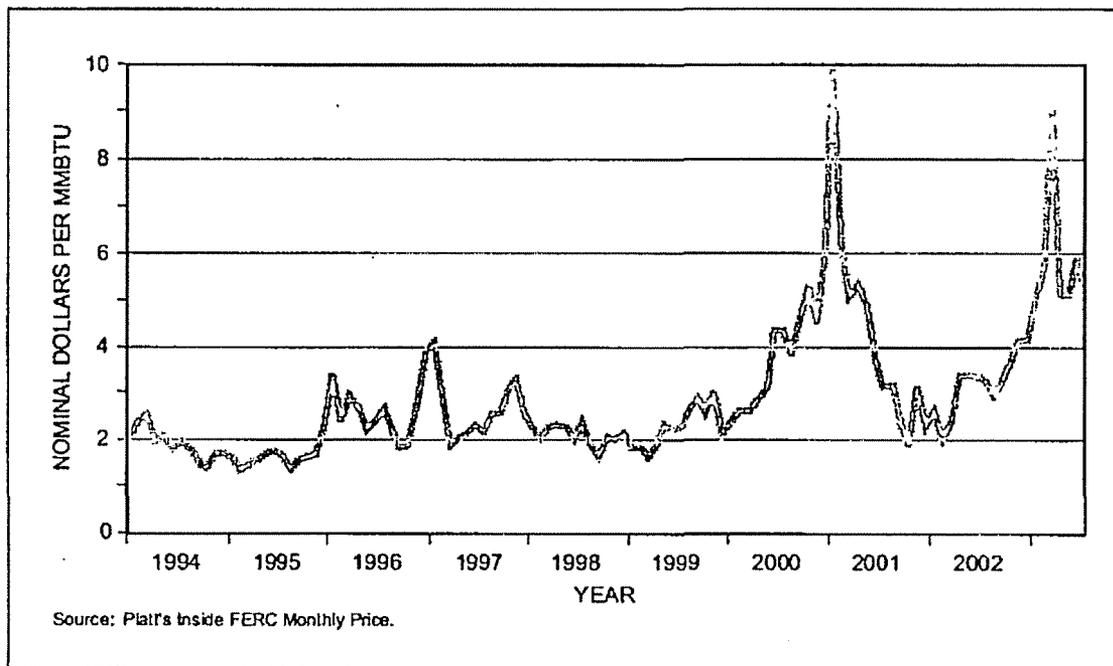


Figure 45. Henry Hub Monthly Index Prices

Source: Balancing Natural Gas Policy: Fueling the Demands of a Growing Economy, Volume 1, National Petroleum Council, September 2003

**Exhibit MJB - 7
Results of DCF Model
Delta Natural Gas Company**

		Variable Name
2003 Annual Dividend	1.18	D
High Price During 2003	24.1	P
Low Price During 2003	21	P
5 Year Forecasted Earnings Growth	0.065	g

Using the DCF formula: $ROE = D/P + g$

Based on the 2003 High Stock Price

$$ROE = (1.18 / 24.10) + .065 = 11.40\%$$

Based on the 2003 Low Stock Price

$$ROE = (1.18 / 21.00) + .065 = 12.12\%$$

Data Source:

The Value Line Investment Survey - Small and Mid-Cap Edition, Dec. 19, 2003

Exhibit MJB - 8
Results of the CAPM Analysis
Delta Natural Gas Company

		Variable Name	Data Source
20 - Year U. S. Treasury Bond Yield	5.10%	Rf	1
Long - Horizon Expected Equity Risk Premium for Large Companies	7.20%	Rm - Rf	2
Calculated Beta Coefficient for Delta Natural Gas	0.45	B	3
Micro-Cap Size Premium	4.01%		

Using the CAPM Formula: $ROE = Rf + B (Rm - Rf)$

CAPM Calculation

Initial ROE Estimate = $0.051 + 0.45 (0.072) =$ 8.3400%

ROE Estimate Including Micro-Cap Size Premium = 12.3500%

Data Sources:

1. December 31, 2003 Yield for 20-Year Treasury Constant Maturity Rate,
Federal Reserve Bank of St. Louis Economic Research
2. Risk Premium Over Time Report : 2004, Ibbotson Associates, 2004
3. The Value Line Investment Survey - Small and Mid-Cap Edition, Dec. 19, 2003

Exhibit MJB - 9
Results of the Risk Premium Analysis
Delta Natural Gas Company

		Data Source
20 - Year U. S. Treasury Bond Yield	5.11%	1
Long - Horizon Expected Equity Risk Premium for Large Companies	7.20%	2

Risk Premium Calculation

$$\text{ROE} = 0.0511 + 0.072 = 12.31\%$$

Data Sources:

1. 20-Year Treasury Constant Maturity, December 2003,
Federal Reserve Economic Data (FRED), Federal Reserve Bank of St. Louis
2. Risk Premium Over Time Report : 2004, Ibbotson Associates, 2004, p. 6

Exhibit JJB - 10

Summary of Edward Jones Report
 Natural Gas Distribution Companies Ranked By Interest Coverage

	12 Months Ending	Interest Coverage
New Jersey Resources, Inc.	9/30/2003	8.67
WGL Holdings, Inc.	8/30/2003	5.79
South Jersey Industries Inc.	8/30/2003	3.91
Peoples Energy Corp.	9/30/2003	3.88
RGC Resources, Inc.	8/30/2003	3.71
EnergySouth, Inc.	9/30/2003	3.59
Piedmont Natural Gas Company	7/30/2003	3.56
Northwest Natural Gas Company	9/30/2003	3.41
Laclede Gas Company	9/30/2003	2.98
Atmos Energy Corp.	8/30/2003	2.95
AGL Resources Inc.	9/30/2003	2.42
Delta Natural Gas Company	9/30/2003	2.36
Cascade Natural Gas Corp.	9/30/2003	2.07
South Union Company	8/30/2003	1.53
Energy West	9/30/2003	0.72
	Mean	3.44
	Median	3.41

Source: Natural Gas Industry Summary Monthly Financial & Common Stock Information, Edward Jones Co., 2003

Estimated Return on Equity for Edward Jones Panel of Natural Gas Distribution Companies

Company Data Source	Beta	Dividend	Growth	High	Low	Premium	DCF High	DCF Low	CAPM
	1	1	1	Stock Price 1	Stock Price 1	Size 2	DCF High	DCF Low	CAPM
AGL	0.75	\$ 1.11	6.50%	\$ 29.00	\$ 21.90	0.91%	11.57%	10.33%	11.41%
Atmos	0.65	\$ 1.20	7.50%	\$ 25.50	\$ 20.80	0.91%	13.27%	12.21%	10.69%
Cascade	0.70	\$ 0.96	4.50%	\$ 21.00	\$ 18.00	4.01%	9.83%	9.07%	14.15%
Energy South	0.50	\$ 1.14	4.50%	\$ 37.14	\$ 24.59	4.01%	9.14%	7.57%	12.71%
Energy West	0.40	\$ 0.41	-2.00%	\$ 9.00	\$ 4.74	4.01%	6.65%	2.56%	11.99%
Laclede	0.70	\$ 1.34	5.00%	\$ 29.90	\$ 21.80	1.70%	11.15%	9.48%	11.84%
New Jersey Resources	0.70	\$ 1.23	8.00%	\$ 39.30	\$ 30.00	0.91%	12.10%	11.13%	11.05%
Northwest Natural Gas	0.60	\$ 1.27	5.00%	\$ 30.80	\$ 24.00	1.70%	10.29%	9.12%	11.12%
Peoples	0.75	\$ 2.12	4.00%	\$ 45.30	\$ 34.90	0.91%	10.07%	8.68%	11.41%
Piedmont	0.70	\$ 1.66	7.50%	\$ 41.80	\$ 33.20	0.91%	12.50%	11.47%	11.05%
RGCC	0.50	\$ 1.14	-1.50%	\$ 20.75	\$ 16.99	4.01%	5.21%	3.99%	12.71%
South Jersey	0.55	\$ 1.56	6.50%	\$ 39.60	\$ 30.50	1.70%	11.61%	10.44%	10.76%
Southern Union	0.90	none							
WGL Holdings	0.70	\$ 1.28	4.00%	\$ 28.80	\$ 23.20	0.91%	9.52%	8.44%	11.05%
						High Range	13.27%	12.21%	14.15%
						Low Range	5.21%	2.56%	10.69%

Data Sources:

1. The Value Line Investment Survey - Small and Mid-Cap Edition, Dec. 19, 2003
2. Risk Premium Over Time Report : 2004, Ibbotson Associates, 2004

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

273. With reference to page 6, lines 1-9, please provide copies of all studies performed by Mr. Blake that compare Delta to industry norms in terms of size, payout ratio, interest coverage, equity ratio. Please provide the data used in the studies in hard copy and electronic formats (Microsoft Excel), with all data and equations left intact.

RESPONSE:

I used all of the companies classified as "Distribution" natural gas companies in the Natural Gas Industry Summary Quarterly Financial & Common Stock Information, December 31, 2006, published by Edward Jones Co. as the panel for analysis in my study. I did not attempt to make subjective decisions to eliminate natural gas utilities from this panel based on size, payout ratio, interest coverage, or equity ratio. Thus, in performing my analysis, studies regarding size, payout ratio, interest coverage, or equity ratio for natural gas companies were not needed and are not available. I wanted to use a panel that was developed by an independent third party so that I could not be accused of modifying the panel to achieve desired objectives.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

274. With reference to page 9, lines 14-17, please provide copies of all studies performed by Mr. Blake or others that support the statement regarding the assurance of earning a fair and reasonable rate of return.

RESPONSE:

My statement that a utility should be allowed to earn a rate of return that: 1) is comparable to alternative investment opportunities of corresponding risk, 2) will permit capital attraction on reasonable terms, and 3) will maintain a utility's financial integrity is based on my interpretation of the U.S. Supreme Court's rulings regarding return on shareholder equity in the *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia* and the *Federal Power Commission v. Hope Natural Gas Company* cases.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

275. With reference to page 11, lines 4-16, please provide copies of all empirical studies performed by Mr. Blake or others that demonstrate (1) the four issues raised by Mr. Blake are the actual reasons that Delta has been unable to earn its allowed rate of return, and (2) Delta's inability to control costs was not the reason that the Company was unable to earn its allowed rate of return.

RESPONSE:

I did not do an empirical study to show that these four are the only causes of Delta's under-earning. In my testimony I stated that I believed that these four factors were a part of the reason why Delta was under-earning. This statement was based on my experience as a regulator, a utility executive and as a consultant working with a wide range of investor owned utilities. A failure to adequately control expenses could result in a utility being unable to earn its allowed rate of return. However, I do not believe that this is the case for Delta. It is important to note that, in prior rate cases, the Commission has never indicated that Delta's failure to control expenses is a problem. Furthermore, Delta has under-earned in all of the years immediately following a rate case for the last ten years. The year immediately following a rate case is when the utility should have the highest probability of earning its allowed rate of return. That this has not happened in ten years indicates a more fundamental problem to me, and I have described why I believe that Delta has been under-earning in my testimony.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

276. With reference to page 11, lines 17-27, please provide copies of all materials used by Mr. Blake and published by Edward Jones.

RESPONSE:

The requested data is attached.

Responsible Witness:

Martin J. Blake

Edward Jones

Financial Information Sorted Alphabetically

DISTRIBUTION		12 MOS ENDING	TOTAL CAP (000)	S-T DEBT (000)	PCT EQUITY	EPS	PCT CHG	DIV RATE	PCT CHG	ROE	DIVIDEND PAYOUT	BOOK YIELD	INTEREST COVERAGE
1	AGL RESOURCES, INC.	09/30/06	3,252,000	441,000	49	2.97	30.3	1.48	19.4	15.2	50	7.3	4.29
2	ATMOS ENERGY CORPORATION	09/30/06	3,828,460	385,602	43	2.00	16.3	1.28	1.6	9.1	63	6.2	2.77
3	CASCADE NATURAL GAS CORP.	09/30/06	287,250	8,000	43	1.09	32.9	0.96	0.0	10.4	88	9.0	2.60
4	DELTA NATURAL GAS COMPANY INC.	09/30/06	109,995	15,772	47	1.72	0.0	1.22	1.7	10.1	71	7.8	2.56
5	ENERGY WEST	09/30/06	36,276	3,981	52	0.92	22.7	0.48	NMF	15.5	52	7.5	2.91
6	ENERGYSOUTH, INC.	09/30/06	188,245	10,919	59	1.76	1.1	0.92	7.0	13.1	62	6.8	5.08
7	LACLEDE GROUP (THE)	09/30/06	798,865	207,459	50	2.30	21.1	1.42	2.9	12.7	62	7.5	2.85
8	NEW JERSEY RESOURCES CORP.	09/30/06	953,994	284,439	65	2.80	5.7	1.44	5.9	14.8	51	6.4	5.71
9	NORTHWEST NATURAL GAS COMPANY	09/30/06	1,084,443	132,800	55	2.13	0.0	1.38	6.2	10.2	65	6.4	3.35
10	PEOPLES ENERGY CORPORATION	09/30/06	1,736,156	309,744	48	1.14	(41.8)	2.18	0.0	(2.2)	191	10.0	0.25
11	PIEDMONT NATURAL GAS CO., INC.	07/31/06	1,727,021	102,500	52	1.28	(3.0)	0.98	4.3	10.9	75	8.0	3.63
12	RGC RESOURCES, INC.	09/30/06	70,495	6,613	57	1.54	2.0	1.20	1.7	8.9	78	6.4	3.18
13	SEMCO ENERGY, INC.	09/30/06	693,530	32,500	30	0.22	(31.3)	0.60	0.0	4.8	NMF	0.0	1.42
14	SOUTH JERSEY INDUSTRIES, INC.	09/30/06	791,191	177,947	55	1.66	(9.3)	0.90	5.9	11.9	54	6.1	4.78
15	WGL HOLDINGS, INC.	09/30/06	1,471,760	95,630	63	1.94	(10.2)	1.35	1.5	9.7	70	7.2	4.12
	MAXIMUM		441,000	441,000	65	32.9	32.9	19.4	19.4	15.5	191	10.0	5.71
	MINIMUM		3,981	3,981	30	(41.8)	(41.8)	0.0	0.0	(2.2)	50	0.0	0.25
	MEDIAN		102,500	102,500	52	1.1	1.1	2.3	2.3	10.4	64	7.2	3.18
	MEAN		147,661	147,661	51	2.4	2.4	4.1	4.1	10.3	73	6.8	3.26

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

277. With reference to page 11, lines 17-27, please provide copies of all empirical studies performed by Mr. Blake which demonstrate whether Delta uses more or less short-term debt than the other gas companies covered by Edward Jones.

RESPONSE:

The data provided in response to item 276 from Natural Gas Industry Summary Quarterly Financial & Common Stock Information, December 31, 2006, published by Edward Jones Co. shows that the median short term debt for the panel was \$102.5 million, and the mean short term debt for the panel was \$147.661 million. Delta's short term debt as reported by Edward Jones was \$15.772 million. Delta was the fifth lowest in the panel with regard to its short term debt.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

278. With reference to page 13, lines 8-14, please provide copies of all empirical studies performed by Mr. Blake which demonstrate that, for gas distribution companies, having a low equity ratio results in a lower earned return and an inability to earn its allowed return.

RESPONSE:

The analysis that I developed to help demonstrate that a lower level of equity could adversely affect a utility's ability to earn its allowed rate of return is contained on pages 14 to 16 of my testimony with the calculations supporting this narrative contained in Exhibit MJB-5. Not only is this low level of equity a factor that could easily result in Delta not earning its allowed rate of return, but it would impact any other utility with a low level of equity in a similar manner.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

279. With reference to page 15, lines 9-27, please provide copies of all empirical studies performed by Mr. Blake or others which demonstrate that gas companies which serve predominantly rural customers (1) earn lower returns and (2) are riskier, than other gas companies.

RESPONSE:

This statement was not based on a study and there is no study that I am aware of that shows this. This statement was based on my observations from working with other natural gas companies that have a more urban customer base compared to Delta. Additionally, this is not a key assumption in supporting my recommendation regarding the return on equity that Delta should be allowed to earn in this proceeding. I was sharing an observation with the Commission to help them understand why Delta may not be like other natural gas companies that the Commission regulates.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

280. With reference to page 16, lines 3-8, please provide copies of all empirical studies performed by Mr. Blake that Delta's business risk is influenced by its service territory.

RESPONSE:

I have not performed any studies regarding the link between Delta's service territory and its business risk. The statements that I made in my testimony were based on my observations from working with other natural gas companies that have a more urban customer base compared to Delta. Additionally, the risk that may result from Delta's more rural service territory is not a key assumption in supporting my recommendation regarding the return on equity that Delta should be allowed to earn in this proceeding. I was sharing an observation with the Commission to help them understand why Delta may not be like other natural gas companies that the Commission regulates.

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

281. With reference to pages 21-22, please (1) list all regulatory cases (by name, docket number, and filing date) in which Mr. Blake has provided rate of return testimony and proposed his market value – book value capitalization adjustment , (2) indicate all cases (by name, docket number, and date) in which a regulatory commission has adopted Mr. Blake's market value – book value capitalization adjustment in arriving at an overall rate of return, and (3) provide copies of the 'Rate of Return' section of the Commission's decisions for all cases in which a regulatory commission has adopted the adjustment.

RESPONSE:

This is the first case that I have made this argument. Although I had been concerned about the paradox that resulted from standard DCF calculations and their application to book value for some time, I only resolved this paradox to my satisfaction recently. The paradox is that when using a standard DCF calculation, a higher stock price results in a lower return on equity estimate. The DCF calculations that are typically made and the way that they are applied to book value implies that an investor would pay more for an investment that yielded a lower return than he would for one that yielded a higher return, and that just does not make sense.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

282. With reference to pages 21-22, please (1) list all regulatory cases (by name, docket number, and filing date) in which Mr. Blake supported a market value – book value capitalization adjustment to a DCF equity cost rate while a Commissioner of the New Mexico Public Service Commission, (2) provide copies of the ‘Rate of Return’ section of the Commission’s decisions for all cases in Mr. Blake supported a market value – book value capitalization adjustment to a DCF equity cost rate while a Commissioner of the New Mexico Public Service Commission.

RESPONSE:

As a Commissioner, I did not “support” arguments. I adopted arguments made by parties who pleaded cases before my Commission that I thought were fair and reasonable. This may sound like quibbling but it is an important distinction to me. In my time as a Commissioner, I had never seen the argument presented to me that I am presenting in this proceeding. Until I started estimating returns on equity using the standard DCF approach, the paradox that I note in my testimony never occurred to me. However, once you start making these calculations, the paradox is evident. The paradox is that when using a standard DCF calculation, a higher stock price results in a lower return on equity estimate. The DCF calculations that are typically made and the way that they are applied to book value implies that an investor would pay more for an investment that yielded a lower return than he would for one that yielded a higher return, and that just does not make sense. I believe that I have resolved this paradox to my satisfaction in my testimony.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

283. With reference to pages 21-22, please (1) list all regulatory cases (by name, docket number, and filing date) which Mr. Blake is aware of in which a regulatory commission has adopted a market value – book value capitalization adjustment computed in the same manner as Mr. Blake's in arriving at an overall rate of return, and (2) provide copies of the 'Rate of Return' section of the Commission's decisions for all such cases in which a regulatory commission has adopted the adjustment.

RESPONSE:

I did not research if other regulatory commissions had either been presented or had adopted the arguments that I am making in my testimony regarding the proper application of the estimated return on equity calculated using the standard DCF approach. I am not aware if any other regulatory commission has adopted this type of analysis. I included this explanation of how I believe the returns on equity calculated using standard DCF should be applied because it resolved a paradox that had concerned me in other cases; namely how could a higher stock price properly result in a lower return on equity estimate. The calculations that are typically made and the way that they are applied to book value implies that an investor would pay more for an investment that yielded a lower return than he would for one that yielded a higher return, and that just does not make sense.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

284. With reference to page 25, lines 8-30, please provide copies of all relevant sections of all materials published by Ibbotson Associates which are used by Mr. Blake.

RESPONSE:

A copy of the page containing the data that I used in my analysis from the Risk Premium Over Time Report : 2006 that is published by Ibbotson Associates is contained in Exhibit MJB-6 in my Direct Testimony.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

285. With reference to page 29, please provide copies of all data and source documents used in the construction of Exhibits MJB-14 and MJB-15. Please provide the data used in the Exhibits in hard copy and electronic formats (Microsoft Excel), with all data and equations left intact.

RESPONSE:

All of the data used to construct Exhibits MJB-14 and MJB-15 were obtained from The Value Line Investment Survey - Sep. 15, 2006 and from Risk Premium Over Time Report : 2006, Ibbotson Associates, 2006. Copies of the Value Line data are contained in Exhibit MJB-16 in my Direct Testimony and a copy of the page containing the data from the Risk Premium Over Time Report : 2006 is contained in Exhibit MJB-6 in my Direct Testimony.

Responsible Witness:

Martin J. Blake

AGL RESOURCES NYSE-ATG				RECENT PRICE	P/E RATIO	Trailing: 13.3 Median: 14.0	RELATIVE P/E RATIO	DIVID YLD	VALUE LINE									
35.97 14.2				21.6	14.9	22.0	23.4	23.4	24.5	25.0	29.3	33.7	39.3	40.0	40.0	42.0%	Target Price Range 2009 2010 2011	
TIMELINESS	4	Lowered 8/11/06	High: 20.0 Low: 14.0	22.0 17.1	21.6 17.8	23.4 17.7	23.4 15.6	23.2 15.5	24.5 19.0	25.0 17.3	29.3 21.9	33.7 26.5	39.3 32.0	40.0 34.4			128	
SAFETY	2	New 7/27/00	LEGENDS 1.15x Dividends p sh divided by Interest Rate Relative Price Strength 2-Apr-1 split 12/95 Options: Yes Shaded area indicates recession															
TECHNICAL	3	Lowered 9/1/06	2009-11 PROJECTIONS Price Gain Ann'l Total High 50 (+40%) 12% Low 40 (+10%) 7%															
BETA	.95	(1.00 = Market)	Insider Decisions O N D J F M A M J to Buy 0 0 0 0 0 0 0 0 0 to Sell 1 2 1 0 1 1 0 0 0															
2009-11 PROJECTIONS Price Gain Ann'l Total High 50 (+40%) 12% Low 40 (+10%) 7%				Institutional Decisions 4Q2005 1Q2006 2Q2006 to Buy 109 110 95 to Sell 88 83 102 Net Buy 21 27 -7														
MARKET CAP: \$2.8 billion (Mid Cap)				PERCENT SHARES TRADED 12 8 4														
CAPITAL STRUCTURE as of 6/30/06 Total Debt 2087.0 mill. Due in 5 Yrs \$530.0 mill. LT Debt \$1632.0 mill. LT Interest \$100.0 mill.				1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007														
MARKET CAP: \$2.8 billion (Mid Cap)				2008 2009 2010 2011														
CURRENT POSITION (\$MILL) Cash Assets 49.0 30.0 37.0 Other 1408.0 2002.0 1471.0 Current Assets 1457.0 2032.0 1508.0 Accts Payable 207.0 264.0 566.0 Debt Due 334.0 522.0 455.0 Other 936.0 1153.0 329.0 Current Liab. 1477.0 1930.0 1360.0 Fix. Chg. Cov. 510% 442% 470%				BUSINESS: AGL Resources, Inc. is a public utility holding company. Its distribution subsidiaries are Atlanta Gas Light, Chattanooga Gas, and Virginia Natural Gas. The utilities have more than 2.2 million customers in Georgia (primarily Atlanta), Virginia, and in southern Tennessee. Also engaged in nonregulated natural gas marketing and other, allied services. Also wholesales and retails propane. Nonregulated subsidiaries: Georgia Natural Gas Services markets natural gas at retail. Acq. Virginia Natural Gas, 10/00. Sold Utilipro, 3/01. Off/dlr. own less than 1.0% of common; Goldman Sachs, 5.5%; JPMorgan, 5.9% (3/08 Proxy). Pres. & CEO: John W. Somershalder II, Inc.: GA. Addr.: 10 Peachtree Place N.E., Atlanta, GA 30308. Tel.: 404-584-4000. Internet: www.aglresources.com.														
ANNUAL RATES Past Past Est'd '03-'05 of change (per sh) 10 Yrs. 5 Yrs. to '09-'11 Revenues 1.0% 7.0% 7.5% "Cash Flow" 5.0% 7.0% 5.0% Earnings 6.5% 13.5% 4.5% Dividends 1.5% 2.0% 6.5% Book Value 5.5% 8.5% 6.0%				AGL Resources utility business performed well despite warmer-than-normal temperatures and conservation by customers. Earnings before interest and taxes increased \$7 million versus the year-ago period, driven by a \$6 million decrease in operating expenses. This can be attributed to last year's workforce and facilities restructuring programs. Also, operation and maintenance expenses per customer throughout AGL's distribution segment decreased 9% over the first six months of 2006. However, these results were offset by a lackluster performance at SouthStar, which markets natural gas and related services to retail customers on an unregulated basis, where results were also impacted by lower customer usage and higher bad debt expense. Virginia Natural Gas (VNG) has accepted a modified performance-based rate plan. As part of the deal, VNG will freeze its base rates for five years; construct a pipeline to connect its northern and southern systems, which is expected to cost about \$48 million to \$60 million; and will be allowed to file for a permanent weather normalization plan. Also, Chattanooga Gas filed for a \$5.8 million rate increase with the Tennessee Regulatory Authority to cover rising costs of financing its operations and lower consumption of natural gas. The proposal includes a plan to better align its interest with customers, by adjusting rates annually based on actual consumption versus an assumed level. We think Chattanooga will receive some, if not all, of the rate increase, which should provide a boost to earnings. AGL's expansion of its Jefferson Island storage facility has hit a road block. In early August, the Louisiana Department of Natural Resources terminated the company's mineral lease due to the timing of leasehold payments and a lack of mining activity on the site for six months. Even so, the company remains committed to resolving these issues and getting the project completed, which will increase working gas capacity, along with revenues. This neutrally ranked stock has worthwhile total return potential, thanks partly to dividend growth prospects. The good-quality shares are safe and steady, but not overly enticing. <i>Evan I. Blatter</i> September 15, 2006														
QUARTERLY REVENUES (\$ mill.)^A Cal-ender Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2003 352.5 186.6 166.3 278.3 983.7 2004 651.0 294.0 262.0 625.0 1832.0 2005 908.0 430.0 387.0 993.0 2718.0 2006 1047.0 436.0 405 882 2770 2007 970 480 465 900 2815				AGL Resources utility business performed well despite warmer-than-normal temperatures and conservation by customers. Earnings before interest and taxes increased \$7 million versus the year-ago period, driven by a \$6 million decrease in operating expenses. This can be attributed to last year's workforce and facilities restructuring programs. Also, operation and maintenance expenses per customer throughout AGL's distribution segment decreased 9% over the first six months of 2006. However, these results were offset by a lackluster performance at SouthStar, which markets natural gas and related services to retail customers on an unregulated basis, where results were also impacted by lower customer usage and higher bad debt expense. Virginia Natural Gas (VNG) has accepted a modified performance-based rate plan. As part of the deal, VNG will freeze its base rates for five years; construct a pipeline to connect its northern and southern systems, which is expected to cost about \$48 million to \$60 million; and will be allowed to file for a permanent weather normalization plan. Also, Chattanooga Gas filed for a \$5.8 million rate increase with the Tennessee Regulatory Authority to cover rising costs of financing its operations and lower consumption of natural gas. The proposal includes a plan to better align its interest with customers, by adjusting rates annually based on actual consumption versus an assumed level. We think Chattanooga will receive some, if not all, of the rate increase, which should provide a boost to earnings. AGL's expansion of its Jefferson Island storage facility has hit a road block. In early August, the Louisiana Department of Natural Resources terminated the company's mineral lease due to the timing of leasehold payments and a lack of mining activity on the site for six months. Even so, the company remains committed to resolving these issues and getting the project completed, which will increase working gas capacity, along with revenues. This neutrally ranked stock has worthwhile total return potential, thanks partly to dividend growth prospects. The good-quality shares are safe and steady, but not overly enticing. <i>Evan I. Blatter</i> September 15, 2006														
EARNINGS PER SHARE^B Cal-ender Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2003 .98 .29 .27 .54 2.08 2004 1.00 .33 .31 .64 2.28 2005 1.14 .30 .19 .85 2.48 2006 1.41 .25 .27 .72 2.65 2007 1.30 .37 .29 .74 2.70				AGL Resources utility business performed well despite warmer-than-normal temperatures and conservation by customers. Earnings before interest and taxes increased \$7 million versus the year-ago period, driven by a \$6 million decrease in operating expenses. This can be attributed to last year's workforce and facilities restructuring programs. Also, operation and maintenance expenses per customer throughout AGL's distribution segment decreased 9% over the first six months of 2006. However, these results were offset by a lackluster performance at SouthStar, which markets natural gas and related services to retail customers on an unregulated basis, where results were also impacted by lower customer usage and higher bad debt expense. Virginia Natural Gas (VNG) has accepted a modified performance-based rate plan. As part of the deal, VNG will freeze its base rates for five years; construct a pipeline to connect its northern and southern systems, which is expected to cost about \$48 million to \$60 million; and will be allowed to file for a permanent weather normalization plan. Also, Chattanooga Gas filed for a \$5.8 million rate increase with the Tennessee Regulatory Authority to cover rising costs of financing its operations and lower consumption of natural gas. The proposal includes a plan to better align its interest with customers, by adjusting rates annually based on actual consumption versus an assumed level. We think Chattanooga will receive some, if not all, of the rate increase, which should provide a boost to earnings. AGL's expansion of its Jefferson Island storage facility has hit a road block. In early August, the Louisiana Department of Natural Resources terminated the company's mineral lease due to the timing of leasehold payments and a lack of mining activity on the site for six months. Even so, the company remains committed to resolving these issues and getting the project completed, which will increase working gas capacity, along with revenues. This neutrally ranked stock has worthwhile total return potential, thanks partly to dividend growth prospects. The good-quality shares are safe and steady, but not overly enticing. <i>Evan I. Blatter</i> September 15, 2006														
QUARTERLY DIVIDENDS PAID^C Cal-ender Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2002 .27 .27 .27 .27 1.08 2003 .27 .28 .28 .28 1.11 2004 .28 .29 .29 .29 1.15 2005 .31 .31 .31 .31 1.30 2006 .37 .37 .37 .37				AGL Resources utility business performed well despite warmer-than-normal temperatures and conservation by customers. Earnings before interest and taxes increased \$7 million versus the year-ago period, driven by a \$6 million decrease in operating expenses. This can be attributed to last year's workforce and facilities restructuring programs. Also, operation and maintenance expenses per customer throughout AGL's distribution segment decreased 9% over the first six months of 2006. However, these results were offset by a lackluster performance at SouthStar, which markets natural gas and related services to retail customers on an unregulated basis, where results were also impacted by lower customer usage and higher bad debt expense. Virginia Natural Gas (VNG) has accepted a modified performance-based rate plan. As part of the deal, VNG will freeze its base rates for five years; construct a pipeline to connect its northern and southern systems, which is expected to cost about \$48 million to \$60 million; and will be allowed to file for a permanent weather normalization plan. Also, Chattanooga Gas filed for a \$5.8 million rate increase with the Tennessee Regulatory Authority to cover rising costs of financing its operations and lower consumption of natural gas. The proposal includes a plan to better align its interest with customers, by adjusting rates annually based on actual consumption versus an assumed level. We think Chattanooga will receive some, if not all, of the rate increase, which should provide a boost to earnings. AGL's expansion of its Jefferson Island storage facility has hit a road block. In early August, the Louisiana Department of Natural Resources terminated the company's mineral lease due to the timing of leasehold payments and a lack of mining activity on the site for six months. Even so, the company remains committed to resolving these issues and getting the project completed, which will increase working gas capacity, along with revenues. This neutrally ranked stock has worthwhile total return potential, thanks partly to dividend growth prospects. The good-quality shares are safe and steady, but not overly enticing. <i>Evan I. Blatter</i> September 15, 2006														
(\$0.13; '01, \$0.13; '03, \$0.07. Next earnings report due late Oct. (C) Dividends historically paid early March, June, Sept, and Dec. = Div'd reinvest plan				available (D) Includes Intangibles. In 2005: \$422 million, \$5.43/share. (E) In millions, adjusted for stock split.														
(A) Fiscal year ends December 31st. Ended September 30th prior to 2002. (B) Diluted earnings per share. Excl. nonrecurring gains (losses): '95, \$0.83; '99, \$0.39; '00, \$0.39.				Company's Financial Strength B++ Stock's Price Stability 95 Price Growth Persistence 70 Earnings Predictability 75														
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To subscribe call 1-800-833-0046.																		

ATMOS ENERGY CORP. NYSE-ATO

RECENT PRICE **28.36** P/E RATIO **15.6** (Trailing: 18.3 Median: 16.0) RELATIVE P/E RATIO **0.92** DIV YLD **4.5%** VALUE LINE

TMELINESS 3 Raised 7/28/06 SAFETY 2 Raised 12/18/05 TECHNICAL 2 Raised 8/18/06 BETA 75 (1.00 = Market)	High: 23.0 31.0 30.5 32.3 33.0 28.3 25.8 24.5 25.5 27.6 30.0 29.3 Low: 16.1 20.9 22.1 24.8 19.6 14.3 19.5 17.6 20.8 23.4 25.0 25.5	LEGENDS 1.25 x Dividends p sh divided by Interest Rate Relative Price Strength 3-for-2 split 5/94 Options: No Shaded area indicates recession	Target Price Range 2009 2010 2011 64 48 32 24 16 8 6	
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2009-11 PROJECTIONS		Ann'l Total	
18m High	35.30	Gain (+23%)	70%
Low	30.00	Return (+5%)	6%

Insider Decisions		Institutional Decisions	
to Buy	0 0 0 0 0 0 0 0	4Q2004	102904 203904
to Sell	0 0 0 0 0 0 0 0	in Buy	93 89 102
to Hold	1 0 1 0 0 0 1 0	to Sell	91 84 67
		to Buy	43022 46004 46293

Percent		Shares	
12	8	4	4

Atmos Energy's history dates back to 1906 in the Texas Panhandle. Over the years, through various mergers, it became part of Pioneer Corporation, and, in 1981, Pioneer named its gas distribution division Energas. In 1983, Pioneer organized Energas as a separate subsidiary and distributed the outstanding shares of Energas to Pioneer shareholders. Energas changed its name to Atmos in 1988. Atmos acquired Trans Louisiana Gas in 1986, Western Kentucky Gas Utility in 1987, Greeley Gas in 1993, United Cities Gas in 1997, and others.													
Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	09-11
Revenues per sh	30.19	30.59	27.90	22.09	26.61	35.36	22.82	54.39	46.50	61.75	76.60	79.75	105.00
"Cash Flow" per sh	2.80	2.85	3.38	2.62	3.01	3.03	3.39	3.23	2.91	3.90	4.05	4.30	5.30
Earnings per sh	1.51	1.34	1.84	1.10	1.03	1.47	1.45	1.71	1.58	1.72	1.80	1.80	2.50
Div'ds Decl'd per sh	.96	1.01	1.06	1.10	1.14	1.18	1.18	1.20	1.22	1.24	1.26	1.28	1.33
Cap'l Spending per sh	4.84	4.13	4.44	3.53	2.36	2.77	3.17	3.10	3.03	4.14	5.00	5.90	7.30
Book Value per sh	10.75	11.04	12.21	12.09	12.28	14.31	13.75	16.66	18.05	19.90	20.45	21.50	24.10
Common Shs Outst'g	16.02	29.64	30.40	31.25	31.95	40.79	41.68	51.48	62.80	80.54	82.00	84.00	100.00
Avg Ann'l P/E Ratio	15.1	17.9	15.4	33.0	18.9	15.6	15.2	13.4	15.9	16.1	16.1	16.1	13.0
Relative P/E Ratio	.95	1.03	.80	1.88	1.23	.80	.83	.76	.84	.84	.84	.84	.85
Avg Ann'l Div'd Yield	4.2%	4.2%	3.7%	4.1%	5.9%	5.1%	5.4%	5.2%	4.9%	4.5%	4.5%	4.5%	4.2%
Revenues (\$mil)	483.7	906.8	848.2	690.2	850.2	1442.3	950.8	2799.9	2920.0	4973.3	6280	6700	10500
Net Profit (\$mil)	23.9	39.2	55.3	25.0	32.2	56.1	59.7	79.5	86.2	135.8	150	165	250
Income Tax Rate	35.7%	37.5%	36.5%	35.0%	36.1%	37.3%	37.1%	37.1%	37.4%	37.7%	37.5%	37.5%	38.0%
Net Profit Margin	5.0%	4.3%	6.5%	3.6%	3.8%	3.8%	2.8%	2.8%	3.0%	2.7%	2.4%	2.5%	2.3%
Long-Term Debt Ratio	41.5%	48.1%	51.8%	50.0%	48.1%	54.3%	53.9%	50.2%	43.2%	57.7%	57.0%	57.0%	55.0%
Common Equity Ratio	58.5%	51.9%	48.2%	50.0%	51.9%	45.7%	46.1%	49.8%	56.8%	42.3%	43.0%	43.0%	45.0%
Total Capital (\$mil)	294.6	630.2	769.7	755.1	755.7	1276.3	1243.7	1721.4	1994.8	3785.5	3900	4200	5350
Net Plant (\$mil)	413.6	849.1	917.9	965.8	982.3	1335.4	1300.3	1518.0	1722.5	3374.4	3675	3975	5000
Return on Total Cap'l	10.6%	8.3%	9.0%	6.6%	6.5%	5.9%	6.8%	6.2%	5.8%	5.3%	5.5%	5.5%	6.5%
Return on Shr. Equity	13.9%	12.0%	14.9%	6.6%	8.2%	9.6%	10.4%	9.3%	7.6%	8.5%	9.0%	9.0%	10.5%
Return on Com Eq	13.9%	12.0%	14.9%	6.6%	8.2%	9.6%	10.4%	9.3%	7.6%	8.5%	9.0%	9.0%	10.5%
Retained to Com Eq	5.1%	3.9%	6.3%	NMF	NMF	2.1%	1.9%	2.8%	1.7%	2.3%	3.0%	3.0%	5.0%
All Div'ds to Net Prof	64%	67%	58%	NMF	112%	79%	82%	70%	77%	73%	69%	65%	54%

CAPITAL STRUCTURE as of 6/30/06	
Total Debt	\$2481.2 mill. Due in 5 Yrs \$860.0 mill.
LT Debt	\$2180.8 mill. LT Interest \$135.0 mill.
(LT Interest earned: 2.7x; total interest coverage: 2.6x)	
Leases, Uncapitalized Annual rentals	\$15.3 mill.
Pfd Stock	None
Pension Assets-9/05	\$359.9 mill Oblig. \$359.9 mill.
Common Stock	81,595,723 shs. as of 7/31/06
MARKET CAP:	\$2.3 billion (Mid Cap)

CURRENT POSITION		2004	2005	6/30/06
(\$MILL)				
Cash Assets	201.9	40.1	26.8	
Other	475.2	1224.3	1023.4	
Current Assets	677.7	1264.4	1050.2	
Accts Payable	185.3	461.3	306.8	
Debt Due	6.3	148.1	300.4	
Other	223.3	503.4	407.6	
Current Liab.	414.5	1112.8	1014.8	
Fix. Chg. Cov.	384%	395%	400%	

ANNUAL RATES		Past 10 Yrs	Past 5 Yrs	Est'd '03-'05 to '09-'11
of change (per sh)				
Revenues	6.0%	16.5%	11.5%	
"Cash Flow"	3.5%	2.0%	8.0%	
Earnings	4.0%	6.5%	7.0%	
Dividends	3.0%	2.0%	2.0%	
Book Value	6.5%	8.5%	5.0%	

QUARTERLY REVENUES (\$ mil)		Full Fiscal Year	
Fiscal Year Ends	Dec.31 Mar.31 Jun.30 Sep.30		
2003	680.4 1184.1 488.5 436.9	2799.9	
2004	763.6 1117.5 546.1 492.8	2820.0	
2005	1371.0 1687.8 909.9 1004.6	4973.3	
2006	2283.8 2033.8 863.2 1099.2	6280	
2007	1675 1675 1675 1675	6700	

EARNINGS PER SHARE		Full Fiscal Year	
Fiscal Year Ends	Dec.31 Mar.31 Jun.30 Sep.30		
2003	.60 1.24 -- d.05	1.71	
2004	.57 1.12 .09 d.11	1.58	
2005	.79 1.11 .06 d.21	1.72	
2006	.88 1.10 d.22 .04	1.80	
2007	.85 1.15 .08 d.13	1.95	

QUARTERLY DIVIDENDS PAID		Full Year	
Calendar	Mar.31 Jun.30 Sep.30 Dec.31		
2002	.295 .295 .295 .30	1.19	
2003	.30 .30 .30 .305	1.21	
2004	.305 .305 .305 .31	1.23	
2005	.31 .31 .31 .315	1.25	
2006	.315 .315 .315		

It appears that Atmos Energy's earnings per share increased around 5%, to \$1.80, in fiscal 2006 (ends September 30th). Within the non-utility division, the marketing segment benefited greatly from strategies to capture favorable arbitrage spreads created by natural gas volatility. But the performance of the utility operation was hampered by warmer temperatures, which especially affected the Mid-Tex and Louisiana units because they did not have a weather-normalized rate structure during that time. (Combined, these units account for over 60% of the customer base.) Also, we estimate that the after-effects of Hurricane Katrina reduced share net by about \$0.10.

We believe that the bottom line will advance about 8%, to \$1.95 a share, in fiscal 2007, assuming further expansion in operating margins. And it is important to note that weather-normalized rates will be effective for the Mid-Tex operation beginning October 1st. Moreover, a rate design calling for a partial decoupling from the impact of unfavorable temperatures will take effect for the Louisiana unit on December 1st. With these moves, some

90% of the utility's margins are protected by weather-normalization adjustments (versus about 33% previously). Atmos looks poised to register steady, if measured, bottom-line increases over the 2009-2011 period. With the utility division now serving 3.2 million customers across 12 states, the company is not dependent on the economic climate in any one region of the country. Furthermore, the non-utility segments, particularly pipelines, have decent expansion prospects. In the present corporate configuration, share net ought to grow around 8% annually over the 3- to 5-year horizon. These good-quality shares offer a healthy dose of dividend income. Prospects for additional increases in the distribution seem reasonable, too, as supported by our favorable 2009-2011 projections for Atmos Energy. But long-term total-return potential is not spectacular, as capital appreciation possibilities are limited at the current quotation. Also, the equity is ranked to perform only in line with the market in the year ahead.

Frederick L. Harris, III September 15, 2006

(A) Fiscal year ends Sept. 30th. (B) Diluted shs. Excl. nonrec. items: '97, d534; '99, d234; '00, 124; '03, d174. Next egs. rpt. due early Nov. (C) Dividends historically paid in early March, June, Sept., and Dec. Div. reinvestment plan. Direct stock purchase plan avail. (D) In millions, adjusted for stock splits. (E) Qtrs may not add due to change in shrs. (F) ATO completed United Cities merger 7/97.	Company's Financial Strength Stock's Price Stability Price Growth Persistence Earnings Predictability	B+ 100 30 65
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DELTA NAT. GAS		NDQ-DGAS		RECENT PRICE	25.26	TRAILING P/E RATIO	16.1	RELATIVE P/E RATIO	0.80	DIV'D YLD	4.8%	VALUE LINE
PERFORMANCE 3 Average		19.25	19.00	19.62	20.99	23.08	24.10	28.75	30.00	26.82	High	45
Technical 2 Above Average		16.44	14.13	13.63	17.69	18.50	21.00	22.02	23.60	24.11	Low	30
SAFETY 2 Above Average		LEGENDS — 12 Mos Mov Avg ... Rel Price Strength Shaded area indicates recession										
BETA 55 (1.00 = Market)		VOL (thous.)										
Financial Strength B+		90										
Price Stability 95		6										
Price Growth Persistence 50		4										
Earnings Predictability 65		3										
© VALUE LINE PUBLISHING, INC.		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007/2008	
SALES PER SH		18.64	16.02	18.68	28.36	22.11	21.59	24.74	28.06	36.01		
"CASH FLOW" PER SH		2.61	2.52	3.27	3.08	3.16	2.65	2.65	2.86	2.94		
EARNINGS PER SH		1.04	.90	1.42	1.47	1.45	1.49	1.20	1.55	1.55	1.50 ^A /1.50 ^C	
DIV'DS DECL'D PER SH		1.14	1.14	1.14	1.14	1.16	1.18	1.18	1.18	1.20		
CAP'L SPENDING PER SH		4.71	3.31	3.58	2.83	3.72	2.90	2.80	1.65	2.39		
BOOK VALUE PER SH		12.55	12.39	12.73	13.12	13.51	14.49	15.26	15.73	16.16		
COMMON SHS OUTST'G (MILL)		2.38	2.41	2.46	2.50	2.53	3.17	3.20	3.23	3.26		
AVG ANNL P/E RATIO		16.9	19.5	10.9	12.3	14.1	14.5	20.1	16.8	16.9	16.8/16.8	
RELATIVE P/E RATIO		.88	1.11	.71	.63	.77	.83	1.08	.89	.91		
AVG ANNL DIV'D YIELD		6.5%	6.5%	7.3%	6.3%	5.7%	5.5%	4.9%	4.5%	4.6%		
SALES (\$MILL)		44.3	38.7	45.9	70.8	55.9	68.4	79.2	84.2	117.3		<i>Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.</i>
OPERATING MARGIN		29.6%	34.0%	34.9%	23.2%	29.3%	24.7%	21.2%	21.9%	16.2%		
DEPRECIATION (\$MILL)		3.8	3.9	4.6	4.0	4.4	4.5	4.7	4.3	4.6		
NET PROFIT (\$MILL)		2.5	2.2	3.5	3.6	3.6	3.9	3.8	5.0	5.0		
INCOME TAX RATE		36.4%	36.6%	37.4%	38.0%	38.2%	38.0%	38.1%	38.3%	36.6%		
NET PROFIT MARGIN		5.5%	5.6%	7.5%	5.1%	6.5%	5.8%	4.8%	5.9%	4.3%		
WORKING CAP'L (\$MILL)		d5.2	d9.3	d12.3	d12.6	d15.3	d.2	d.7	.9	4.6		
LONG-TERM DEBT (\$MILL)		52.6	51.7	50.7	49.3	48.6	53.4	53.0	52.7	58.8		
SHR. EQUITY (\$MILL)		29.8	29.9	31.3	32.8	34.2	45.9	48.8	50.8	52.6		
RETURN ON TOTAL CAP'L		5.0%	5.0%	6.6%	6.7%	6.6%	5.9%	5.6%	6.7%	6.7%		
RETURN ON SHR. EQUITY		8.2%	7.2%	11.1%	11.1%	10.6%	8.6%	7.9%	9.8%	9.5%		
RETAINED TO COM EQ		NMF	NMF	2.2%	2.5%	2.1%	1.6%	.2%	2.4%	2.1%		
ALL DIV'DS TO NET PROF		110%	NMF	80%	78%	80%	81%	98%	76%	77%		
A No. of analysts changing earn. est. in last 2 days: 0 up, 0 down, consensus 5-year earnings growth 2.0% per year. B Based upon 2 analysts' estimates. C Based upon one analyst's estimate.												
ANNUAL RATES		5 Yrs.		1 Yr.								
of change (per share)		5 Yrs.	1 Yr.									
Sales	6.5%	6.5%	38.0%									
"Cash Flow"	-1.0%	-1.0%	2.5%									
Earnings	2.5%	-	-									
Dividends	1.0%	1.5%	-									
Book Value	4.5%	2.5%	-									
Fiscal Year	QUARTERLY SALES (\$mill.)	1Q	2Q	3Q	4Q	Full Year						
08/30/04	10.1	16.8	35.7	16.6	79.2	174.8	182.2					
08/30/05	9.8	25.8	33.4	15.2	84.2	116.5	120.4	120.8				
06/30/06	14.2	42.1	46.5	14.5	117.3	7.8	11.7	11.5				
06/30/07	13.1					144.8	155.6	161.3				
Fiscal Year	EARNINGS PER SHARE	1Q	2Q	3Q	4Q	Full Year						
06/30/03	d.36	.27	1.66	d.08	1.49	7.4	6.4	6.0				
06/30/04	d.28	.13	1.19	.16	1.20	7.8	8.3	15.8				
06/30/05	d.35	.87	1.16	d.13	1.55	4.6	4.2	4.2				
06/30/06	d.18	.89	1.03	d.19	1.55	19.6	18.9	26.0				
06/30/07	d.16	.70	1.12	d.47								
Cal-endar	QUARTERLY DIVIDENDS PAID	1Q	2Q	3Q	4Q	Full Year						
2003	.295	.285	.295	.295	1.18							
2004	.295	.295	.295	.295	1.18							
2005	.295	.295	.30	.30	1.19							
2006	.30	.30	.306	.305	1.21							
INSTITUTIONAL DECISIONS		4Q'05		1Q'06		2Q'06						
to Buy		7	5	8								
to Sell		3	3	3								
Hid's(000)		283	284	324								
ASSETS (\$mill.)		2005		2006		9/30/06						
Cash Assets		.1	2	.2								
Receivables		6.6	7.9	7.3								
Inventory (Avg cost)		10.2	11.8	17.8								
Other		3.6	3.6	3.7								
Current Assets		20.5	23.5	29.0								
LIABILITIES (\$mill.)		2005		2006		9/30/06						
Accts Payable		7.4	6.4	6.0								
Debt Due		7.8	8.3	15.8								
Other		4.6	4.2	4.2								
Current Liab		19.6	18.9	26.0								
LONG-TERM DEBT AND EQUITY as of 9/30/06												
Total Debt \$74.6 mill.		Due in 5 Yrs. NA										
LT Debt \$58.8 mill.												
Including Cap. Leases NA												
Leases, Uncapitalized Annual rentals NA												
Pension Liability None in '06 vs. None in '05												
Pfd Stock None												
Pfd Div'd Paid None												
Common Stock 3,261,034 shares												
		(47% of Cap'l)										
TOTAL SHAREHOLDER RETURN		Dividends plus appreciation as of 11/30/2006										
		3 Mos.		6 Mos.		1 Yr.		3 Yrs.		5 Yrs.		
		2.01%		5.48%		4.11%		24.75%		60.02%		

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December 15, 2006

L.Y.

ENERGY WEST INC. NDQ-EWST		RECENT PRICE	11.00	TRAILING P/E RATIO	17.5	RELATIVE P/E RATIO	0.92	DIVD YLD	3.6%	VALUE LINE	
RANKS PERFORMANCE 3 Average Technical 2 Above Average SAFETY 4 Below Average BETA 35 (1.00 = Market)		LEGENDS — 12 Mos. Mov. Avg. ... Rel. Price Strength Shaded area indicates recession									High Low
Financial Strength C++ Price Stability 30 Price Growth Persistence 30 Earnings Predictability 15		VALUE LINE PUBLISHING, INC.									
		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007/2008
SALES PER SH		17.92	21.97	29.17	47.72	38.72	30.50	28.21	28.34	--	--
"CASH FLOW" PER SH		1.35	1.35	1.28	2.05	1.45	.97	.68	1.27	--	--
EARNINGS PER SH		.84	.86	.53	1.10	.56	d.03	d.21	.53	NA	NA/NA
DIV'D DECL'D PER SH		.45	.45	.49	.51	.63	.41	--	--	--	--
CAP'L SPENDING PER SH		1.25	1.53	1.92	1.30	2.50	1.59	.89	.96	--	--
BOOK VALUE PER SH		5.33	5.56	5.64	6.21	6.32	5.89	5.16	5.90	--	--
COMMON SHS OUTST'G (MILL)		2.40	2.43	2.48	2.51	2.57	2.60	2.60	2.91	--	--
AVG ANN'L P/E RATIO		13.7	13.9	15.9	8.5	20.2	--	--	13.0	NA	NA/NA
RELATIVE P/E RATIO		.71	.79	1.03	.44	1.10	--	--	.69	--	--
AVG ANN'L DIV'D YIELD		5.1%	4.9%	5.8%	5.4%	4.7%	5.0%	--	--	--	--
SALES (\$MILL)		43.1	53.5	72.2	119.9	99.6	79.1	73.3	76.7	--	<i>Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.</i>
OPERATING MARGIN		14.2%	10.6%	7.8%	7.6%	6.6%	5.9%	6.5%	10.9%	--	--
DEPRECIATION (\$MILL)		1.7	1.7	1.9	2.4	2.3	2.6	2.3	2.3	--	--
NET PROFIT (\$MILL)		1.5	1.6	1.3	2.8	1.4	d.1	d.6	1.4	--	--
INCOME TAX RATE		34.2%	38.1%	36.6%	36.3%	38.4%	--	--	35.3%	--	--
NET PROFIT MARGIN		3.5%	3.0%	1.8%	2.3%	1.4%	NMF	NMF	1.8%	--	--
WORKING CAP'L (\$MILL)		5.8	4.2	1.5	2.2	d.8	d3.4	.0	3.9	--	--
LONG-TERM DEBT (\$MILL)		17.3	16.8	16.4	15.9	15.4	14.8	21.7	18.7	--	--
SHR. EQUITY (\$MILL)		12.8	13.5	14.0	15.6	16.3	15.3	13.4	17.2	--	--
RETURN ON TOTAL CAP'L		7.1%	7.3%	6.3%	10.7%	6.3%	1.6%	1.2%	7.0%	--	--
RETURN ON SHR. EQUITY		11.9%	11.8%	9.3%	17.7%	8.6%	NMF	NMF	8.0%	--	--
RETAINED TO COM EQ		5.1%	4.3%	2.0%	10.9%	.2%	NMF	NMF	8.0%	--	--
ALL DIVD'S TO NET PROF		57%	64%	78%	39%	97%	NMF	--	--	--	--
<i>Note: No analyst estimates available.</i>											
ANNUAL RATES of change (per share) Sales 5 Yrs. 4.5% "Cash Flow" 1 Yr. -6.0% Earnings 1 Yr. 85.5% Dividends -- Book Value 0.5% 14.5%		ASSETS (\$mill.) 2004 2005 3/31/06 Cash Assets 1.3 .1 5 Receivables 7.6 8.7 14.1 Inventory (Avg cost) 5.5 4.2 3.6 Other 2.4 2.4 .6 Current Assets 16.7 15.4 18.8		Business Description BUSINESS: Energy West, Inc. distributes natural gas to its customers in the Great Falls, Montana and Cody, Wyoming areas. Its regulated utility operations include the distribution of natural gas through an underground system in West Yellowstone, Montana, which is supplied by liquefied natural gas. The company conducts certain nonregulated, nonutility operations through its three wholly owned subsidiaries, Energy West Propane, Inc.; Energy West Resources, Inc.; and Energy West Development, Inc. Energy West Propane is engaged in the distribution of bulk propane in Wyoming, South Dakota, Nebraska, Colorado, Arizona, and Montana. Energy West Resources is involved in gas storage, a small amount of oil and gas development, and the marketing and transportation of gas in Montana. Energy West Development owns two real estate properties in Great Falls, Montana. Has 111 employees. Chairman: G. Montgomery Mitchell, Inc.; MT. Address: 1 First Avenue South, Great Falls, MT 59401. Tel.: (406) 791-7500. Internet: http://www.energywest.com .							
Fiscal Year 06/30/04 12.5 22.6 24.5 13.7 73.3 06/30/05 11.9 22.9 27.8 14.1 76.7 06/30/06 10.3 28.9 32.2		LIABILITIES (\$mill.) 2004 2005 3/31/06 Accts Payable 3.6 2.7 5.8 Debt Due 7.7 4.9 2.5 Other 5.4 3.9 4.6 Current Liab 16.7 11.5 12.9		LONG-TERM DEBT AND EQUITY as of 3/31/06 Total Debt \$20.6 mill. Due in 5 Yrs. NA LT Debt \$18.3 mill. (49% of Cap'l) Including Cap. Leases NA Leases, Uncapitalized Annual rentals NA Pension Liability \$3 mill. in '05 vs. \$3 mill. in '04							
Fiscal Year 06/30/03 d.40 .05 .69 d.37 d.03 06/30/04 d.19 .08 .23 d.33 d.21 06/30/05 d.43 .22 .84 d.10 .53 06/30/06 d.21 .38 .56		QUARTERLY DIVIDENDS PAID Cal-endar 2003 2004 2005 2006 1Q 2Q 3Q 4Q Full Year 2003 .405 -- -- -- .41 2004 -- -- -- -- -- 2005 -- -- -- -- .04 2006 .05 .08 .10		INSTITUTIONAL DECISIONS 4Q'05 1Q'06 2Q'06 to Buy 6 4 3 to Sell -- 2 -- Hld's(000) 110 80 94							
Cal-endar 2003 2004 2005 2006 1Q 2Q 3Q 4Q Full Year		LIABILITIES (\$mill.) 2004 2005 3/31/06 Accts Payable 3.6 2.7 5.8 Debt Due 7.7 4.9 2.5 Other 5.4 3.9 4.6 Current Liab 16.7 11.5 12.9		September 15, 2006							
Cal-endar 2003 2004 2005 2006 1Q 2Q 3Q 4Q Full Year		LIABILITIES (\$mill.) 2004 2005 3/31/06 Accts Payable 3.6 2.7 5.8 Debt Due 7.7 4.9 2.5 Other 5.4 3.9 4.6 Current Liab 16.7 11.5 12.9		TOTAL SHAREHOLDER RETURN Dividends plus appreciation as of 8/31/2008 3 Mos. 6 Mos. 1 Yr. 3 Yrs. 5 Yrs. 20.13% 26.02% 25.74% 79.62% 6.51%							
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LACLEDE GROUP NYSE-LG				RECENT PRICE	P/E RATIO	(Trailing: 14.8 Median: 15.0)	RELATIVE P/E RATIO	DIVID YLD	VALUE LINE	
TIMELINESS 4 Raised 9/8/06 SAFETY 2 Raised 6/20/03 TECHNICAL 3 Lowered 9/15/06 BETA 85 (1.00 = Market)				32.13	15.5		0.91	4.5%		
2009-11 PROJECTIONS Price Gain Ann'l Total Return High 40 7.2% 10% Low 30 (-3%) 3%				High: 23.1 24.9 28.6 27.9 27.0 24.8 25.5 25.0 30.0 Low: 18.4 20.0 20.3 22.4 20.0 17.5 21.3 19.0 21.8	32.5 34.3 35.7 28.0 28.9 29.1	Target Price Range 2009 2010 2011 64 48 40 32 24 16 12 8 6				
Insider Decisions D M D J F M A M J to Buy 0 0 0 0 0 0 0 0 0 0 to Sell 0 0 0 0 1 0 0 1 0				LEGENDS 100 = Dividends per share divided by Interest Rate --- Relative Price Strength 2-for-1 split 3/94 Options: No Shaded area indicates recession						% TOT. RETURN 2006 THIS STOCK VS. ANNUAL INDEX 1 yr. 5.4 7.1 3 yr. 38.6 49.4 5 yr. 74.8 70.4
Institutional Decisions 4Q306 1Q306 2Q306 3Q306 to Buy 50 67 60 60 to Sell 37 30 47 47 Net's (000) 8521 9470 10115				Percent shares traded 7.5 5 2.5						VALUE LINE PUB. INC. 03-11
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007				30.21 28.10 26.83 32.33 33.43 24.79 31.03 34.33 31.04 26.04 29.99 53.08 39.84 54.95 59.59 75.43 93.50 98.80						Revenues per share 116.65 "Cash Flow" per share 4.70 Earnings per share 2.50 Div'ds Decl'd per share 1.50 Cap't Spending per share 4.40 Book Value per share 28.00 Common Shares Outstanding 24.00
CAPITAL STRUCTURE as of 6/30/06 Total Debt \$518.8 mil. Due in 5 Yrs \$175.0 mil. LT Debt \$395.4 mil. LT Interest \$25.0 mil. (Total interest coverage: 3.0x)				544.8 602.8 547.2 491.6 566.1 1002.1 755.2 1050.3 1250.3 1597.0						Revenues (\$mil) 2800 Net Profit (\$mil) 80.0 Income Tax Rate 35.0% Net Profit Margin 2.1% Long-Term Debt Ratio 48.0% Common Equity Ratio 52.0% Total Capital (\$mil) 1200 Net Plant (\$mil) 1050
Leases, Uncapitalized Annual rentals \$1.7 mil. Pension Assets-9/05 \$272.8 mil. Pfd Stock \$8 mil. Pfd Div'd \$0.5 mil. Common Stock 21,357,009 shares as of 7/28/06				35.9% 36.1% 35.6% 35.5% 35.2% 32.7% 35.4% 35.0% 34.8% 34.1% 34.0% 34.0% 34.0% 34.0% 34.0% 34.0%						Relative P/E Ratio 14.0 Avg Ann'l Div'd Yield 4.3%
MARKET CAP: \$675 million (Small Cap)				42.5% 38.0% 40.9% 41.8% 45.2% 49.5% 47.5% 50.4% 51.6% 48.1% 49.0% 49.0% 49.0% 49.0% 49.0% 49.0%						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
CURRENT POSITION 2004 2005 6/30/06 (\$MILL)				42.2 406.8 438.0 488.6 519.2 574.1 546.6 605.0 737.4 707.9 830 870 815 815 775 775						Net Profit Margin 2.1% Long-Term Debt Ratio 48.0% Common Equity Ratio 52.0% Total Capital (\$mil) 1200 Net Plant (\$mil) 1050
ANNUAL RATES of change (per share) Revenues 7.5% 17.0% 10.5% "Cash Flow" 1.0% 1.5% 8.0% Earnings 2.5% 4.5% 5.0% Dividends 1.0% 5% 2.0% Book Value 3.0% 2.5% 7.5%				45.2 467.6 490.6 519.4 575.4 602.5 594.4 621.2 646.9 679.5 775 815 815 775 775 775						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
QUARTERLY REVENUES (\$ mil) A Fiscal Year Ends Dec.31 Mar.31 Jun.30 Sep.30 Full Fiscal Year				280.1 422.2 186.6 161.4 1050.3 332.6 475.0 245.1 197.6 1250.3 442.5 576.5 311.3 266.7 1597.0 689.2 708.8 330.5 281.5 2010 635 855 440 390 2120						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
EARNINGS PER SHARE A B F Fiscal Year Ends Dec.31 Mar.31 Jun.30 Sep.30 Full Fiscal Year				.80 1.14 .11 d.21 1.82 .87 1.12 .19 d.28 1.82 .79 1.06 .29 d.24 1.90 1.23 1.05 .13 d.28 2.15 1.15 1.05 .25 d.30 2.15						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
QUARTERLY DIVIDENDS PAID C = Calendar Mar.31 Jun.30 Sep.30 Dec.31 Full Year				335 335 335 335 1.34 335 335 335 335 1.34 335 34 34 34 1.36 34 345 345 345 1.38 345 355 355 355						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
BUSINESS: Laclede Group, Inc., is a holding company for Laclede Gas, which distributes natural gas in eastern Missouri, including the city of St. Louis, St. Louis County, and parts of 8 other counties. Has more than 830,000 customers. Purchased SM&P for \$43 million (1/02). Therms sold and transported in fiscal 2005: 1.12 mil. Revenue mix for regulated operations: residential, 60%; commercial and industrial, 23%; transportation, 2%; other, 15%. Has around 3,815 employees. Officers and directors own approximately 8.0% of common shares (1/06 Proxy). Chairman, Chief Executive Officer, and President: Douglas H. Yeager, Incorporated: Missouri. Address: 720 Olive Street, St. Louis, Missouri 63101 Telephone: 314-342-0500. Internet: www.lacledegas.com.				4.5% 3.9% 1.8% 1.0% 2.1% 1.8% NMF 3.1% 2.7% 3.1% 4.0% 3.5% 2.7% 3.1% 4.0% 3.5%						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
Laclede Group is on track to register healthy results in fiscal 2006 (ends September 30th). Laclede Energy Resources, the non-utility gas marketing segment, is still benefiting from supply/demand imbalances resulting from last year's Gulf Coast hurricanes, plus a surge in volumes (reflecting higher interstate pipeline wholesale transactions). Furthermore, SM&P Utility Resources, the unregulated unit specializing in locating and marking services for underground facilities, is being aided by new business signups in existing markets. And we note that this subsidiary recently bought Reliant Services, which provides similar services. Given that both businesses have customers in the same geographic areas, synergies ought to generate decent cost savings going forward.				4.5% 3.9% 1.8% 1.0% 2.1% 1.8% NMF 3.1% 2.7% 3.1% 4.0% 3.5% 2.7% 3.1% 4.0% 3.5%						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
But the core natural gas unit has underperformed of late. This can be attributed partly to higher operation and maintenance expenses, as well as an increased provision for uncollectible accounts. A decline in volumes within the service territory has further eroded earnings. On the bright side, there have been benefits from a general rate hike effective since last October, and income from entities located outside the system has been rising.				4.5% 3.9% 1.8% 1.0% 2.1% 1.8% NMF 3.1% 2.7% 3.1% 4.0% 3.5% 2.7% 3.1% 4.0% 3.5%						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
On a consolidated basis, share net ought to grow about 13%, to \$2.15, in fiscal 2006. Laclede's bottom line may flatten out next year because of the difficult comparison.				4.5% 3.9% 1.8% 1.0% 2.1% 1.8% NMF 3.1% 2.7% 3.1% 4.0% 3.5% 2.7% 3.1% 4.0% 3.5%						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
We believe that unexciting results are in store for the company over the 2009-2011 timeframe. The market in which the natural gas division operates has sluggish customer growth because it is in a mature stage. Moreover, it appears that major acquisitions are not likely to take place anytime soon. Consequently, annual share-net gains may only be in the mid-single-digit range, with some volatility, over the 3- to 5-year horizon.				4.5% 3.9% 1.8% 1.0% 2.1% 1.8% NMF 3.1% 2.7% 3.1% 4.0% 3.5% 2.7% 3.1% 4.0% 3.5%						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
The stock's good yield aside, total-return potential is not appealing. That is because these shares are already trading within our 2009-2011 Target Price Range, and we are assuming that future dividend increases will be moderate. Also, the Timeliness rank is 4 (Below Average).				4.5% 3.9% 1.8% 1.0% 2.1% 1.8% NMF 3.1% 2.7% 3.1% 4.0% 3.5% 2.7% 3.1% 4.0% 3.5%						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
Frederick L. Harris, III September 15, 2006				4.5% 3.9% 1.8% 1.0% 2.1% 1.8% NMF 3.1% 2.7% 3.1% 4.0% 3.5% 2.7% 3.1% 4.0% 3.5%						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
Company's Financial Strength B+ Stock's Price Stability 85 Price Growth Persistence 95 Earnings Predictability 65				4.5% 3.9% 1.8% 1.0% 2.1% 1.8% NMF 3.1% 2.7% 3.1% 4.0% 3.5% 2.7% 3.1% 4.0% 3.5%						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
Footnotes: (A) Fiscal year ends Sept. 30th. (B) Based on average shares outstanding thru '97, then diluted. Excludes nonrecurring loss: Q2 '06, 7¢. Next earnings report due late Oct. © 2006, Value Line Publishing, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.				4.5% 3.9% 1.8% 1.0% 2.1% 1.8% NMF 3.1% 2.7% 3.1% 4.0% 3.5% 2.7% 3.1% 4.0% 3.5%						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%
To subscribe call 1-800-833-0046.				4.5% 3.9% 1.8% 1.0% 2.1% 1.8% NMF 3.1% 2.7% 3.1% 4.0% 3.5% 2.7% 3.1% 4.0% 3.5%						Return on Total Cap't 6.5% Return on Sh. Equity 3.5% Return on Com Equity 8.5% Retained to Com Eq 4.0% All Div'ds to Net Prof 80%

NEW JERSEY RES. NYSE-NJR										RECENT PRICE	49.55	P/E RATIO	20.6	(Trailing: 16.2 Median: 15.0)	RELATIVE P/E RATIO	1.21	DIV'D YLD	2.9%	VALUE LINE										
TIMELINESS 4 Raised 2/17/06 SAFETY 1 Raised 9/15/06 TECHNICAL 2 Raised 2/25/06 BETA .80 (1.00 = Market) 2006-11 PROJECTIONS Price Gain Ann'l Total High 80 Low 50 O N D J F M A M J to Buy 0 to Sell 1 4 0 0 0 5 0 0 2 0 0 0 0 0 0 0 0 0 0 0										High: 20.3 19.9 28.0 26.8 27.4 29.8 32.5 33.6 39.5 44.6 49.3 51.4 Low: 14.3 17.8 18.8 21.0 22.4 24.1 24.8 24.3 30.0 38.5 40.7 41.5 LEGENDS 1.18 = Dividends p sh divided by Interest Rate = Relative Price Strength 3-for-2 split 3/02 Options: No Shaded area indicates recession										Target Price Range 2009 2010 2011 120 100 80 64 48 32 24 20 16 12 8									
Insider Decisions O N D J F M A M J to Buy 0 to Sell 1 4 0 0 0 5 0 0 2 0 0 0 0 0 0 0 0 0 0 0										Institutional Decisions 1Q2006 1Q2005 2Q2004 to Buy 84 71 73 to Sell 80 52 60 Hd's/100 13455 14778 16255 Percent 7.5 shares 5 traded 2.5										% TOT. RETURN 8/06 THIS YEAR: 9.2 7.1 1 yr: 51.8 40.4 3 yr: 61.6 40.4 5 yr: 95.0 70.4									
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007										09-11																			
16.01 15.99 16.88 18.02 19.22 17.03 20.22 25.97 26.59 33.98 44.13 76.82 66.17 93.43 91.33 114.29 117.45 120.60										Revenues per sh ^A 129.80																			
1.54 1.58 1.95 2.14 2.31 2.13 2.22 2.45 2.60 2.79 3.16 3.21 3.58 3.75 3.92 4.00 4.20 4.20										"Cash Flow" per sh 4.70																			
.65 .55 1.09 1.15 1.26 1.29 1.37 1.48 1.55 1.66 1.79 1.95 2.09 2.38 2.55 2.65 2.80 2.90										Earnings per sh ^B 3.30																			
.96 1.00 1.01 1.01 1.01 1.01 1.03 1.07 1.09 1.12 1.15 1.17 1.20 1.20 1.30 1.36 1.45 1.50										Div'ds Decl'd per sh ^C 1.70																			
4.37 2.91 1.99 2.31 2.10 1.77 1.78 1.72 1.80 1.81 1.85 1.86 1.53 1.71 2.17 1.92 1.80 1.95										Cap'l Spending per sh 2.70																			
8.85 8.57 9.44 9.81 9.64 9.70 10.10 10.38 10.88 11.35 12.43 13.20 13.06 15.38 16.87 15.90 17.45 18.80										Book Value per sh 23.15																			
20.28 20.95 24.43 25.23 25.95 26.69 27.13 26.92 26.72 26.61 26.39 26.66 27.67 27.23 27.74 27.55 28.10 28.20										Common Shs Outst'g ^D 28.50																			
24.0 22.3 12.4 15.1 13.0 11.7 13.6 13.5 15.3 15.2 14.7 14.2 14.7 14.0 15.3 16.8 16.8 16.8										Avg Ann'l P/E Ratio 17.0																			
1.78 1.42 .75 .89 .85 .78 85 .78 80 87 .96 .73 .80 .80 .81 .90 1.90 1.90										Relative P/E Ratio 1.15																			
6.2% 8.1% 7.5% 5.8% 6.2% 6.7% 5.6% 5.3% 4.6% 4.5% 4.4% 4.2% 3.9% 3.7% 3.3% 3.1% 3.1% 3.1%										Avg Ann'l Div'd Yield 3.0%																			
CAPITAL STRUCTURE as of 6/30/06 Total Debt \$490.8 mil. Due in 5 Yrs \$250.0 mil. LT Debt \$333.8 mil. LT Interest \$22.0 mil. Incl. \$6.9 mil. capitalized leases. (LT interest earned: 5.5%; total interest coverage: 4.8x) Pension Assets: 8/05 \$82.6 mil. Oblig. \$99.9 mil. Pfd Stock None										548.5 696.5 710.3 904.3 1164.5 2048.4 1830.8 2544.4 2533.6 3148.3 3300 3400 38.7 41.5 43.3 44.9 47.9 52.3 56.8 65.4 71.8 74.4 80.0 82.0 32.6% 33.3% 30.4% 36.2% 37.8% 38.0% 38.7% 39.4% 39.1% 39.1% 39.0% 39.0% 7.1% 6.0% 6.1% 5.0% 4.1% 2.6% 3.1% 2.6% 2.8% 2.4% 2.4% 2.4% 50.7% 48.3% 51.2% 48.7% 47.0% 50.1% 50.6% 38.1% 40.3% 42.0% 42.0% 41.0% 45.8% 47.1% 45.6% 51.2% 52.9% 49.9% 49.4% 61.9% 59.7% 58.0% 58.0% 59.0% 588.2 590.6 638.2 590.4 620.1 706.2 732.4 676.8 783.8 755.3 845 890 655.2 659.4 680.0 705.4 730.6 743.9 756.4 852.6 880.4 905.1 935 970 8.1% 8.6% 8.1% 9.0% 8.0% 8.5% 8.7% 10.1% 11.2% 10.5% 10.5% 10.5% 13.1% 13.9% 13.9% 14.8% 14.6% 14.8% 15.7% 15.6% 15.3% 17.0% 16.0% 15.5% 13.5% 14.3% 14.4% 14.8% 14.6% 14.9% 15.7% 15.6% 15.3% 17.0% 16.0% 15.5%																			
MARKET CAP: \$1.4 billion (Mid Cap) CURRENT POSITION 2004 2005 6/30/06 Cash Assets (\$MIL) 5.0 25.0 4.7 Other 681.0 927.8 806.7 Current Assets 686.0 952.8 813.4 Accts Payable 42.9 54.7 38.0 Debt Due 287.4 177.4 157.0 Other 357.4 744.2 510.4 Current Liab. 687.7 976.3 785.4 Fix. Chg. Cov. 826% 660% 700%										ANNUAL RATES Past Past Est'd '03-'05 of change (per sh) 10 Yrs. 5 Yrs. to '09-'11 Revenues 18.5% 23.5% 4.5% "Cash Flow" 5.5% 8.0% 4.0% Earnings 7.5% 8.5% 4.5% Dividends 2.5% 3.0% 4.5% Book Value 5.0% 7.0% 6.5%																			
Fiscal Year Ends QUARTERLY REVENUES (\$ mil.) ^A Full Fiscal Year Dec.31 Mar.31 Jun.30 Sep.30 2003 668.9 1152.7 369.7 353.1 2544.4 2004 643.0 1037.7 438.5 414.4 2533.6 2005 854.0 1065.1 544.3 684.9 3148.3 2006 1164.8 1064.4 536.1 534.9 3300 2007 1085 1150 610 555 3400										Fiscal Year Ends EARNINGS PER SHARE ^A Full Fiscal Year Dec.31 Mar.31 Jun.30 Sep.30 2003 .85 1.50 .16 d.13 2.38 2004 .87 1.82 .08 d.20 2.55 2005 .91 1.84 .07 d.17 2.65 2006 1.23 2.14 d.14 d.43 2.80 2007 1.13 1.84 .10 d.17 2.90																			
Calendar QUARTERLY DIVIDENDS PAID ^C Full Year Mar.31 Jun.30 Sep.30 Dec.31 2002 .30 .30 .30 .30 1.20 2003 .31 .31 .31 .31 1.24 2004 .325 .325 .325 .325 1.30 2005 .34 .34 .34 .34 1.36 2006 .36 .36 .36 .36 1.44										Business: New Jersey Resources Corp. is the holding company for New Jersey Natural Gas Co., a natural gas utility (about 463,000 customers at 9/30/05) in Monmouth, Ocean, and parts of other N.J. counties. Fiscal 2005 volume: 124.7 bil. cu ft. (50% firm, 8% interruptible industrial and electric utility, 42% off-system and capacity release). New Jersey Natural Energy subsid. provides unregulated retail and wholesale natural gas and related energy services to customers in 17 states. 2005 deprec. rate: 2.8%. Est'd plant age: 8 years. Has 551 utility employees, 16,300 stockhldrs. Off. & dir. own about 3% of common stock (12/05 Proxy). Chairman and CEO: Laurence M. Downes, Inc.: N.J. Address: 1415 Wyckoff Road, Wall, NJ 07718. Tel: 732-938-1000. Internet: www.njrliving.com.																			
NEW JERSEY RESOURCES RESULTS OVER THE FIRST NINE MONTHS OF FISCAL 2006 (year ends September 30th) have been solid. Earnings over this timeframe increased about 14.5%, to \$3.23 a share, with most of the gains being driven by an improved performance at the company's energy services subsidiary. In fact, the segment posted an earnings advance of about 90% this year due to growth in its portfolio of storage and transportation contracts. Since the unit covers many markets in the eastern half of the United States and Canada, it is able to capture additional value when prices fluctuate between regions. All told, the business now represents over 20% of corporate earnings. The third quarter was a weak one at the company's main subsidiary, New Jersey Natural Gas (NJNG). It posted earnings of \$1.7 million, well below the \$3.9 million in the year-earlier period. The decrease was primarily the result of conservation by customers. The utility currently has a weather normalization plan in place to protect against temperatures that are warmer than normal, though, it is unable to protect against lower usage. There-										fore, in December, NJNG proposed a plan with the New Jersey Board of Public Utilities to implement a conservation usage adjustment (CUA) plan to replace the normalization policy, which would provide protection against both temperature and usage changes. Management remains optimistic that the program will be approved and be in place by next winter's heating season. However, should regulatory approval not be granted, the company is exploring alternatives that includes filing for a rate increase. Meanwhile, the utility added about 7,870 new customers through the third quarter, and will likely grow at a rate above the industry average for the next few years thanks to the strong demographics of the region NJNG serves. About a third of new customers are conversions from other fuel sources. Though untimely, this stock offers decent total return potential. This is largely due to expanding profits from its nonutility operations. Other pluses include the likelihood of a more consistent earnings stream through the CUA proposal, and steady dividend increases. Evan I. Blatter September 15, 2006																			
(A) Fiscal year ends Sept. 30th. (B) Dated earnings. Next earnings report due late Oct. (C) Dividends historically paid in early January. (D) In millions, adjusted for split.										Company's Financial Strength A Stock's Price Stability 100 Price Growth Persistence 85 Earnings Predictability 100																			
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N.W. NAT'L GAS NYSE-NWN		RECENT PRICE	P/E RATIO	RELATIVE P/E RATIO	DIV/YLD	VALUE LINE																																																																																																			
		38.19	16.7 (Trailing: 17.8 Median: 15.0)	0.98	3.6%																																																																																																				
TIMELINESS 3	Raised 4/25/06	High: 22.8	25.9	31.4	30.8	27.9																																																																																																			
SAFETY 1	Raised 3/18/05	Low: 18.3	20.8	23.0	24.3	19.5																																																																																																			
TECHNICAL 2	Raised 9/15/06	LEGENDS 1.70 x Dividends p sh divided by Interest Rate Relative Price Strength 3-Mo 2 split 5/96 Options: Yes Shaded area indicates recession																																																																																																							
BETA .75	(1.00 = Market)	2009-11 PROJECTIONS Price Gain: 45 (+20%) Low Return: 40 (+5%)																																																																																																							
Insider Decisions		Institutional Decisions																																																																																																							
<table border="1"> <tr><th></th><th>O</th><th>N</th><th>D</th><th>J</th><th>F</th><th>M</th><th>A</th><th>M</th><th>J</th></tr> <tr><td>To Buy</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>To Sell</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Options</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> </table>			O	N	D	J	F	M	A	M	J	To Buy	0	0	0	0	1	1	0	0	0	To Sell	0	0	0	0	0	0	0	0	0	Options	0	0	0	0	0	0	0	0	0	<table border="1"> <tr><th></th><th>4Q2005</th><th>1Q2006</th><th>2Q2006</th><th>Percent shares traded</th></tr> <tr><td>To Buy</td><td>59</td><td>82</td><td>77</td><td>9</td></tr> <tr><td>To Sell</td><td>54</td><td>59</td><td>59</td><td>6</td></tr> <tr><td>Options</td><td>12922</td><td>13095</td><td>14328</td><td>3</td></tr> </table>						4Q2005	1Q2006	2Q2006	Percent shares traded	To Buy	59	82	77	9	To Sell	54	59	59	6	Options	12922	13095	14328	3																																							
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<table border="1"> <tr><th></th><th>2009</th><th>2010</th><th>2011</th></tr> <tr><td>Target Price</td><td>40</td><td>45</td><td>50</td></tr> <tr><td>Price Range</td><td>40</td><td>40</td><td>40</td></tr> </table>			2009	2010	2011	Target Price	40	45	50	Price Range	40	40	40	<table border="1"> <tr><th></th><th>2009</th><th>2010</th><th>2011</th></tr> <tr><td>Revenue per sh</td><td>39.85</td><td>42.25</td><td>51.80</td></tr> <tr><td>"Cash Flow" per sh</td><td>4.60</td><td>4.75</td><td>5.10</td></tr> <tr><td>Earnings per sh</td><td>2.40</td><td>2.40</td><td>2.85</td></tr> <tr><td>Div'ds Decl'd per sh</td><td>1.42</td><td>1.42</td><td>1.70</td></tr> <tr><td>Cap'l Spending per sh</td><td>3.70</td><td>3.60</td><td>3.60</td></tr> <tr><td>Book Value per sh</td><td>22.10</td><td>22.95</td><td>25.55</td></tr> <tr><td>Common Shs Outst'g</td><td>27.75</td><td>27.80</td><td>28.00</td></tr> </table>						2009	2010	2011	Revenue per sh	39.85	42.25	51.80	"Cash Flow" per sh	4.60	4.75	5.10	Earnings per sh	2.40	2.40	2.85	Div'ds Decl'd per sh	1.42	1.42	1.70	Cap'l Spending per sh	3.70	3.60	3.60	Book Value per sh	22.10	22.95	25.55	Common Shs Outst'g	27.75	27.80	28.00																																																							
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2007	1.55	.05	d.30	1.10	2.40																																																																																																				
BUSINESS: Northwest Natural Gas Co. distributes natural gas at retail to 90 communities, 624,000 customers, in Oregon (90% of custs.) and in southwest Washington state. Principal cities served: Portland and Eugene, OR; Vancouver, WA. Service area population: 2.4 mil. (77% in OR). Company buys gas supply from Canadian and U.S. producers; has transportation rights on Northwest		<p>Northwest Natural's second-quarter earnings turned out a bit better than expected, despite weather that was 16% warmer than average and 12% warmer than last year's. The company's share of commodity cost savings added about \$0.03 a share in the June period, and profits from interstate gas storage contributed an additional \$0.02. Operations and maintenance expenses were up 3% but would have risen 2% without increased bad debt costs, due to higher gas prices. We anticipate roughly normal earnings growth over the balance of the year. Northwest Natural increased its customer count by 3.3% in the 12 months ended in June, and the new accounts should boost earnings through 2006 and 2007. While the national economy is definitely slowing, Portland seems to be doing better than the nation as a whole, with little decline in new home construction. (Northwest's share of new home heating fuel is over 90%). But the company plans to lay off 50 to 100 employees in the second half of the year, and severance costs will probably add up to around \$0.04 a share in the fourth quarter.</p>																																																																																																							
Earnings in 2007 will likely benefit from new efficiency and cost-cutting efforts. Northwest has begun to implement a companywide plan to reduce costs by consolidating some operations, standardizing functions, and outsourcing some operations, such as new construction. The plan will take a few years to implement completely and will probably result in a workforce reduction of 200 to 250 employees, some by normal attrition. Northwest's earnings will probably grow faster than its industry's, thanks to above-average customer growth. The area to the southeast of Portland will soon be zoned for higher density, permitting profitable installation of gas mains and significant customer growth. And the company serves less than 60% of its market at present, allowing it to pick up new customers as old oil tanks need replacing. These neutrally ranked shares have below-average total return potential at their recent quotation. Although we like Northwest's prospects, we think investors will have an opportunity to invest at a better price.		<p>Pipeline system to bring gas to market. Owns local underground storage. Rev. breakdown: residential, 53%; commercial, 27%; industrial, gas transportation, and other, 20%. Employs 1,305. Barclays owns 6.2% of shares; insiders, 1% (4/06 proxy). CEO: Mark S. Dodson, Inc. OR. Address: 220 NW 2nd Ave., Portland, OR 97208. Tel.: 503-226-4211. Internet: www.nwnatural.com.</p>																																																																																																							
Company's Financial Strength		Company's Financial Strength																																																																																																							
Stock's Price Stability		Stock's Price Stability																																																																																																							
Price Growth Persistence		Price Growth Persistence																																																																																																							
Earnings Predictability		Earnings Predictability																																																																																																							
To subscribe call 1-800-833-0046.		To subscribe call 1-800-833-0046.																																																																																																							

PEOPLES ENERGY NYSE-PGL		RECENT PRICE	41.41	P/E RATIO	31.9	(Trailing: 23.9 Median: 14.0)	RELATIVE P/E RATIO	1.88	DIV YLD	5.3%	VALUE LINE											
TIMELINESS	2	Susp. 7/21/06	High: 32.0	37.4	39.9	40.1	40.3	46.9	44.8	40.4	45.3	46.0	45.6	43.9	Target Price 2009	2010	2011	Range				
SAFETY	2	Lowered 3/17/06	Low: 24.3	29.6	31.3	32.1	31.8	26.2	34.3	27.8	34.9	38.5	34.3	34.9				120				
TECHNICAL	0	Susp. 7/21/06	LEGENDS 1.0 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																			
BETA	.85	(1.00 = Market)	2009-11 PROJECTIONS Price Gain Ann'l Total High 40 (-5%) 4% Low 30 (-30%) -2%																			
Insider Decisions			O N D J F M A M J to Buy 0 1 0 0 0 0 0 0 0 Options 0 0 0 0 0 0 0 0 0 to Sell 0 0 0 0 0 0 0 0 0																			
Institutional Decisions			4Q2005 1Q2006 2Q2006 to Buy 92 78 83 to Sell 92 84 88 Net Buy 0 0 0 Hrs/100 21830 24457 25874 Percent shares traded 12 8 4																			
CAPITAL STRUCTURE as of 8/30/06			1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007																			
Total Debt \$1065.0 mill. Due in 5 Yrs \$546.4 mill.			35.63	33.69	31.54	36.09	36.70	29.60	34.29	36.34	32.28	33.66	40.16	64.13	41.81	58.28	59.90	68.13	76.90	78.75	Revenue per sh ^	81.35
LT Debt \$893.6 mill. LT Interest \$60.0 mill. (Total interest coverage: 1.8x)			3.74	3.73	3.67	3.85	3.99	3.68	4.98	4.92	4.44	4.74	5.58	5.84	5.59	5.88	5.32	5.31	4.35	4.50	"Cash Flow" per sh	5.10
Pension Assets 8/05 \$520.4 mill. Oblig. \$841.7 mill.			2.07	2.05	2.06	2.11	2.13	1.78	2.96	2.81	2.25	2.39	2.71	3.16	2.80	2.88	2.18	2.26	1.25	1.50	Earnings per sh ^B	2.00
Pfd Stock None			1.65	1.71	1.76	1.78	1.80	1.80	1.82	1.87	1.91	1.95	2.00	2.04	2.07	2.12	2.16	2.18	2.18	2.18	Div'ds Decl'd per sh C =	2.18
Common Stock 38,471,441 shs. as of 7/31/06			3.15	3.10	3.40	3.77	2.50	2.75	2.45	2.55	4.05	6.45	7.02	7.52	5.66	5.10	5.02	4.27	4.95	6.90	Cap'l Spending per sh	7.15
MARKET CAP: \$1.6 billion (Mid Cap)			16.61	16.95	17.72	18.02	18.39	18.38	19.49	20.43	21.03	21.66	22.02	22.76	22.74	23.11	23.06	20.97	18.60	18.40	Book Value per sh D	16.55
CURRENT POSITION (MILL)			32.70	32.76	34.77	34.68	34.67	34.91	34.96	35.07	35.26	35.49	35.30	35.40	35.46	36.69	37.73	38.16	39.00	40.00	Common Shs Outst'g E	42.00
Cash Assets			11.2	11.8	13.1	15.0	13.3	14.7	10.7	12.7	16.2	15.5	12.1	12.3	13.3	13.4	19.1	18.9	18.0	18.9	Avg Ann'l P/E Ratio	17.0
Debt Due			.83	.75	.79	.89	.87	.89	.87	.73	.84	.88	7.9	.63	.73	.76	1.01	1.01	1.01	1.01	Relative P/E Ratio	1.13
Current Liab.			7.1%	7.0%	6.5%	5.6%	6.3%	6.9%	5.7%	5.2%	5.2%	5.3%	6.1%	5.2%	5.5%	5.5%	5.2%	5.1%	5.1%	5.1%	Avg Ann'l Div'd Yield	6.4%
Fix. Chg. Cov.			Bold figures are Value Line estimates																			
ANNUAL RATES			1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007																			
Revenue			1198.7	1274.4	1138.1	1194.4	1417.5	2270.2	1482.5	2138.4	2260.2	2599.6	3000	3150	3150	3150	3150	3150	3150	3150	Revenues (\$mill) ^	3500
"Cash Flow"			103.4	98.4	79.4	84.8	96.1	111.7	103.9	81.6	86.2	50.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	Net Profit (\$mill)	85.0
Earnings			37.6%	36.4%	36.2%	35.9%	34.1%	35.4%	34.2%	36.3%	31.7%	34.2%	35.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%	Income Tax Rate	35.0%
Dividends			8.6%	7.7%	7.0%	7.1%	6.8%	4.9%	6.7%	4.9%	3.6%	3.3%	1.8%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	Net Profit Margin	2.4%
Book Value			43.6%	42.4%	41.1%	40.4%	35.1%	44.4%	40.7%	46.7%	50.8%	52.8%	53.9%	54.8%	54.8%	54.8%	54.8%	54.8%	54.8%	54.8%	Long-Term Debt Ratio	56.2%
Full Fiscal Year			56.4%	57.6%	58.9%	59.6%	64.9%	55.6%	59.3%	53.3%	49.2%	47.2%	48.1%	45.2%	45.2%	45.2%	45.2%	45.2%	45.2%	45.2%	Common Equity Ratio	43.8%
Quarterly			1208.3	1243.5	1258.0	1290.5	1198.7	1449.8	1360.3	1592.3	1787.5	1695.7	1660	1625	1625	1625	1625	1625	1625	1625	Total Capital (\$mill)	1585
Full Fiscal Year			1381.1	1402.2	1446.7	1519.8	1645.3	1753.9	1773.9	1838.2	1904.2	1947.3	2150	2300	2300	2300	2300	2300	2300	2300	Net Plant (\$mill)	2550
Quarterly			10.3%	9.5%	7.8%	8.0%	9.5%	9.3%	8.4%	8.1%	6.0%	6.6%	4.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	Return on Total Cap'l	7.0%
Full Fiscal Year			15.2%	13.7%	10.7%	11.0%	12.4%	13.9%	12.3%	12.3%	9.4%	10.8%	6.5%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	Return on Shr. Equity	12.0%
Quarterly			5.9%	4.7%	1.7%	2.1%	3.4%	5.0%	3.3%	3.4%	2%	.5%	NMF	NMF	NMF	NMF	NMF	NMF	NMF	NMF	Return on Com Equity	12.0%
Full Fiscal Year			61%	66%	84%	81%	73%	64%	73%	73%	97%	95%	170%	145%	145%	145%	145%	145%	145%	145%	Retained to Com Eq	NMF
Quarterly			BUSINESS: Peoples Energy Corporation distributes natural gas via its utility subsidiaries, Peoples Gas Light & Coke Co. (approx. 814,000 customers at 9/30/05) and North Shore Gas Co. (155,000), in Chicago and northeastern Illinois. Fiscal 2005 gas distribution revenues: \$1.7 billion: residential, 77%; commercial, 13%; industrial, 2%; other, 8%. Main supplier is Natural Gas Pipeline Co. of America. Purchased gas costs and revenue taxes accounted for 77% of gas revenues in fiscal '05. Depreciation rate: 3.5%. Est'd plant age: 11 years. Has 2,182 employees. Officers and Directors own 1.5% of common (1/06 Proxy). Chmn. and CEO: Thomas Patrick Inc.: IL Address: 130 E. Randolph Dr., Chicago, IL 60601. Telephone: 312-240-4000. Internet: www.peoplesenergy.com.																			
Full Fiscal Year			Shares of Peoples Energy have increased by almost 12% since our last report, following the July announcement of a definitive merger agreement with WPS Resources. The deal was unanimously approved by the boards of directors of both companies. Each common share of Peoples Energy would be converted into .825 shares of WPS Resources stock. Using the recent closing price of WPS Resources, this would result in an approximate value of \$41.32 per share for Peoples Energy stock. The acquisition, which will most likely occur in the first calendar quarter of 2007, is conditional upon shareholder and regulatory approvals. Upon completion, PGL shareholders would own about 42.4% of the new company.																			
Quarterly			The combined company will have about \$9.2 billion in assets. It will operate natural gas and electric utilities in Wisconsin, Illinois, Michigan and Minnesota. The new company will likely pay a quarterly dividend of approximately \$0.66 per share, the same payout Peoples Energy shareholders currently receive (factoring in the exchange ratio). WPS Resources CEO Larry Wevers will take the helm of the combined company. The board of directors will comprise nine members selected by WPS Resources and seven members selected by Peoples Energy.																			
Full Fiscal Year			Meanwhile, Peoples reported subpar results for the three-month period ended June 30th. Revenues declined by 12%, compared to the prior year. Warmer weather resulted in lower deliveries for the Gas distribution segment. Higher maintenance costs and depreciation expense also hindered the bottom line. The share loss was \$0.32 for the second quarter. In addition, the company has lowered its share-net guidance for fiscal year 2006. We now expect share earnings of \$1.25 for this period, a decline of roughly 45% from the prior year.																			
Quarterly			With a dividend yield of 5.3%, this stock may appeal to income-oriented accounts. The current quotation of PGL already reflects the price WPS Resources will likely pay for the company. Moreover, should the deal fall through, Peoples Energy shares could decline significantly. On PGL's own, appreciation potential to late decade is subpar.																			
Full Fiscal Year			Michael F. Napoli September 15, 2006																			
Quarterly			Company's Financial Strength B++																			
Full Fiscal Year			Stock's Price Stability 95																			
Quarterly			Price Growth Persistence 35																			
Full Fiscal Year			Earnings Predictability 80																			
Quarterly			To subscribe call 1-800-833-0046.																			

PIEDMONT NAT'L NYSE-PNY		RECENT PRICE	P/E RATIO	Trailing: 18.2 Median: 17.0	RELATIVE P/E RATIO	DIVID YLD	3.9%	VALUE LINE							
TIMELINESS 4 Raised 12/23/05 SAFETY 2 New 7/27/00 TECHNICAL 2 Raised 9/8/06 BETA .80 (1.00 = Market)		High: 12.4 Low: 9.1	12.9 10.3	18.2 11.0	18.1 13.9	18.3 14.3	19.7 11.8	19.0 14.6	19.0 13.7	22.0 16.6	24.3 19.2	25.8 21.3	26.2 23.2	Target Price 2009 2010 2011	Range 2009 2010 2011
2009-11 PROJECTIONS Price Gain Return High 40 (+60%) 15% Low 30 (+20%) 8%															
Insider Decisions O N D J F M A M J to Buy 10 24 11 10 9 9 9 9 9 to Sell 0 0 0 0 0 0 0 0 0		Institutional Decisions Q2 2005 Q2 2006 Q2 2007 to Buy 78 66 85 to Sell 77 71 81 Net Buy/Sell 30419 31060 32936 Percent of shares traded: 7.5% (2005), 2.5% (2006)													
CAPITAL STRUCTURE as of 4/30/06 Total Debt \$912.0 mill. Due in 5 Yrs \$325.0 mill. LT Debt \$625.0 mill. LT Interest \$40.0 mill. (LT interest earned: 4.5x; total interest coverage: 4.5x)		MARKET CAP: \$1.9 billion (Mid Cap) Common Stock 75,277,520 shs. as of 6/2/06 Pfd Stock None Penelon Assets-10/05 \$199.2 mill. Oblig. \$236.6 mill.													
CURRENT POSITION (MILL) Cash Assets 5.7 7.1 20.3 Other 329.5 497.8 431.7 Current Assets 335.2 504.9 452.0 Accts Payable 99.6 182.8 73.7 Debt Due 109.5 193.5 287.0 Other 97.1 152.3 123.0 Current Liab. 306.2 528.6 483.7 Fix. Chg. Cov. 378% 400% 390%		ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '03-'05 to '09-'11 Revenues 7.5% 11.0% 8.5% "Cash Flow" 7.0% 5.5% 6.0% Earnings 5.5% 5.0% 6.0% Dividends 5.5% 5.0% 5.5% Book Value 6.5% 6.5% 3.0%													
QUARTERLY REVENUES (\$ MILL) Fiscal Year Ends Jan.31 Apr.30 Jul.31 Oct.31 Full Fiscal Year 2003 493.5 407.8 140.1 175.4 1220.8 2004 618.8 482.4 214.7 213.8 1529.7 2005 680.6 508.0 232.9 339.8 1761.1 2006 921.4 483.2 237.9 307.5 1950.0 2007 875 565 315 345 2100		QUARTERLY EARNINGS PER SHARE Fiscal Year Ends Jan.31 Apr.30 Jul.31 Oct.31 Full Fiscal Year 2003 .87 .47 d.15 d.08 1.11 2004 1.03 .54 d.11 d.21 1.27 2005 .93 .52 d.06 d.07 1.32 2006 .94 .57 d.10 d.05 1.30 2007 .98 .57 d.08 d.09 1.40													
QUARTERLY DIVIDENDS PAID Calendar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2002 .193 .20 .20 .20 .79 2003 .20 .208 .208 .208 .82 2004 .208 .215 .215 .215 .85 2005 .215 .23 .23 .23 .91 2006 .23 .24 .24		BUSINESS: Piedmont Natural Gas Company is primarily a regulated natural gas distributor, serving over 990,000 customers in North Carolina, South Carolina, and Tennessee. 2005 revenue mix: residential (39%), commercial (24%), industrial (13%), other (24%). Principal suppliers: Transco and Tennessee Pipeline. Gas costs: 71.0% of revenues. '05 deprec. rate: 3.3%. Estimated plant age: 8.7 years. Non-regulated operations: sale of gas-powered heating equipment; natural gas brokering; propane sales. Has about 2,125 employees. Officers & directors own less than 1% of common stock (1/06 proxy). CEO & President: Thomas E. Skains, Inc.: NC. Addr.: 1915 Raxford Road, P.O. Box 33068 Charlotte, NC 28233. Telephone: 704-364-3120. Internet: www.piedmonting.com.													
ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '03-'05 to '09-'11 Revenues 7.5% 11.0% 8.5% "Cash Flow" 7.0% 5.5% 6.0% Earnings 5.5% 5.0% 6.0% Dividends 5.5% 5.0% 5.5% Book Value 6.5% 6.5% 3.0%		PIEDMONT NATURAL GAS POSTED A LARGER SHARE LOSS THAN WE HAD ANTICIPATED. The fiscal third quarter (ended July 31st) was impacted by reduced margins due to rate design changes, and costs associated with the company's corporate restructuring program. In July, Piedmont and North Carolina's Attorney General office reached a settlement on its customer utilization tracker rate mechanism, which decouples the collection of utility margin from customer volume. This plan is favorable for both customers, who will benefit by the more efficient use of natural gas, and Piedmont shareholders, who will not suffer the negative consequences of conservation by customers. As part of the agreement, the company will fund up to \$1.5 million annually over the next few years toward customer conservation programs, in addition to the \$500,000 it had already committed to spend. Furthermore, Piedmont's initial restructuring involved offering early retirement to management-level employees and will eventually include other positions as part of an effort to streamline business processes and improve corporate efficiencies. The company should realize													
QUARTERLY DIVIDENDS PAID Calendar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2002 .193 .20 .20 .20 .79 2003 .20 .208 .208 .208 .82 2004 .208 .215 .215 .215 .85 2005 .215 .23 .23 .23 .91 2006 .23 .24 .24		about \$5 million to \$6 million in annual cost savings beginning in 2007. The company's nonutility operations will likely represent a greater percentage of future profits. Over the first six months of 2006, these activities contributed earnings of \$25.5 million, which is nearly 20% above the year-ago period. Even though regulated operations make up most of Piedmont's total income, unregulated operations such as Cardinal Pipeline, Pine Needle, and SouthStar Energy provide an added boost to the company's bottom line. We expect Piedmont to continue to pursue strategic investments to diversify its earnings stream over the next few years. Though untimely, this stock is suitable for conservative income-oriented investors. Piedmont offers a respectable dividend yield at 3.9% and has an Above Average Safety rank (2). Moreover, the company should benefit as it diversifies its supply portfolio away from the Gulf Coast region through agreements with Midwestern Gas Transmission Company and Hardy Storage Company. <i>Evan I. Blatter</i> September 15, 2006													
COMPANY'S FINANCIAL STRENGTH Stock's Price Stability B++ Price Growth Persistence 100 Earnings Predictability 75 80		To subscribe call 1-800-833-0046.													

RGC RESOURCES INC NDQ-RGCO		RECENT PRICE	25.96	TRAILING P/E RATIO	17.5	RELATIVE P/E RATIO	0.93	DIV'D YLD	4.6%	VALUE LINE		
RANKS		22.75	23.25	22.50	21.25	20.75	25.50	35.75	29.55	26.90	High	
		17.50	19.25	15.81	18.22	16.99	17.86	21.79	24.50	22.72	Low	
PERFORMANCE	3 Average											
Technical	3 Average											
SAFETY	3 Average											
BETA	.40 (1.00 = Market)											
Financial Strength	B+											
Price Stability	90											
Price Growth Persistence	60											
Earnings Predictability	50											
© VALUE LINE PUBLISHING, INC.		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007/2008	
SALES PER SH		33.10	31.15	41.32	61.34	40.92	52.10	49.94	57.96	--		
"CASH FLOW" PER SH		3.09	3.82	3.94	3.80	3.97	4.47	3.00	3.65	--		
EARNINGS PER SH		1.60	1.59	1.54	1.21	1.28	1.77	1.01	1.62	NA	NA/NA	
DIV'D DECL'D PER SH		1.08	1.08	1.10	1.12	1.14	1.14	1.17	1.18	--		
CAP'L SPENDING PER SH		5.15	4.88	4.21	4.19	4.39	4.17	3.84	3.54	--		
BOOK VALUE PER SH		14.75	15.38	15.94	16.05	16.36	16.90	17.73	18.18	--		
COMMON SHS OUTST'G (MILL)		1.79	1.83	1.88	1.91	1.98	2.00	2.07	2.10	--		
AVG ANN'L P/E RATIO		12.4	12.9	12.8	16.2	15.0	11.5	24.0	16.2	NA	NA/NA	
RELATIVE P/E RATIO		.64	.74	.83	.83	.82	.66	1.27	.86	--		
AVG ANN'L DIV'D YIELD		5.3%	5.3%	5.6%	5.7%	5.9%	5.6%	4.8%	4.5%	--		
SALES (\$MILL)		59.4	57.1	77.8	117.4	80.2	104.4	103.1	121.8	--	<i>Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.</i>	
OPERATING MARGIN		14.5%	18.0%	14.7%	12.6%	16.2%	14.5%	10.5%	11.0%	--		
DEPRECIATION (\$MILL)		2.8	4.1	4.5	5.0	5.3	5.4	4.1	4.3	--		
NET PROFIT (\$MILL)		2.7	2.9	2.9	2.3	2.5	3.5	2.1	3.4	--		
INCOME TAX RATE		29.5%	31.9%	34.6%	40.3%	37.8%	37.8%	37.2%	37.6%	--		
NET PROFIT MARGIN		4.6%	5.0%	3.7%	2.0%	3.1%	3.4%	2.0%	2.8%	--		
WORKING CAP'L (\$MILL)		d3.9	d4.2	d6.3	d8.2	d1.6	d3.0	3.0	6.4	--		
LONG-TERM DEBT (\$MILL)		20.7	23.3	23.3	22.5	30.4	30.2	26.0	30.0	--		
SHR. EQUITY (\$MILL)		26.5	28.2	30.0	30.7	32.1	33.9	36.6	38.2	--		
RETURN ON TOTAL CAP'L		7.4%	7.1%	7.7%	5.8%	5.3%	6.7%	4.3%	6.2%	--		
RETURN ON SHR. EQUITY		10.3%	10.2%	9.6%	7.5%	7.8%	10.4%	5.6%	8.9%	--		
RETAINED TO COM EQ		3.7%	3.3%	2.8%	.8%	.9%	3.8%	NMF	8.9%	--		
ALL DIV'DS TO NET PROF		64%	68%	71%	92%	88%	64%	113%	--	--		
Notes: No analyst estimates available.												
ANNUAL RATES		of change (per share)		5 Yrs.	1 Yr.	ASSETS (\$mill.)		2004	2005	6/30/06	<p>BUSINESS: RGC Resources Inc. engages in the regulated sale and distribution of natural gas to approximately 59,000 residential, commercial, and industrial customers in Roanoke, Virginia, and Bluefield, Virginia, and West Virginia, as well as the surrounding areas through its Roanoke Gas Company and Bluefield Gas Company subsidiaries. Roanoke Gas and Bluefield Gas hold the only franchises and/or certificates of public convenience and necessity to distribute natural gas in its Virginia and West Virginia service areas. RGC also provides information system services to software providers in the utility industry through a subsidiary, RGC Ventures, Inc. of Virginia, which operates as Application Resources. Has 137 employees. Chairman, C.E.O. & President: John B. Williamson III. Inc.: VA. Address: 519 Kimball Avenue, N.E., Roanoke, VA 24016. Tel.: (540) 777-4427. Internet: http://www.rgcreources.com.</p> <p style="text-align: right;">A.O.</p>	
		Sales	8.5%	16.0%	Cash Assets	14.5	1.4	4.8				
		"Cash Flow"	0.5%	22.0%	Receivables	8.8	9.7	7.1				
		Earnings	-1.5%	60.5%	Inventory (Avg cost)	2.5	24.2	18.6				
		Dividends	1.5%	1.0%	Other	20.2	3.7	5.1				
		Book Value	3.0%	2.5%	Current Assets	43.8	39.0	35.7				
Fiscal Year	QUARTERLY SALES (\$mill.)	1Q	2Q	3Q	4Q	Full Year	Property, Plant & Equip, at cost		105.3	109.5		--
09/30/04		29.9	39.7	18.2	15.3	103.1	Accum Depreciation		34.7	35.4		--
09/30/05		34.7	43.3	20.8	22.8	121.6	Net Property		70.6	74.1		77.0
09/30/06		52.8	45.8	13.0			Other		.6	.5		.5
09/30/07							Total Assets		115.0	113.6	113.2	
Fiscal Year	EARNINGS PER SHARE	1Q	2Q	3Q	4Q	Full Year	LIABILITIES (\$mill.)					
09/30/03		.78	1.58	d.28	d.31	1.77	Accts Payable		10.7	19.1	14.9	
09/30/04		.57	.93	d.13	d.38	1.01	Debt Due		12.8	7.7	2.7	
09/30/05		.77	.98	.06	d.20	1.62	Other		17.2	5.9	10.6	
09/30/06		69	1.02	d.03			Current Liab		40.7	32.7	28.2	
09/30/07							LONG-TERM DEBT AND EQUITY as of 6/30/06					
Cal-endar	QUARTERLY DIVIDENDS PAID	1Q	2Q	3Q	4Q	Full Year	Total Debt \$32.7 mil.		Due in 5 Yrs. NA			
2003		.285	.285	.285	.285	1.14	LT Debt \$30.0 mil.					
2004		.285	.295	.295	.295	1.17	Including Cap. Leases NA					
2005		.295	.295	.295	.295	1.18	Leases, Uncapitalized Annual rentals NA		(42% of Cap'l)			
2006		.30	.30	.30			Pension Liability None in '05 vs. None in '04					
INSTITUTIONAL DECISIONS		4Q'05		1Q'06	2Q'06	Pfd Stock None		Pfd Div'd Paid None				
		to Buy		4	6	5	Common Stock 2,130,573 shares		(58% of Cap'l)			
		to Sell		3	6	2						
HKF's(000)		233		238	247							
TOTAL SHAREHOLDER RETURN		Dividends plus appreciation as of 8/31/2006										
		3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.						
		3.46%	7.91%	-0.31%	29.53%	73.79%						

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SEMCO ENERGY NYSE-SEN										RECENT PRICE	5.99	P/E RATIO	20.0 (Trailing: 46.1 Median: 23.4)	RELATIVE P/E RATIO	1.18	DIV'D YLD	Nil	VALUE LINE	
TIMELINESS 3 Lowered 1/13/06		SAFETY 4 Lowered 12/17/04		TECHNICAL 2 Raised 8/25/06		BETA .80 (1.00 = Market)		2009-11 PROJECTIONS		High: 17.5 19.3 18.4 17.5 16.9 15.8 11.4 8.8 6.4 7.1 6.5		Low: 14.0 13.5 15.7 13.1 10.9 10.8 8.9 5.8 3.2 4.5 5.0 5.0		Target Price Range 2009 2010 2011		20 16 12 8 6 4 3 2			
LEGENDS 1.50 = Dividends p sh divided by Interest Rate Relative Price Strength Options: No Shaded area indicates recession																			
2009-11 PROJECTIONS Price Gain: 11 (+8.5%) Ann'l Total Return: 16% High: 11, Low: 6, Mid: 8										Insider Decisions O N D J F M A M J Buy: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Sell: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Options: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0									
Institutional Decisions 4Q2005 1Q2006 2Q2006 Buy: 31 28 30 Sell: 22 22 22 Net: 22501 21575 22128										Percent Shares Traded 9 6 3									
1990-2007 VALUE LINE PUB., INC. 09-11 20.04 19.84 20.97 23.39 27.21 24.49 40.06 55.56 36.67 21.48 23.41 24.28 25.53 19.44 17.90 18.25 17.35 15.50 1.43 1.65 1.78 1.77 1.67 1.71 1.71 1.63 1.39 2.08 2.78 1.98 2.35 1.37 1.12 1.12 1.10 1.25 .59 .63 .78 .78 .84 .83 .88 .71 .55 .96 .90 .01 .48 .14 .12 .26 .25 .35 .53 .55 .58 .61 .62 .67 .71 .74 .74 .81 .84 .84 .59 .35 .08 -- -- -- -- -- 1.40 2.53 2.10 1.83 1.49 1.92 2.21 2.12 1.45 1.95 3.59 3.02 1.86 1.08 1.37 1.19 1.20 1.15 5.86 6.08 6.47 6.93 7.85 7.99 6.61 6.82 7.61 7.95 7.60 6.20 5.84 6.22 5.79 5.85 1.90 6.35 11.40 11.67 12.00 12.35 13.69 13.70 13.67 13.86 17.38 17.91 18.06 18.38 18.84 28.06 28.40 33.70 35.50 35.50 18.4 17.3 16.1 21.4 18.3 19.3 17.7 23.8 29.7 15.3 15.3 -- 17.7 36.5 45.5 22.7 1.37 1.11 .98 1.26 1.20 1.29 1.11 1.37 1.54 .87 .99 -- .97 2.08 2.40 1.22 4.9% 5.1% 4.7% 3.6% 4.0% 4.2% 4.5% 4.4% 4.5% 5.5% 6.1% 6.1% 7.0% 6.8% 1.5% -- --										REVENUES PER SH 14.20 "Cash Flow" per sh 1.40 Earnings per sh .65 Div'ds Decl'd per sh Nil Cap'l Spending per sh .95 Book Value per sh 7.90 Common Shs Outst'g 45.00 Avg Ann'l P/E Ratio 13.0 Relative P/E Ratio .85 Avg Ann'l Div'd Yield Nil Revenues (\$mill) 640 Net Profit (\$mill) 28.0 Income Tax Rate 35.0% Net Profit Margin 4.4% Long-Term Debt Ratio 54.0% Common Equity Ratio 46.0% Total Capital (\$mill) 775 Net Plant (\$mill) 645 Return on Total Cap'l 8.0% Return on Str. Equity 8.0% Return on Com Equity 8.0% Retained to Com Eq 8.0% All Div'ds to Net Prof Nil									
CAPITAL STRUCTURE as of 6/30/06 Total Debt \$472.8 mill. Due in 5 Yrs \$263.9 mill. LT Debt \$441.6 mill. LT Interest \$38.0 mill. (Total Interest coverage: 1.4x) Leases, Uncapitalized Annual rentals \$1.9 mill. Pension Assets -12/05 \$70 mill. Oblig. \$94 mill.										Business Ratios 34.7% 38.2% 41.4% 28.0% 34.8% NMF 38.1% 35.6% -- 33.9% 35.0% 35.0% 2.2% 1.3% 1.4% 4.4% 4.0% NMF 1.9% .6% .8% 1.9% 1.6% 2.5% 54.1% 62.6% 55.7% 54.4% 76.8% 80.8% 82.1% 75.2% 69.3% 62.9% 63.0% 61.5% 45.9% 36.2% 43.3% 45.6% 23.2% 19.2% 17.9% 24.8% 23.6% 27.1% 30.0% 31.3% 197.0 261.3 305.5 312.3 582.8 592.2 615.5 703.4 697.8 702.2 700 715 246.4 257.2 290.2 474.3 510.0 524.5 521.1 582.5 559.7 577.4 585 600 8.3% 5.6% 5.4% 7.5% 5.4% 2.9% 4.3% 2.8% 3.6% 4.7% 4.5% 3.5% 13.3% 10.1% 6.6% 11.9% 12.3% NMF 8.1% 1.7% 1.9% 4.5% 4.0% 5.0% 13.3% 10.3% 6.6% 11.9% 12.3% NMF 8.1% 1.7% 2.5% 4.9% 3.0% 6.0% 2.4% NMF NMF 1.1% 1.2% NMF NMF NMF NMF 4.9% 3.5% 5.0% 82% 105% NMF 91% 90% NMF 121% NMF 20% 27%									
MARKET CAP: \$200 million (Small Cap) CURRENT POSITION 2004 2005 6/30/06 (Mill) Cash Assets 3.7 5.7 5.3 Other 182.7 257.0 152.4 Current Assets 186.4 262.7 157.7 Accts Payable 29.3 64.6 19.7 Debt Due 54.4 76.9 31.2 Other 43.4 54.8 42.6 Current Liab. 127.1 198.3 93.5 Fix. Chg. Cov. 122% 125% NMF										Business Description BUSINESS: SEMCO Energy, Inc. distributes natural gas to about 409,000 customers in Michigan and Alaska. Residential (82% of total sales). Other businesses include information technology services, propane distribution, and natural gas pipeline and storage. Construction Services business discontinued in 2003. Sold energy marketing business in 3/99. Divested NOARK, 1/98. Acquired Hot-flame Transport, 3/98; Enstar, 11/99. 2005 depreciation rate: 3.6%. Has about 568 employees. Off. dir. own 2.2% of common stock; FMR Corp., 10.0%; National City Corp., 9.7% (4/06 proxy). Chairman: Dr. John M. Albertine. President & CEO: George Schreiber, Jr. Inc.: MI Address: 405 Water Street, Port Huron, MI 48060. Telephone: 810-987-2200. Internet: www.semcoenergy.com.									
ANNUAL RATES of change (per sh) Past 10 Yrs. Past 5 Yrs. Past Est'd '03-'05 to '08-'11 Revenues -3.0% -7.5% NMF "Cash Flow" -3.5% -10.5% 2.6% Earnings -14.5% -28.5% 24.5% Dividends -14.0% -29.0% NMF Book Value -2.5% -5.0%										SEMCO Energy has been hurt by weather and customer conservation trends. Unseasonably warmer temperatures in Michigan have contributed to a decline in gas consumption. To make matters worse, higher natural gas prices seem to have prompted a greater number of customers in both Michigan and Alaska to step up their conservation efforts. These unforeseen setbacks probably decreased net income by \$3.1 million in the first half of 2006. We assume that weather conditions will return to normal through the balance of the year, but the company is still faced with several challenges on the operating front. There is a good argument for rate relief, in our view. Indeed, further increases in customers' conservation habits may put greater stress on the company's already weak finances. Mounting operating and maintenance expenses (higher employee benefit costs and delinquent accounts) are taking a toll on the bottom line. Under such conditions, it is not likely that SEMCO will be able to achieve its allowed rate of return of 11.0%. That said, a request with the Michigan Public Service Commission was filed in late May for an \$18.9 million increase in base rates. Hearings are scheduled to begin in December, but the decision process is typically time consuming, taking between nine-12 months. An early settlement should not be ruled out, but this would likely be at the cost of a reduced rate hike. Our 2007 sales and earnings estimates are tentative, at best. Assuming normal weather conditions through next year, profits should rebound. The timing of the aforementioned rate decision is difficult to predict, but there is upside potential should a rate hike be awarded. Most investors should avoid these shares at this time. Although we believe that the company will receive rate relief, the amount that regulators will allow is uncertain. The worst appears to be over for SEMCO, but it's still too early to get on board here. Charles W. Noh September 15, 2006									
QUARTERLY REVENUES (\$ mill) Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2003 207.6 100.5 74.2 163.1 545.4 2004 207.8 81.8 54.0 164.7 508.3 2005 226.8 95.6 82.3 230.6 615.1 2006 271.5 97.0 65.0 186.5 615 2007 215 100 60.0 175 550										QUARTERLY DIVIDENDS PAID Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2002 .21 .125 .125 .125 .59 2003 .125 .125 .075 .075 .40 2004 .075 .075 -- -- .15 2005 -- -- -- -- -- 2006 -- -- -- -- --									
COMPARISON OF FINANCIAL RATIOS 2003 2004 2005 2006 2007 Cash & Equiv's to Current Liabilities: 79.6% 169% Cash & Equiv's to Current Liabilities: 1.7% 6% Working Capital to Sales: NMF 10%										Company's Financial Strength Stock's Price Stability 169% Price Growth Persistence 6 Earnings Predictability 35									
Footnote (A): Diluted eqs. Excludes nonrecurring gain/loss: '98, \$4; '99, \$4; '01, (\$4); '03, (\$1.48); '05, (\$0.27); '06, (\$0.02). Excludes gain/loss from discontinued operations: '04, (\$0.28); '05, \$0.02. Next earnings report due early Nov. Quarterly figures may not sum to total due to rounding or change in share count (anti-dilution). (B) Dividends on common stock suspended as of 6/04. (C) Includes Intangibles; '05; \$143.4 mill., \$4.26/sh (D) In millions.										Disclaimer: © 2006, Value Line Publishing, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.									
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SOUTH JERSEY INDS. NYSE-SJI				RECENT PRICE	28.80	P/E RATIO	15.2 (Trailing: 17.2 Median: 14.5)	RELATIVE P/E RATIO	0.89	DIV'D YLD	3.2%	VALUE LINE					
TIMELINESS 5 Lowered 4/7/06	SAFETY 2 Lowered 1/1/01	TECHNICAL 3 Raised 7/2/06	BETA .70 (1.00 = Market)	High: 11.8 Low: 8.9	12.3 10.1	15.3 10.5	15.4 11.0	15.4 10.8	15.1 12.3	17.0 13.8	18.3 14.1	20.3 15.3	26.5 19.7	32.4 24.9	30.2 25.6	Target Price Range 2009 2010 2011	
2009-11 PROJECTIONS Price Gain: +40% Return: 77% Low: 30 (+5%) High: 40				LEGENDS 1.03 x Dividends p sh divided by Interest Rate Relative Price Strength 2-for-1 split 7/05 Options: No Shaded area indicates recession													
Insider Decisions O N D J F M A M J to Buy 0 1 0 0 0 0 0 0 0 0 to Sell 0 0 0 0 0 0 0 0 0 0 Options 0 0 0 0 0 0 0 0 0 0				Institutional Decisions 4/29/05 10/29/06 2/29/07 to Buy 63 59 64 to Sell 49 52 46 Hdr's(BM) 14085 14280 15700 Percent shares traded 6 2				% TOT. RETURN 0/06 THIS STOCK VS. BARRON'S INDEX 1 yr. 1.5 7.1 3 yr. 67.6 49.4 6 yr. 115.8 70.4									
CAPITAL STRUCTURE as of 6/30/06 Total Debt \$505.1 mill. Due in 5 Yrs \$175.0 mill. LT Debt \$358.1 mill. LT Interest \$20.0 mill. (Total interest coverage: 4.8x)				MARKET CAP: \$850 million (Small Cap) 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007													
ANNUAL RATES of change (per sh) Past 10 Yrs Past 5 Yrs Est'd '03-'05 to '09-'11 Revenues 5.5% 7.5% 4.5% "Cash Flow" 4.5% 6.5% 6.5% Earnings 8.0% 11.5% 7.0% Dividends 1.5% 2.5% 6.0% Book Value 5.5% 13.0% 6.0%				South Jersey Industries' earnings comparisons have been weak over the first six months of 2006. This is largely due to warmer than normal temperatures and conservation by customers as a result of high natural gas prices. On the positive side, there is continued optimism that the company's conservation and usage adjustment proposal will be approved by the New Jersey Board of Public Utilities and be in place by next winter's heating season. Moreover, the utility added 8,740 customers during the past 12 months, which represents nearly a 3% increase over the prior year. Due to the strength of the local economy and demand for housing in the region, the company should add customers at a rate exceeding the industry average over the next few years. For 2006, we look for earnings to advance about 8%, to \$1.85, due to a pickup in nonregulated activities, followed by a more sustainable 6%-7% rate out to late decade.													
QUARTERLY REVENUES (\$ mill.) Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2003 279.9 106.2 90.1 220.6 696.8 2004 307.6 136.5 129.5 245.5 819.1 2005 328.6 154.0 157.0 281.4 921.0 2006 365.0 155.5 162 277.5 960 2007 375 175 172 288 1010				QUARTERLY EARNINGS PER SHARE Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2003 .92 .08 d.07 .44 1.37 2004 .91 .15 .02 .50 1.58 2005 .96 .27 .09 .39 1.71 2006 .93 .25 .14 .53 1.85 2007 .99 .30 .12 .55 1.95													
QUARTERLY DIVIDENDS PAID Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2002 .185 .188 .188 .38 .94 2003 -- .193 .193 .395 .78 2004 -- .202 .202 .415 .82 2005 -- .213 .213 .438 .86 2006 -- .225 .225				Marina Energy still has room for growth. It recently completed the expansion of its Atlantic City thermal plant to support the 500,000-square-foot expansion to the gaming area at the Borgata Hotel Casino & Spa. Results should be further enhanced toward the end of next year when an 800-room tower is completed at the Borgata. Also, Marina is in the process of completing a 3.8 megawatt methane-to-electric generation project at the Warren County district landfill, which should provide additional opportunities for growth. Looking ahead, the subsidiary may be able to benefit should a casino/hotel be built on a 50-acre property owned by MGM that is located next to the Borgata.													
CURRENT POSITION (MILL) Cash Assets 10.6 4.9 6.9 Other 273.3 352.6 288.9 Current Assets 283.9 357.5 295.8 Accts Payable 118.8 179.0 74.8 Debt Due 97.6 149.7 147.0 Other 68.9 74.4 105.2 Current Liab. 285.3 403.1 327.0 Fbx. Chg. Cov. 426% 486% 445%				Business: South Jersey Industries, Inc. is a holding company, its subsidiary, South Jersey Gas Co., distributes natural gas to 322,424 customers in New Jersey's southern counties, which covers 2,500 square miles and includes Atlantic City. Gas revenue mix '05: residential, 45%; commercial, 23%; cogeneration and electric generation 4%; Industrial, 23%. Non-utility operations include:													
Company's Financial Strength B++ Stock's Price Stability 100 Price Growth Persistence 95 Earnings Predictability 80				After a slow start to the year, the Residential & Commercial Service business may exceed its 2005 performance going forward. This is primarily due to recent additions to its portfolio of services that include propane heaters and appliances, and small commercial heating, ventilating, and air conditioning systems. This untimely stock is best suited for investors seeking moderate yield and good dividend growth potential. Over the 2009-2011 period, we look for steady dividend increases, which should push the yield to around 3.5%, along with a slight reduction in the debt-to-equity ratio.													
Footnote (A): Based on avg. shs. Excl. nonrecr. gain: '01, \$0.13. Excl. gain (losses) from discont. ops.: '96, \$1.14; '97, (\$0.24); '98, (\$0.26); '99, (\$0.02); '00, (\$0.04); '01, (\$0.02); '02, (\$0.04); '03, (\$0.09); '05, (\$0.02). Excl. gains due to acct'g change: '93, \$0.04; '01, \$0.14. Next eqs. report due late Oct. (B) Dividends paid early Apr., Jul., Oct., and late Dec. = Div. reinvest. plan avail. (2% disc.). (C) Incl. regulatory assets (\$121.5 mill.): at 12/31/05, \$4.19 per sh. (D) In millions, adjusted for split.				THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is solely for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.													

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DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

286. With reference to page 30, lines 15-26, and Exhibit MJB-17, please list the screens applied to the Value Line database to arrive at the ten companies.

RESPONSE:

The screens that were used were companies in the Value Line Investment Survey - Small and Mid-Cap Edition with total assets of \$200 million or less and a calculated beta coefficient between 0.50 and 0.60. I believe that these criteria meet the standard that the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks which was articulated by the U.S. Supreme Court in Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944).

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

287. With reference to page 31, lines 1-6, and Exhibit MJB-18, please provide copies of all data and source documents used in the construction of Exhibits MJB-18. Please provide the data used in the Exhibit in hard copy and electronic formats (Microsoft Excel), with all data and equations left intact.

RESPONSE:

All of the source data for Exhibit MJB-18 was provided in Exhibit MJB-17. There was no data source other than the data contained in Exhibit MJB-17 that was used in constructing Exhibit MJB-18.

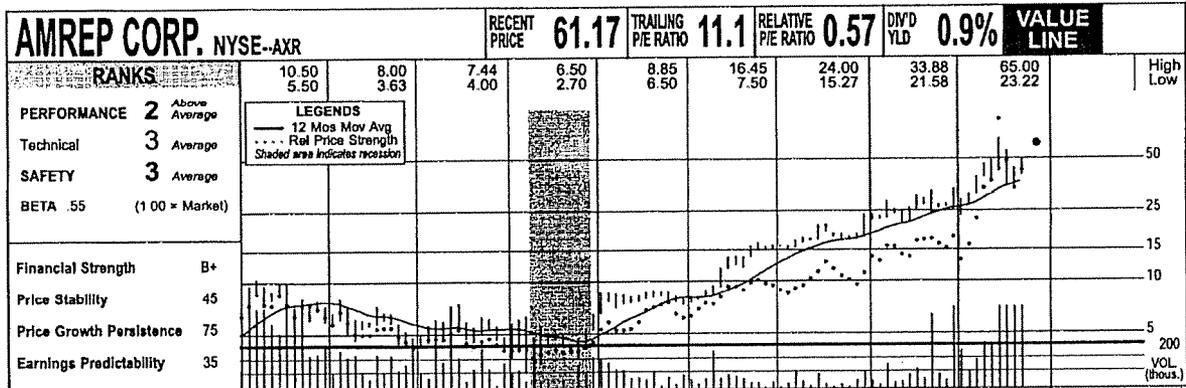
Responsible Witness:

Martin J. Blake

AMERICAN DENTAL		NDQ-ADPI				RECENT PRICE	TRAILING P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE
RANKS		12.92	8.92	6.25	7.67	17.99	20.7	1.03	Nil	High
PERFORMANCE		4.75	4.42	3.33	2.49	4.20	5.33	7.08	12.36	10.84
Technical		LEGENDS — 12 Mos Mov Avg - - - Rel Price Strength 3-for-2 split 10/05 Shaded area indicates recession								
SAFETY		18 13 8 5 4 3 2								
BETA .50 (1.00 = Market)		1300 VOL (hour.)								
Financial Strength		B+								
Price Stability		35								
Price Growth Persistence		85								
Earnings Predictability		70								
O VALUE LINE PUBLISHING, INC.										
1998 1999 2000 2001 2002 2003 2004 2005 2006 2007/2008										
SALES PER SH	7.54	11.01	12.90	13.70	13.49	14.84	15.10	16.07	--	
"CASH FLOW" PER SH	.57	1.15	1.28	1.14	1.26	1.43	1.59	1.82	--	
EARNINGS PER SH	.36	.52	.56	.30	.42	.55	.71	.81	.88 ^{A,B}	1.02 ^{C,NA}
DIV'D DECL'D PER SH	--	--	--	--	--	--	--	--	--	--
CAP'L SPENDING PER SH	.45	1.17	.84	.63	.52	.67	.82	.90	--	
BOOK VALUE PER SH	4.33	4.90	5.25	5.74	6.15	6.70	7.37	8.31	--	
COMMON SHS OUTST'G (MILL)	11.15	10.66	11.13	10.76	10.88	11.03	11.83	12.28	--	
AVG ANN'L P/E RATIO	NMF	12.6	8.9	16.4	13.7	11.5	15.8	21.7	20.4	17.6 ^{NA}
RELATIVE P/E RATIO	NMF	.72	.58	.84	.75	.66	.83	1.15	--	
AVG ANN'L DIV'D YIELD	--	--	--	--	--	--	--	--	--	
SALES (\$MILL)	84.1	117.4	143.6	147.4	146.8	163.7	178.6	196.9	--	Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.
OPERATING MARGIN	11.8%	15.9%	16.2%	21.7%	22.3%	22.8%	14.6%	15.6%	--	
DEPRECIATION (\$MILL)	2.5	6.2	8.1	9.0	9.0	9.6	10.3	12.0	--	
NET PROFIT (\$MILL)	3.9	6.0	6.2	3.3	4.7	6.2	8.5	10.3	--	
INCOME TAX RATE	38.8%	43.3%	43.0%	40.6%	38.5%	40.8%	39.6%	39.1%	--	
NET PROFIT MARGIN	4.6%	5.1%	4.3%	2.2%	3.2%	3.8%	4.8%	5.2%	--	
WORKING CAP'L (\$MILL)	d2.7	.1	4.1	9.2	6.4	3.9	d2.3	2.0	--	
LONG-TERM DEBT (\$MILL)	10.0	40.3	55.3	54.8	49.7	42.3	28.0	32.0	--	
SHR. EQUITY (\$MILL)	48.3	52.2	58.5	61.8	66.9	73.9	87.2	101.9	--	
RETURN ON TOTAL CAP'L	7.6%	7.5%	7.3%	4.6%	5.3%	6.4%	8.1%	8.4%	--	
RETURN ON SHR. EQUITY	8.1%	11.5%	10.5%	5.3%	7.0%	8.4%	9.8%	10.1%	--	
RETAINED TO COM EQ	8.1%	11.5%	10.5%	5.3%	7.0%	8.4%	9.8%	10.1%	--	
ALL DIV'DS TO NET PROF	--	--	--	--	--	--	--	--	--	
^A No. of analysts changing earn. est. in last 9 days: 0 up, 0 down, consensus 5-year earnings growth 17.5% per year. ^B Based upon 2 analysts' estimates. ^C Based upon 2 analysts' estimates.										
ANNUAL RATES				ASSETS (\$mill.)				INDUSTRY: Medical Services		
of change (per share)				2004 2005 9/30/06				BUSINESS: American Dental Partners, Inc. provides business services to multidisciplinary dental groups in certain markets in the US. The company acquires certain assets of the dental practices with which it affiliates and enters into long-term service agreements with these affiliated dental groups. It provides services necessary for the administration of the nonclinical aspects of the dental operations. American Dental's services to the affiliated dental groups include providing assistance with organizational planning and development; recruiting, retention, and training programs; quality assurance initiatives; facilities development and management; employee benefits administration; procurement; information systems; marketing and payor relations; and financial planning, reporting, and analysis. As of October 30, American Dental Partners was affiliated with 21 dental groups, which had 201 dental facilities with approximately 1,876 operatories in 18 states. Has 2197 employees. Chairman, C.E.O. & President: Gregory A. Serrao, Inc.: DE. Address: 201 Edgewater Drive, Suite 285, Wakefield, MA 01880. Tel.: (781) 224-0880. Internet: http://www.amdpi.com . L.Y. December 22, 2006		
Sales				Cash Assets						
"Cash Flow"				Receivables						
Earnings				Inventory						
Dividends				Other						
Book Value				Current Assets						
Property, Plant & Equip., at cost				Accum Depreciation						
Net Property				Other						
Total Assets				Total Assets						
LIABILITIES (\$mill.)				LONG-TERM DEBT AND EQUITY as of 9/30/06						
Accts Payable				Total Debt \$20.6 mill.						
Debt Due				LT Debt \$20.6 mill.						
Other				Including Cap. Leases NA						
Current Liab				Leases, Uncapitalized Annual rentals NA						
Pension Liability None in '05 vs. None in '04				Pfd Stock None						
Pfd Div'd Paid None				Common Stock 12,312,075 shares						
INSTITUTIONAL DECISIONS				TOTAL SHAREHOLDER RETURN						
1Q'06 2Q'06 3Q'06				Dividends plus appreciation as of 11/30/2006						
to Buy				3 Mos.						
to Sell				6 Mos.						
Hld's(000)				1 Yr.						
9875				3 Yrs.						
9124				5 Yrs.						
8440				7.65%						
				27.85%						
				-5.09%						
				146.34%						
				266.62%						

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O VALUE LINE PUBLISHING, INC.	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007/2008
SALES PER SH	25.82	16.55	11.14	12.69	11.20	19.83	20.30	19.89	--	
"CASH FLOW" PER SH	1.86	.73	.66	.97	1.42	2.52	3.16	3.78	--	
EARNINGS PER SH	1.21	.16	.38	.56	.95	1.77	2.35	3.39	NA	NA/NA
DIV'DS DECL'D PER SH	--	--	--	--	--	.25	.40	.55	--	
CAP'L SPENDING PER SH	.45	.37	.31	.44	.29	.55	.75	.53	--	
BOOK VALUE PER SH	12.43	12.70	13.66	14.22	14.24	15.96	17.72	16.04	--	
COMMON SHS OUTST'G (MILL)	7.37	7.24	6.57	6.57	6.59	6.61	6.63	7.42	--	
AVG ANN'L P/E RATIO	5.8	33.8	13.6	10.0	8.5	8.3	8.6	8.4	NA	NA/NA
RELATIVE P/E RATIO	.30	1.93	.88	.51	.46	.47	.45	.44	--	
AVG ANN'L DIV'D YIELD	--	--	--	--	--	1.7%	2.0%	1.9%	--	
SALES (\$MILL)	190.3	119.8	73.2	83.4	73.8	131.1	134.5	148.3	--	<i>Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.</i>
OPERATING MARGIN	10.4%	7.5%	8.1%	12.1%	18.3%	18.7%	21.5%	26.1%	--	
DEPRECIATION (\$MILL)	4.8	4.1	1.8	2.7	3.1	5.0	5.3	5.6	--	
NET PROFIT (\$MILL)	8.9	1.2	2.6	3.7	6.3	11.7	15.6	22.5	--	
INCOME TAX RATE	13.5%	40.0%	--	39.9%	36.4%	37.0%	31.8%	31.3%	--	
NET PROFIT MARGIN	4.7%	1.0%	3.5%	4.4%	8.5%	8.0%	11.6%	15.2%	--	
WORKING CAP'L (\$MILL)	112.4	97.2	93.3	81.1	79.2	88.5	93.3	100.6	--	
LONG-TERM DEBT (\$MILL)	47.9	31.3	34.8	13.2	14.3	10.8	10.0	4.3	--	
SHR. EQUITY (\$MILL)	91.6	92.0	89.8	93.5	93.8	105.5	117.4	119.0	--	
RETURN ON TOTAL CAP'L	8.1%	2.1%	3.2%	4.1%	6.1%	10.4%	12.5%	18.4%	--	
RETURN ON SHR. EQUITY	9.7%	1.3%	2.8%	4.0%	6.7%	11.1%	13.3%	18.9%	--	
RETAINED TO COM EQ	9.7%	1.3%	2.8%	4.0%	6.7%	9.5%	11.1%	NMF	--	
ALL DIV'DS TO NET PROF	--	--	--	--	--	14%	17%	119%	--	

Note: No analyst estimates available.

ANNUAL RATES				ASSETS (\$mill.)					
of change (per share)	5 Yrs.	1 Yr.		2004	2005	7/31/06			
Sales	2.5%	-1.5%		37.7	46.9	95.2			
"Cash Flow"	24.0%	19.5%		57.7	51.7	53.3			
Earnings	34.0%	44.5%		52.9	47.5	42.1			
Dividends	--	37.5%		Other	.0	7.8			
Book Value	5.0%	-9.5%		Current Assets	148.3	146.1	198.4		
Fiscal Year	QUARTERLY SALES (\$mill.)				Full Year	LIABILITIES (\$mill.)			
	1Q	2Q	3Q	4Q		Accs Payable	50.7	39.4	7.3
04/30/05	33.6	33.2	31.5	36.2	134.5	Debt Due	2.1	1.7	1.7
04/30/06	30.1	34.8	35.6	47.8	148.3	Other	2.2	4.5	17.4
04/30/07	58.3					Current Liab	55.0	45.6	26.4
04/30/08									
Fiscal Year	EARNINGS PER SHARE				Full Year	LONG-TERM DEBT AND EQUITY as of 7/31/06			
	1Q	2Q	3Q	4Q		Total Debt \$4.4 mill.	Due in 5 Yrs. NA		
04/30/04	.54	.41	.51	.31	1.77	LT Debt \$2.7 mill.	Including Cap. Leases NA		
04/30/05	.59	.66	.38	.72	2.35	(2% of Cap'l)			
04/30/06	.28	.76	.79	1.56	3.39	Leases, Uncapitalized Annual rentals NA			
04/30/07	2.38					Pension Liability \$3.2 mill. in '05 vs. \$5.8 mill. in '04			
04/30/08						Pfd Stock None Pfd Div'd Paid None			
Calendar	QUARTERLY DIVIDENDS PAID				Full Year	Common Stock 6,645,112 shares (98% of Cap'l)			
	1Q	2Q	3Q	4Q					
2003	--	--	.25	--	.25				
2004	--	--	.40	--	.40				
2005	--	--	.55	--	.55				
2006	3.50	--	.85	--					

INDUSTRY: Diversified Co

BUSINESS: AMREP Corporation engages in the real estate, fulfillment services, and newsstand distribution businesses. It conducts real estate business primarily in Rio Rancho, New Mexico. The company owns approximately 18,550 acres in Rio Rancho, as well as two tracts of land in Colorado, consisting of one residential property of approximately 160 acres planned for approximately 350 homes; and one property of approximately 10 acres zoned for commercial use. Its fulfillment services include magazine subscription, lettershop and graphics arts services, customer telephone support, list services, and product fulfillment services. The company distributes magazines for approximately 250 publishers in its newsstand distribution businesses. Among the titles are special interest magazines, including automotive, puzzle, men's sophisticates, comics, romance, and sports. Has 1295 employees. Chairman: Edward B. Cloues II, Inc.: OK. Address: 212 Carnegie Center, Suite 302, Princeton, NJ 08540. Tel.: (609) 716-8200. Internet: <http://www.amrepcorp.com>.

A.O.

October 20, 2006

TOTAL SHAREHOLDER RETURN				
Dividends plus appreciation as of 9/30/2006				
3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
-10.03%	23.72%	82.69%	237.92%	1139.61%

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AXSYS TECH NDQ-AXYS		RECENT PRICE	TRAILING P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE					
		16.98	17.9	0.90	Nil						
RANKS PERFORMANCE 1 Highest Technical 2 Above Average SAFETY 3 Average BETA .60 (1.00 = Market)		18.33 5.83	13.33 6.25	34.00 7.50	24.08 4.71	6.67 4.14	10.03 4.67	19.05 8.33	22.75 16.45	18.67 13.89	High Low
LEGENDS — 12 Mos Mov Avg - - - - - Rel Price Strength 3-for-2 split 7/04 Shaded area indicates recession											
Financial Strength B+ Price Stability 40 Price Growth Persistence 35 Earnings Predictability 15											
VALUE LINE PUBLISHING, INC.		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007/2008
SALES PER SH		19.41	14.34	13.07	12.67	11.40	12.18	14.67	12.58	-	-
"CASH FLOW" PER SH		2.12	.02	.03	d.58	d.05	1.13	1.69	1.08	-	-
EARNINGS PER SH		1.35	d.47	d.41	d1.02	d.43	.71	1.26	.90	.96 ^{A,B}	1.09 ^{C,NA}
DIV'DS DECL'D PER SH		-	-	-	-	-	-	-	-	-	-
CAP'L SPENDING PER SH		.60	.41	.56	.56	.20	.43	.60	.33	-	-
BOOK VALUE PER SH		8.68	7.34	7.60	6.59	5.60	6.28	7.52	11.26	-	-
COMMON SHS OUTST'G (MILL)		6.01	5.96	7.03	7.04	6.98	6.99	7.06	10.62	-	-
AVG ANN'L P/E RATIO		9.1	-	-	-	-	9.8	10.4	20.9	17.7	15.6/NA
RELATIVE P/E RATIO		.47	-	-	-	-	.56	.55	1.11	-	-
AVG ANN'L DIV'D YIELD		-	-	-	-	-	-	-	-	-	-
SALES (\$MILL)		116.6	85.4	91.8	89.2	79.6	85.1	103.5	133.5	-	-
OPERATING MARGIN		12.7%	3.6%	NMF	NMF	5.6%	9.3%	11.6%	13.4%	-	-
DEPRECIATION (\$MILL)		4.2	3.0	3.1	3.1	2.7	2.9	2.7	4.0	-	-
NET PROFIT (\$MILL)		8.5	d2.9	d2.9	d7.2	d3.0	5.0	9.2	7.5	-	-
INCOME TAX RATE		11.1%	-	-	-	-	4.5%	-	37.5%	-	-
NET PROFIT MARGIN		7.3%	NMF	NMF	NMF	NMF	5.9%	8.8%	5.6%	-	-
WORKING CAP'L (\$MILL)		30.7	31.4	41.5	35.4	30.6	33.4	31.5	36.3	-	-
LONG-TERM DEBT (\$MILL)		5.6	1.8	1.5	1.4	1.2	.6	3.5	-	-	-
SHR. EQUITY (\$MILL)		52.1	43.7	53.4	46.4	39.1	43.9	53.1	119.5	-	-
RETURN ON TOTAL CAP'L		15.6%	NMF	NMF	NMF	NMF	11.4%	16.4%	7.0%	-	-
RETURN ON SHR. EQUITY		16.4%	NMF	NMF	NMF	NMF	11.4%	17.3%	6.3%	-	-
RETAINED TO COM EQ		16.4%	NMF	NMF	NMF	NMF	11.4%	17.3%	6.3%	-	-
ALL DIV'DS TO NET PROF		-	-	-	-	-	-	-	-	-	-
^A No. of analysts changing earn. est. in last 18 days: 0 up, 0 down, consensus 5-year earnings growth 14.0% per year. ^B Based upon 4 analysts' estimates. ^C Based upon 4 analysts' estimates.											
ANNUAL RATES of change (per share) 5 Yrs. 1 Yr. Sales -3.5% -14.5% "Cash Flow" 12.5% -36.0% Earnings - -28.5% Dividends - - Book Value 1.0% 49.5%			ASSETS (\$mill.) 2004 2005 9/30/06 Cash Assets 6.0 7.1 5.7 Receivables 15.7 18.8 18.9 Inventory (FIFO) 29.7 37.9 43.4 Other 4.6 4.4 4.4 Current Assets 56.0 68.2 72.4			INDUSTRY: Precision Instrument BUSINESS: Axsys Technologies, Inc. makes micro-positioning and precision optical components, subsystems, and systems for high-performance markets. Axsys also distributes precision ball bearings for use in a variety of industrial and commercial applications. Through its Aerospace and Defense Group, the company offers its capabilities in magnetics, precision optics, precision machining, and subsystems integration to space and defense original equipment manufacturers (OEMs). Through its Commercial Products Group, Axsys makes and sells components, subsystems, and systems to high-performance OEMs and end users serving the electronics capital equipment, data storage, and digital imaging markets. It operates primarily in the United States and Europe. Has 749 employees. Chairman & C.E.O.: Stephen W. Bershad, Inc.: DE. Address: 175 Capital Boulevard, Suite 103, Rocky Hill, CT 06067. Tel.: (860) 257-0200. Internet: http://www.axsys.com.					
QUARTERLY SALES (\$mill.) Fiscal Year 1Q 2Q 3Q 4Q Full Year 12/31/04 23.4 25.7 28.4 28.0 103.5 12/31/05 28.6 33.4 35.6 35.9 133.5 12/31/06 37.5 38.5 39.8 12/31/07			LIABILITIES (\$mill.) 2004 2005 9/30/06 Accts Payable 6.5 8.0 8.3 Debt Due 1.4 .0 .0 Other 16.6 23.9 23.5 Current Liab 24.5 31.9 31.8			Property, Plant & Equip, at cost 31.4 36.4 -- Accum Depreciation 18.1 21.0 -- Net Property 13.3 15.4 21.2 Other 16.5 72.6 71.8 Total Assets 85.8 156.2 165.4					
EARNINGS PER SHARE Fiscal Year 1Q 2Q 3Q 4Q Full Year 12/31/03 .12 .21 .17 .21 .71 12/31/04 .23 .27 .27 .49 1.26 12/31/05 .22 .23 .22 .23 .90 12/31/06 .23 .24 .25 .25 12/31/07 .27 .25			LONG-TERM DEBT AND EQUITY as of 9/30/06 Total Debt None Due in 5 Yrs. None LT Debt None Including Cap. Leases None Leases, Uncapitalized Annual rentals NA Pension Liability \$6 mill. in '05 vs \$6 mill. in '04			Pfd Stock None Pfd Div'd Paid None Common Stock 10,638,572 shares (100% of Cap'l)					
QUARTERLY DIVIDENDS PAID Calendar 1Q 2Q 3Q 4Q Full Year 2003 - - - - - 2004 - - - - - 2005 - - - - - 2006 - - - - -			INSTITUTIONAL DECISIONS 4Q'05 1Q'06 2Q'06 to Buy 22 20 17 to Sell 14 15 10 Hld's(000) 6222 5497 5589			TOTAL SHAREHOLDER RETURN Dividends plus appreciation as of 10/31/2006 3 Mos. 6 Mos. 1 Yr. 3 Yrs. 5 Yrs. 8.31% 3.03% -8.50% 76.58% 175.24%					

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Exhibit MJB-17
Page 4 of 10

DYNAMICS RESEARCH		NDQ--DRCO		RECENT PRICE	9.96	TRAILING P/E RATIO	17.5	RELATIVE P/E RATIO	0.89	DIV'D YLD	Nil	VALUE LINE																																																																																																																																																																																																																																																																								
RANKS		12.75	9.50	9.59	19.50	25.30	19.50	18.90	18.67	15.65		High																																																																																																																																																																																																																																																																								
		4.13	2.88	6.56	7.75	9.13	9.33	14.69	13.85	9.10		Low																																																																																																																																																																																																																																																																								
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EQUITY (\$MILL)</td> <td>31.3</td> <td>23.8</td> <td>29.3</td> <td>37.1</td> <td>39.8</td> <td>48.7</td> <td>61.3</td> <td>74.2</td> <td>--</td> <td></td> </tr> <tr> <td>RETURN ON TOTAL CAP'L</td> <td>2.2%</td> <td>NMF</td> <td>12.8%</td> <td>14.9%</td> <td>15.5%</td> <td>15.7%</td> <td>9.2%</td> <td>15.3%</td> <td>--</td> <td></td> </tr> <tr> <td>RETURN ON SHR. 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FRISCH'S RESTAURANTS		AMEX--FRS	RECENT PRICE	25.25	TRAILING P/E RATIO	14.7	RELATIVE P/E RATIO	0.75	DIV'D YLD	1.7%	VALUE LINE	
RANKS	13.88	11.50	15.13	15.45	24.80	28.98	32.24	26.90	28.00		High	
	7.13	8.25	8.50	11.45	15.10	17.29	22.50	22.58	20.15		Low	
PERFORMANCE	3	Average										45
Technical	3	Average										30
SAFETY	3	Average										22.5
BETA	.60	(1.00 = Market)										13
Financial Strength	B+											9
Price Stability	80											6
Price Growth Persistence	60											4
Earnings Predictability	65											3
												90
												VOL. (thous.)
© VALUE LINE PUBLISHING, INC.	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007/2008		
SALES PER SH	25.35	27.04	28.33	37.92	43.12	47.44	51.84	55.23	57.34			
"CASH FLOW" PER SH	2.30	2.56	2.66	3.22	3.57	4.19	4.27	5.28	4.39			
EARNINGS PER SH	.73	.86	1.08	1.47	1.59	1.95	2.05	2.82	1.78		N/A/N/A	
DIV'DS DECL'D PER SH	.26	.28	.31	.32	.35	.36	.42	.44	.44			
CAP'L SPENDING PER SH	1.87	2.15	2.35	4.93	5.89	4.35	5.97	4.77	3.76			
BOOK VALUE PER SH	8.31	9.37	9.18	11.26	12.47	14.09	15.79	18.23	19.84			
COMMON SHS OUTST'G (MILL)	6.01	5.90	5.90	5.01	4.91	4.95	5.03	5.06	5.07			
AVG ANN'L P/E RATIO	18.7	11.9	9.0	8.3	10.2	9.6	12.6	9.0	13.3		N/A/N/A	
RELATIVE P/E RATIO	.97	.68	.59	.43	.56	.55	.67	.48	.71			
AVG ANN'L DIV'D YIELD	1.9%	2.7%	3.2%	2.6%	2.2%	1.9%	1.6%	1.7%	1.9%			
SALES (\$MILL)	152.2	159.6	167.2	190.0	211.8	234.9	260.9	279.2	291.0		<i>Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.</i>	
OPERATING MARGIN	12.6%	12.8%	12.8%	12.0%	31.4%	32.5%	31.5%	30.9%	31.6%			
DEPRECIATION (\$MILL)	9.3	9.9	9.6	8.6	9.6	11.0	11.0	12.1	13.1			
NET PROFIT (\$MILL)	4.5	5.2	6.1	7.6	8.0	9.8	10.5	14.6	9.2			
INCOME TAX RATE	33.3%	36.3%	35.5%	34.5%	34.8%	33.5%	33.3%	24.8%	32.1%			
NET PROFIT MARGIN	3.0%	3.2%	3.6%	4.0%	3.8%	4.2%	4.0%	5.2%	3.1%			
WORKING CAP'L (\$MILL)	d8.5	d9.6	3.1	d10.9	d14.9	d14.0	d20.6	d21.2	d18.5			
LONG-TERM DEBT (\$MILL)	35.5	26.4	30.8	28.2	40.2	38.0	38.4	32.7	34.1			
SHR. EQUITY (\$MILL)	49.9	55.3	54.2	56.5	61.2	69.8	79.5	92.2	100.7			
RETURN ON TOTAL CAP'L	7.1%	7.8%	8.6%	10.5%	9.1%	10.4%	10.0%	12.8%	7.9%			
RETURN ON SHR. EQUITY	9.1%	9.3%	11.2%	13.4%	13.0%	14.0%	13.2%	15.8%	9.1%			
RETAINED TO COM EQ	5.8%	6.3%	8.0%	10.5%	10.2%	11.5%	10.6%	13.4%	6.9%			
ALL DIV'DS TO NET PROF	36%	32%	29%	22%	22%	18%	20%	15%	24%			

Note: No analyst estimates available.

ANNUAL RATES				ASSETS (\$mill.)			INDUSTRY: Restaurant				
<i>of change (per share)</i>	5 Yrs.	1 Yr.		2005	2006	9/14/06					
Sales	12.0%	4.0%		3	8	3	BUSINESS: Frisch's Restaurants, Inc. engages in the operation and licensing of full service family-style restaurants under the name "Frisch's Big Boy"; and operation of grill buffet style restaurants under the name "Golden Corral". As of September 19, it operated 90 Big Boy restaurants and 34 Golden Corral restaurants, as well as 28 Big Boy restaurants that were licensed to other operators. These restaurants are located in Ohio, Indiana, Kentucky, and Pennsylvania. Big Boy restaurants feature various items, such as the hamburger sandwich, onion rings, and hot fudge cake. Menu selections also include sandwiches, pasta, roast beef, chicken and seafood dinners, desserts, nonalcoholic beverages, and other items. The Golden Corral concept offers various buffet items, including fried and rotisserie chicken, meat loaf, pot roast, fish, and a carving station that rotates hot roast beef, ham, and turkey. Has about 9000 employees. C.E.O. & President: Daniel W. Geeding, Inc.: OH. Address: 2800 Gilbert Avenue, Cincinnati, OH 45206. Tel.: (513) 961-2660. Internet: http://www.frischs.com .				
"Cash Flow"	10.5%	-17.0%		1.2	1.5	1.4					
Earnings	14.5%	-37.0%		4.6	4.8	5.1					
Dividends	7.5%	-		3.7	5.0	5.0					
Book Value	12.5%	9.0%		9.8	12.1	11.8					
Fiscal Year	QUARTERLY SALES (\$mill.)			LIABILITIES (\$mill.)							
	1Q	2Q	3Q	4Q	Full Year	Accs Payable	12.8	10.3	11.6		
05/31/04	77.4	60.4	59.6	63.5	260.9	Debt Due	8.1	9.3	9.2		
05/31/05	84.1	66.7	62.8	65.6	279.2	Other	10.1	11.0	10.0		
05/31/06	86.5	67.0	67.3	70.2	291.0	Current Liab	31.0	30.6	30.8		
05/31/07	88.2					LONG-TERM DEBT AND EQUITY as of 9/14/06					
	EARNINGS PER SHARE			Full Year	Total Debt \$41.3 mill.	Due in 5 Yrs. NA					
05/31/03	58	.44	.32	.61	1.95	LT Debt \$32.1 mill.	Including Cap. Leases NA				
05/31/04	64	.47	.43	.51	2.05	(24% of Cap'l)					
05/31/05	56	.53	1.19	.54	2.82	Leases, Uncapitalized Annual rentals NA					
05/31/06	50	.33	.43	.52	1.78	Pension Liability None in '08 vs. None in '05					
05/31/07	44					Pfd Stock None Pfd Div'd Paid None					
Cal-endar	QUARTERLY DIVIDENDS PAID			Full Year	Common Stock 5,078,501 shares	(76% of Cap'l)					
	1Q	2Q	3Q	4Q							
2003	.09	.09	.09	.11	.38						
2004	.11	.11	.11	.11	.44						
2005	.11	.11	.11	.11	.44						
2006	.11	.11	.11	.11	.44						
INSTITUTIONAL DECISIONS				4Q'05	1Q'06	2Q'06					
to Buy	8	11	14				TOTAL SHAREHOLDER RETURN				
to Sell	6	10	7				<i>Dividends plus appreciation as of 10/31/2006</i>				
Hld's(000)	1867	1911	2116				3 Mos.	6 Mos.	1 Yr.	3 Yrs.	5 Yrs.
							8.40%	8.08%	7.01%	8.40%	102.94%

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Exhibit MJB-17
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LOJACK CORP		NDQ-LOJN		RECENT PRICE	20.10	TRAILING P/E RATIO	20.3	RELATIVE P/E RATIO	1.04	DIV'D YLD	Nil	VALUE LINE
RANKS		15.63 8.00	12.75 6.25	8.88 6.50	7.97 4.65	5.65 3.35	9.90 4.49	12.85 6.92	29.00 11.88	26.79 15.10		High Low
PERFORMANCE	4	LEGENDS										
Technical	4	— 12 Mos. Mov. Avg. ... Rel. Price Strength Shaded area indicates recession										
SAFETY	3											
BETA	60	(1.00 = Market)										
Financial Strength	B+											
Price Stability	35											
Price Growth Persistence	20											
Earnings Predictability	35											
© VALUE LINE PUBLISHING, INC. 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007/2008												
SALES PER SH	4.71	4.93	6.15	5.74	7.90	8.40	8.46	10.08				
"CASH FLOW" PER SH	.77	.60	.60	.42	.42	.66	.89	1.32				
EARNINGS PER SH	.53	.52	.45	.19	.12	.51	.64	.96	1.05 ^{A,B}	1.25 ^C /NA		
DIV'D DECL'D PER SH												
CAP'L SPENDING PER SH	.04	.15	.17	.26	.20	.29	.20	.41				
BOOK VALUE PER SH	1.42	1.18	1.40	1.34	1.38	1.95	3.71	5.49				
COMMON SHS OUTST'G (MILL)	17.66	18.28	15.58	14.70	14.74	14.98	17.22	18.93				
AVG ANNU'L P/E RATIO	21.9	15.8	16.4	29.1	39.1	11.7	14.8	18.7	19.1	16.1/NA		
RELATIVE P/E RATIO	1.14	.90	1.07	1.49	2.14	.67	.78	.99				
AVG ANNU'L DIV'D YIELD												
SALES (\$MILL)	83.2	90.2	95.9	84.4	116.4	125.8	145.7	190.7				<i>Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.</i>
OPERATING MARGIN	23.8%	17.9%	13.8%	9.2%	6.1%	11.7%	14.5%	17.5%				
DEPRECIATION (\$MILL)	3.3	1.9	1.9	3.2	4.3	2.3	4.9	6.6				
NET PROFIT (\$MILL)	10.3	9.1	7.5	3.0	1.8	7.6	10.4	18.4				
INCOME TAX RATE	39.3%	38.9%	36.8%	37.0%	39.0%	39.0%	39.0%	33.0%				
NET PROFIT MARGIN	12.4%	10.1%	7.8%	3.5%	1.6%	6.1%	7.1%	9.7%				
WORKING CAP'L (\$MILL)	18.8	17.4	18.8	14.3	12.8	21.5	30.5	67.3				
LONG-TERM DEBT (\$MILL)	1.4	1.2	1.1	1.0	1.1	2	20.9	14.5				
SHR. EQUITY (\$MILL)	25.1	21.5	21.8	19.7	20.4	29.2	64.0	104.0				
RETURN ON TOTAL CAP'L	39.4%	40.7%	33.5%	14.7%	9.0%	26.1%	12.4%	16.0%				
RETURN ON SHR. EQUITY	41.0%	42.3%	34.4%	15.0%	9.0%	26.1%	16.3%	17.7%				
RETAINED TO COM EQ	41.0%	42.3%	34.4%	15.0%	9.0%	26.1%	16.3%	17.7%				
ALL DIV'DS TO NET PROF												
*No. of analysts changing earn. est. in last 23 days: 0 up, 0 down, consensus 5-year earnings growth not available. ^B Based upon 3 analysts' estimates. ^C Based upon 3 analysts' estimates.												
ANNUAL RATES				ASSETS (\$mill.)			INDUSTRY: Electronics			BUSINESS: LoJack Corp. develops and markets the LoJack Stolen Vehicle Recovery System (LoJack System), a patented system, which comprises a registration system, a sector activation system, and vehicle tracking units. It also offers LoJack Early Warning recovery system, which provides early notification to vehicle owners in the event of unauthorized user operating the vehicle. In addition, the company offers Boomerang Tracking System, which consists of a cellular band radio frequency transponder with antenna, microprocessor, and power supply; Boomerang2 Unit, a product that builds upon the Boomerang Unit by integrating two-way communications and diagnostics to provide automatic theft notification; Water Resistant Boomerang Unit for installation on construction equipment and marine crafts; and Portable Boomerang Unit for installation in special applications. Has 890 employees. Chairman & C.E.O.: Joseph F. Abely, Inc.: MA. Address: 200 Lowder Brook Drive, Suite 1000, Westwood, MA 02090. Tel.: (781) 251-4700. Internet: http://www.lojack.com .		
of change (per share)				2004 2005 6/30/06								
Sales				21.4 47.6 35.1								
"Cash Flow"				29.7 33.4 38.5								
Earnings				12.6 18.0 17.9								
Dividends				7.0 12.4 10.5								
Book Value				70.7 111.4 102.0								
Fiscal Year				Property, Plant & Equip, at cost								
QUARTERLY SALES (\$mill.)				Accum Depreciation								
1Q 2Q 3Q 4Q				Net Property								
12/31/04				Other								
12/31/05				Total Assets								
12/31/06												
12/31/07												
Fiscal Year				LIABILITIES (\$mill.)								
EARNINGS PER SHARE				Accts Payable								
1Q 2Q 3Q 4Q				Debt Due								
12/31/03				Other								
12/31/04				Current Liab								
12/31/05												
12/31/06												
12/31/07												
Cal-endar				LONG-TERM DEBT AND EQUITY as of 6/30/06								
QUARTERLY DIVIDENDS PAID				Total Debt \$19.2 mill.			Due in 5 Yrs. NA					
1Q 2Q 3Q 4Q				LT Debt \$12.4 mill.			(11% of Cap'l)					
2003				Including Cap. Leases NA			Leases, Uncapitalized Annual rentals NA					
2004												
2005												
2006												
INSTITUTIONAL DECISIONS				Pension Liability None in '05 vs. None in '04								
4Q'05 1Q'06 2Q'06				Pfd Stock None			Pfd Div'd Paid None					
to Buy				Common Stock 18,184,869 shares			(89% of Cap'l)					
to Sell												
Hid's(000)												
12891 14202 15560												
				TOTAL SHAREHOLDER RETURN			Dividends plus appreciation as of 8/31/2006					
				3 Mos.			6 Mos.					
				1 Yr.			3 Yrs.					
				5 Yrs.								
				18.30%			-8.22%					
				-1.00%			197.01%					
				265.67%								

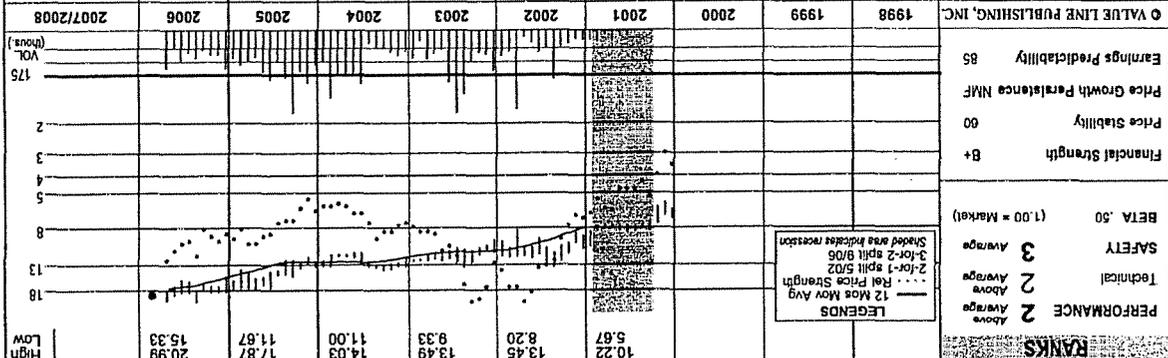
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MAUI LD & PINEAPPLE		AMEX-MLP		RECENT PRICE	31.05	TRAILING P/E RATIO	12.6	RELATIVE P/E RATIO	0.62	DIV'D YLD	Nil	VALUE LINE		
RANKS		21.63	30.75	27.00	27.53	25.00	35.75	41.95	47.20	39.40		High		
		8.63	8.50	14.00	17.00	13.75	14.15	29.20	26.75	29.27		Low		
PERFORMANCE	4	LEGENDS												
Technical	3	— 12 Mos Mov Avg												
SAFETY	—	- - - Rel Price Strength												
BETA	.55	4-10x-1 split 5/98												
	(1.00 = Market)	Shaded area indicates recession												
Financial Strength	NMF	VOL (hours)												
Price Stability	60													
Price Growth Persistence	70													
Earnings Predictability	5													
© VALUE LINE PUBLISHING, INC.		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007/2008			
SALES PER SH		19.99	20.43	19.66	22.46	21.61	23.44	20.88	25.21	--				
"CASH FLOW" PER SH		1.74	1.82	1.31	2.47	.75	2.23	1.33	3.97					
EARNINGS PER SH		.60	.65	.06	1.05	d.79	.54	d.06	2.02	NA	NA/NA			
DIV'DS DECL'D PER SH		--	.13	.13	--	--	--	--	--	--				
CAP'L SPENDING PER SH		1.14	2.53	2.53	1.86	1.45	.94	1.57	2.33	--				
BOOK VALUE PER SH		8.69	9.23	9.16	10.20	8.72	9.94	9.91	12.57	--				
COMMON SHS OUTST'G (MILL)		7.19	7.20	7.20	7.20	7.20	7.20	7.23	7.25	--				
AVG ANNL P/E RATIO		18.7	23.5	NMF	21.3	--	43.0	--	18.3	NA	NA/NA			
RELATIVE P/E RATIO		.97	1.34	NMF	1.09	--	2.45	--	.97	NMF				
AVG ANNL DIV'D YIELD		--	.8%	6%	--	--	--	--	--	--				
SALES (\$MILL)		143.7	147.0	141.5	161.6	155.5	168.7	150.9	182.9	--		<i>Bold figures are consensus earnings estimates and, using the recent prices, P/E ratios.</i>		
OPERATING MARGIN		12.5%	12.7%	9.5%	9.0%	3.6%	12.6%	5.7%	18.8%	--				
DEPRECIATION (\$MILL)		8.2	8.5	9.0	10.2	11.1	12.2	10.0	14.3	--				
NET PROFIT (\$MILL)		4.3	4.7	.5	7.6	d5.7	3.9	d.5	14.6	--				
INCOME TAX RATE		17.8%	32.6%	--	31.3%	--	40.3%	--	37.5%	--				
NET PROFIT MARGIN		3.0%	3.2%	.3%	4.7%	NMF	2.3%	NMF	8.0%	--				
WORKING CAP'L (\$MILL)		18.9	13.0	19.3	25.5	25.5	23.6	11.2	8.9	--				
LONG-TERM DEBT (\$MILL)		23.6	25.6	41.0	39.6	43.3	23.0	14.0	10.3	--				
SHR. EQUITY (\$MILL)		62.5	66.4	65.9	73.4	62.7	71.5	71.6	91.2	--				
RETURN ON TOTAL CAP'L		6.8%	6.1%	1.8%	8.2%	NMF	5.4%	.1%	14.6%	--				
RETURN ON SHR. EQUITY		6.9%	7.0%	.7%	10.3%	NMF	5.4%	NMF	16.0%	--				
RETAINED TO COM EQ		6.9%	5.7%	NMF	10.3%	NMF	5.4%	NMF	16.0%	--				
ALL DIV'DS TO NET PROF		--	19%	NMF	--	--	--	--	--	--				
Note: No analyst estimates available.														
ANNUAL RATES				ASSETS (\$mill.)			INDUSTRY: Food Wholesalers							
<i>of change (per share)</i>				2004	2005	6/30/06	BUSINESS: Maui Land & Pineapple Company, Inc. engages in the growing, packing, processing, and marketing of processed pineapple. The pineapples grown by the company primarily consist of Maui Gold and Hawaiian Gold, which are sold as whole fruits; Champaka, which is used for canning; and organic pineapple. It also sells pineapple juice, and pineapple juice blended with orange juice, and canned pineapple products. The company sells its products to grocery chains, food processors, wholesale grocers, and wholesalers in the United States and internationally. The company is also involved in the operation of Kapalua Resort, which includes three championship golf courses, a tennis facility, a vacation rental program, retail outlets, and regulated water and sewage transmission operations. In addition, Maui Land & Pineapple engages in the real estate entitlement, development, construction, and sales and leasing activities. Has 1275 employees. Chairman, C.E.O. & President: David C. Cole, Inc.: HI. Address: 120 Kane Street, P. O. Box 187, Kahului, Maui, HI 96733. Tel.: (808) 877-3351. Internet: http://www.mauiand.com . <i>L. Y.</i>							
5 Yrs.	1 Yr.			Cash Assets	11.5	7.2							3.1	
Sales	20.5%			Receivables	12.7	19.6							14.6	
"Cash Flow"	199.5%			Inventory (LIFO)	15.1	17.3							21.3	
Earnings	14.0%			Other	8.1	5.3							5.6	
Dividends	--			Current Assets	47.4	49.4	44.6							
Book Value	27.0%													
Fiscal Year	QUARTERLY SALES (\$mill.)				Property, Plant & Equip, at cost			TOTAL SHAREHOLDER RETURN <i>Dividends plus appreciation as of 9/30/2006</i>						
	1Q	2Q	3Q	4Q	Full Year	240.5	236.3							--
12/31/04	40.6	30.0	34.6	45.7	150.9	146.6	139.4							--
12/31/05	37.8	51.1	44.1	49.9	182.9	93.9	96.9							115.1
12/31/06	59.0	33.6				19.6	39.7							50.0
12/31/07					Net Property									
Fiscal Year	EARNINGS PER SHARE				Other									
	1Q	2Q	3Q	4Q	Full Year	20.2	21.3	29.0						
12/31/03	d.09	d.56	1.12	.07	.54	Total Assets			160.9 188.0 209.7					
12/31/04	.21	d.33	d.30	.36	d.06	LIABILITIES (\$mill.)								
12/31/05	.17	.90	.28	.67	2.02	Accs Payable	12.7	18.4	14.8					
12/31/06	1.88	d.36				Debt Due	3.3	8	4					
12/31/07					Other			20.2 21.3 29.0						
Cal-endar	QUARTERLY DIVIDENDS PAID				Current Liab			36.2 40.5 44.2						
	1Q	2Q	3Q	4Q	Full Year	LONG-TERM DEBT AND EQUITY as of 6/30/06								
2003	--	--	--	--	--	Total Debt \$19.3 mill.			Due in 5 Yrs. NA					
2004	--	--	--	--	--	LT Debt \$18.9 mill.								
2005	--	--	--	--	--	including Cap. Leases NA			(15% of Cap'l)					
2006	--	--	--	--	--	Leases, Uncapitalized Annual rentals NA								
INSTITUTIONAL DECISIONS				Pension Liability \$29.8 mill. in '05 vs. \$33.1 mill. in '04										
	4Q'05	1Q'06	2Q'06				Pfd Stock None							
to Buy	22	14	21				Pfd Div'd Paid None							
to Sell	7	19	14				Common Stock 7,258,779 shares							
Hld's(000)	1168	1308	1452				(85% of Cap'l)							
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YORK WATER CO NDAQ-YORW
RECENT PRICE 19.13
TRAILING P/E RATIO 34.2
RELATIVE P/E RATIO 1.69
DIVIDEND YIELD 2.3%
VALUE LINE



	2007/2008	2006	2005	2004	2003	2002	2001	2000	1999	1998
REVENUES PER SH	2.58	2.58	2.18	2.17	2.05	2.05	2.05	2.05	2.05	2.05
"CASH FLOW" PER SH	1.79	1.79	.65	.47	.57	.43	.59	.59	.59	.59
EARNINGS PER SH	.56	.56	.49	.47	.40	.43	.43	.43	.43	.43
DIVID DECLD PER SH	.42	.42	.39	.37	.35	.34	.34	.34	.34	.34
CAPL SPENDING PER SH	4.85	4.85	2.50	1.07	6.66	7.75	3.79	3.79	3.79	3.79
BOOK VALUE PER SH	10.40	10.40	9.63	9.63	9.55	9.46	9.46	9.46	9.46	9.46
COMMON SHS OUTSTG (MILL)	26.3	26.3	25.7	24.5	24.5	24.5	24.5	24.5	24.5	24.5
AVG ANNL P/E RATIO	28.9/NA	28.9/NA	13.9	1.36	1.47	1.47	1.47	1.47	1.47	1.47
RELATIVE P/E RATIO	2.9%	2.9%	3.2%	3.1%	3.2%	3.3%	4.3%	4.3%	4.3%	4.3%
REVENUES (\$MILL)	26.8	26.8	22.5	20.9	19.6	19.4	18.5	18.5	18.5	18.5
NET PROFIT (\$MILL)	5.8	5.8	4.8	4.4	3.8	4.0	3.8	3.8	3.8	3.8
INCOME TAX RATE	36.7%	36.7%	36.7%	36.7%	34.8%	34.8%	35.7%	35.7%	35.7%	35.7%
ADPUC % TO NET PROFIT	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	2.2%	2.2%	2.2%	2.2%
LONG-TERM DEBT RATIO	44.1%	44.1%	42.5%	43.4%	46.7%	47.7%	50.2%	47.7%	47.7%	47.7%
COMMON EQUITY RATIO	55.9%	55.9%	57.5%	56.6%	53.3%	52.3%	48.8%	52.3%	52.3%	52.3%
TOTAL CAPITAL (\$MILL)	90.3	90.3	83.6	69.0	69.9	66.2	66.2	66.2	66.2	66.2
NET PLANT (\$MILL)	155.3	155.3	140.0	116.5	106.7	102.3	97.0	97.0	97.0	97.0
RETURN ON TOTAL CAPL	8.4%	8.4%	7.6%	8.5%	7.4%	7.9%	7.9%	7.9%	7.9%	7.9%
RETURN ON SHR EQUITY	11.6%	11.6%	10.0%	11.4%	10.2%	11.2%	11.6%	11.6%	11.6%	11.6%
RETURN ON COM EQUITY	11.6%	11.6%	10.0%	11.4%	10.2%	11.2%	11.6%	11.6%	11.6%	11.6%
RETAINED TO COM EQ	3.0%	3.0%	2.1%	2.6%	1.3%	2.5%	2.5%	2.5%	2.5%	2.5%
ALL DIVS TO NET PROF	74%	74%	79%	77%	88%	78%	78%	78%	78%	78%

*No of analysts changing estimate in last 14 days: 0 up, 0 down, consensus 5-year earnings growth 7.0% per year. Based upon 2 analysts' estimates. Based upon 2 analysts' estimates.

ANNUAL RATES		ASSETS (\$mill)		LIABILITIES (\$mill)		LONG-TERM DEBT AND EQUITY		INSTITUTIONAL DECISIONS	
1 Yr.	5 Yrs.	2004	2005	2004	2005	2004	2005	2004	2005
Revenue	18.5%	2	0	1.8	2.6	164.3	182.4	104	104
"Cash Flow"	20.5%	3.7	3.8	3.1	4.1	24.3	27.1	104	104
Earnings	15.0%	4	5	4	5	14.0	15.3	104	104
Dividends	7.5%	4	5	4	5	14.0	15.3	104	104
Book Value	4.0%	5.0	5.1	5.0	5.1	14.0	15.3	104	104
Property, Plant & Equip, at cost		164.3	182.4	156.1	172.3	164.3	182.4	104	104
Accum Depreciation		24.3	27.1	23.1	25.5	24.3	27.1	104	104
Net Property		140.0	155.3	133.0	146.8	140.0	155.3	104	104
Other		11.1	11.9	11.1	11.9	11.1	11.9	104	104
Total Assets		156.1	172.3	156.1	172.3	156.1	172.3	104	104
Accounts Payable		1.8	2.6	1.8	2.6	1.8	2.6	104	104
Debt Due		3.1	4.1	3.1	4.1	3.1	4.1	104	104
Other		3.1	4.1	3.1	4.1	3.1	4.1	104	104
Current Liab		21.2	24.7	21.2	24.7	21.2	24.7	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Leases, Uncapitalized Annual rentals NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
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LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT Debt \$39.8 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Including Cap. Leases NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Total Debt \$62.3 mill		27.1	30.6	27.1	30.6	27.1	30.6	104	104
Due in 5 Yrs. NA		27.1	30.6	27.1	30.6	27.1	30.6	104	104
LT									

DELTA NATURAL GAS COMPANY, INC.
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288. With reference to page 31, lines 7-27, and Exhibit MJB-19, please provide copies of all data and source documents used in the construction of Exhibits MJB-19. Please provide the data used in the Exhibit in hard copy and electronic formats (Microsoft Excel), with all data and equations left intact.

RESPONSE:

The data used to construct Exhibit MJB-19 was obtained from Natural Gas Industry Summary Quarterly Financial & Common Stock Information, Edward Jones Co., December 31, 2006. A copy of this data is attached.

Responsible Witness:

Martin J. Blake

Edward Jones

Financial Information Sorted by Interest Coverage

		12 MOS ENDING	TOTAL CAP (000)	S-T DEBT (000)	PCT EQUITY	EPS	PCT CHG	DIV RATE	PCT CHG	ROE	DIVIDEND PAYOUT	BOOK YIELD	INTEREST COVERAGE
1	AGL RESOURCES, INC.	09/30/06	3,252,000	441,000	49	2.97	30.3	1.48	19.4	15.2	50	7.3	4.29
2	ATMOS ENERGY CORPORATION	09/30/06	3,828,460	385,602	43	2.00	16.3	1.26	1.6	9.1	63	6.2	2.77
3	WGL HOLDINGS, INC.	09/30/06	1,471,760	95,630	63	1.94	(10.2)	1.35	4.3	9.7	70	7.2	4.12
4	PIEDMONT NATURAL GAS CO., INC.	07/31/06	1,727,021	102,500	52	1.28	(3.0)	0.96	1.5	10.9	75	8.0	3.63
5	NEW JERSEY RESOURCES CORP.	09/30/06	553,984	284,439	65	2.80	5.7	1.44	5.9	14.8	51	6.4	5.71
6	NORTHWEST NATURAL GAS COMPANY	09/30/06	1,084,443	132,800	55	2.13	0.0	1.38	6.2	10.2	65	6.4	3.35
7	SOUTH JERSEY INDUSTRIES, INC.	09/30/06	791,191	177,947	55	1.66	(9.3)	0.90	5.9	11.9	54	6.1	4.18
8	LACLEDE GROUP (THE)	09/30/06	798,865	207,459	50	2.30	21.1	1.42	2.9	12.7	62	7.5	2.85
9	SEMCO ENERGY, INC	09/30/06	693,530	32,500	30	0.22	(31.3)	0.00	0.0	4.8	NMF	0.0	1.42
10	CASCADE NATURAL GAS CORP.	09/30/06	287,250	8,000	43	1.09	32.9	0.96	0.0	10.4	88	9.0	2.60
11	ENERGYSOUTH, INC.	09/30/06	188,245	10,919	59	1.76	1.1	0.92	7.0	13.1	52	6.6	5.08
12	PEOPLES ENERGY CORPORATION	09/30/06	1,736,156	309,744	48	1.14	(41.8)	2.18	0.0	(2.2)	191	10.0	0.25
13	DELTA NATURAL GAS COMPANY INC.	09/30/06	109,995	15,772	47	1.72	0.0	1.22	1.7	10.1	71	7.8	2.56
14	RGC RESOURCES, INC.	09/30/06	70,495	6,613	57	1.54	2.0	1.20	1.7	8.9	78	6.4	3.18
15	ENERGY WEST	09/30/06	36,276	3,991	52	0.92	22.7	0.48	NMF	15.5	52	7.5	2.91
			MAXIMUM	441,000	65		32.9		19.4	15.5	191	10.0	5.71
			MINIMUM	3,991	30		(41.8)		0.0	(2.2)	50	0.0	0.25
			MEDIAN	102,500	52		1.1		2.3	10.4	64	7.2	3.18
			MEAN	147,661	51		2.4		4.1	10.3	73	6.8	3.26

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289. With reference to page 31, lines 16-18, please provide all data and show all calculations of the Delta's interest coverage of 2.66X. Please provide the data and calculations used in hard copy and electronic formats (Microsoft Excel), with all data and equations left intact.

RESPONSE:

The formula that I used to calculate interest coverage was:

Times Interest Earned Ratio = (net income + interest) / interest

The calculation of the 2.66 TIER is shown in the attached spreadsheet. I was not sure how Edward Jones made the interest coverage calculations in its report, so I performed three interest coverage calculations. All three calculations used a net income of \$6,126,598, which was calculated by applying a 12.1% return on equity to the equity component of Delta's capitalization structure. The first calculation, which used interest on long term debt without debt expense amortization, resulted in the interest coverage of 2.66 that I used in my testimony. If debt expense amortization is included in long term interest expense, an interest coverage of 2.50 is the result. If short term debt expense is also used in calculating the interest coverage, an interest coverage of 2.23 is the result. Since I was not sure which interest concept Edward Jones used in its report, I used the highest value of interest coverage to be conservative. Regardless of which interest concept is used in calculating the interest coverage, Delta has one of the lowest interest coverages in the panel of fifteen natural gas distribution utilities even with a 12.1% return on equity.

Responsible Witness:

Martin J. Blake

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290. With reference to page 32, lines 7-25, please provide: (1) a list of all utilities used in Mr. Blake in his gas group which have a CRS mechanism similar to that proposed by the Company; (2) for those companies identified in your response to subpart (1), please provide copies of the relevant sections of rate orders granting these gas companies a CRS mechanism; (3) please provide a list of all gas companies known to Mr. Blake in the U.S. that have a CRS mechanism; and (4) for those companies identified in your response to subpart (3), please provide copies of the relevant sections of rate orders granting these gas companies a CRS mechanism.

RESPONSE:

I did not check to see if the natural gas distribution companies included in my panel had a CRS mechanism or similar rate stabilization mechanism that was currently in effect. I do not have in my possession the material that you are requesting.

Responsible Witness:

Martin J. Blake

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291. With reference to page 35, lines 14-21, please provide copies of all studies known to Mr. Blake which suggest that a CRS mechanism as proposed by the Company does not affect the riskiness of a gas company.

RESPONSE:

I am not aware of any studies regarding the impact of a CRS mechanism on the risk profile of a natural gas company. However, in my testimony on pages 35 and 36, I made reference to a Mobile Gas case where the Alabama Public Service Commission, which has over 20 years of experience with rate stabilization mechanisms, does not have appeared to have reduced the allowed return on equity to account for a change in risk.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
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292. With reference to page 36-40, please provide: (1) a list of all utilities used by in Mr. Blake in his gas group which have a CEP mechanism similar to that proposed by the Company; (2) for those companies identified in your response to subpart (1), please provide copies of the relevant sections of rate orders granting these gas companies a CEP mechanism; (3) please provide a list of all gas companies known to Mr. Blake in the U.S. that have a CEP mechanism; and (4) for those companies identified in your response to subpart (3), please provide copies of the relevant sections of rate orders granting these gas companies a CEP mechanism.

RESPONSE:

I did not check to see if the natural gas distribution companies included in my panel had a CEP or similar demand side management program that was currently in effect. I do not have in my possession the material that you are requesting.

Responsible Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
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293. With reference to pages 36-40, please provide copies of (1) all studies known to Mr. Blake which suggest that a CEP mechanism as proposed by the Company does not affect the riskiness of a gas company.

RESPONSE:

I am not aware of any studies regarding the impact of a CEP mechanism on the risk profile of a natural gas company.

Responsible Witness:

Martin J. Blake

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294. Please provide electronic (Microsoft Excel) copies of the Exhibits MJB-2, -4, -5, -7, -8, -9 -12, -13, -14, -15, -18, -19.

RESPONSE:

Electronic copies of the exhibits are enclosed.

Responsible Witness:

Martin J. Blake

Exhibit MJB - 2
Edward Jones Natural Gas Industry Summary Data
Ranked by Total Capitalization

	12 Months Ending	Total Capitalization (in \$1,000)	Percent Equity
Atmos Energy Corp.	9/30/2006	\$ 3,828,460	43%
AGL Resources, Inc.	9/30/2006	\$ 3,252,000	49%
Peoples Energy Corp.	9/30/2006	\$ 1,736,156	48%
Piedmont Natural Gas Company	7/31/2006	\$ 1,727,021	52%
WGL Holdings, Inc.	9/30/2006	\$ 1,471,760	63%
Northwest Natural Gas Company	9/30/2006	\$ 1,084,443	55%
New Jersey Resources, Inc.	9/30/2006	\$ 953,994	65%
Laclede Group	9/30/2006	\$ 798,865	50%
South Jersey Industries, Inc.	9/30/2006	\$ 791,191	55%
SEMCO Energy, Inc.	9/30/2006	\$ 693,530	30%
Cascade Natural Gas Corp.	9/30/2006	\$ 287,250	43%
EnergySouth, Inc.	9/30/2006	\$ 188,245	59%
Delta Natural Gas Company	9/30/2006	\$ 109,995	47%
RGC Resources, Inc.	9/30/2006	\$ 70,495	57%
Energy West	9/30/2006	\$ 36,276	52%
	Average	\$ 1,135,312	51%
	Median	\$ 798,865	52%

Source: Natural Gas Industry Summary Quarterly Financial & Common Stock Information,
Edward Jones Co., December 31, 2006

Exhibit MJB - 4
Historical Comparison of Allowed and Actual ROE
Delta Natural Gas Company

	Return on Shareholder Equity	Allowed ROE	Difference	
1995	8.50%			Black box settlement in last rate case
1996	11.30%			Black box settlement in last rate case
1997	5.80%			Black box settlement in last rate case
1998	8.20%	11.60%	-3.40%	New Rates Effective Jan. 1998
1999	7.20%	11.60%	-4.40%	
2000	11.10%	11.60%	-0.50%	New Rates Effective Jan. 2000
2001	11.10%	11.60%	-0.50%	
2002	10.60%	11.60%	-1.00%	
2003	8.60%	11.60%	-3.00%	
2004	7.90%	10.50%	-2.60%	New Rates Effective Oct. 2004
2005	9.80%	10.50%	-0.70%	
2006	9.50%	10.50%	-1.00%	

Mean **9.13%**

Data Source:

The Value Line Investment Survey - Small and Mid-Cap Edition, Dec. 19, 2003

Exhibit MJB - 5**Examples of the Impact of Leverage on Actual Return on Equity****Example 1**

	Capitalization	Ratios	Cost Rates	Return Element in Dollars
Equity	\$52,115,554	0.4036	12.50%	\$ 6,514,444
Debt	\$77,016,346	0.5964	7.00%	\$ 5,391,144
	<u>\$129,131,900</u>	<u>1</u>		<u>\$ 11,905,588</u>

Assume \$2,000,000 shortfall in earnings

$$\begin{aligned} \text{Actual Return on Equity} &= \$4,514,444 / \$52,115,554 \\ &= 8.66\% \end{aligned}$$

Example 2

	Capitalization	Ratios	Cost Rates	Return Element in Dollars
Equity	\$65,857,269	0.51	12.50%	\$ 8,232,159
Debt	\$63,274,631	0.49	7.00%	\$ 4,429,224
	<u>\$129,131,900</u>	<u>1</u>		<u>\$ 12,661,383</u>

Assume \$2,000,000 shortfall in earnings

$$\begin{aligned} \text{Actual Return on Equity} &= \$6,232,159 / \$65,857,269 \\ &= 9.46\% \end{aligned}$$

Example 3

	Capitalization	Ratios	Cost Rates	Return Element in Dollars
Equity	\$129,131,900	1.0000	12.50%	\$ 16,141,488
Debt	\$0	0.0000	7.00%	\$ -
	<u>\$129,131,900</u>	<u>1</u>		<u>\$ 16,141,488</u>

Assume \$2,000,000 shortfall in earnings

$$\begin{aligned} \text{Actual Return on Equity} &= \$14,141,488 / \$129,131,900 \\ &= 10.95\% \end{aligned}$$

Exhibit MJB-7
U.S. Natural Gas Prices

Date	U.S. Natural Gas Wellhead Price (Dollars per MCF)	City Gate Price (Dollars per MCF)
Nov-2004	\$6.21	\$7.50
Dec-2004	\$6.01	\$7.49
Jan-2005	\$5.80	\$7.05
Feb-2005	\$5.74	\$7.09
Mar-2005	\$5.95	\$7.24
Apr-2005	\$6.58	\$7.79
May-2005	\$6.24	\$7.51
Jun-2005	\$6.09	\$7.30
Jul-2005	\$6.71	\$7.68
Aug-2005	\$6.48	\$8.20
Sep-2005	\$8.96	\$10.26
Oct-2005	\$10.35	\$12.16
Nov-2005	\$9.91	\$11.57
Dec-2005	\$9.08	\$10.77
Jan-2006	\$8.66	\$10.66
Feb-2006	\$7.28	\$9.27
Mar-2006	\$6.52	\$8.74
Apr-2006	\$6.59	\$8.11
May-2006	\$6.19	\$7.86
Jun-2006	\$5.80	\$7.22
Jul-2006	\$5.82	\$7.13
Aug-2006	\$6.51	\$7.97
Sep-2006	\$5.51	\$7.59
Oct-2006	\$5.03	\$6.38
Nov-2006	\$6.43	\$8.39

Source: U.S. Department of Energy, Energy Information Administration

Exhibit MJB-18
Unregulated Companies of Similar Size and Risk

Company Name	Beta	2005 Total Assets (Millions)	Five Year Total Shareholder Returns (dividends plus appreciation)	2005 Return on Shareholder Equity
American Dental	0.50	\$ 170.7	266.62%	10.1%
AMREP Corp.	0.55	\$ 189.0	1139.61%	18.9%
Axsys Tech	0.60	\$ 156.2	175.24%	6.3%
Dynamics Research	0.50	\$ 187.8	-40.12%	15.4%
Exponent Inc.	0.55	\$ 164.2	262.36%	10.7%
Frisch's Restaurants	0.60	\$ 165.6	102.94%	15.8%
Lojack Corp.	0.60	\$ 191.6	265.67%	17.7%
Maui LD & Pineapple	0.55	\$ 186.0	48.35%	16.0%
Patriot Transport	0.60	\$ 193.7	343.69%	7.1%
York Water Co.	0.50	\$ 172.3	171.22%	11.6%
		Average	273.56%	12.96%
		Median	218.80%	13.50%
 Delta Natural Gas	 0.55	 \$ 144.8	 60.02%	 9.8%

Source: The Value Line Investment Survey - Small and Mid-Cap Edition, various issues 2006

Exl. MJB - 8
Results of DCF Model for Delta Natural Gas Company
Using Sustainable Growth Rate

Variable Name	Sustainable Growth Rate
2006 Annual Dividend	D \$1.20
High Price During 2006	P \$26.82
Low Price During 2006	P \$24.11
Sustainable Growth Rate	g 2.37%
Shares Outstanding	3,261,034
Earnings per Share in 2006	\$1.55
Book Equity	\$ 50,633,040
Using the DCF formula: ROE = D/P + g	
<u>ROE Based on the 2006 High Stock Price</u>	<u>Market Capitalization 2006 High Stock Price</u>
ROE = (1.20 / 26.82) + .0237 = 6.84%	3,261,034 x 26.82 = \$87,460,932
	Expected Shareholder Returns High Stock Price
	\$87,460,932 x .0684 = \$5,986,065
<u>ROE Based on the 2006 Low Stock Price</u>	<u>Market Capitalization 2006 Low Stock Price</u>
ROE = (1.20 / 24.11) + .0237 = 7.35%	3,261,034 x 24.11 = \$78,623,530
	Expected Shareholder Returns Low Stock Price
	\$78,623,530 x .0735 = \$5,776,618

<u>Return on Book Equity 2006 High Stock Price</u>	11.82%
\$5,986,065 / \$50,633,040 =	
<u>Return on Book Equity 2006 Low Stock Price</u>	11.41%
\$5,776,618 / \$50,633,040 =	

Data Source: The Value Line Investment Survey - Small and Mid-Cap Edition, December 15, 2006 and September 15, 2006

Exh. MJB-14
Estimated Return on Equity for Edward Jones Panel of Natural Gas Distribution Companies
Using Sustainable Growth Rates for Small and Mid Cap Companies

Company Data Source	Beta	Dividend	Growth	High	Low	DCF Low	DCF High	CAPM
	1	1	1	Stock Price 1	Stock Price 1	Stock Price	Stock Price	
AGL Resources, Inc.	0.95	\$ 1.50	6.50%	\$ 40.00	\$ 34.40	10.86%	10.25%	13.04%
Cascade Natural Gas Corp.	0.85	\$ 0.96	0.50%	\$ 26.30	\$ 19.00	5.55%	4.15%	13.98%
Laclede Group	0.85	\$ 1.40	2.00%	\$ 37.51	\$ 29.10	6.81%	5.73%	13.55%
Peoples Energy Corp.	0.85	\$ 2.18	0.00%	\$ 45.21	\$ 34.90	6.25%	4.82%	12.95%
New Jersey Resources, Inc.	0.80	\$ 1.45	4.50%	\$ 53.16	\$ 41.50	7.99%	7.23%	12.53%
Piedmont Natural Gas Company	0.80	\$ 0.96	5.50%	\$ 28.44	\$ 23.20	9.64%	8.88%	12.59%
WGL Holdings, Inc.	0.80	\$ 1.35	2.00%	\$ 33.55	\$ 27.00	7.00%	6.02%	12.59%
Atmos Energy Corp.	0.75	\$ 1.26	2.00%	\$ 29.30	\$ 25.50	6.94%	6.30%	11.35%
Northwest Natural Gas Company	0.75	\$ 1.38	4.00%	\$ 43.69	\$ 32.80	8.21%	7.16%	12.17%
South Jersey Industries, Inc.	0.70	\$ 0.92	6.00%	\$ 34.26	\$ 25.60	9.59%	8.69%	12.47%
EnergySouth, Inc.	0.60	\$ 0.92	6.48%	\$ 41.53	\$ 26.40	9.96%	8.70%	13.81%
Delta Natural Gas Company	0.55	\$ 1.20	2.37%	\$ 26.82	\$ 24.11	7.35%	6.84%	18.89%
RGC Resources, Inc.	0.40	\$ 1.22	2.70%	\$ 28.14	\$ 22.72	8.07%	7.04%	17.81%
Energy West	0.35	\$ 0.48	3.18%	\$ 12.00	\$ 8.57	8.78%	7.18%	17.45%
						8.07%	7.07%	13.94%
						8.03%	7.10%	13.00%

Data Sources:

1. The Value Line Investment Survey - Sep. 15, 2006
2. Risk Premium Over Time Report : 2006, Ibbotson Associates, 2006

Exh. MJB-14
Estimated Return on Equity for Edward Jones Panel of Natural Gas Distribution Companies
Using Sustainable Growth Rates for Small and Mid Cap Companies

Company	Shares	Market Equity		Market Equity		Dollar Return		Dollar Return	
		High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price
AGL Resources, Inc.	77,878,889	\$ 3,115,155,560	\$ 2,679,033,782	\$ 319,303,445	\$ 290,955,529				
Cascade Natural Gas Corp.	11,505,996	\$ 302,607,695	\$ 218,613,924	\$ 12,558,795	\$ 12,138,826				
Laclede Group	21,357,000	\$ 801,101,070	\$ 621,488,700	\$ 45,921,821	\$ 42,329,574				
Peoples Energy Corp.	38,471,441	\$ 1,739,293,848	\$ 1,342,653,291	\$ 83,867,741	\$ 83,867,741				
New Jersey Resources, Inc.	28,080,314	\$ 1,492,749,492	\$ 1,165,333,031	\$ 107,890,182	\$ 93,156,442				
Piedmont Natural Gas Company	75,277,250	\$ 2,140,884,990	\$ 1,746,432,200	\$ 190,014,834	\$ 168,319,931				
WGL Holdings, Inc.	48,773,729	\$ 1,636,358,608	\$ 1,316,890,683	\$ 98,571,706	\$ 92,182,348				
Atmos Energy Corp.	81,595,723	\$ 2,390,754,684	\$ 2,080,690,937	\$ 150,625,705	\$ 144,424,430				
Northwest Natural Gas Company	27,548,346	\$ 1,203,587,237	\$ 903,585,749	\$ 86,160,207	\$ 74,160,147				
South Jersey Industries, Inc.	29,232,801	\$ 1,001,515,762	\$ 748,359,706	\$ 86,985,123	\$ 71,795,759				
EnergySouth, Inc.	7,936,000	\$ 329,582,080	\$ 209,510,400	\$ 28,658,039	\$ 20,877,394				
Delta Natural Gas Company	3,261,034	\$ 87,460,932	\$ 78,623,530	\$ 5,986,065	\$ 5,776,618				
RGC Resources, Inc.	2,130,573	\$ 59,954,324	\$ 48,406,619	\$ 4,218,066	\$ 3,906,278				
Energy West	2,931,158	\$ 35,173,896	\$ 25,120,024	\$ 2,525,486	\$ 2,205,773				

1

Company
Data Source

Data Sources:

1. The Value Line Investment Survey - Se
2. Risk Premium Over Time Report : 2006

Exhibit MJB-14
Estimated Return on Equity for Edward Jones Panel of Natural Gas Distribution Companies
Using Sustainable Growth Rates for Small and Mid Cap Companies

Company Data Source	Book Equity 1	Return on Book Equity		Return on Book Equity	
		High Stock Price	Low Stock Price	High Stock Price	Low Stock Price
AGL Resources, Inc.	\$ 1,593,480,000	20.04%	18.26%		
Cascade Natural Gas Corp.	\$ 123,517,500	10.17%	9.83%		
Laclede Group	\$ 399,432,500	11.50%	10.60%		
Peoples Energy Corp.	\$ 833,354,880	10.06%	10.06%		
New Jersey Resources, Inc.	\$ 620,096,100	17.40%	15.02%		
Piedmont Natural Gas Company	\$ 898,050,920	21.16%	18.74%		
WGL Holdings, Inc.	\$ 927,208,800	10.63%	9.94%		
Atmos Energy Corp.	\$ 1,646,237,800	9.15%	8.77%		
Northwest Natural Gas Company	\$ 596,443,650	14.45%	12.43%		
South Jersey Industries, Inc.	\$ 435,155,050	19.99%	16.50%		
EnergySouth, Inc.	\$ 111,064,550	25.80%	18.80%		
Delta Natural Gas Company	\$ 51,697,650	11.58%	11.17%		
RGC Resources, Inc.	\$ 40,182,150	10.50%	9.72%		
Energy West	\$ 18,863,520	13.39%	11.69%		
Mean		14.70%	12.97%		
Median		12.48%	11.43%		

Data Sources:

1. The Value Line Investment Survey - September
2. Risk Premium Over Time Report : 2006

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

295. With reference to page 9, lines 1-11, and Schedule 8, please provide an electronic copy (Microsoft Excel) of Schedule 8, with all data and calculations left intact.

RESPONSE:

See electronic file index.

Sponsoring Witness:

John B. Brown

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

296. With reference to page 9, lines 1-11, and Schedule 8, please provide an electronic copy (Microsoft Excel) of all data and calculations used to calculate the Company's long-term debt cost rate of 6.814%. Please show all debt issues, their amounts, issuance and retirement dates, their coupon interest rates, and all adjustments made to coupon rates to arrive at effective annual cost rates.

RESPONSE:

See electronic file index.

Sponsoring Witness:

John B. Brown

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

297. With reference to page 9, lines 1-11, and Schedule 8, please provide an electronic copy (Microsoft Excel) of all data and calculations used to calculate the Company's short-term debt cost rate of 6.487%. Please provide details of all short-term lending agreements as well as how short-term borrowing rates are determined.

RESPONSE:

See electronic file index.

Sponsoring Witness:

John B. Brown

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

298. Please provide an electronic copy (Microsoft Excel) of Delta's Response to PSC Data Request No. 3, Schedules 1 and 2.

RESPONSE:

See electronic file index.

Sponsoring Witness:

John B. Brown

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

299. Please provide the AGA study by Joutz and Trost cited on page 6 of Mr. Jennings' testimony.

RESPONSE:

See response to PSC Second Request, Item 8.

Responsible Witness:

Glenn R. Jennings

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

300. Please provide the data in Exhibit JB-2 on a weather-normalized basis.

RESPONSE:

The Company has not computed weather normalized volumes for this period. Billed degree days for the periods were as follows:

2006	4,466
2005	4,389
2004	4,357
2003	4,601
2002	4,583

Sponsoring Witness:

John B. Brown

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

301. Please provide any studies in the Company's possession that compare the cost of gas for space heating, water heating and cooking with the cost of alternative fuels for these same purposes.

RESPONSE:

We have had no studies performed for us. We do compare rates sometimes to electric, but with high, volatile natural gas prices, we have not done this for awhile. We consider our competitive pluses to be our great service; our trained, well-equipped work force; the clean, efficient product we sell; the environmental advantages gas offers; and the heat (comfort) it provides compared to electric.

Sponsoring Witness:

Glenn R. Jennings

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

302. Please identify the beginning and end of year number of customers, new hook-ups and drop-offs each year for the last five years, separated by class of customer. Distinguish between retail and transportation customers.

RESPONSE:

See attached.

Responsible Witness:

John B. Brown

Delta Natural Gas Company, Inc.
Case No. 2007-00089
AG 1st Request # 302

		Beginning	Ending	Drop-offs *	Hook-ups *
2002	Retail	39590	40027	7081	7517
	Transportation	92	91		
2003	Retail	40027	39610	7188	6768
	Transportation	91	88		
2004	Retail	39610	39088	6927	6524
	Transportation	88	207		
2005	Retail	39088	38702	6684	6306
	Transportation	207	215		
2006	Retail	38702	37836	6187	5319
	Transportation	215	213		

* Our system does not separate these out
The number of transportation and retail customers fluctuates due to movement of customers between the two utility types.

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

303. Please explain how revenue from off-system transportation benefits Delta's other customers, as stated in the bottom lines on page 7 of Mr. Jennings' testimony.

RESPONSE:

The revenues from transportation provide a portion of Delta's revenue requirement, and that reduces the requirement needed from other customers. Without any such transportation revenue, rates to other customers would be much higher.

Responsible Witness:

Glenn R. Jennings

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

304. Please identify the annual growth in transportation service during the past five years. Separate that growth between new customers or throughput and transportation service that has transitioned from retail service.

RESPONSE:

	<u>Fiscal Years Ended June 30</u>				
	<u>2006</u>	<u>2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>
On-System Transportation (Million Cu. Ft.)	5322	5273	5166	5299	4865
% Annual Growth	.9%	2.1%	-2.5%	8.9%	2%
% 5 Year Growth	9.4%				

The annual growth in On-System Transportation service is a result of increased volumes for existing on-system transportation customers and not a result of new customers or customers that have transitioned from retail service.

	<u>Fiscal Years Ended June 30</u>				
	<u>2006</u>	<u>2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>
Off-System Transportation (Million Cu. Ft.)	8789	7194	7190	5396	4215
% Annual Growth	22.2%	.1%	33.2%	28%	50.9%
% 5 Year Growth	108.5%				

The annual growth in Off-System Transportation service is a result of increased production from existing producers as well as production from new producers.

Sponsoring Witness:

Glenn R. Jennings

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

305. Please provide all information in the possession of the Company concerning the implementation of a CRS mechanism similar to Delta's by the South Carolina legislature.

RESPONSE:

There is some information on this topic in response to AG First Request, Item 8. We talked with one utility in South Carolina and learned that their CRS mechanism was implemented through their state legislature.

Sponsoring Witness:

Glenn R. Jennings

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

306. Please provide all information in the possession of the Company concerning the programs alluded to by Mr. Jennings on pages 14 and 15 of his testimony in the states of Alabama, Indiana, North Carolina, Oregon, New Mexico Utah, Louisiana, New Jersey, Missouri, California, Ohio, Maryland, Virginia, Minnesota and Idaho.

RESPONSE:

See Delta's response to AG First Request, Item 8.

Sponsoring Witness:

Glenn R. Jennings

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

307. Please provide all workpapers, studies, analyses or other documentation underlying Exhibit JB-1.

RESPONSE:

See attached schedule.

Responsible Witness:

John B. Brown

DELTA NATURAL GAS COMPANY
 RATE CASE 2007-00089
 Special Charge Cost Study
 Test Year Ended December 31, 2007

Exhibit JB1
 Item 307
 AG

Reference Exhibit JB1	Description	Amounts
(1)	Labor hours are an average estimated by operations personnel	
(2)	OPERATIONS INFORMATION	
	Operations net annual salary as of 12/31/06 less taxes & benefits	\$ 3,739,086.00 (a)
	Operations number of hours worked	<u>148,724.00 (b)</u>
	Avg rate/hr (formula = a / b)	<u>\$ 25.14</u>
(3)	Depreciation for office equipment not included.	
	<p>The \$3.00 cost associated with supplies/postage is not based on hourly rate, but a set charge for reconnect/disconnection, collection and bad check charge. This cost remains the same as requested in the previous rate case. This estimate includes any office supplies, such as paper, pens/pencils, printer supplies and postage.</p>	
(4)	CLERICAL INFORMATION	
	Clerical net annual salary as of 12/31/06 less taxes & benefits	\$ 559,024.00 (c)
	Clerical number of hours worked	<u>29,398.00 (d)</u>
	Avg rate/hr (formula = c / d)	<u>\$ 19.02</u>
(5)	Depreciation for tools not included.	
(6)	AVERAGE COST OF TRANSPORTATION PER HOUR WORKED	
	Transportation costs 12 months ended 12/31/06	\$ 886,112.00 (e)
	Total number of hours worked	<u>203,070 (f)</u>
	Avg transportation rate/hr (formula = e / f)	<u>\$ 4.36</u>

**DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089**

**ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07**

308. Please reconcile Mr. Jennings' statement on page 11 of his testimony that throughput has increased by 85% since 1999 with the evidence on Exhibit JB-2 that billed usage has declined since 2002.

RESPONSE:

Glenn Jennings' statement regarding throughput included transportation and JB-2 only related to retail sales. See item # 308, attached, which breaks down throughput between retail sales and transportation service for 2006 and 1999 on both the calendar and fiscal year basis.

Sponsoring Witness:

John B. Brown

As Report Per John Brown - adjusted for transportation

	Calendar 2006	Calendar 1999	Increase (Decrease)	Percentage
Residential	1,779,377	2,247,997	(468,620)	-21%
Small Non-Residential	544,497	590,359	(45,862)	-8%
Large Non-Residential	888,907	950,624	(61,717)	-6%
Interruptible	35,216	49,015	(13,799)	-28%
Delta Natural Retail	3,247,997	3,837,995	(589,998)	-15%
Transportation - On-System	5,375,394	4,486,492	888,902	20%
Transportation - Off-System	8,525,855	1,340,166	7,185,689	536%
Throughput	17,149,246	9,664,653	7,484,593	77%

As Report Per Glenn Jennings

	Fiscal 2006	Fiscal 1999	Increase (Decrease)	Percentage
Residential	1,768,263	2,222,981	(454,718)	-20%
Small Non-Residential	542,887	584,540	(41,653)	-7%
Large Non-Residential	883,659	962,218	(78,559)	-8%
Interruptible	37,106	43,482	(6,376)	-15%
Delta Natural Retail	3,231,915	3,813,221	(581,306)	-15%
Transportation - On-System	5,321,568	4,434,318	887,250	20%
Transportation - Off-System	8,788,963	1,144,356	7,644,607	668%
Throughput	17,342,446	9,391,895	7,950,551	85%

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

309. Please provide the report cited at the top of page 4 of Mr. Wesolosky's testimony. This report is described as a "Minority Report." If there is a Majority Report, please provide it also.

RESPONSE:

Please refer to KYPSC DR2-21.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

310. Please explain fully the sentence at the top of page 11 of Mr. Wesolosky's testimony which states that the basis for space heating savings will be log-only customers. Include in this explanation any evidence in the Company's possession that conventional space heating has an efficiency of 70% to 80% and replacement heating can obtain an efficiency level of 99%.

RESPONSE:

Delta has not found any industry information related to the consumption patterns of customers with natural gas space heaters, nor do we track which customers have natural gas space heaters to perform our own study. The closest match from an appliance perspective is a gas log. Therefore we have used our conservation estimates developed for gas logs and applied those to space heaters.

Vent-free gas logs and vent-free natural gas space heaters are constructed to be 99% efficient since there is no heat loss as a result of venting the appliance. The number of gas logs and space heaters available are numerous, however attached is one example of each and their respective efficiency rating (Exhibit 1 and 2, respectively).

In the Wesolosky testimony it is stated that standard space heating has an efficiency of 70-80%. Since the CEP is available for customers replacing their existing space heater or purchasing a space heater for the first time, both scenarios should be contemplated. Therefore, the statement considered both the efficiency ratings of what is currently available on the market as well as the efficiency on older equipment. Exhibit 3 illustrates the efficiency of a space heating appliance currently available (82%). Exhibit 4 illustrates the efficiency rating on gas space heaters available from ten years ago. The efficiencies on these appliances range from 56%-84% with a majority of the appliances in the 65%-75% range.

Responsible Witness:

Matthew D. Wesolosky



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Vent-Free Gas Logs

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STANDARD Round Oak VL18/21/24/30

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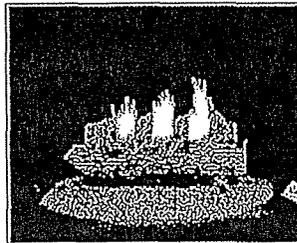
The real beauty is within.

Majestic's Woodlands Collection Vent-Free gas logs give you the appearance of natural wood – right down to a remarkably realistic flame – without any of the inconveniences. No need to cut wood or clean ashes. A simple turn of the knob or press of a button produces an instant fire that burns as long as you want...safely and efficiently.



Vent Free Log Sets:

No other gas log can deliver heat and warmth, like that of a vent-free gas log and at the same time, give you 99% efficiency. Vermont Castings™ vent-free logs require no chimney, offer beauty and a realistic flame like that of a real wood fire. Three styles are available: UVLX, Supreme VLC and Standard VL.



Product Features

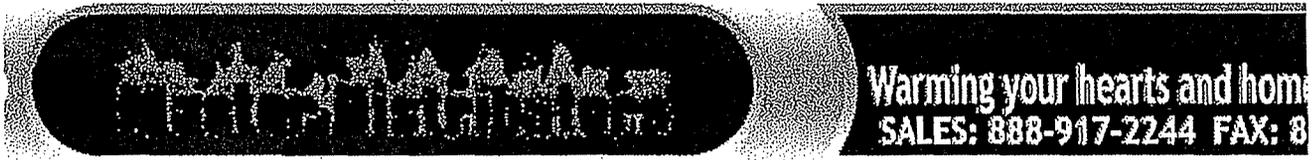
- Models: VL18, VL21, VL24, VL30 Open-front log sets
- Model: VL24M See-through set
- Refractory style Oak logs in one rich color
- Manual controlled gas valves only with ODS pilot system
- Adjustable flame height

Get The Facts

[Brochure - Woodland Vent Free Gas Logs Manual \(English\)](#)
[Warranty - Ltd 2 / 20 Yr - Gas Logs](#)

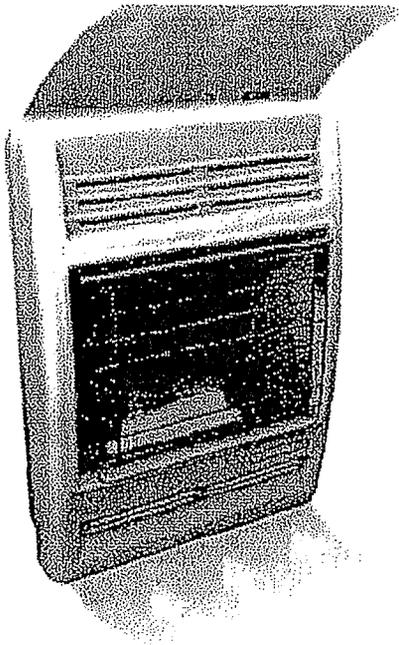


C US



Master Distributors Master Parts

Ho



Vanguard Blue Flame Vent-Free Gas Space

Blue Flame Convection Heaters work much like a central heating system. They warm the room first, then people and objects. Altogether, the heat is more "gentle" as the warming process occurs. Adding to its beauty, the blue flame glows through tempered, tinted glass for intimate comfort.

Vanguard Vent Free Blue Flame

[Click Here For Price Listing](#)

- VN600B - Natural Gas - Ivory Color (as shown)
- VP600B - Propane (LP) - Ivory Color (as shown)
- Manual Gas Control Operation
- Wall mount installation only!
- Save on heating costs. The 99% heating efficient design: outside venting, so all the heat stays in the room.
- Provide Easy, economical installation, with no vent or chimney required, and a built in pressure regulator, installation is simple.
- *Professional installation recommended
- Safe and clean burning, Vanguard Vent Free Gas Space Heater design certified by the American Gas Association and meets all government safety performance standards.
- A dual purpose safety pilot system protects against oxygen and any interruption in the fuel supply. If either occurs, it shuts off to the burner, turning the heater off.
- Provides heat during power outages. No electricity required, making them ideal as back up emergency heat.
- Clean, quite odorless operation
- Easy to use top mounted controls
- push button ignition. No matches required.

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Product: Pellet Stove
Manufacturer: Whitfield



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FREE STANDING - LENNOX 2508 SEREFINA GAS STOVE

Capturing the essence of a traditional wood fire, Lennox Elite Series Freestanding Gas Stoves combine sleek design with efficient, convenient gas operation. They bring warmth, charm and romance to your home. Best of all, they come from Lennox - the most trusted name in home comfort.

All Elite Series Freestanding Gas Stoves borrow from the past, but they also offer all the benefits of innovative, contemporary design. Available in enamel or painted surfaced, its tranditonal lines combine the atributes of an open fireplace with those of a freestanding stove.

The effect is soothing and hypnotic. Dancing yellow flames, soft glowing embers and rough hewn logs straight from the wood pile. The natural or propane gas fires found in our freestanding stoves provide real allure and comfort without the bother and mess of burning wood. Plus you can enjoy a beautiful fire whenever you are in the mood.

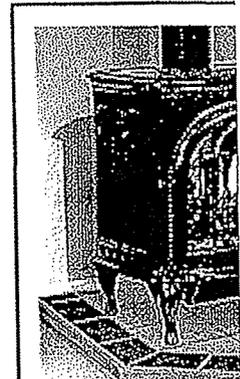
Standard Features

- Small Unit - up to 28,500 BTU/hr
- Large Unit - up to 38,500BTU/hr
- Deluxe Split-Oak Log Set
- Standard Ceramic Ember Panel
- Variable Flame Operation
- Standard LP Conversion Kit
- Lennox 20-Year Limited Warranty

Optional Features

- Warming shelves with removable cast inlays
- Decorative ceramic tiles (for warming shelves)
- Blower kit
- Choice of three wireless remotes
- Firescreens - flat and bubble

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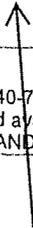
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Your Wholesale Price
\$1,700.00



Product Specifications	
LENNOX 2508 SEREFINA GAS STOVE	
Area Heated	1,000 - 2,000 square feet
BTU Output	25,500 - 38,500 BTU/hr.
BTU Output (LP)	26,500 - 34,500 BTU/hr.
Efficiency Rating	83.0%

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OCTOBER 1997

AG DR1-310

Exhibit 4

CONSUMERS' DIRECTORY OF CERTIFIED EFFICIENCY RATINGS

for

Residential Heating and Water Heating Equipment

EFFECTIVE OCTOBER 1997 THROUGH APRIL 1998

INCLUDES:

HEATING EQUIPMENT

- ⊙ Gas Central Furnaces
- ⊙ Oil Central Furnaces
- ⊙ Gas Boilers
- ⊙ Oil Boilers
- ⊙ Gas Room Heaters
- ⊙ Gas Floor Furnaces
- ⊙ Gas Wall Furnaces

WATER HEATING EQUIPMENT

- ⊙ Gas Water Heaters
- ⊙ Oil Water Heaters
- ⊙ Electric Water Heaters
including Heat Pump Type



Gas Appliance Manufacturers Association

only space heating data provided

Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity, Btu/hr	AFUE, %	Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity, Btu/hr	AFUE, %
ATLANTA STOVE Trade Name: Atlanta						CFM MAJESTIC INC. (CONT'D)					
<u>NATURAL GAS</u>						<u>PROPANE GAS</u>					
ADG10	2	WF	10,000	6,500	59.0	HE25	2	RH	20,000	14,000	58.0
ADG20	2	WF	18,000	12,600	62.0	DV32	2	WF	18,000	12,600	64.0
ADG30	2	WF	27,000	18,900	63.0	DVR33	2	WF	20,000	14,000	66.0
#ASC50	1	WF	50,000	37,500	74.0	FSDV30	2	WF	21,000	14,700	65.0
ASC65T	1	WF	60,000	45,000	74.0	DV34-2	2	WF	21,000	14,700	65.0
<u>PROPANE GAS</u>						<u>PROPANE GAS</u>					
ADG10	2	WF	10,000	6,500	59.0	DV36	2	WF	21,000	14,700	65.0
ADG20	2	WF	18,000	12,600	62.0	DV40	2	WF	25,000	17,500	65.0
ADG30	2	WF	27,000	18,900	63.0	DVR36	2	WF	25,000	17,500	66.0
#ASC50	1	WF	50,000	37,500	74.0	DVT34-3	2	WF	25,000	17,500	66.0
ASC65T	1	WF	60,000	45,000	74.0	DVT36	2	WF	25,000	17,500	66.0
<u>NATURAL OR PROPANE GAS</u>						<u>NATURAL OR PROPANE GAS</u>					
F1430/AF30	2	FF	30,000	21,000	58.0	HEDV30-2	2	WF	27,000	18,900	66.0
F1445/AF45	2	FF	45,000	31,500	57.0	HEDV32	2	WF	27,000	18,900	66.0
F1465/AF65	2	FF	65,000	45,500	57.0	FS22	2	WF	30,000	21,000	64.0
AGF25	2	WF	25,000	17,500	63.0	FS30-2	2	WF	30,000	21,000	64.0
AGF35	2	WF	32,000	22,400	64.0	FS32	2	WF	30,000	21,000	64.0
AGF55	2	WF	50,000	35,000	65.0	HE30-2	2	WF	30,000	21,000	64.0
ATLANTA STOVE Trade Name: Thermolaire						CFM MAJESTIC INC. Trade Name: Northern-Flame by Majestic					
<u>NATURAL OR PROPANE GAS</u>						<u>NATURAL GAS</u>					
SV220		RH	20,000	13,000	58.0	A125	2	RH	20,000	14,000	58.0
SVR340		RH	40,000	28,000	64.0	DR333	2	WF	20,000	14,000	66.0
SV240		RH	40,000	28,000	64.0	D332	2	WF	21,500	15,050	64.0
SVR350		RH	50,000	35,000	65.0	D334-2	2	WF	23,500	16,450	63.0
SV250		RH	50,000	35,000	65.0	DR336	2	WF	25,000	17,500	66.0
SVR365		RH	65,000	45,500	65.0	DT334-3	2	WF	25,000	17,500	66.0
SV265		RH	65,000	45,500	65.0	DT336	2	WF	25,000	17,500	66.0
CFM MAJESTIC INC. Trade Name: Insta-Flame by Majestic						<u>PROPANE GAS</u>					
<u>NATURAL GAS</u>						<u>PROPANE GAS</u>					
HE25	2	RH	20,000	14,000	58.0	A125	2	RH	20,000	14,000	58.0
DVR33	2	WF	20,000	14,000	66.0	D332	2	WF	18,000	12,600	64.0
DV32	2	WF	21,500	15,050	64.0	DR333	2	WF	20,000	14,000	66.0
DV34-2	2	WF	23,500	16,450	65.0	D230	2	WF	21,000	14,700	64.0
DVR36	2	WF	25,000	17,500	66.0	D334	2	WF	21,000	14,700	65.0
DVT34-3	2	WF	25,000	17,500	66.0	D336	2	WF	21,000	14,700	65.0
DVT36	2	WF	25,000	17,500	66.0	DR336	2	WF	25,000	17,500	66.0
DV36	2	WF	26,000	18,200	65.0	DT334-3	2	WF	25,000	17,500	66.0
HEDV30-2	2	WF	27,000	18,900	66.0	DT336	2	WF	25,000	17,500	66.0
HEDV32	2	WF	27,000	18,900	66.0	D130-2	2	WF	27,000	18,900	66.0
FSDV30	2	WF	30,000	21,000	64.0	D132	2	WF	27,000	18,900	66.0
FS22	2	WF	30,000	21,000	64.0	A130-2	2	WF	30,000	21,000	64.0
FS30-2	2	WF	30,000	21,000	64.0	A222	2	WF	30,000	21,000	64.0
FS32	2	WF	30,000	21,000	64.0	A230-2	2	WF	30,000	21,000	64.0
HE30-2	2	WF	30,000	21,000	64.0	A232	2	WF	30,000	21,000	64.0
FSDV22	2	WF	30,000	21,000	65.0	Q230	2	WF	30,000	21,000	64.0
FSDV32	2	WF	30,000	21,000	65.0	D222	2	WF	30,000	21,000	65.0
DVR39	2	WF	30,000	21,000	66.0	D232	2	WF	30,000	21,000	65.0
DVT39	2	WF	30,000	21,000	66.0	AB132	2	WF	30,000	21,000	66.0
HEB32	2	WF	30,000	21,000	66.0	A132	2	WF	30,000	21,000	66.0
HE32	2	WF	30,000	21,000	66.0	<u>PROPANE GAS</u>					
DVRSL	2	WF	30,000	21,000	67.0	A125	2	RH	20,000	14,000	58.0
DVRSR	2	WF	30,000	21,000	67.0	D332	2	WF	18,000	12,600	64.0
DVT43	2	WF	33,000	23,100	65.0	DR333	2	WF	20,000	14,000	66.0
DVR33	2	WF	34,000	23,800	67.0	D230	2	WF	21,000	14,700	64.0
DVT52	2	WF	34,000	23,800	67.0	D334	2	WF	21,000	14,700	65.0
DV40	2	WF	35,000	24,500	65.0	D336	2	WF	21,000	14,700	65.0
STANDARD FOOTNOTES:						STANDARD FOOTNOTES:					
1. Fan Type - With Blower						2. Gravity Type - Without Blower					
* Rating revised by program since last directory						* Rating revised by program since last directory					

Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity, Btu/hr	AFUE, %
FM MAJESTIC INC. (CONT'D)					
A230-2	2	WF	30,000	21,000	64.0
A232	2	WF	30,000	21,000	64.0
O222	2	WF	30,000	21,000	65.0
O232	2	WF	30,000	21,000	65.0
AB132	2	WF	30,000	21,000	66.0
A132	2	WF	30,000	21,000	66.0

DESA INTERNATIONAL INC.
Trade Name: Comfort Glow

NATURAL GAS

CGR50BNA	1	RH	50,000	36,000	66.5
CGR50NA	2	RH	50,000	36,000	66.5
CGR65BNA	1	RH	65,000	45,500	65.0
CGR65NA	2	RH	65,000	45,500	65.0

PROPANE GAS

CGR50BPA	1	RH	50,000	36,000	66.5
CGR50PA	2	RH	50,000	36,000	66.5
CGR65BPA	1	RH	65,000	45,500	65.0
CGR65PA	2	RH	65,000	45,500	65.0

DESA INTERNATIONAL INC.
Trade Name: Vanguard

NATURAL GAS

DNV25NB	1	WF	25,000	19,250	75.6
DNV40NB	1	WF	40,000	30,800	75.6

PROPANE GAS

OV25PB	1	WF	25,000	19,250	75.6
OPB	1	WF	40,000	30,800	75.6

EMPIRE COMFORT SYSTEMS, INC.
Trade Name: Empire

NATURAL OR PROPANE GAS

3588-2	2	FF	32,500	22,750	56.0
5088-2	2	FF	45,000	31,500	57.0
7088-2	2	FF	65,000	45,500	57.0

RH-25-5	2	RH	25,000	17,500	63.0
RH-35-5	2	RH	35,000	24,500	64.0
RH-50-4	2	RH	50,000	35,000	65.0
RH-50-5	2	RH	50,000	35,000	65.0
RH-65-4	2	RH	65,000	45,500	65.0
RH-65-5	2	RH	65,000	45,500	65.0

DV-210-7SG	2	WF	10,000	7,000	62.0
DV-215-7SG	2	WF	15,000	10,500	62.0
DV-20E-3	1	WF	20,000	16,300	80.0
DV-25-2SG	2	WF	25,000	17,500	67.0
GWT-25-1(SG, RB)	2	WF	25,000	18,500	70.0
DV-35-2MH	2	WF	35,000	24,500	68.0
DV-35-2SG	2	WF	35,000	24,500	68.0
GWT-35-1(SG, RB)	2	WF	35,000	25,900	70.0
DVC-35-1(SP, IP)	1	WF	35,000	27,700	75.0
FAW-40-1(SP, IP)	1	WF	40,000	31,000	74.0
DV-40E-3	1	WF	40,000	32,600	80.0
#GWT-50-1(SG, RB)	2	WF	50,000	37,000	70.0
FAW-55IP	1	WF	55,000	42,000	74.0
FAW-55SPP	1	WF	55,000	42,000	74.0
DV-55IP	1	WF	55,000	43,000	76.0
DV-55SPP	1	WF	55,000	43,000	76.0
DV-55E-3	1	WF	55,000	44,825	80.0

Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity, Btu/hr	AFUE, %
HUNTER ENERGY AND TECHNOLOGIES INC.					
Trade Name: Hunter					
<u>NATURAL GAS</u>					
HWF15	2	WF	15,000	12,000	69.0
HWF30	2	WF	25,000	19,000	74.4

PROPANE GAS

HWF15	2	WF	15,000	12,225	69.0
HWF30	2	WF	25,000	20,000	74.4

NATURAL OR PROPANE GAS

FI25H-3(N, P)	1	RH	20,000	13,200	58.7
HDS2000-3(N, P)		RH	20,000	13,200	59.1
PW/WF20-(2, 3)(N, P)		RH	20,000	13,500	57.8
PW/WF35-(2, 3)(N, P)		RH	35,000	25,000	65.8
PW/WF50-(2, 3)(N, P)		RH	50,000	35,600	66.4

HB5000	2	WF	5,800	4,296	72.8
HB10000	2	WF	9,400	7,520	77.3
HWF10MH	2	WF	10,000	7,550	69.0
HWF10MM	2	WF	10,000	7,550	69.0
HDV2500-3(N, P)	2	WF	23,000	17,500	67.2
HDV30-3(N, P)	2	WF	25,000	18,500	64.2
HDV30-4(N, P)	1, 3	WF	25,000	19,300	73.0
HF130-3	2	WF	30,000	21,300	64.9
HFS40-3(N, P)	2	WF	35,000	26,600	70.7

Additional Footnotes

3. Electronic ignition.

HUNTER ENERGY AND TECHNOLOGIES INC.
Trade Name: Atlanta Stove

NATURAL GAS

ADGH15	2	WF	15,000	12,000	69.0
ADGH25	2	WF	25,000	19,000	74.4

PROPANE GAS

ADGH15	2	WF	15,000	12,225	69.0
ADGH25	2	WF	25,000	20,000	74.4

NATURAL OR PROPANE GAS

ADGB6	2	WF	5,800	4,640	72.8
ADGB10	2	WF	9,400	7,520	77.3
HWF10MH	2	WF	10,000	7,550	69.0

HUNTER ENERGY AND TECHNOLOGIES INC.
Trade Name: Martin

NATURAL GAS

DGH15	2	WF	15,000	12,000	69.0
DGH25	2	WF	25,000	19,000	74.4

PROPANE GAS

DGH15	2	WF	15,000	12,225	69.0
DGH25	2	WF	25,000	20,000	74.4

NATURAL OR PROPANE GAS

DGB6	2	WF	5,800	4,640	72.8
DGB10	2	WF	9,400	7,520	77.3
HWF10MH	2	WF	10,000	7,550	69.0

STANDARD FOOTNOTES:

1. Fan Type - With Blower
Rating Voluntarily revised since last directory.

2. Gravity Type - Without Blower
Rating revised by program since last directory.

Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity, Btu/hr	AFUE, %
LOUISVILLE TIN AND STOVE CO.					
Trade Name: Cozy					
<u>NATURAL GAS</u>					
JN30		FF	30,000	21,000	57.0
JN30A		FF	30,000	21,200	57.0
JN50		FF	50,000	35,000	58.0
JN50A		FF	50,000	35,000	58.0
ON65		FF	62,000	43,400	58.0
ON65A		FF	62,000	43,400	58.0
ON75		FF	75,000	52,500	58.0
ON75A		FF	75,000	52,500	58.0
C201A	2	RH	20,000	14,000	59.0
CR351A	2	RH	35,000	24,500	65.5
C351A	2	RH	35,000	24,500	66.6
CR501A	2	RH	50,000	35,000	65.0
CS01A	2	RH	50,000	35,000	66.0
CR701A	2	RH	70,000	49,000	65.0
CO1A	2	RH	70,000	49,000	65.0
JDY-151	2	WF	15,000	10,500	64.0
JDY-155	2	WF	15,000	10,500	64.0
JDY-251	2	WF	25,000	17,500	63.0
JDY-255	2	WF	25,000	17,500	63.0
W251E	2	WF	25,000	17,500	63.0
W255E	2	WF	25,000	17,500	63.0
W251-D	2	WF	25,000	17,500	63.3
W255-D	2	WF	25,000	17,500	63.3
CDV-331	2	WF	33,000	23,100	64.0
CDV-335	2	WF	33,000	23,100	64.0
W351-D	2	WF	35,000	24,500	64.1
W351E	2	WF	35,000	24,500	64.1
W355-D	2	WF	35,000	24,500	64.1
W355E	2	WF	35,000	24,500	64.1
CF31	1	WF	35,000	28,000	74.0
CF31	1	WF	35,000	28,000	74.8
CF357	1	WF	35,000	28,000	75.4
CF357C	1	WF	35,000	28,000	75.4
DVCF 403	1	WF	40,000	32,000	74.5
DVCF403A	1	WF	40,000	32,000	74.5
DVCF403B	1	WF	40,000	32,000	74.5
DVCF 407	1	WF	40,000	32,000	76.1
DVCF407A	1	WF	40,000	32,000	76.1
DVCF407B	1	WF	40,000	32,000	76.1
W501-D	2	WF	50,000	35,000	65.1
W501E	2	WF	50,000	35,000	65.1
W505-D	2	WF	50,000	35,000	65.1
W505E	2	WF	50,000	35,000	65.1
CF503-B	1	WF	50,000	40,000	74.3
CF503C	1	WF	50,000	40,000	74.3
CF557-B	1	WF	55,000	44,000	76.0
DVCF557B	1	WF	55,000	44,000	76.0
CF557C	1	WF	55,000	44,000	77.6
DVCF 557	1	WF	55,000	44,000	77.6
DVCF 653	1	WF	62,500	50,000	74.3
DVCF653A	1	WF	62,500	50,000	74.3
DVCF653B	1	WF	62,500	50,000	74.3
CF653-B	1	WF	65,000	52,000	74.1
CF653C	1	WF	65,000	52,000	74.1
<u>PROPANE GAS</u>					
90P30		FF	30,000	21,000	57.0
90P30A		FF	30,000	21,000	57.0
90P50		FF	50,000	35,000	58.0
90P50A		FF	50,000	35,000	58.0
90P65		FF	62,000	43,400	58.0
90P65A		FF	62,000	43,400	58.0
90P75		FF	75,000	52,500	58.0
90P75A		FF	75,000	52,500	58.0
VC202A	2	RH	20,000	14,000	59.0
VCR352A	2	RH	35,000	24,500	65.5
VC752A	2	RH	35,000	24,500	66.0
VC	2	RH	50,000	35,000	65.0
VC	2	RH	50,000	35,000	66.0
VCR702A	2	RH	70,000	49,000	65.0
VC702A	2	RH	70,000	49,000	65.0
CDV-152	2	WF	15,000	10,500	64.0

Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity, Btu/hr	AFUE, %
LOUISVILLE TIN AND STOVE CO. (CONT'D)					
CDV-156	2	WF	15,000	10,500	64.0
CDV-252	2	WF	25,000	17,500	63.0
CDV-256	2	WF	25,000	17,500	63.0
W252E	2	WF	25,000	17,500	63.0
W256E	2	WF	25,000	17,500	63.0
W252-D	2	WF	25,000	17,500	63.3
W256-D	2	WF	25,000	17,500	63.3
CDV-332	2	WF	33,000	23,100	64.0
CDV-336	2	WF	33,000	23,100	64.0
W352-D	2	WF	35,000	24,500	64.1
W352E	2	WF	35,000	24,500	64.1
W356-D	2	WF	35,000	24,500	64.1
W356E	2	WF	35,000	24,500	64.1
CF354C	1	WF	35,000	28,000	74.0
CF354-B	1	WF	35,000	28,000	74.8
CF358-B	1	WF	35,000	28,000	75.4
CF358C	1	WF	35,000	28,000	75.4
DVCF 404	1	WF	40,000	32,000	74.5
DVCF404A	1	WF	40,000	32,000	74.5
DVCF404B	1	WF	40,000	32,000	74.5
DVCF 408	1	WF	40,000	32,000	76.1
DVCF408A	1	WF	40,000	32,000	76.1
DVCF408B	1	WF	40,000	32,000	76.1
W502-D	2	WF	50,000	35,000	65.1
W502E	2	WF	50,000	35,000	65.1
W506-D	2	WF	50,000	35,000	65.1
W506E	2	WF	50,000	35,000	65.1
CF504-B	1	WF	50,000	40,000	74.3
CF504C	1	WF	50,000	40,000	74.3
CF558-B	1	WF	55,000	44,000	76.0
DVCF558B	1	WF	55,000	44,000	76.0
CF558C	1	WF	55,000	44,000	77.6
DVCF 558	1	WF	55,000	44,000	77.6
DVCF558A	1	WF	55,000	44,000	77.6
DVCF 654	1	WF	62,500	50,000	74.3
DVCF654A	1	WF	62,500	50,000	74.3
DVCF654B	1	WF	62,500	50,000	74.3
CF654-B	1	WF	65,000	52,000	74.1
CF654C	1	WF	65,000	52,000	74.1
<u>NATURAL OR PROPANE GAS</u>					
MHDV 156	2	WF	15,000	10,500	64.0
MHDV 306	2	WF	30,000	21,000	65.1
MARTIN INDUSTRIES, INC.					
Trade Name: Martin					
<u>NATURAL GAS</u>					
V6935		RH	35,000	24,500	64.0
DG10	2	WF	10,000	6,500	59.0
DG20	2	WF	18,000	12,600	62.0
DG30	2	WF	27,000	18,900	63.0
<u>PROPANE GAS</u>					
V6935		RH	35,000	24,500	64.0
DG10	2	WF	10,000	6,500	59.0
DG20	2	WF	18,000	12,600	62.0
DG30	2	WF	27,000	18,900	63.0
<u>NATURAL OR PROPANE GAS</u>					
F1430/AF30	2	FF	30,000	21,000	56.0
F1445/AF45	2	FF	45,000	31,500	57.0
F1465/AF65	2	FF	65,000	45,500	57.0
Y2720		RH	20,000	13,000	58.0
V6835		RH	35,000	24,500	64.0
V6850		RH	50,000	35,000	65.0
V6950		RH	50,000	35,000	65.0
V6870		RH	70,000	49,000	65.0
V6970		RH	70,000	49,000	65.0
GWF25	2	WF	25,000	17,500	63.0
GWF35	2	WF	32,000	22,400	64.0
GWF55	2	WF	50,000	35,000	65.0

STANDARD FOOTNOTES:

1. Fan Type - With Blower

2. Gravity Type - Without Blower

* Rating revised by program since last directory.

Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity, Btu/hr	AFUE, %
M. IN INDUSTRIES, INC.					
Trade Name: Warm Morning					
<u>NATURAL GAS</u>					
Y2ORN	2	RH	20,000	11,000	58.0
V30KN6	2	RH	30,000	21,000	64.0
VR40GBN6	1	RH	40,000	28,000	64.0
VR40GN6	2	RH	40,000	28,000	64.0
VR50NBN6	1	RH	50,000	35,000	65.0
VR50HN6	2	RH	50,000	35,000	65.0
V50LBN6	1	RH	50,000	35,000	65.0
V50LN6	2	RH	50,000	35,000	65.0
VR65NBN6	2	RH	65,000	45,500	65.0
VR65NN6	2	RH	65,000	45,500	65.0
V65LBN6	1	RH	65,000	45,500	65.0
V65LN6	2	RH	65,000	45,500	65.0
#LSC50TN	1	WF	50,000	37,500	74.0
LSC65T	1	WF	60,000	45,000	74.0
<u>PROPANE GAS</u>					
V2ORP	2	RH	20,000	13,000	58.0
V30KP6	2	RH	30,000	21,000	64.0
VR40GBP6	1	RH	40,000	28,000	64.0
VR40GP6	2	RH	40,000	28,000	64.0
VR50NBP6	1	RH	50,000	35,000	65.0
VR50NP6	2	RH	50,000	35,000	65.0
V50LBP6	1	RH	50,000	35,000	65.0
V50LP6	2	RH	50,000	35,000	65.0
VR65NBP6	1	RH	65,000	45,500	65.0
VR65NP6	2	RH	65,000	45,500	65.0
V65LBP6	1	RH	65,000	45,500	65.0
V65LP6	2	RH	65,000	45,500	65.0
#LSC50TP	1	WF	50,000	37,500	74.0
LSC65TP	1	WF	60,000	45,000	74.0

Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity, Btu/hr	AFUE, %
PERFECTION-SCHWANK, INC.					
Trade Name: Perfection					
<u>NATURAL GAS</u>					
VC220TN-R		RH	19,000	12,600	58.0
VC220TN-P		RH	19,000	13,300	58.0
VC235SEN		RH	35,000	24,500	64.0
VC235TN-P		RH	35,000	24,500	64.0
YRC235SEN		RH	35,000	24,500	64.0
YRC235TN-P		RH	35,000	24,500	64.0
YRC235TN-R		RH	35,000	24,500	64.0
YC250CSEN		RH	50,000	35,000	65.0
VC250CTN-P		RH	50,000	35,000	65.0
VC250CTN-R		RH	50,000	35,000	65.0
VC250SEN		RH	50,000	35,000	65.0
VC250TN-P		RH	50,000	35,000	65.0
VC250TN-R		RH	50,000	35,000	65.0
YRC250CSEN		RH	50,000	35,000	65.0
YRC250CTN-R		RH	50,000	35,000	65.0
WYRC250CTN-P		RH	50,000	35,000	65.0
VC270CSEN		RH	70,000	49,000	65.0
VC270CTN-P		RH	70,000	49,000	65.0
VC270CTN-R		RH	70,000	49,000	65.0
VC270SEN		RH	70,000	49,000	65.0
VC270TN-P		RH	70,000	49,000	65.0
VC270TN-R		RH	70,000	49,000	65.0
YRC270CSEN		RH	70,000	49,000	65.0
YRC270CTN-R		RH	70,000	49,000	65.0
WYRC270CTN-P		RH	70,000	49,000	65.0
ASV712RTN-T	2	WF	12,000	8,400	60.0
ASV712SEN-T	2	WF	12,000	8,400	60.0
WASV712RTN	2	WF	12,000	8,400	60.0
WASV712SEN	2	WF	12,000	8,400	60.0
ASV120RTN-T	2	WF	20,000	14,000	63.0
ASV120SEN-T	2	WF	20,000	14,000	63.0

Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity, Btu/hr	AFUE, %
PERFECTION-SCHWANK, INC. (CONT'D)					
WASV120SEN-A	2	WF	20,000	14,000	63.0
WASV120TN-A	2	WF	20,000	14,000	63.0
PW825RTN-C	2	WF	25,000	17,500	63.0
PW825RTN-CS	2	WF	25,000	17,500	63.0
PW825SEN-C	2	WF	25,000	17,500	63.0
PW825SEN-CS	2	WF	25,000	17,500	63.0
PW825SEN-D	2	WF	25,000	17,500	63.0
PW825TN-C	2	WF	25,000	17,500	63.0
PW825TN-CS	2	WF	25,000	17,500	63.0
PW825TN-D	2	WF	25,000	17,500	63.0
ASV730RTN-T	2	WF	30,000	21,000	64.0
WASV730RTN-A	2	WF	30,000	21,000	64.0
WASV730SEN-A	2	WF	30,000	21,000	64.0
PW835RTN-C	2	WF	35,000	24,500	64.0
PW835RTN-CS	2	WF	35,000	24,500	64.0
PW835SEN-C	2	WF	35,000	24,500	64.0
PW835SEN-CS	2	WF	35,000	24,500	64.0
PW835SEN-D	2	WF	35,000	24,500	64.0
PW835TN-C	2	WF	35,000	24,500	64.0
PW835TN-CS	2	WF	35,000	24,500	64.0
PW835TN-D	2	WF	35,000	24,500	64.0
CV740HN-C	1	WF	40,000	31,160	73.3
CV740N-C	1	WF	40,000	31,160	73.3
PDW850RTN-C	2	WF	50,000	35,000	65.0
PDW850RTN-CS	2	WF	50,000	35,000	65.0
PDW850SEN-C	2	WF	50,000	35,000	65.0
PDW850SEN-CS	2	WF	50,000	35,000	65.0
PDW850SEN-D	2	WF	50,000	35,000	65.0
PDW850TN-C	2	WF	50,000	35,000	65.0
PDW850TN-CS	2	WF	50,000	35,000	65.0
PDW850TN-D	2	WF	50,000	35,000	65.0
CV750HN-C	1	WF	50,000	39,300	74.3
CV750N-C	1	WF	50,000	39,300	74.3
<u>PROPANE GAS</u>					
VC220TL-P		RH	19,000	12,600	58.0
VC220TL-R		RH	19,000	13,300	58.0
VC235SEL		RH	35,000	24,500	64.0
VC235TL-P		RH	35,000	24,500	64.0
VC235TL-R		RH	35,000	24,500	64.0
YRC235SEL		RH	35,000	24,500	64.0
YRC235TL-P		RH	35,000	24,500	64.0
YRC235TL-R		RH	35,000	24,500	64.0
VC250CSEL		RH	50,000	35,000	65.0
VC250CTL-P		RH	50,000	35,000	65.0
VC250CTL-R		RH	50,000	35,000	65.0
VC250SEL		RH	50,000	35,000	65.0
VC250TL-P		RH	50,000	35,000	65.0
VC250TL-R		RH	50,000	35,000	65.0
YRC250CSEL		RH	50,000	35,000	65.0
YRC250CTL-R		RH	50,000	35,000	65.0
WYRC250CTL-P		RH	50,000	35,000	65.0
VC270CSEL		RH	70,000	49,000	65.0
VC270CTL-P		RH	70,000	49,000	65.0
VC270CTL-R		RH	70,000	49,000	65.0
VC270SEL		RH	70,000	49,000	65.0
VC270TL-P		RH	70,000	49,000	65.0
VC270TL-R		RH	70,000	49,000	65.0
YRC270CSEL		RH	70,000	49,000	65.0
YRC270CTL-R		RH	70,000	49,000	65.0
WYRC270CTL-P		RH	70,000	49,000	65.0
ASV712RTL-T	2	WF	12,000	8,400	60.0
ASV712SEL-T	2	WF	12,000	8,400	60.0
MHSV712RT-T	2	WF	12,000	8,400	60.0
MHSV712SE-T	2	WF	12,000	8,400	60.0
WASV712RTL	2	WF	12,000	8,400	60.0
WASV712SEL	2	WF	12,000	8,400	60.0
ASV120RTL-T	2	WF	20,000	14,000	63.0
ASV120SEL-T	2	WF	20,000	14,000	63.0
MHSV120RT-T	2	WF	20,000	14,000	63.0
MHSV120SE-T	2	WF	20,000	14,000	63.0
WASV120SEL-A	2	WF	20,000	14,000	63.0
WASV120TL-A	2	WF	20,000	14,000	63.0
PW825RTL-CS	2	WF	25,000	17,500	63.0
PW825SEL-C	2	WF	25,000	17,500	63.0
PW825SEL-CS	2	WF	25,000	17,500	63.0
PW825SEL-D	2	WF	25,000	17,500	63.0
PW825TL-CS	2	WF	25,000	17,500	63.0
PW825TL-D	2	WF	25,000	17,500	63.0
ASV730RTL-T	2	WF	30,000	21,000	64.0
ASV730SEL-T	2	WF	30,000	21,000	64.0

STANDARD FOOTNOTES:

- 1. Fan Type - With Blower
- # Rating Voluntarily revised since last directory

- 2. Gravity Type - Without Blower
- ⊗ Rating revised by program since last directory

Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity Btu/hr	AFUE %	Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity Btu/hr	AFUE %
PERFECTION-SCHWANK, INC. (CONT'D)						SEARS ROEBUCK & COMPANY (CONT'D)					
MHSV730RT-T	2	WF	30,000	21,000	64.0	693.359460		RH	50,000	35,000	65.0
MHSV730SE-T	2	WF	30,000	21,000	64.0	693.359400		RH	70,000	49,000	65.0
WASV730RTL-A	2	WF	30,000	21,000	64.0	693.357540	2	WF	12,000	8,400	60.0
WASV730SEL-A	2	WF	30,000	21,000	64.0	693.357710	2	WF	12,000	8,400	60.0
PW835RTL-C	2	WF	35,000	24,500	64.0	693.357550	2	WF	20,000	14,000	63.0
PW835SEL-C	2	WF	35,000	24,500	64.0	693.357720	2	WF	20,000	14,000	63.0
PW835SEL-D	2	WF	35,000	24,500	64.0	693.357640	2	WF	25,000	17,500	63.0
PW835TL-C	2	WF	35,000	24,500	64.0	693.357590	2	WF	30,000	21,000	64.0
PW835TL-CS	2	WF	35,000	24,500	64.0	693.357730	2	WF	30,000	21,000	64.0
PW835TL-D	2	WF	35,000	24,500	64.0	693.357660	2	WF	35,000	24,500	64.0
CV740HL-C	1	WF	40,000	31,160	73.3	693.358210	1	WF	40,000	31,160	73.3
CV740L-C	1	WF	40,000	31,160	73.3	693.357680	2	WF	50,000	35,000	65.0
PDW850RTL-CS	2	WF	50,000	35,000	65.0	693.358230	1	WF	50,000	39,300	74.3
PDW850SEL-C	2	WF	50,000	35,000	65.0	WILLIAMS FURNACE COMPANY					
PDW850SEL-CS	2	WF	50,000	35,000	65.0	Trade Name: Williams					
PDW850SEL-D	2	WF	50,000	35,000	65.0	NATURAL GAS					
PDW850TL-C	2	WF	50,000	35,000	65.0	3005722	2	FF	30,000	21,000	56.0
PDW850TL-CS	2	WF	50,000	35,000	65.0	450516,7122	2	FF	45,000	31,500	57.0
PDW850TL-D	2	WF	50,000	35,000	65.0	6005622	2	FF	60,000	42,000	58.0
CV750HL-C	1	WF	50,000	39,300	74.3	6505722	2	FF	65,000	45,500	57.0
CV750L-C	1	WF	50,000	39,300	74.3	200(16,17)(1,2)2	2,3	RH	20,000	16,000	73.0
CV750LPL-C	1	WF	50,000	39,950	75.4	350(1,2)(7,8)12	2,3	RH	35,000	24,500	65.1
RINNAI AMERICA CORPORATION						PROPRANE GAS					
Trade Name: EnergySaver						350(1,2)(5,9)(1,2)2	2,3	RH	35,000	26,250	68.0
NATURAL GAS						500(1,2)(7,8)12	2,3	RH	50,000	35,000	65.4
RHFE-431FA IILN	1	WF	16,700	13,553	80.8	500(1,2)(5,9)(1,2)2	2,3	RH	50,000	37,500	68.1
*RHFE-431FA IILNG	1	WF	16,700	13,553	80.8	650(1,2)(7,8)12	2,3	RH	65,000	45,500	56.3
RHFE-556FA	1	WF	21,500	17,420	80.0	650(1,2)(5,9)(1,2)2	2,3	RH	65,000	50,400	70.5
RHFE-556FA FTRA IILN	1	WF	21,500	17,580	80.6	WILLIAMS FURNACE COMPANY					
*RHFE-556FTRA	1	WF	21,500	17,580	80.6	Trade Name: Kenmore					
RHFE-551FAN	1	WF	22,000	18,220	81.1	NATURAL GAS					
RHFE-1001FA/YAN	1	WF	38,400	31,220	80.4	3005721	2	FF	30,000	21,000	56.0
PROPRANE GAS						450516,7121	2	FF	45,000	31,500	57.0
RHFE-431FA IILP	1	WF	16,700	13,900	84.0	6005621	2	FF	60,000	42,000	58.0
*RHFE-431FA IILLP	1	WF	16,700	13,900	84.0	6505721	2	FF	65,000	45,500	57.0
RHFE-556FA	1	WF	20,700	16,770	80.0	200(16,17)(1,2)1	2,3	RH	20,000	16,000	73.0
RHFE-556FA FTRA IILP	1	WF	20,700	16,990	84.2	350(1,2)(7,8)11	2,3	RH	35,000	24,500	65.1
*RHFE-556FTRA	1	WF	20,700	16,990	84.2	350(1,2)(5,9)(1,2)1	2,3	RH	35,000	26,250	68.0
RHFE-551FAP	1	WF	21,000	17,390	81.1	500(1,2)(7,8)11	2,3	RH	50,000	35,000	65.4
RHFE-1001FA/YAP	1	WF	36,500	29,680	80.4	500(1,2)(5,9)(1,2)1	2,3	RH	50,000	37,500	68.1
SEARS ROEBUCK & COMPANY						650(1,2)(7,8)11	2,3	RH	65,000	45,500	56.3
Trade Name: Kenmore						650(1,2)(5,9)(1,2)1	2,3	RH	65,000	50,400	70.5
NATURAL GAS						NATURAL OR PROPANE GAS					
693.35930 2		RH	19,000	13,300	58.0	35(E,R)H(B)-J	2	RH	35,000	24,500	65.1
693.359350		RH	35,000	24,500	64.0	50(E,R)H(B)-J	2	RH	50,000	35,000	65.4
693.359420		RH	35,000	24,500	64.0	65(E,R)H(B)-J	2	RH	65,000	45,500	66.3
693.357960		RH	50,000	35,000	65.0	Additional Footnotes					
693.359450		RH	50,000	35,000	65.0	3. Suffix {0, .3, .4, .5}{001} may be added to indicate cabinet variations and ceramic logs.					
693.359390		RH	70,000	49,000	65.0	WILLIAMS FURNACE COMPANY					
693.359410		RH	70,000	49,000	65.0	Trade Name: Debonair					
693.357510	2	WF	12,000	8,400	60.0	NATURAL GAS					
693.357520	2	WF	20,000	14,000	63.0	14037(1,2)2	2	WF	14,000	9,800	62.4
693.357630	2	WF	25,000	17,500	63.0	22037(1,2)2	2	WF	22,000	15,400	64.8
693.357530	2	WF	30,000	21,000	64.0	30037(1,2)2	2	WF	30,000	21,000	65.4
693.357650	2	WF	35,000	24,500	64.0	PROPRANE GAS					
693.358200	1	WF	40,000	31,160	73.3	14MH-S, 1403421	2,3	WF	14,000	9,800	62.4
693.357670	2	WF	50,000	35,000	65.0	14037(1,2)1	2	WF	14,000	9,800	62.4
693.358220	1	WF	50,000	39,300	74.3	22037(1,2)1	2	WF	22,000	15,400	64.8
PROPRANE GAS						30MH-S, 3003421	2,3	WF	30,000	21,000	65.4
693.35932.2		RH	19,000	13,300	58.0	30037(1,2)1	2	WF	30,000	21,000	65.4
693.359370		RH	35,000	24,500	64.0	STANDARD FOOTNOTES:					
693.359430		RH	35,000	24,500	64.0	2 Gravity Type - Without Blower					
693.357970		RH	50,000	35,000	65.0	* Rating revised by program since last directory					

Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity Btu/hr	AFUE %	Model Number	Foot Notes	Type	Input Btu/hr	Heating Capacity Btu/hr	AFUE %					
WILLIAMS FURNACE COMPANY (CONT'D)						WILLIAMS FURNACE COMPANY										
<u>NATURAL OR PROPANE GAS</u>						Trade Name: Monterey										
140V(-3B,-5B)	2	WF	14,000	9,800	62.4	<u>NATURAL GAS</u>										
220V(-3B,-5B)	2	WF	22,000	15,400	64.8	20GV(-A1,-C)(-3T,-5T)	2	WF	20,000	14,120	63.2					
300V(-3B,-5B)	2	WF	30,000	21,000	65.4	25GV(-A1,-C)(-3T,-5T),	2	WF	25,000	17,500	63.3					
<u>Additional Footnotes</u>						25097(1,2)2										
3. Mobile Home Furnace						35GV(-C)(-3T,-5T),						2	WF	35,000	24,500	64.1
						35097(1,2)2										
						50GV(-A1,-C)(-3T,-5T),						2	WF	50,000	35,300	65.1
						50097(1,2)2										
WILLIAMS FURNACE COMPANY						<u>PROPANE GAS</u>										
Trade Name: Forsaire						20GV(-A1,-C)(-3,-5)						2	WF	20,000	14,120	63.2
<u>NATURAL GAS</u>						25GV(-A1,-C)(-3,-5),						2	WF	25,000	17,500	63.3
3508732	1	WF	35,000	28,000	74.8	25097(1,2)1										
3508332	1	WF	35,000	28,000	75.6	35GV(-C)(-3,-5),35097						2	WF	35,000	24,500	64.1
4007732	1	WF	40,000	32,000	75.4	(1,2)1										
4007332	1	WF	40,000	32,000	76.5	50GV(-A1,-C)(-3,-5),						2	WF	50,000	35,000	65.1
5008732	1	WF	50,000	40,000	74.3	50097(1,2)1										
5508332	1	WF	55,000	44,000	76.0	WILLIAMS FURNACE COMPANY										
5507332	1	WF	55,000	44,000	76.5	Trade Name: Monterey Magnum										
6257732	1	WF	62,500	50,000	76.1	<u>NATURAL GAS</u>										
6508732	1	WF	65,000	52,000	74.1	35095(1,2)2,35GVHE						2	WF	35,000	27,300	71.2
<u>PROPANE GAS</u>						(-3T,-5T)						2	WF	50,000	38,500	71.2
3508731	1	WF	35,000	28,000	74.8	50095(1,2)2										
3508331	1	WF	35,000	28,000	75.6	<u>PROPANE GAS</u>										
4007731	1	WF	40,000	32,000	75.4	35095(1,2)1,35GVHE						2	WF	35,000	27,300	71.2
4007331	1	WF	40,000	32,000	76.5	(-3,-5)										
5008731	1	WF	50,000	40,000	74.3	50095(1,2)1						2	WF	50,000	38,900	71.2
5508331	1	WF	55,000	44,000	76.0	WILLIAMS FURNACE COMPANY										
5507331	1	WF	55,000	44,000	76.5	Trade Name: Monterey SRO										
6257731	1	WF	62,500	50,000	76.1	<u>NATURAL GAS</u>										
6508731	1	WF	65,000	52,000	74.1	25096(1,2)2						2	WF	25,000	19,350	70.7
<u>NATURAL OR PROPANE GAS</u>						35096(1,2)2						2,3	WF	35,000	25,930	68.8
435FX-R	1	WF	35,000	28,000	74.8	50096(1,2)2						2	WF	50,000	38,000	69.3
435FEI	1	WF	35,000	28,000	75.6	<u>PROPANE GAS</u>										
4000VX-R	1	WF	40,000	32,000	75.4	25096(1,2)1						2	WF	25,000	19,350	70.7
4000VI	1	WF	40,000	32,000	76.5	35096(1,2)1						2,3	WF	35,000	25,930	68.8
450FX-R	1	WF	50,000	40,000	74.3	50096(1,2)1						2	WF	50,000	38,000	69.3
455FX-R	1	WF	55,000	44,000	75.0	<u>Additional Footnotes</u>										
455FEI	1	WF	55,000	44,000	76.0	3. Suffix (.0, .3, .4, .5)(001) may be added to indicate cabinet color variation and ceramic logs.										
5500VX-R	1	WF	55,000	44,000	76.0	WILLIAMS FURNACE COMPANY										
5500VI	1	WF	55,000	44,000	76.5	Trade Name: Magnum Plus										
6250VX-R	1	WF	62,500	50,000	76.1	<u>NATURAL GAS</u>										
465FX-R	1	WF	65,000	52,000	74.1	35099(1,2)2						2	WF	35,000	27,041	72.0
WILLIAMS FURNACE COMPANY						<u>PROPANE GAS</u>										
Trade Name: Forsaire Magnum						35099(1,2)1						2	WF	35,000	27,041	72.0
<u>NATURAL GAS</u>						<u>Additional Footnotes</u>										
6008532	1	WF	60,000	48,600	77.1	3. Suffix (.0, .3, .4, .5)(001) may be added to indicate cabinet color variation and ceramic logs.										
6008132	1	WF	60,000	48,600	78.1	WILLIAMS FURNACE COMPANY										
6508532	1	WF	65,000	53,300	77.0	Trade Name: Magnum Plus										
6508132	1	WF	65,000	53,300	78.0	<u>NATURAL GAS</u>										
<u>PROPANE GAS</u>						35099(1,2)2						2	WF	35,000	27,041	72.0
62.4 6008531	1	WF	60,000	49,200	77.1	<u>PROPANE GAS</u>										
64.8 6008131	1	WF	60,000	49,200	78.1	35099(1,2)1						2	WF	35,000	27,041	72.0
65.4 6508531	1	WF	65,000	52,325	77.0											
65.4 6508131	1	WF	65,000	52,325	78.0											

STANDARD FOOTNOTES:

- 1 Fan Type - With Blower
- # Rating Voluntarily revised since last directory

- 2 Gravity Type - Without Blower
- # Rating revised by program since last directory

M N.	Foot Notes	Type	Input Btu/hr	Heating Capacity, Btu/hr	AFUE, %
WILLIAMS FURNACE COMPANY					
Trade Name: Chamberlain					
<u>NATURAL GAS</u>					
14036(1,2)2	2	WF	14,000	10,039	63.4
22036(1,2)2	2	WF	22,000	16,462	65.8
30036(1,2)2	2	WF	30,000	21,849	66.4
<u>PROPANE GAS</u>					
14036(1,2)1	2	WF	14,000	10,039	63.4
22036(1,2)1	2	WF	22,000	16,462	66.8
30036(1,2)1	2	WF	30,000	21,849	66.4
WILLIAMS FURNACE COMPANY					
Trade Name: Chamberlain Direct Vent System					
<u>NATURAL GAS</u>					
2503532	1	WF	25,000	19,250	75.6
4003532	1	WF	40,000	30,800	75.6
<u>PROPANE GAS</u>					
2503531	1	WF	25,000	19,250	75.6
4003531	1	WF	40,000	30,800	75.6

STANDARD FOOTNOTES:

1. Fan Type - With Blower

2 Gravity Type - Without Blower

⊕ Rating revised by program since last directory

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

311. What is the justification for assuming that a home owner will lower his thermostat setting by one degree following an energy audit as implied by Mr. Wesolosky on page 11 of his testimony?

RESPONSE:

Please refer to KYPSC DR2-25.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

312. Please provide any evidence in the Company's possession that the high efficiency levels in the table on page 6 of the CEP write-up are realizable.

RESPONSE:

The efficiency levels on page 6 of Exhibit MDW-1 are the standards which must be met for a customer to qualify for the rebate. Therefore the efficiency ratings are 100% realizable since the customer will not qualify for the rebate unless they have purchased an appliance which meets these standards.

Please refer to AG DR1-310 for a discussion of the efficiency of natural gas logs and space heaters.

Additionally, attached is a listing of natural gas furnaces approved by EnergyStar as having an efficiency rating greater than or equal to 90%.

Sponsoring Witness:

Matthew D. Wesolosky

This listing can be found at <http://www.energystar.gov>

**Gas Furnaces Product List
List Current as of June 1, 2007**

Manufacturer Name	Product Family Name	Fuel Type	AFUE Rating	Model Number
Airco	G95V	Gas	95	All models starting with G95V
Airco	GTHB	Gas	93	All models starting with GTHB
Airco	GTHC	Gas	95	All models starting with GTHC
Airco	Ultramax III	Gas	95	GTH - 50, 70, 85, 100
Air-Ease	Advantage 93 II	Gas	92.5	All models beginning with G2D93
Air-Ease	Advantage 93 II	Gas	92.5	All products beginning with G2D93
Air-Ease	Enhanced 95	Gas	95	All models beginning with G2D95
Air-Ease	Enhanced 95V	Gas	95	All models beginning with G2D95C
Air-Ease	Ultra SX 90	Gas	90	All models beginning with GUK or GCK
Air-Ease	Ultra SX 93	Gas	93	All models beginning with GU 93
Air-Ease	Ultra SX 95	Gas	95	All models beginning with GU 95
Air-Ease	Ultra V Advantage 93	Gas	92.5	All models beginning with G1D93
Air-Ease	Ultra V Advantage 93 II	Gas	92.5	All models beginning with G2D93L
Air-Ease	Ultra V Enhanced 95	Gas	94.5	All models beginning with G2D95L
Air-Ease	Ultra V Tech 90	Gas	90	All models beginning with G1D90
Air-Ease	Ultra V Tech 91	Gas	91	All models beginning with G1D91
Aire-Flo		Gas	92	AF90MPxxxxxx
Aire-Flo		Gas	92	All models beginning with AF92
Aire-Flo		Gas	92	All models beginning with AF92V
AirQuest	94V	Gas	94	All models beginning with NTVM
AirQuest	Airquest	Gas	95	All models beginning with H9UHX
AirQuest	DC 90 (downflow/horiz)	Gas	92	All models beginning with NCGM
AirQuest	DC 90 (upflow/horiz)	Gas	92	All models beginning with NTGM
AirQuest	DLX 90 Series	Gas	92	All models beginning with H9MPD
AirQuest	DV 90	Gas	90.1	All models beginning with NTGS
AirQuest	DV 90	Gas	91	All models beginning with NUG9
AirQuest	IIS 90 Series	Gas	92	All models beginning with H9MPT
AirQuest	NCPM	Gas	92	All models beginning with NCPM
AirQuest	NTGS	Gas	91	All models beginning with NTGS
AirQuest	NTPM	Gas	92	All models beginning with NTPM
AirQuest	PS 90 Series	Gas	90	All models beginning with N9MP1
AirQuest	PS 90-DV Series	Gas	90	All models beginning with N9MP2
Allstyle		Gas	90.4	CCA Series
Allstyle		Gas	90.4	CSA Series

Manufacturer Name	Product Family Name	Fuel Type	AFUE Rating	Model Number
Allstyle		Gas	90.9	VCA Series
Allstyle		Gas	90.9	VSA Series
Amana	Air Command 90	Gas	92	All models beginning with GUCA and GCCA
Amana	Air Command 90 II	Gas	92	All models beginning with GUSA
Amana	Air Command 95 II Q	Gas	95-96	All models beginning with GUYA and GCVA
Amana	Gas Furnace	Gas	92	GUSA
Amana	Twin Comfort	Gas	95	All models beginning with AMH95
Amana		Gas	90	DMS90453BXA
Amana		Gas	90	DMS90703BXA
Amana		Gas	90	DMS90704CXA
Amana		Gas	90	DMS90904CXA
Amana		Gas	90	DMS90905DXA
Amana		Gas	90	DMS91155DXA
Amana		Gas	92	ACS90453BXA
Amana		Gas	92	ACS90703BXA
Amana		Gas	92	ACS90704CXA
Amana		Gas	92	ACS90904CXA
Amana		Gas	92	ACS90905DXA
Amana		Gas	92	ACS91155DXA
Amana		Gas	92	AMS90453BXA
Amana		Gas	92	AMS90703BXA
Amana		Gas	92	AMS90704CXA
Amana		Gas	92	AMS90904CXA
Amana		Gas	92	AMS90905DXA
Amana		Gas	92	AMS91155DXA
Amana		Gas	95	ACV90704CXA
Amana		Gas	95	ACV90905DXA
Amana		Gas	95	AMV90453BXA
Amana		Gas	95	AMV90704CXA
Amana		Gas	95	AMV90905DXA
Amana		Gas	95	AMV91155DXA
American Standard	Ameristar	Gas	90	All models beginning with CUX or CDX
American Standard	Freedom 90	Gas	92.1	All models beginning with AUC or ADC
American Standard	Freedom 90 Comfort R	Gas	93	All models beginning with AUY or ADY

Manufacturer Name	Product Family Name	Fuel Type	AFUE Rating	Model Number
American Standard	Freedom 90 Single Stage or High Efficiency	Gas	92.1	All models beginning with AUX1 or ADX1
American Standard	Freedom 90 Two Stage	Gas	92.1	All models beginning with AUX2 or ADX2
Arcoaire	(None)	Gas	90.1	All models beginning with GUM
Arcoaire	94V	Gas	94	All models beginning with VNK
Arcoaire	Arcoaire	Gas	95	All models beginning with H9UHX
Arcoaire	DC90 (downflow/horiz)	Gas	90	All models beginning with NCGM
Arcoaire	DC90 (upflow/horiz)	Gas	92	All models beginning with NTGM
Arcoaire	DLX 90 Series	Gas	92	All models beginning with H9MPD
Arcoaire	DV90	Gas	91	All models beginning with NTG9
Arcoaire	Enviroplus 90	Gas	90.1-92	All models beginning with GUK, GDK, GCK
Arcoaire	GCK (downflow/horiz)	Gas	90	All models beginning with GCK
Arcoaire	GNK (upflow/horiz)	Gas	92	All models beginning with GNK
Arcoaire	GNM	Gas	91	All models beginning with GNM
Arcoaire	GNP	Gas	91	All models beginning with GNP
Arcoaire	IIS 90 Series	Gas	92	All models beginning with H9MPT
Arcoaire	NTGS	Gas	91	All models beginning with NTGS
Arcoaire	PS 90 Series	Gas	90	All models beginning with N9MP1
Arcoaire	PS 90-DV Series	Gas	90	All models beginning with N9MP2
Arcoaire	TCK 90	Gas	92	All models beginning with TCK
Arcoaire	TNK 92	Gas	92	All models beginning with TNK
Arcoaire	VS 90 Series	Gas	92	All models beginning with H9MPV
Armstrong Air	Advantage 93 II	Gas	92.5	All models beginning with G2D93
Armstrong Air	Enhanced 95	Gas	95	All models beginning with G2D95
Armstrong Air	Enhanced 95	Gas	95	All products beginning with G2D95
Armstrong Air	Enhanced 95V	Gas	95	All models beginning with G2D95C
Armstrong Air	Ultra SX 90	Gas	90	All models beginning with GUK or GCK
Armstrong Air	Ultra SX 93	Gas	93	All models beginning with GU 93
Armstrong Air	Ultra SX 95	Gas	95	All models beginning with GU 95
Armstrong Air	Ultra V Advantage 93	Gas	92.5	All models beginning with G1D93
Armstrong Air	Ultra V Advantage 93 II	Gas	92.5	All models beginning with G2D93L
Armstrong Air	Ultra V Enhanced 95	Gas	94.5	All models beginning with G2D95L
Armstrong Air	Ultra V Tech 90	Gas	90	All models beginning with G1D90
Armstrong Air	Ultra V Tech 91	Gas	91	All models beginning with G1D91
Armstrong Air	Bryant	Gas	91-92.3	All models beginning with 340AAV

Manufacturer Name	Product Family Name	Fuel Type	A-FUE Rating	Model Number
Bryant	Condensing Furnace	Gas	90	All models beginning with 345MAV
Bryant	Condensing Furnace	Gas	90	All models beginning with 351DAS
Bryant	Condensing Furnace	Gas	91	All models beginning with 340MAV
Bryant	Plus 90	Gas	91.2-95.5	All models beginning with 350AAV
Bryant	Plus 90	Gas	92	All models beginning with 350MAV
Bryant	Plus 90i	Gas	92.7-96.6	All models beginning with 355AAV
Bryant	Plus 90i	Gas	94-96	All models beginning with 355MAV
Bryant	Plus 90t	Gas	91.4-93	All models beginning with 352AAV
Bryant	Plus 90t	Gas	93	All models beginning with 352MAV
Bryant	Plus 95i	Gas	95	All models beginning with 355BAV
Bryant, Day&Night, Payne	Condensing Furnace	Gas	90	All models beginning with 345MAV
Bryant, Day&Night, Payne	Condensing Furnace	Gas	90.5	All models beginning with 340MAV
Bryant, Day&Night, Payne	Plus 90	Gas	92	All models beginning with 350MAV
Bryant, Day&Night, Payne	Plus 90i	Gas	94-96	All models beginning with 355MAV
Carrier	Carrier	Gas	91-92.3	All models beginning with 58MCA
Carrier	Comfort 92	Gas	91.4-95.5	All models beginning with 58MCB
Carrier	Condensing Furnace	Gas	90	All models beginning with 58MSA
Carrier	Condensing Furnace	Gas	90.5	All models beginning with 58MCA
Carrier	Condensing Furnace	Gas	91	All models beginning with 58MCA
Carrier	Infinity	Gas	94-96.6	All models beginning with 58MVP
Carrier	Infinity 96	Gas	92.7-96.6	All models beginning with 58MVB
Carrier	Infinity 96	Gas	95	All models beginning with 58UVB
Carrier	Performance 93	Gas	91.4-93	All models beginning with 58MTB
Carrier	WeatherMaker	Gas	92	All models beginning with 58MXA
Carrier	WeatherMaker 9300TS	Gas	93	All models beginning with 58MTA
Carrier	Weathermaker	Gas	92	All models beginning with 58MXA
Climate Energy	GTHB	Gas	93	All models beginning with GTHB
Climate Energy	CE95V	Gas	95	All models beginning with CE95V
Coleman	Condensing Furnace	Gas	92	GM9
Coleman	Condensing Furnace	Gas	91 - 94	G9T
Coleman	Condensing Furnace	Gas	92 - 94	G9V
Coleman	Condensing Furnace	Gas	92+	G9D
Coleman	Condensing Furnace	Gas	94	G9D
Coleman (Custom)	Condensing Furnace	Gas	91 - 94	FG9
Coleman-Evcon	90% Down flow	Gas	90	DGAD060CD
Coleman-Evcon	90% Down flow	Gas	90	DGAE080CD

Manufacturer Name	Product Family Name	Fuel Type	AFUE Rating	Model Number
Coleman-Evcon	90% Down flow	Gas	90	DGAF100CD
Coleman-Evcon	Condensing furnace	Gas	91 - 94	Models beginning with G9
Comfort Aire	Conquest 90	Gas	92	GLUA105-E5
Comfort Aire	Conquest 90	Gas	92.7	ELD45-E3
Comfort Aire	Conquest 90	Gas	92.8	GLUA75-E3
Comfort Aire	Conquest 90	Gas	92.8	GLUA75-E4
Comfort Aire	Conquest 90	Gas	93.3	GLUA60-E3
Comfort Aire	Conquest 90	Gas	93.5	GLUA90-E5
Comfort Aire	Conquest 90	Gas	94.2	FLUA120-E5
Comfort Aire	Conquest 90	Gas	94.3	FLUA45-E3
Comfortmaker	(None)	Gas	90.1	All models beginning with GUM
Comfortmaker	94V	Gas	94	All models beginning with VNK
Comfortmaker	Comfortmaker	Gas	95	All models beginning with C9UHX
Comfortmaker	DLX 90 Series	Gas	92	All models beginning with C9MPD
Comfortmaker	Enviroplus 90	Gas	90.1-92	All models beginning with GUK, GDK, GCK
Comfortmaker				
Comfortmaker	GCK (downflow/horiz)	Gas	90	All models beginning with GCK
Comfortmaker	GNK (upflow/horiz)	Gas	92	All models beginning with GNK
Comfortmaker	GNP	Gas	91	All models beginning with GNP
Comfortmaker	IIS 90 Series	Gas	92	All models beginning with C9MPT
Comfortmaker	NTGS	Gas	91	All models beginning with NTGS
Comfortmaker	PS 90 Series	Gas	90	All models beginning with N9MP1
Comfortmaker	PS 90-DV Series	Gas	90	All models beginning with N9MP2
Comfortmaker	TCK 90	Gas	92	All models beginning with TCK
Comfortmaker	TNK 92	Gas	92	All models beginning with TNK
Comfortmaker	VS 90 Series	Gas	92	All models beginning with C9MPV
Concord	Concord 90	Gas	90	All models beginning with CG90
Corsaire	FURN/ 90	Gas	90	All models beginning with FGRJ, FGTJ
Ducane	Fits-All 92V	Gas	92	All models beginning with CMPEV
Ducane Company	Fits-All	Gas	92.1	CMPxV/xxxxxx
Ducane Company	Fits-All	Gas	92.1	CMPxxxxxxx
EVCON	Condensing Furnace	Gas	92	GF9
EVCON		Gas	92-94	All models beginning with DGU or DGD
Fraser-Johnston		Gas	92-94	All models beginning with P*HD, P*LU or P*ND
Frigidaire	Condensing Furnace	Gas	92	All L1RC models

Manufacturer Name	Product Family Name	Fuel Type	AFUE Rating	Model Number
Frigidaire	Condensing Furnace	Gas	95.1	All FG6TE models
Frigidaire	Condensing Furnace	Gas	92	All FG6RC models
Frigidaire	Condensing Furnace	Gas	92	All FG6RL models
Frigidaire	Condensing Furnace	Gas	92	All FG6T models
Gibson	Condensing Furnace	Gas	92	All GL1RC models
Gibson	Condensing Furnace	Gas	95.1	All KG6TE models
Gibson	Condensing Furnace	Gas	92	All KG6RC models
Gibson	Condensing Furnace	Gas	92	All KG6RL models
Goodman	Condensing Furnace	Gas	95	All models beginning with GMH95
Goodman	Dual \$aver	Gas	92	GCS90453BXA
Goodman		Gas	92	GCS90703BXA
Goodman		Gas	92	GCS90904CXA
Goodman		Gas	92	GCS91155DXA
Goodman		Gas	92	GCV90704CXA
Goodman		Gas	92	GCV90905DXA
Goodman		Gas	92	GMS90453BXA
Goodman		Gas	92	GMS90703BXA
Goodman		Gas	92	GMS90904CXA
Goodman		Gas	92	GMS91155DXA
Goodman		Gas	92	GMV90704CXA
Goodman		Gas	92	GMV90905DXA
Goodman		Gas	92	GMV91155DXA
Goodman		Gas	92.1	All models beginning with GKS9
Goodman		Gas	95	All models beginning with AMS95
Goodman	Gas \$aver	Gasd (Nat/LP)		
Goodman	Gas \$aver	Gasd (Nat/LP)	95	All models beginning with GMS95
Goodman	Gas \$aver	Gasd (Nat/LP)	95	All models beginning with GMV95
Goodman	Gas \$aver	Gasd (Nat/LP)	96	All models beginning with AMV9
Grandaire	Condensing Furnace	Gas	92	All KG6RC models
Grandaire	Condensing Furnace	Gas	92	All KG6RL models
Heil	94V	Gas	94	All models beginning with NTVM
Heil	DC90	Gas	90.1-92	All models beginning with NUGM, NDGM, NCGM

Manufacturer Name	Product Family Name	Fuel Type	AFUE Rating	Model Number
Heil	DC90 (downflow/horiz)	Gas	90	All models beginning with NCGM
Heil	DC90 (upflow/horiz)	Gas	92	All models beginning with NTGM
Heil	DLX 90 Series	Gas	92	All models beginning with H9MPD
Heil	DV90	Gas	90.1	All models beginning with NUG9
Heil	DV90	Gas	91	All models beginning with NTG9
Heil	Heil	Gas	95	All models beginning with H9UHX
Heil	IIS 90 Series	Gas	92	All models beginning with H9MPT
Heil	PS 90-DV Series	Gas	90	All models beginning with N9MP2
Heil	QuietComfortTM II (downflow/horiz)	Gas	92	All models beginning with NCPM
Heil	QuietComfortTM II (upflow/downflow)	Gas	92	All models beginning with NTPM
Heil	VS 90 Series	Gas	92	All models beginning with H9MPV
Intertherm	Condensing Furnace	Gas	92	All M3RL models
Intertherm	Condensing Furnace	Gas	92	All G6RL models
Intertherm	Condensing Furnace	Gas	92	All G6RC models
Intertherm	Condensing Furnace	Gas	92	All G6T models
Intertherm	Condensing Furnace	Gas	92	All M2R models
Intertherm	Keeprite	Gas	95	All models beginning with C9UHX
Kelvinator	Condensing Furnace	Gas	92	All L1RC models
Kelvinator	Condensing Furnace	Gas	95.1	All KG6TE models
Kelvinator	Condensing Furnace	Gas	92	All G6RC models
Kelvinator	Condensing Furnace	Gas	92	All G6RL models
Kelvinator	Condensing Furnace	Gas	92	All G6T models
Kenmore	Kenmore	Gas	95	All models beginning with C9UHX
Kenmore	Kenmore	Gas	95	All models beginning with H9UHX
Kenmore	Kenmore	Gas	95	All models beginning with T9UHX
Lennox	Complete Heat	Gas	90	All models beginning with AM30/HM30
Lennox	Dimension Gas Furnace	Gas	90	All models beginning with GHR32
Lennox	Dimension Gas Furnace	Gas	93.0-94.2	All models beginning with G32
Lennox	Elite 90 Gas Furnace	Gas	90.9-92.4	All models beginning with G26 or GHR26
Lennox	G41UF	Gas	90	All Models beginning with G41
Lennox	G43	Gas	90-92.1%	All models beginning with G43UF
Lennox	G51MP	Gas	92.1 - 92.5	All models beginning with G51
Lennox	G61MP	Gas	94.1	All models beginning with "G61MP-"
Lennox	G61MPV	Gas	94.1 - 94.6	All models beginning with G61MPV

Manufacturer Name	Product Family Name	Fuel Type	AFUE Rating	Model Number
Lennox	HM61	Gas	95	Models beginning with HM61-150
Lennox	HM61	Gas	96	Models beginning with HM61-100
Lennox	Pulse 21 Gas Furnace	Gas	93.2-96.2	All models beginning with G21 or GSR21
Lennox	Pulse 21V Gas Furnace	Gas	93.4-94.5	All models beginning with G21V or GSR21V
Luxaire	Condensing Furnace	Gas	92	GM9
Luxaire	High Performance	Gas	91 - 94	G9T
Luxaire	High Performance	Gas	92	P*LU or P*LD
Luxaire	Peak Performance	Gas	92 - 94	G9V
Luxaire	Performance Plus	Gas	91 - 94	G9D
Luxaire	Condensing furnace	Gas	91 - 94	FG9
Luxaire (Basis)	Condensing Furnace	Gas	92	All MGC1RC models
Maytag	Condensing Furnace	Gas	92	All PGC1RC models
Maytag	Condensing Furnace	Gas	95.1	All MGF1TE models
Maytag	Condensing Furnace	Gas	95.1	All PGF1TE models
Maytag	Condensing Furnace	Gas	90	All PGF1RL models
Maytag	Condensing Furnace	Gas	92	All PGF1RC models
Maytag	Condensing Furnace	Gas	92	All PGF1T* models
Maytag	Condensing Furnace	Gas	90.4	CCA Series
Meridian		Gas	90.4	CSA Series
Meridian		Gas	90.9	VCA Series
Meridian		Gas	90.9	VSA Series
Meridian		Gas	92	All M3RL models
Miller	Condensing Furnace	Gas	92	All G6RC models
Miller	Condensing Furnace	Gas	92	All G6RL models
Miller	Condensing Furnace	Gas	92	All M2R models
Miller	Condensing Furnace	Gas	95	All models starting with G95V
Olsen	G95V	Gas	93	All models starting with GTHB
Olsen	GTHB	Gas	95	All models starting with GTHC
Olsen	GTHC	Gas	95	GTH-50, 70, 85, 100
Olsen	Ultramax III	Gas	95	All models starting with G95V
Olsen	G95V	Gas	93	All models starting with GTHB
Oneida Royal	GTHB	Gas	95	All models starting with GTHC
Oneida Royal	GTHC	Gas	95	GTH - OR - 50, 70, 85, 100
Oneida Royal	Ultramax III	Gas	91.5	All models beginning with 490AAV
Payne	Condensing Furnace	Gas	92	All models beginning with PG9
Payne	Condensing Furnace	Gas		

Manufacturer Name	Product Family Name	Fuel Type	AFUE Rating	Model Number
Payne	Payne	Gas	90-92.1	All models beginning with PG9MAB
Philco	Condensing Furnace	Gas	92	All L1RC models
Philco	Condensing Furnace	Gas	95.1	All KG6TE models
Philco	Condensing Furnace	Gas	92	All G6RC models
Philco	Condensing Furnace	Gas	92	All G6RL models
Philco	Condensing Furnace	Gas	92	All G6T models
ProSeries		Gas	92	PSCMPxxxxxx
Rheem	Classic 90 Plus with Dual Comfort Control	Gas	92	Models beginning with RGRK
Rheem	Classic Series	Gas	92	Models beginning with RGTK
Rheem	FURN/Classic 90	Gas	92	All models beginning with RGRJ, RGTJ
Rheem	FURN/Classic 90 Plus	Gas	92-94	All models beginning with RGRA, RGTA
Rheem	FURN/Classic 90 Plus w/CCC	Gas	94	All models beginning with RGFD, RGGD
Ruud	Acheiver Series	Gas	92	Models beginning with UGTK
Ruud	Classic 90 Plus with Dual Comfort Control	Gas	92	Models beginning with UGRK
Ruud	FURN/Achiever 90	Gas	92	All models beginning with UGRJ, UGTJ
Ruud	FURN/Achiever 90 Plus	Gas	92-94	All models beginning with UGRA, UGTA
Ruud	FURN/Achiever 90 Plus w/CCC	Gas	94	All models beginning with UGFD, UGGD
Tappan	Condensing Furnace	Gas	92	All L1RC models
Tappan	Condensing Furnace	Gas	95.1	All FG6TE models
Tappan	Condensing Furnace	Gas	92	All FG6RC models
Tappan	Condensing Furnace	Gas	92	All FG6RL models
Tappan	Condensing Furnace	Gas	92	All FG6T models
Tempstar	94V	Gas	94	All models beginning with NTVM
Tempstar	DC 90	Gas	90.1-92	All models beginning with NUGM, NDGM, NCGM
Tempstar	DC90 (downflow/horiz)	Gas	90	All models beginning with NCGM
Tempstar	DC90 (upflow/horiz)	Gas	92	All models beginning with NTGM
Tempstar	DLX 90 Series	Gas	92	All models beginning with T9MPD
Tempstar	DV 90	Gas	90.1	All models beginning with NTG9
Tempstar	DV 90	Gas	90.1	All models beginning with NUG9
Tempstar	IIS 90 Series	Gas	92	All models beginning with T9MPT
Tempstar	NTGS	Gas	91	All models beginning with NTGS

Manufacturer Name	Product Family Name	Fuel Type	A/EUE Rating	Model Number
Tempstar	PS 90 Series	Gas	90	All models beginning with N9MP1
Tempstar	PS 90-DV Series	Gas	90	All models beginning with N9MP2
Tempstar	SmartComfort™ II (downflow/horiz)	Gas	92	All models beginning with NCPM
Tempstar	SmartComfort™ II (upflow/downflow)	Gas	92	All models beginning with NTPM
Tempstar	Tempstar	Gas	95	All models beginning with T9UHX
Tempstar	VS 90 Series	Gas	92	All models beginning with T9MPV
Texas Furnace, LLC	Meridian + 90	Gas	90.4	CSA Series
Texas Furnace, LLC	Meridian + 90	Gas	90.9	VSA Series
Texas Furnace, LLC	TFC + 90	Gas	90.4	CSA Series
Texas Furnace, LLC	TFC + 90	Gas	90.9	VSA Series
TFC		Gas	90.4	CCA Series
TFC		Gas	90.4	CSA Series
TFC		Gas	90.9	VCA Series
TFC		Gas	90.9	VSA Series
Thermal Zone	90% Downflow Furnace	Gas	90	All models beginning with GD***M
Thermal Zone	90% Multi Position Furnace	Gas	90	All models beginning GU***M
Thermal Zone	93% Upflow Furnace	Gas	93	All models beginning with GU***N
Thermal Zone	Condensing Furnace	Gas	90	All G6RL models
Thermal Zone	Condensing Furnace	Gas	92	All G6RC models
Thermal Zone	Condensing Furnace	Gas	92	All G6T* models
ThermoPride	90%+ Condensing Series	Gas	92.0 - 94.5	All models beginning with CHBI or CDBI
ThermoPride	Premiere Series CHX/CDXI	Gas	93.0 - 94.5	All models beginning with CHXI or CDXI
ThermoPride	Downflow, fixed input, condensing furnace	Natural or Propane gas	91.5-93.0	All models beginning with CDB
ThermoPride	Downflow, two-stage, condensing furnace	Natural or Propane gas	93	All models beginning with CDX
ThermoPride	Upflow, fixed input, condensing furnace	Natural or Propane gas	93-94.5	All models beginning with CHB
ThermoPride	Upflow, two-stage, condensing furnace	Natural or Propane gas	94.0, 94.5	All models beginning with CHX
Trane	XB90	Gas	91	All models beginning with TDC
Trane	XB90	Gas	92.1	All models beginning with TUC
Trane	XL90	Gas	92.5-93	All models beginning with TDX-R
Trane	XL90	Gas	92.5-93	All models beginning with TUX-R

Manufacturer Name	Product Family Name	Fuel Type	Air/UE Rating	Model Number
Trane	XR 90	Gas	91	All models beginning with TDX
Trane	XR 90	Gas	92.1	All models beginning with TUX
Trane	XV 90	Gas	92.1-93	All models beginning with TDY
Trane	XV 90	Gas	92.5-93	All models beginning with TUY
WeatherKing	FURN / 90	Gas	0.9	All models beginning with 90RJ, 90TJ
WeatherKing	FURN/Select 90	Gas	92	All models beginning with WGRJ, WGTJ
WeatherKing	FURN/Select 90 Plus	Gas	92-94	All models beginning with WGRA, WGTA
WeatherKing	FURN/Select 90 Plus w/CCC	Gas	94	All models beginning with WGFD, WGGD
Westinghouse	Condensing Furnace	Gas	92	All L1RC models
Westinghouse	Condensing Furnace	Gas	95.1	All FG6TE models
Westinghouse	Condensing Furnace	Gas	90	All FG6RL models
Westinghouse	Condensing Furnace	Gas	92	All FG6RC models
Westinghouse	Condensing Furnace	Gas	92	All FG6T* models
Whirlpool	Whirlpool Gold	Gas	0.93	WGFD
Whirlpool	Whirlpool Gold	Gas	0.93	WGFDU
Whirlpool	Whirlpool Gold	Gas	0.93	WGFE
Whirlpool	Whirlpool Gold	Gas	0.93	WGFET
Whirlpool	Whirlpool Gold	Gas	0.93	WGFEU
Whirlpool		Gas	0.9	WFCC
Whirlpool		Gas	0.9	WFCT
Whirlpool		Gas	0.9	WFCU
York International	Coleman Echelon Series	Gas	0.92	Models beginning with FC9S
York International	Coleman Echelon Series	Gas	92+%	Models beginning with FC9T
York International	Coleman Echelon Series	Gas	92+%	Models beginning with FC9V
York International	Coleman Echelon Series	Gas	95	Models beginning with FC9C
York International	Coleman Echelon Series	Gas	95	Models beginning with FC9M
York International	Condensing Furnace	Gas	92	GM9
York International	Condensing Furnace	Gas	0.92	Models beginning with GF9S
York International	Condensing Furnace	Gas	92+%	Models beginning with GM9S
York International	Condensing Furnace	Gas	92+%	Models beginning with GM9T
York International	Condensing Furnace	Gas	92+%	Models beginning with GM9V
York International	Condensing furnace	Gas	91 - 94	FG9
York International	Deluxe Diamond 95 Series	Gas	94-95	P*XU
York International	Diamond 90 Series	Gas	90	P*DR
York International	Diamond 90 Series	Gas	91 - 94	P*UR, P*DH

Manufacturer Name	Product Family Name	Fuel Type	AFUE Rating	Model Number
York International	Diamond 95 Ultra Series	Gas	92 - 94	P*XUJ-V, PXD-V
York International	Luxaire Acclimate Series	Gas	0.92	Models beginning with FL9S
York International	Luxaire Acclimate Series	Gas	92+%	Models beginning with FL9T
York International	Luxaire Acclimate Series	Gas	92+%	Models beginning with FL9V
York International	Luxaire Acclimate Series	Gas	95	Models beginning with FL9C
York International	Luxaire Acclimate Series	Gas	95	Models beginning with FL9M
York International	York Affinity Series	Gas	0.92	Models beginning with PS9
York International	York Affinity Series	Gas	92+%	Models beginning with PT9
York International	York Affinity Series	Gas	92+%	Models beginning with PV9
York International	York Affinity Series	Gas	95	Models beginning with PC9
York International	York Affinity Series	Gas	95	Models beginning with PM9
York International	York Latitude Series	Gas	0.92	Models beginning with GY9S
Zephyr	FURN/ 90	Gas	90	All models beginning with EGRJ, EGTJ

**DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089**

**ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07**

313. Why has the Company applied for the CEP in a rate case and not separately as a Demand Side Management (DSM) program under KRS 278.285? Does the Company believe that KRS 278.285 does not apply to the programs described by Mr. Wesolosky? If so, why?

RESPONSE:

As stated in the Wesolosky testimony on page 6, the CEP is a DSM program under KRS 278.285. The KRS allows for a DSM program to be approved in conjunction with rate schedules initiated pursuant to KRS 278.190. Therefore, we determined our rate case would be the appropriate forum to present the CEP. Additionally, the rate case would provide the Office of the Attorney General the opportunity to provide feedback on the program, pursuant to subsection 1(f) of the KRS.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

314. Please identify any rate case issues, aside from rate of return, which would be encountered in a conventional rate case but would not be encountered in a CRS review.

RESPONSE:

Please refer to KYPSC DR2-27,29 and 30.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

315. At page 13 of his testimony, Mr. Wesolosky states that the CRS refunds or collections for a given year will be allocated pro-rata to each customer class based on the allocation of the revenue requirement to each customer class as determined in the most recent rate case. How, if at all, will this mechanism adjust for changes in the number of customers or the consumption levels of the respective class between rate cases?

RESPONSE:

For the purposes of allocating the CRS adjustment, the CRS does not contemplate annual changes in the number of customers or consumption levels. Changes to these variables would be contemplated in the cost of service study in the next general rate case. The CRS provides for a general rate case in five years from the inception of the mechanism.

Responsible Witness:

Matthew D. Wesolosky

**DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089**

**ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07**

316. Why should high efficiency rebates be offered to builders of new homes?

RESPONSE:

The overall mission of the CEP is to maximize participation in the program and thus maximize conservation of natural gas and lower our customer's utility bills. The CEP rebates are applicable to either the replacement of existing appliances or the initial purchase of an energy efficient appliance. The CEP rebate program is designed to influence our existing customers to purchase high efficiency appliances. However, Delta believes that energy conservation can be maximized by creating incentive to install high-efficiency appliances in new homes.

It has been Delta's experience with home builders that the builder must construct houses at a competitive price with a package of upgrades to make their home marketable to the home buyer. Whether a home builder is constructing a spec or a custom home, they have a great amount of influence on the appliance options for a home. The rebate would offset the incremental cost to the builder and provide incentive for the builder to actively market homes with energy efficient appliances.

Sponsoring Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

317. Please provide any information or data in the Company's possession that supports the levels of participation in the respective DSM programs shown in the "Program Budget."

RESPONSE:

Please refer to KYPSC DR2-23g.

Sponsoring Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

318. Explain in detail how the "lost sales" from the CEP program will be calculated. Include in this explanation how the Company will distinguish between sales lost due to the CEP program and sales that would be lost absent the program. Explain also how lost sales from energy audits will be calculated. Provide specific examples of the computation of lost sales.

RESPONSE:

Please refer to KYPSC DR2-2.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

319. Please provide an illustration of the calculation of the CEPI.

RESPONSE:

Please refer to KYPSC DR2-2.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

320. Please refer to sheet 38 of the proposed tariff. In the middle of the page, the tariff states that sales to residential customers will be increased monthly by the CEPRC. The subsequent description of the CEPRC refers to "rates" established annually. How, mechanically, does Delta propose to recover its CEP costs, by increasing sales, through a surcharge, or through some other mechanism?

RESPONSE:

The CEP will be a separate rate mechanism which adds a volumetric charge to the customer's bill. The charge will recover the CEP costs.

Responsible Witness:

Matthew D. Wesolosky

**DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089**

**ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07**

321. If, as stated in the middle of sheet 38, Delta proposes to increase the sales to residential customers to pay for the CEP, will those restated sales also be used to recovery gas commodity costs? If so, how will customers be protected from overcharges for gas costs? If not, does this mean that each customer will have two different levels of gas consumption billed to him each month?

RESPONSE:

Gas costs will be billed under our GCR rate mechanism based on actual usage. The CEP will be billed as a volumetric charge based on actual usage. See KYPSC DR2-2 for an illustrative example of the calculation of the CEP rate.

Responsible Witness:

Matthew D. Wesolosky

**DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089**

**ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07**

322. How, exactly, does Delta propose to calculate the "administrative expenses" that will be recovered in the CEPCR? Please provide an illustration of this calculation.

RESPONSE:

Administrative charges under the CEP are not calculated, but based on actual expenses incurred on behalf of the program. Please refer to KYPSC DR2-2.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

323. The third paragraph under "CEPLS" on tariff sheet 39 states that the aggregate lost revenues "attributable to the program participant" shall be divided by the estimated sales for the upcoming 12 month period to determine the "CEPLS surcharge." This paragraph implies that there will be a specific CEPLS surcharge applicable to each customer based on his individual conservation. How does this implication square with the formula at the bottom of sheet 38 which implies an aggregate rate applicable to all residential customers?

RESPONSE:

The phrase "aggregate lost revenues attributable to the program participant" is intended to refer to the estimated reduction in usage described in the preceding paragraph, and thus an aggregate rate is applied to all residential customers. The illustrative example of the mechanism's calculation at KYPSC DR2-2, provides the calculation of the CEP rate which is charged to all residential customers.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

324. The paragraph at the top of sheet 40 states that revenues from the CEPLS will be based "on engineering estimates of energy savings, actual program participation and estimated sales for the upcoming twelve-month period. . ." This leaves revenue determination very indeterminate. Please identify specifically how CEPLS lost revenues will be measured for each of the programs outlined in Mr. Wesolosky's testimony.

RESPONSE:

Please refer to KYPSC DR2-2 for an illustrative example of how the CEPLS is calculated.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

325. Please provide an illustration of the calculation of the CEPI.

RESPONSE:

Please refer to KYPSC DR2-2 for an illustrative example of how the CEPI is calculated.

Responsible Witness:

Matthew D. Wesolosky

**DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089**

**ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07**

326. Will the CEP rates be surcharged on the commodity (per mcf.) or the customer charge?

RESPONSE:

Subject to Commission approval, the CEP rate would be volumetric.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

327. Refer to sheet 43 of the proposed tariff. What form will the CRS "adjustment to rates" take, per mcf, per customer, or both?

RESPONSE:

Subject to Commission approval, Delta would propose that the adjustment be applied on a net revenue basis; i.e., as a percentage factor applied to net revenues (revenues less GCR revenues).

Sponsoring Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

328. Will other interested parties aside from the Commission staff and the Attorney General be permitted to participate in the annual CRS reviews?

RESPONSE:

See response to PSC Second Request, Item 12.

Sponsoring Witness:

Glenn R. Jennings

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

329. Which, if any, of the rate case filing requirements will apply to the annual CRS filings?

RESPONSE:

The specific filing requirements have not yet been determined. It is Delta's desire, through a collaborative effort, to create a set of meaningful filing requirements, which would allow the Commission and the AG to perform a thorough, and efficient risk-based review of the CRS adjustment.

Responsible Witness:

Matthew D. Wesolosky

**DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089**

**ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07**

330. Please provide the orders of the Alabama Commission cited on pages 34 and 36 of Dr. Blake's testimony.

RESPONSE:

See attached.

Sponsoring Witness:

Martin J. Blake

MOBILE GAS SERVICE CORPORATION, Applicant
APPLICATION: For approval of proposed revisions to the Tariff Applicable to Gas Service of Mobile Gas Service Corporation to Extend the Operation of the Rate Stabilization and Equalization Factors

DOCKET 28101

Alabama Public Service Commission

2005 Ala. PUC LEXIS 143

June 14, 2005

PANEL: [*1] Jim Sullivan, President; Jan Cook, Associate Commissioner; George C. Wallace, Jr., Associate Commissioner

OPINION: ORDER

BY THE COMMISSION:

Mobile Gas Service Corporation ("Mobile Gas" or "Company") on May 23, 2005, filed an application requesting that the Commission extend Applicant's Rate Stabilization and Equalization ("Rate RSE") with the addition of certain new provisions, through September 30, 2009.

By Order dated June 10, 2002 in Docket 28101, the Commission approved the adoption of Rate RSE for Mobile Gas effective October 1, 2002, through September 30, 2005.

Pursuant to that Order and the RSE tariff currently in effect, the Commission's Energy and Advisory Divisions and the Attorney General's Office conducted a thorough review of Mobile Gas' operation under the RSE tariff. Conducted both at Commission offices and at Mobile Gas' offices, the review revealed that RSE has worked well for the Company and its customers.

The Commission Staff has been involved in numerous meetings and discussions with both the Company and the Attorney General's Office as part of the review process and has carefully evaluated the proposed tariff language.

Based on this review, Mobile Gas has [*2] proposed to revise its Rate RSE tariff to reflect an extension of Rate RSE through September 30, 2009, and to include certain new provisions relating to the review of Rate RSE filings by the Commission Staff and to matters covered under the limited complaint proceedings under Rate RSE.

The Attorney General of Alabama supports this filing.

The Commission finds that Rate RSE has been an appropriate and effective ratemaking mechanism for Mobile Gas and that the extension of Rate RSE and the addition of the new provisions will streamline and stabilize the regulatory process and continue to provide the customers of Mobile Gas with the lowest possible rates consistent with the cost of service.

IT IS THEREFORE ORDERED That the proposed revisions to the Tariff Applicable to Gas Service of Mobile Gas Service Corporation to extend the operation of the rate stabilization and equalization factors attached hereto as Appendix A are hereby approved.

IT IS FURTHER ORDERED That Mobile Gas shall continue operation under Rate RSE effective October 1, 2005, through September 30, 2009. Absent a Commission Order modifying Mobile Gas' RSE tariff, Rate RSE shall continue in effect beyond September 30, 2009. [*3]

IT IS FURTHER ORDERED That a thorough review of Mobile Gas' operation under its RSE tariff shall be conducted by the Commission Staff and the parties during the period December 1, 2008, through May 31, 2009.

IT IS FURTHER ORDERED That any order issued by the Commission to terminate RSE for Mobile Gas shall provide that such termination shall take place no sooner than six months from the date of such order.

IT IS FURTHER ORDERED That in furtherance of the goals of providing stable rates, the Company commits, by its acceptance of this rate order, to make no general rate increase filings other than those prescribed under Rate RSE and other provisions of Petitioner's Tariff to be effective prior to October 1, 2009. It is likewise the commitment of the Commission, by reason of the Company's acceptance of this order, to make no change in Rate RSE and to make no change in the Equity Return Range to be effective prior to October 1, 2009, provided that the RCE range would be subject to adjustment if the Commission adjusts the returns on equity of all major energy utilities with a similar form of regulation under its jurisdiction as a result of a generic rate of return proceeding for such utilities. [*4]

However, it is expressly recognized that an unforeseen event, whether physical or economic, of the nature of force majeure may occur. In such event, the Company and the Commission shall consult in good faith to determine whether such commitments should be modified and, failing agreement thereon, the Commission and the Company may take such actions as in good conscience they deem appropriate.

IT IS FURTHER ORDERED That Mobile Gas shall file the RSE tariff, attached hereto as Appendix A, and any existing tariffs requiring amendment to reflect the applicability of Rate RSE.

IT IS FURTHER ORDERED That this Order is effective as of the date hereon.

DONE in Montgomery, Alabama this 14th day of June, 2005.

ALABAMA PUBLIC SERVICE COMMISSION

Jim Sullivan, President

Jan Cook, Associate Commissioner

George C. Wallace, Jr., Associate Commissioner

MOBILE GAS SERVICE CORPORATION, Petitioner
PETITION: For approval to increase rates and charges and thereafter for the adoption of
Rate Stabilization and Equalization tariffs

DOCKET 28101

Alabama Public Service Commission

2002 Ala. PUC LEXIS 83; 218 P.U.R.4th 344

June 10, 2002

PANEL: [*1] Jim Sullivan, President; Jan Cook, Commissioner; George C. Wallace, Jr., Commissioner

OPINION: ORDER

BY THE COMMISSION:

On May 31, 2001, Mobile Gas Service Corporation (hereinafter "Mobile Gas" or "Company") filed a petition with the Alabama Public Service Commission (the "Commission") seeking approval to increase its rates and charges to Alabama consumers and to adopt Rate Stabilization and Equalization ("Rate RSE").

The Commission, in its Report and Order dated October 3, 2001, in this Docket, approved a settlement of the issues presented in the rate portion of the case as agreed upon by the Attorney General's Office and Mobile Gas. The Commission deferred a decision on the adoption of Rate RSE until May 2002 to allow for a sufficient evaluation period and to hold a public hearing on the suitability of the Company's proposed RSE tariff. As part of the evaluation of the appropriateness of Rate RSE for Mobile Gas, the Commission ordered Mobile Gas, beginning October 1, 2001, to make periodic reports to the Commission Staff and the Attorney General's Office showing the financial operations of the Company under the rules, regulations, and directions currently in effect or used by [*2] other gas utilities regulated under Rate RSE. Mobile Gas made such reports and supplied additional information concerning issues raised during the evaluation of Rate RSE for Mobile Gas. These submissions provided the basis for discussions among the Commission Staff, the Attorney General's Office, and Mobile Gas concerning specific terms and provisions of the Company's proposed RSE tariff attached hereto as Appendix A.

As noted in the Commission's Report and Order dated October 3, 2001, in this docket, the Attorney General agreed in concept not to oppose the Company's regulation under Rate RSE or any similar regulatory treatment. The Attorney General also agreed to incorporate the rate of return on common equity developed in this docket (13.60%) into the Company's proposed RSE tariff. Rate RSE requires a range of rate of return on average common equity and the parties agreed that, for evaluation purposes, the range would be from 13.35% to 13.85%, with a mid-point of the 13.60%.

Beginning in March 2002, the Commission Staff, the Attorney General's Office, and Mobile Gas participated in a series of conferences to review Mobile Gas' performance under the rules, regulations, and directions [*3] currently in effect or used by other gas utilities regulated under Rate RSE and to discuss specific terms and provisions of a contemplated RSE tariff for Mobile Gas and other issues as brought forward by the parties.

The parties agreed, after a thorough review and deliberation period, that Rate RSE would be suitable for Mobile Gas and beneficial to its customers. The specific RSE tariff agreed upon is attached hereto as Appendix A.

During the aforementioned conferences, Mobile Gas proposed the creation of an Enhanced Stability Reserve (ESR) to promote increased rate stability for its customers in the event of a force majeure type occurrence. The proposed ESR is similar to that already approved by this Commission for other utilities under its jurisdiction.

The parties agreed, after a thorough review and deliberation period, that an ESR would be suitable for Mobile Gas and beneficial to its customers. The specific ESR tariff agreed upon is attached hereto as Appendix B.

A public hearing was held on May 29, 2002, pursuant to Commission notice dated May 13, 2002. At the hearing, representatives of the Attorney General's Office and Mobile Gas presented a Settlement Agreement that agreed [*4] to the implementation of RSE and ESR tariffs, attached hereto as Appendix A and B, respectively. Representatives of the Energy and Advisory Divisions of the Commission Staff also participated in the hearing.

As in previous filings before the Commission related to Rate RSE, the Commission finds that the adoption of Rate RSE constitutes an improved method of setting natural gas utility rates sufficient to provide the Company with stable and adequate returns, to provide the public with the lowest possible rates consistent with the cost of service, to ameliorate the impact of any increases, and to decrease rates promptly if the designated rates of return are exceeded.

The Commission notes that the Cost Control Measurement (CCM) component of Rate RSE will limit monitor the Company's operation and maintenance expense levels from year to year in comparison to an inflation index to ensure effective and efficient management of such costs.

The Commission also finds that an ESR is reasonable, appropriate, and consistent with the principles of rate stability underlying RSE. The establishment and operation of an ESR will dampen the potentially destabilizing effect of any future extraordinary operation [*5] and maintenance expenses or large industrial revenue budget variance by allowing those costs to be recognized more gradually for cost of service and ratemaking purposes.

The Commission notes that the RSE and ESR tariffs constitute a regulatory agreement negotiated between the Company and the Attorney General's Office with input from the Commission Staff and, as such, contain numerous safeguards and checks and balances to ensure that the Company's rates are just and reasonable to both the Company and its customers as required by *Alabama Code Section 37-1-80, 1975*.

After careful review of these documents and the testimony presented at the May 29, 2002, hearing, the Commission deems it in the public interest to accept the agreement negotiated between the Company and the Attorney General's Office and approve the RSE and ESR tariffs attached hereto as Appendix A and B, respectively.

IT IS THEREFORE ORDERED That Mobile Gas shall commence operation under the RSE tariff attached hereto as Appendix A which is hereby approved to be effective October 1, 2002, through September 30, 2005. Absent a Commission Order modifying Mobile Gas' RSE tariff, Rate RSE shall continue in effect beyond September [*6] 30, 2005.

IT IS FURTHER ORDERED That Mobile Gas is to include in its RSE computations the revenues and expenses of all its operations including, but not limited to, merchandising, jobbing, and all large industrial consumers.

IT IS FURTHER ORDERED That a thorough review of Mobile Gas' operation under its RSE tariff shall be conducted by the Commission Staff and the parties during the period January 1, 2005 through April 30, 2005.

IT IS FURTHER ORDERED That any order issued by the Commission to terminate RSE for Mobile Gas shall provide that such termination shall take place no sooner than six months from the date of such order.

IT IS FURTHER ORDERED That in furtherance of the goals of providing stable rates, the Company commits, by its acceptance of this rate order, to make no general rate increase filings other than those prescribed under Rate RSE and other provisions of Petitioner's Tariff to be effective prior to October 1, 2005. It is likewise the commitment of the Commission, by reason of the Company's acceptance of this order, to make no change in Rate RSE and to make no change in the Equity Return Range to be effective prior to October 1, 2005, provided that [*7] the RCE range would be subject to adjustment if the Commission adjusts the returns on equity of all major energy utilities with a similar form of regulation under its jurisdiction as a result of a generic rate of return proceeding for such utilities. However, it is expressly recognized that an unforeseen event, whether physical or economic, of the nature of force majeure may occur. In such event, the Company and the Commission shall consult in good faith to determine whether such commitments should be modified and, failing agreement thereon, the Commission and the Company may take such actions as in good conscience they deem appropriate.

IT IS FURTHER ORDERED That Mobile Gas is authorized to establish an ESR with a Maximum ESR Balance of \$ 1,500,000 of which \$ 1,000,000 is to be recorded in total effective October 1, 2002, and recovered through rates over a three-year period beginning October 1, 2002. The ESR will operate in accordance with the tariff attached hereto as Appendix B that is hereby approved.

IT IS FURTHER ORDERED That Mobile Gas shall file the RSE and ESR tariffs, attached hereto as Appendix A and B, respectively, and any existing tariffs requiring amendment to [*8] reflect the applicability of Rate RSE.

IT IS FURTHER ORDERED That this Order is effective as of the date hereon.

DONE in Montgomery, Alabama this 10th day of June, 2002.

ALABAMA PUBLIC SERVICE COMMISSION

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Jim Sullivan, President

Jan Cook, Commissioner

George C. Wallace, Jr., Commissioner

Item 330
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ALABAMA GAS CORPORATION, APPLICANT
APPLICATION: For Renewal and Extension of Rate Stabilization and Equalization (Rate
RSE)

DOCKETS 18046 AND 18328

Alabama Public Service Commission

2002 Ala. PUC LEXIS 94; 218 P.U.R.4th 339

June 10, 2002

PANEL: [*1] Jim Sullivan, President; Jan Cook, Associate Commissioner; George C. Wallace, Jr., Associate Commissioner

OPINION: ORDER

BY THE COMMISSION:

Alabama Gas Corporation (Company) on May 31, 2002, filed an application requesting that the Commission extend Applicant's Rate Stabilization and Equalization (Rate RSE) without change, through January 1, 2008, and thereafter, unless the Commission, after notice and a hearing, votes to either modify Rate RSE or to discontinue its operation after that date.

By way of background, Rate RSE was first established for the Company and for Alabama Power Company by Commission orders dated January 25, 1983, and November 17, 1982, respectively, which orders were examined by the Supreme Court of Alabama in the companion cases of *Graddick v. Alabama Public Service Commission*, 441 So.2d 386 (Ala. 1983) and *Alabama Metallurgical Corp. V. Alabama Public Service Commission*, 441 So.2d 565 (Ala. 1983). In those opinions the Court approved the action of the Commission in adopting Rate RSE and affirmed the establishment of Rate RSE as a valid exercise of the Commission's regulatory authority:

We [*2] have examined Rates RSE . . . and the special rules related thereto and find that they are legal and proper in every respect, they represent an appropriate exercise of the [Alabama Public Service Commission's] regulatory authority, they are in compliance with this court's mandate, and they are just and reasonable... to consumers represented by the Alabama Public Service Commission.

Alabama Metallurgical Corp., supra at 576.

In addition, the Supreme Court of Alabama again affirmed the implementation and extension of Rate RSE as a valid exercise of the Commission's regulatory authority in *Airco, Inc. v. Alabama Public Service Commission*, 496 So.2d 21 (Ala. 1986).

When the Commission initially adopted these rates in 1983, it found that "the ratemaking principles reflected in Rate RSE...constitute a significantly improved method of setting natural gas utility rates sufficient to provide the Company with stable and adequate returns, to provide the public with the lowest possible rates consistent with the cost of service, to ameliorate the impact of increases required, and to decrease rates promptly if the designate rates of [*3] return are exceeded." *Alabama Gas Corporation*, Dockets 18046, 18328 and 18622, Order p. 3 (Jan. 25, 1983). Since its original adoption in 1983, Rate RSE for the Company has been renewed and extended by Commission Order on four other occasions - 1985, 1987, 1990 and most recently 1996 - in each instance following extensive and ongoing review by all interested parties.

The Commission herein reaffirms that after nineteen years of successful operation, Rate RSE is an appropriate and effective ratemaking mechanism for the consumers of Alabama and for the Company. Rate RSE has worked well for the consumers and the Company during the past nineteen years, and has worked particularly well as modified by the 1990 RSE Order which added significant additional consumer safeguards that were negotiated to ensure that the Company's rates are just and reasonable to both the consumers and the Company as required by *Alabama Code Section 37-1-80*. In

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addition, RSE's implementation and continuation as a regulatory tool in Alabama has streamlined and stabilized the regulatory and ratemaking process, has replaced the Company's requests for large, complicated rate increases with quarterly rate adjustments [*4] that are easier to understand, less significant and easier to monitor, and has enhanced the effectiveness and reduced the cost of utility regulation in Alabama.

Moreover, Rate RSE has created a regulatory environment that has facilitated increased cooperation and dialogue between the Company and the Commission. As a result, the Commission and its staff better understand how developments in the energy industry will affect service and how the Company plans to respond to these changes to the benefit of its customers.

Finally, Rate RSE has provided a specific and detailed procedure for reviewing various components of the Company's RSE filings. This procedure provides additional consumer protection beyond that already provided under the Alabama statutory provisions.

The Attorney General of Alabama supports this filing.

The Commission finds that throughout the duration of Rate RSE's operation, the Company has managed to provide its customers with quality service at favorable and stable rates and that much of the Company's success in that regard has come as a result of the stability provided by Rate RSE. In fact, Applicant's rates today, when adjusted for inflation, are 11% lower than they [*5] were when RSE was implemented in 1983. Clearly, the Company has utilized this regulatory environment to focus on important industry issues which will enable the Company to continue to perform well in the future.

The Commission further finds that Rate RSE, as modified in the 1990 RSE Order, is fair, reasonable, in the public interest, and should be continued. After nineteen years of operation, the Commission reaffirms that Rate RSE is the established method of rate regulation for the Company and one that has proven successful in addressing the inherent problems of traditional utility regulation while also providing numerous consumer safeguards, thereby enabling the Commission to better carry out its statutory purposes. Based upon: (1) the satisfactory and proven operation of the rates which have been in place for over nineteen years and which have been the subject of ongoing review by the Commission and its staff and all interested parties since 1983; (2) the knowledge gained by this Commission and its staff in monitoring the Company through the operation of Rate RSE, and (3) the Commission's order of October 7, 1996 in these Dockets, the Commission finds that Rate RSE has continued [*6] to work well to the advantage of consumers, the Company and this Commission, and should be continued without change under the terms of the 1990 RSE Order through January 1, 2008, and thereafter unless the Commission, after reasonable notice to the Company and a public hearing, affirmatively votes to modify Rate RSE or discontinue the operation of Rate RSE after such date.

Considering the foregoing findings and the entire record in Dockets 18046 and 18328 to date, the Commission finds that the request for continuation should be and is herein approved.

IT IS THEREFORE ORDERED That:

(1) Rate RSE and the Special Rules Governing Operations of Rate RSE as stated in the 1990 RSE Order are in the public interest and shall continue to operate, without change, through January 1, 2008. Adjustments under Rate RSE shall continue after January 1, 2008, provided, however, the Commission may, after reasonable notice to the Company and a public hearing, affirmatively vote to modify Rate RSE or discontinue the operation of Rate RSE after such date.

(2) In furtherance of the goals of providing stable rates, the Company commits, by its acceptance of this rate order, to make no general rate increase [*7] filings other than those prescribed under Rate RSE and the other provisions of Applicant's Tariff to be effective prior to January 1, 2008. It is likewise the commitment of the Commission, by reason of the Company's acceptance of this rate order, to make no change in Rate RSE, nor reductions in the rate schedules to which they apply, and to make no changes in the RCE range to be effective prior to January 1, 2008, provided that the RCE range would be subject to adjustment if the Commission adjusts the returns on equity of all major energy utilities with a similar form of regulation under its jurisdiction as a result of a generic rate of return proceeding for such utilities. However, it is expressly recognized that an unforeseen event, whether physical or economic, of the nature of force majeure may occur. In such event, the Company and the Commission shall consult in good faith to determine whether such commitments should be modified and, failing agreement thereon, the Commission and the Company may take such actions as in good conscience they deem appropriate.

(3) The Company shall indicate its acceptance of this Order and its provisions in writing by a filing with the Commission [*8] within eight (8) working days of the date hereof.

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IT IS FURTHER ORDERED, That all orders, directives and requirements set out herein shall be fully complied with by all affected parties.

IT IS FURTHER ORDERED That this Order shall be effective as of the date hereof.

DONE at Montgomery, Alabama, this the 10th day of June, 2002.

ALABAMA PUBLIC SERVICE COMMISSION

Jim Sullivan, President

Jan Cook, Associate Commissioner

George C. Wallace, Jr., Associate Commissioner

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

331. Please provide the record of rate adjustments by gas companies pursuant to the Alabama and South Carolina rate stabilization programs discussed by Dr. Blake on pages 34 and 35 of his testimony.

RESPONSE:

Dr. Blake does not have the information requested.

Sponsoring Witness:

Martin J. Blake

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

332. Please provide any studies that demonstrate the cost-effectiveness of the DSM programs outlined in Mr. Wesolosky's testimony.

RESPONSE:

Please refer to KYPSC DR2-22.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

333. What is the rationale for changing the basis for the volumetric charges from ccf to mcf?

RESPONSE:

The Company is not proposing to change the basis for the volumetric charges from Ccf to Mcf. Our tariff rates are currently stated in Mcfs and the rationale for changing to Ccfs is given in Brown Testimony page 5 line 11.

Sponsoring Witness:

John B. Brown

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

334. Please provide all data available to Delta on the appliance mix of its residential and small commercial customers.

RESPONSE:

Delta does not track statistics on its customers' appliance mix.

Responsible Witness:

Matthew D. Wesolosky

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

335. Please provide the cost of service study in electronic format with all algorithms and formulas in tact.

RESPONSE:

See PSC 46 Delta Cost of Service Study 2006.xls found on PSC 2 CD 1 as listed on the PSC Electronic File Index.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

336. What is Delta's recommended schedule of information requests and replies during the 45-day review period envisioned in the Company's CRS proposal?

RESPONSE:

Please refer to KYPSC DR2-27.

Responsible Witness:

Matthew D. Wesolosky

**DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089**

**ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07**

337. Describe in detail and provide full documentation of the Company's design day (demand) allocation procedure.

RESPONSE:

See attached and page 17 of the Direct Testimony of William Steven Seelye.

Responsible Witness:

William Steven Seelye

Delta Natural Gas Company, Inc.
 Estimated Peak Day Requirements
 For the 12 months Ended December 31, 2006

	Residential	Small Non-Residential GS Retail	Small Non-Residential GS Transportation	Large Non-Residential GS Retail and Transportation	Interruptible Retail	Interruptible Transportation	Special Contracts	Off System Transportation	Total
Non-Temperature Sensitive Load									
Non-Temperature Sensitive Mcf (Annual)	291,779	106,980	2,063	1,228,206	9,240	1,218,229	2,801,367	8,525,855	14,183,719
Days in Year	365	365	365	365	365	365	365	365	365
Mcf per Day as Delivered	799	293	6	3,365	25	3,338	7,675	23,359	38,860
Temperature Sensitive Load									
Mcf per Degree Day as Delivered	333	98	7	220	6	-	-	-	664
Calculated Daily Requirement at -3 Degrees	23,443	6,957	482	18,325	433	3,338	7,675	23,359	84,012
Percentage of Total	27.90%	8.28%	0.57%	21.81%	0.52%	3.97%	9.14%	27.80%	100.00%

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

338. Please describe in detail the use of Delta's transmission and distribution facilities by off-system transportation customers.

RESPONSE:

Delta's transmission facilities are used to provide service to off-system transportation customers. Distribution facilities, however, are not used to provide that service. Specifically, transmission facilities are used to transport gas on behalf of off-system transportation customers through the system, which, from a cost of service perspective, is not unlike the use of those facilities by Delta's sales customers.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

339. Why are CUST 01, 02 and 03 based on the year-end count of customers, while CUST 04 is based on the average number of customers?

RESPONSE:

Cust01, Cust02 and Cust03 are used to allocate year-end plant, rate base, etc., and Cust04 is used to allocate annual expenses.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

340. What is the difference between CUST 04 and CUST 05 allocation factors?

RESPONSE:

Cust04 reflects a weighting factor; whereas Cust05 does not.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

341. Please provide all source documents, workpapers, calculations and other documentation supporting the "zero intercept" procedure used by the Company to allocate mains costs.

RESPONSE:

See attached.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
A/C 376 - DISTRIBUTION MAINS
At 12/31/06

	<u>Footage</u>	<u>Miles</u>	<u>Net Book Value</u>
Under 2" plastic	508,866	96.38	2,931,080
	-		-
2" Plastic	4,504,311	853.09	20,799,781
	-		-
3" Plastic	89,043	16.86	101,306
	-		-
4" Plastic	1,353,891	256.42	10,735,972
	-		-
6" plastic	58,933	11.16	558,228
	-		-
Under 2" Steel	85,824	16.25	188,710
	-		-
2" Steel	379,832	71.94	462,919
	-		-
3" Steel	61,367	11.62	73,752
	-		-
4" Steel	291,928	55.29	2,211,801
	-		-
6" Steel	277,138	52.49	1,281,750
	-		-
8" Steel	94,863	17.97	403,827
	<u>7,705,996</u>	<u>1,459.47</u>	<u>39,749,126</u>

DELTA NATURAL GAS COMPANY, INC.
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342. Please provide the per-foot replacement cost new of each of the pipe sizes shown in page 2 Seelye Exhibit 8.

RESPONSE:

Mr. Seelye does not have the requested information. It was not used in the study.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

343. Please refer to page 25 of Mr. Seelye's testimony. Is the adjusted rate of return for the residential class 5.71% as shown in the table, or 5.17% as stated in line 5?

RESPONSE:

Both figures should be 5.71%. This refers to the overall rate of return, not for the residential class as stated in the question.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
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ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

344. Please provide the record of WNA adjustments since the inception of the program.

RESPONSE:

See attached.

Responsible Witness:

John B. Brown

WNA Adjustments Since Inception

Year	Month	1.480.060 WNA RESIDENTIAL	1.480.070 WNA SMALL NON- RESIDENTIAL	Total
2,000	1	-151,834.14	-41,326.35	-193,160.49
	2	153,228.62	47,166.64	200,395.26
	3	-428,260.69	-109,812.18	-538,072.87
	4	-123,557.00	-24,759.45	-148,316.45
	5	0.00	0.00	0.00
	12	285,784.55	79,372.81	365,157.36
2,001	1	541,143.66	159,764.97	700,908.63
	2	-130,587.89	-41,619.45	-172,207.34
	3	-56,097.44	-12,155.27	-68,252.71
	4	105,568.03	23,705.65	129,273.68
	5	-34.82	-2.10	-36.92
	12	-286,142.13	-70,493.17	-356,635.30
2,002	1	-97,376.48	-27,883.84	-125,260.32
	2	-393,975.22	-113,491.53	-507,466.75
	3	-37,491.05	-12,328.36	-49,819.41
	4	44,635.47	13,764.98	58,400.45
	5	108.60	30.70	139.30
	12	227,610.20	67,226.25	294,836.45
2,003	1	-102,835.64	-34,297.87	-137,133.51
	2	301,120.25	94,825.96	395,946.21
	3	222,625.92	67,253.82	289,879.74
	4	-159,938.31	-43,758.70	-203,697.01
	5	-1,217.82	-174.12	-1,391.94
	12	-70,991.31	-20,872.05	-91,863.36
2,004	1	-55,338.99	-16,464.29	-71,803.28
	2	148,296.98	46,922.53	195,219.51
	3	-42,431.58	-14,543.15	-56,974.73
	4	-21,552.30	-5,384.17	-26,936.47
	5	12.40	3.02	15.42
	12	-126,719.25	-28,993.42	-155,712.67
2,005	1	-250,075.32	-68,885.19	-318,960.51
	2	-105,949.65	-26,663.64	-132,613.29
	3	-40,743.94	-8,480.35	-49,224.29
	4	60,352.74	13,458.43	73,811.17
	5	-40.80	-4.71	-45.51
	12	74,807.73	23,653.29	98,461.02
2,006	1	50,412.61	9,700.34	60,112.95
	2	-422,312.34	-118,637.64	-540,949.98
	3	-19,931.59	-3,775.26	-23,706.85
	4	22,328.01	5,637.26	27,965.27
	12	-2,339.01	-2,815.16	-5,154.17
2,007	1	-359,683.14	-99,119.04	-458,802.18
	2	-142,727.07	-29,855.04	-172,582.11
	3	259,144.28	68,227.19	327,371.47
	4	-243,813.97	-59,385.7	-303,199.67
Totals		-1,376,818.84	-315,267.36	-1,692,086.20

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345. Confirm that the descriptor in column (8) in Seelye Exhibit 1 should be "Column (6)/Column (7)." Please provide an explanation for the variance between these two columns.

RESPONSE:

In Seelye Exhibit 2 Column 8 should be labeled column 6/ column 7.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
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ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

346. Does the 5,375,396 mcf shown in the line titled "On-System Transportation Special" refer only to Special Contracts, or does it include other on-system transportation customers as well? If the latter, please provide a breakdown of this figure.

RESPONSE:

The 5,375,396 includes both special contract and on-system transportation as shown below:

Special Contracts	2,801,367
On-system Transportation	2,574,029
Total	5,375,396

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
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ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

347. Does Seelye Exhibit 1 reflect billings for the year-end December 31, 2003, as the title states? If so, please provide the corresponding data for the year ending December 31, 2006.

RESPONSE:

Seelye Exhibit 2 reflects billing for the 12 months ended December 31, 2006.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

348. Why does the Company propose to increase the commodity rate for small non-residential customers but not for residential customers?

RESPONSE:

The small non-residential volumetric charge was increased to the same level as the residential volumetric charge.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
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ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

349. Please describe fully the rationale underlying the declining block rates for the large non-residential rate classes. Provide any workpapers, calculations or other documentation that would support the definition of these blocks and the rates applicable to them.

RESPONSE:

Delta's recommendation is consistent with the principles of rate stability and gradualism.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
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350. In view of the fact that there are no large non-residential customers taking gas in the over 5,000 mcf blocks, would it make sense to eliminate these rate blocks?

RESPONSE:

No.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
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ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
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351. Provide any workpapers, calculations or other documentation that support the rates to interruptible customers?

RESPONSE:

See Seelye Exhibit 4, page 5.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

352. What is the rationale for changing the billing units for gas lighting and interruptible classes from Mcf to Ccf?

RESPONSE:

The rationale for changing the billing units from Mcf to Ccf is given in Brown Testimony page 5 line 11.

Sponsoring Witness:

John B. Brown

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

353. Why is it impossible to derive any increased revenue from the special contracts?

RESPONSE:

Because they contain fixed rates.

Sponsoring Witness:

Glenn R. Jennings

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
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354. Please provide a full explanation for the assumed increases in the number of collection fees, reconnects and bad check charges shown on page 16 of Seelye Exhibit 4. Include any calculations, workpapers or other documentation to support these assumed increases.

RESPONSE:

When the proposed charges are multiplied by the billing units, the revenue increases produced are shown on the revised Seelye Exhibit 4, page 16, included in the response to PSC-49.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
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355. Why does page 16 of Seelye Exhibit 4 show no increases in the charges for collections, reconnections and bad checks when tariff sheets 14 and 15 show that these charges will be increased? If page 16 is in error, please provide a corrected page.

RESPONSE:

See response to PSC-49.

Responsible Witness:

William Steven Seelye

**DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089**

**ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07**

356. Please provide the factors used in weighting services and meters among the classes. Provide full documentation for these weightings, including source materials, workpapers, calculations and memoranda.

RESPONSE:

The weighting factors were not updated from Delta's last cost of service study. It was determined that the relative relationships in the weighting factors between rate classes would likely not have changed since the last rate case.

Responsible Witness:

William Steven Seelye

DELTA NATURAL GAS COMPANY, INC.
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ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
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357. Please provide a record of the GCR over the last three years.

RESPONSE:

The following reflects the approved GCR rates for the last three years:

Effective Date	Case No.	GCR Rate
August 2004	2004-00264	\$ 8.3941
November 2004	2004-00377	\$ 7.6957
February 2005	2004-00517	\$ 7.9143
May 2005	2005-00132	\$10.7687
August 2005	2005-00270	\$12.2267
November 2005	2005-00408	\$12.3293
February 2006	2005-00547	\$14.8040
May 2006	2006-00124	\$11.8762
August 2006	2006-00317	\$10.9568
November 2006	2006-00417	\$ 9.9756
February 2007	2006-00559	\$ 8.6137
May 2007	2007-00118	\$10.4200

Responsible Witness:

Glenn R. Jennings

DELTA NATURAL GAS COMPANY, INC.
CASE NO. 2007-00089

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION
DATED 6/07/07

358. Provide any studies or data in the Company's possession that would demonstrate the cost-effectiveness of the special contracts.

Response:

There are no studies. We figure some revenue from them is better than no revenue. They were necessary either to prevent physical bypass or to help industry to locate in Delta's service area and thus create new jobs. All revenues from these contracts are included in this rate case and thus benefit Delta's other customers by reducing the revenue required from other customer classes to meet Delta's overall revenue requirement.

Sponsoring Witness:

Glenn R. Jennings