BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

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

Exhibit SIG-1

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

| | Sou Com | THERN INDIANA GAS AND ELECTRIC DOCKET NO. ER01000 |
|----|------------|---|
| | | DIRECT TESTIMONY OF MARTIN J. BLAKE ON BEHALF OF SOUTHERN INDIANA GAS & ELECTRIC COMPANY |
| 1 | Q. | Please state your name and business address. |
| 2 | Α. | 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 | Α. | 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). |

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| | 1 | | Professional Qualifications & Experience |
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| _ | 2 | Q. | Please describe your educational background. |
| | 3 | Α. | I received my Ph.D. in Agricultural Economics in 1976 from the University of |
| - | 4 | | Missouri, Columbia. My doctoral work centered on the areas of marketing and |
| | 5 | | econometrics. I also hold a Master of Arts in Economics from the University of |
| | 6 | | Missouri, Columbia, which I received in 1972. In addition, I received a Bachelor |
| | 7 | | of Arts degree in Economics from Illinois Benedictine College in 1970. |
| | 8 | Q. | In what areas does your practice concentrate? |
| | 9 | Α. | As a member of The Prime Group, I have prepared and filed Order No. 888 and |
| | 10 | | Order No. 889 compliance filings at the Federal Energy Regulatory Commission |
| | 11 | | ("Commission") for a number of electric utilities as well as Order No. 888 and |
| | 12 | | Order No. 889 waiver requests for other utilities. I have prepared market power |
| | 13 | | analyses in support of market-based rate filings at the Commission for utilities |
| | 14 | | and their marketing affiliates, as well as assisting other utilities with their market- |
| | 15 | | based rate filings. I have also assisted several utilities in addressing both |
| | 16 | | Commission and state affiliate transactions concerns and have provided training |
| ~ | 17 | | regarding standards of conduct. I have assisted utilities with developing strategic |
| | 18 | | marketing plans and implementing these plans. I have provided utility clients |
| - | 19 | | with assistance regarding regulatory policy, strategy and liaison; state and |
| | 20 | | federal regulatory filing development, testimony and support; cost of service |
| | 21 | | development and support; the development of innovative rates to achieve |
| _ | 22 | | strategic objectives; the unbundling of rates and the development of menus of |
| - | 23 | | rate alternatives for use with customers; performance-based rate and incentive |
| | 24 | | rate development; and energy marketing and brokering capability development. I |
| | 25 | | have made presentations to train account executives in sales and customer |

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| | 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 | Α. | 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 | Α. | 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 Α. 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 a staff of thirty-two professionals and sixteen support staff. During my tenure on 10 11 the New Mexico Commission, I also served as Chairman of the Western Conference of Public Service Commissioners Electric Committee and as 12 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. As a Commissioner, I interpreted legislation, reviewed prior Commission 16 17 cases to determine the precedents that they provided, drafted rules and regulations, wrote Orders, conducted hearings, ruled on motions, and served as 18 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 Please describe your professional experience as a utility manager. Q. 23 Α. 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 advised and presented testimony to 1 regulators. In performing my duties in the federal regulatory area, I performed 2 the market power analysis in LG&E's original market-based rate filing at the 3 Commission, which was one of the first applications of the "hub and spoke" 4 methodology that the Commission now uses in assessing generation market 5 6 dominance in market-based rate filings; supervised the preparation of the market-based rate filings; and served as LG&E's principal witness. I also helped 7 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 by the Commission. In this comparable transmission tariff filing, I served as 14 LG&E's principal witness and negotiated the settlement in this case with the 15 Commission staff. When LG&E Power Marketing filed for the ability to charge 16 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. My areas of responsibility were expanded in April 1994 to include 19 20 marketing and strategic planning. As the Director, Marketing, Planning and Regulatory Affairs, I was responsible for coordinating LG&E's retail gas and 21

electric marketing, strategic planning, and state and federal regulatory efforts.
 continued to be employed in that capacity at LG&E until June 1996, when I joined
 the Prime Group as one of its Principals.

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

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| | 1 | Α. | 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 |
| way, ng | 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 | Α. | 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 |

testified on behalf of Blazer Energy Corp. in Case No. 98-489 which was an 1 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 testimony for Southern California Edison Company in Case Number 90-12-018 19 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 5

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 6 7 98-0035, which were concerned with ensuring non-discrimination with regard to affiliate transactions for electric utilities. In that case, I sponsored ComEd's 8 proposed affiliate transactions rules and suggested some basic principles that the 9 Illinois Commerce Commission should follow in developing rules and regulations 10 11 for ensuring non-discrimination and non-cross subsidization in transactions with affiliated and unaffiliated alternative retail electric suppliers (ARES). I testified in 12 ICC Docket 98-0036, which was a rulemaking to develop rules and regulations for 13 assessing and assuring the reliability of the transmission and distribution systems 14 as a part of electric utility restructuring in Illinois. I also testified in Docket Nos. 15 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 proposed standards of conduct and functional separation rules. I have prepared 18 and filed cost of money testimony on behalf of SIGECO Natural Gas Company in 19 its rate case filed with the Kentucky PSC in Docket No. 99-176. 20 21 **Background to the Filing**

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

| | 1 | Α. | SIGECO engaged The Prime Group to conduct an analysis of and to provide a |
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| | 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 |
| 1 | 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. |
| <u> </u> | 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 |
| <u>_</u> | 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

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| | 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. |
| j | 13 | | The DCF methodology determines the ROE by summing |
| | 14 15 16 | | the dividend yield (with an adjustment for the quarterly payment of dividends) and expected growth rate. The resulting formula is $D/P(1+.5g) + g = k$, where "D/P" is the |
| <u> </u> | 17 18 19 | | dividend yield, "g" is the sustainable growth rate of dividends per share, and "k" is the resulting ROE. The sustainable growth rate is calculated by the following |
| | 20 21 | | formula: $g = br + sv$, where "b" is the expected retention ratio, "r" is the expected earned rate of return on common |
| | 22 23 | | equity, "s" is the percent of common equity expected to be issued annually as new common stock, and "v" is the equity |
| | 24 25 | | accretion rate. 92 FERC 1 61,070. |
| | 26 | | applied these formulas to data for vectren Corp., SIGECU's parent |
| | 27 | | company, taken from <u>value Line</u> 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 |
| ļ | 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 |
| 1-1-1-1 | 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%. |

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| | 1 | Q. | How did you calculate the dividend yield? |
|--------------|----|----|--|
| | 2 | Α. | 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 | Α. | 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 |
| مربعه م م | 22 | | consistent with the 11.6% ROE allowed SoCal Edison in Opinion No. 445. |

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| _ | 1 | Q. | Did you check the reasonableness of these calculations by comparing |
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| | 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 | Α. | 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 <u>Value Line</u> . |
| | 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 |

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| | 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 |
| <u> </u> | 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 | Α. | 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 |
| | | | |

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

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

Still further, the post-transition pricing for transmission service throughout 5 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 disadvantage SIGECO strategically in wholesale power markets relative to its 8 competitors. In Section 2.2.1 of the settlement agreement, the Midwest ISO and 9 Alliance RTO committed to negotiate with the PJM transmission owners to 10 develop a joint rate methodology for transactions involving all three RTOs and 11 associated revenue distribution. There is no assurance that SIGECO will benefit 12 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, because of the uncertainty regarding many of the protocols and procedures of 17 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 clear that MISO membership has resulted in increased risk for SIGECO. 20 Is there any additional risk associated with MISO membership? 21 Q.

| | 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 |
| <u> </u> | 10 | | with significant financial liabilities. |
| | 11 | 0 | Are there risks associated with organizations like the MISO that are created |
| | 11 | ч. | Ale there have assessing a man engling and the most that are oreated |
| | 12 | ά. | as part of the utility restructuring effort? |
| | 12 13 | ч. А. | as part of the utility restructuring effort? Yes. Absent the settlement agreement, it is likely that the MISO would have had |
| | 12 13 14 | a. A. | as part of the utility restructuring effort? Yes. Absent the settlement agreement, it is likely that the MISO would have had to wind up its activities. In California, the California Power Exchange has filed for |
| | 12 13 14 15 | A. | as part of the utility restructuring effort? Yes. Absent the settlement agreement, it is likely that the MISO would have had to wind up its activities. In California, the California Power Exchange has filed for bankruptcy. Although it is not a restructuring entity, Pacific Gas and Electric |
| | 12 13 14 15 16 | A. | as part of the utility restructuring effort? Yes. Absent the settlement agreement, it is likely that the MISO would have had to wind up its activities. In California, the California Power Exchange has filed for bankruptcy. Although it is not a restructuring entity, Pacific Gas and Electric Company, which was heavily involved in restructuring activity, has filed for |
| | 12 13 14 15 16 17 | A. | as part of the utility restructuring effort? Yes. Absent the settlement agreement, it is likely that the MISO would have had to wind up its activities. In California, the California Power Exchange has filed for bankruptcy. Although it is not a restructuring entity, Pacific Gas and Electric Company, which was heavily involved in restructuring activity, has filed for bankruptcy. Southern California Edison Company is also in a condition of |
| | 12 13 14 15 16 17 18 | A. | as part of the utility restructuring effort? Yes. Absent the settlement agreement, it is likely that the MISO would have had to wind up its activities. In California, the California Power Exchange has filed for bankruptcy. Although it is not a restructuring entity, Pacific Gas and Electric Company, which was heavily involved in restructuring activity, has filed for bankruptcy. Southern California Edison Company is also in a condition of financial distress. These events have spill-over effects on the entire community |
| | 12 13 14 15 16 17 18 19 | A. | as part of the utility restructuring effort? Yes. Absent the settlement agreement, it is likely that the MISO would have had to wind up its activities. In California, the California Power Exchange has filed for bankruptcy. Although it is not a restructuring entity, Pacific Gas and Electric Company, which was heavily involved in restructuring activity, has filed for bankruptcy. Southern California Edison Company is also in a condition of financial distress. These events have spill-over effects on the entire community of regulated electric utilities and are likely to result in an increase in investor |
| | 12 13 14 15 16 17 18 19 20 | α. | as part of the utility restructuring effort? Yes. Absent the settlement agreement, it is likely that the MISO would have had to wind up its activities. In California, the California Power Exchange has filed for bankruptcy. Although it is not a restructuring entity, Pacific Gas and Electric Company, which was heavily involved in restructuring activity, has filed for bankruptcy. Southern California Edison Company is also in a condition of financial distress. These events have spill-over effects on the entire community of regulated electric utilities and are likely to result in an increase in investor perception of risk. In short, although a restructured industry holds the promise of |
| | 12 13 14 15 16 17 18 19 20 21 | Α. | as part of the utility restructuring effort? Yes. Absent the settlement agreement, it is likely that the MISO would have had to wind up its activities. In California, the California Power Exchange has filed for bankruptcy. Although it is not a restructuring entity, Pacific Gas and Electric Company, which was heavily involved in restructuring activity, has filed for bankruptcy. Southern California Edison Company is also in a condition of financial distress. These events have spill-over effects on the entire community of regulated electric utilities and are likely to result in an increase in investor perception of risk. In short, although a restructured industry holds the promise of very substantial ratepayer benefits, the transition to a restructured industry is not |

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| | 1 | Q. | Please summariz | e your recomr | nendation re | egarding the | ROE that should be |
|----------|-----|----|----------------------|--------------------------------------|----------------|-----------------------|----------------------------|
| | 2 | | established for S | IGECO in this | proceeding. | | |
| | 3 | A. | Consistent with the | e U.S. Supreme | e Court decis | ions in <i>Hope</i> a | and <i>Bluefield</i> cases |
| | 4 | | cited above, this ir | creased risk fro | om MISO me | mbership that | I noted above would |
| | 5 | | warrant the use of | the midpoint of | f the range of | ROEs that I c | alculated as the |
| | 6 | | minimum that SIG | ECO should be | allowed to e | arn in this pro | ceeding. In the |
| | 7 | | SoCal Edison case | e cited above, t | he Commissi | on establishe | d a ROE at the |
| | 8 | | midpoint of the up | per half of the z | one of reaso | nableness, wł | nich if applied in this |
| _ | 9 | | case, would result | in a higher RO | E than I am r | ecommending | g. Because of the |
| | 10 | | risk factors for SIG | ECO noted ab | ove and as a | n incentive to | construct new |
| | 11 | | transmission facili | lies when they a | are needed, l | recommend t | hat the Commission |
| | 12 | | establish a ROE o | f 11.6% for SIG | ECO in this | proceeding. | |
| - | 13 | Q. | Please describe | SIGECO's capi | ital structure |). | |
| | 14 | Α. | SIGECO'S capital | structure is 51. | 56% commo | n stock, 2.98% | 6 preferred stock and |
| | 15 | | 45.47% debt as st | nown in the tabl | e below. | | |
| - | 16 | | | | | | |
| | 17 | | | | | | Weighted |
| | 4.0 | | Common Stock | Dollar Value \$334 048 753 | Percentage | Annual Rate | Average Cost |
| | 18 | | Preferred Stock | \$19,281,200 | 2.98% | 5.59% | 0.17% |
| ~ | 19 | | Long Term Debt | \$294,615,000 \$647,944,953 | 45.47% | 5.63%_ | 2.56% 8.71% |
| | 20 | | | +++++ | | | |
| | 21 | | The data to calcula | ate SIGECO's d | apital structu | ire were taken | from the FERC |
| <u> </u> | 22 | | Form 1 filed by SI | 3ECO in 2000. | The calculat | tion of the cap | ital structure is |

| | | Direc Page | ct Testimony of Martin J. Blake e 22 | Docket No. ER01000 Exhibit SIG-1 |
|-------------------|----|---------------|--|-------------------------------------|
| | 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 sto | ock of 5.59%, my recommended |
| - Andrews | 3 | | ROE of 11.6% results in an overall return of 8.71 | 1%. |
| | 4 | | Tariff Provisions | |
| | 5 | Q. | What principal OATT revisions does SIGECO | propose? |
| | 6 | A. | Aside from changes in OATT rates, SIGECO is p | proposing to: (1) restate and |
| | 7 | | amend OATT Schedule 4 to make Schedule 4 m | nore consistent with recent |
| _ | 8 | | Commission decisions regarding Energy Imbala | nce Service; (2) establish a new |
| | 9 | | OATT Attachment J that provides procedures for | r interconnecting new generating |
| Violen e A | 10 | | facilities to SIGECO's system; (3) establish a Sc | hedule 9 for Power Factor |
| | 11 | | Correction Service; and (4) establish a new Dyn | amic Scheduling Tariff in |
| | 12 | | Schedule 10. SIGECO has also made other cha | anges to conform its tariff |
| | 13 | | provisions to Order 888-A. | |
| | 14 | Q. | Please explain how Schedules 7 and 8 and A | ttachment H of the OATT were |
| | 15 | | amended. | |
| ~_ | 16 | Α. | Schedule 7 is amended to include a charge of 2 | 00% of the applicable Schedule 7 |
| | 17 | | demand charge if the transmission customer exc | ceeds its reserved transmission |
| | 18 | | capacity. There is currently no remedy specified | l in Schedule 7 if a customer |
| - | 19 | | exceeds its reserved transmission capacity. With | the large volume of |
| _ | 20 | | transmission service transactions currently taking | g place to accommodate a |
| | 21 | | vigorous wholesale power market, it is essential | that customers have a strong |
| | 22 | | incentive to operate within their transmission res | ervations. |

1 Q. Why was OATT Schedule 4 amended?

2 Α. 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 included in the pro forma tariffs in Order No. 888. The revised Schedule 4 will 5 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 energy imbalance service which was contained in a settlement that the 13 Commission recently approved for Illinois Power Company in a letter order 14 15 issued on October 12, 2000 in Docket No. ER99-4415. Q. Please explain the new tariff provisions for power factor correction service. 16 Section 24.3 of SIGECO's existing OATT states that, "Unless otherwise agreed, 17 Α. 18 the Transmission Customer is required to maintain a power factor within the

same range as the Transmission Provider pursuant to Good Utility Practices."
There is no remedy specified if the customer does not maintain a power factor
within the same range as SIGECO. SIGECO believes that it is better to handle
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- |
| Weater- | 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 |
| | 12 13 | Q. | Schedule 2 charges customers for reactive power and Schedule 9 provides the Power Factor Correction Service. Is the customer paying twice for the |
| _ | 12 13 14 | Q. | Schedule 2 charges customers for reactive power and Schedule 9 provides the Power Factor Correction Service. Is the customer paying twice for the same service? |
| | 12 13 14 15 | Q . A. | Schedule 2 charges customers for reactive power and Schedule 9 provides the Power Factor Correction Service. Is the customer paying twice for the same service? No. The customer is not paying twice for the same service. The reactive power |
| | 12 13 14 15 16 | Q . A. | Schedule 2 charges customers for reactive power and Schedule 9 provides the Power Factor Correction Service. Is the customer paying twice for the same service? No. The customer is not paying twice for the same service. The reactive power in Schedule 2 is the reactive power necessary to support transmission |
| | 12 13 14 15 16 17 | Q . A. | Schedule 2 charges customers for reactive power and Schedule 9 provides the Power Factor Correction Service. Is the customer paying twice for the same service? No. The customer is not paying twice for the same service. The reactive power in Schedule 2 is the reactive power necessary to support transmission transactions and to maintain the system power factor within the tolerances for |
| | 12 13 14 15 16 17 18 | Q . | Schedule 2 charges customers for reactive power and Schedule 9 provides the Power Factor Correction Service. Is the customer paying twice for the same service? No. The customer is not paying twice for the same service. The reactive power in Schedule 2 is the reactive power necessary to support transmission transactions and to maintain the system power factor within the tolerances for which SIGECO designed and operates the system. This service is provided |
| | 12 13 14 15 16 17 18 19 | Q . A. | Schedule 2 charges customers for reactive power and Schedule 9 provides the Power Factor Correction Service. Is the customer paying twice for the same service? No. The customer is not paying twice for the same service. The reactive power in Schedule 2 is the reactive power necessary to support transmission transactions and to maintain the system power factor within the tolerances for which SIGECO designed and operates the system. This service is provided using SIGECO's generation capacity, and this service is priced based upon the |
| | 12 13 14 15 16 17 18 19 20 | Q . | Schedule 2 charges customers for reactive power and Schedule 9 provides the Power Factor Correction Service. Is the customer paying twice for the same service? No. The customer is not paying twice for the same service. The reactive power in Schedule 2 is the reactive power necessary to support transmission transactions and to maintain the system power factor within the tolerances for which SIGECO designed and operates the system. This service is provided using SIGECO's generation capacity, and this service is priced based upon the cost of the generation capacity used to produce this reactive power. A certain |
| | 12 13 14 15 16 17 18 19 20 21 | Q. | Schedule 2 charges customers for reactive power and Schedule 9 provides the Power Factor Correction Service. Is the customer paying twice for the same service? No. The customer is not paying twice for the same service. The reactive power in Schedule 2 is the reactive power necessary to support transmission transactions and to maintain the system power factor within the tolerances for which SIGECO designed and operates the system. This service is provided using SIGECO's generation capacity, and this service is priced based upon the cost of the generation capacity used to produce this reactive power. A certain amount of reactive power is necessary to operate the transmission system |

power is included in Schedule 2. The tolerance used in constructing the rate for
 Schedule 2 is a system power factor of at least .90. SIGECO has not
 experienced problems regarding power factor for "through" and "out"
 transactions, which are the bulk of transmission transactions served under
 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 additional reactive power provided under Schedule 9 will also be necessary. 20 Because Schedule 9 only applies to reactive power outside of the 0.90 system 21 22 tolerance used by SIGECO and Schedule 2 applies only to the reactive power

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| | 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 | Α. | 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 |

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| | 1 | | of these significant differences in co | ost, it is not possible | to specify a single charge |
|---|----------|----|---|---------------------------------------|----------------------------|
| | 2 | | for providing dynamic scheduling se | ervice. However, SK | GECO commits to |
| | 3 | | providing such service with the cust | tomer paying the act | ual cost of the equipment |
| | 4 | | and on-going expenses necessary | to perform this servic | ce? |
| _ | 5 | Q. | What other OATT changes has S | IGECO? | |
| | 6 | A. | SIGECO has also made revisions, v | which inadvertently h | ad not previously been |
| | 7 | | made, to conform its OATT to Orde | r 888-A. | |
| _ | 8 | | Cost of Service a | nd Rate Developme | <u>ent</u> |
| | 9 | Q. | Please explain the OATT rate revi | isions. | |
| | 10 | A. | The rates for the ancillary services i | n Schedules 1, 2, 3, | 5 and 6 were revised to |
| | 11 | | more closely reflect the cost of prov | iding these services | based on Exhibit SIG-9, |
| | 12 | | which is my transmission cost of se | rvice study. The follo | owing table identifies the |
| | 13 | | affected services, the pertinent rate | schedule number, a | nd the particular exhibit |
| | 14 | | for deriving the rate: | | |
| | 15 | | Service | Schedule | Exhibit No. |
| | 16 17 | | Scheduling, System Control and | 1 | SIC 10 |
| | 18 | | Reactive Supply and Voltage | i i i i i i i i i i i i i i i i i i i | 510-10 |
| | 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 25 | | Operating Reserve – Supplement Reserve Service | 6 | SIG-14 |
| | 20 | | | | |

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| | 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 | А. | 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 |

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| - | 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 |
| urrease." | 3 | | developed, it is divided by demonstrated capability. |
| •••••• | 4 | Q. | Please describe the development of demonstrated capability. |
| | 5 | Α. | 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. |

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| | 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 16 | А. | Yes. |

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

SOUTHERN INDIANA GAS & ELECTRIC COMPANY

DOCKET NO. ER01-___-000

AFFIDAVIT OF MARTIN J. BLAKE

I

State of Kentucky County of Jefferson

I, Martin J. Blake, being duly sworn, depose and say that the statements contained in the Direct Testimony of Martin J. Blake on behalf of Southern Indiana Gas & Electric Company in these proceedings are true and correct to the best of my knowledge, information and belief, and I hereby adopt said testimony as my own under oath.

Martin J. Blake

SUBSCRIBED AND SWORN to before me this 25th day of April, 2001

Notary Public Notary Public, State at Large, KY My Commission expires. My commission expires March 7, 2003

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EXHIBIT SIG-2

DCF CALCULATION FOR SOUTHERN INDIANA GAS & ELECTRIC COMPANY

| Exhibit SIG-2 Sc | outhern lr | DCF Ca 1diana Ga | lculation For as and Elec | or tric Company | |
|---|------------------|---------------------|------------------------------|-----------------------|----------------------|
| | 2001 | 2003-05 | Average | _ |)ividends |
| Earnings Per share Dividends per share | \$1.70 \$1.03 | \$2.45 \$1.15 | | 3/1/2001 12/1/2000 | \$0.2550 \$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% | Solit | 4U.3300 |
| Б Х г | | | 6.70% | | |
| 52 week low | \$15.75 | | | | |
| 52 week high | \$26.50 | | | | |
| Dividend yield using 52 week low stock price | 6.11% 3.63% | | | | |
| | 0.00 20 | | | | |
| Return on equity using 52 week low stock price Return on equity using 52 week high stock price | 12.82% 10.34% | | | | |
| Midpoint of range | 11.58% | | u | | |
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EXHIBIT SIG-3

52-WEEK PRICE RANGE FOR SHARES OF VECTREN CORPORATION

Yahoo! Finance - VVC **Exhibit SIG-3** YAHOO! FINANCE .M Finance Home - Yahoo! - Help Track all your financial accounts with a single password! Yahoo! Finance Get Quotes Chart symbol lookup Net Worth (Yahoo! ID required) - Customize - Sign In Welcome Free: Pay bills - View your bank, brokerage, credit card accounts - Track stocks! [Register/Sign In] **1D WATERHOUSE** DATEK Quotes Discount Do your taxes online now with H&R Block in

the Yahoo! Tax Center.

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EHTRADE

Views: Basic - DayWatch - Performance - Fundamentals - Real-time ECN - Detailed -[Create New View]

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


EXHIBIT SIG-4

DIVIDEND SUMMARY OF VECTREN CORPORATION

Vectren Corporation Dividend History

Exhibit SIG-4 Page 1 of 2

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 Ve | Summar octren Co | y for tick rporation | er VVC | ; |
|-------------|----------------|---------------------|-------------------------|----------|--------------|
| Declared | Ex-Date | Record | Payable | Amount | Туре |
| 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 | Туре |
|-------------|-------------|-------------|------------|------------------------|--------------|
| 28-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-Oci-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-Jui-1996 | 13-Aug-1996 | 15-Aug-1996 | 1-Sep-1998 | \$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 |

Vectren Corporation Dividend History

Exhibit SIG-4

Page 2 of 2

| Page | 2 | of | 2 | |
|------|---|----|---|--|
|------|---|----|---|--|

| t | | | | L | |
|-------------|-------------|-------------|------------|------------------------|--------------|
| 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 | \$0.2650 | 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 |
| 26-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.

| Exhibit SIG-5 Page 1 of 10 | _ | DCF Calc Energy I | ulation F East Corp | 9. Q | |
|--|-----------------------|-----------------------|------------------------|------------------|--|
| Earnings Per share | 2001 \$2.20 | 2002 \$2.35 | 2004-06 \$2.75 | Average | |
| Dividends per share Payout ratio Retention ratio "b" | \$0.92 0.4182 | \$0.96 0.4085 | \$1.08 0.3927 | 0.4065 0.5935 | |
| Return on common equity "r" | 16.00% | 16.00% | 14.50% | 15.50% | |
| Β×Γ | | | | 9.20% | |
| 52 week low 52 week high | \$16,96 \$23.50 | | | | |
| Dividend yield using 52 week low stock price Dividend yield using 52 week high stock price | 5.19% 3.74% | | | | |
| Retum on equity using 52 week low stock price Return on equity using 52 week high stock price | 14.39% 12.94% | | | | |
| Midpoint of range | 13.66% | | | | |
| | | | | | |
| | | | | | |

Dividends \$0.9200

Yahoo! Finance - EAS

Exhibit SIG-5

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D WATERHOUSE

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| ENERGY EAST (| C P (NYS E | E:EAS | $3)^{-}$ More In Trade: \underline{C} | nfo: <u>News,</u> Choose Brok | Msgs, Profi terage | le, <u>Research</u> , Insider, Options - |
|------------------------------------|-------------------|-------------|---|----------------------------------|-----------------------|---|
| Last Trade | Chang | ge | Prev Cls | Volume | Div Date | 24 ERS 24-Rpr-2001 (C)-Yahoo) |
| Apr 24 · 19.45 | 0.00 (0.0 | 0%) | 19.45 | 0 | May 15 | 22 |
| Day's Range | Bid | Ask | Open | Avg Vol | Ex-Div | |
| 0.00 - 0.00 | N/A | N/A | 0.00 | 400,045 | 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 | Hay Jul Sep Nov Jan Har Small: [<u>1d 5d </u> 1y <u>none]</u> Big: [<u>1d 5d 3m 6m 1y 2y 5y max]</u> |

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- Mon Apr 23 EAS No Blackouts For New Yorkers -- Yet Forbes.com 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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| Exhibit SIG-5 Page 3 of 10 Earnings Per share Dividends per share Payout ratio Retention ratio "b" Return on common equity "r" | DCF C UTILI 2001 \$2.25 \$1.20 0.5333 12.00% | 2003-05 \$2.75 \$1.20 0.4364 | n For Nited Average 0.4848 0.5152 12.25% | |
|--|--|--|---|---|
| | 1000/ | 10 500/ | 10 070/ | |
| Return on common equity "r" | 12.00% | 12.50% | 12.25% | |
| Ъхг | | | 6.31% | |
| 52 week low 52 week high | \$18.63 \$35.78 | | | · |
| Dividend yield using 52 week low stock price Dividend yield using 52 week high stock price | 6.25% 3.25% | | | |
| Return on equity using 52 week low stock price Return on equity using 52 week high stock price | 12.56% 9.56% | | | |
| Midpoint of range | 11.06% | | | |
| | | | | |
| | | | | |

Dividends \$1.2000

Yahoo! Finance - UCU

Exhibit SIG-5 Page 4 of 10

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| UTILICORP (NY | SE:UCU) | - More Trade | e Info: <u>Nev</u> :: <u>Choose B</u> i | vs, <u>Msgs, P</u> rokerage | rofile, <u>Resea</u> | arch, Insider, Options - |
|------------------------------------|------------------|-----------------|--|--------------------------------|----------------------|---|
| Last Trade | Chan | ge | Prev Cls | Volume | Div Date | 40 UCU 24-Apr-2001 (C) Yahool |
| Apr 24 · 35.00 | 0.00 (0.0 |)0%) | 35.00 | 0 | Mar 12 | 30 - à ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| Day's Range | Bid | Ask | Open | Avg Vol | Ex-Div | 28 |
| 0.00 - 0.00 | N/A | N/A | 0.00 | 579,818 | 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 | May Ju! Sep Nov Jan Mar Small: [<u>1d</u> <u>5d</u> 1y <u>none]</u> Big: [<u>1d 5d 3m 6m 1y 2y 5y max</u>] |

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| Tue | Apr 24 | UCU | [video] IPO Report: Aquila breaks the IPO silence [2.8 min] - Yahoo! FinanceVision | E¥. |
|-----|--------|-----|--|----------------|
| Tue | Apr 24 | UCU | UtiliCorp ceases efforts to sell unit - Reuters Securities | Get real-ti |
| Tue | Apr 24 | UCU | UtiliCorp Discontinues Plans to Sell Its U.S. Network Construction and Maintenance Business - Business Wire | you o |
| 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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| Exhibit SIG-5 Page 5 of 10 Earnings Per share Dividends per share Payout ratio Retention ratio "b" | DCF CMS 2001 \$2.75 \$1.46 0.5309 | Calculati S Energy 2003-05 \$3.50 \$1.50 0.4286 | on For Corp. Average 0.4797 0.5203 | | D |
|---|--|--|--|---|---|
| Return on common equity "r" | 13.50% | 12.50% | 13.00% | | |
| b х г | | | 6.76% | | |
| 52 week low 52 week high | \$18.38 \$32.25 | | | | |
| Dividend yield using 52 week low stock price Dividend yield using 52 week high stock price | 7.68% 4.38% | | | | |
| Return on equity using 52 week low stock price Return on equity using 52 week high stock price | 14.45% 11.14% | | | | |
| Midpoint of range | 12.79% | | | | |
| | | | | | |
| | - | - | - | - | - |

)ividends \$1.4600

Yahoo! Finance - CMS

Exhibit SIG-5 Page 6 of 10

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Recent News

| Fri | Apr | 20 | CMS | CMS Oil and Gas withdraws IPO, cites market conditions - Reuters Securities | EXTRADE |
|-----|-----|----|-----|---|---|
| Fri | Apr | 20 | CMS | NRC Approves Palisades License Amendment - PR Newswire | Get free streaming real-time quotes when you open an account. |
| Tue | Apr | 17 | CMS | Qatar says to do water/power deal by month-end - Reuters Securities | Learn how. |
| Wed | Apr | 11 | CMS | CMS Energy Corporation's Oil and Gas Unit Receives Hearst Technology Award - PR Newswire | |
| Wed | Apr | 11 | CMS | Northeast Utilities' Bond Sales Proceed - Reuters Business News | |

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| Exhibit SIG-5 Page 7 of 10 | | Calculati SOURCE | ion For Inc. | |
|---|----------------------------|----------------------------|------------------|--|
| | 2001 | 2003-05 | Average | |
| Earnings Per share Dividends per share Payout ratio Retention ratio "b" | \$2.10 \$1.16 0.5524 | \$2.75 \$1.50 0.5455 | 0.5489 0.4511 | |
| Return on common equity "r" | 11.00% | 12.50% | 11.75% | |
| b х г | | | 5.30% | |
| 52 week low 52 week high | \$16.13 \$32.55 | | | |
| Dividend yield using 52 week low stock price Dividend yield using 52 week high stock price | 7.01% 3.47% | | | |
| Return on equity using 52 week low stock price Return on equity using 52 week high stock price | 12.31% 8.77% | | | |
| Midpoint of range | 10.54% | | | |
| | | | | |

Dividends \$1.1600

Yahoo! Finance - NI

Exhibit SIG-5

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

| NISOURCE INC | (NYSE:N | I) ^{- Mo} Trac | re Info: <u>N</u> le: <u>Choose</u> | ews, Msgs, Brokerage | Profile, Res | earch, Insider, Options - |
|-------------------|----------|----------------------------|--|-------------------------|--------------|--|
| Last Trade | Chan | ge | Prev Cls | Volume | Div Date | 40 NI 24-Apr-2001 (C) Yahoo! |
| Apr 23 · 30.00 | 0.00 (0. | 00%) | 30.00 | 0 | May 18 | 38- |
| Day's Range | Bid | Ask | Open | Avg Vol | Ex-Div | 28 |
| 0.00 - 0.00 | N/A | N/A | 0.00 | 899,454 | Apr 26 | 18 4 |
| 52-week Range | Earn/Shr | P/E | Mkt Cap | Div/Shr | Yield | May Jul Sep Nov Jan Man Small:[]di5di]vinone] |
| 16.1250 - 32.5500 | 1.08 | 27.78 | 6.167B | 1.16 | 3.87 | Big: [1d 5d 3m 6m 1y 2y 5y max] |

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- Fri Apr 20 NI <u>DIARY-US corporate earnings calendar Apr 23-27</u> -Reuters Securities
- Wed Apr 18 NI <u>NiSource Names Hall Senior Vice President</u>, <u>Development for Primary Energy, Inc.</u> - *PR Newswire*
- Mon Apr 16 NI New insider trade data for NI First Call
- Mon Apr 16 NI NiSource downgraded by Goldman Sachs Briefing.com
- Mon Apr 16 NI [external] Analyst Actions: Microsoft, NiSource, DuPont <u>Photomask</u> - at TheStreet.com

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| | | | | _ | | | |
|--|--------------------|-------------------|--------------------------|-------|----------|----------|--|
| Exhibit SIG-5 Page 9 of 10 | | OGE Enei | llation For rgy Corp. | | | | |
| Earnings Per share | 2001 \$2.05 | 2003-05 \$2.50 | Average | | | | |
| Dividends per snare Payout ratio Retention ratio "b" | \$1.33 0.6488 | \$1.45 0.5800 | 0.6144 0.3856 | | Dividenc | <u>s</u> | |
| Return on common equity "r" | 14.00% | 15.50% | 14.75% | | 00.1¢ | 3 | |
| b x r | | | 5.69% | | | | |
| | | | | | | | |
| 52 week low 52 week high | \$18.31 \$24.75 | | | | | | |
| Dividend wield weine 50 week law dated autor | 1000 F | | | | | | |
| Dividend yield using 52 week high stock price | 7.00% 5.23% | | | | | | |
| Return on equity using 52 week low stock price | 12.75% | | | | | | |
| Return on equity using 52 week high stock price | 10.91% | | | | | | |
| Midpoint of range | 11.83% | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Yahoo! Finance - OGE

Exhibit SIG-5 Page 10 of 10

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

| OGE ENERGY (1 | NYSE:OG | E) ^{- M} Tra | ore Info: <u>1</u> Ide: <u>Choose</u> | <u>News, Msgs</u> : Brokerage | , <u>Profile, Re</u> | search, Insider - |
|-------------------------------------|-------------------|--------------------------|--|----------------------------------|----------------------|---|
| Last Trade Apr 24 · 21.72 | Chan 0.00 (0.0 | ge)0%) | Prev Cls 21.72 | Volume 0 | Div Date Apr 30 | 26 0GE 24-Apr-2001 (C) Yahoo I 24 - 22 - |
| Day's Range 0.00 - 0.00 | Bid N/A | Ask N/A | Open 0.00 | Avg Vol 232,227 | Ex-Div Apr 6 | 20 18 16 |
| 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 | Hay Jul Sep Nov Jan Har Small: [<u>1d 5d 1y none]</u> Big: <u>[1d 5d 3m 6m 1y 2y 5y max]</u> |

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| Mon Apr | 23 | OGE | OGE Energy posts 1st-qtr loss, lowers 2001 forecast - |
|---------|----|-----|---|
| - | | | Reuters Securities |
| Mon Apr | 23 | OGE | OGE Energy Corp. Reports 1st Quarter Results - PR Newswire |
| | | | |

- Mon Apr 23 OGE <u>Q1 2001 OGE Energy Earnings Release Time Not</u> <u>Supplied</u> - CCBN
- Tue Apr 17 OGE New insider trade data for OGE First Call
 - Tue Apr 10 OGE Correction -- OGE Energy Corp. PR Newswire

Customize News



EXHIBIT SIG-6

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

| SIGECO | Average | Energy East Corp. Utilicorp United CMS Energy Corp. NISOURCE Inc. OGE Energy Corp. |
|----------|----------|--|
| 6.70% | 6.65% | Growth 9.20% 6.31% 5.30% 5.69% |
| 6.11% | 6.64% | Dividend Yield 52 Week Low 5.19% 7.68% 7.01% 7.06% |
| 3.63% | 4.01% | Dividend Yield 52 Week High 3.25% 4.38% 5.23% |
| 12.82% | 13.29% | ROE Using 52 Week Low 14.39% 12.56% 12.31% 12.75% |
| 10.349 | 10.66% | ROE Using 5: Week Lov 12.94% 11.14% 8.77% 10.91% |
| 6 11.589 | 6 11.989 | 2 Midpoint c 7 Range of ROE 11.069 12.809 10.549 11.839 |
| 6 12.20% | 6 12.64% | Midpoint of Top Half of 14.03% 11.81% 13.62% 12.29% |

- -

Exhibit SIG-6

Summary of DCF Calculations

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.

STATE OF KENTUCKY)) COUNTY OF JEFFERSON)

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

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

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

1

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. |
| | 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. |
| 10 | | Professional Qualifications & Experience |
| 11 | Q: | PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND. |
| 12 | A: | I received my Ph.D. in Agricultural Economics in 1976 from the University of Missouri, |
| 13 | | Columbia. My doctoral work centered on the areas of marketing and econometrics. I |
| 14 | | also hold a Master of Arts in Economics from the University of Missouri, Columbia, |

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

3 Q: IN WHAT AREAS DOES YOUR PRACTICE CONCENTRATE?

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

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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.
- 5 Q: PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS AN ECONOMIST.
- From January 1977 to December 1986, I was employed first as an Assistant Professor, 6 A: then as an Associate Professor, and finally as a Professor of Agricultural Economics at 7 New Mexico State University in Las Cruces, New Mexico ("NMSU"). I was the head of 8 the undergraduate program and taught economics, agricultural economics and 9 10 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 11 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 13 NMSU, I served in the U.S. Army as an instructor of economics, statistics, and 14 15 accounting at the U.S. Army Institute of Administration at Fort Benjamin Harrison,
- 16 Indianapolis, Indiana.

17I also have a variety of experience with the application of economics to utility public18policy issues. In addition to my experience as a utility regulator and executive, which I19describe below, I have taught ratemaking for utilities at the NARUC Annual Regulatory20Studies Program at Michigan State University since 1993. From May 1983 to August211983, while on a sabbatical leave from NMSU, I served as a Policy Analyst for the22Assistant Secretary for Land and Water at the U. S. Department of Interior.

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

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| 3 | A: | From January 1987 to November 1990, I served as a Commissioner and as the Chairman |
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| 4 | | of the New Mexico Public Service Commission. As a Commissioner, my duties included |
| 5 | | making policy and adjudicatory decisions regarding rates, terms of service, financing, |
| 6 | | certificates of public convenience and necessity, and complaints for electric, gas, water, |
| 7 | | and sewer utilities. As Chairman, I supervised a staff of thirty-two professionals and |
| 8 | | sixteen support staff. During my tenure on the New Mexico Commission, I also served as |
| 9 | | Chairman of the Western Conference of Public Service Commissioners Electric |
| 10 | | Committee and as Chairman of the Committee on Regional Electric Power Cooperation, a |
| 11 | | group composed of state public service commissioners and representatives from the state |
| | | energy offices of the thirteen western states. |
| 13 | | As a Commissioner, I interpreted legislation, reviewed prior Commission cases to |
| 14 | | determine the precedents that they provided, drafted rules and regulations, wrote Orders, |
| 15 | | conducted hearings, ruled on motions, and served as an arbitrator in alternative dispute |
| 16 | | resolution proceedings. Although I do not have a law degree, I performed adjudicatory |
| 17 | | and regulatory functions for the four years that I served on the Commission. |
| 18 | Q: | PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY |
| 19 | | MANAGER. |
| 20 | A: | From December, 1990 to June 1996, I was employed by Louisville Gas and Electric |
| 21 | | Company ("LG&E"). Initially, I served as LG&E's Director of Regulatory Planning. In |
| 22 | | this position, I was responsible for coordinating all of LG&E's state and federal regulatory |

| 6 | | efforts, and prepared and presented testimony to regulators. In performing my duties in |
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| 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 |
| \frown | | 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. |

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| • | | A: | I have served on several regional transmission coordination groups such as the |
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| | 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 |
| ţ | 7 | | Midwest ISO. |
| | 8 | Q: | HAVE YOU TAUGHT ANY COURSES OR SEMINARS IN THE AREA OF UTILITY |
| ı | 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 |
| | 1 | | 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 |
| 3 | 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 4 provided open transmission access and also received authority to charge market-based rates 5 for its generation, and ER 94-1380, the first comparability tariff which was approved by the 6 FERC. I prepared and filed rebuttal testimony in Cause No. PUD 960000116, Oklahoma 7 Gas and Electric Company's last rate case before the Oklahoma Corporation Commission. 8 In that case, I rebutted intervenor and staff proposals to disallow certain marketing, 9 advertising, economic development and research and development expenses. I have 10 prepared and filed direct and rebuttal testimony for Southern California Edison Company in 11 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 13 marketing services to Southern California Edison and the reasonableness of the resulting 14 marketing services performed by IEG. I prepared and filed direct and rebuttal testimony for 15 Oklahoma Gas and Electric in Arkansas Public Service Commission Docket No. 96-360-U 16 regarding recovery of stranded cost by Entergy Arkansas, Inc. In this testimony, I 17 recommended recovery of 100% of stranded costs at such time as costs are actually 18 stranded. I also testified before the New Mexico Public Utility Commission in Docket No. 19 2797, a general rate case for Plains Electric Generation and Transmission Cooperative, 20 21 Inc.

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

| | | | were concerned with ensuring non-discrimination with regard to affiliate transactions for |
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| | 2 | | electric utilities. In this case, I sponsored ComEd's proposed affiliate transactions rules and |
| | 3 | | suggested some basic principles that the Illinois Commerce Commission should follow in |
| , | 4 | | developing rules and regulations for ensuring non-discrimination and non-cross |
| 1 | 5 | | subsidization in transactions with affiliated and unaffiliated alternative retail electric |
|) | 6 | | suppliers (ARES). I testified in ICC Docket 98-0036, which was a rulemaking to develop |
| 2 | 7 | | rules and regulations for assessing and assuring the reliability of the transmission and |
| | 8 | | distribution systems as a part of electric utility restructuring in Illinois. I also testified in |
| , | 9 | | Dockets 98-0147 and 98-0148 which were concerned with developing standards of |
| | 10 | | conduct and rules for functional separation. In this case, I sponsored ComEd's proposed |
| | 11 | | standards of conduct and functional separation rules. |
| | 1 | Q. | WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING? |
| | 13 | А. | 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? |
| | | | |

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 2 3 products. Furthermore, the availability of natural gas service can help in attracting 4 industrial loads to an area and thus assist in economic development efforts. However, if 5 natural gas service is to be provided to rural areas, the companies providing such service 6 must have the opportunity to earn adequate returns or they will no longer be able and willing to provide such service. 7 HOW SHOULD THE RATE OF RETURN BE DETERMINED UNDER PUBLIC 8 Q. 9 UTILITY REGULATION? The purpose of public utility regulation with respect to rate of return is to permit a utility A. 10 to earn its cost of capital while avoiding monopoly profits. Long-run earnings above the 11 cost of capital would imply monopoly profits, while long-run earnings below the cost of 13 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 14 15 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. 16 17 Hope Natural Gas Company, 320 U.S. 591 (1944). These cases require that a utility be

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opportunities of corresponding risk, 2) will permit capital attraction on reasonable terms,
and 3) will maintain a utility's financial integrity.

allowed to earn a rate of return that: 1) is comparable to alternative investment

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

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

OPPORTUNITY TO EARN AN ADEQUATE RETURN FOR PROVIDING NATURAL

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|) | A , | | 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 |
| 5 | 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 |
| 3 | 11 | | a given rate of return will be earned. However, Delta's return on equity has averaged |
| | 1 | | 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. |

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

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DOES A LOW PERCENTAGE OF EQUITY RELATIVE TO TOTAL

| | | CAPITALIZATION MAKE DELTA A RISKIER INVESTMENT? |
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| 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 |
| 1 | | 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 <u>Bluefield</u> and <u>Hope</u> 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. |

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| | Q. | HOW WOULD DELTA'S LOW EQUITY RATIO AFFECT THE RETURN ON |
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| 2 | | EQUITY THAT IT EARNS? |
| 3 | A. | Because Delta is about 70% debt financed, its fixed obligations to bondholders are high, |
| 4 | | thus exacerbating the impact on the return on equity resulting from any revenue |
| 5 | | reductions that Delta might experience. |
| 6 | Q. | HOW WOULD DELTA'S PREDOMINANTLY RURAL SERVICE TERRITORY |
| 7 | | AFFECT THE RETURN ON EQUITY THAT IT EARNS? |
| 8 | A. | Delta serves an area that is predominantly rural with low population density. This low |
| 9 | | population density results in higher fixed cost per customer for serving rural areas |
| 10 | | compared to the fixed cost per customer incurred in an urban area. This higher fixed cost |
| 11 | | per customer results from both a higher cost of installing the pipe needed to serve a |
| 1 | | customer and the higher cost of maintaining the lines. Additionally, Delta has been adding |
| 13 | | customers at a rapid rate, as demonstrated in Exhibit-MJB3. These customer additions |
| 14 | | result in significant additional fixed cost being added before any additional revenue is |
| 15 | | generated. Thus, the high fixed cost per customer combined with customer growth is |
| 16 | | putting financial pressure on Delta through these fixed cost additions. Furthermore, these |
| 17 | | rural customers tend to have a lower annual usage and a larger proportion of temperature |
| 18 | | sensitive load than urban customers. This relatively high fixed cost to serve small highly |
| 19 | | temperature sensitive loads translates to a higher fixed cost burden for Delta and a more |
| 20 | | variable revenue stream. The higher fixed costs resulting from operations compounds the |
| 21 | | problem of high fixed obligations to bond holders resulting from a low equity ratio, and |
| 22 | | exacerbates the impact on the return on equity resulting from any revenue reductions that |

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| | | | Delta might experience. Thus, the low population density in rural areas that results in a |
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| | 2 | | higher fixed cost burden for Delta with more variability in the return stream due to the |
| | 3 | | large amount of temperature sensitive load for these rural customers makes Delta a riskier |
| } | 4 | | investment. This added risk would justify a higher rate of return to compensate for the |
| | 5 | | additional risk. Because I have not quantified the separate impact on rate of return |
| , | 6 | | resulting from the rural character of Delta's service territory, I would suggest accounting |
| 2 | 7 | | for the impacts of this risk factor by using an allowed rate of return in the high end of the |
| | 8 | | reasonable range of returns based on my analysis. |
|) | 9 | Q. | HOW WOULD WEATHER VARIABILITY AFFECT THE RETURN ON EQUITY |
| | 10 | | THAT DELTA EARNS? |
|) | 11 | 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 |
| | 13 | | and earnings while a cooler than normal heating season results in increased revenue and |
| | 14 | | earnings. This impact can be seen on page 1 of Exhibit MJB-2. The earnings available for |
| | 15 | | common equity fluctuate widely from a 111% increase in 1992 to a 35% decrease in |
| ı | 16 | | 1997. It should be noted that the earnings available for common equity in 1998 of |
| | 17 | | \$2,451,272 is still below the 1996 level of earnings available for common equity even |
| | 18 | | though it represents a 42% increase over 1997. The 1998 level is also below the earnings |
| ı | 19 | | available for common equity in 1993 and 1994. Thus, temperature variability has a major |
| | 20 | | effect on the return on equity that Delta actually earns. |
| | 21 | Q. | ARE THERE ANY REMEDIES THAT CAN BE APPLIED TO CORRECT FOR THE |
| | 22 | | THREE FACTORS AFFECTING DELTA'S EARNINGS THAT YOU HAVE |

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DESCRIBED ABOVE? Yes. There are potential remedies for two of the three factors that I have described above. A. With regard to Delta's low percentage of equity, there are two potential remedies. The 3 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 the impact of weather variability on earnings and on return on equity, a temperature 6 normalization adjustment can be utilized. However, a temperature normalization 7 adjustment will not correct for the rural nature of Delta's service territory and the higher 8 9 fixed costs that result. These characteristics of Delta's operation, which increase its risk, should be reflected by a rate of return in the high end of the acceptable range in 10 calculating Delta's cost of equity. 11 PLEASE EXPLAIN HOW AN IMPUTED CAPITAL STRUCTURE COULD BE Q. 13 UTILIZED TO ADJUST FOR THE EFFECT OF DELTA'S LOW EQUITY RATIO. Currently, Delta has a capital structure consisting of 30% common equity. As discussed 14 A. above, this is significantly lower than the industry average. If an imputed capital structure 15

capital structure consisting of 43.5% common equity and 56.5% debt. I arrived at my
recommendation of utilizing 43.5% common equity by taking the midpoint between the
mean of 43.2% and the median of 43.9% in Exhibit MJB-1. Based on my experience, an
equity ratio of 43.5% would be reasonable, but would lie in the low end of the reasonable
range. As additional verification of the reasonableness of this imputed capital structure, in
their article evaluating utility capital structures, Brigham, Gapenski, and Aberwald noted

is utilized in determining Delta's revenue requirement, I would recommend an imputed



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| | | that: |
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| 2 3 4 5 6 7 | | The data did not permit analysis outside the 42.5 to 54 percent debt ratio range, so we cannot state exactly what would happen to interest rates if debt were below 42.5 or above 54 percent. (Eugene F. Brigham, Louis C. Gapenski and Dana A. Aberwald, "Capital Structure, Cost of Capital, and Revenue Requirements", <u>Public Utilities Fortnightly</u> , 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 | Α. | 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 17 18 19 20 21 | | The basis change is smaller toward the high end of the equity ratio range, so an increase in equity from 49 to 50 per cent would only lower the cost of equity by about seven basis points, but an increase in the ratio from 40 to 41 per cent would lower the cost of equity by about 15 basis points. (Brigham, Gapenski and Aberwald, p. 23) |
| 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 |

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

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

Although a temperature normalization has been employed historically in determining the 5 Α. revenue requirement and in calculating rates, a temperature normalization has not been 6 applied to the rates prospectively to adjust for the vagaries of weather. Without a 7 temperature normalization incorporated into the rates as they are applied prospectively, 8 Delta is subject to the earnings and return on equity variations shown in Exhibit MJB-2. 9 Temperature normalizing to calculate the rates but not to apply them in essence amounts 10 to a bet that normal temperature will occur with Delta experiencing significant financial 11 distress if warmer than normal weather occurs. Delta's low equity ratio and high fixed operating costs have the effect of magnifying the impact of this temperature variability. I 13 recommend the use of a temperature normalization adjustment in Delta's rates to adjust 14 for the significant impact that weather has on its earnings and return on equity. 15 HOW WOULD YOU ASSESS THE BUSINESS ENVIRONMENT WITHIN WHICH 16 Q. **DELTA OPERATES?** 17 Beginning with Order No. 436 and continuing through Order Nos. 500 and 636, the 18 A. Federal Energy Regulatory Commission (FERC) established competition in the 19 transportation of natural gas and allowed large customers and local distribution companies 20 to purchase natural gas directly from producers. Currently, some state regulatory 21 commissions are unbundling natural gas service at the retail level and are beginning to 22
| | | 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? |
| $\mathbf{\gamma}$ | A. | Yes. There are several sources that indicate that a size premium is appropriate for smaller |
| 13 | | companies. Fama and French reported that: |
| 14 15 16 17 18 19 20 21 | | 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", <u>The Journal of Finance</u> , Vol. 47, June, 1992, p. 428.) Fama and French went on to report that: |
| 22 23 24 25 26 27 28 | | 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) |
| 29 | | Regarding this size effect, Ibbotson stated that: |

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| 3 4 5 | | The betas for small companies tend to be larger than those for larger companies; however, they do not account for all of the risks faced by investors in small companies. This premium can be added directly to the results obtained using the CAPM (Stocks, Bonds, Bills and Inflation 1999 Yearbook, Ibbotson Associates, p. 161 |
|-------------|----|--|
| 6 7 | | Ibbotson goes on to quantify the expected micro-capitalization equity size premium as |
| 8 | ٠ | 2.6% as shown in Exhibit MJB-6. Not only does Delta fall within the micro-capitalization |
| 9 | | group as defined by Ibbotson, but as can be seen from Exhibit MJB-1, Delta has one of |
| 10 | | the smallest total capitalizations of the investor owned natural gas distribution companies |
| 11 | | in the panel. Thus, small companies such as Delta are riskier than companies with larger |
| 12 | | capitalizations and a higher rate of return on equity would be appropriate for such |
| 13 | | companies. |
| 14 | Q. | PLEASE DESCRIBE THE DISCOUNTED CASH FLOW (DCF) METHOD FOR |
| | | 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 | | \mathbf{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 |
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function of the dividend in the immediately preceding period multiplied by the growth rate, so that:

$$D_2 = D_1 g,$$

$$D_3 = D_1 g^2,$$

$$\dots$$

$$D_n = D_1 g^{n-1}$$

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

5 form of the DCF equation can be expressed as:
6 Equation 2:
$$k = \frac{D_1}{P} + g$$

7 Although the assumption of constant growth may be reasonable for utilities that come
8 close to approximating the assumption of constant growth, it is not appropriate for a
9 utility that is experiencing changes in the rate of growth. When there are changes in the
10 growth rate, a multistage form of the DCF model is more appropriate. The two-stage DCF
11 model allows dividends to grow at the growth rate currently reported by analysts in the
12 first stage and to grow dividends at the same nominal rate as the industry or the national
13 economy as a whole in the second stage. This assumes that over time the rate of growth
14 for a company will tend toward the growth rate for the industry as a whole. Currently,
15 Delta is tracked by only two analysts, one from Hilliard Lyons and one from Edward
16 Jones. The two-stage DCF model utilizes the analysts growth rates as well as a composite
17 growth rate for the natural gas distribution industry obtained from Ibbotson's Cost of
18 Capital Quarterly, which is calculated using estimates from analysts from over 200 firms.
19 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 |
|----|----|---|
| 2 | | at the analyst's projected growth rate during the first stage and grow at the expected |
| 3 | | growth rate for the industry as a whole in the second stage. After the estimated dividend |
| 4 | | stream for a sufficiently long period is generated using the growth rates employed in the |
| 5 | | two-stage DCF model, the dividend estimates and the current stock price are substituted |
| 6 | | into equation 1 above which is solved iteratively for k, the estimated return on equity. |
| 7 | Q. | DO YOU BELIEVE THAT THE CONSTANT GROWTH FORM OF THE DCF |
| 8 | | MODEL SHOULD BE USED IN DETERMINING DELTA'S ALLOWED RETURN |
| 9 | | ON EQUITY? |
| 10 | A. | No. Looking at Exhibit MJB-2, the percentage change in dividends per share has been |
| 11 | | variable and has not been growing at a constant rate. Furthermore, the underlying |
| 7 | | financial variables exhibit tremendous variability. The percentage change in the earnings |
| 13 | | available for common stock range from a high of 111% to a low of -35%. The percentage |
| 14 | | change in the earnings per share range from a high of 108% to a low of -47%. Such |
| 15 | | variation in dividends per share and in the underlying financial data are not consistent |
| 16 | | with an assumption of constant growth that is the key assumption in the constant growth |
| 17 | | form of the DCF model. |
| 18 | Q. | WHAT WOULD THE CONSTANT GROWTH FORM OF THE DCF MODEL YIELD |
| 19 | | AS AN EXPECTED RETURN ON EQUITY FOR DELTA? |
| 20 | A. | The results of the constant growth DCF model are shown on page 1 of Exhibit MJB-4. |
| 21 | | The expected growth rate of 3% for Delta was obtained from a Hilliard Lyons Analyst |
| 22 | | report dated March 11, 1998 and the expected growth rate of 2% for Delta was obtained |

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from an Edward Jones Analyst report dated March 3, 1999. Delta's stock price quote for May 28, 1999, annual dividend, 52 week high and 52 week low were obtained from the 2 NASDAQ/AMEX web site. The expected natural gas distribution industry growth rate 3 was obtained from Cost of Capital Quarterly, Ibbotson Associates, March, 1999. The 4 5 analysts' forecasts upon which the calculated natural gas distribution industry composite growth rate is based are obtained from Standard and Poor's Analyst's Consensus Estimate 6 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 average of the ACE growth rates using the latest equity market capitalization as the 9 10 weighting factors. The estimate for Delta's return on equity using the analysts' expected growth rates in the constant growth DCF model ranges from 8.0% to 9.9% as shown on 11 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 expected growth rate, and an estimated return on equity of 8.71% for the current stock 14 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.

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

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

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Because of the rural nature of Delta's service territory and the additional risk that this 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 INDICATE18 WAS APPROPRIATE?

A. <u>Stocks, Bonds, Bills and Inflation 1999 Yearbook</u> reports that the long-horizon expected
 equity risk premium for large company stock total returns minus long-term government
 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 |
|----|----|--|
| 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 |
| 7 | | 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? |

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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:

| 2 | $K = R_f$ | $+ B(R_m - R_f)$ | | | | | | | |
|----|---|---|----------|--|--|--|--|--|--|
| 3 | where: | | | | | | | | |
| 4 | K = the prospective market co | K = the prospective market cost of equity for a specific investment, | | | | | | | |
| 5 | $R_f =$ the risk free rate of return | R_f = the risk free rate of return (usually U.S. Treasury bonds for estimating ROE), | | | | | | | |
| 6 | β = the company specific beta c | β = the company specific beta coefficient, and | | | | | | | |
| 7 | R_m = the overall stock market re | R_m = the overall stock market return (usually the S&P 500 Index for estimating ROE). | | | | | | | |
| 8 | The Value Line Investment Survey and the Extended Value Line Investment Survey | | | | | | | | |
| 9 | ("Value Line") provide β estimates for a panel of gas distribution utilities. The March 26, | | | | | | | | |
| 10 | 1999 Value Line reported estimated β 's for the panel of natural gas distribution | | | | | | | | |
| 11 | companies ranging from 0.4 to | 0.8 with the following distr | ibution: | | | | | | |
| P | | |] | | | | | | |
| 12 | β Estimate | Number | | | | | | | |
| 13 | 0.40 | 1 | | | | | | | |
| 14 | 0.45 | 3 | | | | | | | |
| 15 | 0.50 | 4 | | | | | | | |
| 16 | 0.55 | 8 | | | | | | | |
| 17 | 0.60 | 6 | | | | | | | |
| 18 | 0.65 | 1 | | | | | | | |
| 19 | 0.70 | 1 | | | | | | | |
| 20 | 0.75 | 5 | | | | | | | |
| 21 | 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 |
|----|----|---|
| 2 | | calculating Delta's estimated return on equity using CAPM. With a long-horizon risk |
| 3 | | premium above 20-year U.S. Treasury bonds of 8.0% and a beta coefficient of 0.55, the |
| 4 | | CAPM model produces an estimated return on equity of 10.48% calculated as: |
| 5 | | $K = 6.08 + 0.55 \times 8.0 = 10.48$ |
| 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. |
| 1 | Q. | WHAT RETURN ON EQUITY DO YOU RECOMMEND BE UTILIZED IN |
| 13 | | CALCULATING THE REVENUE REQUIREMENT IN THIS PROCEEDING? |
| 14 | А. | 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? |

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

| | 4 | | lowest market to book value ratios of the natural gas distribution companies in the panel. |
|---|----|----|--|
| 2 | 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 | Ļ | | above, the use of an 11.9% rate of return with an imputed capital structure would produce |
| 5 | 5 | | the same type of financial improvement. However, even when these rates are placed into |
| 6 | 5 | | effect, it will take several years before there is significant improvement in these key |
| 7 | 7 | | financial measures. |
| 8 | 3 | Q. | DOES THIS CONCLUDE YOUR TESTIMONY? |
| 9 | • | A. | Yes it does. |

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

| | | | Original | | | New |
|--|-------------|------------|----------|--------------|-------------|--------|
| • | | Short Term | Equity | | Total | Equity |
| | Cap (000) | Debt (000) | Pct. | Equity (000) | Cap (000) | Pct. |
| Peonles 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 Natirral 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 Fnerov 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% |
| | \$123,432 | \$5,631 | 50 | \$61,716 | \$129,063 | 47.8% |
| Energy ooden, moo Roanoke Gas Company | \$47,808 | \$10,174 | 57 | \$27,251 | \$57,982 | 47.0% |
| Dublic 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% |
| l aciede 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 Fnerov Svstem, Inc. | \$301,384 | \$90,317 | 57 | \$171,789 | \$391,701 | 43.9% |
| | \$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 Resoluces Inc. | \$635,410 | \$94,957 | 47 | \$298,643 | \$730,367 | 40.9% |
| Dennsvivanja Enternrises, Inc. | \$235,397 | \$87,548 | 56 | \$131,822 | \$322,945 | 40.8% |
| Atmos Frency Corn. | \$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% |
| | \$504,271 | \$108,185 | 45 | \$226,922 | \$612,456 | 37.1% |
| Rerkshire Fnerav Resources | \$67,951 | \$23,960 | 50 | \$33,976 | \$91,911 | 37.0% |
| | \$345,326 | \$18,234 | 37 | \$127,771 | \$363,560 | 35.1% |
| South I Inion 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 Natiliral 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

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Exhibition B-2 Selected Financial Statistics For Delta Natural Gas Company

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| | Percent | Change | 2.88% | 0.93% | 0.00% | %00.0 | 0.46% | 1.84% | 1.36% | 0.00% | 1.79% | 0.00% |
|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Dividends | Per | Share | 1.07 | 1.08 | 1.08 | 1.08 | 1.09 | 1.11 | 1.12 | 1.12 | 1.14 | 1.14 |
| | Common | Dividends | 1,558,751 | 1,688,681 | 1,713,405 | 1,741,661 | 1,775,411 | 1,972,368 | 2,073,374 | 2,113,414 | 2,651,073 | 2,690,233 |
| | Percent | Change | -17.05% | -28.97% | -3.95% | 108.22% | 5.26% | -6.25% | -30.67% | 35.58% | -46.81% | 38.67% |
| | | EPS | 1.07 | 0.76 | 0.73 | 1.52 | 1.60 | 1.50 | 1.04 | 1.41 | 0.75 | 1.04 |
| Average | # of | Shares O/S | 1,430,608 | 1,563,588 | 1,586,235 | 1,612,437 | 1,635,945 | 1,775,068 | 1,850,986 | 1,886,629 | 2,294,134 | 2,359,598 |
| | Percent | Change | 4.04% | -22.12% | -2.75% | 111.07% | 6.80% | 1.92% | -28.20% | 38.78% | -35.21% | 42.16% |
| Earnings | Available | For Common | 1,535,077 | 1,195,512 | 1,162,582 | 2,453,813 | 2,620,664 | 2,671,001 | 1,917,735 | 2,661,349 | 1,724,265 | 2,451,272 |
| Year | Ended | June 30 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |

Page 1

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

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

10.13% 105.38%

Page 2

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% |

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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% | Cost of Capital Quarterly, Ibbotson Associates |

Using the formula: ROE = D/P + g

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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 | 2 | 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

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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 <u>Cost of Capital Quarterly</u>, 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% | Cost of Capital Quarterly, Ibbotson Associates |

Assumptions:

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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

| | | | Earned | Market |
|----------------------------------|----------|--------|-----------|---------|
| | Interest | Payout | Return | to Book |
| | Coverage | Ratio | on Equity | 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 |

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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

| | | | Earned | Market |
|----------------------------------|----------|--------|-----------|---------|
| | Interest | Payout | Return | to Book |
| | Coverage | Ratio | on Equity | 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

| | | | Earned | Market |
|----------------------------------|----------|--------|-----------|---------|
| | Interest | Payout | Return | to Book |
| | Coverage | Ratio | on Equity | 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: <u>Natural Gas Industry Summary Monthly Financial & Common Stock Information</u>, Edward Jones Co., April 30, 1999



Exhibit MJB-5

Natural Gas Distribution Companies Sorted By Market to Book Value Most Recent Fiscal Year

| | | | Earned | Market |
|----------------------------------|----------|--------|-----------|---------|
| | Interest | Payout | Return | to Book |
| _ | Coverage | Ratio | on Equity | 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 |

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



Chapter 8

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Exhibit MJB - 6

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

| | Value |
|---|---|
| ds (Riskless Rates)* | |
| Long-term (20-year) U.S. Treasury Coupon Bond Yield | 5:4% |
| Intermediate-term (S-year) U.S. Treasury Coupon Note Yield | 4.7 |
| Short-term (30-day) U.S. Treasury Bill Yield | 4.5 |
| s 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 |
| 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 |
| | dis (Riskless Rates)* Long-term (20-year) U.S. Treasury Coupon Bond Yield Intermediate-term (S-year) U.S. Treasury Coupon Note Yield Short-term (30-day) U.S. Treasury Bill Yield c Premia** Long-horizon expected equity risk premium: large company stock total returns minus long-term government bond income returns Intermediate-horizon expected equity risk premium: large company stock total returns minus intermediate-term government bond income returns Short-horizon expected equity risk premium: large company stock total returns minus U.S. Treasury bill total returns ⁴ Expected default premium: long-term corporate bond total returns minus long-term government bond total returns Expected long-term horizon premium: long-term government bond income returns minus U.S. Treasury bill total returns Expected long-term horizon premium: long-term government bond income returns minus U.S. Treasury bill total returns Expected intermediate-term horizon premium: intermediate-term government bond income returns minus U.S. Treasury bill total returns ⁴ Expected mid-capitalization equity size premium: capitalization between \$918 and \$4,200 million Expected low-capitalization equity size premium: capitalization between \$252 and \$918 million |

** 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).

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Exhibit MJB - 7

| 20-Year Averages Percent | Treas s of H | sury Con: Business | star Dag | nt Matur: ys | ity Rate | | | |
|--------------------------------|-----------------|-----------------------|-------------|-----------------|----------|-------|----|-----------|
| Source: | H.15 | Release | | Federal | Reserve | Board | of | Governors |
| DATE | GS | 320 | | | | | | |
| 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 | | | | | | |

http://www.stls.frb.org/fred/data/irates/update/rt30

6/6/1999

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



http://www.stls.frb.org/fred/data/irates/update/rt25

6/6/1999

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

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DIRECT TESTIMONY OF

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MARTIN J. BLAKE

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AFFIDAVIT

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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

STATE OF KENTUCKY COUNTY OF JEFFERSON Subscribed and sworn to before me by Martin J. Blake, this the day of h M 2004. My Commission Expires: 1/21/2005 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, | |
| | | 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 | |

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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-2 based rate and incentive rate development; and energy marketing and brokering 3 capability development. I have made presentations to train account executives in sales 4 and customer negotiation, as well as presentations in ratemaking and utility finance 5 seminars and workshops regarding basic utility marketing. I have provided marketing, 6 market research and marketing support services for utility clients and have assisted them 7 in assessing their marketing capabilities and processes. 8 Q: PLEASE BRIEFLY SUMMARIZE YOUR AREAS OF PROFESSIONAL 9 EXPERIENCE PRIOR TO JOINING THE PRIME GROUP. 10 I have professional experience as an economist and professor of economics, as a utility 11 A: regulator, and as a utility manager and executive. 12 PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS AN ECONOMIST. Q: 13 From January 1977 to December 1986, I was employed first as an Assistant Professor, A: then as an Associate Professor, and finally as a Professor of Agricultural Economics at 15 New Mexico State University in Las Cruces, New Mexico ("NMSU"): I was the head of 16 the undergraduate program and taught economics, agricultural economics and 17 econometrics. While at NMSU, I also worked as a consultant for various clients, 18 providing price forecasting, load forecasting, and marketing services. Since 1992, I have 19 taught mathematical economics and econometrics as an Adjunct Professor in the 20 Economics Department at the University of Louisville. Prior to my joining the faculty at 21 NMSU, I served in the U.S. Army as an instructor of economics, statistics, and 22 23 accounting at the U.S. Army Institute of Administration at Fort Benjamin Harrison, Indianapolis, Indiana. 24 I also have a variety of experience with the application of economics to utility public 25 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 2 Assistant Secretary for Land and Water at the U.S. Department of Interior. 3 PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY Q: 4 5 **REGULATOR.** From January 1987 to November 1990, I served as a Commissioner and as the Chairman A: 6 of the New Mexico Public Service Commission. As a Commissioner, my duties included 7 making policy and adjudicatory decisions regarding rates, terms of service, financing, 8 certificates of public convenience and necessity, and complaints for electric, gas, water, 9 and sewer utilities. As Chairman, I supervised a staff of thirty-two professionals and 10 sixteen support staff. During my tenure on the New Mexico Commission, I also served 11 as Chairman of the Western Conference of Public Service Commissioners Electric 12 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. 15. As a Commissioner, I interpreted legislation, reviewed prior Commission cases to . 16 determine the precedents that they provided, drafted rules and regulations, wrote Orders, 17 conducted hearings, ruled on motions, and served as an arbitrator in alternative dispute 18 resolution proceedings. I performed adjudicatory and regulatory functions for the four 19 years that I served on the Commission. 20 PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY Q: 21 MANAGER. 22 From December, 1990 to June 1996, I was employed by Louisville Gas and Electric . 23 · A: Company ("LG&E"). Initially, I served as LG&E's Director of Regulatory Planning. In 24 this position, I was responsible for coordinating all of LG&E's state and federal 25 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 2 market dominance in market-based rate filings; supervised the preparation of the market-3 based rate filings; and served as LG&E's principal witness in this case. I also helped 4 develop the electronic bulletin board that the FERC required as a condition for approving 5 the market-based tariff. Additionally, I helped to develop LG&E's comparable 6 transmission tariff filing, which provided third parties with access to LG&E's 7 transmission system at the same price, terms and conditions as LG&E. This was the first 8 tariff providing comparable transmission service that was filed and approved by the 9 FERC and was filed before Order No. 888 was issued by FERC. In this comparable 10 transmission tariff filing, I served as LG&E's principal witness and negotiated the 11 settlement in this case with FERC staff. When LG&E Power Marketing filed for the 12 ability to charge market-based rates, I helped to develop the codes of conduct that were 13 submitted to the FERC as a part of the filing. My areas of responsibility were expanded in April 1994 to include marketing and 15 strategic planning. As the Director, Marketing, Planning and Regulatory Affairs, I was 16 responsible for coordinating LG&E's retail gas and electric marketing, strategic planning, 17 and state and federal regulatory efforts. I continued to be employed in that capacity at 18 LG&E until June 1996, when I joined the Prime Group as one of its Principals. 19 PLEASE DESCRIBE THE INDUSTRY GROUPS IN WHICH YOU HAVE Q: 20 PARTICIPATED. 21 I have served on several regional transmission coordination groups such as the A: 22 Interregional Transmission Coordination Forum, and the General Agreement on Parallel 23 Paths, as well as the following committees of the Edison Electric Institute ("EEI") --24 Economics and Public Policy Executive Advisory Committee, Strategic Planning .25 Executive Advisory Committee, Transmission Task Force, and Power Supply Policy Technical Task Force. Currently, I am a member of the Midwest ISO Transmission

| | | Owners Committee and the Transmission Owners Tariff Working Group representing |
|----|-----|--|
| 2 | | Southern Illinois Power Cooperative and Hoosier Energy. I serve as the Vice-Chairman |
| 3 | | of the Transmission Owners Tariff Working Group. |
| 4 | Q: | HAVE YOU TAUGHT ANY COURSES OR SEMINARS IN THE AREA OF UTILITY |
| 5 | | RESTRUCTURING? |
| 6 | A: | Yes. In addition to teaching ratemaking for electric utilities at the NARUC Annual |
| 7 | | Regulatory Studies Program since 1993, I have also taught a course regarding the |
| 8 | | institutions and organizations of the new electric utility industry. Each year, I also teach |
| 9 | | and conduct numerous workshops and programs, and deliver invited presentations to |
| 10 | | utility managers and regulators on a variety of subjects including ratemaking, marketing, |
| 11 | - 4 | utility finance, and industry restructuring. |
| 12 | Q. | IN WHICH CASES HAVE YOU PREVIOUSLY TESTIFIED? |
| 13 | А. | A list of the cases in which I have previously testified is included in Exhibit MJB-1. |
|) | Q | WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING? |
| 15 | Α. | Delta Natural Gas Company, Inc. ("Delta") engaged The Prime Group to conduct an |
| 16 | | analysis of and to provide a recommendation regarding the appropriate cost of common |
| 17 | | equity for application to Delta's original cost rate base. My testimony contains the results |
| 18 | | of this analysis and identifies the fair rate of return on equity that Delta should be given |
| 19 | | the opportunity to earn during the period when the new rates will be in effect. My analysis |
| 20 | | utilizes commonly accepted financial valuation techniques and incorporates the factors |
| 21 | | that affect Delta's overall investment risk. |
| 22 | Q. | PLEASE DESCRIBE DELTA'S BUSINESS OPERATIONS. |
| 23 | А. | Delta purchases, produces and stores gas for distribution to retail customers, and also |
| 24 | | provides transportation service to industrial customers and interconnected pipelines |
| 25 | • | 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 |
| 7 | | rural than most publicly traded, investor owned natural gas distribution companies and |
| | | |

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

Q.

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

Yes. If natural gas service is available in an area, customers have a choice whether to use Α. 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 or willing to provide such service.

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

The purpose of public utility regulation with respect to rate of return is to permit a utility A. 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 15 the U.S. Supreme Court in Bluefield Water Works & Improvement Co. v. Public Service 16 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 18 allowed to earn a rate of return that: 1) is comparable to alternative investment 19 opportunities of corresponding risk, 2) will permit capital attraction on reasonable terms, 20 and 3) will maintain a utility's financial integrity. 21

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

No. Having an opportunity to earn a fair rate of return allows for more uncertainty than Α. does having a guarantee to earn a fair rate of return. A guarantee of earning a fair return would imply no variability in the rate of return, with the utility earning the specified rate 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 | |
|----|--------------|--|-----|
| 2 | | exceeding 11.6%. This is especially distressing in the years immediately following these | • |
| 3 | | two rate cases that were the first years that the new rates went into effect. In 1998, the first | |
| 4 | | year that new rates were in effect pursuant to Case No. 97-066, Delta actually earned a | |
| 5 | | return on shareholder equity of 8.2% which is 340 basis points below the Commission | |
| 6 | | allowed ROE of 11.6%. In 2000, the first year that new rates were in effect pursuant to | |
| 7 | | Case No. 99-046, Delta actually earned a return on shareholder equity of 11.1% which is | |
| 8 | | 50 basis points below the Commission allowed ROE of 11.6%. If there was ever a time | * |
| 9 | | when it could be expected that a utility would earn its allowed rate of return, it would be | |
| 10 | | the first year that new rates went into effect. When Delta has not earned a return on | |
| 11 | | shareholder equity as high as the allowed rate of return in any of the last nine years, even | |
| 12 | | though it has been in twice during that period of time for rate cases, it cannot be said to | |
| 13 | | have a reasonable assurance of earning the allowed rate of return. Furthermore, in 2003, | , - |
| Ŋ | 4 | Delta earned a return on equity of 8.6% which is significantly below its allowed return on | |
| 15 | | equity. | |
| 16 | Q. | WHAT FACTORS DO YOU BELIEVE HAVE CAUSED DELTA TO UNDER EARN | |
| 17 | | COMPARED TO ITS ALLOWED RATE OF RETURN ON EQUITY? | · |
| 18 | Α. | I believe that there are two principal factors: 1) Delta's equity is low as a percentage of | · |
| 19 | | total capitalization and 2) Delta's predominantly rural service territory. | |
| 20 | Q. | PLEASE DESCRIBE DELTA'S EQUITY AS A PERCENTAGE OF TOTAL | |
| 21 | | CAPITALIZATION COMPARED TO OTHER NATURAL GAS DISTRIBUTION | |
| 22 | | COMPANIES. | |
| 23 | • A . | As described above, Exhibits MJB-2 and MJB-3 provide data for natural gas distribution | |
| 24 | | companies ranked by total capitalization and percentage equity, respectively taken from | • |
| 25 | | Natural Gas Industry Summary Monthly Financial & Common Stock Information | |
| à | | 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 | |
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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.

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Q. DOES A LOW PERCENTAGE OF EQUITY RELATIVE TO TOTAL

CAPITALIZATION MAKE DELTA A RISKIER INVESTMENT?

Yes. The more debt that a firm has as a part of its total capitalization, the greater are the Α. 11 fixed interest payments that the firm will have to make to bond holders out of any given 12 revenue stream that it generates. A company is required to make payments to the bond 13 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 15 weather revenue fluctuations. However, this flexibility comes at a cost, as equity is more 16 expensive than debt because of the greater risk that shareholders bear. As a company's 17 business environment becomes riskier and its business risk becomes greater, the company 18 should increase its equity and lower its debt ratio. By reducing its debt ratio, its fixed 19 obligations to bond holders would be reduced and the company would be better able to 20 manage the financial fluctuations that result from a riskier business environment. 21 22 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 23 the criteria established in the Bluefield and Hope cases that the rate of return be sufficient 24 25 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 |
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| 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 | А. | 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. |
| | . 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 \sim |
| 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 |
| ų, | | holders and now would have only \$3,358,131 to provide to shareholders. Dividing |

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

Example 2 uses a capital structure that reflects the industry average as calculated in Exhibit MJB-2 and uses the same rates of return and interest as in Example 1. Thus, the only factor that is changing is the equity and debt ratios. Again a decrease in earnings of \$2,000,000 is assumed. Delta would still have to pay \$4,388,661 to debt holders and now would have only \$4,587,723 to provide to shareholders. Dividing \$4,587,723 by the \$52,701,780 of equity capitalization would result in an actual return on equity of 8.71%. In both Examples 1 and 2, the \$2,000,000 decrease in earnings is a result of operations and is not influenced by the capital structure used to finance the company. However, this same \$2,000,000 decrease in earnings has a very different impact on the actual return on equity depending on the debt leverage of the company.

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 Example 1 the return element included in the revenue requirement would be \$10,435,363, which is \$541,020 lower. Thus, with a lower percentage equity ratio than the industry as a whole, Delta's customers pay lower rates while Delta experiences a significant adverse effect on its ability to earn its allowed rate of return if it experiences any earnings

shortfalls. This is simply not an equitable result.

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

These three examples illustrate that Delta's equity ratio, which is significantly below the industry average, has a significant adverse effect on its ability to earn its allowed rate of 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.

HOW WOULD DELTA'S PREDOMINANTLY RURAL SERVICE TERRITORY

Q. AFFECT THE RETURN ON EQUITY THAT IT EARNS?

Delta serves an area that is predominantly rural with low population density. This low Α. 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. 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, as demonstrated above. 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 additional risk would justify a higher allowed rate of return for Delta. Because I have not quantified the separate impact on return on equity 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.

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

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

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

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

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

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

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

Another method of estimating the appropriate leverage premium is to use the difference in the allowed rate of return on equity and the actual earned return on equity in the first year 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%. In 2000, the first year that new rates were in effect pursuant to Case No. 99-176. Delta 2 actually earned a return on shareholder equity of 11.1% which is 50 basis points below the 3 Commission allowed ROE of 11.6%. Thus, a conservative estimate of the leverage 4 premium that the Commission should add to Delta's allowed rate of return would be 50 5 basis points. Another way of looking at it is that if the Commission had allowed Delta a 6 12.1% ROE in the last rate case, Delta would have actually earned about an 11.6% return 7 on equity, which is what the Commission found to be just and reasonable. An alternative 8 to using a leverage premium that I am not recommending in this proceeding is for the 9 Commission to use an imputed capital structure with 45% equity and 55% debt. The 10 Commission has been reluctant to make such adjustments to the capital structure in the 11 past and the problem of actually earning the allowed rate of return illustrated in Exhibit 12 MJB-5 can be taken care of through a return on equity adjustment instead. 13 Q. HOW WOULD YOU ASSESS THE BUSINESS ENVIRONMENT WITHIN WHICH **DELTA OPERATES?** 15 Delta provides natural gas service in a service territory that substantially overlaps the A. 16 electric service territory of Kentucky Utilities Company, which has some of the lowest 17 electric rates in the nation. This direct competition with a low cost electric utility increases 18 19 Delta's business risk. Additionally, Delta is a small company with a capitalization that would fall in the micro-cap stock range as defined in the Risk Premia Over Time Report: 20 2004 published by Ibbotson Associates. A micro-cap stock includes companies with 21 market capitalizations at or below \$330,608,000 (Ibbotson, p. 6). Small companies 22 generally regarded as riskier than larger companies and have correspondingly higher rates 23

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

of return. Fama and French reported that:

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| | | and Kenneth R. French, "The Cross-Section of Expected Stock Returns", <u>The Journal of Finance</u> , Vol. 47, June, 1992, p. 428.) |
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| 4 | | Fama and French went on to report that: |
| 6 | | The size effect (smaller stocks have higher average returns) is thus |
| 7 8 | | robust in the 1963-1990 returns on NYSE, AMEX, and NASDAQ stocks. In contrast to the consistent explanatory power of size, the |
| 9 | | FM [Fama-MacBeth] regressions show that market β does not help |
| 10 | | explain average stock returns for 1963-1990. (Fama and French, p. |
| 11 | | 438) |
| 12 | | 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 | N | 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 | А. | 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 |
| | | recovered over the next twelve months. Delta is not allowed to earn a return on any money |

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

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

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

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

where,

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P = the recent price of the stock,

k = the investors' discount rate or expected rate of return. 4 If the growth is a constant rate, g, this equation can be expressed as the sum of an infinite 5 geometric series: 6 $k = \frac{D_1}{P} + g$ 7 8 WHAT WOULD THE DCF MODEL YIELD AS AN EXPECTED RETURN ON Q. 9 EQUITY FOR DELTA? 10 The results of the DCF analysis for Delta are shown in Exhibit MJB-7. The expected 11 A. growth rate of 6.5% for Delta's earnings was obtained from Value Line. The high and low 12 stock price for the year and the most recent annual dividend were also obtained from 13 Value Line. The high and low annual stock prices during 2003 were used in calculating a range of estimated returns in the DCF analysis. Use of the high stock price in the DCF 15 analysis resulted in an estimated ROE of 11.40% and use of the low stock price in the 16 DCF analysis resulted in an estimated ROE of 12.12%. Thus, the estimated range on ROE 17 for Delta based on this DCF analysis is between 11.4% and 12.12%. 18 WHAT WOULD THE CAPITAL ASSET PRICING MODEL YIELD AS AN Q. 19 EXPECTED RETURN ON EQUITY FOR DELTA? 20 The CAPM approach could be utilized to estimate the return on equity for Delta. The 21 Α. basic CAPM formula is: 22 $K = R_f + \beta (R_m - R_f)$ 23 where: 24 K = the prospective market cost of equity for a specific investment, 25

 D_i = the dividend in year i, and

 β = the company specific beta coefficient,

| | 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 <u>Risk Premia Over Time Report: 2004</u> |
| 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 16 17 18 19 20 21 | Based on historical return data on the NYSE/AMEX/NASDAQ decile portfolios, the smaller deciles have had returns that are not fully explainable by the CAPM. This return in excess of CAPM, grows larger as one moves from the largest companies in decile 1 to the smallest in decile 10. The excess return is especially pronounced for micro-cap stocks (deciles 9-10). This size related phenomenon has prompted a revision to the CAPM, which includes the addition of a size premium. (Stocks, Bonds, Bills and Inflation 2003 Yearbook, Ibbotson 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 <u>Risk</u> |
| 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?

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The long-horizon expected equity risk premium reported in Risk Premia Over Time A. 5 Report: 2004 by Ibbotson Associates is 7.2% calculated by subtracting long-term 6 government bond returns from large company stock total returns for the period 1926 to 7 2003. This estimate of the risk premium is calculated using a past average of ex-post risk 8 premiums over a sufficiently long period of time to include several ups and downs in 9 dividend yields and provides a good estimate of the future risk premium. This long-10 horizon expected equity risk premium was calculated using stock market data for the 11 12 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 13 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 15 U.S. Treasury bond yield of 5.11% produces a return on equity of 12.31%. These 16 17 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 18 earlier are reasonable. 19 WHAT IS A REASONABLE RANGE FOR THE RETURN ON EQUITY IN THIS 20 Q. PROCEEDING? 21 Based on the above analysis, a reasonable range for return on equity in this proceeding 22 A. would be between 11.9% and 12.85% as summarized in the table below. 23 Initial DAF Retimate Leverage DOF 24 25

| | Methou | Innai NU | E Estimate | Levelage | <u>NOE N</u> | ange |
|---|------------|----------|------------|------------|--------------|--------|
| | | High | Low | Adjustment | <u>High</u> | Low |
| | DCF | 12.12% | 11.4% | 0.50% | 12.65% | 11.9% |
| X | CAPM | 12.35% | 12.25% | 0.50% | 12.85% | 12.85% |
| | Risk Prem. | 12.31% | 12.31% | 0.50% | 12.81% | 12.81% |

As demonstrated earlier in Exhibit MJB-5, it is essential to add a leverage premium if Delta is to going to have a reasonable opportunity to earn its allowed rate of return. It is important for the Commission to note that Delta has not earned its allowed rate of return in any of the past 9 years. Just like shooting at a target a long way off, it is necessary for 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.

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WHAT RETURN ON EQUITY DO YOU RECOMMEND BE UTILIZED IN

CALCULATING THE REVENUE REQUIREMENT IN THIS PROCEEDING?

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

26

Q.

DOES THE RETURN ON EQUITY THAT YOU RECOMMEND PRODUCES A **REASONABLE RESULT?**

Α. Yes, Exhibit MJB-10 shows the interest coverage for the 15 natural gas distribution companies in the panel reported by Edward Jones, which is calculated by dividing net 2 income by the interest on long term debt. Delta has an interest coverage of 2.36x, which is 3 fourth lowest in the panel of natural gas distribution utilities covered in the report. The 4 mean interest coverage for the panel is 3,44x with a median interest coverage of 3.41x. If 5 the revenue requirement for Delta is determined based on a 12.5% return on equity and 6 based on the capital structure in this proceeding, the resulting interest coverage would be 7 2.77x. As can be seen from Exhibit MJB-10, the resulting interest coverage from using a 8 12.5% rate of return would still be the fifth lowest in the panel and well below the mean 9 and median interest coverages for the fifteen natural gas distribution companies included 10 11 in the Edward Jones report. Based on the resulting level of interest coverage compared to natural gas distribution industry averages, I believe that the 12.5% rate of return on equity 12 that I am recommending be applied to the existing capital structure is reasonable. It would 13 take even a higher rate of return on equity to produce a level of interest coverage and an equity ratio that is more representative of the other companies in the panel of natural gas 15 distribution companies. The revenue requirement that would result from utilizing the 16 17 12.5% return on equity that I recommend would be a start to increasing Delta's equity ratio and interest coverage to more closely reflect industry averages. However, even when this 18 recommended ROE is placed into effect, it will take several years before there is 19 significant improvement in these key financial measures. 20

21 22 Q. CAN YOU PROVIDE ADDITIONAL EVIDENCE THAT THE RETURN ON EQUITY

THAT YOU RECOMMEND PRODUCES A REASONABLE RESULT?

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

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

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

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.

Exhibit MJB-1

Prior Testimony of Dr. Martin J. Blake

Federal Energy Regulatory Commission

1

| 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.

Page 3

Exhibit - 2

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

| | 12 Months | Total | Percent | |
|-------------------------------|-----------|-------------|---------|--|
| | Ending | Cap (000) | Equity | |
| South Union Company | 8/30/2003 | \$2,859,896 | 24% | |
| AGI Resources Inc. | 9/30/2003 | \$2,038,700 | 35% | |
| Atmos Fnerov Corp. | 8/30/2003 | \$1,721,435 | 39% | |
| Peoples Energy Corp. | 9/30/2003 | \$1,592,344 | 51% | |
| MGI 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% | |
| I aclede 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% | |
| Energy South 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% | |
| 5 | | | | |
| Mean | | \$949,104 | 45.67% | |
| Median | | \$675,840 | 49.00% | |

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



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Natural Gas Distribution Companies Ranked by Percent Equity Summary of Edward Jones Report Exhibit - 3

1 . . .

| | 12 Months | Total | Percent | |
|-------------------------------|------------------|-------------|---------|---|
| | Ending | Cap (000) | 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% | |
| Cascade Natural Gas Corp. | 9/30/2003 | \$255,490 | 46% | |
| EneravSouth. Inc. | 9/30/2003 | \$181,437 | 44% | |
| South Jersey Industries Inc. | 8/30/2003 | \$586,867 | 41% | |
| Atmos Energy Corp. | 8/30/2003 | \$1,721,435 | 39% | |
| AGL Resources Inc. | 9/30/2003 | \$2,038,700 | 35% | |
| Delta Natural Gas Company | 9/30/2003 | \$97,705 | 34% | |
| 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 | Allowed | |
| | Equity | ROE | Difference |
| 1995 | 8.50% B | lack box settle | ment in last rate case |
| 1996 | 11.30% B | lack box settle | ment in last rate case |
| 1997 | 5.80% B | lack box settle | ment 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% |
| an | 9.16% | | |

Mean

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 | | | | |
|--------------|---------------------|------------|--------|------------------|
| - | | | Cost | Return Element |
| | Capitalization | Ratios | Rates | in Dollars |
| Equity | \$42,865,046 | 0.3715 | 12.50% | \$ 5,358,131 |
| Debt | \$72,531,889 | 0.6285 | 7.00% | \$ 5,077,232 |
| | \$115,396,935 | 1 | | \$ 10,435,363 |
| Assume \$2,0 | 00,000 shortfall ir | n earning: | 5 | |

| Actual Return on Equity | | \$3,358,131 / \$42,865,046 |
|-------------------------|---|----------------------------|
| | = | 7.83% |

Example 2

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

Assume \$2,000,000 shortfall in earnings

| Actual Return on Equity | = | \$4,587,723 / \$52,701,780 |
|-------------------------|---|----------------------------|
| | = | 8.71% |

Example 3

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

Assume \$2,000,000 shortfall in earnings

| Actual Return on Equity | = | \$12,424,617 / \$115,396,935 |
|-------------------------|---|------------------------------|
| | | 10.77% |



Exhibit MJB - 6 Henry Hub Index Prices



Figure 45. Henry Hub Monthly Index Prices

Source: <u>Balancing Natural Gas Policy: Fueling the Demands of a Growing Economy</u>, <u>Volume 1</u>, 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 | Р |
| Low Price During 2003 | 21 | Р |
| 5 Year Forecasted Earnings Growth | 0.065 | a |

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 | В | 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 Associatés, 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

ROE = 0.0511 + 0.072 = 12.31%



- 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

Natural Gas Distribution Companies Ranked By Interest Coverage Summary of Edward Jones Report Exhibit AUB - 10

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| | 12 Months | Interest |
|-------------------------------|-----------|----------|
| | Ending | Coverage |
| Vew Jersey Resources, Inc. | 9/30/2003 | 8.67 |
| NGL 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

Exhibit JB - 11

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

| | | | | | | High | | Low | | | | |
|-----------------------|------|----|-------------|--------|----|----------|----|-------|----------|----------|---------|--------|
| | | | | Growth | | Stock | | Stock | Size | | | |
| Company | Beta | ă | vidend | Rate | | Price | | Price | Premium | DCF High | DCF Low | CAPM |
| Data Source | - | | | ۹ | | 4 | | ¥ | 5 |) | | |
| AGL | 0.75 | ф | 1.11 | 6.50% | \$ | 29.00 | 69 | 21.90 | 0.91% | 11.57% | 10.33% | 11.41% |
| Atmos | 0.65 | ω | 1.20 | 7.50% | ф | 25.50 | \$ | 20.80 | 0.91% | 13.27% | 12.21% | 10.69% |
| Cascade | 0.70 | Ь | 0.96 | 4.50% | \$ | 21.00 | ф | 18.00 | 4.01% | 9.83% | 9.07% | 14.15% |
| Energy South | 0.50 | ŝ | 1.14 | 4.50% | Ь | 37.14 | ф | 24.59 | 4.01% | 9.14% | 7.57% | 12.71% |
| Energy West | 0.40 | ω | 0.41 | -2.00% | ю | 9.00 | ф | 4.74 | 4.01% | 6.65% | 2.56% | 11.99% |
| Laclede | 0.70 | 69 | 1.34 | 5.00% | ф | 29.90 | ω | 21.80 | 1.70% | 11.15% | 9.48% | 11.84% |
| New Jersey Resources | 0.70 | Ь | 1.23 | 8.00% | Ф | 39.30 | ω | 30.00 | 0.91% | 12.10% | 11.13% | 11.05% |
| Northwest Natural Gas | 0.60 | Ь | 1.27 | 5.00% | ю | 30.80 | ω | 24.00 | 1.70% | 10.29% | 9.12% | 11.12% |
| Peoples | 0.75 | \$ | 2.12 | 4.00% | ω | 45.30 | Ь | 34.90 | 0.91% | 10.07% | 8.68% | 11.41% |
| Piedmont | 0.70 | ራን | 1.66 | 7.50% | Ь | 41.80 | ω | 33.20 | 0.91% | 12.50% | 11.47% | 11.05% |
| RGC | 0.50 | ь | 1.14 | -1.50% | Ь | 20.75 | θ | 16.99 | 4.01% | 5.21% | 3.99% | 12.71% |
| South Jersey | 0.55 | \$ | 1.56 | 6.50% | \$ | 39.60 | φ | 30.50 | 1.70% | 11.61% | 10.44% | 10.76% |
| Southern Union | 0.90 | | none | | | | | | | | | |
| WGL Holdings | 0.70 | Ь | 1.28 | 4.00% | ы | 28.80 | \$ | 23.20 | 0.91% | 9.52% | 8.44% | 11.05% |
| | | | | | | | | | | | | |
| | | | | | | | | Ť | gh Range | 13.27% | 12.21% | 14.15% |
| | | | | | | | | د | w Range | 5.21% | 2.56% | 10.69% |

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

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Q:

PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY REGULATOR.

From January 1987 to November 1990, I served as a Commissioner and as the Chairman 3 A: of the New Mexico Public Service Commission. As a Commissioner, my duties included 4 making policy and adjudicatory decisions regarding rates, terms of service, financing, 5 certificates of public convenience and necessity, and complaints for electric, gas, water, 6 7 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 8 9 Chairman of the Western Conference of Public Service Commissioners Electric Committee and as Chairman of the Committee on Regional Electric Power Cooperation, a 10 group composed of state public service commissioners and representatives from the state 11 energy offices of the thirteen western states. As a Commissioner, I interpreted legislation, reviewed prior Commission cases to 13 determine the precedents that they provided, drafted rules and regulations, wrote Orders, 14 conducted hearings, ruled on motions, and served as an arbitrator in alternative dispute 15 resolution proceedings. Although I do not have a law degree, I performed adjudicatory 16 and regulatory functions for the four years that I served on the Commission. 17 PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS A UTILITY 18 Q: MANAGER. 19 From December, 1990 to June 1996, I was employed by Louisville Gas and Electric 20 A: Company ("LG&E"). Initially, I served as LG&E's Director of Regulatory Planning. In 21 this position, I was responsible for coordinating all of LG&E's state and federal regulatory 22

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 2 market-based rate filing at the FERC, which was one of the first applications of the "hub 3 and spoke" methodology that the FERC now uses in assessing generation market 4 dominance in market-based rate filings; supervised the preparation of the market-based 5 6 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-7 based tariff. Additionally, I helped to develop LG&E's comparable transmission tariff 8 filing, which provided third parties with access to LG&E's transmission system at the 9 10 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 11 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. 13 When LG&E Power Marketing filed for the ability to charge market-based rates, I helped 14 to develop the codes of conduct that were submitted to the FERC as a part of the filing. 15 My areas of responsibility were expanded in April 1994 to include marketing and strategic 16 planning. As the Director, Marketing, Planning and Regulatory Affairs, I was responsible 17 for coordinating LG&E's retail gas and electric marketing, strategic planning, and state 18 and federal regulatory efforts. I continued to be employed in that capacity at LG&E until 19 June 1996, when I joined the Prime Group as one of its Principals. 20 PLEASE DESCRIBE THE INDUSTRY GROUPS IN WHICH YOU HAVE 21 Q:

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PARTICIPATED.

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| | 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 |
| 1 | | 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. |
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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.

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I prepared and filed testimony before the FERC in cases ER92-533, in which LG&E 4 provided open transmission access and also received authority to charge market-based rates 5 for its generation, and ER 94-1380, the first comparability tariff which was approved by the 6 FERC. I prepared and filed rebuttal testimony in Cause No. PUD 960000116, Oklahoma 7 Gas and Electric Company's last rate case before the Oklahoma Corporation Commission. 8 In that case, I rebutted intervenor and staff proposals to disallow certain marketing, 9 advertising, economic development and research and development expenses. I have 10 prepared and filed direct and rebuttal testimony for Southern California Edison Company in 11 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 13 marketing services to Southern California Edison and the reasonableness of the resulting 14 marketing services performed by IEG. I prepared and filed direct and rebuttal testimony for 15 Oklahoma Gas and Electric in Arkansas Public Service Commission Docket No. 96-360-U 16 regarding recovery of stranded cost by Entergy Arkansas, Inc. In this testimony, I 17 recommended recovery of 100% of stranded costs at such time as costs are actually 18 stranded. I also testified before the New Mexico Public Utility Commission in Docket No. 19 2797, a general rate case for Plains Electric Generation and Transmission Cooperative, 20 21 Inc.

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

| <u>ه</u> | | were concerned with ensuring non-discrimination with regard to affiliate transactions for |
|----------|----|---|
| 2 | | electric utilities. In this case, I sponsored ComEd's proposed affiliate transactions rules and |
| 3 | | suggested some basic principles that the Illinois Commerce Commission should follow in |
| 4 | | developing rules and regulations for ensuring non-discrimination and non-cross |
| 5 | | subsidization in transactions with affiliated and unaffiliated alternative retail electric |
| 6 | | suppliers (ARES). 1 testified in ICC Docket 98-0036, which was a rulemaking to develop |
| 7 | | rules and regulations for assessing and assuring the reliability of the transmission and |
| 8 | | distribution systems as a part of electric utility restructuring in Illinois. I also testified in |
| 9 | | Dockets 98-0147 and 98-0148 which were concerned with developing standards of |
| 10 | | conduct and rules for functional separation. In this case, I sponsored ComEd's proposed |
| 11 | | standards of conduct and functional separation rules. |
| | Q. | WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING? |
| 13 | А. | 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 |

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| | | natural gas or electricity for particular applications. Customers' ability to switch between |
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| 2 | | natural gas and electricity helps to keep downward pressure on the prices of both |
| 3 | | products. Furthermore, the availability of natural gas service can help in attracting |
| 4 | | industrial loads to an area and thus assist in economic development efforts. However, if |
| 5 | | natural gas service is to be provided to rural areas, the companies providing such service |
| 6 | | must have the opportunity to earn adequate returns or they will no longer be able and |
| 7 | | willing to provide such service. |
| 8 | Q. | HOW SHOULD THE RATE OF RETURN BE DETERMINED UNDER PUBLIC |
| 9 | | UTILITY REGULATION? |
| 10 | А. | The purpose of public utility regulation with respect to rate of return is to permit a utility |
| 11 | | to earn its cost of capital while avoiding monopoly profits. Long-run earnings above the |
| 1 | | cost of capital would imply monopoly profits, while long-run earnings below the cost of |
| 13 | | capital would impair a utility's ability to attract capital on reasonable terms. A rate of |
| 14 | | return based on a utility's cost of capital is consistent with the guidelines established by |
| 15 | | the U.S. Supreme Court in Bluefield Water Works & Improvement Co. v. Public Service |
| 16 | | Commission of West Virginia, 262 U.S. 679 (1923) and Federal Power Commission v. |
| 17 | | Hope Natural Gas Company, 320 U.S. 591 (1944). These cases require that a utility be |
| 18 | | allowed to earn a rate of return that: 1) is comparable to alternative investment |
| 19 | | opportunities of corresponding risk, 2) will permit capital attraction on reasonable terms, |
| 20 | | and 3) will maintain a utility's financial integrity. |
| 21 | Q. | IS AN OPPORTUNITY TO EARN A FAIR RATE OF RETURN THE SAME AS A |
| _22 | | GUARANTEE TO EARN A FAIR RATE OF RETURN? |

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

OPPORTUNITY TO EARN AN ADEQUATE RETURN FOR PROVIDING NATURAL

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GAS SERVICE TO RURAL AREAS?

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- No. I do not. In December, 1997 the Commission issued an Order in Case No. 97-066 2 A. 3 which set new rates for Delta which became effective in January, 1998. In this case, the Commission allowed a return on common equity of 11.6%. However, Exhibit MJB-2 4 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 fact. Delta has had a payout ratio of greater than 100% in 6 of the last 10 years with an 7 average payout of 105%. Such a payout ratio cannot be maintained in the long run. 8 Admittedly, in the current regulatory framework, when the Commission sets rates, it 9 provides a company with the opportunity to earn a rate of return, it does not guarantee that 10 a given rate of return will be earned. However, Delta's return on equity has averaged 11 10.1% over the last 10 years, and this, combined with the payout history and the return on equity that Delta earned in 1998 during the first year that the new rates were in effect, 13 does not indicate to me that Delta has a sufficient opportunity to earn the allowed rate of 14 15 return. Q. WHAT FACTORS DO YOU BELIEVE HAVE CAUSED DELTA TO UNDER EARN 16 COMPARED TO ITS ALLOWED RATE OF RETURN ON EQUITY? 17 I believe that there are three factors: 1) Delta's equity is low as a percentage of total 18 Α. capitalization, 2) Delta's predominantly rural service territory, and 3) weather variability. 19 PLEASE DESCRIBE DELTA'S EQUITY AS A PERCENTAGE OF TOTAL 20 Q. CAPITALIZATION COMPARED TO OTHER NATURAL GAS DISTRIBUTION 21 COMPANIES.
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| | А. | Exhibit MJB-1 shows the common equity ratios for a panel of 29 natural gas distribution |
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| 2 | | utilities. The data was taken from a report titled Natural Gas Industry Summary Monthly |
| 3 | | Financial & Common Stock Information published by Edward Jones. The first column of |
| 4 | | data contains the reported capitalization of the company which consists of long term debt |
| 5 | | and common equity. The short term debt reported in the second column is not included in |
| 6 | | the capitalization reported in the first column. The third column shows common equity as |
| 7 | | a percentage of long term debt and equity. The mean percentage of equity calculated on |
| 8 | | this basis is 51% with a median of 50%. The capitalization for Delta that is utilized in this |
| 9 | | proceeding includes short term capital as well as long term capital and common equity. To |
| 10 | | provide the percentage of equity for the panel based on a capitalization including short |
| 11 | | term debt, the short term debt in column two was added to the capitalization reported in |
| 7 | | column one to get total capitalization. Equity as a percentage of total capitalization was |
| 13 | | calculated by dividing the company's common equity by the capitalization which included |
| 14 | | short term debt. This calculation resulted in the data reported as the new equity percentage |
| 15 | | in the last column of Schedule 1. The ratio of common equity to total capitalization of |
| 16 | | 30.6% for Delta is consistent with the original capital structure from the test year that is |
| 17 | | utilized in this proceeding. The mean percentage of common equity relative to total |
| 18 | | capitalization of the panel is 43.2% with a median of 43.9%. It should be noted that |
| 19 | | Delta's percentage of common equity relative to total capitalization is the second lowest |
| 20 | | in the panel which makes Delta more heavily leveraged than other natural gas distribution |
| 21 | | utilities. |
| | | |

Q. DOES A LOW PERCENTAGE OF EQUITY RELATIVE TO TOTAL

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CAPITALIZATION MAKE DELTA A RISKIER INVESTMENT?

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

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

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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?

Delta serves an area that is predominantly rural with low population density. This low 8 A. 9 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 10 per customer results from both a higher cost of installing the pipe needed to serve a 11 customer and the higher cost of maintaining the lines. Additionally, Delta has been adding 13 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 14 generated. Thus, the high fixed cost per customer combined with customer growth is 15 16 putting financial pressure on Delta through these fixed cost additions. Furthermore, these 17 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 18 19 temperature sensitive loads translates to a higher fixed cost burden for Delta and a more 20 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 21 exacerbates the impact on the return on equity resulting from any revenue reductions that 22

| | | Delta might experience. Thus, the low population density in rural areas that results in a |
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| 2 | | higher fixed cost burden for Delta with more variability in the return stream due to the |
| 3 | | large amount of temperature sensitive load for these rural customers makes Delta a riskier |
| 4 | | investment. This added risk would justify a higher rate of return to compensate for the |
| 5 | | additional risk. Because I have not quantified the separate impact on rate of return |
| 6 | | resulting from the rural character of Delta's service territory, I would suggest accounting |
| 7 | | for the impacts of this risk factor by using an allowed rate of return in the high end of the |
| 8 | | reasonable range of returns based on my analysis. |
| 9 | Q. | HOW WOULD WEATHER VARIABILITY AFFECT THE RETURN ON EQUITY |
| 10 | | THAT DELTA EARNS? |
| 11 | А. | 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 |
| 13 | | and earnings while a cooler than normal heating season results in increased revenue and |
| 14 | | earnings. This impact can be seen on page 1 of Exhibit MJB-2. The earnings available for |
| 15 | | common equity fluctuate widely from a 111% increase in 1992 to a 35% decrease in |
| 16 | | 1997. It should be noted that the earnings available for common equity in 1998 of |
| 17 | | \$2,451,272 is still below the 1996 level of earnings available for common equity even |
| 18 | | though it represents a 42% increase over 1997. The 1998 level is also below the earnings |
| 19 | | available for common equity in 1993 and 1994. Thus, temperature variability has a major |
| 20 | | effect on the return on equity that Delta actually earns. |
| 21 | Q. | ARE THERE ANY REMEDIES THAT CAN BE APPLIED TO CORRECT FOR THE |
| | | |

THREE FACTORS AFFECTING DELTA'S EARNINGS THAT YOU HAVE

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DESCRIBED ABOVE?

| 2 | Α. | Yes. There are potential remedies for two of the three factors that I have described above. |
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| 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. |
| 7 | Q. | PLEASE EXPLAIN HOW AN IMPUTED CAPITAL STRUCTURE COULD BE |
| 13 | | UTILIZED TO ADJUST FOR THE EFFECT OF DELTA'S LOW EQUITY RATIO. |
| 14 | А. | 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 3 4 5 6 7 | | The data did not permit analysis outside the 42.5 to 54 percent debt ratio range, so we cannot state exactly what would happen to interest rates if debt were below 42.5 or above 54 percent. (Eugene F. Brigham, Louis C. Gapenski and Dana A. Aberwald, "Capital Structure, Cost of Capital, and Revenue Requirements", <u>Public Utilities Fortnightly</u> , 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 | А. | 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 17 18 19 20 21 | | The basis change is smaller toward the high end of the equity ratio range, so an increase in equity from 49 to 50 per cent would only lower the cost of equity by about seven basis points, but an increase in the ratio from 40 to 41 per cent would lower the cost of equity by 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 |

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

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

Although a temperature normalization has been employed historically in determining the 5 Α. revenue requirement and in calculating rates, a temperature normalization has not been 6 applied to the rates prospectively to adjust for the vagaries of weather. Without a 7 temperature normalization incorporated into the rates as they are applied prospectively, 8 Delta is subject to the earnings and return on equity variations shown in Exhibit MJB-2. 9 Temperature normalizing to calculate the rates but not to apply them in essence amounts 10 to a bet that normal temperature will occur with Delta experiencing significant financial 11 distress if warmer than normal weather occurs. Delta's low equity ratio and high fixed operating costs have the effect of magnifying the impact of this temperature variability. I 13 recommend the use of a temperature normalization adjustment in Delta's rates to adjust 14 for the significant impact that weather has on its earnings and return on equity. 15 HOW WOULD YOU ASSESS THE BUSINESS ENVIRONMENT WITHIN WHICH 16 Q. **DELTA OPERATES?** 17 Beginning with Order No. 436 and continuing through Order Nos. 500 and 636, the 18 A. Federal Energy Regulatory Commission (FERC) established competition in the 19 transportation of natural gas and allowed large customers and local distribution companies 20 to purchase natural gas directly from producers. Currently, some state regulatory 21 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 |
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| 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. |
| б | | 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? |
| | A. | Yes. There are several sources that indicate that a size premium is appropriate for smaller |
| 13 | | companies. Fama and French reported that: |
| 14 15 16 17 18 19 | | 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", <u>The Journal of Finance</u> , Vol. 47, June, 1992, p. 428.) |
| 20 21 | | Fama and French went on to report that: |
| 22 23 24 25 26 27 28 | | 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) |
| 29 | | Regarding this size effect, Ibbotson stated that: |

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| 3 4 5 | | The betas for small companies tend to be larger than those for larger companies; however, they do not account for all of the risks faced by investors in small companies. This premium can be added directly to the results obtained using the CAPM (<u>Stocks, Bonds,</u> <u>Bills and Inflation 1999 Yearbook</u> , Ibbotson Associates, p. 161 |
|-------------|----|--|
| 6 7 | | Ibbotson goes on to quantify the expected micro-capitalization equity size premium as |
| 8 | ۲ | 2.6% as shown in Exhibit MJB-6. Not only does Delta fall within the micro-capitalization |
| 9 | | group as defined by Ibbotson, but as can be seen from Exhibit MJB-1, Delta has one of |
| 10 | | the smallest total capitalizations of the investor owned natural gas distribution companies |
| 11 | | in the panel. Thus, small companies such as Delta are riskier than companies with larger |
| 12 | | capitalizations and a higher rate of return on equity would be appropriate for such |
| 13 | | companies. |
| 14 | Q. | PLEASE DESCRIBE THE DISCOUNTED CASH FLOW (DCF) METHOD FOR |
| \frown | | 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: $P = \frac{D_1}{(1-1)^2} + \frac{D_2}{(1-1)^2} + \frac{D_3}{(1-1)^3} + \dots$ |
| 20 | | (1+k) $(1+k)^{2} (1+k)^{3}$ where, |
| 21 | | \mathbf{P} = the price of the stock, |
| 22 | | $D_i =$ the dividend in year i, and |
| 23 | | $\mathbf{k} =$ 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 |
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function of the dividend in the immediately preceding period multiplied by the growth rate, so that:

$$D_2 = D_1 g,$$

$$D_3 = D_1 g^2,$$

$$D_n = D_1 g^{n-1}$$

By substituting and solving as the sum of an infinite geometric series, the constant growth

5 form of the DCF equation can be expressed as:

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 $k = \frac{D_1}{P} + g$ Equation 2: 6 Although the assumption of constant growth may be reasonable for utilities that come 7 close to approximating the assumption of constant growth, it is not appropriate for a 8 utility that is experiencing changes in the rate of growth. When there are changes in the 9 growth rate, a multistage form of the DCF model is more appropriate. The two-stage DCF 10 model allows dividends to grow at the growth rate currently reported by analysts in the 11 first stage and to grow dividends at the same nominal rate as the industry or the national 12 economy as a whole in the second stage. This assumes that over time the rate of growth 13 for a company will tend toward the growth rate for the industry as a whole. Currently, 14 Delta is tracked by only two analysts, one from Hilliard Lyons and one from Edward 15 Jones. The two-stage DCF model utilizes the analysts growth rates as well as a composite 16 growth rate for the natural gas distribution industry obtained from Ibbotson's Cost of 17 Capital Quarterly, which is calculated using estimates from analysts from over 200 firms. 18 Thus, the two-stage DCF model applies a broader base of information to the task of 19

| | | calculating Delta's cost of capital. The two-stage DCF model assumes that dividends grow |
|----|----|---|
| 2 | | at the analyst's projected growth rate during the first stage and grow at the expected |
| 3 | | growth rate for the industry as a whole in the second stage. After the estimated dividend |
| 4 | | stream for a sufficiently long period is generated using the growth rates employed in the |
| 5 | | two-stage DCF model, the dividend estimates and the current stock price are substituted |
| 6 | | into equation 1 above which is solved iteratively for k, the estimated return on equity. |
| 7 | Q. | DO YOU BELIEVE THAT THE CONSTANT GROWTH FORM OF THE DCF |
| 8 | | MODEL SHOULD BE USED IN DETERMINING DELTA'S ALLOWED RETURN |
| 9 | | ON EQUITY? |
| 10 | A. | No. Looking at Exhibit MJB-2, the percentage change in dividends per share has been |
| 11 | | variable and has not been growing at a constant rate. Furthermore, the underlying |
| 7 | | financial variables exhibit tremendous variability. The percentage change in the earnings |
| 13 | | available for common stock range from a high of 111% to a low of -35%. The percentage |
| 14 | | change in the earnings per share range from a high of 108% to a low of -47%. Such |
| 15 | | variation in dividends per share and in the underlying financial data are not consistent |
| 16 | | with an assumption of constant growth that is the key assumption in the constant growth |
| 17 | | form of the DCF model. |
| 18 | Q. | WHAT WOULD THE CONSTANT GROWTH FORM OF THE DCF MODEL YIELD |
| 19 | | AS AN EXPECTED RETURN ON EQUITY FOR DELTA? |
| 20 | A. | The results of the constant growth DCF model are shown on page 1 of Exhibit MJB-4. |
| 21 | | The expected growth rate of 3% for Delta was obtained from a Hilliard Lyons Analyst |
| 22 | | report dated March 11, 1998 and the expected growth rate of 2% for Delta was obtained |

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

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

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

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Because of the rural nature of Delta's service territory and the additional risk that this 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 INDICATE18 WAS APPROPRIATE?

A. <u>Stocks, Bonds, Bills and Inflation 1999 Yearbook</u> reports that the long-horizon expected
 equity risk premium for large company stock total returns minus long-term government
 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 |
|----|----|--|
| 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 |
| 7 | | 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?

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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:

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

3 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).
- 8 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,
- 10 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 |
|-----|----|---|
| 2 | | calculating Delta's estimated return on equity using CAPM. With a long-horizon risk |
| 3 | | premium above 20-year U.S. Treasury bonds of 8.0% and a beta coefficient of 0.55, the |
| 4 | | CAPM model produces an estimated return on equity of 10.48% calculated as: |
| 5 | | K = 6.08 + 0.55 x 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. |
| 7 | 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? |

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

| 4 | | | 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.

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

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| | | | Original | | | New |
|----------------------------------|-------------|------------|----------|--------------|-------------|---------|
| | | short Term | Equity | | Total | Equity |
| | Cap (000) | Debt (000) | Pct. | Equity (000) | Cap (000) | Pct. |
| Peonles 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 Fnerov 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% |
| | \$330,556 | \$31,121 | 55 | \$181,806 | \$361,677 | 50.3% |
| Frency North Inc. | \$97,217 | \$12,243 | 55 | \$53,469 | \$109,460 | 48.8% |
| EnerovSouth 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% |
| AGI 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% |
| Pennsvivanja Enterprises, Inc. | \$235,397 | \$87,548 | 56 | \$131,822 | \$322,945 | 40.8% |
| Atmos Fnerov 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 Com. | \$504,271 | \$108,185 | 45 | \$226,922 | \$612,456 | 37.1% |
| Berkshire Enerav 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% |
| • | | | ŭ | | ucom | %C EV |
| | | mean | 10 | | | 5 7 7 C |
| | | median | 50 | | median | 43.9% |

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

Exhibit B-2 Selected Financial Statistics For Delta Natural Gas Company

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| | Percent | Change | 2.88% | 0.93% | 0.00% | %00.0 | 0.46% | 1.84% | 1.36% | 0.00% | 1.79% | %00.0 |
|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Dividends | Per | Share | 1.07 | 1.08 | 1.08 | 1.08 | 1.09 | 1.11 | 1.12 | 1.12 | 1.14 | 1.14 |
| | Common | Dividends | 1,558,751 | 1,688,681 | 1,713,405 | 1,741,661 | 1,775,411 | 1,972,368 | 2,073,374 | 2,113,414 | 2,651,073 | 2,690,233 |
| | Percent | Change | -17.05% | -28.97% | -3.95% | 108.22% | 5.26% | -6.25% | -30.67% | 35.58% | -46.81% | 38.67% |
| | | EPS | 1.07 | 0.76 | 0.73 | 1.52 | 1.60 | 1.50 | 1.04 | 1.41 | 0.75 | 1.04 |
| Average | # of | Shares O/S | 1,430,608 | 1,563,588 | 1,586,235 | 1,612,437 | 1,635,945 | 1,775,068 | 1,850,986 | 1,886,629 | 2,294,134 | 2,359,598 |
| | Percent | Change | 4.04% | -22.12% | -2.75% | 111.07% | 6.80% | 1.92% | -28.20% | 38.78% | -35.21% | 42.16% |
| Earnings | Available | For Common | 1,535,077 | 1,195,512 | 1,162,582 | 2,453,813 | 2,620,664 | 2,671,001 | 1,917,735 | 2,661,349 | 1,724,265 | 2,451,272 |
| Year | Ended | June 30 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |

Exhibited B-2 Selected Financial Statistics For **Delta Natural Gas Company**

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

10.13% 105.38%

Page 2

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% |

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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% | Cost of Capital Quarterly, 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% |



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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 <u>Cost of Capital Quarterly</u>, 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.



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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% | Cost of Capital Quarterly, Ibbotson Associates |

Assumptions:

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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

| | | | Earned | Market |
|----------------------------------|----------|--------|-----------|---------|
| | Interest | Payout | Return | to Book |
| | Coverage | Ratio | on Equity | 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 |
| | | | | |

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

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

| | | | Earned | Market |
|----------------------------------|----------|--------|-----------------|---------|
| | Interest | Payout | Return | to Book |
| | Coverage | Ratio | on Equity | 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: <u>Natural Gas Industry Summary Monthly Financial & Common Stock Information</u>, Edward Jones Co., April 30, 1999

Exhibit MJB-5

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

| | | | Earned | Market |
|----------------------------------|----------|--------|-----------|---------|
| | Interest | Payout | Return | to Book |
| | Coverage | Ratio | on Equity | 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 |

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



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Exhibit MJB-5

Natural Gas Distribution Companies Sorted By Market to Book Value Most Recent Fiscal Year

| | | | Earned | Market |
|----------------------------------|----------|--------|-----------|---------|
| | Interest | Payout | Return | to Book |
| | Coverage | Ratio | on Equity | 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: <u>Natural Gas Industry Summary Monthly Financial & Common Stock Information</u>, Edward Jones Co., April 30, 1999



Exhibit MJB - 6

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

| Value |
|-------------------|
| |
| 5:4% |
| 4.7 |
| 4.5 |
| |
| 8.0 |
| ···· ·· ·· 8,4- · |
| 9.4 |
| 0.4 |
| 1.4 |
| 1.0 |
| |
| 0.5 |
| 1.1 |
| 2.6 |
| |

** 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).

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Exhibit MJB - 7

| 20-Year Averages | Treas s of I | sury Con: Business | star Dag | nt Matur: ys | ity Rate | | | |
|---------------------|-----------------|-----------------------|-------------|-----------------|----------|-------|----|-----------|
| Percent Source: | н.15 | Release | | Federal | Reserve | Board | of | Governors |
| DATE | GS | 520 | | | | | | |
| 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 | | | | | | |

http://www.stls.frb.org/fred/data/irates/update/rt30

6/6/1999

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



1999.05

4.51

http://www.stls.frb.org/fred/data/irates/update/rt25

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

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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 STATE OF KENTUCKY).)) COUNTY OF JEFFERSON Subscribed and sworn to before me by Martin J. Blake, this the AAL, 2004. My Commission Expires: 1/2/2 Notary Public, State at Large, Kentucky

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| 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, | |
| | | 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 | |

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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-2 based rate and incentive rate development; and energy marketing and brokering 3 capability development. I have made presentations to train account executives in sales 4 and customer negotiation, as well as presentations in ratemaking and utility finance 5 seminars and workshops regarding basic utility marketing. I have provided marketing, 6 market research and marketing support services for utility clients and have assisted them 7 in assessing their marketing capabilities and processes. 8 PLEASE BRIEFLY SUMMARIZE YOUR AREAS OF PROFESSIONAL 9 Q: EXPERIENCE PRIOR TO JOINING THE PRIME GROUP. 10 I have professional experience as an economist and professor of economics, as a utility A: 11 regulator, and as a utility manager and executive. 12 PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE AS AN ECONOMIST. Q: 13 From January 1977 to December 1986, I was employed first as an Assistant Professor, A: then as an Associate Professor, and finally as a Professor of Agricultural Economics at 15 New Mexico State University in Las Cruces, New Mexico ("NMSU"): I was the head of 16 the undergraduate program and taught economics, agricultural economics and 17 econometrics. While at NMSU, I also worked as a consultant for various clients, 18 providing price forecasting, load forecasting, and marketing services. Since 1992, I have 19 taught mathematical economics and econometrics as an Adjunct Professor in the 20 Economics Department at the University of Louisville. Prior to my joining the faculty at 21 NMSU, I served in the U.S. Army as an instructor of economics, statistics, and 22 accounting at the U.S. Army Institute of Administration at Fort Benjamin Harrison, 23 Indianapolis, Indiana. 24 I also have a variety of experience with the application of economics to utility public 25 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.

15.

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. 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 2 market dominance in market-based rate filings; supervised the preparation of the market-3 based rate filings; and served as LG&E's principal witness in this case. I also helped 4 develop the electronic bulletin board that the FERC required as a condition for approving 5 the market-based tariff. Additionally, I helped to develop LG&E's comparable 6 transmission tariff filing, which provided third parties with access to LG&E's 7 transmission system at the same price, terms and conditions as LG&E. This was the first 8 tariff providing comparable transmission service that was filed and approved by the 9 FERC and was filed before Order No. 888 was issued by FERC. In this comparable 10 transmission tariff filing, I served as LG&E's principal witness and negotiated the 11 settlement in this case with FERC staff. When LG&E Power Marketing filed for the 12 ability to charge market-based rates, I helped to develop the codes of conduct that were 13 submitted to the FERC as a part of the filing. My areas of responsibility were expanded in April 1994 to include marketing and 15 strategic planning. As the Director, Marketing, Planning and Regulatory Affairs, I was 16 responsible for coordinating LG&E's retail gas and electric marketing, strategic planning, 17 and state and federal regulatory efforts. I continued to be employed in that capacity at 18 LG&E until June 1996, when I joined the Prime Group as one of its Principals. 19 PLEASE DESCRIBE THE INDUSTRY GROUPS IN WHICH YOU HAVE Q: 20 PARTICIPATED. 21 I have served on several regional transmission coordination groups such as the A: 22 Interregional Transmission Coordination Forum, and the General Agreement on Parallel 23 Paths, as well as the following committees of the Edison Electric Institute ("EEI") --24 Economics and Public Policy Executive Advisory Committee, Strategic Planning .25 Executive Advisory Committee, Transmission Task Force, and Power Supply Policy Technical Task-Force. Currently, I am a member of the Midwest ISO Transmission
| | | Owners Committee and the Transmission Owners Tariff Working Group representing |
|-----|-------------|--|
| 2 | | Southern Illinois Power Cooperative and Hoosier Energy. I serve as the Vice-Chairman |
| 3 | | of the Transmission Owners Tariff Working Group. |
| 4 | Q: | HAVE YOU TAUGHT ANY COURSES OR SEMINARS IN THE AREA OF UTILITY |
| 5 | | RESTRUCTURING? |
| 6 | A: | Yes. In addition to teaching ratemaking for electric utilities at the NARUC Annual |
| 7 | | Regulatory Studies Program since 1993, I have also taught a course regarding the |
| . 8 | | institutions and organizations of the new electric utility industry. Each year, I also teach |
| 9 | | and conduct numerous workshops and programs, and deliver invited presentations to |
| 10 | | utility managers and regulators on a variety of subjects including ratemaking, marketing, |
| 11 | · • | utility finance, and industry restructuring. |
| 12 | Q. | IN WHICH CASES HAVE YOU PREVIOUSLY TESTIFIED? |
| 13 | A. | A list of the cases in which I have previously testified is included in Exhibit MJB-1. |
|) | Q. · | WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING? |
| 15 | А. | Delta Natural Gas Company, Inc. ("Delta") engaged The Prime Group to conduct an |
| 16 | | analysis of and to provide a recommendation regarding the appropriate cost of common |
| 17 | | equity for application to Delta's original cost rate base. My testimony contains the results |
| 18 | | of this analysis and identifies the fair rate of return on equity that Delta should be given |
| 19 | | the opportunity to earn during the period when the new rates will be in effect. My analysis |
| 20 | | utilizes commonly accepted financial valuation techniques and incorporates the factors |
| 21 | | that affect Delta's overall investment risk. |
| 22 | Q. | PLEASE DESCRIBE DELTA'S BUSINESS OPERATIONS. |
| 23 | Α. | Delta purchases, produces and stores gas for distribution to retail customers, and also |
| 24 | | provides transportation service to industrial customers and interconnected pipelines |
| 25 | 4 | 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 |
| 7 | | rural than most publicly traded, investor owned natural gas distribution companies and |

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

IS THERE A PUBLIC BENEFIT TO PROVIDING NATURAL GAS SERVICE TO

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Q.

RURAL AREAS?

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

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

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

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GUARANTEE TO EARN A FAIR RATE OF RETURN?

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

IS AN OPPORTUNITY TO EARN A FAIR RATE OF RETURN THE SAME AS A

reasonable assurance that it will be allowed to earn a rate of return that is sufficient to attract capital, that will maintain its financial integrity and that is comparable to the return 2 earned by alternative investments of comparable risk. While there are numerous factors 3 that may result in an actual rate of return that is higher or lower than the allowed rate of 4 return in any given year, a utility that consistently earns less than the allowed rate of return 5 or which has averaged significantly less than the allowed rate of return for a long period of 6 time cannot be said to have a reasonable assurance of earning the allowed rate of return. 7 Thus, an assurance of earning a fair and reasonable rate of return could be viewed 8 statistically as the arithmetic average of a series of returns over a period of time equaling 9 the allowed rate of return. The problem with this approach is that, if there is significant 10 variability in the returns, several years of earning below the allowed rate of return could 11 cause severe financial harm to a utility while waiting for the years of above average 12 returns to materialize. Thus, it may make sense for regulators to not only deal with the 13 mean value of the distribution of returns, as they do when they set the allowed rate of return in a rate case, but to also deal with the variability of the returns through some 15 alternative regulatory mechanism. 16 WOULD YOU REGARD DELTA'S CURRENT RATES AS PROVIDING AN 17 Q. OPPORTUNITY TO EARN AN ADEQUATE RETURN FOR PROVIDING NATURAL 18 GAS SERVICE TO RURAL AREAS? 19 No, I do not. In December, 1997, the Commission issued an Order in Case No. 97-066 20 A. 1 which set new rates for Delta which became effective in January, 1998. In this case, the 21. Commission allowed a return on common equity of 11.6%. In December, 1999, the 22 Commission issued an Order in Case No. 99-046 which set new rates for Delta which 23 became effective in January, 2000. In this case, the Commission also allowed a return on 24 common equity of 11.6%. However, Exhibit MJB-4 shows that since 1995, Delta has 25

> <u>never</u> 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 | |
|------|------|--|-----|
| 2 | | exceeding 11.6%. This is especially distressing in the years immediately following these | |
| 3 | | two rate cases that were the first years that the new rates went into effect. In 1998, the first | |
| 4 | | year that new rates were in effect pursuant to Case No. 97-066, Delta actually earned a | |
| 5 | | return on shareholder equity of 8.2% which is 340 basis points below the Commission | |
| 6 | | allowed ROE of 11.6%. In 2000, the first year that new rates were in effect pursuant to | |
| 7 | | Case No. 99-046, Delta actually earned a return on shareholder equity of 11.1% which is | |
| 8 | | 50 basis points below the Commission allowed ROE of 11.6%. If there was ever a time | |
| 9 | | when it could be expected that a utility would earn its allowed rate of return, it would be | |
| 10 | | the first year that new rates went into effect. When Delta has not earned a return on | |
| 11 | | shareholder equity as high as the allowed rate of return in any of the last nine years, even | |
| 12 | | though it has been in twice during that period of time for rate cases, it cannot be said to | - |
| . 13 | | have a reasonable assurance of earning the allowed rate of return. Furthermore, in 2003, | |
| y | - | Delta earned a return on equity of 8.6% which is significantly below its allowed return on | |
| 15 | | equity. | |
| 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 two principal factors: 1) Delta's equity is low as a percentage of | |
| 19 | | total capitalization and 2) Delta's predominantly rural service territory. | |
| 20 | Q. | PLEASE DESCRIBE DELTA'S EQUITY AS A PERCENTAGE OF TOTAL | |
| 21 | | CAPITALIZATION COMPARED TO OTHER NATURAL GAS DISTRIBUTION | |
| 22 | | COMPANIES. | |
| 23 | . A. | As described above, Exhibits MJB-2 and MJB-3 provide data for natural gas distribution | |
| 24 | | companies ranked by total capitalization and percentage equity, respectively taken from | |
| 25 | | Natural Gas Industry Summary Monthly Financial & Common Stock Information | • . |
| à | | published by Edward Jones. The mean percentage of equity is calculated as 45.67% for | |
| .1 | | the panel of fifteen natural gas distribution utilities with a median of 49%. Delta's reported | |
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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.

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

Yes. The more debt that a firm has as a part of its total capitalization, the greater are the 11 Α. fixed interest payments that the firm will have to make to bond holders out of any given 12 revenue stream that it generates. A company is required to make payments to the bond 13 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 15 weather revenue fluctuations. However, this flexibility comes at a cost, as equity is more 16 expensive than debt because of the greater risk that shareholders bear. As a company's 17 business environment becomes riskier and its business risk becomes greater, the company 18 should increase its equity and lower its debt ratio. By reducing its debt ratio, its fixed 19 obligations to bond holders would be reduced and the company would be better able to 20 manage the financial fluctuations that result from a riskier business environment. 21 Furthermore, a utility's equity ratio must be high enough to allow additional debt capital 22 23 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 24 to permit capital attraction on reasonable terms. If the capital structure does not permit 25 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 |
|------|-----------|---|
| 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 | А. | Because Delta is about 63% debt financed based on the capital structure in this |
| 40 | | 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. |
|) | · . Q. | COULD YOU GIVE AN EXAMPLE OF HOW LEVERAGE MIGHT AFFECT THE |
| 15 | <i>~.</i> | 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 |
| - | | holders and now would have only \$3,358,131 to provide to shareholders. Dividing |

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

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Example 2 uses a capital structure that reflects the industry average as calculated in Exhibit MJB-2 and uses the same rates of return and interest as in Example 1. Thus, the only factor that is changing is the equity and debt ratios. Again a decrease in earnings of \$2,000,000 is assumed. Delta would still have to pay \$4,388,661 to debt holders and now would have only \$4,587,723 to provide to shareholders. Dividing \$4,587,723 by the \$52,701,780 of equity capitalization would result in an actual return on equity of 8.71%. In both Examples 1 and 2, the \$2,000,000 decrease in earnings is a result of operations and is not influenced by the capital structure used to finance the company. However, this same \$2,000,000 decrease in earnings has a very different impact on the actual return on equity depending on the debt leverage of the company.

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 Example 1 the return element included in the revenue requirement would be \$10,435,363, which is \$541,020 lower. Thus, with a lower percentage equity ratio than the industry as a whole, Delta's customers pay lower rates while Delta experiences a significant adverse effect on its ability to earn its allowed rate of return if it experiences any earnings shortfalls. This is simply not an equitable result.

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

These three examples illustrate that Delta's equity ratio, which is significantly below the industry average, has a significant adverse effect on its ability to earn its allowed rate of 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.

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

Delta serves an area that is predominantly rural with low population density. This low A. 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. Furthermore, these rural customers tend to have a lower annual usage and a larger proportion of temperature sensitive load 10 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, as demonstrated above. 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 additional risk would justify a higher allowed rate of return for Delta. Because I have not quantified the separate impact on return on equity 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.

24 Q. 25

Α.

ARE THERE ANY REMEDIES THAT CAN BE APPLIED TO CORRECT FOR THE TWO FACTORS AFFECTING DELTA'S EARNINGS THAT YOU HAVE -**DESCRIBED ABOVE?**

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

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

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

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

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

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

Another method of estimating the appropriate leverage premium is to use the difference in the allowed rate of return on equity and the actual earned return on equity in the first year 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%. In 2000, the first year that new rates were in effect pursuant to Case No. 99-176, Delta 2 actually earned a return on shareholder equity of 11.1% which is 50 basis points below the 3 Commission allowed ROE of 11.6%. Thus, a conservative estimate of the leverage 4 premium that the Commission should add to Delta's allowed rate of return would be 50 5 basis points. Another way of looking at it is that if the Commission had allowed Delta a 6 12.1% ROE in the last rate case. Delta would have actually earned about an 11.6% return 7 on equity, which is what the Commission found to be just and reasonable. An alternative 8 to using a leverage premium that I am not recommending in this proceeding is for the 9 Commission to use an imputed capital structure with 45% equity and 55% debt. The 10 11 Commission has been reluctant to make such adjustments to the capital structure in the past and the problem of actually earning the allowed rate of return illustrated in Exhibit 12 MJB-5 can be taken care of through a return on equity adjustment instead. -13 Q. HOW WOULD YOU ASSESS THE BUSINESS ENVIRONMENT WITHIN WHICH **DELTA OPERATES?** 15 Delta provides natural gas service in a service territory that substantially overlaps the 16 Α. electric service territory of Kentucky Utilities Company, which has some of the lowest 17 electric rates in the nation. This direct competition with a low cost electric utility increases 18 19 Delta's business risk. Additionally, Delta is a small company with a capitalization that would fall in the micro-cap stock range as defined in the Risk Premia Over Time Report: 20 2004 published by Ibbotson Associates. A micro-cap stock includes companies with 21 market capitalizations at or below \$330,608,000 (Ibbotson, p. 6). Small companies 22 generally regarded as riskier than larger companies and have correspondingly higher rates 23 of return. Fama and French reported that: 24 25

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

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| 3 | | and Kenneth R. French, "The Cross-Section of Expected Stock Returns", <u>The Journal of Finance</u> , Vol. 47, June, 1992, p. 428.) |
|-------------|----|--|
| 4 | | Fama and French went on to report that: |
| 5 6 7 | | The size effect (smaller stocks have higher average returns) is thus robust in the 1963-1990 returns on NYSE, AMEX, and NASDAO |
| 8 | | stocks. In contrast to the consistent explanatory power of size, the |
| 9 | | FM [Fama-MacBeth] regressions show that market β does not help |
| 10 11 | | explain average stock returns for 1963-1990. (Fama and French, p. 438) |
| 12 | | 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 | Α. | 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 |
| | | recovered over the next twelve months. Delta is not allowed to earn a return on any money |

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

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

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

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

where,

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P = the recent price of the stock,

 D_i = the dividend in year i, and

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

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

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

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

growth rate of 6.5% for Delta's earnings was obtained from Value Line. The high and low 12 13 stock price for the year and the most recent annual dividend were also obtained from Value Line. The high and low annual stock prices during 2003 were used in calculating a range of estimated returns in the DCF analysis. Use of the high stock price in the DCF 15 analysis resulted in an estimated ROE of 11.40% and use of the low stock price in the 16 DCF analysis resulted in an estimated ROE of 12.12%. Thus, the estimated range on ROE 17 for Delta based on this DCF analysis is between 11.4% and 12.12%. 18 Q. WHAT WOULD THE CAPITAL ASSET PRICING MODEL YIELD AS AN 19 EXPECTED RETURN ON EQUITY FOR DELTA? 20 The CAPM approach could be utilized to estimate the return on equity for Delta. The 21 Α. basic CAPM formula is: 22

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

where:

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

 β = the company specific beta coefficient,

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|--|--------|--|
| | | 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 <u>Risk Premia Over Time Report: 2004</u> |
| 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 16 17 18 19 20 21 | | Based on historical return data on the NYSE/AMEX/NASDAQ decile portfolios, the smaller deciles have had returns that are not fully explainable by the CAPM. This return in excess of CAPM, grows larger as one moves from the largest companies in decile 1 to the smallest in decile 10. The excess return is especially pronounced for micro-cap stocks (deciles 9-10). This size related phenomenon has prompted a revision to the CAPM, which includes the addition of a size premium. (Stocks, Bonds, Bills and Inflation 2003 Yearbook, Ibbotson 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 <u>Risk</u> |
| 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 | н 1 | 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?

The long-horizon expected equity risk premium reported in <u>Risk Premia Over Time</u> Α. 5 Report: 2004 by Ibbotson Associates is 7.2% calculated by subtracting long-term 6 government bond returns from large company stock total returns for the period 1926 to 7 2003. This estimate of the risk premium is calculated using a past average of ex-post risk 8 premiums over a sufficiently long period of time to include several ups and downs in 9 dividend yields and provides a good estimate of the future risk premium. This long-10 horizon expected equity risk premium was calculated using stock market data for the 11 companies in the Standard and Poor's 500 Index and for U.S. Treasury Bonds having a 12 20-year maturity. The 20-year U.S. Treasury bond yield for December, 2003 as reported 13 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 15 U.S. Treasury bond yield of 5.11% produces a return on equity of 12.31%. These 16 estimated returns on equity for the market as a whole demonstrate that the estimated 17 returns on equity for Delta using the DCF and capital asset pricing model results discussed 18 earlier are reasonable. 19

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

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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 RC |)E <u>Estimate</u> | Leverage | ROE R | lange |
|------------|------------|--------------------|------------|--------|--------|
| | High | Low | Adjustment | 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% |

As demonstrated earlier in Exhibit MJB-5, it is essential to add a leverage premium if Delta is to going to have a reasonable opportunity to earn its allowed rate of return. It is important for the Commission to note that Delta has not earned its allowed rate of return in any of the past 9 years. Just like shooting at a target a long way off, it is necessary for 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.

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

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

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

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

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

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

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

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

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.

Exhibit MJB-1

Prior Testimony of Dr. Martin J. Blake

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Federal Energy Regulatory Commission

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| 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 review LG&E's first integrated resource plan. |
| Other | Several fuel adjustment clause proceedings on behalf of LG&E. |



to

- 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 - 2 Summary of Edward Jones Report

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Natural Gas Distribution Companies Ranked by Total Capitalization

| • | 12 Months | Total | Percent | |
|----------------------------------|-----------|-------------|---------|--|
| | Ending | Cap (000) | 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 | · 28% | |
| 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

Natural Gas Distribution Companies Ranked by Percent Equity Summary of Edward Jones Report Exhibited B - 3

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| | 12 Months | Total | Percent | |
|-------------------------------|-----------|-------------|---------|---|
| | Ending | Cap (000) | 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% | |
| Cascade Natural Gas Corp. | 9/30/2003 | \$255,490 | 46% | |
| EnergySouth, Inc. | 9/30/2003 | \$181,437 | 44% | |
| South Jersey Industries Inc. | 8/30/2003 | \$586,867 | 41% | |
| Atmos Energy Corp. | 8/30/2003 | \$1,721,435 | 39% | |
| AGL Resources Inc. | 9/30/2003 | \$2,038,700 | 35% | |
| Delta Natural Gas Company | 9/30/2003 | \$97,705 | 34% | |
| 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 | Allowed | |
| | Equity | ROE | Difference |
| 1995 | 8.50% Bla | ick box settle | ment in last rate case |
| 1996 | 11.30% Bla | ick box settle | ment in last rate case |
| 1997 | 5.80% Bla | ick box settle | ment 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% | 1 1.60% | -1.00% |
| 2003 | 8.60% | 11.60% | -3.00% |
| an | 9.16% | | |

Mean

Data Source:

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

Examples of the Impact of Leverage on Actual Return on Equity

Example 1

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

Assume \$2,000,000 shortfall in earnings

| Actual Return on Equity | | \$3,358,131 / \$42,865,046 |
|-------------------------|---|----------------------------|
| | = | 7.83% |

Example 2

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

Assume \$2,000,000 shortfall in earnings

| Actual Return on Equity | = | \$4,587,723 / \$52,701,780 |
|-------------------------|---|----------------------------|
| | = | 8.71% |

Example 3

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

Assume \$2,000,000 shortfall in earnings

| Actual Return on Equity | = | \$12,424,617 / \$115,396,935 |
|-------------------------|---|------------------------------|
| | = | 10.77% |



Exhibit MJB - 6 Henry Hub Index Prices



Figure 45. Henry Hub Monthly Index Prices

Source: <u>Balancing Natural Gas Policy: Fueling the Demands of a Growing Economy</u>, <u>Volume 1</u>, 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 | Р |
| Low Price During 2003 | 21 | Р |
| 5 Year Forecasted Earnings Growth | 0.065 | a |

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 | В | 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 Co | onstant Ma | aturity Rate. | |

- 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 Associatés, 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 | Ň |
| | | | 7 |

Risk Premium Calculation

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

Natural Gas Distribution Companies Ranked By Interest Coverage Summary of Edward Jones Report Exhibit AJB - 10

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| | 12 Months | Interest |
|-------------------------------|------------------|----------|
| | Ending | 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

Exhibit JB - 11

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

| | | | | | | High | | Low | | | | |
|-----------------------|------|---------------|------|--------|----|-------------|----|----------|-----------|----------|---------|--------|
| | | | | Growth | | Stock | | Stock | Size | | | |
| Company | Beta | Divi | dend | Rate | | Price | | Price | Premium | DCF High | DCF Low | CAPM |
| Data Source | - | ~ - | | - | | 4 -4 | | * | 61 | • | | |
| AGL | 0.75 | ф | 1.11 | 6.50% | \$ | 29.00 | φ | 21.90 | 0.91% | 11.57% | 10.33% | 11.41% |
| Atmos | 0.65 | ω | 1.20 | 7.50% | ស | 25.50 | ω | 20.80 | 0.91% | 13.27% | 12.21% | 10.69% |
| Cascade | 0.70 | ω | 0.96 | 4.50% | ф | 21.00 | ω | 18.00 | 4.01% | 9.83% | 9.07% | 14.15% |
| Energy South | 0.50 | ф | 1.14 | 4.50% | Ь | 37.14 | ω | 24.59 | 4.01% | 9,14% | 7.57% | 12.71% |
| Energy West | 0.40 | φ | 0.41 | -2.00% | Ф | 9.00 | Ś | 4.74 | 4.01% | 6.65% | 2.56% | 11.99% |
| Laclede | 0.70 | Ф | 1.34 | 5.00% | Ś | 29.90 | ω | 21.80 | 1.70% | 11.15% | 9.48% | 11.84% |
| New Jersey Resources | 0.70 | ŝ | 1.23 | 8.00% | Ь | 39.30 | ь | 30.00 | 0.91% | 12.10% | 11.13% | 11.05% |
| Northwest Natural Gas | 0.60 | Ф | 1.27 | 5.00% | Ś | 30.80 | ω | 24.00 | 1.70% | 10.29% | 9.12% | 11.12% |
| Peoples | 0.75 | \$ | 2.12 | 4.00% | Ś | 45.30 | ω | 34.90 | 0.91% | 10.07% | 8.68% | 11.41% |
| Piedmont | 0.70 | Ь | 1.66 | 7.50% | ⇔ | 41.80 | Ь | 33.20 | 0.91% | 12.50% | 11.47% | 11.05% |
| RGC | 0.50 | \$ | 1.14 | -1.50% | Ь | 20.75 | Ь | 16.99 | 4.01% | 5.21% | 3.99% | 12.71% |
| South Jersey | 0.55 | 63 | 1.56 | 6.50% | ŝ | 39.60 | ω | 30.50 | 1.70% | 11.61% | 10.44% | 10.76% |
| Southern Union | 0.90 | L | ione | | | | | | | | | |
| WGL Holdings | 0.70 | Ь | 1.28 | 4.00% | ф | 28.80 | \$ | 23.20 | 0.91% | 9.52% | 8.44% | 11.05% |
| | | | | | | | | Ï | iah Range | 13.27% | 12.21% | 14.15% |
| | | | | | | | | Ľ | ow Range | 5.21% | 2.56% | 10.69% |

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

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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 <u>Natural Gas</u> <u>Industry Summary Quarterly Financial & Common Stock Information</u>, 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

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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
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 underearning. In my testimony I stated that 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:

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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.

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RESPONSE:

The requested data is attached.

Responsible Witness:

Common Stock Information Sorted Alphabetically

1.1

Edward **Jones**

| | | | | | | | MO. VOL | 0/5 | | | | |
|------|--------------------------------|--------|--------|---------|---------|---------|----------------|--------|--------------|------------|-------|-------------|
| | | stock | FISCAL | MO. END | 52 WEEK | 52 WEEK | SHARES | SHARES | BOOK | | | MARKET |
| | DISTRIBUTION | SYMBOL | YEAR | PRICE* | HOH | row | (000) | (000) | VALUE | P/E | YIELD | TO BOOK |
| | AGL RESOURCES, INC. | ATG | 12/31 | 39.060 | 40.210 | 34.400 | 7.106 | 77.696 | 20.32 | 13.2 | 3.8 | 197 |
| 2 | ATMOS ENERGY CORPORATION | ATO | 06/60 | 31,360 | 33.090 | 25.550 | 9.253 | 87.240 | 20.16 | 15.7 | | 1 2 2 |
| ო | CASCADE NATURAL GAS CORP. | 000 | 06/60 | 26.040 | 26.300 | 18.950 | 619 | 11.507 | 10.61 | 23.9 | 10 | 245 |
| 4 | DELTA NATURAL GAS COMPANY INC. | DGAS | 06/30 | 24.910 | 26.820 | 24.110 | 46 | 3.261 | 15.70 | 14.5 | 6.4 | 159 |
| io i | ENERGY WEST | EWST | 06/30 | 11.450 | 12.000 | 8.700 | 4 3 | 2.947 | 6.37 | 12.4 | 4.2 | 180 |
| φı | ENERGYSOUTH, INC. | ENSI | 06/60 | 38.930 | 41.530 | 27.250 | 319 | 7,955 | 13.98 | 22.1 | 2.4 | 278 |
| - | LACLEDE GROUP (THE) | പ | 06/60 | 34.880 | 37.510 | 30.010 | 1.239 | 21,389 | 18.85 | 15.2 | 4 | 185 |
| æ | NEW JERSEY RESOURCES CORP. | NJR | 06/60 | 47.350 | 53.160 | 42.700 | 3.074 | 27,678 | 22.50 | 16.9 | 30 | 210 |
| თ | NORTHWEST NATURAL GAS COMPANY | NWN | 12/31 | 41.370 | 43.690 | 32.830 | 2.332 | 27.505 | 21.54 | 19.4 | 3.3 | 192 |
| ₽ | PEOPLES ENERGY CORPORATION | ЪGГ | 06/60 | 44.850 | 45.210 | 35.100 | 3.060 | 38.573 | 21.73 | 39.3 | 49 | 206 |
| Ŧ | PIEDMONT NATURAL GAS CO., INC. | γνq | 10/31 | 26.440 | 28.440 | 23.210 | 4.772 | 75.327 | 11.97 | 20.7 | 3.6 | 221 |
| 12 | RGC RESOURCES, INC. | RGCO | 06/60 | 25.200 | 28.140 | 22.720 | E4 | 2.149 | 18.84 | 16.4 | 4.8 | 134 |
| ξ | SEMCO ENERGY, INC. | SEN | 06/60 | 5,940 | 6.530 | 5.040 | 2.047 | 35.426 | 5.81 | 27.0 | 0.0 | 102 |
| 4 | SOUTH JERSEY INDUSTRIES, INC. | 2 | 12/31 | 33.210 | 34.260 | 25,630 | 1.925 | 29,279 | 14.80 | 20.0 | 2.7 | 224 |
| 5 | WGL HOLDINGS, INC. | MGL | 06/60 | 31.820 | 33.550 | 27.040 | 4,485 | 48,886 | 18.86 | 16.4 | 4.2 | 169 |
| | | | | | | | | | | | | |
| | | | | | | | | - | MAXIMUM | 39.3 | 49 | 278 |
| | | | | | | | | | Adiminal INA | 101 | | 1.5 |
| | | | | | | | | | MEDIAN | + 0 + 0 | 2 8 | 102 |
| | | | | | | | | | MEAN | 19.5 | 3.6 | 190 |
| | | | | | | | | | | | | |

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ITEM # 276 PAGE 1 **GF** 2

*Closing price on the last trading day of Dec-06

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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 | BOOK YIELD | INTEREST COVERAGE | |
|----|--------------------------------|------------------|--------------------|-------------------|----------------|------|------------|-------------|------------|-------|----------|---------------|----------------------|--|
| • | AGL RESOURCES, INC. | 90/06/60 | 3.252.000 | 441.000 | 49 | 2.97 | 30.3 | 1.48 | 19.4 | 15.2 | 30 | 7.3 | 4.29 | |
| 2 | ATMOS ENERGY CORPORATION | 90/06/60 | 3.828,460 | 385,602 | 43 | 2.00 | 16.3 | 1.26 | 1.6 | 9.1 | ខ | 6.2 | 2.77 | |
| (m | CASCADE NATURAL GAS CORP. | 90/30/06 | 287,250 | 8.000 | £ 3 | 1.09 | 32.9 | 0.96 | 0.0 | 10.4 | 88 | 9.0 | 2.60 | |
| 4 | DELTA NATURAL GAS COMPANY INC. | 90/30/06 | 109,995 | 15,772 | 47 | 1.72 | 0.0 | 1.22 | 1.7 | 10.1 | 11 | 7.8 | 2.56 | |
| S | ENERGY WEST | 90/06/60 | 36,276 | 3,991 | 52 | 0.92 | 22.7 | 0.48 | NMF | 15.5 | 52 | 7.5 | 2.91 | |
| G | ENERGYSOUTH, INC. | 90/06/60 | 188.245 | 10,919 | 59 | 1.76 | 1.1 | 0.92 | 7.0 | 13.1 | 52 | 6.6 | 5.08 | |
| ~ | LACLEDE GROUP (THE) | 90/06/60 | 798,865 | 207,459 | 8 | 2.30 | 21.1 | 1.42 | 2.9 | 12.7 | 62 | 7.5 | 2.85 | |
| 80 | NEW JERSEY RESOURCES CORP. | 90/06/60 | 953,994 | 284,439 | 65 | 2.80 | 5.7 | 1.44 | 5.9 | 14.8 | 51 | 6.4 | 5.71 | |
| თ | NORTHWEST NATURAL GAS COMPANY | 90/06/60 | 1,084,443 | 132,800 | 53 | 2.13 | 0.0 | 1.38 | 6.2 | 10.2 | <u>8</u> | 6.4 | 3.35 | |
| 6 | PEOPLES ENERGY CORPORATION | 90/06/60 | 1,736,156 | 309,744 | 48 | 1.14 | (41.8) | 2.18 | 0.0 | (2.2) | 191 | 10.0 | 0.25 | |
| ÷ | PIEDMONT NATURAL GAS CO., INC. | 07/31/06 | 1,727,021 | 102,500 | 52 | 1.28 | (3.0) | 0.96 | 4.3 | 10.9 | 75 | 8.0 | 3.63 | |
| 4 | RGC RESOURCES, INC. | 90/06/60 | 70,495 | 6,613 | 57 | 1.54 | 2.0 | 1.20 | 1.7 | 8.9 | 78 | 6.4 | 3.18 | |
| ų | SEMCO ENERGY, INC | 90/06/60 | 693,530 | 32,500 | ନ୍ତ | 0.22 | (31.3) | 0.00 | 0.0 | 4.8 | NMF | 0.0 | 1.42 | |
| 4 | SOUTH JERSEY INDUSTRIES, INC. | 90/06/60 | 791,191 | 177,947 | 55 | 1.66 | (6.9) | 0.90 | 5.9 | 11.9 | 5 | 6.1 | 4,18 | |
| 15 | WGL HOLDINGS, INC. | 90/02/60 | 1,471,760 | 95,630 | 63 | 1.94 | (10.2) | 1.35 | 1.5 | 9.7 | 20 | 7.2 | 4.12 | |
| | | | | | ; | | | | | 1 | | | , 7 1 | |
| | | | MAXIMUM | 441,000 | 83 | | 32.9 | | 19.4 | 15.5 | 181 | 10.0 | 5.71 | |
| | | | MINIMUM | 3,991 | ଚ୍ଚ | | (41.8) | | 0.0 | (2.2) | 6 | 0.0 | 0.25 | |
| | | | MEDIAN | 102,500 | 52 | | | | 2.3 | 10.4 | 8 | 7.2 | 3.18 | |
| | | | MEAN | 147,661 | 51 | | 2.4 | | 4.1 | 10.3 | 73 | 6.8 | 3.26 | |

page 10

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 <u>Natural Gas Industry Summary Quarterly</u> <u>Financial & Common Stock Information</u>, 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:

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:

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:

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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.

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:

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:

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:

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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:

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A copy of the page containing the data that I used in my analysis from the <u>Risk Premium Over</u> <u>Time Report : 2006</u> that is published by Ibbotson Associates is contained in Exhibit MJB-6 in my Direct Testimony.

Responsible Witness:

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 <u>The Value</u> <u>Line Investment Survey</u> - Sep. 15, 2006 and from <u>Risk Premium Over Time Report</u> : 2006, Ibbotson Associates, 2006. Copies of the <u>Value Line</u> data are contained in Exhibit MJB-16 in my Direct Testimony and a copy of the page containing the data from the <u>Risk Premium Over</u> <u>Time Report</u> : 2006 is contained in Exhibit MJB-6 in my Direct Testimony.

Responsible Witness:

Exhibit MJB-16 Page 1 of 15

| AG | LRE | SO | JRCI | ESN | (SE-AT | G | R P | ecent Rice | 35.9 | 7 P/E RATI | o 14 . | 2 (Traili Nedi | ing: 13.3 an: 14.0) | RELATIV P/E RATI | 6 0.8 | | 4.2 | 2% | /ALU LINE | Ę | |
|------------------------|-------------------------|------------------------|------------------------------|--------------------------|---------------------------|--------------------------|----------------------------|-------------------------------|---------------------------|-----------------------------|---------------------------------|---------------------------|-----------------------------|---------------------------------|--------------------------|-------------------------|-------------------------|------------------------|--------------------------|---------------------|----------------------|
| TIMELIN | ESS A | Lowered | 8/17/06 | High: Low: | 20.0 14.9 | 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 | | | Targe 2009 | t Price | Range |
| SAFETY | CAL 2 | New 7/2 | 7/90 | LEGE | ND8 15 x Divide | ands p sh | | ļ | | | | | | | | ļ | <u> </u> | ļ | | | 128 |
| BETA .S | 15 (1.00 - | Market) | 311/00 | 2-for-1 sp | stative Pric | e Strangth | | | | | | | | | | L | | | | | - 96 |
| 200 | 9-11 PR | OJECTIC | DNS DN ³ Total | Options: | Yes ansu Indic. | etes recess | ion | | | | and the second | | | | | | | | | | -64 |
| High | Price 50 (· | Gain H40%) | Return 12% | | | | | | | | | | <u> </u> | <u> </u> | | | | <u> </u> | | (****** | +48 |
| Low | 40 (| +10%) | 7% | | | | | | | | | | TIM | | 1447 | | | | 1 | | - 32 |
| 1.10100 | OND | JFM | ANJ | 1,111 | | in the second | 1444 ¹¹ 4441 | minut | Just | 1. HILLING | | e. dut. | a. | | | | | | 1 | | 16 |
| Options | 121 | 011 | 0000 | | | | | · | | , | | | | | | | | | 1 | | L12 |
| Institu | tional i | Decisio | ns | |] | | | | | | | <u> </u> | | | | | | * 10 | T. RETUR | N 8/06 Vl Arith | |
| to Buy | 109 | 1021006 | 20200 | Percent | 1 12 - 8 - | | | | | | | | | | | | | tyr. | 1.6 | 7.1 49.4 | F |
| Hid's(000) | 49186 | 45106 | 49525 | traded | 4 ~ | unulun | | uluulu | | | | | | | | | | 5 yr. | 111.0 | 70.4 | <u> -</u> |
| 22.58 | 20.26 | 20.43 | 22.73 | 23.59 | 1995 | 21.91 | 22.75 | 23.36 | 18.71 | 11.25 | 19.04 | 15.32 | 15.25 | 2004 | 34 98 | 35.55 | 36.10 | Revenue | E LINE PU La per sh | B., ING. A | 38.45 |
| 2.04 | 2.07 | 2.31 | 2.25 | 2.24 | 2.33 | 2.49 | 2.42 | 2.65 | 2.29 | 2.86 | 3.31 | 3 39 | 3.47 | 3.29 | 4.20 | 4.40 | 4.50 | "Cash F | low" per | uh | 4.85 |
| .98 | 1.04 | 1.13 | 1.04 | 1.17 | 1.33 | 1.37 | 1.37 | 1.41 | .91 1.08 | 1.08 | 1.50 | 1.62 | 1.11 | 1.15 | 2.48 | 2.65 | 2.70 | Earning Div'ds D | s per sh " leci'd per | sh C. | 2.95 1.75 |
| 2.73 | 2.95 | 2.74 | 2.49 | 2.37 | 2.17 | 2.37 | 2.59 | 2.05 | 2.51 | 2.92 | 2.83 | 3.30 | 2.46 | 3.44 | 3.44 | 2.80 | 3.10 | Cap'l Sp | ending p | ersh | 2.25 |
| 44.32 | 47.57 | 48.69 | 49.72 | 50.86 | 55.02 | 55.70 | 58.60 | 57.30 | 57.10 | 54.00 | 55.10 | 56.70 | 14.bb | 18.06 | 19.29 | 20.40 | 78.00 | Commo | nue per si n Sha Out | bst'g € | 24.90 78.30 |
| 14 2 | 15.3 | 15.5 | 17.9 | 15.1 | 12.6 | 13.8 | 14.7 or | 13.9 | 21.4 | 13.6 | 14.6 | 125 | 12.5 | 13.1 | 14.3 | Bold fig | res are | Avg An | TP/E Rat | o | 15.0 |
| 6.8% | 6.4% | 5.9% | 5.4% | .99 5.9% | 6.2% | .00 5.6% | 5.4% | 5.5% | 5.5% | 0.2% | 4.9% | 4.7% | 4.3% | .09 3.9% | 3.7% | wathr | atas | Avg Ann | P/E Ratio | leid | 7.00 4.0% |
| CAPITA | L STRU | CTURE | s of 6/30 | /06 | 011 | 1220.2 | 1287.6 | 1338.6 | 1068.6 | 607.4 | 1049.3 | 868.9 | 983.7 | 1832.0 | 2718.0 | 2770 | 2815 | Revenue | s (Smill) | * | 3010 |
| LT Debt | \$1632.0 | mill. | T Interes | t \$100.0 | mill. | 75.6 38.6% | 76.6 | 32.5% | 52.1 33.1% | 34.3% | 40.7% | 36.0% | 132.4 | 153.0 37.0% | 193.0 | 205 | 210 | Net Prof | it (Smill) Tax Rate | | 230 |
| (Total in | terest co | vəragə; 4 | 4.4x} | | | 6.2% | 5.9% | 6.0% | 4.9% | 11.7% | 7.8% | 11.9% | 13.5% | 8.4% | 7.1% | 7.5% | 7.5% | Net Prof | it Margin | | 7.7% |
| Lenses, | Uncapi | telized A | ກກບal ren | tals \$27.0 |) mill. | 46.2% 48.9% | 48.7% 45.9% | 47.1% | 45.3% 49.2% | 45.9% 48.3% | 61.3% 38.7% | 58.3% | 50.3% 49.7% | 54.0% 46.0% | 51.9% 48.1% | 51.0% 49.0% | 50.0% 50.0% | Long-Te Commo | rm Debi R 1 Equity R | latio | 48.5% 51.5% |
| Pensior | Assets | -12/05 \$ | 371.0 mil Oł |). 2110. 5 464 | .0 mill. | 1201.3 | 1356.4 | 1388.4 | 1345.8 | 1286.2 | 1736.3 | 1704.3 | 1901.4 | 3008.0 | 3114.0 | 3225 | 3310 | Total Ca | pltal (\$mi | 1) | 3775 |
| Pfd Stor | ck None n Stock | 77 878 9 | 190 ohe | | | 8.0% | 7.3% | 7.6% | 5.7% | 1637.5 | 6.5% | 8.1% | 8.9% | 31/8.0 6.3% | 7.9% | 3350 | 3450 8.0% | Net Plan Return o | t (\$mill) n Total C: | l'ai | 3750 |
| as of 7/3 | 1/06 | 11,010,0 | ×00 0413. | | | 11.7% | 11.0% | 11.1% | 7.1% | 10.2% | 12.3% | 14.5% | 14.0% | 11.0% | 12.9% | 13.0% | 12.5% | Return o | n Shr. Eq | ulty | 12.0% |
| MARKE | T CAP: | \$2.8 billi | on (Mid C | ap) | | 3.8% | 3.2% | 4.4% | NMF | 3.2% | 4.2% | 7.0% | 6.6% | 5.6% | 6.2% | 5.5% | 5.5% | Retained | lo Com E | a l | 5.0% |
| CURRE | NT POSI .L.) | TION | 2004 | 2005 | 8/30/08 | 71% | 74% | 64% | 101% | 72% | 65% | 52% | 53% | 49% | 52% | 57% | 58% | All Div'd | s to Net P | rof | 59% |
| Other | sseis | 14 | 49.0 | 30.0 | 37.0 1471.0 | AUSINI ny. Its | ess: AG distributio | t. Resou m subsid | ces, Inc. isries are | is a pub Alianta | Gas Lig | hoiding (ht, Chatta | compa- anooga | propane markets | . Nonreg natural g | ulated su pas at ret | ibsidiarie ail. Acq. | s: Georg Virginia I | ia Natura Natural G | IGas So as. 10/0 | ervices : 0. Sold |
| Accts P | Assets ayable | 14 | 157.0 2 207.0 2 | 032.0 264.0 | 1508.0 566.0 | Gas, ar | nd Virgini stomers | a Naturai in Geor | Gas. Th | e utilities narity Afi | have m | ore than (Arninia | 2.2 mil- | Ublipro, Sacha F | 3/01. O | i Jdir. ow Momen | n leas ti sov∠ /a// | nan 1.09 | of com | mon; Ge | oldman |
| Other | 10 | 300 | 34.0 36.0 1 | 522 0 153.0 | 455.0 329.0 | souther | n Tenne | ssee. Al | so engaç | ped in n | onregula | led natur | al gas | Somerhu | alder II. I | nc.: GA. | Addr.: 1 | 0 Peach | ree Plac | 9 N.E., / | Manta, |
| Current | Liab. 1. Cov. | 14 | 177.0 11 10% 4 | 939.0 | 1350.0 | ACI | Roc Roc | oturce | ed servi | 111+1 | huch | ales and | retails | GA 3030 | 9. Tel.: 4 | 104-584- | 1000. Inti | ernet: ww | w.agiresi | Durces.ci | om. |
| ANNUA | RATE | S Past | Pas | t Est'd | '03-'05 | form | ied | well | desp | oite | warn | ner-th | ian- | increa | ase w | /ith t | he Te | nness | see R | egula | tory |
| Revenu | (per sn) BS Tour" | 1.0 | % 7.(| 1. 101 0% 7 | 7.5% | norn tion | nalt bvc | empe | ratur ners. | r es a Earn | nd c ings | onsei before | rva- | Auth | ority (perati | | er risi nd lo | ing co | sts of | finan | cing |
| Earning | s S | 5.0 6.5 | % 13. % 13. | 5% 4 | 5% | teres | tan | d tax | es ir | icreas | ed \$ | 7 mil | llion | natur | al ga | s. The | e prop | iosal I | nclud | es a | plan |
| Book Va | alue | 5.5 | % 8. | 5% (| 5.0% | milli | is the | year- | agop e in | eriod, opera | drive | expen | a \$6 Ises. | to be by ac | tter a liustii | lign it ng rat | is inte res an | rest v | with c v basi | uston ed on | iers, |
| Cal- endar | QUART Mar.31 | ERLY REV Jun.30 | /ENUES (\$ Sep.30 | mill.)∧ Dec.31 | Full Year | This | can b | e attr | ibute | d to la | ist ye | ar's w | ork- | tual o | onsu | nption | n vers | us an | assur | ned le | evel. |
| 2003 | 352.5 | 186.6 | 166.3 | 278.3 | 983.7 | Also, | opera | ation | and m | ainte | nance | expe | nses | not a | ll, of | the ra | nooga ate in | creaso | receiv e, whi | e som ch sh | ould |
| 2004 | 908.0 | 294.0 430.0 | 262.0 387.0 | 625.0 993.0 | 1832.0 2718.0 | per of tion | custon segme | ner ti ent de | rougl | hout A ed 9% | AGL's | distr. | ibu- first | provi | de a b | oost t | | nings. | Inffa | F607 | Te |
| 2006 | 047.0 970 | 436.0 480 | 405 465 | 882 900 | 2770 2815 | six n | nonths | of 20 | 06. H | oweve | r, the | se res | ults | land | stor | age 1 | acili | y ha | s hit | ar | oad |
| Cal- | EAJ | ININGS PE | R SHARE | AB | Full | Sout | olisei hStar, | t by a which | lacki h mar | uster kets r | perior | rmanc 1 gas | e at and | block | c. In a vent o | early . f Nati | Augus ural F | it, the lesour | Ces te | siana rmin: | De- ated |
| endar 2003 | Mar.31 98 | Jun.30 29 | Sep.30 27 | Dec.31 | Year 2.08 | relat | ed ser | rvices | to re | tail cu | istom | ers or | alse | the c | ompa | ny's r | niner | al lea | se du | e to | the |
| 2004 | 1.00 | .33 | .31 | .64 | 2.28 | impa | cted | by lo | wer o | custon | her u | sage | and | minir | ig act | asenc ivity c | on the | site | is and for si | c mor | ths, |
| 2005 | 1.41 | .30 | .19 | .65 72 | 2.48 2.65 | highe | er bad Inia | l debt Natur | expen | ise. as A | /NG) | has | ac- | Even | so, tl | ne con g the | npany | rem: | ains c | ommi | tted |
| 2007 | 7.30 | .37 TERLY NN | .29 DENDS DA | .74 | 2.70 | cept | ed a | modi | fied | perfo | rman | ce-ba | sed | proje | t co | mplet | ed, v | which | will | incre | ease |
| endar | Mar.31 | Jun.30 | Sep.30 | Dec.31 | Year | freez | pian eits | . As p base | rates | for f | ueal, Ive y | ears; | will con- | worki This | ng ga neu | s capa itrall | icity, a y ra | along Inked | with sto | reveni ck | ues. has |
| 2002 2003 | .27 .27 | .27 .28 | .27 28 | .27 .28 | 1.08 | struc and | t a p south | ipelin ern sy | e to (| connee | ct its ich i< | north | nern cted | wort | hwhi | le to | tal dis | retur | n p | otent | ial, |
| 2004 | .28 | .29 | 29 | .29 37 | 1.15 | to co | st ab | out \$ | 48 mi | llion | to \$6 | 0 mil | lion; | pects. | The | good | -quali | lty sh | ares | are | safe |
| 2006 | .37 | .37 | .37 | .57 | 1.30 | and weat | viil be her n | e allov ormal | ved to izatio | n pla | orap n. Al | ermai so, Ci | nent hat- | and s Evan | teady, <i>I. Bl=</i> | but r atter | ot ov | erly ei Sen | nticing | g. r 15 | 2006 |
| (A) Fiscal | year en | ds Decer | mber 31st | . Ended | \$0.13 | 3; 01, \$0. | 13; '03, c | 1\$0.07. N | ext earni | ngs a | vailable | | | | | Corr | ipany's I | Inancial | Strengt | 1 | B++ |
| Septembe (B) Dilute | d earnin | nor to 20 os per si | nare. Excl. | nonrecu | r- (C) D | i due late lividends | Oct. historical | ly paid e | arty Marc | h, \$ | D) Includ 5.43/sha | es intang re. | ibles in : | 2005: \$42 | 22 million | Stoc | k's Price Growth | Stabilit Persist | y ence | | 95 70 |
| © 2006, Va | lue Line I | Publishing | 1.03; 99, Inc. All ng | au.39; 0 | o, j June ed. Factural | , cept, ar material k | ici LIOC. II s obtained | trom sour | nvest. pla zes believe | sn:](stito,betne | ⊭jin mili ≣able and | ions, adji Is provido | isted for : d without y | stock spil varianties (| L af any king | Earn | ings Pro | dictabili | ty I | | 75 |
| of it may be | HELLO IO I | d, resold, s | Lored or tran | Smitted in a | iny printed. | electronic o | ris Here Fother form | sri. Inis pu 1. or used fi | cacason is x generatin | sencey for : g or market | subscriber ing any priv | sown, non wed or elect | -commercia tranic public | il, internal (ation, servio | ise. No pa a or produ | 10 S | uoser | we ca | n 1-80 | 0-833- | 0046. |

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Exhibit MJB-16 Page 2 of 15

| ATMOS ENERG | YCC |)RP. | NYSE | ATO | recent Price | 28.3 | 36 P/E RAI | ю 15 | .6 (Trail Mec | ling: 18.3 fian: 16.0 | RELATI P/E RAT | E 0.9 | 2 DIVIL | 4. | 5% | | Ε | |
|---|---------------------------|---------------------------------|---------------------------|------------------------|----------------------|--------------------------|-----------------------|------------------------|-------------------|--------------------------|------------------------|------------------|-------------------|------------------|-------------------------|-------------------------|-----------------------|----------------|
| TIMELINESS 3 Raised 7/28/06 | High: Low: | 23.0 16.1 | 31.0 | 30 | 32.3 | 33.0 19.6 | 28.3 | 25.8 | 24.5 | 25.5 | 27.6 | 30.0 | 29.3 | T | | Targe | Price | Range |
| TECHNICAL 2 Raised 12/15/05 | LEGE | NDS 25 X Divid vided by 1 | iends p sh | , lµ | <u> </u> | | 1 | CO-WE | | | | 1.0.0 | 20.0 | | | 2009 | 2010 | 2011 |
| BETA 75 (1.00 - Market) | 3-for-2 3 | olative Prk plin 5/94 | ce Strengt | Ë | <u> </u> | | | 1 | | | | | ļ | | | | | 48 |
| 2009-11 PROJECTIONS Ann'l Total | Studed | NO Area India | Altos racos | sion | | 1. | | 5-4) 8-6- | | | <u> </u> | | | | 1 | | | ±32 |
| Price Gain Return 18gh 35 (+25%) 10% | anna anna | | 14 4 - | | | 1. Hermont | 1 July | 1111 | pr que | 1.,111,111 | 1 Interior | 1.1p 1 | | 1 | <u> </u> | | | ±20 |
| Insider Decisions | | | | | | ····· | f"# | | | - | <u> </u> | | | | 1 | | | + 16 |
| 0 N D J F M A M J toBuy 0 1 0 0 0 0 0 0 0 | | | | \vdash | ļ | | | 100 | - | - | | | | | | | | |
| bil 101000101 | | | t | ┼─╂╴ | + | | | | | | | | F | | | DE DE DE DE | N alac | -6 |
| 402105 102006 202006 | Percent | 12 - | | | | | 1 | | | | | | | | 310 | THIS T | n 5/06 A. Arith. | |
| 10 541 93 89 102 10 541 91 84 67 10 10 10 10 10 10 10 10 10 10 10 10 10 1 | ahares bebari | 8 - | | | | 111 | 1111 | | | Induted | | thul. utt. | 11.11.1 | | 1 yr. 3 yr. | 2.0 38.1 | 7.1 | - |
| Atmos Energy's history d | atos be | ack to | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | S yr. VALUE | 70.4 | 70.4 | 9-11 |
| years, through various merge | ale. Ov ers. it be | er the ecame | 30.19 | 30.59 | 27 90 | 22.09 | 26.61 | 35.36 | 22.82 | 54.39 | 46 50 | 61.75 | 76.60 | 79.75 | Revenue | s per sh | | 105.00 |
| part of Pioneer Corporation, | and, in | 1981, | 1.51 | 1.34 | 184 | .81 | 1.03 | 1.47 | 1.45 | 3.23 | 2.91 | 3.90 1.72 | 4.05 | 4.30 1.95 | "Cash Fk Eamings | ow" pers | h | 5.30 2.50 |
| Energas. In 1983, Pioner | er orga | ivision anized | .96 4.84 | 1.01 | 1.06 | 1.10 | 1.14 | 1.18 | 1.18 | 1.20 | 1.22 | 1.24 | 1.26 | 1.28 | Div de De | cl'd per s | h C. | 1.35 |
| Energas as a separate subsidition to the outstanding share | diary an | nd dis- | 10.75 | 11.04 | 12.21 | 12.09 | 12.28 | 14.31 | 13.75 | 16.66 | 18.05 | 19.90 | 20.45 | 21.50 | Book Val | inaing pe us par sh | ran | 7.30 24.10 |
| to Pioneer shareholders. Ene | rgas ch | anged | 16.02 | 29.64 | 30.40 | 31.25 | 31.95 | 40.79 | 41.68 | 51.48 | 62.80 | B0.54 | \$2.00 | 84.00 | Common | Sha Outa | ťgo | 100.00 |
| its name to Atmos in 1988. At Trans Louisiana Gas in 1986 | mos ac | quired | .95 | 1.03 | .80 | 1.88 | 1.23 | .80 | .83 | .76 | .84 | .84 | Bold fig Value | Line | Avg Ann Relative F | P/E Ratio | • | 13.0 .85 |
| tucky Gas Utility in 1987, Gr | eeley (| Sas in | 483.7 | 4.27e | 3./% | 600.2 | 5.9% | 5.1% | 5.4% | 5.2% | 4.9% | 4.5% | 08(97) | 1785 | Avg Ann'l | Div'd Yk | id | 4.2% |
| 1993, United Cities Gas in 199 | 7, and c | thers. | 23.9 | 39.2 | 55.3 | 25.0 | 32.2 | 56.1 | 59.7 | 79.5 | 2920.0 B6.2 | 4973.3 | 6280 150 | 6700 165 | Revenues Net Profit | • (\$mBl) ^ (\$mIII) | | 10500 |
| Total Debt \$2481.2 mil. Due in 5 Yi | 06 1 8 \$ 860.0 | miß. | 35.7% | 37.5% 4.3% | 36.5% 6.5% | 35.0% | 36.1% | 37.3% | 37.1% | 37.1% | 37.4% | 37.7% | 37.5% | 37.5% | Income Ta | x Rate | | 38.0% |
| (LT interest earned: 2 7x; total interest | i \$135.0 r Isl | nill. | 41.5% | 48.1% | 51.8% | 50.0% | 48.1% | 54.3% | 53.9% | 50.2% | 43.2% | 57.7% | 57.0% | 2.5% | Net Profit Long-Terr | Margin n Debi Ra | rtio | 2.3% |
| coverage: 2.6x) Leases, Uncapitalized Annual rents | ais \$1 5.3 | mið | 294.6 | 51.9% 630.2 | 48.2% | 50.0% | 51.9% | 45.7% | 46.1% | 49.8% | 56.8% | 42.3% | 43.0% | 43.0% | Common | Equity Ra | tio | 45.0% |
| Pid Stock None Pension Assets 9/05 \$355.0 mill | Oblin | 1250 0 | 413.6 | 849.1 | 917.9 | 965.8 | 982.3 | 1335.4 | 1300.3 | 1516.0 | 1722.5 | 3765.5 | 3500 | 4200 | iotal Capi Net Plant | ital (Smili) (Smili) | | 5350 5000 |
| mil. | obilg. | 305.9 | 10.6% | 8.3% | 9.0% | 5.1% 6.6% | 6.5% | 5.9% | 6.8% | 6.2% | 5.8% | 5.3% | 5.5% | 5.5% | Return on | Total Ca | r | 6.5% |
| as of 7/31/06 | | ļ | 13.9% | 12.0% | 14.9% | 6.6% | 8.2% | 9.6% | 10.4% | 9.3% | 7.6% | 0.5% 8.5% | 9.0% | 9.0% | Return on Return on | Shr. Equ Com Equ | ity i | 10.5% 10.5% |
| CURRENT POSITION 2004 | 10) 2005 6. | 130/08 | 5.1% 64% | 3.9% 67% | 5.3% 58% | NMF | NMF 112X | 2.1% | 1.9% | 2.8% | 1.7% | 2.3% | 3.0% | 3.0% | Retained t | o Com Ec | | 5.0% |
| (\$MILL) Cash Assets 201.9 | 40.1 | 26.8 | BUSINE | SS: Aim | ios Energ | y Corpor | ation is a | ingaged | primarily | In the | dential; | 31%, cox | mmercial | 10% | ndustrial: | and 4% | other | 2005 |
| Current Assets 677.1 12 | 24.3 <u>1</u> 64.4 1 | 023.4 | aistribut seven n | on and ogulated | natural g | iatural g ias utility | as lo 3. ′operatio | 2 million ons: Loui | Custome | rs via vision | deprecial directors | ion rate | 3.7%. Ha | a around | 4,330 er | nployees | Officer | s and |
| Accts Payable 185.3 4 Debt Due 5.9 1 | 61.3 48.1 | 306.8 300.4 | Mid-Stat sippi Di | es Divisi vision. (| on, West okrado-K | Texas D | ivision, h | hid-Tex D | ivision, N | lissis- | Chaimar | and (| Chief Ex | ecutive | Officer: | Robert | N. Best | 1. In- |
| Current Liab. 223.3 50 Current Liab. 414.5 11 | 03.4 12.8 1 | 407.6 | Combine | d 2005 | gas volu | mes: 296 | MMcf. | Breakdo | wn: 55% | 198- | 75265. T | elephone | 972-934 | 1-9227. I | . Box 6: Nemet w | жи.atmor | allas, T senergy.(| com. |
| Fix. Chg. Cov. 384% 39 ANNUAL RATES Part Part | 35% 4 | 100% | It ap | pear | s that share | Atn | ios E | nerg | y's ea | rn- | 90% c | of the | utilit | y's ma | rgins | are p | rotec | ted |
| of change (per sh) 10 Yrs. 5 Yrs. Revenues 6.0% 16.5 | to '04 | | to \$1 | .80, 1 | n fisc | al 20 | 06 (e | nds S | eptem | ber | versu | s abou | er-nor ut 339 | maliz: 6 prev | ation dously | adju). | stmer | nts |
| "Cash Flow" 3.5% 2.0 Earnings 4.0% 6.5 | 8. | 0% | mark | eting | segme | e non nt be | -utilit nefite | y divi d gre | isìon, atlv fr | the i | Atmo if m | s lool easur | ks po red | ised t | to reg | ister | stead | dy, |
| Dividends 3.0% 2.09 Book Value 6.5% 8.59 | 2 | 0% | strate | gies | to cap | ture | favor | able | arbitr | age (| over | the | 2009- | 2011 | perio | od. W | lith t | the |
| Fiscal QUARTERLY REVENUES (\$ m | IIL) ^ | Full | But t | he pe | erform | ance | of the | utili | ty ope | ity, i era- d | custon | divis ners a | sion i cross | now s 12 sta | serving ates, ti | g 3.2 be.com | milli | ion |
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| 2007 1675 1675 1675 16 Fiscal FARNINGS PER SHARE A B | 75 6 | 700 Full | units base) | Also | nt for | over | 60% u | f the | custor | ner t | ion, s | hare | net o | ught | to gro | w aro | und 8 | 8% |
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| cal- QUARTERLY DIVIDENDS PAID ndar Mar.31 Jun.30 Sep.30 D | ec.31 | Full Year | to not be eff | e tha ective | t weat for tl | her-ni he Mi | ormal d-Tex | ized r | ates v | vill E | But lo | ng-te | rm to | tal-r | eturn | pote | ntial | is |
| 2002 295 295 295 | 30 | 1.19 | | g Oc | tober | lst. M | loreov | cr, a | rate | de-p | ussibi | lities | are li | as c | apital at the | appro | eciatio ent qu | on 10- |
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| 2006, Value Line Publishing, Inc. All rights | in early reserved. | (E) Qbr Factural m | s may n atartal k d | kaddd blainet fr | ue to cha | inge in s | ihn e | Ma and lo | | | | | Eamin | gs Pred) | ctability | | 3 | 5 |

00, 122 ° 30, 3074°. Not egs. Tpl. due early [0] international point and poi ny kind. No part

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Exhibit MJB-16 Page 3 of 15

| CASCADE NAT'L (| GAS NY | SE-CG | C P | ECENT | 25.5 | 5 PÆ RATI | o 23. | 2(Inii Medi | ing: 23.0 ian: 18.0) | RELATIV P/E RAT | E 1.3 | 6 DIV'D | 3.8 | 3% V | | E | |
|---|--|---------------------------|----------------|-------------------------|----------------------|----------------------|-------------------------|-----------------------|-------------------------|--------------------|--|-------------------|------------------------|--------------------------|--|----------------------------|------------------|
| TIMELINESS - Suspended 7/21/06 | gh: 17.5 wr. 13.0 | 17.5 13.4 | 19.0 15.3 | 18.7 14.6 | 19.8 14.4 | 20.9 | 22.B 17.4 | 24.2 15.5 | 22.0 18.0 | 23.0 19.1 | 22.8 18.0 | 26.3 19.0 | | | Targe 2009 | t Price | Range |
| SAFETY 3 New 7/27/90 LE | GENDS | ends p sh | \square | ļ | ļ | ļ | 1.50 | | L | | | | | | 2005 | 2010 | -64 |
| BETA 85 (1.00 - Market) 3-for | Relative Pric | a Strength | Ľ | | <u> </u> | <u> </u> | | | | | <u> </u> | | | | | <u> </u> | +48 +40 |
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| High 30 (+15%) 7% | | | | | Turn | Hart | | ret phys | | 111111 | in line | - I - | | | | | + 20 |
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| 1990 1991 1992 1993 19 | 94 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | OVALUE | LINE PU | B., INC. | 60-11 |
| 24.45 23.27 20.03 21.88 21 2.36 2.29 1.66 2.04 1 | 59 19.98 | 11.84 | 17.85 | 17.17 | 18.89 | 21.90 | 30.40 | 29.06 | 27.20 | 28.23 | 28.61 | 40.45 | 44.80 2.85 | Revenue "Cash Fi | s per sh- ow" per s | A th | 64.00 4.00 |
| 1.26 1.14 .63 1.05 | .60 .80 | .39 | .93 | .84 | 1.24 | 1.39 | 1.47 | 1.13 | .87 | 1.19 | .82 | 1.10 | 1.20 | Earnings | per sh A | в | 1.60 |
| 250 297 4.64 3.85 3 | .96 .96 | 2.42 | .96 2.66 | 2.32 | .96 1.81 | .96 1.65 | .95 | 1.96 | 2.56 | .96 3.50 | 2.53 | .95 1.90 | .95 | Divids D Cap'l Spi | eci'd per ending pi | sh ^c m Br sh | 4.10 |
| 8.33 8.63 9.09 9.96 9 | .81 9.76 | 10.09 | 10.16 | 10.07 | 10.36 | 10.79 | 11.01 | 10.34 | 10.11 | 10.52 | 10.39 | 11.65 | 13.30 | Book Val | ue per si | h D | 18.05 |
| 8.9 12.2 23.7 16.6 2 | 5.7 18.2 | 40.0 | 17.6 | 19.4 | 13.7 | 11.00 | 13.4 | 18.2 | 22.0 | 17.5 | 25.1 | Bald fig | 11,00 | Avg Ann | IP/E Rat | io | 16.5 |
| .66 .78 1.44 .98 1 7.8% 6.4% 6.2% 5.4% 6. | .69 1.22 2% 0.6% | 2.51 | 1.01 | 1.01 | .78 5.7% | .76 | .69 4.9% | .99 | 1.25 | .92 4.6% | 1.34 | Value estin | Line stes | Relative Ava Ann | P/E Railo 1 Divid Yi | ald | 1.10 |
| CAPITAL STRUCTURE as of 6/30/05 | | 127.7 | 195.8 | 189.7 | 208.8 | 241.9 | 335.8 | 321.0 | 302.8 | 318.1 | 326.5 | 485 | 515 | Revenue | s (\$mili) - | A | 800 |
| Total Debt \$173.3 mill. Due in 5 Yrs \$ | 20.5 mill. 10 mill | 34.8% | 37.1% | 37.4% | 36.5% | 37.1% | 35.0% | 34.9% | 34.2% | 36.2% | 37.9% | 37.5% | 37.5% | Income T | ax Rate | | 38.0% |
| (LT interest earned: 2.3x; total interest | | 3.3% | 5.4% | 5.2% | 6.8% | 51.2% | 4.8% | 3.9% | 3.2% | 4.2% | 2.8% | 2.7% | 2.7% | Net Profit | t Nargin | Patio | 2.5% |
| Coverage. 2.0x) | | 50.0% | 46.5% | 48.7% | 46.6% | 48.8% | 49.3% | 40.9% | 44.1% | 47.9% | 40.6% | 44.0% | 45.0% | Common | Equity R | latio | 48.0% |
| Pension Assets-9/05 \$58.5 mill. Oblig. | \$71.7 mil), | 217.8 | 239.4 | 228.5 | 245.6 | 244.2 | 246.6 | 279.1 | 255.5 | 247.4 | 292.5 | 305 | 340 | Total Cap | oltal (Smi (Smili) | ព្ | 470 |
| Pfd Stock None | | 3.4% | 6.2% | 6.1% | 7.5% | 8.1% | 8.5% | 6.4% | 6.0% | 7.7% | 5.0% | 8.0% | 5.5% | Return of | n Total C | ap'i | 6.0% |
| Common Stock 11,505,996 shs. | | 3.5% | 9.0% | 8.3% | 12.0% | 12.9% | 13.3% | 10.9% | 8.6% | 11.2% | 7.8% 7.8% | 9.5% 9.5% | 9.0% 9.0% | Return or Return or | n Shr. Eq n Com Ec | ulty zuity | 9.0% 9.0% |
| as of 7/31/06 MARKET CAP: \$300 million (Small Ca | p) | NMF | .7% | NMF 109W | 27% | 4.0% | 4.6% | 1.7% | NMF | 2.1% | NMF | 1.0% | 2.0% | Retained | to Com I | Eq | J.5% |
| CURRENT POSITIONA 2004 200 (SMILL) | 5 6/30/06 | BUSIN | ESS: CB | scade N | stural Ga | is Corpo | ration dis | tributes | natural | ens, oil | refining. | and food | process | inds. M | ain conn | ecting p | ipeline: |
| Cash Assets .5 1. Other 65.9 141. | 1 22.4 57.9 | gas to 2005 | roughly | 237,000 | CUSIOME | s in Wa 2 hillion | shington | and Ore | gon. In | Northwe | st Pipelin | e Corp. | 05 depre | oc. rate: 2 | .9%. Est | d plant | 3ge: 12 |
| Current Assets 66.4 142. Accts Payable 12.9 17 | 80.3 | residen | tial, com | mercial, | firm indu | strial, Int | emuptible | (71% o | f oper. | com. (1 | 2/05 pro: | xy). Pres | ident an | d Chief E | xecutive | Officer: | David |
| Debi Due 47.5 12 Other 38.6 111. | 5 8.0 43.8 | service | (29%, 7 | 6%). Ser | ves pulp | & paper | noosona , plywoox | i, banspo I, chem. | lertiliz- | WA 981 | ons. nc. 09. Tel.: | 206-624- | 3900. Int | emet: ww | ew Ave. w.cngc.c | Norin, : 2011. | 508th 0 , |
| Current Liab. 99.0 142. Fix. Chg. Cov. 269% 2259 | 2 67.0 235% | Case | cade | Natu | al G | as Co | rpora | ation | has | cost s | aving | s com | e to t | he for | 3. 14 oko | | |
| ANNUAL RATES Past Past E | st'd '03-'05 | sour | ces (| Group | , a di | versif | led er | hergy | firm | ings | have | bour | iced | back | cons | idera | irn- ibly |
| Revenues 3.0% 7.5% | 15.0% | with billic | 2005 m. Ur | rever nder t | nues o he te | f app: rms_0 | roxim f the | stely | \$3.5 mil- | in fi The r | scal i esider | 2006 ntial a | (ends | Sept | temb | er 30 egmei | th). |
| Earnings 1.5% 3.5% Dividends | 9.0% | lion | transa | action | whic | h rep | resent | led a | 23% | enjoy | ing a | n exp | andeo | i cust | omer | base | , as |
| Book Value .5% | 10.0% | befor | e the | anno | uncer | nent, | Casca | .оск р ade st | orice | colde | as ind r wea | crease ather). | a con . Wh | at's n | uon (nore, | reflec man | ung age- |
| Year Ends Dec.31 Mar.31 Jun.30 Sep | .30 Fiscal Year | hold each | ers w | ould share | receiv e. Per | e \$26 Iding | .50 In Casca | i cash ide sh | for are- | ment | conti s unc | nues ler co | to su ntrol | cceed As su | at ke | eping | ex- |
| 2003 100.5 109.3 53.8 39 2004 104.9 119.4 52.1 41 | 2 302.8 | hold | er app | proval | and | other | condi | tions, | the | pears | that | share | net | will ju | mp al | bout | 34%, |
| 2005 104.6 117.7 56.3 47 | 9 326.5 | Note | that | our p | resen | tation | for t | ma-z | npa- | in op | eratir | i lisca ig ma | rgins | o. Fur ought | ther e | expan nable | the |
| 2007 161 166 100 88 | 0 515 | ny w time | rill be | onas | stand- | alone | basis | until | that | botto \$1.20 | m lin a s | e to hare | adva | nce a | round | 1 9% scade | , to |
| Fiscal EARNINGS PER SHARE A B Year Dec.31 Mar.31 Jun.30 Sep | .30 Full Fiscal Year | The | utili Fs tu | ty ou | ight | to fi | t nic | ely v Aonta | with | await | ing t | he ou | tcome | e of a | rate | -hike | re- |
| 2003 60 67 d.18 d.1 2004 72 79 d.05 d.1 | 2 .87 | Dak | ota U | tilitie | s and | d Gre | at Pl | ains l | Nat- | nual | reven | ues o | f \$11 | .7 mil | lion, | from | the |
| 2005 .59 .65 d.10 d.3 | 2 .82 | ural custo | Gas mers | , whi in fi | ch se ve ur | rve re per N | oughly ⁄lidwe | 7 250 st sta | ,000 ates. | Wash | ingtor | n Util n.) | itles | and | Tans | porta | tion |
| 2007 .73 .75 d.08 d.1 | 9 1.10 0 1.20 | comb | ined. | More | over, | it app | ears t | hat N | IDU | The | Time | elínes | s ra | nk is | sus | penc | led. |
| Cal- QUARTERLY DIMDENDS PAID C | Full | reach | n eve | n grea | ater h | reight | s. We | estin | nate | merg | er, rat | ther t | han e | arning | gs, ar | e driv | ving |
| 2002 .24 .24 .24 .24 .24 | 4 .96 | that MDU | the J's ear | purch | in 20 | vould)07 ar | be n nd 200 | ieutra)8, du | i to ie to | the seems | shares 5 reas | onable | forma e, but | nce. the d | The presented and the presented of the p | orice ould f | tag nave |
| 2003 24 24 24 24 24 24 24 24 24 24 24 24 24 | 4 .96 | Integ | ration | 1 costs | s. But | accre | tion t | o the | bot- | been | sweet | er if i | t had | conta | ined | an op | tion |
| 2005 .24 .24 .24 .2 2008 .24 .24 .24 .2 | 4 .96 | after | , base | d part | tly on | oura | ssum | ption | that | Frede | erick L | . Har | ris, Il | I Sept | tembe | зюск r 15, | 2006 |
| (A) Cel. yr. thru. 12/95. Changed to 9/30 yr. in '96. (B) Primary egs. thru. '97, then | fiscal '02. add | (16¢); '03 to total di | , (5¢); O | 3 '06, 4¢. nding. Ne | 04 ogs xl egs. rj | don'i h | est. plan D) Incl. d | avall. Ieferred c | harges. | in '05: \$6 | 8.0 mill., | Con Stoc | ipany's I k's Prici | Financial Stability | Strengt | h | B+ 80 |
| '93, 34; '96, (114); '98, (24); '99, (14); '01 | ,9¢; 1810 | UCL (C) [No of Feb | , May, A | ug., Nov. | ⊪Divid n ≇Divid n | nune (1 sin+ | 5.96/sh. | (E) in mi | w., adj. fo | r su, spi | ı. | Pric | a Growth | o Persiste dictabilit | ince ly | | 50 70 |

diluted. Excl. nonrec. gains (losses): '91, 194; |ale Oct. (C) Dividends historically paid in the \$5.98/sh. (E) In mill., adj. for stk. split. '93, 34; '96, (118); '99, (24); '99, (14); '01, 95; |middle of Feb., May, Aug., Nov. #DNd rein-* 2006; 'Abe time Publishing. In: Al robus reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR CARSSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. Rc of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or matering any printed or electronic publication, service or publication.

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. . .

| DELTA NAT, GAS | NDQ-DGA | s | RE | CENT 25. | 26 TRAILIN P/E RAT | 6 16.1 PM | LATIVE 0.8 | | .8% VA | LUE NE |
|---|------------------------|---------------------------|----------------------|--------------------------|----------------------------|------------------|--------------------|-----------------------|--------------------------|------------------------------------|
| RANK | 19.25 16.44 | 19.00 14.13 | 19.62 13.63 | 20.99 17.69 | 23.08 18.50 | 24.10 21.00 | 28.75 22.02 | 30.00 23.60 | 26.82 24.11 | High Low |
| PERFORMANCE 3 Average | LEG | ENDS | | 615-5-7-4-4 | <u> </u> ; | + | | <u> </u> | | 45 |
| Technical 2 Above | Shaded area in | ice Strength | | | ļ | <u> </u> | | 11.1111 | | |
| SAFETY 2 Average | | L. | 1 | | 1-1-1-11-11 | | | | | 22.5 |
| BETA .55 (1.00 - Markel) | | 1.11 | | | ļ | · | | | ļ | 13 |
| | ļ | | | ALL ALL | | | | | | 9 |
| Financial Strength B+ | <u> </u> | | | 214-15-544 2742 (Sec. | | | <u> </u> | | <u> </u> | 6 |
| Price Stability 95 | | | | | <u> </u> | - <u> </u> | | | | 4 |
| Price Growth Persistence 50 | | | | ds the | + | | 1.1 | | | 3 |
| Earnings Predictability 65 | - utrt | | | | | | | | | 90 you |
| O VALUE LINE PUBLISHING. INC. | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | (thous.) 2007/2008 |
| SALES PER SH | 18.64 | 16.02 | 18.68 | 28.36 | 22.11 | 21.59 | 24.74 | 28.08 | 36.01 | |
| "CASH FLOW" PER SH | 2.61 | 2.52 | 3.27 | 3.08 | 3.16 | 2.65 | 2.65 | 2.86 | 2.94 | |
| DIV'DS DECL'D PER SH | 1.04 | .90 1.14 | 1.42 | 1.47 | 1.45 | 1.49 | 1.20 | 1.55 | 1.55 | 1.50~/1.50 - |
| CAP'L SPENDING PER SH | 4.71 | 3.31 | 3.58 | 2.83 | 3.72 | 2.90 | 2.80 | 1.65 | 2.39 | |
| COMMON SHS OUTST'G (MILL) | 2.38 | 12.39 | 2.46 | 13.12 | 13.51 | 3.17 | 15.26 3.20 | 15.73 | 16.16 3.26 | · |
| AVG ANN'L 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 |
| AVG ANN'L DIV'D YIELD | .88 | 1.11 6.5% | .71 7.3% | .63 6.3% | 5.7% | .83 5.5% | 1.06 | .89 4.5% | .91 | |
| SALES (SMILL) | 44.3 | 38.7 | 45.9 | 70.8 | 55.9 | 68.4 | 79.2 | 84.2 | 117.3 | Bold figures |
| DEPRECIATION (SMILL) | 29.6% | 34.0% | 34.9% 4.6 | 23.2% | 29.3% | 24.7% | 21.2% | <u>21.9%</u> 4.3 | 16.2% | are consensus |
| NET PROFIT (\$MILL) | 2.5 | 2.2 | 3.5 | 3.6 | 3.6 | 3.9 | 3.8 | 5.0 | 5.0 | estimates |
| NET PROFIT MARGIN | 36.4% | 36.6% 5.6% | 37.4% 7.5% | 38.0% | 38.2% | 38.0% | 38.1% | 38.3% | 36.6% | and, Using the |
| WORKING CAP'L (SMILL) | d5.2 | d9.3 | d12.3 | d12.6 | d15.3 | d.2 | d.7 | .9 | 4.6 | P/E ratios. |
| LONG-TERM DEBT (\$MILL) | 52.6 | 51.7 29.9 | 50.7 31.3 | 49.3 32 B | 48.6 | 53.4 | 53.0 48.8 | 52.7 50 P | 58.8 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% | |
| ALL DIV'DS TO NET PROF | 110% | NMF | 80% | 78% | 80% | 81% | 98% | 76% | 77% | |
| "No. of analysts changing earn. est. in I | asl 2 days: 0 up | , 0 down, consei | nsus 5-year eem | ings growth 2.0 | % per year. ^B B | ased upon 2 anal | ysta' estimates. C | Based upon on | e analyst's estim | |
| of change (per share) 5 Yrs. | 1 Yr | ASSETS (\$m | ill.) 20 | 05 2008 | 9/30/06 | | | | | $[-,-,-,K] \in [0,1]$ |
| Sales 6.5% "Cash Flow" -1.0% | 38 0% | Receivables | | 5.6 7.9 | 7.3 | BUSINES | S: Delta N | latural Gas | Company, | Inc. sells natu- |
| Earnings 2.5% | - | Other | g cost) 10 | 0.2 11.8 0.6 0.6 | 17.8 3.7 | ral gas to | retail cust | omers on | its distribu | tion system in |
| Book Value 4.5% | 1.5% | Current Asse | 13 20 | 23.5 | 29.0 | company s | old natural | gas to an | ny. As of proximately | viarch 31, the v 39.000 retail |
| Fiscal QUARTERLY SALES (| mili.) Fuit | Property, Pla | nt | | Í | customers | on its dis | tribution s | ystem. It | also transports |
| Year 10 20 30 | 4Q Year | Accum Depre | ciation 58 | 162.2 32 61.8 | | natural gas | to its indu | istrial custo | mers, who | purchase their |
| 06/30/05 9.8 25.8 33.4 | 16.6 79.2 15.2 84.2 | Net Property Other | 116 | 5.5 120.4 7.8 11.7 | 120.8 11.5 | natural gas | on behalf | of local pro | ducers and | customers not |
| 06/30/06 14.2 42.1 46.5 | 14.5 117.3 | Total Assets | 144 | 1.8 155.6 | 161.3 | on its distri | bution syst | em. Delta N | Jatural Gas | serves residen- |
| Fiscal EARNINGS PER SHA | RE Eur | LIABILITIES | (\$mili.) | | | Nicholasvi | lle, Corbin. | and Berea. | Kentucky | in the areas of As of the above |
| Year 1Q 2Q 3Q | 4Q Year | Accts Payable Debt Due | 9 7 7 | 7.6 6.4 | 6.0 15.8 | date, the co | mpany serv | ed approxi | mately 8,00 | 0 customers in |
| 06/30/03 d.36 .27 1.66 | d.08 1.49 | Other | -4 | 4.2 | 4.2 | Nicholasvi | lle, approxi | mately 6,0 | 00 in Corbin | n, and approxi- |
| 06/30/05 d.35 .87 1.16 | d.13 1.55 | Current Liau | 12 | 5.0 10.9 | 20.0 | Harrison D | Peet. Inc.: | KY. Addre | employe | exington Road. |
| 06/30/06 d.18 .89 1.03 06/30/07 d.16 70 1.12 | d.19 1.55 | IONGTER | DERT AND FO | | | Winchester | , KY 403 | 91. Tel.: (| 859) 744-6 | 5171. Internet: |
| Cal- QUARTERLY DIVIDENDS | PAID Full | as of 9/30 | /06 | 40111 | | http://www | deltagas.co | om. | | |
| endar 10 20 30 | 4Q Year | Total Debt \$1 | 74.6 mill. 8 mill | Due in | 5 Yrs, NA | | | | | |
| 2003 295 295 295 295 2004 295 295 295 | 295 1.18 | Including Ca | p. Leases NA | (53) | | | | | | 1. 7 |
| 2005 295 295 .30 2006 .30 .30 .305 | 30 1.19 .305 1.21 | Leases, Unci | epitalized Annu | ial rentals NA | ar or Galphy | | De | cember 15 | 2006 | |
| INSTITUTIONAL DECISIC | NS . | Pension Liab | ility None in '06 | vs. None in '05 | 5 | TOTAL | | | | |
| 40'05 10'06 | 20'05 | Pfd Stock Nor | 00 | Pfd Div'd | Pald None | IUIAL SH | AKEHULD | CK KETUR Dividenda | N plus appreciati | on as of 11/30/2006 |
| to Buy 7 5 to Sell 3 3 | 8 3 | Common Stoc | k 3,261,034 sha | 183 | W -10 | 3 Mos. | 6 Mos. | 1 Yr. | 3 Yrs, | 5 Yrs, |
| Hid's(000) 283 284 | 324 | L <u></u> | | (4/ | n or cap ij | 2.01% | 5.46% | 4.11% | 24.75% | 60.02% |

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| ENE | RGY | ' WE | ST I | VC. N | DQ | EWST | RE | ice 11. | 00 TRAILING | 6 17.5 🕅 | elative 0,92 | 2 MUD 3 | .6% VA | |
|--------------------|--------------|----------------|------------------|--------------|--------------|------------------------------|---------------------|---------------------------|-------------|-----------------|---------------------------|-----------------------|------------------------------|----------------------|
| No. | RA | uks, | | 9. | 75 | 10.63 | 9.75 | 16.50 9.05 | 11.50 | 9.00 | 8.50 5.41 | 13.89 | 11.94 8.57 | High |
| PERFOR | | 3. | Average | 1 | EOE | NDS | | I TRANSFER | | | | | | 1 |
| Technica | 1 | 2 : | Above Average | 1 | 2 Mo | a Mov Avg | | | | <u>+</u> | + | | | |
| SAFETY | | 4 2 | Below Average | - 308090 E | | | | | TILL | 1 | 1 | | 4444 | |
| BETA 3 | 35 | {1.00 | Market) | ***** | - | | TTTTTTTTTT | | | | h-1-++++ | | · · · · | 8 |
| | | | | | | | •••• | ATAL NE IT | | <u>} </u> | | | | 5 |
| Financial | Streng | th | C++ | | _ | | | 100 A | _ | | | <u> </u> | | |
| Price Sta | billty | | 30 | | | | | | ļ | | | | | 2 |
| Price Gro | owth Pe | rsistenc | • 30 | | | | | | | | | . . | | |
| Earnings | Predict | ability | 15 | | | | | | 1 | | | | | 1/5 VOL |
| O VALUE | TINE | TIDT ICL | INC INC | 1000 | ш | | 2000 | 2001 | | 2003 | 2004 | 2005 | 2006 | (nour.) 2007/2008 |
| SALES P | ERSH | UBLISE | | 17.9 | 2 | 21.97 | 29.17 | 47.72 | 38.72 | 30.50 | 28.21 | 26.34 | | 2007/2000 |
| "CASH F | LOW" F | PER SH | | 1.3 | 5 | 1.35 | 1.28 | 2.05 | 1.45 | .97 | .68 | 1.27 | - | |
| EARNING | SS PER | SH PER SH | | .6 | 4 | .66 | .53 .49 | 1,10 | .55 | d.03 | d.21 | .53 | NA | NA/NA |
| CAP'L SI | PENDIN | G PER S | SH | 1.2 | 5 | 1.53 | 1.92 | 1.30 | 2.50 | 1.59 | .89 | .96 | - | |
| COMMO | N SHS C | UTST'G | (MILL) | 5.3 | 3 | 2.43 | 2.48 | 2.51 | 2.57 | 2.60 | 2.60 | 2.91 | - | |
| AVG AN | I'L PIE | RATIO | | 13.7 | | 13.9 | 15.9 | 8.5 | 20.2 | - | | 13.0 | NA | NA/NA |
| AVG AN | E P/E K | ANO D YIELD | + | 5.1 | % | .79 4.9% | 1.03 5.8% | .44 5.4% | 4.7% | 5.0% | - | | - | |
| SALES (| SMILL) | DOW | | 43.1 | | 53.5 | 72.2 | 119.9 | 99.6 | 79.1 | 73.3 | 76.7 | 1 | Bold figures |
| DEPREC | LATION | (\$MILL) | | 14.2 | <i>7n</i> | 1.7 | 1.9 | 2.4 | 2.3 | 2.6 | 2.3 | 2.3 | | eemings |
| NET PRO | OFIT (SM | HLL) | | 1.5 | <u>_</u> | 1.6 | 1.3 | 2.8 | 1.4 | d.1 | d.6 | 1.4 | | estimates |
| NET PRO | DETT MA | RGIN | | 34.2 | % | 3.0% | 1.8% | 2.3% | 1.4% | NMF | NMF | 1.8% | | recent prices, |
| WORKIN | G CAP | L (SMILL | -) | 5.6 | | 4.2 | 1.5 16.4 | 2.2 | d.8 | d3.4 | .0 | 3.9 18.7 | - | P/E ratios. |
| SHR. EQ | UITY (\$ | MILL) | LL) | 12.8 | | 13.5 | 14.0 | 15.6 | 16.3 | 15.3 | 13.4 | 17.2 | _ | |
| RETURN | ON TO | TAL CA | P'L TV | 7.1 | % | 7.3% | 6.3% | 10.7% | 6.3% | 1.6% | 1.2% | 7.0% | - | |
| RETAINE | D TO C | OH EQ | <u>n</u> | 5.1 | 70 % | 4.3% | 2.0% | 10.9% | -2% | NMF | NMF | 8.0% | | |
| ALL DIV | DS TO | NET PR | OF | 57% | | 64% | 78% | 39% | 87% | NMF | <u> </u> | <u> </u> | - | |
| 1000.110 | Analys | NNITAL | PATES | | | 1 | | | | 以 金融制 | | | Rae / Midtr | |
| of chan | ge (per s | hare) | 5 Yrs. | 1) | r. | ASSETS (\$n Cash Assets | nill.) 2 | 004 2005 1.3 .1 | 3/31/06 | -1 | | and the second second | CALIFORNIA STOCK | |
| Sales "Cash F | 'kw'' | | 4.5% -6.0% | -6.) 85.) | 7 7 | Receivables Inventory (A) | ra cost) | 7.5 8.7 5.5 4.2 | 14.1 3.6 | BUSINES | SS: Energy | West, Inc. | distributes | natural gas to |
| Earning Dividen | s das | | - | - | | Other Current Area | | 2.4 2.4 | <u>6</u> | Wyoming | areas. Its re | gulated uti | lity operation | ons include the |
| Book Va | elue | | 0.5% | 14.(| 5% | Current Asse | AS 1 | 0.7 10.4 | 10.0 | distributio | n of natural | gas throu | gh an under | ground system |
| Fiscal Year | QUA 10 | RTERLY 20 | SALES (S | imili.) | Full Vesr | Property, Pla & Equip, a | nt stcost 61 | 9.0 71.6 | | fied natur | al gas. The | company | conducts ce | rtain nonregu- |
| 06/30/04 | 12.5 | 22.6 | 24.5 | 13.7 | 73.3 | Accum Depn Net Property | eclation 34 | 0.4 32.7 8.6 38.9 | 39.0 | lated, non | utility opera | tions throu | gh its three | wholly owned |
| 06/30/05 | 11.9 | 22.9 | 27.8 | 14.1 | 76.7 | Other Total Associa | - | <u>5.1</u> <u>5.1</u> | 4.5 | subsidiari | es, Energy V | West Propa | ne, Inc.; En | ergy West Re- |
| 06/30/07 | 10.3 | 20.9 | 34.4 | | | rotal Assets | 6 | 1 39.4 | 02.J | West Prop | ane is engag | ged in the d | istribution c | of bulk propane |
| Fiscal | EA | RNINGS | PER SHA | RE | Full | Accts Payabl | (\$mill.) e | 3.6 2.7 | 5.8 | in Wyomi | ng, South L | akota, Nel | oraska, Colo | orado, Arizona, |
| Year | 19 | 20 | 30 | 40 | Year | Debt Due Other | | 7.7 4.9 54 39 | 2.5 | storage, a | ana. Energy small amou | west Kes | ources is ii I gas develo | inment and the |
| 06/30/04 | d.40 d.19 | .05 | .09 | d.37 d.33 | 0.03 d.21 | Current Liab | 1 | 5.7 <u>11.5</u> | 12.9 | marketing | and transp | ortation of | gas in Mo | ontana. Energy |
| 06/30/05 | d.43 d.21 | .22 | .84 56 | d.10 | .53 | | | | l | West Dev | elopment ov | vns two rea | l estate prop | perties in Great |
| 06/30/07 | | | | | | LONG-TERM | DEBT AND E | QUITY |] | gomery M | litchell. Inc. | : MT. Add | ess: First | Avenue South, |
| Cal- | QUAR | TERLY | DIVIDENDS | | Fuli | Table CT 3/31 | 1999 2008 mm | P | | Great Fal | ls, MT 594 | 101. Tel.: | (406) 791-1 | 7500. Internet: |
| 2003 | .405 | | - | | .41 | LT Debt \$18 | 20.0 mm. .3 mil. | 1,21,96 1 | 1 J 178, NA | aup://ww | w.energywes | st.COII). | | |
| 2004 2005 | - | | - | - | 04 | anciuding Ci | np. Lasses NA | (45 | % of Cap'l) | | | | | A.O. |
| 2006 | .05 | .08 | .10 | | | Danation 1 | apitalized Anr | | - 10 A | | Se | ptember 15 | , 2006 | |
| | INSTIT | UTIONA | L DECISIO | ONS | | Pension Lis | ohuty ə.3 mül. in | UO V5. \$.3 mål | - IN UN | TOTAL S | HAREHOLD | ER RETUR | N | |
| to Buv | | 4Q'05 6 | 1Q'06 4 | 2Q 3 | 06 | Ptd Stock No | | Pid Div | a Pala None | | _ | Dividenc | ls plus apprecia | tion as of 8/31/2008 |
| to Sel | ווער | 110 | 2 | | | Common Sto | ck 2,931,158 sh | 8696 [] | 1% of Cap1) | 3 Mos. | 6 Mos. | 1 Yr. | 3 Yr | s. 5 Yrs. |
| 1 10 500 | 141 | 110 | 60 | 84 | | L | | | | 20.13% | 26.02% | 25.749 | 5 79.62 | 1% 6.51% |

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| ENI | ERG | YSO | UTH | INC | . ND | Q-ENSI | REPR | CENT 35. | 15 TRAILIN PIE RAT | 6 20.0 P | ELATIVE 1.0 | 5 PAVD 2 | .6% VA | |
|-------------------|------------|------------|---------------|---------------|--------------|--------------------------------|----------------------------|---|-----------------------|--|--------------------|-----------------------|-----------------------------|-----------------------------|
| 1 | R | NKS | 1. 19 | 1 | 18.33 | 16.67 | 15.33 | 16.57 | 22.63 | 24.76 | 29.67 | 29.91 | 35.20 | High |
| PERFO | RMAN | E 3 | Average | | LEG | ENDS | 11.33 | 13.57 | 14.70 | 16.39 | 22.08 | 24.65 | 26.40 | Low |
| Techni | cal | 3 | Average | ¶ | - 12 M | os Mov Avg | | | | | | | • | 45 |
| RAFE | | ž | Above | 3-fo | -2 split | 2/98 9/04 | | | | ···· ··· | WILLIN' | + | HILL. | |
| DETA | | 4 | Average | Shad | d area in | dicates recession | | | 1.11 44 | A | | ···. · | | |
| BEIA | .60 | (1.00 | = Market) | | μt | | i | | | | <u>+</u> | | | 13 |
| | | | | ┼── | | | - **** - ; · | 1994 - 19 1994 - 19 | ┨ | · · · · · · · · · · · · · · · · · · · · | | <u> </u> | | 9 |
| Financi | al Stren | gth | B++ | | | | | 合於村、5. 251位号46 | <u> </u> | | + | | | |
| Price S | tabliity | | 95 | | | | | A PARAMETER | | | <u> </u> | | | 4 |
| Price G | irowth P | ersisten | ce 85 | | | <u> </u> | | | + | ++ | | | + , + | 3 |
| Earning | as Predi | ctability | 90 | — | | | | Salta and a second s | | + + + - + + - + + + + + + + + + + + | | | | 250 |
| <u> </u> | | | | ш | uul) | Infinal | | 11 | | | | | | (thous.) |
| OVALI | JE LINE | PUBLIS | HING, INC | 19 | 98 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2005 | 2007/2008 |
| SALES | PER SH | 050 cu | I. | 10 |).13 | 9.27 | 10.06 | 14.55 | 11.41 | 12.94 | 14.82 | 15.78 | - | |
| EARNIN | GS PEI | R SH | i | | 1.14 | 1.17 | 1.19 | 2.06 | 1.35 | 2.65 | 2.89 | 3.08 | | T RR C/MA |
| DIVDS | DECL'D | PER SH | 1 | ļ | .56 | .81 | .66 | .68 | .71 | .74 | .78 | .83 | - | |
| BOOK | VALUE I | PER SH | əri | | 1.05 3.20 | 1.37 | 1.57 9.30 | 5.88 | 3.38 | 2.04 | 1.10 | 2.08 | - | |
| COMMO | ON SHS | OUTST | 3 (MILL) | | 7.31 | 7.34 | 7.37 | 7.41 | 7.57 | 7.70 | 7.83 | 7.90 | - | |
| REI ATT | IN'L P/E | RATIO | | 13 | 3.8 | 11.8 | 10.7 | 14.1 | 12.9 | 13.1 | 15.3 | 16.0 | 19.7 | 18.7/NA |
| AVG AN | IN'L DIV | D YIELD |) | 3 | 3.6% | 4.4% | 5.2% | 4.8% | 4.1% | 3.9% | .81 3.2% | .85 3.0% | - | |
| SALES | (\$MILL) | | | 74 | 1.0 | 68.1 | 74.1 | 107.8 | 86.4 | 99.6 | 118.0 | 124.6 | - | Bold figures |
| DEPRE | CIATION | ARGIN | | 41 | .0% 16 | 45.8% 8.8 | 43.1% | 32.6% | 47.0% | 44.9% | 40.6% | 39.9% | | are consensus |
| NET PR | OFIT (\$ | MILL) | | ε | 3.4 | 8.6 | 8.8 | 7.6 | 10.2 | 11.1 | 10.1 | 10.5 13.8 | - | earnings estimates |
| INCOMI | E TAX R | ATE | | 37 | .1% | 36.7% | 37.5% | 37.8% | 36.9% | 37.6% | 37.7% | 39.4% | - | and, using the |
| WORKI | NG CAP | L (SMILL | L) | | .4% | 12.7% | 11.9% | 7.0% | 11.8% | 11.2% | 10.8% | <u>11.1%</u> | | recent prices, |
| LONG-T | ERM DI | EBT (\$MI | ü) | 59 | 0.0 | 58.0 | 55.2 | 90.6 | 98.6 | 92.6 | 84.7 | 77.8 | _ | PIC TODOS. |
| SHR, E | AUITY (1 | MILL) | D/1 | 59 | 1.9 | 64.2 | 68.5 | 70.1 | 77.3 | 84.7 | 93.9 | 102.5 | - | |
| RETUR | N ON SH | IR. EQUI | TΥ | 14 | .1% | 9.2% | 9.1% | 10.8% | 8.7% | 9.0% | 9.3% | 9.7% 13.5% | - | |
| RETAIN | ED TO (| OM EQ | | 7 | .9% | 7.2% | 6.4% | 3.6% | 6.4% | 6.5% | 6.9% | 7.3% | | |
| ALL DIV | DS TO | NET PR | OF ort in l | 44% | | 47% | 50% | 66% | 52% | 51% | 48% | 46% | | |
| | | ABBBBBB | DATES | | ys. 0 up. | l o oown, conser | 1303 3- 794 / 08/11 | nga growar 5.01 | h per year, =B | sed upon one er | ralyst a estimate. | Based upon or | ie analysi's estim | ale. Sacambranda anna an |
| of chan | ae (per | share) | 5 Yns. | | 1 Yr. | ASSETS (\$m | lH.) 20 | 04 2005 | 6/30/06 | | Manual S | | | |
| Sales | Flow | , | 8.0% | 1 | 6.5% | Receivables | 2 | 9.5 9.7 9.9 10.4 | 1.2 9.6 | BUSINES | S: Energy | South, Inc. | , through it | s subsidiaries. |
| Eaming | 38 18 | | 6.5% | i | 6.5% 8.5% | Inventory (Av | g cost) 5 | i.8 7.0 | 6.4 | operates in | three segm | ents: natur | al gas distri | bution, natural |
| Dividen Book V | ds alue | | 5.0% 6.5% | 1 | 6.5% R 0% | Current Asse | s 31 | 2 345 | 27.9 | gas storag | c, and othe | er energy-i | related serv | ices. Through |
| | 0114 | 0760) V | CALER /4. | _112.5 | 1 | Dronatty Dis | | | | MODILE Ga | s, it is engage | ged in the p | urchase, dis | tribution, sale, |
| Year | 10 | 20 | JQ | 40 | Year | & Equip, a | icost 275 | 5.0 289.9 | } | commercia | l, and indu | istrial cust | omers in s | outhwest Ala- |
| 09/30/04 | 32.7 | 42.9 | 21.0 | 19.4 | 116.0 | Accum Depre Net Property | cuation 7(204 | 1.4 78.0 1.6 211.9 | 222.6 | bama, incl | uding the | city of Me | bile and a | djacent arens. |
| 09/30/05 | 36.3 | 44.1 | 22.4 | 21.8 | 124.6 | Other | | <u>.7 6.1</u> | 5.8 | Through E | nergySouth | Services, In | nc., the com | pany provides |
| 09/30/07 | 44.0 | 40.1 | 23.1 | | | 10(2) 4356(3 | 242 | 252 5 | 256.3 | customers. | Through | ng work is MGS Mar | or utilities keting Seri | and industrial |
| Fiscal | EA | RNINGS | PER SHAP | RE | Full | LIABILITIES Acets Payable | (\$mili.) | 3 83 | 7.6 | assists exis | ting and po | tential cus | tomers in th | e purchase of |
| Year | 1Q | 2Q | 3Q | 4Q | Year | Debt Due | 6 | 2 52 | 5.0 | natural gas | . The comp | any also h | olds a gener | ral partnership |
| 09/30/03 | .44 52 | .73 81 | .13 17 | .15 | 1.45 | Other Current Link | | <u>17.9</u> | 15.1 | interest of | 87.5% in Ba | y Gas Stor | age Compar | y, Ltd., which |
| 09/30/05 | .55 | 85 | .18 | .16 | 1.74 | | | 23.3 | 20.0 | line faciliti | es. Has 261 | employees | . Chairman: | John C. Hone |
| 09/30/06 | .56 | .84 | _20 | .19 | | LONG TERM | NEDT AND PA | | | III. Inc.: A | L. Address | : 2828 Da | uphin Stree | , Mobile, AL |
| Cal- | QUAR | TERLY | VIDENDS | PAIN | E11 | as of 6/30/ | 06 06 | IUTET | 1 | 36606. | Tel.: | (251) | 450-4774. | Internet: |
| endar | 10 | 20 | 30 | 40 | Year | Total Debt \$7 | 7.8 mill. | Due in | 5 Yrs. NA | map://www | chergysout | n.com. | | |
| 2003 | .18 | .18 | .19 | .19 | .74 | LT Debt \$72.3 Including Ca |) mil). D. Lenses NA | | | | | | | |
| 2004 | .19 .20 | .19 .20 | .20 .215 | .20 | .78 .83 | lassa lless | | (40% | of Cap'l) | | | | | A.O. |
| 2006 | .215 | .215 | .23 | | | | риание обрати | ai romais NA | [| | Sep | tember 15, | 2006 | |
| | INSTIT | UTIONA | L DECISIO | NS | | rension Liab | sity 5.8 mill. in 1 | Ub vs. \$.5 mill. i | n 104 | | | RPETID | NI | |
| to Due: | | 40'05 | 10'06 | 20 | a'06 | Pfd Stock Non | • | Pfd Div'd | Paid None | | | Dhidenda | iv I plua appreciati | on as of 8/31/2008 |
| to Self | | 14 | 1/ 22 | | 19 23 | Common Stoc | k 7.936,000 shar | 63 | | 3 Mos. | 6 Mos. | 1 Yr. | 3 Yrs. | 5 Yrs. |
| Hid's(00 | ю) | 2430 | 2304 | 23 | 313 | | | 1903 | worcapi) | 9.04% | 17.23% | 27.04% | 72.00% | 165.83% |
| v/OOF Value | i ina Dui | arching In | م مغطبت، #£ م | A acres and | Fasters, . | and a share the second second | | | | | | | | |

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| LACLEDE GROUP NYSE | LG | RECENT | 32.13 | P/E RATIO 15 | .5(Trail | ing: 14.8 an: 15.0) | RELATIV P/E RATI | 6 0.9 | 1 DIVD YLD | 4.5 | VALUE | |
|--|---------------------------------------|------------------------------|------------------------------|--------------------------------|--------------------------|------------------------|------------------------|--------------------|-----------------------|------------------------|--|----------------------------|
| TIMELINESS 4 Raised 9/8/06 High: 2 Low: 1 | 1 24.9 4 20.0 | 28.6 27.9 20.3 22.4 | 27.0 20.0 | 24.8 25. 17.5 21. | 25.0 | 30.0 | 32.5 26.0 | 34.3 28.9 | 35.7 29.1 | | Target P | ice Range |
| SAFETY Z Raised 6/20/03 LEGENDS | vidends o Sh | | | | 8 | ļ | | | | ļ | | 64 |
| BETA .85 (1.00 - Market) 2-for-1 split 3 | Price Strength | | | | | | <u> </u> | | | | | |
| 2009-11 PROJECTIONS Shaded area Ann't Total | dicates recession | <u>}</u> | | | | , | | | uu. | | | |
| High 40 (+25%) 10% | Clau Hannin III | | 1.1700 pt- | THE PARTY OF | apr | n | | | | | | |
| Insider Decisions | | **** | | | | | | | | | | 12 |
| 0 N D J F M A M J | | | | | | | | ********** | ···· | | | |
| Options 0 0 0 0 1 0 0 1 0 La Sell 0 0 0 0 1 0 0 1 0 La Sell 0 0 0 0 1 0 0 1 0 | | | | | | | | | | | % TOT. RETURN 1 | /0 6 -6 |
| 402005 102005 202004 Percent 7 | · | | | | | | | | | | THES VLA STOCK IN | una l |
| to Buy 50 67 60 shares to Sell 37 30 47 traded 2 | | | | | | | hultinti | ittinili. | | | 3 yr. 5.4 3 yr. 38.6 4 | E |
| 1990 1991 1992 1993 1994 19 | 5 1996 19 | 97 1998 | 1999 20 | 000 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | VALUE LINE PUB., I | ic. 09-11 |
| 30 21 28.10 26.83 32.33 33.43 24 2 13 2 37 2 32 2 81 2 55 2 | 79 31.03 3 | 4.33 31.04 | 26.04 2 | 9.99 53.08 | 39.84 | 54.95 | 59 59 | 75.43 | 93.50 | 88.60 | Revenues per sh | 116.65 |
| 108 128 117 181 1.42 1 | 27 1.87 | 1.84 1.58 | 1.47 | 1.37 1.61 | 1.18 | 1.82 | 1.82 | 1.90 | 2.15 | 2.15 | Earnings per sh A B | 2.50 |
| 1.18 1.20 1.20 1.22 1.22 1 1.87 2.46 2.87 2.62 2.50 2 | 24 1.26 | 1.30 1.32 | 1.34 | 1.34 1.34 | 1.34 | 1.34 | 1.35 | 1.37 | 1.40 | 1.43 | Div'ds Decl'd per sh | C= 1.50 |
| 11.75 11.83 11.79 12.19 12.44 13 | 05 13.72 14 | 4.26 14.57 | 14.96 1 | 4.99 15.26 | 15.07 | 15.65 | 16.96 | 17.31 | 19.70 | 20.65 | Book Value per sh | 28.00 |
| 15.59 15.59 15.59 15.59 15.67 17 14.6 12.5 15.8 13.5 16.4 1 | 12 17.56 11 5 11.9 | 7.56 17.63 | 18.88 1 | 8.88 18.88 | 18.96 | 19.11 | 20.98 | 21.17 | 21.50 Bold flor | 21.50 | Common Shs Outst's | E 24.00 |
| 1.08 80 96 80 1.08 1 | 4 .75 | .72 .81 | .90 | .97 .74 | 1.09 | .78 | .83 | .86 | Value | Line | Relative P/E Ratio | .95 |
| CAPITAL STRUCTURE as of 6/30/06 | 544.8 60 | 02.8 547.2 | 491.6 5 | 66.1 1002.1 | 5.7% 755.2 | 5.4% | 4.7% | 4.4% | 2010 | 2120 | Avg Ann'i Div'd Yield Revenues (Smill) A | 4.3% |
| Total Debt \$518.8 mill. Due in 5 Yrs \$175.0 mill LT Debt \$395.4 mill. LT Interest \$25.0 mill. | 32.8 | 32.5 27.9 | 26.9 | 26.0 30.5 | 22.4 | 34.6 | 36.1 | 40.1 | 46.0 | 45.0 | Net Profit (\$mill) | 60.0 |
| (Total interest coverage: 3.0x) | 6.0% 5 | .4% 5.1% | 5.5% 35 | .6% 3.0% | 3.0% | 3.3% | 2.9% | 2.5% | 2.3% | 2.2% | Net Profit Margin | 2.1% |
| I saxes Uncanitalized Annual rentals \$1.7 mill | 42.5% 38 | 0% 40.9% | 41.8% 45 | 2% 49.5% | 47.5% | 50.4% | 51.6% | 48.1% | 49.0% | 49.0% | Long-Term Debt Ratio | 48.0% |
| Pension Assets-9/05 \$272.8 mill | 422.2 40 | 06.8 438 D | 488.6 5 | 19.2 574.1 | 546.6 | 49.47 605.0 | 40.37 | 707.9 | 51.0% 830 | \$7.0% | Total Capital (\$mill) | 1200 |
| Pfd Stock \$.8 mill. Pfd Div'd \$.05 mill. | 452.2 46 | 57.6 490.6 | 519.4 5 | 75.4 602.5 | 594.4 | 621.2 | 646.9 | 679.5 | 775 | 815 | Net Plant (\$mill) | 1050 |
| Common Stock 21,357,009 shs. | 13.5% 12 | .9% 10.8% | 9.5% 9 | 1% 10.5% | 7.8% | 1.976 11.5% | 10.1% | 10.9% | 11.0% | 10.5% | Return on solar Cap's Return on Shr. Equity | 9.5% |
| MARKET CAP: \$675 million (Small Cap) | 13.6% 12 | .9% 10.8% | 9.5% 9 | 1% 10.5% | 7.8% | 11.6% | 10.1% | 10.9% | 11.0% | 10.5% | Return on Com Equit | 9.5% |
| CURRENT POSITION 2004 2005 6/30/ | 8 67% 7 | 0% 83% | 89% | -27 1.07 | 113% | 3.1% 74% | 73% | 3.1% 72% | 4.0% 85% | 3.5% 67% | All Divids to Net Prof | 4.0% 60% |
| (1981) Cash Assels 13.9 6.0 31 Other 323.7 418.1 210 | 9 BUSINESS | : Laclede Grou | up, Inc., is a | holding con | pany for L | aclede | cial and | industr | al, 23% | transpo | ortation, 2%; other, | 15%. Has |
| Current Assets 337.6 424.1 351 | city of St. 1 | Louis, St. Loui | uraligas in e s County, a | and parts of | anciud 8 other co | ng the ounties. | around 3 6.0% of | 5,815 em common | picyees. I shares | Officers (1/06 Pri | and directors own ap oxy). Chairman, Chie | proximately Executive |
| Accts Payable 68.4 138.4 118 Debt Due 96.5 110.7 123 | Has more to Won (1/02). | han 630,000 (Therms sold | and transpo | Purchased Si rted in fiscal | A&P for \$4 2005: 1.1 | 43 mil- 2 mil | Officer, a Address: | and Pres | ident: Do ve Stree | lugias H. L. St. Lo | Yaeger, Incorporate uls, Missouri 63101 | t: Missouri. Telephone: |
| Other 97.7 116.5 181 Current Liab. 262.6 365.6 304 | Revenue m | ix for regulate | d operation | s: residentia | 60%; co | mmør- | 314-342 | -0500. In | lemet w | ww.laclec | legas.com. | |
| Fix. Chg. Cov. 279% 293% 290 | health | e Group y result | ison sin fi | track to iscal 20 | o regi: 106 (e | ster nds | benef | its fro last | om a j Octi | gener: | al rate hike e | ffective |
| ANNUAL RATES Past Past Est'd '03-' of change (per sh) 10 Yrs. 5 Yrs. to '09-'11 | ⁵ Septen | nber 30 | h). La | clede E | nergy | Re- | entiti | es lo | cated | outsi | de the syste | m has |
| Revenues 7.5% 17.0% 10.5% "Cash Flow" 1.0% 1.5% 8.0% | ment, | is still | benef | iting f | ceting : | seg- sup- | On a | rising 1 COI | 1solid | lated | basis, sha | e net |
| Dividends 2.5% 4.5% 5.0% | ply/dem | and imba | lances : | resulting | from | last | ough | t to | grow | abou | it 13%, to \$2 | .15, in |
| Fiscal QUARTERLY REVENUES (\$ mill the Fu | in volu | imes (ref | lecting | higher | inters | tate | flatte | n out | next | year | because of the | e diffi- |
| Ends Dec.31 Mar.31 Jun.30 Sep.30 Ye | i pipeline more, S | e wholesa SM&P U | le trans tility R | sactions) lesources | . Furtl . the | her- un- | Cult C | ompai elievo | rison. e thai | t une | xciting resu | ts are |
| 2003 280.1 422.2 186.6 161.4 1050 2004 332.6 475.0 245.1 197.6 1250 | 3 regulate | ed unit s | pecializi | ng in lo | ating | and | in st | оге | for t | he c | ompany ov | r the |
| 2005 442.5 576.5 311.3 266.7 1597 | facilitie | g servi s, is beir | ces i ig aided | or un Ibynev | aergro v busii | ness | which | the | natu | ran ga | e. The mar | cet in |
| 2007 635 855 440 390 2120 | signups | in existi | ng mar | kets. Ar | d we i | note | has sl | uggis | h cust | omer | growth becau | se it is |
| Flacal EARNINGS PER SHARE ABF Fu Year Dec.31 Mar.31 Jun.30 San.30 Flat | Reliant | Services | , which | provid | y bou es sim | ilar | that | major | acqu | isitior | noreover, it a ns are not li | ppears cely to |
| 2003 .80 1.14 .11 d.21 1. | custome | . Given t | hat bot | h busin | esses h | ave | take | place | anyt | ime a | soon. Conseq | uently, |
| 2004 .87 1.12 .19 d.28 1.1 2005 .79 1.06 .29 d.24 1.5 | synergie | es ought | to gen | erate d | ecent | cost | mid-si | ingle | digit i | ange, | with some v | olatili- |
| 2006 1.23 1.05 .13 d.26 2. 2007 1.15 1.05 .25 d.30 2 | But the | e core n | ward. atural | gas uni | t has | un- | ty, ove The | er the stock | 3-to ('s go | 5-yea od v | r norizon. /ield_aside. | total- |
| Cal- QUARTERLY DIVIDENDS PAID C. Fu | derper | formed o | of late. | This car | be att | rib- | retur | n pot | entia | lisn | ot appealing | . That |
| endar Mar.31 Jun.30 Sap.30 Dec.31 Yes 2002 335 335 335 335 4 | mainter | nance exp | enses, | as well | as an | in- | ing v | vithin | our | 2009 | -2011 Target | Price |
| 2003 335 335 335 335 1. | creased counts. | A declin | n tor e in vo | uncolle lumes v | ctible vithin | ac- the | Kange divide | e, and nd in | we a | are as s wil | suming that | future |
| 2005 34 .345 .345 .345 1.3 | service | territory | has fur | ther ero | ded ea | arn- | the Ti | melin | ess ra | nk is | 4 (Below Ave | age). |
| (A) Fiscal year ends Sept. 30th. 1 // | Dividends histo | vically paid in | BUIL SIDE | y, Liere | nave b | een | r rede | TICK L | . Hari | ris, II. | I September 1 | 5, 2006 |
| (B) Based on average shares outstanding thru. A '97, then diluted. Excludes nonrecurring loss: m | init, July, and Octant plan available | toper. = Divide | nd reinvest- | (E) in m | lions. Adju | isted for a | stock split | L Dara in | Stoc | k's Price | Stability | 95 |

 197, then diluted. Excludes nonrecurring loss:
 ment plan available.
 (F) Qity. egs. may not sum due to change in shares outstanding.
 Price Growth Persistience 55
 55

 Q2 106, 74. Next earnings report due late Oct.
 (D) Incl. deferred charges. In '05: \$203.8 mill.
 shares outstanding.
 Frice Growth Persistience 65
 55

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Exhibit MJB-16 Page 8 of 15

| ILT VENUET | KEJ. | NYSE- | NJR | | PRICE | 49.3 | JJ RA | 10 ZU | .0()## | dian: 15.0 | P/E RAT | ib 1.2 | YLD | Z . | 9 %a 📖 | LIME | | |
|--|---|---|---|---|---|---|---|---|--|---|---|---|---|--|--|--|---|---|
| TIMELINESS 4 Raised 2/17/06 | High Low: | 20.3 | 19.6 | 28.0 | 26. | 8 27.4 | 29.6 | 32. | 33.6 | 39 5 | 44.6 | 49.3 | 51.4 | T | | Tarnet | Price | P |
| SAFETY Raised 9/15/06 | LEGE | ENDS | - <u> </u> | 1 | 214 | | 24.1 | 248 | 24.3 | 30.0 | 38.5 | 40.7 | 41.5 | 1 | | 2009 | 2010 | |
| TECHNICAL 2 Raised M25/06 | | ivided by i | nieresi Ra | e – | | | | | | +- | <u></u> | | 1 | <u>+</u> | 1 | 1 | | + |
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| 2009-11 PROJECTIONS | 5100 | d area indi | ales reces | sion | | | | | 21~ 7 | 1 | | | | | | | | ┽ |
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| ow 50 (Nii) 3% | | | | | Auto 1 | | han | | the state | - | | | | | | <u>├</u> | | + |
| nsider Decisions | | Sec. al | Tenutran | | 1-2 | | | | | <u>t-</u> | | | | | | | | + |
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| nstitutional Decisions | | | 1 | | <u> </u> | + | <u> </u> | 構成 | | | | | | | × TOT | RETURI | 8/06 | |
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| 54 60 52 6 | 0 traded | 2.5 - | 1.1- | It. | | 1 | 1. | | | H. H. | 111111 | | | | iyr. | 9.2 | 7.1 | E |
| 990 1991 1992 199 | 3 1994 | 1005 | | | Willin | <u>ANNIN IN</u> | lillillilli | | | | | | | | 5 yr. | 95.0 | 70.4 | F |
| 16.01 15.99 16.88 18.0 | 2 19.22 | 17.03 | 20.22 | 7507 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | © VALUE | LINE PUB. | ,INC. | 69. |
| 1.54 1.58 1.95 2.1 | 4 2.31 | 2.13 | 20.22 | 20.91 | 20.09 | 33.98 | 44.13 | 75.82 | 66.17 | 93.43 | 91.33 | 114.29 | 117.45 | 120.60 | Revenues | s per sh A | · T | 12 |
| 65 55 1.09 1.1 | 5 128 | 1.29 | 1.37 | 1.48 | 1.55 | 1.65 | 1 70 | 3.16 | 3.21 | 3.58 | 3.75 | 3.92 | 4.00 | 4.20 | *Cash Flo | ow" per st | •] | |
| .96 1.00 1.01 1.0 | 1 1.01 | 1.01 | 1.03 | 1.07 | 1.09 | 1.12 | 1.15 | 1.17 | 1.20 | 124 | 1 20 | 1 26 | 2.80 | 2.90 | Earnings | persh 8 | | |
| 4.3/ 2.91 1.99 2.31 8.85 8.57 0.44 0.5 | 1 210 | 1.77 | 1,78 | 1.72 | 1.60 | 1.81 | 1.85 | 1.66 | 1.53 | 1.71 | 217 | 1.92 | 1.80 | 1.95 | Can'l Sne | nding per si | | |
| 20.28 20.95 24.43 25.5 | 1 9.04 | 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 Valu | a per sh | - | , |
| 24.0 22.3 12.4 15 | 130 | 20.09 | 27.13 | 26.82 | 26.72 | 26.61 | 26.39 | 26.66 | 27.67 | 27.23 | 27.74 | 27.55 | 28.10 | 28.20 | Common | Shs Outst | Papt | -2 |
| 1.78 1.42 .75 .8 | .85 | .78 | 85 | 78 | 15.3 R/1 | 15.2 | 14.7 | 14.2 | 14.7 | 14.0 | 15.3 | 16.8 | Bold fige | | Avg Ann'l | P/E Ratio | | |
| 6.2% 8.1% 7.5% 5.8% | 6.2% | 6.7% | 5.6% | 5.3% | 4.6% | 4.5% | 4.4% | 42% | .80 | .80 | .81 | .90 | Value I estime | Une | Relative P | /E Ratio | | |
| APITAL STRUCTURE as of 6/3 | 0/05 | | 548.5 | 696.5 | 710.3 | 904.3 | 1164 5 | 2048 4 | 1920.9 | 75444 | 2622.6 | 3.17 | | | Avg Ann's | Div'd Yiel | d | |
| Debt \$490.8 mill. Due in 5 | Yrs \$250. | 0 mil). | 38.7 | 41.5 | 43.3 | 44.9 | 47.9 | 52.3 | 56.8 | 65.4 | 2000-00 71 R | 3148.3 | 3300 | 3400 | Revenues | (\$m₩) ^ | | 3 |
| d. \$6.9 mill. capitalized leases. | sat 922.0 m | 1HL [| 32.6% | 33.3% | 30.4% | 36.2% | 37.8% | 38.0% | 38.7% | 39.4% | 39.1% | 19 14 | 10.04 | 20.04/ | NH Profit | (Smill) | | _ |
| T interest earned: 5.5x; total inte | erest cover | age: | 7.1% | 6.0% | 6.1% | 5.0% | 4.1% | 2.6% | 3.1% | 2.6% | 2.8% | 2.4% | 24% | 24% | Nat Profit I | X Kale Marnin | | 40, |
| naion Assets-9/05 \$82 6 mB | | 1 | 50.7% | 49.3% | 51.2% | 48.7% | 47.0% | 50.1% | 50.6% | 38.1% | 40.3% | 42.0% | 42.0% | 41.0% | Long-Term | Debt Rat | 10 | 37 |
| | Oblig. \$99 | 9 mill. | 45.67 | 4/.17 | 45.6% | 51.2% | 52.9% | 49.9% | 49.4% | 61.9% | 59.7% | 58.0% | 58.0% | 59.0% | Common E | Equity Rat | 10 | 63 |
| d Stock None | • | | 655.2 | 8594 | 630.2 680 0 | 590.4 705.4 | 620.1 730.6 | 706.2 | 732.4 | 676.8 | 783.8 | 755.3 | 845 | 190 | Total Capit | tal (SmAI) | | 1 |
| mmon Stock 28,080,314 shs | | t | 8.1% | 8.6% | 8.1% | 9.0% | 9.0% | 854 | 8.7% | 10.7% | 880.4 | 905.1 | B35 | 970 | Het Plant (| \$mill) | | 1 |
| of 8/8/06 | | | 13.1% | 13.9% | 13.9% | 14.8% | 14.6% | 14.8% | 15.7% | 15.6% | 10.17 | 11.2% | 10.5% | 10.5% | Return on ' | Total Cap | | 10, |
| ARKET CAP: \$1.4 billion (Mid | Cap) | | 13.5% | 14.3% | 14.4% | 14.8% | 14.6% | 14.9% | 15.7% | 15.6% | 15.3% | 17.0% | 18.0% | 10.0% | Return on a | Shr. Equit | y 1 | 14, |
| JRRENT POSITION 2004 | 2005 6 | 30/08 | 3.4% | 4.0% | 4.4% | 5.0% | 514 | C AM | 0.04 | 7.74 | 7.04 | | 10.07 | 10.070 | Neturn on | Com Equi | Y L | 14, |
| (SMILL) | | | | | | 0.070 | V.7 / J | 0.17 | 0.9% | 1.17 | 1.0% | 0.5% (| | 7.5% | Retained to | Com Ea | | 7 |
| (SMILL) ash Assets 5.0 | 25.0 | 4.7 | 76% | 73% | 71% | 67% | 63% | 59% | 56% | 51% | 49% | 50% | 52% | 52% | Relained to VI Div'ds t | o Com Eq o Net Proj | r | 7. |
| (\$MILL) ash Assets 5.0 her <u>681.0</u> ment Assets 686.0 | 25.0 927.6 952.8 | 4.7 808.7 813.4 | 76% | 73% | 71% Jersey | 67% Resource | 63% s Corp. | 59% 59% | 56% | 51% | 49% | 8.5% 50% wholesal | 52% | 52% A | Retained to All Div'ds to I related e | o Com Eq o Net Proj | | 7. |
| (\$MILL) ash Assets 5.0 her <u>681.0</u> mant Assets <u>686.0</u> | 25.0 927.8 952.8 | 4.7 808.7 813.4 | 76% BUSINE for New custome | 73% SS: New Jersey N rs at 9/30 | 71% Jersey atural Ga 2/05) in N | 67% Resource as Co., a | 63% s Corp. natural g | 59% | 56% | 51% 51% | 49% 49% atail and omens in | 50% 50% 17 state | 52% 9 natural 95. 2005 | gas and deprec. | Retained to All Div'ds to i related e rate: 2.85 | o Com Eq o Net Prot mergy ser %. Est'd | r vices to plant a | 7. 5 0 C |
| (twii1_) ash Assels 5.0 her 681.0 prent Assels 686.0 cts Payable 42.9 bt Due 287.4 | 25.0 927.8 952.8 54.7 177.4 | 4.7 808.7 813.4 38.0 157.0 | 76% BUSINE for New custome counties | 73% SS: New Jersey N rs at 9/30 Fiscal 2 | 71% Jersey atural Ga 2/05) in N 2005 volu | 67% Resource as Co., a Aonmouth me: 124. | 63% s Corp. natural g , Ocean, bill, cu | 59% is the ho as utility and par ft. (50% | 56% 56% Iding con (about 46 is of othe firm, 8% | 51% 51% 53,000 b r N.J. y | 49% 49% etail and omens in ears. Hat | 50% 50% 17 state 551 uti | 52% 52% e natural es. 2005 lity ampk | gas and deprec. | Retained to All Div'ds to retated e rate: 2.81 6,300 stcl | o Com Eq o Net Prof mergy ser %. Est'd khidrs. Of | vices to plant a 1. & dir, | 7. 5 0 0 0 0 |
| (twill) ash Assets 5.0 her 681.0 prent Assets 686.0 cts Payable 42.9 bt Due 287.4 her 357.4 her 357.4 | 25.0 927.8 952.8 54.7 177.4 744.2 | 4.7 808.7 813.4 38.0 157.0 510.4 | 76% BUSINE for New custome counties. ruptible i | 73% SS: New Jersey N rs at 9/30 Fiscal 2 industrial | 71% Jersey atural Ga 2/05) in M 2005 volu and electronic | 67% Resource as Co., a Aonmouth me: 124. ctric utility | 63% s Corp. natural g , Ocean, 7 bill. cu 7, 42% c | 59% 59% is the ho as utility and par ft. (50% ff-system | 56% Iding con (about 46 is of othe firm, 8% | 51% 51% 53,000 b r N.J. y inter- a pacity L | 49% 49% etail and omers in rears. Ha: bout 3% surence | 50% 50% 17 state s 551 util of com | 52% 9 natural 9 | 7.3% F 52% A gas and deprec. byees, 1 * (12/0 N.J. Add | Retained to All Div'ds to i related e rate: 2.85 6,300 stol 5 Proxy). ress: 1418 | o Com Eq o Net Prot mergy ser %. Est'd khidra. Of Chairmar 5 Wyckoff | vices to plant a 1. & dir, n and (Road, | 7. 90 00 00 00 00 00 00 00 00 00 00 00 00 |
| (twill) 2008 sch Assels 5.0 har 681.0 urrent Assels 686.0 cts Payable 42.9 ob Due 287.4 her 357.4 urrent Liab. 687.7 . Chg. Cov. 826% | 25.0 927.8 952.8 54.7 177.4 744.2 976.3 660% | 4.7 808.7 813.4 38.0 157.0 510.4 705.4 700% | 76% BUSINE for New custome counties. ruptible i rolease). | 73% SS: New Jersey N rs at 9/30 Fiscal 2 Industrial New Jer | 71% Jersey atural Ga 0/05) in N 005 volu and eler rscy Nati | 67% Resource as Co., a Aonmouth me: 124. ctric utility ural Energy | 63% s Corp. natural g b Ocean, 7 bill. cu 7, 42% c 7 subsid | 59% is the ho as utility and par ft. (50% ff-system I. provide | 10.9% 56% (about 46 is of other firm, 8% and caj is unregu | 51% 51% inpany r 53,000 b r N.J. y inter- a pacity L lated N | 49% 49% etail and omens in rears. Ha: bout 3% aurence IJ 07719. | 50% 50% 17 state s 551 util of com M. Down Tel.: 732 | 52% 9 natural es. 2005 lity empk mon stoc as. Inc.; 1 2-938-100 | 7.3% 52% gas and deprec. byees, 1 k (12/0 N.J. Add 00. Interr | Relained to All Div'de t i related e rate: 2.8° 6,300 stol 5 Proxy). reas: 1416 ret: www.r | o Com Eq lo Net Prot mergy ser %. Est'd khidrs. Of Chairmar 5 Wyckoff njillving.co | rvices to plant a 1. & dir, n and (Road, m, | 7. 500 998 008 CE |
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Exhibit MJB-16 Page 9 of 15

| N.W | . NA | T'L | GAS | NYSE | -NWN | | RI PI | CENT | 38.1 | 9 P/E RATIO | 16. | 7 (Traili Nedi | ng: 17.6) un: 15.0) | RELATIVI P/E RATI | 0.9 | 8 DIVD YLD | 3.6 | % | | | |
|---------------------|-------------------|-----------------------|----------------------|------------------------------|------------------------------|--------------------------|-----------------------|-----------------------|---------------------|------------------------|--|-----------------------|------------------------|----------------------|-------------------------|------------------------|-------------------------|-------------------------|--------------------------|-----------------------|--------------------|
| TIMELIN | ESS 3 | Raised 8 | /25/06 | High: Low: | 22.8 18.3 | 25.9 20.8 | 31.4 23 0 | 30.8 24.3 | 27.9 19.5 | 27.5 17.8 | 26.8 21.7 | 30.7 23.5 | 31.3 24.0 | 34.1 27.5 | 39.6 32.4 | 38.8 32.8 | | | Target 2009 | Price | Range 12011 |
| SAFETY | 1 | Raised 3 | /18/05 | LEGE | IDS 10 x Divide | nds p sh | | | | | 四個國 | | | | | | | L | | | 80 |
| BETA .7 | CAL ∠ 5 (1.00 | , Raised 9 Market) | /15/06 | 3-for-2 so | iasive Pric liasive Prici | erescikate e Strength | | | | | | | | | | | | | ļ | | - 50 |
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| l Figh | rice 45 (· | Gain +20%) | Return 8% | | | | | linut lin | H. HIII | | | - | 1 | 11. par 13. 17 | | | | | | | +30 +25 |
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| to Fear | OND | JFM | AMJ | | | | | | | · | - | | ******* | · | ******** | | | | | | -10 |
| Options to Sell | 001 | | 000 | | | | | | | | | | | | | | | % TO | i I. Retur | 1 N 8/06 | -75 |
| Institu | 10nai 402965 | Decisio 102005 | 702106 |] | | | | 1 | 1 | | | | | | 1 | lu | | | THES STOCK | WL ARITH | |
| to Bury to Sell | 59 54 | 62 59 | 77 59 | shares traded | 6- | | | | | | and the second sec | | | | | | | 3 yr. | 8.1 51.4 | 49.4 | |
| 1990 | 12922 1991 | 13095 | 14328 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2005 | 2007 | © VALU | E LINE PU | B., NC. | 09-11 |
| 17.02 | 16.74 | 14.10 | 18.15 | 18.30 | 15.02 | 16.86 | 15.82 | 16.77 | 18.17 | 21.09 | 25.78 | 25.07 | 23.57 | 25.69 | 33.01 | 39.65 | 42.25 | Revenue Cosh E | s per sh | | 51.80 |
| 1.62 | 2.57 | 3.25 | 3.74 | 3.50 | 3.41 1.61 | 3.86 1.97 | 3.72 | 3.24 | 3.7Z 1.70 | 3.68 1.79 | 3.80 1.88 | 1.62 | 3.65 1.76 | 3.92 1.86 | 2.11 | 4.00 | 2.40 | Earning | iow per: spersh i | 47 A | 2.45 |
| 1.10 | 1.13 | 1.15 | 1.17 | 1.17 | 1.18 | 1.20 | 1.21 | 1.22 | 1.23 | 1.24 | 1.25 | 1.26 | 1.27 | 1.30 | 1.32 | 1.38 | 1.42 | Divids D | eci'd per | sh Be ersh | 1.70 |
| 12.61 | 12.23 | 12.41 | 13.08 | 13.63 | 14.55 | 15.37 | 16.02 | 16.59 | 17.12 | 17.93 | 18.56 | 18.88 | 19.52 | 20.64 | 21.28 | 22.10 | 22.95 | Book Va | lue per si | h | 25.55 |
| 17.41 | 17.68 | 19.46 | 19.77 | 20.13 | 22.24 | 22.56 | 22.86 | 24.85 | 25.09 | 25.23 | 25.23 | 25.59 | 25.94 | 27.55 | 27.58 | 27.75 Bold Re | 27.80 | Commo Ava Ann | n Shi Ou | tst'g C | 28.00 |
| .76 | 1.79 | 1.64 | .76 | .85 | .85 | .73 | .83 | 1.39 | .83 | .81 | 66 | .94 | .90 | .88 | .91 | Value | Line | Relative | P/E Ratio | | .95 |
| 6.7% | 5.9% | 5.7% | 5.2% | 5.5% | 5.7% | 5.2% | 4.8% | 4.5% | 5.0% | 5.6% | 5.1% | 4.5% | 4.6% | 4.2% | 3.7% | 4027 | 1050 | Avg Ann | 'i Div'd Y | leid | 4.3% |
| Total De | L \$1RU | .3 mill. | Due in 5 | иов Yrs \$204 | 2 miil. | 380.3 46.8 | 43.1 | 27.3 | 400.8 | 47.8 | 50.2 | 43.8 | 46.0 | 50.6 | 58.1 | 62.0 | 65.5 | Net Prof | is (amili) R (Smili) | | 80.0 |
| LT Debi | \$492.0 | mill. I | LT intere | st \$31.0 n | nill. | 38.9% | 32.9% | 31.0% | 35.4% | 35.9% | 35.4% | 34.9% | 33.7% | 34.4% | 38.0% | 35.0% | 36.0% | Income | Tax Rate | | 36.0% |
| (Total in | terest co | overage: | 3.4x) | | | 12.3% | 46.0% | 45.0% | 9.9% 46.0% | 8.0% 45.1% | 43.0% | 47.6% | 49.7% | 48.0% | 47.0% | 3.1% | 47.0% | Long-Te | m Debt F | tatio | 47% |
| Pension Oblig | Asseta 267 9 m | -12/05 \$ | 218.6 mil | 1. | | 52.8% | 49.0% | 50.6% | 49.9% | 50.9% | 53.2% | 51.5% | 50.3% | 54.0% | 53.0% | 53.0% | 53.0% | Common | Equity F | Ratio | 53% |
| Pfd Sto | ck None |)) | | | | 745.3 | 827.5 | 815.0 | 895.9 | 934.0 | 965.0 | 995.6 | 1205.9 | 1318.4 | 1373.4 | 1375 | 1400 | Net Plan | nt (Smill) | ¥) | 1500 |
| Commo | n Stoci | 27,548 | 346 shs. | | | 8.9% | 7.4% | 5.0% | 6.8% | 6.7% | 6.9% | 5.9% | 5.7% | 5.9% 8.9% | 6.5% | 7.0% | 7.0% | Return o | on Total C on Shr. Fr | ap'i nity | 7.0% |
| MARKE | T CAP | F1.1 606 | on (Mid C | ap) | | 12.7% | 11.0% | 6.0% | 9.9% | 10.0% | 10.2% | 8.5% | 9.0% | 8.9% | 9.9% | 10.0% | 10.5% | Return c | An Com E | quity | 10.5% |
| CURRE | NT POS | TION | 2004 | 2005 | 6/30/06 | 5.0% | 3.6% | NMF 118% | 2.8% | 3.1% | 3.5% 87% | 1.9% | 2.6% | 2.7% | 3.7% 63% | 3.7% | 3.7% | Retained All Div'd | i to Com is to Net I | Eq Prof | 3.8% 60% |
| (SMI) Cash A | L) ssets | | 5.2 | .7.1 | 6.6 | BUSIN | ESS: No | rthwest I | vistural C | Gas Co. (| fistribute | a natural | gas at | Pipeline | system | to bring | gas to | market. | Owns loc | al unde | rground |
| Current | Assets | - | 231.9 | 318.6 | <u>191.5</u> 198.1 | retail la custa.) | o 90 con and in s | nmunities outhwest | 624,00 Washin | 0 custon gton state | nens, in (1. Princip | Dregon (a) cilies | 90% of served: | storage. dustrial | . Rev. bi . gas trai | reakdown naportatic | n: resider xn, and c | ntial, 539 other, 20 | i; comm %.Empl | ercial, 2 oys 1,3(| 7%; in 15. Bar- |
| Accts P Debt D | ayable Je | | 102.5 117.5 | 135.3 134.7 | 76.8 85.3 | Portian | d and Ei 4 mill (7 | ugene, C 7% In Of | R; Vanc | ouver, W | A. Servi | cerea dv from | popula- Canadi- | clays on Mark S | Nos 6.2% Dodsor | of share | rs; inside R. Addre | rs, 1% (4 as: 220 | /06 proxy NW 2nd | /). CEO: Ave., F | ortiand. |
| Current | Liab. | | 47.3 | 326.6 | 215.1 | an an | 1 U.S. p | roducers | has tr | ansportat | on right | on No | rthwest | OR 972 | 09. Tel.: | 503-226- | 4211. Ini | lemet: w | w.nwnai | ural.con | l. |
| Fx. Cho | L COV. | 8 Pasi | 316% Pa | 340% | NMF | Nor | thwe | st Na turn | atura ed oi | l's so utab | econd | l-qua tter 1 | rter ban | Earr | uings i nev | in 2 v effi | 2007 cienc | will v and | likely d cos | / bei t-cut | iefit ting |
| of change Revent | (per sh) | 10 Yn | 5Y | n. to | '08-'11 1.0% | exp | ected | desp | ite w | eather | that | was | 16% | effor | ts. N | lorthw | vest 1 | ias b | egun | to in | nple- |
| "Cash Eaming | Flow" | 12 | 5% 2 5% 5 | .5% .0% | 4.5% | wari than | ner t Hast | nan a year': | iverag s. The | ze an: e com | pany's | 6 wai shai | rmer e of | by c | : a co: onsoli | datin | ywiae g son | pian ne op | to re- | auce | tan- |
| Divider Book V | ds alue | 1.(4.(|)% 1)% 3 | .0% .5% | 4.0% 3.5% | com | modity | cost | savin | gs ad | led al | bout \$ | 0.03 | dardi | izing : | functi | ons, a | ind ou | tsour | cing s | ome |
| Cal- | QUA | TERLY R | EVENUES | (\$ mill.) | Full | from | inter | state | gas s | e peri torage | conti | ibute | d an | plan | will | take | a few | year | s to i | mple | nent |
| endar 2003 | Mar.31 206.5 | Jun.30 117.5 | Sep.30 69.5 | 217.8 | Year 611.3 | addi | tional ce exr | \$0.02 enses | 2. Op | eratio e un | nsan 3% b | dima out w | inte- ould | comp work | letely force | and reduc | will tion o | proba f 200 | bly re to 25 | sult 0 em | in a plov- |
| 2004 | 254.5 | 109.7 | 81.4 | 262.0 | 707.6 | have | riser | 2% | vithou | ut inc | eased | l bad | debt | ees, s | some l | by nor | mal a | ttritic | n. | | |
| 2005 | 390.4 | 171.0 | 130 | 333.6 | 1025 | Costs We | s, due antic | to hig ipate | ner g rou | as pri ghly | ces. norn | nal e | arn- | grov | nwes v fast | er th | arnır an its | igs v indu | vili istrv' | proba s, tha | ably inks |
| 2007 | 375 F | 185 ARNINGS | 140 PER SHAR | 350 F A | 1050 | ings | grov | with e | over | the b | alanc | to of | the | to a | above | -aver | age | custo | omer of Por | gro | wth. |
| endar | Mar.31 | Jun.30 | Sep.30 | Dec.31 | Year | cust | omer | count | by 3 . | 3% in | the | 12 mo | nths | soon | be zo | oned f | or hig | gher o | lensit | y, per | mit- |
| 2003 | 1.01 | .17 d.03 | d.25 d.30 | .83 .95 | 1.76 | ende | d in d bo | June ost e | , and | d the | new | acco 2006 | unts | ting and | profit signifi | table icant | instal custor | lation | of g | as n An | ains the |
| 2005 | 1.44 1.48 | .04 | d.31 | .94 | 2.11 | 2007 | Ŵ | nile t | he r | nation | al ec | onom | y is | comp | any s | erves | less | than | 60% | fits | mar- |
| 2007 | 1.55 | .05 | d.30 | 1.10 | 2.40 | defir doin | nitely g beti | siowi ter th | ng, P an th | ortiar e nat | id see Ion as | emst saw | o de hole, | Ket a | at pre mers | sent, as old | anowi l oil ta | ing it anks r | to pio need r | :к up eplaci | new ng. |
| Cal- endar | QUAR Mar 31 | TERLY Dr Jun 34 | VIDENDS I Sep. 30 | AID ^B = Dec.31 | Full Year | with | little | decli | ne in | new | home | cons | truc- | Thes | e ne | utral | ly ra | nked | sha | res l | ave |
| 2002 | .315 | 315 | .315 | 315 | 1.26 | ing | fuel | s ove | r 909 | 6.) Bi | it the | com | pany | at th | ieir r | ecen | t quo | tatio | n. Alt | hough | 1 we |
| 2003 | .315 | .315 .325 | .315 .325 | .325 | 1.2/ | plan seco | stola nd ha | ay off alf of | 50 to the | 100 e year. | mploy and | /ees ii sever | n the ance | like l | North will h | west's ave ar | prosp 1 oppe | pects, prtuni | we th ty to i | ink ir nvest | at a |
| 2005 | .325 | .325 | .325 .345 | .345 | 1.32 | cost | s will | proba | bly ac | ld up | to arc | und | 50.04 | bette | r pric | e. | -664 | | | | 2000 |
| | L | | | | L | ash | are in | the f | ourth | quart | ег. | | | Sigo | urney | B. Ro | maine | e Sep | tembe | er 15, | 2006 |

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 (A) Diluted earnings per share. Excludes non-recurring gain: '98, \$0.15, '00, \$0.11. Next = Div'd reinvestment plan available.
 Company's Financial Strength
 A

 earnings report due early November. (B) Dividends historically paid in mid-February.
 (C) In millions, adjusted for stock spiil.
 November. (C) In millions, adjusted for stock spiil.
 Dividends historically paid in mid-February.
 November. (C) In millions, adjusted for stock spiil.

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| THEINE | | High: | 32.0 | GL 37.4 | 39.9 | 40.1 | 40.3 | 46.9 | 44.6 | 40.4 | 45.3 | 46.0 | 45.6 | 43.9 | V. (| //0 | LINE | |
|--|--|----------------------------|--|---|--------------------|-------------------------|-------------------------|----------------------|--------------------|------------------------|---------------------|--------------------|-----------------------|---------------------|----------------------|-------------------------------------|--------------------------|------------|
| SAFETY | 2 Lowered 3/17/06 | LOW: | 24.3 | 29.6 | 31.3 | 32.1 | 318 | 26.2 | 34.3 | 27.8 | 34.9 | 38.5 | 34.3 | 34.9 | | | 2009 | ï |
| TECHNIC/ | L - G Susp. 7/21/06 | 1. R | d x Divider vided by Ir elative Pric | vas p.s.n Norest Rate 19 Strength | | | | | | | | | | | <u> </u> | | | Ŧ |
| BETA .85 | (1.00 - Market) | Options: Shaded | Yes area indic | ates recess | ion | | ļ | | | | | | | | <u> </u> | | | Ŧ |
| Pr | Ann'i Tota a Gain Return | 1 | | | | B \$111 111 111 | | | 11 | in hui | 1.1 ¹¹ | ·******* | 1.11.111 | | | | | ţ |
| High 4 Low 3 | (-5%) -2% | | Thursday | 11223 | | | A | 1, prime | | - /// | | | | | | | | 1 |
| insider (0 | ecisions NDJFNAN J | , | | | | | | | | | | | | | | | | 1 |
| b Buy O Options O to Sel O Institutio | 1 0 nai Decisions | <u></u> | | | | | | | | | | | | | | % TO | I. RETUR | 2 2 |
| to Bay to Sail Hist's(100) | 02005 102095 20200 92 78 83 82 94 85 1830 24457 25874 | Percen shares traded | t 12 - 8 - 4 - | | | | llul, lite | | | | | | | | | 1 yr. 3 yr. 5 yr. | 8.1 22.0 38.9 | |
| 1990 1 35.63 | 991 1992 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | OVALU | LINE PU | 8 |
| 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 Fl | ow" per sn | ; |
| 2.07 | 2.05 2.06 2.11 | 2.13 | 1.78 1.80 | 2.96 1.82 | 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 ^a | A . |
| 3.15 | 3.10 3.40 3.77 | 2.50 | 2.75 | 2.45 | 2.55 | 4.05 | 6.45 | 7.02 | 7.52 | 5.65 | 5.10 | 5.02 | 4.27 | 8.95 | 8.90 | Cap'l Sp | ending p | 4 |
| 32.70 | 32.76 34.77 34.88 | 18.59 | 18.38 34.91 | 19.49 34.96 | 20.43 | 35.26 | 21.66 | 35.30 | 35.40 | 35.46 | 23.11 36.69 | 23.06 | 20.97 | 19.60 39.00 | 18.40 | Book Va Commor | ue per si Shs Out | h |
| 11.2 | 11.8 13.1 15.0 75 79 RC | 13.3 | 14.7 98 | 10.7 67 | 12.7 | 15.2 | 15.5 88 | 12.1 | 123 | 13.3 | 13.4 | 19.1 | 18.9 | Bold fig | res are | Avg Ann | I P/E Rat | ii/ |
| 7.1% | 7.0% 0.5% 5.6% | 8.3% | 6.9% | 5.7% | 5.2% | 5.2% | 5.3% | 6.1% | 5.2% | 5.5% | 5.5% | 5.2% | 5.1% | es tin | ates | Avg Ann | 'i Div'd Yi | 'n |
| CAPITAL Total Deb | TRUCTURE as of 6/3 \$1065.0 mill. Due In 5 | 0/06 Yrs \$546. | 4 mil. | 1198.7 103.4 | 1274.4 91.4 | 1138.1 | 1194.4 B4 8 | 1417.5 | 2270.2 | 1482.5 | 2138.4 | 2260.2 | 2599.6 86.2 | 3000 | 3150 | Revanue Net Droff | s (\$mW) | 1 |
| LT Debt \$ (Total inte | 93.6 mil. LT laters ast coverage: 1.8x) | at \$60.0 n | ามีปี. | 37.6% | 38.4% | 36.2% | 35.9% | 34.1% | 35.4% | 34.2% | 36.3% | 31.7% | 34.2% | 35.0% | 35.0% | Income 1 | ax Rate | - |
| Pension / | ssets-9/05 \$520.4 mill | | | 43.6% | 42.4% | 41.1% | 7.1% 40.4% | 6.8% 35.1% | 4.9% | 6.7% | 4.9% | 3.6% | 3.3% 52.8% | 1.6% 53.9% | 1.9% | Net Profi | t Margin m Debt R | ĩ |
| | C | oblig. \$841 | .7 mäl. | 56.4% | 57.6% | 58.9% | 59.6% 1290.5 | 64.9% | 55.6% | 59.3% | 53.3% | 49.2% | 47.2% | 48.1% | 45.2% | Common | Equity F | R F |
| Pfd Stock | None | | | 1381.1 | 1402.2 | 1445.7 | 1519.8 | 1645.3 | 1753.9 | 1773.9 | 1838.2 | 1904.2 | 1947.3 | 2150 | 2300 | Not Plan | ncar (əmil I (\$mili) | |
| Common | itock 38.471 441 she | | | 10.3% 15.2% | 9.5% 13.7% | 7.8% | 8.0% 11.0% | 9.5% 12.4% | 9.3% 13.9% | 8.4% | 8.1% | 5.0% | 6.6% | 4.5% | 5.5% | Return of | n Total Ci | ł |
| AS OF 7/31 |)8 AP: \$1.6 hillon (Mid | Can) | | 15.2% | 13.7% | 10.7% | 11.0% | 12.4% | 13.9% | 12.3% | 12.3% | 9.4% | 10.8% | 6.5% | 1.0% | Return of | n Com Ec | , 9 |
| CURRENT | POSITION 2004 | 2005 | 6/30/06 | 5.9% 61% | 4.1% 66% | 84% | 2.1% 81% | 3.4% 73% | 5.0% 64% | 3.3% 73% | 3.4% 73% | .2% 97% | .5% 95% | NMF 170% | HMF 145% | Retained All Div'de | to Com I to Net P | E) Pr |
| Cash Ass Other | ls 21.1 531.3 | 43.5 855 1 | 157.0 | BUSIN | ESS: Peo | oples Ene | rgy Corp | oration d | istributes | natural | gas via | America | . Purcha | sed gas | costs a | nd reven | ue taxes | 5 |
| Current A | sets 552.4 | 898.6 | 872.1 | 814,000 |) custom | ers at 9/3 | 0/05) ani | d North S | hore Gai | s Co. (15 s Co. (15 | аррюх. 5,000), | plant ag | gas reve e: 11 yes | mues in ars. Has | 13Cal 0. | Deprecimployees | ation ra Officera |) 3 |
| Accts Pay Debt Due | uble 144.7 55.8 | 236.2 8.1 | 198.5 171.4 | in Chic | ago and s:\$1.7 | northea: billion: re | siom IIIn sidential, | ois. Fisc 77%; co | a 2005 mmercial | gas distr , 13%; ir | noution idustri- | own 1.5 Patrick | inc.: IL | mmon (* Address: | 1/06 Pro 130 E. I | xy). Chr Randolph | nn. and Dr., Chie | |
| Other Current L | ıb. <u>335.8</u> | 057.4 901.7 | 525.9 895.8 | a, 2%; Sha- | other, t | f Po | supplier | Fino Fino | ral Gas | Pipeline | Co. of | Telepho | ne: 312-2 | 40-4000 | . Internet | WWW.pe | oplasene | э ; |
| Fix, Chg. | ATES Past D | 332% | 176% | сгеа | sed t | y alı | nost | 12% | since | OUL | last | tors | will c | eu cor ompri: | se nir | ne me | mbers | 15 |
| of change (p Revenuer | rsh) 10 Yrs, 5 Y 6.0% 12 | (n. 10' | 09-11 | ofa | defi | nitive | ig the merg | ger a | anno greem | uncen Ient | nent with | by V select | vPS I ted by | (esour Peop | rces a les Er | and so hergy. | even | |
| "Cash Flo Eamings | v 3.5% 2 2.0% | .0% 1 | NMF NMF | WPS | Reso | urces. ed hv | The the h | deal v | as ur | nanim | ous- | Mean | nwhĺl lte | e, Pe | oples | rep | orted | 1 |
| Dividenda Book Valu | 2.0% 2 9 2.0% 0 | .0% .5% | N∦ NMF | both | comp | anies | Eac | h con | nmon | shar | e of | ende | d Ju | ne 30 | th. R | levenu | es de | 1 11 |
| Fiscal (Year n | UARTERLY REVENUES | mill) A | Full Fiscal | .825 | share | nergy s of W | WOUL PS R | a be esoura | conve es sto | erted ck. U | into sing | 12%, weatl | comp | ared t sulte | to the din | prior lower | year. deliv | • |
| 2003 5 | 9.2 903.8 398.1 | 287.3 | 2138.4 | the r | ecent would | closir resul | g prìo t in a | ce of \ In apr | VPS F | Resour | rces, alue | the main | Gas tenan | distri | butior | n seg | ment. | |
| 2005 7 | a.a 927.0 401.1 7.4 1026.9 455.9 | 527.2 379.4 | 2260.2 2599.6 | of \$4 | 11.32 | per s | share | for 1 | eople | s En | ergy | pense | also | hinde | ered t | he bo | ttom |] |
| 2008 10: 2007 11 | 2.4 1180.0 400.4 0 1225 4 25 | 367.2 400 | 3000 3150 | likely | , occu | r in ti | he firs | n, wi t cale | ndar | quarte | er of | quart | er. In | was add | iition, | oz to the | r the comp | e) |
| Fiscal Year n | EARNINGS PER SHARE | AB San 30 | Full Fiscal | 2007 regul | , is co atory | onditic appi | nal u ovals. | pons. Upo | hareh on co | older mplet | and ion. | lower vear | ed 1ts 2006 | s shau We n | re-net | guida | ance share | 1 |
| 2003 | .87 1.77 .22 | 3ep.30 .04 | Year F 2.88 | PGL | share | holde | rs woi | uld ov | /n abo | out 42 | .4% | of \$1. | 25 for | this | period | i, a de | cline | |
| 2004 2005 | .85 1.46 .15 .77 1.37 .18 | d.27 d.08 | F 2.18 2.26 | The | com | bine | i co | mpan | y w | ш_ ь | ave | With | a d | n me ivide | prior j nd y | year. ield | of 5. | 5 |
| 2006 2007 | 93 1.12 d.32 .95 1.15 d.20 | d.48 d.40 | 1.25 | abou | nt \$9.2 natura | c billi al gas | on in and | elect | ts. It ric u | will o tilities | per- | stock | t may unts. | / app The d | eal t | o inc It auo | ome- tatior | e p |
| Cal- | NARTERLY DIVIDENDS F | AID C. | Full | Wisco | onsin, a. Th | IÌÌin e new | ols, l | Michig any y | an a | ind N | /in- | alrea | dy ref | lects | the p | rice V | VPS F | 2 |
| 2002 M | r.31 Jun.30 Sep.30 1 .52 .52 | Dec.31 .52 | Year 2.07 | quart | erly o | divide | nd of | appro | ximat | cly \$ | 0.66 | shoul | d the | deal f | all th | rough. | Peop |) |
| 2003 | 3 .53 .53 4 .54 54 | .53 54 | 2.12 | gy sl | nareh | olders | curre | ently | receiv | e (fac | tor- | PGL's | iares own, | appr | deciii reciati | ne sig on po | nifica tentia | 1 |
| 2005 | 4 .545 .545 | .545 | 2.18 | ing ir CEO | n the Larr | excha y Wev | nge ra ers w | atio). Vill ta | WPS I ke the | Resou e heln | rces n of | decad Mich: | le is si ael F | ubpar. Nanol | u l | Sent | emhe | , |
| فيطلب فالاتفاد | <u></u> | | | | | | | | | | | | | | - | Sopt | | 1 |

Exhibit MJB-16 Page 11 of 15

| PIEDMONT NAT'L. | NYSE-PN | Y | R P | ecent Rice | 25.2 | 9 P/E RATI | o 18. | 9 (Trail) Medi | ing: 18.2) Ian: 17.0) | RELATIV P/E RATI | 6 1.1 | 1 DIVID YLD | 3.9 |)% V | ALU | Ξ | | | |
|---|--|--|----------------------|---------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--------------------------|---|---|---|------------------------------|------------------------|-------------------------|-----------------|----------------|--|--|
| TIMELINESS 4 Raised 12/23/05 | gh: 12.4 w: 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 2009 | Price 2010 | Range 2011 | | |
| SAFETY Z New 7/27/90 LE | GENDS 1.40 x Divid divided by b | ends p sh ancest Rate | | | | | | | 1 | | | | | | | | 180 | | |
| BETA .60 (1.00 = Market) 2-for | Relative Pric | e Strength | | | | | | | | | | | | | | | - 60 | | |
| 2009-11 PROJECTIONS Ann'l Total Sta | ns: No Ided area indic | nes recess | ion | | | | | | | | | | | | | | +40 | | |
| High 40 (+60%) 15% | | | | | | | | | | | | in the | | | | | +30 +25 | | |
| Insider Decisions | | | | 11111 | Tul'in | r | a cr | "Inthe | 1)1 ¹ *11 | | | | | | | | -15 | | |
| ОН Л Ј F M A M J In Boy 1024 11 10 9 9 9 9 9 Шил | | 11,1*** | - Junt | ····· | | 111.111 | | | | | | | | | | | 10 | | |
| bis Sel 0 0 2 0 1 1 1 0 1 | | | | | 1 | | | <u></u> | | | | | | * 101 | RETUR | N 18/06 | - 7.5 | | |
| 402965 102966 202006 Per | i cent 7.5 - | | | | | ╎┨┯┱┥ | | 1.1.1 | | | | | | 1 | THIS 1 STOCK | NDEX | | | |
| 10507 70 00 05 sha 10501 77 71 61 trad Had \$1000 30419 31060 32936 | rest 5- led 2.5- | | ate. In Fill | untili | | | | | | | | | | 3 yr. 5 yr. | 51.8 97.3 | 49.4 | F | | |
| 1990 1991 1992 1993 199 | 04 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | ● VALUE | LINE PUE | , INC. | 09-11 | | |
| 9.42 8.32 8.91 10.57 10 97 .78 1.07 1.14 1 | 13 1.25 | 11.59 1.49 | 12.84 | 12.45 | 10.97 1.70 | 13.01 | 17.06 | 12.57 | 18.14 2.04 | 19.95 2.31 | 22.96 2.43 | 26.00 2.50 | 28.20 2.65 | "Cash Fk | s per sh ow" per s | h | 33.10 3.20 | | |
| 61 .44 .70 .73 42 44 45 48 | .68 .73 | .84 57 | .93 61 | .98 64 | .93 | 1.01 | 1.01 | .95 | 1.11 | 1.27 | 1.32 | 1.30 | 1.40 | Earnings | persh = | | 1.75 | | |
| 1.62 1.37 1.41 1.58 1 | .95 1.72 | 1.64 | 1.52 | 1.48 | 1.58 | 1.65 | 1.29 | 1.21 | 1.16 | .65 | 2 50 | 2.65 | 2.40 | Cap'l Spe | inding per | in the | 2.20 | | |
| 4.58 4.83 5.13 5.45 5. 42.87 49.46 51.59 52.30 53 | .68 6.16 .15 57.87 | 6.53 59.10 | 6.95 60.39 | 7.45 | 7.86 | 8.26 63.83 | 8.63 64.93 | 8.91 | 9.36 | 11.15 | 11.53 | 10.85 | 11.35 | Book Val Common | she Out | D tra E | 12.75 | | |
| 11.3 16.3 12.3 15.4 1 | 5.7 13.8 | 13.9 | 13.6 | 16.3 | 17.7 | 14.3 | 18.7 | 18.4 | 16.7 | 16.6 | 17.9 | Bold fig | | Avg Ann' | P/E Rati | 0 | 19.0 | | |
| 6.0% 6.0% 5.3% 4.3% 4.1 | 03 92 5.4% | .87 4.9% | .78 4.8% | .85 4.0% | 1.01 4.1% | .93 5.0% | .86 4.5% | 1.01 4.6% | .95 4.4% | 88 4.1% | .95 3.8% | sa tiw | 2193 2193 | Relative I Avg Ann' | rne Ratio I Divid Yi | eid | 1.25 3.5% | | |
| CAPITAL STRUCTURE as of 4/30/06 Total Debt \$912.0 mill Due to 5 Yrs \$ | 25 0 mil | 685.1 | 775.5 | 765.3 | 686.5 | 830.4 | 1107.9 | 832.0 | 1220.8 | 1529.7 | 1761.1 | 1950 | 2100 | Revenue | (\$mili) | A | 2400 | | |
| LT Debt \$625.0 mill. LT Interest \$40 | .0 mill. | 40.0 38.9% | 39.1% | 39.2% | 39.7% | 34.7% | 34.6% | 33.1% | 34.8% | 35.1% | 33.7% | 35.0% | 38,0% | Income T | (amili) ax Rate | | 130 36.0% | | |
| 4.5x) | waayo. | 7.1% | 7.1% | 7.9% | 8.5% | 7.7% | 5.9% | 7.5% | 6.1% | 8.2% | 5.8% | 5.1% | 5.1% | Net Profit | Margin Date R | atia . | 5.3% | | |
| Pension Assets-10/05 \$199.2 mill. | ·000 0 | 49.7% | 52.4% | 55.3% | 53.8% | 53.9% | 52.4% | 45.8% 56.1% | 57.8% | 45.0% 56.4% | 58.6% | 56.5% | 42.3% 57.5% | Common | Equity R | atio | 58.0% | | |
| Dig. 1 | 230.6 milt. | 777.1 862.0 | 800.8 941.7 | 829.3 990.6 | 914.7 1047.0 | 978.4 1072.0 | 1069.4 | 1051.6 1158.5 | 1090.2 | 1514.9 1849.8 | 1509.2 1939 1 | 1440 | 1470 | Total Cap Net Plant | ital (\$mil (\$mili) | Ŋ | 1500 | | |
| PTO STOCK NONE | | 8.2% | 8.9% | 9.2% | 8.1% | 8.3% | 7.9% | 7.8% | 8.6% | 7.8% | 8.2% | 8.5% | 1.5% | Return or | Total Ca | p7 | 9.0% | | |
| Common Stock 75,277,520 shs. as of 6/2/05 | | 12.6% | 13.1% 13.1% | 13.2% 13.2% | 11.8% 11.8% | 12.1% | 11.7% 11.7% | 10.6% 10.6% | 11.8% 11.8% | 11.1% 11.1% | 11.5% | 12.0% 12.0% | 12.5% 12.5% | Return or Return or | i Shr. Equ I Com Eq | ulty ulty | 13.0% 13.0% | | |
| MARKET CAP: \$1.9 billion (Mid Cap) CURRENT POSITION 2004 2001 | 4/30/06 | 3.9% | 4.6% | 4.7% | 3.3% | 3.5% | 3.0% | 1.7% | 3.1% | 3.7% | 3.6% | 1.5% | 4.0% | Retained | to Com E | 9 | 4.5% | | |
| (SMULL) Cash Assets 5.7 7.1 | 20.3 | BUSINE | SS: Pie | dmont N | atural Gr | as Comp | any is p | rimarity a | 1979 1920- | 8.7 year | s. Non-ri | equiated | operation | ni Livas | 1 088-00 | wered | e/ 74 | | |
| Other 329.5 497.8 Current Assets 335.2 504.9 | 497.8 431.7 lated natural gas distributor, serving over 990,000 customers in equipment; natural gas brokering; propane sales Has abc 504.9 452.0 Noth Carolina South Carolina and Tananssa and Tananssa 2005 customers in equipment; natural gas brokering; propane sales Has abc | | | | | | | | | | | | abou | t 2,125 a slock | | | | | |
| Accts Payable 99.6 182.8 Debt Due 109.5 193.5 | 8 73.7 residential (39%), commercial (24%), industrial (13%), other (24%). 5 287.0 Priorital sumpliers: Transce and Tanance Picture (24%). | | | | | | | | | (1/06 proxy). CEO & President: Thomas E. Skains. Inc.: NC. Addr.: 1915 Raxford Road, P.O. Rox 33068 Charlotta, NC 28233 Tala | | | | | | | | | |
| Current Liab. 306.2 528.5 | 1230 1230 Photopal suppliers: Transco and Tennessee Pipeline. Gas costs: 1915 Rexford Road, P.O. Box 33068 Charlotte, NC 26 4837 171.6% of revenues. 05 deprec. rate: 3.3%. Estimated plant age: phone: 704-364-3120. Internet: www.piedmonting.com. | | | | | | | | | | | . 20200 | | | | | | | |
| ANNUAL RATES Past Past F | * 390% Piedmont Natural Gas posted a larger about \$5 million to \$6 million in ann | | | | | | | | | | | | nual | | | | | | |
| of change (per sh) 19 Yrs. 5 Yrs. Revenues 7.5% 11.0% | big us us snare loss than we had anticipated. big us us an interval anticipated big us anticipated | | | | | | | | | | The company's nonutility operations | | | | | | | | |
| "Cash Flow" 7.0% 5.5% Earnings 5.5% 5.0% | 55% 6.0% Was impacted by reduced margins due to 5.0% 6.0% rate design changes, and costs associated | | | | | | | | | centage of future profits. Over the first | | | | | | | | | |
| Dividends 5.5% 5.0% Book Value 6.5% 6.5% | with the company's corporate restructur- with the company's corporate restructur- six months of 2006, these activities | | | | | | | | | | | ties | con- | | | | | | |
| Fiscal QUARTERLY REVENUES (\$ mil.) | ing program. In July, Piedmont and North tributed earnings of \$25.5 million, whi | | | | | | | | | | | wnie pei | ch is riod. | | | | | | |
| 2003 493.5 407.8 140.1 179. | 4 1220.8 | a settlement on its customer utilization. Even though regulated operations ma | | | | | | | | | | | un- | | | | | | |
| 2004 618.8 482.4 214.7 213 2005 680.6 508.0 232.9 339 | 8 1529.7 8 1761.1 | the collection of utility margin from cus- regulated operations such as Cardina | | | | | | | | | | | inal | | | | | | |
| 2006 921.4 483.2 237.9 307. 2007 875 585 315 345 | 5 1950 | both customers, who will benefit by the ergy provide | | | | | | | | | | e an | an added boost to the compa- | | | | | | |
| Fiacal EARNINGS PER SHARE A B F | Full | Full more efficient use of natural gas, and Pied ny's Full mont shareholders, who will not suffer the cont | | | | | | | | | | ny's portion line. We expect Piedmont to continue to pursue strategic investments i | | | | | | | |
| Ends Jan.31 Apr.30 Jul.31 Oct. 2003 .87 .47 d.15 d.0 | 31 Year 8 1.11 | negative consequences of conservation by to diversify its earnings stream over customers. As part of the agreement, the next few years | | | | | | | | | | the | | | | | | | |
| 2004 1.03 .54 d.11 d.2 2005 93 52 d.05 d.0 | 1 1.27 | comp | any v | vill fu | nd up | to \$ | 1.5 m | illion | an- | Thou | gh | untir | nely, | this | st | ock | is | | |
| 2006 .94 .57 d.16 d.0 | 5 1.30 | tome | y over r cons | r the i servat | ion p | ew ye rograr | ars to ns, in | ward addi | cus- tion | sulta orien | ble ted i | ror nvest | cons ors. I | ervati Piedmo | ve ont of | inco: fers a | me- 1 re- | | |
| Cal- QUARTERLY DIVIDENDS PAID C | Full | to the \$500,000 it had already committed to spend. Furthermore Piedmont's initial | | | | | | | | | spectable dividend yield at 3.9% and has an Above Average Safety rank (2) More | | | | | | | | |
| endar Mar.31 Jun.30 Sep.30 Dec. | 31 Year | restructuring involved offering early | | | | | | | | | over, the company should benefit as it | | | | | | | | |
| 2003 20 208 208 20 | ./9 | ees and will eventually include other posi- | | | | | | | | | the Gulf Coast region through agreements | | | | | | | | |
| 2005 215 23 23 23 | , .85 | tions as part of an effort to streamline business processes and improve corporate | | | | | | | | | with Midwestern Gas Transmission Com- | | | | | | | | |
| 2005 .23 .24 .24 | | efficie | encies | The | com | pany | shoul | d rea | lize | Evan | I. Bla | tter | Joind | Sept | ember | 15, . | 2006 | | |
| (A) Fiscal year ends October 31st. (B) Dikuted earnings. Excl. extraordinary II | em: April, | lvidends I July, Oct | historical oper. | hy paid m | id-Januar | y. S | 4.0 millio E) In millio | n, 5¢/sha ons, adju | ire. isted for a | lock split | ¥. | Com | pany's F k's Price | Inancial Stability | Strength | | B++ 100 | | |
| Next earnings report due mid-Dec. | (D) In | o reinvest, plan available; 5% discount. (F) Quarters may not add includes deferred charges. At 10/31/05: change in shares outstan | | | | | | | ot add to utstandin | i to total due to Price Growth Persistence 75 poing. Earnings Predictability 80 | | | | | | | | | |
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| , | | | | | . Postanni | , or 14971.90 | # =-7 Pre- | | on public | | . u produc | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

•

Exhibit MJB-16 Page 12 of 15

| Ku | C RF | SOL | IRCF | :S | NC : | | R | ECENT 25. | 96 TRAIL | 16 17.5 R | LATIVE 0.9 | 3 DIVD 4 | .6% VA | LUE |
|----------------------|--------------|-----------------------|-------------|--------------|-----------------------|-------------------------------------|--|-----------------------|-------------|--------------|---------------|------------------------|------------------------|-------------------------|
| | R | NKS | | | 22.75 | 23.25 | 22.50 | 21.25 | 20.7 | 5 25.50 | 35.75 | 29.55 | 26.90 | |
| DEDEC | | - 2 | | <u> </u> | 17.50 | 19.25 | 15.81 | 18.22 | 16.9 | 3 17.86 | 21.79 | 24.50 | 22.72 | |
| PERP | MMANC | ie Ji. O | Avonego | H | LEG - 12 M | ENDS L DS MOV Avg | | | | | | | <u> </u> | |
| Techni | al | 3, | Average | Sheck | • Rei P ed anas in | nce Strength dicates necession | | | | | | Linda and the | | l |
| SAFET | Y | 3, | Average | THE | J+TH | LILL 11.11 | 1111.111 | | | | 1,1111-H- | | Titter 0 | |
| BETA | .40 | (1.00 = | : Markel) | [| | | | | | | | | | |
| | | | | | | | | | ··· | | | |] | |
| Financi | ol Stran | ath | D 1 | 1 | | | | S.S. | 1 | | | ···· | | |
| | | Y ui | 64 | | | 1 | | | <u> </u> | | | | [•••• | |
| Price S | ability | | 90 | F | L | | | 100 X 10 X | <u> </u> | | · | | ł | |
| Price G | rowth P | ersistenci | 6 0 | | | 11 .1 | | | | ╈╌╂── | | | | |
| Earning | s Predic | ctability | 50 | III . | 11 | | | 1 1.5.5 m | 1-111111 | | | | | |
| | | | | ШШ | 11111 | | | | | | | | hiluti | |
| O VAL | E LINE | PUBLISH | ING, INC | . 18 | 998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007/2 |
| SALES | PER SH | | | 33 | 3.10 | 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 | - | |
| DIV'DS | DECL'D | PER SH | | | 1.00 | 1.59 | 1.54 | 1.21 | 1.28 | 1.77 | 1.01 | 1.62 | NA | NA/N |
| CAP'L | PENDIN | IG PER S | H | 1 5 | 5.15 | 4.88 | 4.21 | 4,19 | 4.39 | 4.17 | 3.84 | 3.54 | <u> </u> | |
| BOOK | ALVEP | ER SH | | 14 | 1.75 | 15.36 | 15.94 | 16.05 | 16.36 | 16.90 | 17.73 | 18.18 | - | |
| AVG AN | N SHS | RATIO | (MILL) | + | 1.79 | 1.83 | 1.88 | 1.91 | 1.98 | 2.00 | 2.07 | 2.10 | | |
| RELATI | VE P/E S | RATIO | | 14 | | 12.9 | 12.8 | 16.2 | 15.0 | 11.5 | 24.0 | 16.2 BG | NA | NA/N |
| AVG AN | N'L DIV | D YIELD | | 5 | 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 | 121.6 | - | Bold figu |
| OPERA | TING MA | (RGIN | | 14 | 1.5% | 18.0% | 14.7% | 12.6% | 16.2% | 14.5% | 10.5% | 11.0% | | are conse |
| NET PR | OFIT (SI | (#MiLL) | | | 2.8 | 4.1 | 4.5 | 5.0 | 5.3 | 5.4 | 4.1 | 4.3 | - | earnin |
| INCOM | TAX R | ATE | | 29 | .5% | 31.9% | 34.6% | 40.3% | 37.9% | 37.8% | 37.2% | 37.6% | | estima) and usin |
| NET PR | OFIT MA | ARGIN | | 4 | .6% | 5.0% | 3.7% | 2.0% | 3.1% | 3.4% | 2.0% | 2.8% | | recent pr |
| WORKI | IG CAP | "L (\$MILL) |) | d3 | 9.9 | d4.2 | d6.3 | d8.2 | d1.6 | d3.0 | 3.0 | 6.4 | - | P/E rati |
| SHR. E | DUITY IS | :Dii (amut. Milii) | L) | 20 |)./ :5 | 23.3 | 23.3 | 22.5 | 30.4 | 30.2 | 26.0 | 30.0 | - | |
| RETUR | ON TO | TAL CAP | 1 | 7 | 4% | 7.1% | 7.7% | 5.8% | 5 3% | 6.7% | 36.6 | 38.2 | | |
| RETUR | ON SH | IR. EQUIT | Y | 10 |).3% | 10.2% | 9.6% | 7.5% | 7.8% | 10.4% | 5.6% | 8.9% | | |
| RETAIN | ED TO C | OM EQ | | 3 | 1.7% | 3.3% | 2.8% | .6% | .9% | 3.8% | NMF | 8.9% | - | |
| Note: N | OS IO | NET PRO | F suallab | 64% | | 68% | 71% | 92% | 68% | 64% | 113% | | | |
| | | ANIMITAS | DATTO | | | 1 | | | | | ****** | S I S Starter | | 1. 19 |
| of char | (1000 - | nnnuAL i thami | 631AU | | · v- | ASSETS (\$m | IU.) 20 | 004 2005 | 6/30/06 | | | instant and | | |
| Sales | 94 (poi 2 | arøj | 8.5% | 1 | 6.0% | Cash Assets Receivable | 1 | 4.5 1.4 6.6 97 | 4.9 7 1 | BUSINES | B RGC P | cources In- | engogae i | n the same |
| "Cash I Eaming | How" S | | 0.5% | 2 | 2.0% | Inventory (Av | g cost) | 2.5 24.2 | 18.6 | sale and di | stribution of | f natural on | s to approvi | n nic regu mately 50 |
| Dividen | ds | | 1.5% | | 1.0% | Other Current Ascol | 2 | 0.2 3.7 | 5.1 | residential. | commerc | ial, and | industrial | customers |
| BOOK V | aue | | 3.0% | : | 2.5% | | - 4 | 0.0 38.0 | 35.1 | Roanoke, | /irginia, an | d Bluefield | l, Virginia, | and West |
| Fiscal | QUA | RTERLYS | SALES (\$ | mill.) | Full | Property, Plan | it Locat to | E3 400 F | | ginia, as w | ell as the su | rrounding a | areas throug | gh its Roa |
| Year | 10 | 2Q | 30 | 40 | Year | Accum Depre | clation 3 | 5.J 109.5 4,7 35.4 | | Gas Comp | any and B | luefield Ga | s Compan | y subsidia |
| 09/30/04 | 29 9 34 7 | 39.7 | 18.2 | 15.3 | 103.1 | Net Property | 7 | 0.6 74.1 | 77.0 | Roanoke C | as and Blu | etteld Gas | hold the o | nly francl |
| 09/30/06 | 52.8 | 45.8 | 13.0 | 26.0 | 121.0 | Total Assets | 11 | 5.0 113.6 | 112.2 | distribute a | natural ose | in ite Vi- | roince an | u necessii West Vi~ |
| 09/30/07 | - | - | | | | | | | 110.2 | service are | is. RGC al | so provide | s informatio | n system |
| Fiscal | EA | RNINGS I | PER SHAL | RE | Full | LIABILITIES | (Smill.) | 07 404 | | vices to so | tware prov | iders in the | utility indu | stry throu |
| Year | 19 | 20 | 3Q | 40 | Year | Debt Due | · 1 | 2.8 7.7 | 2.7 | subsidiary, | RGC Vent | ures, Inc. of | f Virginia, v | which ope |
| 09/30/03 | .78 | 1.58 | d.28 | d.31 | 1.77 | Other | 1 | 7.25.9 | 10.6 | as Applicat | ion Resour | ces. Has 1 | 37 cmploye | es. Chair |
| 09/30/05 | .57 | .99 | 0.13 .08 | d.36 d.20 | 1.01 | CUITERNI LIAD | 4 | u.r 32.7 | 28.2 | Address f | rtesident: | John B. V | Villiamson | 111. Inc.: |
| 09/30/06 | 69 | 1.02 | d.03 | | | | | | | Tel · | (SAN) | Avenue, N | | ke, VA 24 |
| 09/30/07 | | | | | | LONG-TERM | DEBT AND E | OUITY | | http://www | (JTU) | s.com | | inte |
| Cai- | QUAR | TERLY DI | VIDENDS | PAID | Full | as of 6/30/ | 05 | | | | -ovi 000000 | | | |
| endar | 10 | 20 | 30 | 412 | Year | Total Debt \$3 | 2.7 mill. | Due in | 5 Yrs. NA | | | | | |
| 2003 | 285 | .285 | .285 295 | 285 | 1.14 | including Ca | . Leases NA | | | | | | | |
| 2005 | 295 | 295 | 295 | 295 | 1.17 | Lassas linn- | nitalized Are- | (425) | of Cap'l) | | | | | |
| 2006 | .30 | .30 | .30 | | | Lozzos, UliCa | ensensen en e | HAT PETHERS INA | | | Sep | tember 15, | 2006 | |
| | INSTIT | UTIONAL | DECISIO | NS | | Pension Liab | llity None in '05 | vs. None in '04 | F | TOTAL 811 | | DETIIN | .1 | |
| | | 4Q'05 | 1Q'06 | 20 | 2'06 | Pfd Stock Non | 9 | Pid Divid | Paid None | IUTAL SH | ARENULDE | N KEIURI: Dividenda | V I phus appraciati | on as of 8/11 |
| to Buy | | 4 | 6 | | 5 | Common Stock | k 2,130,573 sha | /85 | | 3 Mos. | 6 Mos | 1 . | 3 V | |
| ~ ~ ~ ~ ~ ~ ~ | 01 | 233 | 238 | 24 | 7 | | | (58) | % of Cap'l) | 3 469 | 7.014/ | | ~ 110, | • 1 |
| Hid's(00 | V] | | | | | | | | | | | | | |

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| SEMCO ENERGY NYSE-SEN | | | | | | | R | ecent Rice | 5.9 | 9 P/E RATI | o 20. |) (Traille Media | ng: 46.1 an: 23.6) | RELATIV P/E RATI | 6 1.1 | | l | Nil | ALUI LINE | | |
|--|------------------------|--------------------------|-------------------------|--------------------------|------------------------------------|-------------------------|----------------------|---------------------------|--|------------------------|------------------------|-------------------------|-------------------------|----------------------|------------------------|------------------------|---------------------------|------------------------|--------------------------|----------------------|----------------|
| TIMEL | NESS 3 | 3 Lowered | 1/13/06 | High: Low: | 17.5 14.0 | 17.5 13.5 | 19.3 15.7 | 18.4 13.1 | 17.5 10.9 | 16.9 10.8 | 15.8 8.9 | 11.4 5.6 | 8.8 3.2 | 8.4 4.5 | 7.1 | 6.5 5.0 | | | Target 2009 | Price | Range |
| SAFET | | Lowered | 12/17/04 | LEGEN | NDS X I DMoe | nas p sn | | | | | 5075 | | | | | | | | 2000 | | 20 |
| BETA . | ICAL 1 60 (1.00 | 4, Raised 8 • Market) | 125/06 | Options: | nced by init Salive Price No | erest kate Strength | - | HI THE | որու | | 1.101 | \sim | | | | | | | | | 1 16 |
| 20 | 9-11 PF | OJECTI | DNS nn'i Total | Shaded | area indici | etes naces | <u>ion</u> j | •• | | 1,111 | | իսիսի | $\overline{\mathbf{x}}$ | | | | | | | | +12 |
| High | Price 11 (| Gain +85%) | Return 15% | | | | | | | • | | 11 - [11] | | dial and | ,, ,Ill(j, | | | | | | |
| Low | 6 r Decis | (NII) | NII | | | | | | | | 1 | | | 61.100 ⁴⁴ | 1111 11 | 1410.0 | | | | | |
| to Bur | 0 N D 0 0 0 | J F M 0 0 0 | A M J D 0 0 | | | | | | | | | | ".• 1 • • | \rightarrow | | | | | | | -3 |
| Optione to Sell | 000 | 000 | 000 | | | | | | | | | | · | · | | | | % TO | I. RETUR |) N: 8/05 | 2 |
| Institu | itional 402065 | Decisio: 10206 | 202606 | Percent | ! 19- | | | | | | | | , | | | | | | THIS STOCK | NDEX | |
| io Buy io Sell Victoriom | 31 22 | 28 25 21575 | 30 22 | shares traded | 6 3 | | | | athan | | | litete, et | | | | 11111- | | 3 yr | 33.3 | 49.4 70.4 | F |
| 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | OVALUE | LINE PU | 3., 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 | Revenue "Cash Fi | s per sh our" per s | | 14.20 |
| .59 | .63 | .78 | .78 | .84 | .83 | .88 | .71 | .55 | .96 | .90 | d.01 | .4B | .14 | .12 | .26 | .25 | .35 | Earnings | per sh A | | .65 |
| .53 | .55 2.53 | 2.10 | .61 1.83 | .62 | .67 1.92 | .71 | .74 | .74 | .81 1.96 | .84 | .84 | .59 1.86 | .35 | .08 1.37 | 1.19 | N# 1.20 | NH 1.15 | Div'ds D Cap'i Sp | eci'd per ending pe | sh∎ Irah | 95 |
| 5.86 | 6.08 | 6.47 | 6.93 | 7.85 | 7.99 | 6.61 | 6.82 | 7.61 | 7.81 7.95 7.50 6.20 5.84 6.22 5.79 5.85 3.90 6.35 Book Value per sh C 17.38 17.91 18.06 18.36 18.84 28.06 28.40 33.70 35.50 J5.50 Common Shs Quist's O | | | | | | | | | | C | 7.90 | |
| 13.0 12.00 12.35 13.05 13.05 13.36 17.35 10.05 16.36 10.36 24.00 23.70 35.30 35.30 23.30 Common stress outsign 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 42.7 Boilt Pipera are Avg Amil Die Ratio 137 1.11 .58 1.20 1.29 1.11 1.37 1.54 .67 99 - .97 20.8 2.40 12.2 Value Die Ratio | | | | | | | | | | | | | kr g o | 13.0 | | | | | | | |
| 1.37 | 1.11 | .98 | 126 | 1.20 | 1.29 | 1.11 | 1.37 | 1.54 | .87 5.5% | .99 6 1% | 614 | .97 7 0% | 2.08 | 2.40 | 1.22 | Value estir | Line stas | Relative | P/E Ratio | ald | .85 Nil |
| CAPIT | L STRU | ICTURE I | us of 6/30 | V06 | | 547.6 | 770.3 | 637.5 | 384.8 | 422.6 | 445.8 | 481.0 | 545.4 | 508.3 | 615.1 | 615 | 550 | Revenue | s (\$mill) | | 640 |
| Total D LT Deb | obt \$472 t \$441.6 | 2.8 mili. 1 mili. 1 | Due in 5 \ T Interes | rs \$263. I \$38.0 n | 9 mill. vil. | 12.0 | 9.9 | 9.0 | 17.0 | 16.7 | d.2 | 8.9 | 3.0 | 4.2 | 11.7 | 10.0 | 14.0 | Net Profi | t (\$mill) | | 28.0 |
| | | (Tota | li interest | coverage | : 1.4x) | 2.2% | 1.3% | 1.4% | 4.4% | 4.0% | NMF | 1.9% | .6% | .8% | 1.9% | 1.6% | 2.5% | Net Profi | t Margin | | 4.4% |
| Leases | , Uncap | Italized A | nnual ren 70 mill. O | tais \$1.9 blig, \$94 | miil. miii | 54.1% 45.9% | 62.6% 36.2% | 55.7% 43.3% | 54.4% 45.6% | 76.8% | 80.8% | 82.1% | 75.2% | 69.3% 23.6% | 62.9% 27.1% | \$3.0% 30.0% | 61.5% 31.3% | Long-Ter | m Debl R Faulty R | atio | 54.0% |
| Pfd Ste | ck \$47 | a mill. Pfd | Divid \$2 | 4 mil | | 197.0 | 261.3 | 305.5 | 312.3 | 582.8 | 592.2 | 615.5 | 703.4 | 697.8 | 702.2 | 700 | 715 | Total Ca | pital (\$mi | ŋ | 775 |
| 239,21 | i shs., 5 | % cum., li | qu. val. \$ | 200, ва. с | -110 | 246.4 8.3% | 257.2 | 290.2 5.4% | 474.3 7.5% | 510.0 5.4% | 524.5 2.9% | 521.1 4.3% | 562.5 2.8% | 559.7 3.6% | 577.4 4.7% | 585 4.5% | 600 3.5% | Net Plan Return o | l (\$mili) n Total Ci | 1 | 645 6.0% |
| \$7.65 p | er share | | | | | 13.3% | 10.1% | 6.6% | 11.9% | 12.3% | NMF | 8.1% | 1.7% | 1.9% | 4.5% | 4.0% | 5.0% | Return o | n Shr. Eq | ulty | 8.0% |
| MARKI | T CAP: | \$200 mli | 179 sns. Ilon (Smi | all Cap) | | 13.3% | NMF | 0.0% NMF | 11.9% | 12.3% | NMF | NMF | 1.7% NMF | 2.5% NMF | 4.9% | 3.0% | 6.0% 5.0% | Retained | to Com E | a | 8.0% |
| CURRE | NT POS | ITION | 2004 | 2005 | B/30/06 | 82% | 105% | NMF | 91% | 90% | NMF | 121% | NMF | 102% | 20% | 27% | 17% | All Div'd | to Nat P | mi | Nü |
| Cash / Other | ssets | | 3.7 182.7 | 5.7 257.0 | 5.3 152.4 | BUSIN 409,00 | ESS: SE 0 custom | MCOEn ensin Mie | ergy, Inc. chigan an | . distribu d Alaska | tes natur 1. Reside | al gas to ntial (62% | about 6 of to- | flame Ti Has ab | ansport, but 566 : | 3/98; En employer | star, 11/9 = 1. Off./d | 39. 2005 Iir. own 2 | deprecial 2.2% of | tion rate common | : 3.6%. |
| Accts i | ayable | | 29.3 | 262.7 64.6 | 157.7 | tal sak ices, p | s). Othe | r busines listribution | ses inclu a and n | ude infor atural cu | mation to a ploelin | e and s | / Serv- | FMR Co man: Da | 77., 10.0 . John N | %; Natio | nal City ne Presi | Corp., 9. | 7% (4/06 EO: Gei | i proxy). Sme Sci | Chair- |
| Other | ue | | 54.4 43.4 | 78 9 54.8 | 31.2 42.6 | Constru | ction Se | rvices bu | siness di | scontinu | ed in 200 | 3. Sold | energy | Jr. inc.: | MI, Addr | ess: 405 | Water St | Inset, Por | Huron, I | 4806 | 0. Tela- |
| Fix. Ch | g. Cov | | 22% | 198.3 125% | 93.5 NMF | SEM | ICO | Ener | gy h | as b | een | hurt | bv | Com | nissio | n was | s filed | I in la | te M | av fo | r an |
| ANNU/ | L RATE | S Past | Pa: 5 Yi | st Est'd | 103-105 | wea | ther | and | custo | mer | cons | erval | lion | \$18.9 | milli | on ind | rease | in ba | se rat | tes. F | lear- |
| Reven "Cash | Jes Flow | 3.0 | % -7. % -10. | 5% 1 | NMF | ture | as. c s in 1 | /ichig | an h | y wa ave ce | rmer ontrib | uted | era- to a | but t | are so he de | cision | еа то ргос | ess is | typic | lecen: ally | time |
| Earnin Divider |)s ids | -14.5 -14.0 | % -28. % -29. | 5% 24 0% 1 | 4.5% NMF | decli ters | ne in worse | gas ci | onsum er pai | ption | . Ton gas ni | iake r | nat- cem | consument | uning, hs Ar | , ta Learl | king v setti | betv Iemen | veen t shou | nin nd nu | e-12 |
| Book V | alue | -2.5 | % ·5 | 0% 3 | 5.0% | to ha | ave pr | ompte | d a gr | eater | num | per of | cus- | ruled | out, | but t | his w | ould l | ikely | be at | the |
| Cal- endar | Mar.31 | Jun.30 | Sep.30 | Dec.31 | Full Year | tome step | up tl | both heir c | Micn onserv | igan /ation | effor | Alaski ts. Tl | a to hese | cost o Our | of a re 2007 | duced sales | and | hike. earni: | ngs e | stim | ates |
| 2003 | 207.6 | 100.5 81.8 | 74.2 54.0 | 163.1 164.7 | 545.4 508.3 | unfo | reseer | i sett | acks | prob: | ably | decrea | ased | are (| entat | ive, a | at bes | st. As | sumin | ig noi | mal |
| 2005 | 226.6 | 95.6 97.0 | 62.3 | 230.6 | 615.1 | of 2 | 006. V | Ve as | sume | that | weath | her co | ndi- | profit | s sho | uld re | boun | d. The | e timl | ng of | the |
| 2007 | 215 | 100 | 60.0 | 175 | 550 | bala | i Will nce of | retur the | n to year, | norm but t | ai thi he co | rough mpan | the yis | afore | menti ct, b | oned : ut th | rate d nere | lecisio is up | n is d side | ifficu potei | lt to htial |
| Cal- endar | E Mar.31 | Jun.30 | ER SHAR | EA Dec.31 | Full Year | still | faced | with | sever | al ch | alleng | es on | the | shoul | d a ra | te hil | ke be a | award | ed. | | |
| 2003 | .57 | d.27 | d.32 | .16 | .14 | The | re is | a g | ood a | rgun | nent | for a | rate | shar | es at | this | time. | Altho | ugh v | ve bel | ieve |
| 2005 | .38 | 0.13 d.11 | 0.28 d.29 | .06 | .12 | relie creas | et, in ses in | our custo | view. mers' | Inde | ed, fi ervati | irther on ha | in- bits | that the a | the co moun | ompar it tha | າy wil t regi | li rece ulator: | ive ra s will | ate re allo | elief, wis |
| 2008 | .30 .35 | d.10 d.10 | d.25 d.25 | .30 .35 | .25 .35 | may | put g | greate | r stre | ss on | the | compa | ny's | uncer for Si | tain. | The | worst | appe | ars to | be | over |
| Cal- | QUA Mar 14 | RTERLY DI | VIDENDS I | PAID B | Full | ing a | ind m | ainter | ance | expen | ses (h | igher | em- | board | here. | | 11.5 51 | | eariy | to ge | |
| 2002 | .21 | .125 | .125 | .125 | .59 | pioye coun | e bei ts) ar | nefit re tak | costs ing a | and toll | deline on th | quent 1e bol | ac- | Char | Ies W. | Noh | | Sep | tembe. | r 15, | 2006 |
| 2003 | .125 | .125 | .075 | .075 | .40 .15 | line. | Unde | r such | i cond | itions | , it is | not li | kely | Curre | nt Assets | to Curre | nt Liebilit | 0-1 (86) | 79.6% | , eV3 10 | 59% |
| 2005 | | | •• | | •• | lowe | d rate | of re | turn o | f 11.0 | %. Th | at sai | id, a | Cash Worki | & Equiv's no Capita | lo Curre el lo Sale | int Liabliit n: | 19 6 : | 1.7% NMF | | 6% |
| (A) DBut | ed aga | Exclude | BODDACI | uning as | 0/ 150.00 | requ | est w | th th | e Mic | higan | Publ | ic Ser | vice | nriviae li | tannihia | r Con | nanu ^s e f | Financial | Stremet | | |
| (loss): '9 | 8, 8¢; '9 27), '06, | 9, 4¢; '01 (\$0.02). | , (34¢); '(Excludes | 03, (\$1.48 gain/(los | 3); Quar s) roun | terly figu ding or a | res may change is | not sum share | to total c count (ar | lue to 1 tidilu- | 05; \$143 | 4 mill , \$ | 4.26/sh | D) In mil | lons. | Stor | k's Price e Growth | s Stabilit | y Ince | • | 25 5 |

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| SOUTH JERSEY INDS. | IYSE-sji | ECENT 2 | 8.80 P/E RAT | no 15 . | 2 (Traill Medi | ng: 17.2) an: 14.9) | RELATIV P/E RATI | 6 0.8 | 9 DND YLD | 3.2 | % V | ALUI | E | |
|---|--|--|---|-----------------------------|---------------------------|---------------------------|----------------------------------|----------------------------|--------------------|---------------------|----------------------|--------------------------|---------------------|----------------|
| TIMELINESS 5 Lowered 471/06 High: 11 Low: 8 | 8 12.3 15.3 9 10.1 10.5 | 15.4 11.0 | 15.4 15.1 10.8 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 | | | Targel 2009 | Price 2010 | Range 2011 |
| TECHNICAL 3 Raised 7/21/06 | idends p sh Interest Rate | ┞───┠─ | | | | | ļ | | | | | | | -80 |
| BETA .70 (1.00 = Market) 2-for-1 split 7/0 2000 44 ODA IEATIANE Options: No | nce strength | | | renze. | | | | 2.for- | | | | | | +60 |
| Ann'l Total Price Gain Return | Scales necession | | | | | | | | | | | | | 30 |
| High 40 (+40%) 11% Low 30 (+5%) 4% | | | | 5 | | | | | | | | | | +25 +20 |
| ONDJFMAMJ | · | | F"Internet | | al'llann | u. | | | | | | | | -15 |
| Options 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 11 | · · · · · · · | ~~~······ | | | | | | •••• | | N TOT | DENID | AL 0/00 | -7.5 |
| Institutional Decisions 402905 102906 202901 Demont | | | | | | | 1 | | | | *10 | THES STOCK | NDEX | |
| to Buy 63 59 54 shares 4 to 548 49 52 46 traded 2 | | | | | | | | | | | 1 yr. 3 yr. | 1.5 67.6 115 B | 7.1 49.4 70.4 | E |
| 1990 1991 1992 1993 1994 199 | 5 1996 1997 | 1998 16 | 999 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | • VALUE | LINE PUI | 5, INC. | 09-11 |
| 14.40 15.10 16.67 17.03 17.45 16.1 1 34 1.37 1.56 1.54 1.35 1 | 0 16.52 16.18 5 1.54 1.60 | 20.89 1 | 17.60 22.43 1.84 1.95 | 35.30 | 20.69 | 26.34 | 29.51 2.44 | 31.78 2.51 | 32.90 2.80 | 34.10 3.00 | Revenue "Cash Fi | s per sh low" per s | uh | 38.25 3.50 |
| 67 64 81 78 51 1 70 71 71 72 72 | 3 .85 .86 | 64 | 1.01 1.08 | 1.15 | 1.22 | 1.37 | 1.58 | 1.71 | 1.85 | 1.95 | Earnings | per sh 4 | | 2.35 |
| 2.11 2.17 1.69 1.87 1.93 2.0 | 8 2.01 2.30 | 3.06 | 2.19 2.21 | 2.82 | 3.47 | 2.38 | 267 | 3.21 | 3.60 | 1.70 | Cap'i Spi | ending pe | ir sh | 4.05 |
| 6.79 6.77 6.95 7.17 7.23 7.3 18.06 18.48 19.00 19.61 21.43 21.4 | 4 8.03 6.43 4 21.51 21.54 | 6.23 21.58 2 | 6.14 7.25 22.30 23.00 | 23.72 | 8.67 24.41 | 11.26 26.45 | 12.41 27.76 | 13.50 | 14.30 29.20 | 15.10 29.60 | Book Val Common | ue per sh Shs Out | st'g D | 17.55 |
| 13.6 14.5 13.2 15.8 16.1 12 1.01 93 80 93 1.06 1 | 2 13.3 13.8 2 83 80 | 21.2 | 13.3 13 0 76 85 | 13.6 | 13.5 | 13.3 76 | 14.1 74 | 16.6 88 | Bold fig: Value | res are Line | Avg Ann' Relative | I P/E Ratio | 0 | 14.0 |
| 7.7% 7.6% 6.6% 5.9% 7.4% 7.2 | 6 6.4% 6.1% | 5.3% 5 | 5.4% 5.2% | 4.7% | 4.6% | 4.3% | 3.7% | 3.0% | estim | ales . | Avg Ann | 'i Dhv'd Yi | eld | 3.5% |
| CAPITAL STRUCTURE as of 6/30/06 Total Dabt \$505.1 mill. Due in 5 Yrs \$175.0 mill. | 355.5 348.6 | 450.2 3 13.8 | 892.5 515.9 22.0 24.7 | 837.3 26.8 | 505.1 29.4 | 696.8 34.6 | 819.1 43.0 | 921.0 48.6 | 960 55.0 | 1010 60.0 | Revenue Net Profi | s (\$mill) t (\$mill) | | 1185 70.0 |
| (Total interest coverage: 4.8x) | 35.5% 36.8% | 46.2% 42 | 2.8% 43.1% | 42.2% | 41.4% | 40.6% | 40.9% | 41.5% | 40.5% | 40.5% | Income T | ax Rate | | 40.5% |
| | 46.1% 54.6% | 57.3% 53 | 3.8% 54.1% | 57.0% | 53.6% | 50.8% | 48.7% | 44.9% | 43.0% | 41.0% | Long-Ter | m Debt R | stio | 40.0% |
| Pension Assets-12/05 \$108 5 mill. Oblig. \$126.7 mill | 53.2% 35.8% 324.8 387.1 | 33.5% 37 401.1 4 | 1.0% 37.5% 105.9 443.5 | 35.9% 516.2 | 46.1% | 49.0% 608.4 | 51.0% 675.0 | 55.1% 710.3 | 57.0% 735 | 57.0% | Common Total Car | Equity R pital (\$mil | atio I) | 80.0% |
| Pro Stock none | 423.9 456.5 | 504.3 5 | 533.3 562.2 74% 74% | 607.0 | 666.6 | 748.3 | 799.9 | 877.3 | 940 8.5% | 1010 | Net Plant | t (\$mill) n Total Cu | 101 | 1200 |
| as of 8/1/06 | 10.5% 10.5% | 8.1% 11 | 1.7% 12.1% | 12.1% | 12.4% | 11.5% | 12.4% | 12.4% | 13.0% | 13.0% | Return o | n Shr. Eq | ulty | 13.0% |
| MARKET CAP: \$850 million (Small Cap) | 1.6% 2.1% | NMF 4 | 4.2% 4.8% | 3.5% | 4.7% | 5.0% | 12.5% 5.9% | 6.2% | 13.0% 6.5% | 6.5% | Retained | to Com E | q | 6.5% |
| CURRENT POSITION 2004 2005 6/30/0 (INILL) Cash Assets 10.6 4.9 6 | 85% 84% BUSINESS: So | 112% in | 72% 67% | 76% | 62% | 57% | 52% | 50% | 50% | 50% | All Div'd | to Net P | Marin | 52% |
| Other 273.3 352.6 288. Current Assets 283.9 357.5 295 | subsidiary, Sor 322,424 curstor | ith Jersey (| Gas Co., di | stributes | natural (| pas to which | gy, and | South Ja | ersey En | ergy Ser | vices Plu | s. Has E | 38 emp | loyees, |
| Accls Payable 118.8 179.0 74. Debt Due 97.6 149.7 147. | covers 2,500 so mix 105: residen | uare miles a | and includes / | Atlantic Cil | y. Gas n | ivenue | 7.9%; B | arclays, | 5.3% (3/ | D6 proxy |). Channa | A CEO | Edwal | d Gra- |
| Current Liab. 285.3 403.1 327. | tric generation | 4%; Industria | 1, 23%. Non- | -utility ope | rations in | iclude; | NJ 0803 | 7. Tel.: 6 | 09-561-9 | 000. Inte | met www | w.sjindus | tries.con | 1. |
| ANNUAL RATES Past Past Est'd '03-'0 | South J comparis | ersey ons hav | Industr ve been | ies' (weak | earni over | ngs the | Casin | nced | Spa. 1 towar | Result d the | ls sho e end | uld b of r | e fur next | ther vear |
| of change (persh) 18 Yrs. 5 Yrs. to '09-'11 Revenues 5.5% 7.5% 4.5% | first six | months rmer th | of 2006 | . This | is lar | gely | when the B | an 8 | 00-ro | om to Ma | wer is | s com | plete | dat |
| Earnings 8.0% 11.5% 7.0% | and conse | rvation I | by custo | mers a | s a re | sult | of cor | npleti | nga | 3.8 m | egawa | tt me | than | e-to- |
| Book Value 5.5% 13.0% 6.0% | side, there | e is conti | inued op | timisn | n that | the | Coun | ty dis | trict l | on pr andfil | oject i II, whi | at the | e wa ould | pro- |
| endar Mar.31 Jun.30 Sep.30 Dec.31 Yea | ment_pro | conserv posal wi | ill be a | d usag | ge adj d by | ust- the | vide Looki | additi ng ah | onal ead, t | oppor he su | tuniti bsidia | es for ry ma | y be | wth. able |
| 2003 279.9 106.2 90.1 220.6 696. 2004 307.6 136.5 129.5 245.5 819. | be in place | ey Board e by ne | d of Pub xt winte | lic Uti r's he | lities ating | and sea- | to bei a 50-i | nefit s acre r | should proper | la cas tv ow | sino/he ned b | otel b v MG | e buil M th | ton at is |
| 2005 328.6 154.0 157.0 281.4 921 2006 365.0 155.5 162 277.5 960 | son. More | over, the | utility a | added | 8,74Ŭ | cus- | locate | d nex | t to th | ne Bor | gata. | h | | the |
| 2007 375 175 172 288 1010 | represents | nearly | a 3% ir | crease | over | the | Resid | lenti | al & | Co | mner | cial | Serv | /ice |
| endar Mar.31 Jun.30 Sep.30 Dec.31 Yea | economy | and dem | and for | housi | ngin | the | ance | goin | nay e ig for | ward | 1. Thi | s is | perio | rm- |
| 2004 81 .15 .02 .50 1.5 | at a rate | e compar exceedir | ny snoule ng the i | d add (ndustr | custon y ave | ners rage | due t servio | o rece ces th | ent ac at inc | iditio: Iude i | ns to propar | its po ne hea | ortfoli aters | o of and |
| 2006 .93 .25 .14 .53 1.8 | over the n for earnin | ext few gs to adv | years. F | or 200 out 8% | 6, we , to \$ 1 | look .85. | applia ventil | ances, | and and | small air co | comm | ercial | heat | ing, is, |
| Cal- QUARTERLY DIVIDENDS PAID = Fail | due to a p | ickup in | nonregi | ulated | activi | ties, -7% | This | untir | nely | stock | is be | est su | ited | for |
| endar Mar.31 Jun.30 Sep.30 Dec.31 Yea 2002 .185 .188 188 38 0 | rate out to | late dec | cade. | 128 - | // | for | good | divie | dend | grow | th po | otenti | lal. C | over |
| 2003193 .193 .395 .7 2004202 202 415 9 | growth. I | t recent | ly compl | eted th | he exp | an- | divide | end in | crease | es, wh | hich sł | nould | push | the |
| 2005 213 213 438 .8 2006 225 225 | support th | e 500,00 | 00-squar | e-foot e | i pian expan | sion | reduc | tion in | ound n the (| 3.3%, debt-t | along o-equi | g with ity rat | iasi io. | ignt |
| (A) Based on avg. shs. Excl. nonrecur. cain: 1'0 | to the gar | ning are | ea at the | e Borg | Div. m | otel | Evan | I. Bla | tter | nahv's s | Sept | embe. | r 15, . | 2006 B++ |
| '01, \$0.13. Excl gain (losses) from discont. ops.: '96, \$1.14; '97, (\$0.24); '98, (\$0.26); '99, 're | ct'g change: '93, \$0. Nort due late Oct. | 04; '01, \$0 14 | 4. Next egs. | (C) Ind. n 12/31/05. | sgulatory \$4.19 pe | assets (| 121.5 m | a): et | Stoc | k's Price Growth | Stability | vuunyu (mce | • | 100 |
| (\$0.02); '00, (\$0.04); '01, (\$0.02); '02, (\$0.04); (B • 2006, Value Line Publishing, Inc. All rights reserved. Fac | Dividends paid ear | ly Apr., Jul., (from sources (| Oct, and believed to be | (D) in mili reliable and | ions, adji is provide | isted for 1 without v | spiit. varranties d | of any kind | Eam | ings Pre | dictabili | y | | 90 |
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•

Exhibit MJB-16 Page 15 of 15

| WC | jl H | OLD | INGS | NYSE | -WGL | | R P | ecent Rice | 30.7 | 7 PÆ RATI | o 14 . | 4 (Traili Medi | ing: 17.1 an: 15.0) | RELATIV P/E RATI | 0.8 | 5 PIND | 4.5 | % | ALU | E | |
|------------------------------------|----------------------------------|-----------------------------|--------------------------|---------------------------|--------------------------------------|---------------------|----------------------|-------------------------|--------------------------|---------------------------|---------------------------|--------------------------|------------------------|---------------------|------------------------|----------------------|--------------------------|-----------------------|----------------------------|---------------------|----------------|
| TIMEL | NESS | Raised E | 4406 | High: Low: | 22.4 16.1 | 25.0 19.1 | 31.4 20.9 | 30.8 23.1 | 29.4 21.0 | 31.5 21.8 | 30.5 25.3 | 29.5 19.3 | 28.8 23.2 | 31.4 26.7 | 34.8 28.8 | 31.5 27.0 | | | Target 2009 | Price | Range |
| SAFET | Y | Raised 4 | /2/93 | LEGE | IDS 0 x Divide | ends p sh | | | | | 1000 | | | | | | | | 2000 | | 80 |
| BETA | 80 (1.00 | Market) | 126106 | 2-for-1 sp | 180VB Pric 180VB Pric 161 5/95 | a Strength | Ē | | | | | | · | | | | | | | ļ | + 60 |
| 20 | 09-11 PI | OJECT | ONS no'll Total | Options: 1 Shaded | io area indic. | ates rocass | ion 🗖 | | | <u> </u> | | | | | | | | | | ļ | 40 |
| Hioh | Price 35 (| Gain (+15%) | Return | | | <u> </u> | | 1.111 AL | | | 745113 1 | 1 | antarn | :"THIN | | | <u> </u> | | | | -30 |
| Low | 30 r Decli | (-5%) | 4% | ······· | in and | -anite at | | | | [| | | | | | <u> </u> | <u>}</u> | <u> </u> | | | -20 |
| to Busy | 0 1 0 | JFM | | | | | | | | | 155 | · | | | | | | | | | 10 |
| Options to Sell | 000 | 000 | 0 0 0 0 0 0 | | | | | | | | | | | | | | ļ | * 10 | DETIID | N sins | -7.5 |
| Institu | rtional 402005 | Decisio 102005 | 118 202606 | | | | | | | | | | . | | | | | | THIS STOCK | WL ANTINL MOEX | |
| to Buy to Seal | 88 67 | 70 77 | 73 78 | shøres traded | 6- | | | | | | 11/11 | hulltu | tull. | ullut | | | | 1ут. Зут. | -12 32.0 | 7.1 49.4 | E |
| 1990 | 27959 1991 | 27311 | 29760 1993 | 1994 | 1995 | 1996 I | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 5 yr. ● VALU | 44.8 LINE PUS | 70.4 B., INC, 1 | 09-11 |
| 18.75 | 17.50 | 18.37 | 21.55 | 21.69 | 19.30 | 22.19 | 24.16 | 23.74 | 20.92 | 22.19 | 29.80 | 32.63 | 42.45 | 42.93 | 44.94 | 53.80 | 55.40 | Revenue | s per sh | • | 61.50 |
| 1.26 | 2.04 | 2.17 | 2.25 | 2.43 | 2.51 1.45 | 2.93 | 3.02 | 2.79 1.54 | 2.74 1.47 | 3.20 1.79 | 3.24 | 2.63 | 4.00 | 3.87 | 3.97 | 3.75 1.85 | 1.90 | "Cash Fi | ow" per s uner shi l | ih | 4.50 |
| 1.01 | 1.05 | 1.07 | 1.09 | 1.11 | 1.12 | 1.14 | 1.17 | 1.20 | 1.22 | 1.24 | 1.26 | 1.27 | 1.28 | 1.30 | 1.32 | 1.35 | 1.38 | Div'ds D | eci'd per | sh C= | 1.4 |
| 10.17 | 9.63 | 10.66 | 11.04 | 11.51 | 2.53 | 12.79 | 13.48 | 3.62 13.88 | 3.42 14.72 | 15.31 | 16.24 | 3.34 15.78 | 16.25 | 16.95 | 2.32 17.80 | J.40 17.85 | 3.30 | Cap 1 Sp Book Va | ending pe loe per sh | n sh D | 4.00 |
| 39.23 | 39.89 | 40.62 | 41.50 | 42.19 | 42.93 | 43.70 | 43.70 | 43.84 | 46.47 | 45.47 | 48.54 | 48.56 | 48.63 | 48.67 | 48.65 | 48.70 | 48.70 | Commo | Shs Out | stg E | 48.60 |
| .87 | .82 | .82 | .92 | .92 | .85 | .72 | .73 | .89 | .99 | 14.0 .95 | .75 | 1.26 | .63 | 14.2 .75 | 14.7 .78 | Bold fig Value | Line | Avg Ann Relative | 'i P/E Rit P/E Ritio | 10 | 14.0 .90 |
| 6.9% | 7.2% | 6.2% | 5.3% | 5.6% | 5.1% | 5.4% | 5.0% | 4.5% | 4.8% | 4.8% | 4.6% | 4.8% | 5.0% | 4.6% | 4.2% | estin | ates | Avg Ann | 'i Div'd Yi | ble | 4.3% |
| Total D | ebt \$726 | 5.8 mill. | Due in 5 | 706 Yrs \$520. | Q mRJ. | 969.8 81.6 | 1055.8 82.0 | 1040.6 68.6 | 972.1 88.8 | 1031.1 84.6 | 1446.5 89.9 | 1584.8 55.7 | 2064.2 | 2089.6 98.0 | 2186.3 104.8 | 2520 90.0 | 2700 95.0 | Revenue Net Prof | s (\$m81) - t (\$mill) | ^ | 3000 |
| (LT Deb | t \$581.8 Irest ean | mill, ned: 4.6x; | LT Intere total inter | st \$40.0 n rest cover | nill. 1age: | 37.7% | 36.9% | 35.6% | 36.0% | 36.1% | 39.6% | 34.0% | 38.0% | 38.2% | 37.4% | 38.0% | 38.0% | incoma 1 | ax Rate | | 34.0% |
| 4.2x) Pensio | n Asset | s-9/05 \$6 | 91.7 mill. | | | 37.6% | 41.1% | 40.3% | 41.5% | 43.1% | 41.7% | 45.7% | 43.8% | 40.9% | 4.8% | 39.0% | 3.5% | Long-Tel | t Margin m Debt R | latio | 3.8% |
| Prefert | ed Stoci | k \$28.2 m | OI III Pfd D | blig, \$691 loca \$1.3 | .2 mill. mill | 59.4% | 56.2% | 57.1% | 56.1% | 54.8% | 56.3% | 52.4% | 54.3% | 57.2% | 58.6% | 59.0% | 59.0% | Common | Equity R | latio | 59.0% |
| Comm | nn Stoci | AR 773 1 | 30 she | | | 1130.6 | 1217.1 | 1319.5 | 1402.7 | 1269.2 | 1519.7 | 1402.5 | 1404.9 | 1915.6 | 1969.7 | 2120 | 2270 | Het Plan | oitai (\$mii I (\$miii) | •) { | 2550 |
| as of 7 | (31/06 | | 23 3413. | | | 10.1% | 9.3% | 8.0% | 7.1% | 7.9% | 7.9% | 5.3% | 9.1% | 8.2% | 8.5% | 6.0% | 8.0% | Return o | n Total Ca | ip'i | 6.5% |
| | - | | | | | 14.4% | 13.7% | 11.1% | 9.9% | 11.7% | 11.2% | 7.2% | 14.0% | 11.7% | 12.0% | 10.0% | 10.0% | Return o | n Sor. Eq n Com Eq | pulty | 11.0% |
| CURRE | I CAP | ST.5 BUI | on (Mid C 2004 | 2005 (| /30/06 | 5.6% 82% | 5.1% | 2.5% | 1.8% | 3.7% | 3.8% | NMF | 6.2% | 4.1% 65% | 4.6% | 2.5% | 3.0% | Retained | to Com E | 9 | 4.0% |
| (SM Cash A | LL) Looota | | 8.8 | 4.8 | 88.1 | BUSIN | ESS: WO | SL Holdin | gs, Inc. | is the pa | nent of V | Vashingto | on Gas | vides er | ergy rela | ted bate | tucts in t | the D.C. | metro ar | ea: Was | h. Gas |
| Curren | t Assets | | 28.3 32.9 | 476.2 481.0 | 454.3 | Light, a | n atural NVA a | gas dist vi MD t | nibutor in n maider | Washin | gton, D.C | C. and a some /10 | djacent | Energy | Sys. det | signa/inst | alls com | m'i heati | ng, venti | llating, a | und air |
| Accts I Debt D | ^s ayable ue | 1 | 79.0 56.3 | 204.9 91.0 | 172.4 | meters) | Hamps | hire Gas | a feder | rally regu | ilated su | b., opera | ites an | Off./dir. | less than | 1% (1/0 | 6 proxy). | Chrmn. | & CEO: | J.H. DeC | iraffen- |
| Other | t Lisb. | - | 77.6 | <u>115.5</u> 411.4 | 147.8 | Wash. | Gas Ene | is-storage irgy Svca | . sells a | nd delive | Non-re | al gas a | subs.: nd pro- | 20080, 1 | :: D.C. a el.: 202- | nd VA. A 624-841(| Addr.: 11(), Interne | XO H SL, t: WWW.W | N.W., Wi ginolding | sshingto \$.com, | n, D.C. |
| Fix. Ch | G. COV. | 4 9 Beet | 49% | 460% | 450% | WGI | . Hol | dings | post | ed so | olid r | esult | s in | proje | t is fi | ully re | ecover | ed th | ough | a rat | e in- |
| of chang | e (per sh) | 10 Yrs. 7 5 | 5 Yr | s. to't | 03-11 09-11 | quai | ter (| ended | y w June | 30th |). It r | eporte | ed a | realiz | e, wn ⊫ea\$(|).16-a | s pro -share | bable, | t to ea | rning | s. |
| "Cash Eamin | Flow" | 5.0 4.5 | % 6. | 5% 2 | 0% | shar | e net i ts fro | loss of Im th | 5 \$0.01 e rec | l, whi ently | ch exa sold | Amer | l the | The sass | comp | any i | s slat | ted to | sper | ıd al | out |
| Divider Book V | ids 'alue | 1.5 | % 1 % 3 | 5% 2 0% 3 | .0% .5% | Com | bustio | n In | dustri | les si | ubsidi | ary, | sig- | proje | ects o | ut to | 2010 | WGI | expe | ects to | be- |
| Fiscal | QUAR | TERLY REV | ENUES (\$ | miii.) ^ | Full | resul | antiy Its we | ahead re driv | ot la Zen by | ist yea / lowe | ar's fi r oper | gure. ation | The and | gin c | onstru 1 late | ction | on it 8 pen | s LN(ding | 5 stor | age f | acil- |
| Ends | Dec.31 | Mar.31 851.1 | Jun.30 | Sep.30 | Year 2064 2 | main | tenan | ice ex | pens | e, ut | ility | custo | mer | prova | l, tw | oyea | rs la | ter th | ian p | revio | usly |
| 2004 | 585.3 | 862.2 | 358.9 | 285.2 | 2089.6 | retai | l ener | gy-ma | arketi | ng bu | siness | s. In f | fact, | challe | pated enges, | and | to zoi | uled t | ina ot o be c | ner i ompl | egal eted |
| 2005 | 909.3 | 929.8 1070.4 | 349.0 346.9 | 284.1 | 2166.3 | incor | ne fro the s | m thi | s seg | ment | nearly | y dou | bled | by th | e 201 | 1-201 | 2 wir | nter. I | lowev | ver, u | ntil |
| 2007 | 960 EA | 1010 | 380 | 350 | 2700 | than | ks to | highe | r gro | ss ma | rgins | from | the | other | oppo | s gia | ies to | mee | t its j | peak | day |
| Year Ends | Dec.31 | Mar.31 | Jun.30 | Sep.30 | Fiscal Year | sale | or na Id he | itural lo pu: | gas sh no | and e nutili | lectri tv ea | city i rning: | l'his s to | requir Thes | remen e sha | its to : | serve are be | its cu: est si | stome lited | rs. for e | on- |
| 2003 2004 | 1.10 | 1.61 | d.05 d 08 | d.36 d.37 | 2.30 | abou | t \$0.2 | las | hare | this y | ear, v | vith a | ddi- | serva | tive | inves | stors. | The | divide | end y | rield |
| 2005 | .88 | 1.63 | d.17 | d.23 | 2.11 | WGI | ⊿ nnp ⊿ exp | ects t | o file | a pi | air of | rate | in- | age, | s at 4 while | 4.3%, the | above stock | e the 's Saf | indus ety ra | ank i | ver- |
| 2008 | .95 | 1.40 | d.15 | 0.21 d.25 | 1.85 | crea ginia | ses. (State | Dne w e Corr | ill so | on be on Co | with | the sion | Vir- | (High | est). | Long | term, | we l | ook fe | or Wa | ash- |
| Cal- endar | QUAR Mar.31 | TERLY DIV Jun 30 | DENDS P | Dec 31 | Fuli Year | anoti | her w | th th | e Mar | yland | Publ | ic Ser | vice | new i | itility | custo | mers | annu | ally, t | hank | s to |
| 2002 | 315 | .318 | .318 | .318 | 1.27 | need | for t | he Ma | rylan | d rate | i ne incr | ease i | s to | the n servic | ew ho ie are: | me co as ove | er the | next | expec 20 ye | ted ir ears. | The |
| 2002 | .318 | 325 | 325 | .325 | 1.28 | recov Geor | er co ge's (| sts as County | sociat | ted w abilite | ith th ation | brogr | ince am. | stock, | whic nce is | h is dene | not v | vell ra | anked | for P. Bu | per- |
| 2004 | .325 .333 | .333 .338 | .333 .338 | .333 | 1.32 | The j | projec | t is sc | hedul | ed to I | be con | nplete | d in | price | range | only | inches | s up o | ver tu | me. | |
| (A) Fisca | l I years e | and Sept. | 30th. | 1 | Next | eaminos | report di | A vhee er | lov. | | D) Indud | g. II | ed cham | ISVAII es and in | I. DIS | Com | icanv's s | Sepi | Strength | r 15, / | 2006 |
| (8) Base recurring tinued or | od on di kosses: reratione | uted sha 01, (13¢) | ires. Excl ; '02, (34 | udes nor \$); discor | + (C) C + May | Nividends August | historica and Nov | ily paid e ember. • | ariy Feb Dividend | ruary, '(rein- (| 05: \$150. E) in milli | 0 million, Ions, adju | \$3.08/st isted for | L slock spli | | Stoc Price | k's Price Growth | Stability Persiste | / Ince | | 100 70 |

2006, Nature Publisher, Son (VP). In production part ensemble 2006, Nature Publisher, Inc. Al rights reserved. Factual matchails 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 HEREIM. This publication is saticity for subscriber's own, non-commercial, Internations of any kind. of it may be reproduced, resold, stared or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product. The publication service or produced.

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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 <u>Value Line Investment Survey - Small and</u> <u>Mid-Cap Edition</u> 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 <u>other enterprises</u> having corresponding risks which was articulated by the U.S. Supreme Court in <u>Federal Power</u> <u>Commission v. Hope Natura1 Gas Co.</u>, 320 U.S. 591, 603 (1944).

Responsible Witness:

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:

| Exhibit I | MJB-17 |
|-----------|---------|
| Page | 1 of 10 |

| AMERICAN DENT | AL NDQ | -ADPI | RE PR | ice 17. | 99 TRAILIN | G 20.7 | LATIVE 1.0 | 3 DIVED | Nil VA | LUE NE |
|--|--------------------|-----------------------------|--|-----------------------|------------------|--------------------------|-----------------|-------------------------|-----------------------|------------------------------|
| RANKS | 12.92 4.75 | 8.92 4.42 | 6.25 3.33 | 7.67 2.49 | 7.00 | 7.97 5.33 | 13.39 7.08 | 23.71 12.36 | 20.45 10.84 | High Low |
| PERFORMANCE 1 Highest | LEGI | ND8 | | 17.997.847 | | | | | | , |
| Technical 1 Highest | Rel Pr | ce Strength | | ALL CALLS | | - | | | | 18 |
| SAFETY 3 Average | Shaded area inc | icates recession | | | | | | | 1 | |
| BETA .50 (1.00 = Market) | '111 ¹¹ | 1-74447 | | | | 11.1.1 | | | | 8 |
| | <u> ' </u> | μ | <u>╎</u> ╎╷ <u>╷</u> ╷┾ _┍ ╷╎ | | | | <u>├</u> | ŀ | | 5 |
| Financial Strength B+ | | ••• | ľ <u>. </u> | | · · · · · | | | | | |
| Price Stability 35 | | • | ···· | Hint Harza | | | • | | | z |
| Price Growth Persistence 85 | | | · · | | | | | , | | |
| Earnings Predictability 70 | | | | 27225250 | | | | <u> </u> | | 1300 |
| | | اللسيلا | . I | | | | | | | (thous.) |
| © 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 1 14 | 13.49 | 14.84 | 15.10 | 16.07 1.82 | - | |
| EARNINGS PER SH | .36 | .52 | .56 | .30 | .42 | .55 | .71 | .81 | .88 ^{A,B} | 1.02 ^C /NA |
| DIV'DS DECL'D PER SH | - 45 | - 1 17 | | - 63 | - 52 | 67 | 82 | | - | |
| 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 | 12.26 | - 20.4 | 17 6/NA |
| RELATIVE P/E RATIO | NMF | .72 | .58 | .84 | .75 | .66 | .83 | 1.15 | | |
| AVG ANN'L DIV'D YIELD | B4 1 | | - 143.6 | | | 163.7 | | 106.0 | - | Rold flauros |
| OPERATING MARGIN | 11.8% | 15.9% | 16.2% | 21.7% | 22.3% | 22.8% | 14.6% | 15.6% | - | are consensus |
| DEPRECIATION (\$MILL) | 2.5 | 6.2 | 8.1 | 9.0 | 9.0 | 9.6 | 10.3 | 12.0 | ~~ | earnings |
| INCOME TAX RATE | 38.8% | 43.3% | 43.0% | 40.6% | 4.7 | 40.8% | 39.6% | 39.1% | ** | esumates and, using the |
| NET PROFIT MARGIN | 4.6% | 5.1% | 4.3% | 2.2% | 3.2% | 3.8% | 4.8% | 5.2% | - | recent prices, |
| LONG-TERM DEBT (SMILL) | d2.7 | .1 40.3 | 4.1 55.3 | 9.2 54.8 | 6.4 49.7 | 3.9 | d2.3 | 2.0 32.0 | - | P/E ratios. |
| SHR. EQUITY (SMILL) | 48.3 | 52.2 | 58.5 | 61.8 | 66.9 | 73.9 | 87.2 | 101.9 | | |
| RETURN ON TOTAL CAP'L RETURN ON SHR. FOUITY | 7.6% | 7.5% 11.5% | 7.3% | 4.6% | 5.3% | 6.4% 8.4% | 8.1% | 8.4% | | |
| 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 | | | | | 5% nor year Bi | | | | anabusts' estimat | |
| | | | | | 1 | | | RV. Modi | al Services | and the second second |
| of change (per share) 5 Yrs. | 1 Yr. | ASSETS (\$r Cash Assets | nill.) 21 | 004 2005 1.4 .6 | 9/30/06 1.8 | | Sector Sector | | | <u> (1997) (1997) (1997)</u> |
| Sales 80% "Cash Flow" 100% | 6.5% 14.0% | Receivables | 1 | 3.5 14.8 | 14.8 | BUSINES | S: Ameri | can Denta | l Partners, | Inc. provides |
| Earnings 7 5% | 14 5% | Other | _ | 4.9 4.8 | 5.2 | business s | services to the | multidisci | plinary der | ital groups in f |
| Book Value 9.0% | 12.5% | Current Asse | ets 2 | 1.6 22.3 | 23.9 | assets of t | he dental p | practices w | ith which i | affiliates and |
| Fiscal QUARTERLY SALES (\$ | mill.) Full | Property, Pla | ant at cost 7 | 60 877 | | enters into | long-term | service aga | reements wi | th these affili- |
| Tear 10 20 30 | 4Q Year | Accum Depr | eclation 3 | 6.7 42.5 | | aleu denta administra | i groups. It | nonclinic | al aspects | of the dental |
| 12/31/05 48.1 49.4 49.6 | 49.8 196.9 | Other | 3 | 3.3 45.2 3.3 103.2 | 43.6 | operations | . American | Dental's | services to | the affiliated |
| 12/31/06 54.1 55.1 53.8 | | Total Assets | 15 | 4 2 170 7 | 171.7 | dental gro | ups include | providing | assistance | with organiza- |
| Fiscal EARNINGS PER SHA | RE FUE | LIABILITIES | (\$mlii.) | 75 | <u> </u> | training p | ograms; qu | ality assu | rance initial | ives; facilities |
| Year 1Q 2Q 3Q | 4Q Year | Debt Due | 18 | 7.5 6.9 .5 .1 | 8.4 .1 | developme | nt and man | agement; e | mployee be | nefits adminis- |
| 12/31/03 11 .15 .13 | .16 .55 | Other Current Lish | | 5.9 13.3 3.9 20.3 | 14.3 | tration; pro | ocurement; | informatio financial | n systems; | marketing and |
| 12/31/05 20 23 17 | .21 .81 | | 4 | 203 | ££-U | analysis. A | s of Octob | er 30, Ame | rican Denta | Partners was |
| 12/31/06 22 25 .19 | .22 | I ONC TEP | | | | affiliated | with 21 de | ntal group | s, which h | ad 201 dental |
| Cal- QUARTERLY DIVIDEND | S PAID FUR | as of 9/3 | 0/06 | | | Has 2197 | ith approxi | mately 1,8 Chairman | /6 operatori CEO & | es in 18 states. |
| endar 1Q 2Q 3Q | 4Q Year | Total Debt \$ | 20.6 mill. | Due in | 5 Yrs. NA | gory A. S | errao. Inc.: | DE. Addre | ss: 201 Ed | zewater Drive, |
| 2003 | | LT Debt \$20 Including C | 16 mill. ap. Leases NA | | | Suite 285, | Wakefield | , MA 018 | 80. Tel.: (7 | 81) 224-0880. |
| 2004 | | Leases. Line | apitalized Ann | (16 NA rentals | % of Cap'l) | Internet: h | ttp://www.a | mdpi.com. | | <i>L.Y.</i> |
| 2008 | | Panalon Lis | hillity None in 'A | 5 ve None in 'n | 4 L | | De | ecember 22 | , 2006 | |
| INSTITUTIONAL DECISI | ONS | Did Charle M | | | Pald Marrie | TOTAL SH | IAREHOLD | ER RETUR | N | |
| 1Q'06 2Q'06 to Buy 31 27 | 5 3Q'06 18 | PID STOCK NO | A MD | ria Divi | | | | Dividends | r plus appreciati | on as of 11/30/2005 |
| to Sell 35 35 | 31 | Common Sto | ck 12,312,075 si | hares (84 | % of Cap'l) | 3 Mos. | 6 Mos. | 1 Yr. | 3 Yrs. | 5 Yrs. |
| 2206 Value Line Publishing Inc. 48 rights | 6440 | material is obta | inod from enumor | boligund to be | aliable and h as | 7.65% | 27.85% | -5.09% | 146.34% | 266.62% |

To subscribe call any product 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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Exhibit MJB-17 Page 2 of 10

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| AMREP CORP. NY | SFAXR | | REC | CENT 61. | 17 TRAILING P/E RATK | 5 11.1 RE | LATIVE 0.57 | T DIVD 0 | 9% VA | | |
|--|--------------------------|-----------------------------|-------------------------|---|--|---|---------------|------------------------------|-----------------|--|--|
| RANKS | 10.50 | 8.00 | 7.44 | 6.50 | 8.85 | 16.45 | 24.00 | 33.88 21.58 | 65.00 23.22 | High Low | |
| PERFORMANCE 2 Above | D.DU LEGE | NDS | 4.00 | 2.70 | 0.00 | 1.00 | 10.27 | 21.00 | | 1 | |
| Technical 3 Average | 12 Mos | Mov Avg | | | | | | | • | | |
| CALETY 3 Ammon | Shaded area Indi | cates necession | | 2259364 | | | | | ┟╌╖╫╷┯╸ | 50 | |
| DETA 55 (100 - Modert) | | | | | | | | | | 25 | |
| BETA .55 (100 = Market) | | | | | | | 1 <u>1</u>] | | • | 25 | |
| Pt | | | | | | 111 | | ļ | <u> </u> | | |
| Financial Strength B+ | -tr: | | | | | - Annell | | | | | |
| Price Stability 40 | | 1.11 | սվես | | بالمسمر ال | | | 1 1 | | | |
| Price Growth Persistence 75 | | -4 | | | | | | | | ⁵ 200 | |
| Earnings Predictability 35 | | | | | | | Julu | | | VOL (thous.) | |
| • 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 | 19.99 | - | | |
| "CASH FLOW" PER SH | 1.86 | .73 | .66 .38 | .97 | 1.42 | 2.52 | 2.35 | 3.78 | NA | NA/NA | |
| DIV'DS DECL'D PER SH | | - | | - | | .25 | .40 | .55 | | | |
| CAP'L SPENDING PER SH | .45 | .37 12.70 | .31 13.66 | .44 14.22 | 14.24 | .55 | 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 | | NARIA | |
| AVG ANN'L P/E RATIO | 5.8 .30 | 33.8 1.93 | 13.6 .88 | 10.0 .51 | 8.5 | 8.3 .47 | .45 | .44 | - NA | NA/NA | |
| AVG ANN'L DIV'D YIELD | - | | - | - | | 1.7% | 2.0% | 1.9% | | D. LLG | |
| SALES (\$MILL) | 190.3 | 119.8 | 73.2 | 83.4 | 73.8 | 131.1 | 134.5 | 148.3 | _ | are consensus | |
| DEPRECIATION (\$MILL) | 4.8 | 4.1 | 1.8 | 2.7 | 3.1 | 5.0 | 5.3 | 5.6 | | earnings | |
| NET PROFIT (\$MILL) | 8.9 | 1.2 | 2.6 | 3.7 | 6.3 | 37.0% | 15.6 | 22.5 | | estimates and, using the | |
| NET PROFIT MARGIN | 4.7% | 1.0% | 3.5% | 4.4% | 8.5% | 8.9% | 11.6% | 15.2% | | recent prices, | |
| WORKING CAP'L (SMILL) | 112.4 | 97.2 | 93.3 | 81.1 | 79.2 | 88.5 | 93.3 | 100.6 | - | P/E ratios. | |
| SHR. EQUITY (SMILL) | 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% | | | |
| 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 | | | - | - | <u> </u> | 14% | 17% | 119% | - | L | |
| Note: No analyst estimates availa | pie. | 1 | | | ŀ | And Calley, | | | arelfied Co | Backson 1/14 | |
| ANNUAL RATES of change (per share) 5 Yrs. | 1 Yr. | ASSETS (\$n | niji.) 2 | 004 2005 | 7/31/06 | | 100 | | | | |
| Sales 2.5% "Cash Flow" 24.0% | -1.5% 19.5% | Receivables | | 57.7 51.7 | 53.3 | BUSINES | S: AMRI | EP Corpor | ation engag | ges in the real | |
| Earnings 34.0% | 44.5% | Other | | <u>.0 .0</u> | 7.8 | nesses. It | conducts r | vices, and n | business n | rimarily in Rio | |
| Book Value 5.0% | -9.5% | Current Asse | els 14 | 18.3 146.1 | 198.4 | Rancho, 1 | New Mexic | o.The com | pany owns | approximately | |
| Fiscal QUARTERLY SALES (| imill.) Full | Property, Pla | ant et cost | 316 2/0 | | 18,550 act | res in Rio R | ancho, as v | vell as two | tracts of land in | |
| Year 1Q 2Q 3Q | 4Q Year | Accum Depr | eciation | 20.0 23.7 | | mately 16 | 0 acres plan | ned for app | roximately | 350 homes; and | |
| 04/30/05 33.6 33.2 31.5 04/30/06 30.1 34.8 35.6 | 36.2 134.5 47.8 148.3 | Other | | 11.6 10.9 34.4 <u>32.0</u> | 20.0 | one prope | rty of appro | ximately 1 | 0 acres zon | ed for commer- | |
| 04/30/07 58.3 | | Total Assets | 10 | 94.3 189.0 | 2397 | cial use. It tion. letter | is tuitilimer | nt services : praphics ar | include maj | gazine subscrip- | |
| Fiscal EARNINGS PER SHA | RE Full | LIABILITIES | i (\$miil.) | 507 00 1 | ,, | phone su | pport, list | services, | and prod | uct fulfillment | |
| Year 1Q 2Q 3Q | 4Q Year | Debt Due | 19 | 2.1 1.7 | 7.3 1.7 | services. | The compared | ny distribut | tes magazir | es for approxi- | |
| 04/30/04 .54 .41 .51 | 31 1.77 | Other Current Linh | | <u>2.2</u> <u>4.5</u> 55.0 <u>45.6</u> | <u> </u> | mately 25 nesses. A | nong the | rs in its ne titles are s | ewsstand di | rest magazines. | |
| 04/30/06 28 .76 .79 | 1.56 3.39 | | | | •••7 | including | automotive | , puzzle, m | ien's sophis | ticates, comics, | |
| 04/30/07 2.38 | | I ONG TEP | U DEBT AND | OUITY | | romance, and sports. Has 1295 employees. Chairman | | | | | |
| Cal- QUARTERLY DIVIDEND | | as of 7/3 | 1/06 | | | Center, Si | uite 302. P | i. inc.: Of | NJ 08540. 1 | . 212 Carnegie Fel.: (609) 716- | |
| endar 1Q 2Q 3Q | 4Q Year | Total Debt | 14.4 mill. | Due l | n 5 Yrs. NA | 8200. Inte | rnet: http:// | www.amre | pcorp.com. | - / | |
| 200325 | | LI Debt \$2. Including C | r mil. ap. Leases NA | \ | | | | | | 4.0 | |
| 200555 | 40 | Leases, Un | capitalized An |) //nual rentals | 2% of Cap'i) | | | Datahan 20 | 2005 | <u></u> | |
| 2006 3.5085 | | Pension Lia | ibility \$3.2 mill | In '05 vs. \$5 8 i | m81. in '04 | | | Jeiover 20 | , 2000 | | |
| INSTITUTIONAL DECIS | ONS | Pfd Stock N | | Pid Div | d Paid None | TOTAL S | HAREHOLD | DER RETU | RN | iation as of D/30/2004 | |
| 40'05 10'0 to Buy 7 10 | o 20,'06 24 | Comment | | | | 3 1400 | 6 Mor | 1 V- | nus pius apprec | | |
| to Sell 3 7 | 4 940 | Common Sto | JCK 0.045,112 S | 12185 (! | (98% of Capi) 02.70% 02.70% 117, 37.75% 1120.64% | | | | | . ⇒ 118. M 1420 £41º | |
| | 048 | I matorial is obto | unod from source | s holiowof to he | reliable and is n | - IU.U370 | £3.1270 | 02.08% | 231,92 | ////////////////////////////////////// | |

The public has provided in the production of the provided in the source of the provided in the

Exhibit MJB-17 Page 3 of 10

| AXSYS TECH NDG | -AXYS | | REC | CE 16. | 38 TRAILING PIE RATIO | 17.9 PE | ATTVE 0.9(| | | |
|--|---|---------------------------------|----------------------------------|-----------------------|--------------------------|-----------------|--|-----------------------|----------------------------|-----------------------|
| BANKS | 18.33 | 13.33 | 34.00 | 24.08 | 6.67 | 10.03 | 19.05 | 22.75 | 18.67 | High |
| PERFORMANCE 1 History | | NDS | 1.00 | 11.1 | 4.14 | 4.07 | 0.00 | 10,40 | 10.00 | 1 2011 |
| Technical 2 Above | 12 Mo | s Mov Avg ce Strength | * | | | | <u> </u> | | 111111 · | 18 |
| SAFETY 3 Average | 3-for-2 split Shaded area ind | 7/04 icates recession | | | | | | | - 11 | 13 |
| BETA 60 (1.00 = Markel) | | | | | <u> </u> | | <u> </u> | | | |
| Den to (100 - manety | | | | | | 4 | | | | 5 |
| Einancial Strapath B+ | <u>}</u> } | ••••• | • | | | | | • | | 4 |
| Principal Strength D* | •.• | | •.• | | | | | | | 7 |
| Price Stability 40 | 1 | ••••• | , | | | | | 1 1 | j | |
| Price Growin Persistence 35 | ,, ,, | | | | | ••••• | | | | 700 |
| Earnings Predictability 15 | | lliuuuul | | | | | | | | (thous.) |
| © 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 d 05 | 12.18 | 14.67 | 12.58 | - | |
| 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 | | | | | - 20 | | | | | |
| BOOK VALUE PER SH | 8.68 | 7.34 | 7.60 | 6.59 | 5.60 | 6.28 | 7.52 | 11.26 | | |
| COMMON SHE OUTST'G (MILL) | 6.01 | 5.96 | 7.03 | 7.04 | 6.98 | 6.99 | 7.06 | 10.62 | 47.7 | 15 6 MIA |
| RELATIVE P/E RATIO | .47 | - | - | 1 | ~ | .56 | .55 | 1.11 | - | 13.0114 |
| AVG ANN'L DIV'D YIELD | - | 05.4 | | | | | | | | Bold flaures |
| OPERATING MARGIN | 12.7% | 85.4 3.6% | NMF | NMF | 5.6% | 9.3% | 11.6% | 13.4% | - | are consensus |
| DEPRECIATION (\$MILL) | 4.2 | 3.0 | 3.1 | 3.1 | 2.7 | 2.9 | 2.7 | 4.0 | | earnings |
| INCOME TAX RATE | T PROFIT (\$MILL) 8.5 d2.9 COME TAX RATE 11.1% - T PROFIT MARCIN 7.3% NME | | | | | 4.5% | 9.2 | 37.5% | - | and, using the |
| NET PROFIT MARGIN | ET PROFIT MARGIN 7.3% NM ORKING CAP'L (\$MILL) 30.7 3 | | | | NMF | 5.9% | 8.8% | 5.6% | | recent prices, |
| LONG-TERM DEBT (SMILL) | DRKING CAP'L (\$MILL) 30.7 DNG-TERM DEBT (\$MILL) 5.6 | | | 35.4 1.4 | 30.6 | .6 | 31.5 | - 30.3 | - | Ple ratios. |
| SHR. EQUITY (SMILL) | ING-TERM DEBT (\$MILL) 5.6 IR. EQUITY (\$MILL) 52.1 | | | 46.4 | 39.1 | 43.9 | 53.1 | 119.5 | | |
| RETURN ON TOTAL CAP'L | 15.6% 16.4% | NMF | NMF NMF | NMF NMF | NMF | 11.4% | 16.4% | 7.0% 6.3% | | |
| RETAINED TO COM EQ | 16.4% | NMF | NMF | NMF | NMF | 11.4% | 17.3% | 6.3% | | |
| ALL DIV'DS TO NET PROF | last 18 days: 0 I | | - | minas arrowth 14 | 0% per veer B | Based voon 4 er | | CBased upon | 4 enelvsis' estim | olos. |
| ANNUAL RATES | | <u> </u> | | | | | INDUSTR | Y: Precisi | on Instrum | ent |
| of change (per share) 5 Yrs. | 1 Yr. | Cash Assets | nili.) 20 6 | 04 2005 0.0 7.1 | 9/30/06 5.7 | Conner 1913 | CARE-A-HEI | | | <u>46748888667757</u> |
| Sales -3.5% "Cash Flow" 12.5% | -14.5% -36.0% | Receivables Inventory (F) | FO) 29 | 5.7 18.8 1.7 37.9 | 18.9 43.4 | BUSINES | S: Axsys | Technolo | gies, Inc. | makes micro- |
| Earnings Dividends | -28.5% | Other | 4 | 1.6 4.4 | 4.4 | and system | ns for hig | h-performa | nce marke | ts. Axsys also |
| Book Value 1.0% | 49.5% | Current Asse | 915 5t | 0 68.2 | 12.4 | distributes | precision | ball bearing | gs for use | in a variety of |
| Fiscal QUARTERLY SALES (| imill.) Full | Property, Pla & Equip. | ant atcost 31 | 4 36.4 | | industrial a | and comme Defense Gi | reial applie | cations. Thi ompany off | ers its canabili- |
| 10/31/04 23 A 25 7 28 A | 40 10ar | Accum Depr | eciation 18 | 1 21.0 | 21.2 | ties in mag | netics, prec | ision optics | s, precision | machining, and |
| 12/31/05 28.6 33.4 35.6 | 35.9 133.5 | Other | 10 | 5 72.6 | 71.8 | subsystem | s integration | n to space a | and defense | original equip- |
| 12/31/06 37.5 38.5 39.8 12/31/07 | | Total Assets | 85 | 6.8 156.2 | 165.4 | Products C | Group, Axs | (OEMs). ys makes a | nd sells co | mponents, sub- |
| Fiscal EARNINGS PER SHA | RE Full | LIABILITIES | i (\$mill.) Ia f | 5 80 | 83 | systems, a | nd systems | to high-pe | rformance | OEMs and end |
| Year 1Q 2Q 3Q | 4Q Year | Debt Due | | .4 .0 | .0 | users serv | ing the electricity of the second s | ctronics cap | pital equipr | nent, data stor- |
| 12/31/03 .12 .21 .17 12/31/04 .23 .27 .27 | .21 .71 | Current Liab | 24 | 1.5 <u>31.9</u> | 31.8 | United Sta | tes and Eur | ope. Has 74 | 19 employe | es. Chairman & |
| 12/31/05 .22 .23 .22 | 23 90 | | | | | C.E.O.: St | ephen W. B | ershad. Inc. | : DE. Addr | ess: 175 Capital |
| 12/31/06 23 .24 .25 | .20 | LONG-TERI | N DEBT AND E | QUITY | | 257-0200 | , Suite 103 Internet: hi | , ROCKY H | m, CI 060 | 67. Iei.: (860) |
| Cal- QUARTERLY DIVIDEND | S PAID Full | as of 9/3 | 0/06 | | | 207 02000 | | | | |
| 2003 | 44 10ar | Total Debt Nor LT Debt Nor | None ne | Due in 5 | Yrs. None | | | | | |
| 2004 | | Including C | ap. Leases No capitalized Anr | ne iual rentals NA | | | | | | A.O. |
| 2005 | - - | Pension Lis | bility \$.6 mill. in | '05 vs. \$.6 mill. | In '04 | | Ľ | December 1 | , 2006 | |
| INSTITUTIONAL DECIS | ONS | Pfd Stock Ne | xne | Pid Div | Paid None | TOTAL SH | AREHOLD | ER RETUR | | |
| 4Q'05 1Q'06 2Q'06 to Bibling 20 17 Common Stock 10,63 | | | | haves | | | | Dividend | s plus apprecial | tion as of 10/31/2006 |
| to Buy 22 20 to Sell 14 15 | - voiminon su | 10,030,01Z 3 | (10 | 0% of Cap'i) | 3 Мов. | 6 Mos. | 1 Yr. | 3 Yrs. | 5 Yrs. | |
| Hid's(000) 6222 5497 | 5589 | <u> </u> | | | | 8.31% | 3.03% | -8.59% | 76.585 | 6 175.24% |

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| DYNAMICS RESE | ARCH | NDQ-DRCO | REC | ENT 9. | 96 TRAILING | 17.5 PM | LATIVE 0.89 | DIV'D YLD | Nil VA | |
|------------------------------|---|------------------------|-----------------------------------|------------------------|---------------------|-----------------|-----------------------------|---------------------------|----------------------------|-----------------------|
| RANKS | 12.75 | 9.50 2.88 | 9.59 6.56 | 19.50 7.75 | 25.30 9.13 | 19.50 9.33 | 18.90 14.69 | 18.67 13.85 | 15.65 9.10 | High Low |
| PERFORMANCE 4 Average | LEGE | ND5 | 0.00 | 0 | 1111 | | | | | |
| Technical 3 Average | 12 Mor | a Mov Avg | | 1 Cardin | | | ייהדיווןי | 111-1111 | L.T.T. | |
| SAFETY 3 AVERAGE | 6-for-5 split 5 | /98 | | | ···· | TIT - | | | 1. • | |
| BFTA 50 (1.00 = Market) | | | | | | | | | | 8 |
| | <u> </u> | Hilbert | | i ilini | · · · · | | | | | 5 |
| Einancial Strength B | 1 | 11' - 1111' | | | | • | | | | 4 |
| Phancial Sublight D | | | | | | | | •••••• | | 2 |
| Price Stability 30 | | · · · · | • | | | 11 11 | | | | _ |
| Price Growth Persistence 60 | | | <u> </u> | | | <u></u> - | <u>↓ </u> | l | | 500 |
| Earnings Predictability 25 | | | | | | | | | ╏┼┼┼┟╷┼┼╴ | VOL. (thous.) |
| O VALUE LINE PUBLISHING, INC | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007/2008 |
| SALES PER SH | 24.74 | 26.02 | 26.33 | 25.33 | 23.59 | 29.00 | 31.55 | 33.03 | | |
| "CASH FLOW" PER SH | .91 | d.38 | 1.07 | 1.25 | 1.34 | 1.59 | 1.75 | 2.00 | | .60 ^C /NA |
| DIV'DS DECL'D PER SH | | 01.21 ~• | | | .05 | | - | | | |
| CAP'L SPENDING PER SH | .43 | .37 | .41 | .47 | .41 | .97 | .52 | .50 | | |
| BOOK VALUE PER SH | 4.24 | 7.36 | 7.60 | 4.66 | <u>4.88</u> 8.16 | 8.44 | 8.74 | 9.10 | | |
| AVG ANN'L P/E RATIO | NMF | | 13.8 | 13.8 | 22.2 | 14.7 | 16.1 | 12.6 | 25.5 | 16.6/NA |
| AVG ANN'I DIV'D VIELD | NMF | | .90 | .71 | 1.21 | .84 | .85 | .67 | - | |
| SALES (SMILL) | 182.3 | 191.6 | 200 2 | 201.1 | 192.6 | 244.8 | 275.7 | 300.4 | | Bold figures |
| OPERATING MARGIN | 4.8% | NMF | 6.5% | 7.6% | 8.4% | 8.2% | 8.5% | 9.3% | | are consensus |
| DEPRECIATION (\$MILL) | 6.2 | 6.1 d8.9 | 3.7 | 3.5 6.5 | 3.6 7.4 | 8.7 | 9.4 | 11.4 | - | estimates |
| INCOME TAX RATE | 41.2% | | 40.9% | 40.7% | 40.2% | 42.3% | 40.1% | 40.5% | - 1 | and, using the |
| NET PROFIT MARGIN | .3% | NMF | 2.2% | 3.2% | 3.8% | 3.5% | 23.6 | 3.8% | <u> </u> | P/E ratios. |
| LONG-TERM DEBT (\$MILL) | 26.8 | | 9.3 | 8.8 | 8.3 | 7.8 | 51.5 | 15.2 | - | |
| SHR. EQUITY (SMILL) | 31.3 | 23.8 | 29.3 | 37.1 | 39.8 | 48.7 | 61.3 | 74.2 | | |
| RETURN ON TOTAL CAP'L | 2.2% | NMF NMF | 12.8% | 14.9% | 15.5% | 15.7% | 9.2% | 15.3% | - | |
| RETAINED TO COM EQ | 1.6% | NMF | 14.9% | 17.5% | 18.5% | 17.8% | 15.3% | 15.4% | | |
| ALL DIV'DS TO NET PROF | | | | - | | | | Based upon 6 | | [|
| ANNUAL DATES | 1 1851 4 Days. 0 up | 1 | | nigs growar a.a | A per year De | | INDUSTRY | Compute | r Software | SVC |
| of change (per share) 5 Yr | . 1 Yr. | ASSETS (\$ | mill.) 20 | 004 2005 | 6/30/06 | NUMBER OF | | | | CERTREPORTS. |
| Sales 4.0 | 6 4.5% 14.0% | Receivables | 9 | 4.1 93.1 | 82 2 | BUSINES | SS: Dynam | ics Resear | ch Corp. pro | ovides informa- |
| Earnings - | 20 5% | Other | IFO) | 5.7 1.5 | 3.4 | tion techn | ology (II), prices to fe | engineerin deral defer | ig, logistics | and other con- |
| Book Value 13 01 | - 16.0% | Current Ass | ets 10 | 0.7 95.6 | 85.9 | customers | . It operates | s in two so | egments: Sy | stems and Ser- |
| Fiscal QUARTERLY SALES | Smill.) Full | Property, Pl | ant | | | vices, and | I Metrigrap | hics. The | Systems and | d Services seg- |
| Year 1Q 2Q 3Q | 4Q Year | & Equip, Accum Depr | at cost 5 reciation 3 | 8.2 32.3 6.1 20.0 | | ment pro | vides techr | nical and | II solution | is that include |
| 12/31/04 62.1 65.0 70.5 | 78.1 275.7 | Net Property | / 2 | 2.1 12.3 | 12.2 | defense p | and manner | isition ma | nagement se | rvices, training |
| 12/31/05 / 3.5 / 6.2 / 9.1 | /1.6 300.4 | Total Assets | u <u>c</u> | 15.1 187 B | 175.8 | and perfe | ormance sup | pport syste | ems and se | rvices, and IT |
| 12/31/07 | | | 5 (\$miii.) | | | infrastruct | ture services | . The Metr | igraphics se | gment develops |
| Fiscal EARNINGS PER SH | ARE Full | Accts Payat | ole 2 | 0.6 25.7 | 21.1 | ers. In Se | s componen ptember. Dv | namics Re | search was | awarded a new |
| 12/31/03 18 23 27 | 30 0.9 | Other | 1 | 10.4 10.2 18.1 44.9 | 7.9 36.8 | task order | , worth at | \$1 million, | to provide | developmental |
| 12/31/04 23 24 25 | 31 1.03 | Current Liab | , 7 | 7.1 80.8 | 65.8 | research s | upporting the | he General | Item Uniqu | e Identification |
| 12/31/05 23 36 34 | .31 1.24 | | | | | Force Ba | or une Air F se Ultab In | October T | Logistics Co Dynamics R | esearch entered |
| 12/31/07 .13 .14 | 12/31/06 110 02 08 114 12/31/07 .13 .14 LONG-TERN DEBT | | | | | into a \$ | 50 million | revolving | credit faci | lity. Has 1822 |
| Cal- QUARTERLY DIVIDEN | | | | employee | s. Chmn., | C.E.O., P | res. & C.C | O.O.: James P. | | |
| endar 14 20 30 | 4Q Year | Total Debt | \$23.4 m ill. 5.5 mill. | Due in | n 5 Yrs. NA | Regan. In | c.: MA. Add | 1ress: 60 Fr 5_0000 Im | ontage Road | I, Andover, MA |
| 2003 | | Including C | ap. Leases NA | | % of Capill | 01010, 10 | / (9/0) 4 / | 5-5050. m | orner, mip/ | <i>E.B.</i> |
| 2005 | - - | Leases, Un | capitalized Anr | nual rentals NA | n or cabit | ····· | N | ovember 1 | 7, 2006 | |
| | l | Pension Li | ability \$5.3 mill. | in '05 vs. \$11.3 | mill. in '04 | | | | | |
| INSTITUTIONAL DECK | 06 2010E | Pfd Stock N | one | Pfd Div | d Paid None | TOTAL S | HAREHOLD | DER RETU Divident | RN Is plus aporacia | tion as of 10/31/2008 |
| to Buy 13 1 | 2 9 | Common St | nek 0 251 012 -+ | | | 3 Mor | 6 Moe | 1 Vr | 3 Yr | 8. 5 Yrs. |
| to Sell 4 1 | 1 11 | Common St | oun 0.201,012 51 | (8) | 3% of Cap'l) | -26 77% | .22 770/ | . 27 500 | × | R% |
| 110 S(000) 3000 314 | | | aland from an ora | bellowed to be | (-E-14 | -20.11% | -33.2270 | -37.50 | /0 -4 <u>6.6</u> | vru.1∡/0 |

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| EXPONENT INC. | NDQ-EXPO | | REC | CENT 17. | 68 TRAILING P/E RATIO | 5 21.8 Pm | LATIVE 1.1 | 2 DIV D YLD | Nil VA | LUE NE |
|---|--|------------------------------|---------------------|-----------------------------|---------------------------------------|------------|----------------------------|----------------|--|-------------------------------|
| RANKS ' | 6.63 | 3.80 | 5.66 | 6.88 | 7.63 | 11.77 | 14.64 | 15.80 | 18.91 | High |
| PERFORMANCE 2 Above | LEGE | NDS | 2.03 | 4.40 | 5.50 | 0.02 | 10.21 | 11.25 | 14.01 | 1 |
| Technical 2 Above | | Mov Avg | | 0.000 | | <u> </u> | | | unta' | |
| Average | 2-for-1 split E Shaded area indi | VOB | | 2405.30 A | | · | 1111111111 | 11111111111 | · ···································· | 13 |
| SAFEIY J Average | | | | | | Link | <u> </u> | • | | |
| BETA 55 (1.00 = Market) | 1. | | | | | F-141 | | | | 5 |
| | | <u></u> | Hull !! | | · · · · · · · · · · · · · · · · · · · | ļ | | | | 4 |
| Financial Strength B++ | ' <u> </u> | | | 100000 | | + | | | | 3 |
| Price Stability 65 | 11:• | ····· | · · | | | | | | | 2 |
| Price Growth Persistence 90 | | | | | | 1. | , | | | |
| Earnings Predictability 80 | | | | I STREET | l | | , tri tr | | | 650 VOL |
| | | | | | | | | | | (thous.) |
| O VALUE LINE PUBLISHING, INC. | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007/2008 |
| SALES PER SH | 5.41 54 | 6.98 74 | 7.87 | 8.05 | 8.87 | 9.57 | 9.46 | 9.58 | | |
| EARNINGS PER SH | .27 | .39 | .53 | .43 | .53 | .64 | .71 | .81 | NA | NA/NA |
| DIV'DS DECL'D PER SH | - | | | | | - 16 | - 18 | | | |
| BOOK VALUE PER SH | 3.69 | 4.50 | 5.06 | 5.44 | 5.90 | 6.52 | 7.31 | 8.23 | - | |
| COMMON SHS OUTST'G (MILL) | 15.80 | 13.36 | 12.91 | 12.98 | 14.21 | 14.60 | 16.01 | 16.19 | - | |
| AVG ANN'L PIE RATIO | 15.0 | 8.1 .46 | 8.0 .52 | 12.5 | .68 | .74 | .95 | .88 | - NA | I NA/NA |
| AVG ANN'L DIV'D YIELD | | - | | | - | | - | | | |
| SALES (\$MILL) | 85.5 | 93.3 13.3% | 101.6 | 104.5 | 126.1 | 139.7 | 151.5 | 155.2 | - | Bold figures are consensus |
| DEPRECIATION (\$MILL) | 4.5 | 4,4 | 4.4 | 4.7 | 3.4 | 3.4 | 4.1 | 3.4 | - | earnings |
| NET PROFIT (\$MILL) | 4.1 | 5.4 | 7.4 | 6.1 | 7.9 | 10.2 | 12.0 | 14.2 | | estimates |
| NET PROFIT MARGIN | 25.8% 4.8% | 41.5% 5.8% | 7.3% | 42.4% 5.9% | 6.3% | 7.3% | 7.9% | 9.1% | - | recent prices, |
| WORKING CAP'L (SMILL) | 32.6 | 26.6 | 24.0 | 31.8 | 44.7 | 57.6 | 79.0 | 93.8 | - | P/E ratios. |
| LONG-TERM DEBT (\$MILL) | 16.1 | 4.1 | 65.3 | 70.5 | 83.8 | 95.2 | 117.0 | 133.2 | | |
| RETURN ON TOTAL CAP'L | 5.9% | 8.9% | 11.4% | 8.7% | 9.5% | 10.7% | 10.3% | 10.6% | - | 1 |
| RETURN ON SHR. EQUITY | 7.0% | 9.0% | 11.4% | 8.7% | 9.5% | 10.7% | 10.3% | 10.7% | | |
| ALL DIV'DS TO NET PROF | 7.0% | 9.0% | - | 6.1% | 9.5% | | - | | - | |
| Note: No analyst estimates availab | ola. | | | | | | | | | |
| ANNUAL RATES | | ASSETS (Sr | nili.) 2 | 004 2005 | 9/29/06 | | INDUST | RY: Indus | trial Servic | 08 |
| of change (per share) 5 Yrs. Sales 7.0% | 1 Yr. 1.5% | Cash Assels | . 6 | 0.0 68.9 | 54.0 51.4 | BUSINES | S. Frnon | ent Inc. o | nerates as | an engineering |
| "Cash Flow" 6.5% | 8 0% | Inventory | · · | .0 .0 | .7 | and scient | ific consulti | ng compan | y that provi | des solutions to |
| Dividends - | | Other Current Asse | als 10 | 4.9 <u>5.1</u> 3.5 120.2 | <u></u> | problems | facing indu | stry and bu | siness. Its | services include |
| Book Value 10.5% | 12.5% | | | | | analysis o | t product d | evelopmen | t or produc | t recall, regula- |
| Fiscal QUARTERLY SALES (\$ | Mill.) Full 4Q Year | & Equip, | at cost 6 | 6.2 68.1 | | products, | people or p | property, ar | id impendi | ng litigation, as |
| 12/31/04 38.8 39.6 38.0 | 35.1 151.5 | Accum Depr Net Property | eciation 3 | 36.0 38.3 30.2 29.8 | 29.8 | well as th | e developr | nent of tec | hnical new | products. The |
| 12/31/05 39.2 39.9 37.2 | 38.9 155.2 | Other | 1 | 10.4 14.2 | 17.7 | company a | the areas | ne services | Inrough a p | vil Engineering |
| 12/31/06 42.0 41./ 43.3 | | I DIA ASSES | . 14 | 164.2 | 138.7 | Data/Risk | Analysis, | EcoScience | es, Electric | al Engineering, |
| Fiscal EARNINGS PER SHA | RE Full | LIABILITIES | 6 (\$mHi.) de | 3.1 3.0 | 5.8 | Environm | ental Scien | ce, Food | & Chemica | ils, Health and |
| Year 1Q 2Q 3Q | 4Q Year | Debi Due | | .0 .0 | .0 | Epidemiol | logy, Huma Instriat Str | n Factors, h | uman Hea lechapical | Engineering |
| 12/31/03 .16 .17 .18 12/31/04 .22 .20 18 | .13 .64 | Current Liab | | 24.5 26.4 | 27.9 | Materials | Science, Te | chnology I | Developmen | it, Thermal Sci- |
| 12/31/05 22 23 20 | .16 .81 | | | | | ences, an | d Vehicle A | Analysis. E | xponent se | erves clients in |
| 12/31/06 22 21 22 12/31/07 | | LONG.TER | M DEBT AND F | | | automotiv | e, aviation, | chemical, | constructio | n, energy, gov- |
| Cal- QUARTERLY DIVIDEND | 9/06 | | | other see | ors. Has 7 | 85 cmploy | ccs. Chair | man: Leslie G. | | |
| endar 1Q 2Q 3Q | 4Q Year | Total Debt f | None | Due in ! | Yrs. None | Denend. | Inc.: DE. A | Address: 1 | 49 Commo | nwealth Drive, |
| 2003 | | LI Debt Nor Including C | ne ap. Leases No | ne | | Menlo Pa | rk, CA 94 | 025. Tel.: | (650) 326- | 9400. Internet: |
| 2004 | | Leases, Un | capitalized Ann | nual rentals NA | · | http://www | w.exponent. | com. | | A.Z. |
| 2006 | | Pension Liz | ability None in 'C |)5 vs. None in '(| H [| | <i>L</i> | vecember 8 | , 2006 | |
| INSTITUTIONAL DECISI | ONS | Pfd Stock No | DNA | Pid Div | d Pald None | TOTAL S | HAREHOLD | ER RETU | RN | |
| 4Q'05 1Q'00 to Buy 34 2 | 4Q'05 1Q'06 2Q'06 to Buy 34 29 32 Common Stoc | | | | | | ± | Dividend | a plus apprecia | uon as of 10/31/2006 |
| to Sell 19 3 | to Buy 34 29 32 to Sell 19 34 29 | | | (10 | 0% of Cap'l) | 3 Mos. | 6 Mos. | 1 Yr. | 3 Yrı | 5 Yrs. |
| Hid's(000) 11752 1162 | 4 11459 | 1 | | | | 14.85% | 11.21% | 25.61% | 71.32 | % 262.36% |

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| FRISCH'S RESTA | URANT | S AMEX- | -FRS | CE 25. | 25 TRAILING | 6 14.7 P | E RATIO 0.7 | 5 PND 1 | .7% VA | LUE NE |
|--|--------------------------|------------------------------|----------------------------|------------------------------------|---------------------|------------------------|-----------------------------|--------------------------|------------------------------|---|
| RANKS | 13.88 7.13 | 11.50 8.25 | 15.13 8.50 | 15.45 11.45 | 24.80 15.10 | 28.98 17.29 | 32.24 22.50 | 26.90 22.58 | 26.00 20.15 | High Low |
| PERFORMANCE 3 Average | LEGE | NDS | | - | | <u> </u> | | | <u> </u> | 45 |
| Technical 3 Average | Shaded area ind | ce Strength | | | | [• • • • • • • | Print | | | 30 |
| SAFETY 3 Average | | | | | 11 this | | 1 think | | 1.1" ······· | 22.5 |
| BETA .60 (1.00 = Market) | TTT | | - Pull | | | | · | [| / | 13 |
| | | HI,IIII | The second | | | | | | | |
| Financial Strength B+ | | | | And Andrews | | | | | | 6 |
| Price Stability 80 | | | | A CONTRACT | | 1. | | | <u> </u> | 4 |
| Price Growth Persistence 60 | | | | | | | | | | |
| Earnings Predictability 65 | | | ┠┰┠┨┰╂┰╂┟┠┠┠ | | | | | | | yoL. |
| O 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 | |
| DIV'DS DECL'D PER SH | .73 .26 | .86 | 1.08 | 1.47 .32 | 1.59 | .36 | .42 | 2.82 | 1.78 | NA/NA |
| CAP'L SPENDING PER SH | 1.87 | 2.15 | 2.35 | 4.93 | 5.89 | 4.35 | 5.97 | 4.77 | 3.76 | |
| 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 | NA/NA |
| 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 12.8% | 190.0 | 211.8 | 234.9 32.5% | 260.9 | 279.2 | 291.0 | Bold figures |
| DEPRECIATION (SMILL) | 9.3 | 9.9 | 9.6 | B.6 | 9.6 | 11.0 | 11.0 | 12.1 | 13.1 | earnings |
| NET PROFIT (\$MILL) | 4.5 | 5.2 | 6.1 35.5% | 7.6 | 8.0 | 9.8 | 10.5 | 14.6 | 9.2 | estimates and, using the |
| NET PROFIT MARGIN | 3.0% | 3.2% | 3.6% | 4.0% | 3.8% | 4.2% | 4.0% | 5.2% | 3.1% | recent prices, |
| WORKING CAP'L (\$MILL) | d8.5 35.5 | d9.6 26.4 | 3.1 30.8 | d10.9 28.2 | d14.9 40.2 | d14.0 38.0 | d20.6 38.4 | d21.2 32.7 | d18.5 34.1 | P/E ratios. |
| SHR. EQUITY (SMILL) | 49.9 | 55.3 | 54.2 | 56.5 | 61.2 | 69.8 | 79.5 | 92.2 | 100.7 | |
| RETURN ON TOTAL CAP'L RETURN ON SHR. FOUITY | 7.1% | 7.8% | 8.6% 11.2% | 10.5% 13.4% | 9.1% 13.0% | 10.4% | 10.0% | 12.8% | 7.9% | |
| RETAINED TO COM EQ | 5.8% | 6.3% | 8.0% | 10.5% | 10.2% | 11.5% | 10.5% | 13.4% | 6.9% | |
| ALL DIV'DS TO NET PROF | 36% | 32% | 29% | 22% | 22% | 18% | 20% | 15% | 24% | |
| ANNUAL RATES | | | | | 0144/00 | | IND | USTRY: R | estaurant | |
| of change (per share) 5 Yrs. | 1 Yr. | Cash Assets | nun.) 20 | .3 .8 | .3 | DUCDIEC | | ng production of the | | THE REAL PROPERTY OF THE REAL |
| "Cash Flow" 10.5% | -17.0% | Receivables Inventory (FI | FO) | 1.2 1.5 4.6 4.8 | 1.4 5.1 | operation | and licensi | s Restaur | ants, inc. i service fami | ly-style restau- |
| Dividends 7.5% | -37.0% | Other Current Asse | | <u>3.7 5.0</u> 9.8 12.1 | <u>-5.0</u> 11.8 | rants unde | r the name | "Frisch's H | Big Boy''; a | nd operation of |
| Book Value 12.5% | 9.0% | Desperty Dia | | | | grill buffe Corral? | et style re | staurants u cmhor 19 | inder the it operate | name "Golden d 90 Big Boy |
| Fiscal QUARTERLY SALES (S Year 1Q 2Q 3Q | mili.) [Full 4Q Year | & Equip, | at cost 25 | 7.7 270.3 | | restaurants | s and 34 Go | olden Corra | l restaurant | s, as well as 28 |
| 05/31/04 77.4 60.4 59.6 | 63.5 260.9 | Net Property | - 10 - 14 | 8.2 154.4 | 154.3 | Big Boy r | estaurants i | that were 1 | icensed to | other operators. |
| 05/31/05 84.1 66.7 62.8 05/31/06 86.5 67.0 67.3 | 65.6 279.2 70.2 291 0 | Other Total Assets | 16 | <u>1.6</u> <u>8.8</u> 5.6 175.3 | <u>8.3</u> 174.4 | and Penn | sylvania. E | Big Boy r | estaurants | feature various |
| 05/31/07 88.2 | | | (Smill) | - | | items, such | h as the ham | burger san | dwich, onio | n rings, and hot |
| Fiscal EARNINGS PER SHA | RE Full | Accis Payab | ie 1 | 2.8 10.3 | 11.6 | roast beef. | . Menu sele , chicken ar | coons aiso id seafood | dinners. de | iuwicnes, pasta, sserts, nonalco- |
| 05/31/03 58 44 .32 | .61 1.95 | Other | _1 | <u>0.1 9.3</u> | 10.0 | holic beve | rages, and | other item | s. The Gold | len Corral con- |
| 05/31/04 64 .47 .43 | .51 2.05 | Current Liab | 3 | 1.0 30.6 | 30.8 | cept offers | s various bi en meat lo | uffet items, | , including t fish and s | fried and rotis- |
| 05/31/06 50 .33 .43 | .52 1.78 | | | | | that rotate | s hot roast l | beef, ham, a | and turkey. | Has about 9000 |
| 05/31/07 .44 | A DEBTAND E 4/06 | QUITY | | employees | 6. C.E.O. & | President: | Daniel W. | Geeding. Inc.: | | |
| endar 1Q 2Q 3Q | 4Q Year | Total Debt \$ | i41.3 mill. | Due In | 5 Yrs. NA | Tel.: (513) | 961-2660. | Internet: h | ittp://www.f | rischs.com. |
| 2003 .09 .09 .09 | .11 .38 | LT Debt \$32 Including C | l.1 mill. ap. Leases NA | | | . , | | | | |
| 2004 11 11 11 11 2005 11 .11 .11 | .11 .44 .11 .44 | Leases. Uni | capitalized Ann | (24 ual rentals NA | % of Cap'i) | | | | | <i>L.Y.</i> |
| 2008 .11 .11 .11 | .11 .44 | Pension I is | bility None in 'O | 6 vs. None in 'n | 5 | | <i>L</i> | December 8 | , 2006 | |
| INSTITUTIONAL DECISI | ONS | Pid Stock No | | Pfil Divis | Paid None | TOTAL SI | HAREHOLD | ER RETUR | RN | lon as of 1001-0000 |
| 40:05 10/0 to Buy 8 11 | 5 20106 14 | Commen Pie | ~~~ | F 10 1014 C | · · #19 110/10 | 3 Not | 6 Mar | UNIdend | a pius apprecia | CON 63 OF 10/31/2006 |
| to Seil 6 10 Hid's(00D) 1867 1911 | 7 2116 | Southou are | ~~~ 0.070,001 SN | | 6% of Cap'l) | 8.40% | 8.08% | 7 0144 | 3 118 R 404 | 102 04% |
| L | 4110 | L | | | 1 | 0.4070 | 0.0076 | 7.01% | 0.40% | 102.9470 |

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| LOJACK CORP N | DQ-LOJN | | RE | CENT 20. | 10 TRAILING P/E RATK | 20.3 P | LATIVE 1.04 | DIV'D YLD | Nil VA | LUE NE |
|---|--|-----------------|---------------------|--|-------------------------------|-----------------|-------------------------------|--------------------------|--|---------------------------------------|
| RANKS | 15.63 | 12.75 | 8.88 | 7.97 | 5.65 | 9.90 | 12.85 | 29.00 11.88 | 26.79 15.10 | High Low |
| PERFORMANCE 4 Delow | LEGE | NDS | 0.00 | 4.00 | 0.00 | 4.40 | 0.04 | | | |
| Tashajaal A Bolow | 12 Mot | Mov Avg | | | | | | | | 30 |
| rechnical T Avenage | Sheded area indi | cates recession | | | | | | | 1 <u>111</u> | 22.5 |
| SAFETY 🥥 Average | ••• | | | | | | | | • [1] | |
| BETA .60 (1.00 = Market) | iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii | · | | 我的在生活 | | | | HUL- | •••• | 13 |
| | ····· | 1 | | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | | | | F | | 9 |
| Financial Strength B+ | | <u> III II</u> | 1111,111,111,111 | | | <u>↓</u> | | | | 6 |
| Price Stability 35 | | | | | Turt | <u>hul</u> | | | | |
| Polo Count Development DD | | | | | | ļ | [···· | | <u> </u> | |
| Price Growin Persistence 20 | | ., | | ALL AND A | | | | | ∦}}, , } | 4300 |
| Earnings Predictability 35 | | | 1111 111 | 644 St 8 14 19 1 | | | L. L. HIII | | | VOL. (thous.) |
| O VALUE LINE PUBLISHING, INC. | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2005 | 2007/2008 |
| CALES DED SH | A 71 | 103 | 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 °/NA |
| DIV'DS DECL'D PER SH | - 04 | | | | - 20 | .29 | | .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 ANN'L P/E RATIO | 21.9 | 15.8 an | 16.4 | 291 | 391 | 11.7 | 14.8 | 18.7 | 19.1 | 16.1/NA |
| AVG ANN'L DIV'D YIELD | - | | - | | - | - | - | | | |
| SALES (\$MILL) | 83.2 | 90.2 | 95.9 | 84,4 | 116.4 | 125.8 | 145.7 | 190.7 | - | Bold figures |
| OPERATING MARGIN | 23.8% | 17.9% | 13.8% | 9.2% | 6.1% | 23 | 14.5% | 66 | <u> </u> | are consensus earnings |
| NET PROFIT (SMILL) | 10.3 | 9.1 | 7.5 | 3.0 | 1.8 | 7.6 | 10.4 | 18.4 | | estimates |
| INCOME TAX RATE | 39.3% | 38.9% | 36.8% | 37.0% | 39.0% | 39.0% | 39.0% | 33.0% | - | and, using the |
| NET PROFIT MARGIN | 12.4% | 10.1% | 7.8% | 3.5% | 1.6% | 6.1% | 7.1% | 9.7% | | P/F ratios |
| LONG-TERM DEBT (SMILL) | 18.8 | 17.4 | 10.0 | 14.5 | 1.1 | 21.5 | 20.9 | 14.5 | | FIE TEDOS. |
| SHR. EQUITY (SMILL) | 25.1 | 21.5 | 21.8 | 19.7 | 20.4 | 29.2 | 64.0 | 104.0 | <u> </u> | |
| 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% | | |
| ALL DIV'DS TO NET PROF | - | ~ | - | - | - | - | - | - | - | |
| ANo. of analysts changing earn. est. in | last 23 days: 0 u | p, 0 dawn, cons | sensus 5-year ea | mings growth n | ot available. ^B Ba | ised upon 3 ena | ysts' estimates. ^L | Based upon 3 i | malysts' estimate |)\$. |
| ANNUAL RATES | | ASSETS (Sr | nill.) 2 | 004 2005 | 6/30/06 | | ind ind | USTRY; EI | ectronics | |
| of change (per share) 5 Yrs. | 1 Yr. | Cash Assets | | 1.4 47.6 | 35.1 | DUCIDUCC | 10°- 7 - 7 | | | d medicate the |
| "Cash Flow" 8.0% | 48.5% | I Receivables | FO) 1 | 29.7 33.4 2.6 18.0 | 38.5 | Lolack St | olen Vehicle | K Corp. u Recoverv | System (Lo | Jack System) a |
| Earnings 7 0% | 50.0% | Other | | 7.0 12.4 | 10.5 | natented s | vstem, whi | ch compris | es a registr | ation system, a |
| Book Value 23.0% | 48.0% | Current Asse | ets i | 70.7 111.4 | 102.0 | sector acti | vation system | em, and ve | hicle tracki | ng units. It also |
| Fiscal QUARTERLY SALES (| mill.) Full | Property, Pla | ant | | | offers LoJ | ack Early | Warning re | covery syst | em, which pro- |
| Year 1Q 2Q 3Q | 4Q Year | Accum Depr | at cost 2 | 28.7 35.7 13.1 17.6 | | vides earl | y notification | on to vehic | vehicle | in the event of |
| 12/31/04 32.2 35.9 38.0 | 39.6 145.7 | Nel Property | , . | 15.6 18.1 | 20.9 | comnany | offers Boor | nerang Tra | cking Syste | em, which con- |
| 12/31/05 42.9 49.1 52.3 | 46.4 190.7 | Total Assets | 14 | 19.5 191.6 | 188.1 | sists of a | cellular ba | nd radio fi | requency tr | ansponder with |
| 12/31/07 | | | | | _ | antenna, 1 | nicroproces | sor, and p | ower suppl | y; Boomerang2 |
| Fiscal EARNINGS PER SHA | RE Full | Accts Payab | s (\$mill.) Io | 9.2 9.2 | 9.6 | Unit, a pr | oduct that | builds upo | n the Boor | nerang Unit by |
| Year 1Q 2Q 3Q | 4Q Year | Debt Due | | 4.2 5.3 | 6.8 | nrovide | itomatic th | communic aft notifice | ations and tion: Water | Resistant Roo- |
| 12/31/03 .06 .12 .17 | .16 .51 | Current Lish | , | <u>29.6</u> 40.2 44.1 | 48.4 | merang U | nit for insta | llation on o | construction | equipment and |
| 12/31/05 15 .26 .30 | .25 .96 | | | | | marine cra | afts; and Po | rtable Boor | nerang Uni | for installation |
| 12/31/06 .15 .29 .33 | .29 | 1010 750 | | | | in special | application | is. Has 89 | 0 employee | s. Chairman & |
| 12/3//0/ .43 | | as of 6/3 | m DEDIAND 1 0/06 | QUIT 1 | | C.E.O.: Jo | oseph F. At | ely. Inc.: 1 | MA. Addre | ss: 200 Lowder |
| endar 10 20 30 | 4Q Year | Total Debt | 19 2 mill | Due i | 5 Yrs. NA | 251-4700 | Internet: h | ttn://www.l | ood, MA 02 niack.com | .090. 101.: (781) |
| 2003 | | LT Debt \$12 | 2.4 mill. | | | 201 1700 | | | -, | |
| 2004 | - - | Including C | ap. Leases NA | (1 [.] | 1% of Cap'i) | | | | | A.O. |
| 2005 | - - | Leases, Un | capitalized An | nual rentals NA | | | | October 6. | 2006 | · · · · · · · · · · · · · · · · · · · |
| | L | Pension Lia | billty None in ' | 05 vs. None in ' | 04 | | | | | |
| INSTITUTIONAL DECIS | UN3 6 20106 | Pfd Stock N | 008 | Pfd Div | d Pald None | TOTAL S | HAREHOLD | DER RETUI | KN ds olux annren | ation as of 8/31/200A |
| to Buy 77 7 | 2 56 | 0 | | | | 3 11 | 6 M | 4 V- | 2 V | E Vas |
| to Sell 41 4 | 8 71 | Common Ste | UGA 10,184,869 ! | snates (6 | 19% of Cap'i) | J MOS. | 0 405. | 1 11. | 3 1/8 | , 3118. |
| mid s(000) 12891 1420 | 2 15560 | | | a hallmand to be | colleble and 's a | 18.30% | -8.22% | -1.00% | 197.01 | 70 205.01% |

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| MAUI LD & PINE | PPLE | AMEX-MLP | REC | CENT 31. | 05 TRAILING P/E RATIO | 12.6 P/E | RATIO 0.62 | | Nil Va | LUE NE |
|------------------------------------|--------------------|------------------------|-----------------------------|--|---------------------------------------|------------------------|----------------------------|---------------------------------------|-----------------|------------------------|
| RANKS | 21.63 8.63 | 30.75 8.50 | 27.00 14.00 | 27.53 17.00 | 25.00 13.75 | 35.75 14.15 | 41.95 29.20 | 47.20 26.75 | 39.40 29.27 | High Low |
| PERFORMANCE 4 Bolow Average | LEGE | NDS | | A STATE | | | | 1111 | 4444111 | 45 |
| Technical 3 Average | 4-for-1 spill | ce Strength 5/98 | | | | <u>-</u> | | · · · · · · · · · · · · · · · · · · · | | |
| SAFETY - Short History | Shaded area ind | icales recession | | | | بجبالاتي | | • | • | 22.5 |
| BETA | | | <u> </u> | 61 30 5 10 10 10 10 10 10 10 10 10 10 10 10 10 | · · · · · · · · · · · · · · · · · · · | <u> </u> | | | [••• • | 13 |
| | <u>'</u> uu | μ | | | · | • | | | | |
| Financial Strength NMF | | • | | 132265 | | | | | | 6 |
| Price Stability 50 | | • | | | | | | | | 1 |
| Price Growth Persistence 70 | | 1 | | | | | | <u> </u>] - | | 3 |
| Faminus Predictability 5 | | | | Hatphphicst | | | | | | 200 VOL |
| | | | ulluum | | للسلاسا | hullill | սшսև | | | (thous.) |
| O 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 | 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 | - 1 14 | .13 | .13 | - 1.86 | | .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 | NA NA | NA/NA |
| RELATIVE P/E RATIO | .97 | 1.34 | NMF | 1.09 |] _ | 2.45 | - | .97 | - (| |
| AVG ANN'L DIV'D YIELD | | .8% | .6% | | | 169.7 | 150.0 | - 182.9 | <u> </u> | Bold flaures |
| SALES (\$MILL) OPERATING MARGIN | 143.7 | 147.0 | 9.5% | 9.0% | 3.6% | 12.6% | 5.7% | 18.8% | | are consensus |
| DEPRECIATION (\$MILL) | 8.2 | 8.5 | 9.0 | 10.2 | 11.1 | 12.2 | 10.0 | 14.3 | - | earnings |
| NET PROFIT (\$MILL) | 4.3 | 4.7 | .5 | 7.6 | <u>d5.7</u> | 40.3% | <u> </u> | 37.5% | - | and, using the |
| NET PROFIT MARGIN | 3.0% | 3.2% | .3% | 4.7% | NMF | 2.3% | NMF | 8.0% | | recent prices, |
| WORKING CAP'L (SMILL) | 18.9 | 13.0 | 19.3 | 25.5 | 25.5 43.3 | 23.6 | 11.2 | 8.9 10.3 | - | P/E ret/os. |
| 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% | 5.7% | NMF | 10.3% | NMF | 5.4% | NMF | 16.0% | | |
| ALL DIV'DS TO NET PROF | - | 19% | NMF | <u> </u> | | <u> </u> | - | | <u> </u> | |
| Note: No analyst estimates availa | ble. | | | | E | <u></u> | MINUS | DV. Food | Wholesale | |
| ANNUAL RATES | 1 Vr | ASSETS (\$ | milii.) 2 | 004 2005 | 6/30/06 | | 1 INDUS | INIS LOUG | THURBON | an The Friday and the |
| Sales 30% | 20.5% | Receivables | s | 12.7 19.6 | 14.6 | BUSINES | S: Maui | Land & | Pineapple | Company, Inc. |
| Earnings 14.0% | | Other | IFO) | 15.1 17.3 8.1 5.3 | 5.6 | engages in | the growing | ig, packing | , processing | , and marketing |
| Dividends - Book Value 3.5% | 27.0% | Current Ass | ets - | 47.4 49.4 | 44.6 | company | primarily | consist of | Maui Gold | and Hawaiian |
| Fiscal QUARTERLY SALES | Smill.) Full | Property, Pl | ant | | | Gold, whi | ch are sold | as whole | fruits; Chan | npaka, which is |
| Year 1Q 2Q 3Q | 4Q Yea | Accum Dep | at cost 2 reclation 1 | 40.5 236.3 46.6 139.4 | | used for | canning; a | nd organi | inice blend | e. It also sens |
| 12/31/04 40.6 30.0 34.6 | 45.7 150. | 9 Net Propert | Ý | 93.9 96.9 19.6 39.7 | 115.1 50.0 | juice, and | canned pin | eapple proc | lucts. The c | ompany sells its |
| 12/31/06 59.0 33.6 | | Total Assets | s 1 | 60 9 186 0 | 209.7 | products | to grocery | chains, f | ood proces | sors, wholesale |
| 12/31/07 | | | 5 (\$mili.) | | | grocers, a tionally. T | nd wholesa | uers in the | nvolved in f | the operation of |
| Fiscal EARNINGS PER SH | AKE Full 4Q Yea | Accts Payal | ble | 12.7 184 | 14.8 4 | Kapalua 1 | Resort, whi | ich include | s three cha | mpionship golf |
| 12/31/03 d.09 d.56 1.12 | .07 .54 | Other | - | 20.2 21.3 | 29.0 | courses, a | tennis fac | ility, a vac | ation rental | program, retail |
| 12/31/04 21 d.33 d.30 | .36 d.06 | G Current Liat |) | 36.2 40 5 | 44.2 | erations I | nu regulate n addition. | u water an Maui Land | & Pineappl | e engages in the |
| 12/31/06 1.88 d 36 | | | | | | real estate | entitlemen | t, developn | nent, constru | uction, and sales |
| 12/31/07 | 0.04/0 | LONG-TER | M DEBT AND 30/06 | FOULLA | | and leasi | ng activitie | es. Has 12 | 275 employ | vees. Chairman, |
| endar 1Q 2Q 3Q | 4Q Yea | Total Debt | \$19.3 mill. | Due i | n 5 Yrs. NA | Kane Stre | et, P. O. Bo | ox 187, Kal | nului, Maui, | HI 96733. Tel.: |
| 2003 | - - | LT Debt \$1 | 8.9 mill. Jap. Leases NJ | 4 | | (808) 877 | -3351. Inte | rnet: http:// | /www.mauil | land.com. |
| 2004 | - - | anonung C | | (1) | 5% of Cap'i) | | | | | <i>L.Y.</i> |
| 2005 | | Leases, Ur | capitalized An | inual rentals N/ | * • ••• • | | | October 27 | 7, 2006 | |
| INSTITUTIONAL DECIS | IONS | Pension Li | ability \$29.8 mi | u. in 105 vs. \$33 | .3 m/a). (n '04 | TOTAL S | HAREHOL | DER RETU | RN | |
| 40'05 10' | 6 20,06 | Pfd Stock N | lone | Pfd Div | 'd Paid None | | | Divide | nds plus apprec | fation as of 9/30/2006 |
| to Soli 7 1 | • 21 9 14 | Common Si | lock 7,258,779 s | hares (| 85% of Cap'i) | 3 Mos. | 6 Mos. | 1 Yı | r. <u>3 Y</u> | rs. 5 Yrs. |
| Hid's(000) 1168 130 | 8 1452 | und unstanded for each | aland from en | ne holiourd in h- | usiable and in | -21.51% | -21.40% | -1.20 | % 14.7 | 376 48.35% |

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The public terms into the function of the strength of the maximum strength of the strength of the maximum strength of the maximum strength of the maximum strength of the maximum strength of the stre

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| PATRIOT TRANSP | ORT. N | DO-PATR | RI PI | RICE 71. | 48 TRAILING P/E RATIK | 28.7 PM | LATIVE 1.4 | DIV'D YLD | Nil Vai | |
|--|-----------------|---------------------------|---------------------------|------------------------------|--------------------------|------------------|---------------------------|----------------------------|------------------------------|----------------------------------|
| RANKS | 38.00 | 29.00 | 26.12 14.25 | 22.00 | 35.00 | 34.65 20.00 | 47.99 29.92 | 71.23 41.06 | 102.00 62.41 | High Low |
| PERFORMANCE 3 Average | LEGE | NDS | 14.20 | AFTEST | | | | | | 100 |
| Technical 2 Above | 12 Mot | a Mov Avg | | Sector 2 | | | | | | |
| SAFETY 3 Average | Shaded area ind | cales recession | | 1222 | | | | بمريسي | | 50 |
| BETA .60 (1.00 = Market) | | | | | 1. | | لسسلان | | ··· · | |
| | 111 | h. h.trit | +++- | 1 | | | | | | 50 |
| Financial Strength B+ | 1 | | | | | 1 ···· | | | | |
| Price Stability 45 | | | | | | | [· | | | |
| Price Growth Persistence 55 | | -1.1-111 | | CONSULTANT | 1 | | | 1 | | 8 |
| Famings Predictability 60 | -1-1 | | | 23132540-23 2-2,25-540-23 | | | | | | 40 VOL |
| Larninge Proticizzinky 00 | | | | | | , IIII IIII | | | | (thous.) |
| O VALUE LINE PUBLISHING, INC. | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007/2008 |
| SALES PER SH | 21.33 | 24.30 4.81 | 28.05 | 38.62 | 30.69 | 32.70 | 39.53 | 6.77 | - | |
| EARNINGS PER SH | 1.28 | 1.78 | .61 | 1.19 | 1.79 | 1.28 | 2.05 | 2.50 | NA | NA/NA |
| DIV'DS DECL'D PER SH | 4.42 | 6.38 | 6.52 | 5.87 | 5.71 | 7.27 | 7.50 | 9.64 | | |
| BOOK VALUE PER SH | 19.83 | 21.53 | 22.06 | 23.28 | 25.06 | 24.70 | 33.49 | 36.39 | | |
| COMMON SHS OUTST'G (MILL) AVG ANN'L P/E RATIO | 3.47 | 3.38 | 3.35 | 14.7 | 13.9 | 20.0 | 15.6 | 19.6 | NA | NA/NA |
| RELATIVE P/E RATIO | 1.30 | .78 | 2.25 | .75 | .76 | 1.14 | .82 | 1.04 | | |
| SALES (\$MILL) | 74.0 | 82.0 | 93.9 | 121.3 | 96.9 | 103.3 | 115.8 | 131.0 | - | Bold figures |
| OPERATING MARGIN | 25.4% | 27.4% | 19.2% | 17.3% | 24.1% | 21.2% | 22.2% | 21.1% | | are consensus earnings |
| NET PROFIT (\$MILL) | 4.5 | 6.2 | 2.0 | 3.7 | 5.7 | 3.9 | 6.1 | 7.6 | - | estimates |
| INCOME TAX RATE | 39.0% | 38.9% | 40.5% | 38.8% | 39.0% 5.8% | 39.0% | 38.9% | 36.3% | - | and, using the recent prices, |
| WORKING CAP'L (\$MILL) | .6 | .6 | d2.4 | d.4 | d.5 | 2.8 | 7.0 | 3.4 | - | P/E ratios. |
| LONG-TERM DEBT (\$MILL) | 33.3 | 37.9 | 42.0 | 47.1 | 47.3 | 57.8 78.0 | 41.2 98.1 | 48.5 | - | |
| RETURN ON TOTAL CAP'L | 5.5% | 6.6% | 3.2% | 4.5% | 5.8% | 4.2% | 5.6% | 6.0% | - | |
| RETURN ON SHR. EQUITY | 6.5% | 8.5% | 2.8% | 5.1% | 7.1% | 5.0% | 6.2% | 7.1% | | - |
| ALL DIV'DS TO NET PROF | - | - | - | - | | - | - | | | l |
| Note: No analyst estimates availa | ble. | | | | | 64 C. 124 C. 199 | INDIA | | areified Co | |
| ANNUAL RATES | 1 Yr | ASSETS (\$ | mill.) | 2004 200 | 5 6/30/06 | 即和自己的意 | | | elaniou ou | Pratestant. (|
| Sales 9.5% | 12.0% | Receivables | | 9 1 11 | 7 10.9 | BUSINE | SS: Patrio | t Transport | ation Holdi | ng, Inc. and its |
| Earnings 9.5% | 22.0% | Other | 1FO) | 20.2 4. | <u> </u> | subsidiari | es engage s in the sou | in the trar theastern a | nd mid-Atla | antic states. The |
| Book Value 8.5% | 8.5% | Current Ass | els | 30.1 19 | 6 16.9 | company | s Transpor | tation segn | nent condu | cts its business |
| Fiscal QUARTERLY SALES (| Smill.) Full | Property, Pl | ant | 224.2 246 | , | through t | wo wholly se Inc. and | owned sul SunBelt T | bsidiarics, I ransport In | c Florida Rock & |
| Year 1Q 2Q 3Q | 4Q Year | Accum Dep | reciation | 75.2 81 | 8 | & Tank | Lines hauls | petroleum | n-related lic | uids and other |
| 09/30/04 27.9 28.6 29.7 09/30/05 31.4 32.1 33.1 | 29.6 115.8 | Other | У | 6.3 <u>9.</u> | <u>2 9.6</u> | liquids, a | nd dry bulk | commodit | ies by tank | trucks. SunBelt |
| 09/30/06 35.4 35.6 37.6 | | Total Assets | 5 | 185.4 193 | 7 212 5 | flatbed tr | nauls bui | segment pr | imarily serv | es customers in |
| Fiscal EARNINGS PER SH | ARE Full | | S (\$mill.) | 31 5 | 7 53 | the petrol | eum, and bu | ilding and | construction | n industries. The |
| Year 1Q 2Q 3Q | 4Q Year | Debi Due | | 7.7 2 | 4 2.5 | company | s Real Esta | te segment | acquires, co | s. This segment |
| 09/30/03 .30 .20 .44 | .34 1.28 | Current Lial | ь | 23.1 16 | 2 19.0 | also own | s real estate | , which is l | eased under | mining royalty |
| 09/30/05 .56 .52 .70 | .72 2.50 | | | | | agreemen | ts or held | for invest | ment. Has | 925 employees. |
| 09/30/06 62 .56 .59 | | LONG-TER | M DEBT AND | EQUITY | | Museum | Drive, Jacl | ksonville, I | FL 32207. | Tel.: (904) 396- |
| Cal- QUARTERLY DIVIDEND | S PAID Full | as of 6/3 | 30/06 | _ | | 5733. Int | ernet: http:/ | /www.patri | ottrans.com | L. |
| endar 10 20 30 | 4Q Yea | Total Debt LT Debt \$5 | \$59.7 mill. 7.2 mill. | Due | in 5 Yrs. NA | | | | | |
| 2003 | | Including (| Cap. Leases | NA (| 33% of Cap'l) | | | | | A.Z. |
| 2005 | - | Leases, Ur | capitalized / | vinual rentals h | A | | | October 20 |), 2006 | |
| INSTITUTIONAL DECIS | IONS | Pension Li | ability None is | n '05 vs. None In | '04 | TOTAL S | HAREHOL | DER RETU | RN | |
| 40'05 10' | 20'06 | Pfd Stock N | lone | Pfd Di | v'd Paid None | | | Divide | nds plus apprec | iation as of 9/30/2006 |
| to Buy 6 6 to Sell 5 B | 19 9 | Common S | tock 3.011.789 | shares | (67% of Cap'l) | 3 Mos. | 6 Mos. | 1 Yr. | 3 Yn | i. 5 Yrs. |
| Hid's(000) 713 721 | 744 | | | | | -12.93% | 9.89% | 9.99% | 151.03 | 3% 343.69% |

2006 Value Line Publiching, loc. All rights reserved, Facual material is obtained from sources believed to be restate and is provided without waranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for non-commercial, iterand use. Non-commercial, iterand use. No Subscripts own non-commercial, iterand use. No Subscripts own non-commercial, iterand use. No Subscripts own of the format is a strictly for subscripts own non-commercial, iterand use. No Subscripts own of the format is a strictly for subscripts own non-commercial, iterand use. No Subscripts own of the format is a strictly for subscripts own non-commercial, iterand use. No Subscripts own of the format is a strictly for a subscripts own non-commercial, iterand use. No Subscripts own of the format is a strictly for a subscripts own non-commercial, iterand use. No Subscripts own of the format is a strictly for a subscripts own non-commercial, iterand use. No Subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own non-commercial, iterand use. No Subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the format is a strictly for a subscripts own of the fo

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

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 <u>Natural Gas Industry Summary</u> <u>Quarterly Financial & Common Stock Information</u>, Edward Jones Co., December 31, 2006. A copy of this data is attached.

Responsible Witness:

Edward **Jones**

Financial Information Sorted by Interest Coverage

| r | |
|----------------------|---|
| INTEREST COVERAGE | 8.29 7.17 7.17 7.17 7.18 7.18 7.18 7.18 7.18 |
| BOOK YIELD | 8.20 8.20 8.20 8.20 8.20 8.20 8.20 8.20 |
| | 88555583399955888889555859555855 |
| ROE | 15.2 9.1 9.1 10.9 10.2 11.9 10.4 8.9 10.4 10.2 15.5 10.2 10.2 10.3 |
| PCT CHG | 19 19 19 19 19 19 19 19 19 19 19 19 19 1 |
| DIV RATE | 1.48 1.26 1.44 1.44 1.42 1.42 1.42 1.42 1.42 1.23 1.42 1.23 1.42 1.23 1.42 1.22 1.22 1.22 1.22 1.22 1.22 |
| PCT CHG | 30.3 16.3 16.3 5.7 5.7 5.7 (3.0.2) 5.7 1.1 1.1 2.1 1.1 2.2 2.2 2.2 2.2 2.2 2.2 |
| EPS | 2.97 2.97 2.80 2.80 2.80 2.30 1.1.78 1.1.78 1.7787 1.778 1.778 1.778 1.778 1.778 1.778 1.778 1.778 1.7 |
| PCT EQUITY | 44888888888888888888888888888888888888 |
| S-T DEBT (000) | 441,000 365,630 355,630 355,630 355,630 355,630 355,630 1732,947 1732,947 1732,947 1732,947 10,919 10,919 10,919 10,919 10,919 10,919 10,910 10,919 10,9100 10,9100 10,9100 10,9100 10,9100 10,9100 10,9100 10,9100 10,9100 |
| | 2,252,000 3,828,460 1,727,760 1,727,021 953,530 1,728,443 1,084,443 794,191 794,191 1,236,155 1,736,155 1,736,155 1,0,495 70,495 70,495 70,495 70,495 70,495 70,495 70,495 76,471 88,250 88,250 70,495 76,410 10,410 88,250 86,275 36,276 86,210 86,210 86,210 86,210 86,210 86,210 86,210 86,210 86,210 86,210 86,210 86,210 86,210 86,210 86,210 86,210 86,210 10,4100 10,4100 10,4100 10,4100 10,4100 10,4100 10,4100 10,4100 10,41 |
| 12 MOS | 09/30/06 00/30/06 00/00/00 00/000000 |
| | DISTRIBUTION AGL RESOURCES, INC. ANGL HOLDINGS, INC. PIEDMONT INTURAL GAS CO.: INC. NEW JERSEY RESOURCES CORP. NEW JERSEY RECORDER COMPANY SOUTH JERSEY NOUSTRIES, INC. SOUTH JERSEY NOUSTRIES, INC. CASCADE NATURAL GAS CORPANY CASCADE NATURAL GAS CORP. ERACO ENERGY, INC. CASCADE NATURAL GAS CORP. DELTA NATURAL GAS CORPANY INC. BELTA NATURAL GAS COMPANY INC. BELTA NATURAL GAS COMPANY INC. |
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page 28

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

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 coverages in the panel of fifteen natural gas distribution utilities even with a 12.1% return on equity.

Responsible Witness:

| i 289 al Gas TIER Calculation | 0.44.00 | | (6,126,598) | (4,079,663) | (1,112,216) | (11,318,477) | 19,990,000 1,399,300 39,880,000 2,293,100 | 59.870,000 6.814% | 17,146,346 1,083,649 22,853,654 28,567 | 17,146,346 1,112,216 6.487% | 5,191,879 4,967,706 |
|----------------------------------|---------------------|--|--------------|----------------|-----------------|---------------|--|--|--|--------------------------------|--|
| ta Natura | Weighted Cost of | Capital | 4.800% | 3.196% | 0.871% | 8.867% | | O. | | Ð | |
| 12/31/2006 | | Cost hates | 12.100% | 6.814% | 6.487% | |)ebentures)ebentures | Amortization erm Debt Expense | Votes payable Jnused line | erm Debt Expens | |
| | Ē | Hallos | 39.67% | 46.90% | 13.43% | | 7.000% [5.750% [| Debt Expense / Annual Long Te Rate | 6.320% | Annual Short Ti Rate | |
| | | (51,254,433) - 621,393 | (50,633,040) | (59,870,000) | (17,146,346) | (127,649,386) | 31, 2006 | <u> </u> | 31, 2006 | | |
| | | Equity Per DNG Balance Sheet Minimum Pension Liability Subsidiaries | | Long Term Debt | Short Term Debt | | Cost of Long Term Debt, December (| | Cost of Short Term Debt, December (rate as of 3/1/07) | | Total Calculated Interest Expense Per Books |

TIER1 2.66 TIER2 2.50 TIER3 2.23

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

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:

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

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:

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

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:

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

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

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:

Exhibit MJB - 2 Edward Jones Natural Gas Industry Summary Data Ranked by Total Capitalization

| | | | Total | |
|-------------------------------|-----------|----|---------------|---------|
| | 12 Months | Са | apitalization | Precent |
| | Ending | | (in \$1,000) | 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

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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 settler | ment in last rate case |
| 1996 | 11.30% | Black box settler | ment in last rate case |
| 1997 | 5.80% | Black box settler | ment 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

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Exhibit MJB - 5 Examples of the Impact of Leverage on Actual Return on Equity

| Example 1 | | | | | | |
|--|--------------------|----------|---------------------|----|-------------------|--|
| | | | Cost | | Return Element in | |
| | Capitalization | Ratios | Rates | | Dollars | |
| Equity | \$52,115,554 | 0.4036 | 12.50% | \$ | 6,514,444 | |
| Debt | \$77,016,346 | 0.5964 | 7.00% | \$ | 5,391,144 | |
| | \$129,131,900 | 1 | | \$ | 11,905,588 | |
| Assume \$2,000 |),000 shortfall in | earnings | 3 | | | |
| Actual Return c | on Equity | = | \$4,514,44 | 14 | / \$52,115,554 | |
| | | | 8.66% | | | |
| Example 2 | | | Cost | | Return Element in | |
| | Capitalization | Ratios | Rates | | Dollars | |
| Fauity | \$65 857 269 | 0.51 | 12 50% | \$ | 8 232 159 | |
| Debt | \$63 274 631 | 0.49 | 7.00% | ŝ | 4 429 224 | |
| | \$129,131,900 | 1 | 1.0070 | \$ | 12,661,383 | |
| Assume \$2,000,000 shortfall in earnings | | | | | | |
| Actual Return c | on Equity | = | \$6,232,15 9.46% | 59 | / \$65,857,269 | |

Example 3

| Example 0 | | | | |
|-----------|----------------|--------|--------|-------------------|
| | | | Cost | Return Element in |
| | Capitalization | Ratios | Rates | Dollars |
| Equity | \$129,131,900 | 1.0000 | 12.50% | \$ 16,141,488 |
| Debt | \$0 | 0.0000 | 7.00% | \$ - |
| - | \$129,131,900 | 1 | | \$ 16,141,488 |
| - | \$129,131,900 | 1 | | \$ 16,141,4 |

Assume \$2,000,000 shortfall in earnings

| Actual Return on Equity | - | \$14,141,488 / \$129,131,900 |
|-------------------------|---|------------------------------|
| | = | 10.95% |
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. Depatment of Energy, Energy Information Administration

Exhibit MJB-18 Unregulated Companies of Similar Size and Risk

| | | | | Five Year Total | 2005 Return |
|----------------------|------|----|------------|---------------------|-------------|
| | | 2 | 2005 Total | Shareholder Returns | on |
| | | | Assets | (dividends plus | Shareholder |
| Company Name | Beta | | (Millions) | appreciation) | 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% |
| - | | Av | erage | 273.56% | 12.96% |
| | | M | edian | 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

| | | Using Sustainable Growth Rate | | |
|---|------------------|---|---|------|
| | Variable Name | | | |
| 2006 Annual Dividend \$1.20 | ۵ | Sustainable Growth Rate | | |
| High Price During 2006 \$26.82 | ۵. | Payout Ratio = \$1.20 / \$1.55 = | 0.7742 | |
| Low Price During 2006 \$24.11 | ٩ | Retention Ratio = 1 - 0.07742 = | 0.2258 | |
| Sustainable Growth Rate 2.37% | 0 | Delta Allowed ROE | 10.5% | |
| Shares Outstanding 3,261,034 | | Sustainable Growth Rate = b x r = | 2.37% | |
| Earnings per Share in 2006 \$1.55 | | | | |
| Book Equity \$50,633,040 | | | | |
| Using the DCF formula: ROE = D/P + g | | | | |
| ROE Based on the 2006 High Stock Price | | Market Capitalization 2006 High Stock Price | Expected Shareholder Returns High Stock F | rice |
| ROE = (1.20 / 26.82) + .0237 = 6.84% | | 3,261,034 × 26.82 = \$87,460,932 | \$87,460,932 x .0684 = \$5,986,065 | |
| ROE Based on the 2006 Low Stock Price | | Market Capitalization 2006 Low Stock Price | Expected Shareholder Returns Low Stock P | rice |
| ROE = (1.20 / 24.11) + .0237 = 7.35% | | 3,261,034 x 24.11 = \$78,623,530 | \$78,623,530 x .0735 = \$5,776,618 | |
| Return on Book Equity 2006 High Stock Price | | | | |
| \$5,986,065 / \$50,633,040 = 11.82% | | | | |
| <u>Return on Book Equity 2006 Low Stock Price</u> | | | | |
| \$5,776,618 / \$50,633,040 = 11.41% | | | | |

Results of DCF Model for Delta Natural Gas Company

MJB - 8

EXI

The Value Line Investment Survey - Small and Mid-Cap Edition, December 15, 2006 and September 15, 2006 Data Source:

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

| | | | | High | | Low | | DCF Low D | CF High | |
|----------------------------------|-------------|---------------|--------|----------|---|-------------|---------|-----------|---------|--------|
| | | | Growth | Stock | | Stock | Size | Stock | Stock | |
| Company | Beta | Dividend | Rate | Price | | Price | Premium | Price | Price | CAPM |
| Data Source | | | ~ | - | | | 7 | | | |
| AGL Resources, Inc. | 0.95 | 3 1.50 | 6.50% | \$ 40.00 | ф | 34.40 | 1.10% | 10.86% | 10.25% | 13.04% |
| Cascade Natural Gas Corp. | 0.85 | 0.96 | 0.50% | \$ 26.30 | ф | 19.00 | 2.76% | 5.55% | 4.15% | 13.98% |
| Laclede Group | 0.85 | 1.40 | 2.00% | \$ 37.51 | Ф | 29.10 | 2.33% | 6.81% | 5.73% | 13.55% |
| Peoples Energy Corp. | 0.85 | 5 2.18 | 0.00% | \$ 45.21 | Ф | 34.90 | 1.73% | 6.25% | 4.82% | 12.95% |
| New Jersey Resources, Inc. | 0.80 | 5 1.45 | 4.50% | \$ 53.16 | Υ | 41.50 | 1.67% | 7.99% | 7.23% | 12.53% |
| Piedmont Natural Gas Company | 0.80 | § 0.96 | 5.50% | \$ 28.44 | θ | 23.20 | 1.73% | 9.64% | 8.88% | 12.59% |
| WGL Holdings, Inc. | 0.80 | 5 1.35 | 2.00% | \$ 33.55 | Ф | 27.00 | 1.73% | 7.00% | 6.02% | 12.59% |
| Atmos Energy Corp. | 0.75 | 5 1.26 | 2.00% | \$ 29.30 | ⇔ | 25.50 | 0.85% | 6.94% | 6.30% | 11.35% |
| Northwest Natural Gas Company | 0.75 | 5 1.38 | 4.00% | \$ 43.69 | ф | 32.80 | 1.67% | 8.21% | 7.16% | 12.17% |
| South Jersey Industries, Inc. | 0.70 | b 0.92 | 6.00% | \$ 34.26 | Ф | 25.60 | 2.33% | 9.59% | 8.69% | 12.47% |
| EnergySouth, Inc. | 0.60 | 5 0.92 | 6.48% | \$ 41.53 | Ф | 26.40 | 4.39% | 9.96% | 8.70% | 13.81% |
| Delta Natural Gas Company | 0.55 | \$ 1.20 | 2.37% | \$ 26.82 | Ŷ | 24.11 | 9.83% | 7.35% | 6.84% | 18.89% |
| RGC Resources, Inc. | 0.40 | \$ 1.22 | 2.70% | \$ 28.14 | Ф | 22.72 | 9.83% | 8.07% | 7.04% | 17.81% |
| Energy West | 0.35 | \$ 0.48 | 3.18% | \$ 12.00 | Υ | 8.57 | 9.83% | 8.78% | 7.18% | 17.45% |
| | | | | | | | Mean | 8.07% | 7.07% | 13.94% |
| | | | | | | | Median | 8.03% | 7.10% | 13.00% |

Data Sources:

<u>The Value Line Investment Survey -</u> Sep. 15, 2006
 <u>Risk Premium Over Time Report : 2006</u>, Ibbotson Associates, 2006

Page 1

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

Dollar Return

Dollar Return

| Company Data Source | Shares 1 | Ī | Market Equity gh Stock Price | Ľ | Market Equity ow Stock Price | | High Stock Price | | Low Stock Price |
|-------------------------------|-------------|---|---------------------------------|---|---------------------------------|------------------|---------------------|----|--------------------|
| AGL Resources, Inc. | 77,878,889 | Ф | 3,115,155,560 | Ф | 2,679,033,782 | \$ 31 | 19,303,445 | Ś | 290,955,529 |
| Cascade Natural Gas Corp. | 11,505,996 | Ь | 302,607,695 | ф | 218,613,924 | \$ | 12,558,795 | θ | 12,138,826 |
| Laclede Group | 21,357,000 | ф | 801,101,070 | Ф | 621,488,700 | \$ | 15,921,821 | ស | 42,329,574 |
| Peoples Energy Corp. | 38,471,441 | φ | 1,739,293,848 | θ | 1,342,653,291 | ው ም | 33,867,741 | θ | 83,867,741 |
| New Jersev Resources, Inc. | 28,080,314 | မ | 1,492,749,492 | Ф | 1,165,333,031 | \$ 10 | 07,890,182 | θ | 93,156,442 |
| Piedmont Natural Gas Company | 75,277,250 | ស | 2,140,884,990 | ស | 1,746,432,200 | \$ | 90,014,834 | ស | 168,319,931 |
| WGL Holdings, Inc. | 48,773,729 | ទ | 1,636,358,608 | φ | 1,316,890,683 | с, сэ | 98,571,706 | θ | 92,182,348 |
| Atmos Energy Corp. | 81,595,723 | φ | 2,390,754,684 | Ф | 2,080,690,937 | \$ \$ | 50,625,705 | θ | 144,424,430 |
| Northwest Natural Gas Company | 27,548,346 | ω | 1,203,587,237 | မ | 903,585,749 | ው ም | 36,160,207 | φ | 74,160,147 |
| South Jersey Industries, Inc. | 29,232,801 | ф | 1,001,515,762 | θ | 748,359,706 | ა ფ | 36,985,123 | θ | 71,795,759 |
| EnergySouth, Inc. | 7,936,000 | θ | 329,582,080 | Ф | 209,510,400 | \$ | 28,658,039 | ക | 20,877,394 |
| Delta Natural Gas Company | 3,261,034 | Ф | 87,460,932 | ↔ | 78,623,530 | ф | 5,986,065 | ዏ | 5,776,618 |
| RGC Resources, Inc. | 2,130,573 | ស | 59,954,324 | φ | 48,406,619 | ക | 4,218,066 | ക | 3,906,278 |
| Energy West | 2,931,158 | Υ | 35,173,896 | θ | 25,120,024 | φ | 2,525,486 | \$ | 2,205,773 |

Data Sources:

- The Value Line Investment Survey Sei
 Risk Premium Over Time Report : 2006

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

Using Sustainable Growth Rates for Small and Mid Cap Companies

| | | | Return on Book Equity | Return on Book Equity | |
|-------------------------------|-----|------------------|--------------------------|--------------------------|--|
| | | | High Stock | Low Stock | |
| Company Data Source | | Book Equity 1 | Price | Price | |
| AGL Resources, Inc. | ŝ | 1,593,480,000 | 20.04% | 18.26% | |
| Cascade Natural Gas Corp. | ക | 123,517,500 | 10.17% | 9.83% | |
| Laclede Group | ф | 399,432,500 | 11.50% | 10.60% | |
| Peoples Energy Corp. | မ | 833,354,880 | 10.06% | 10.06% | |
| New Jersey Resources, Inc. | ക | 620,096,100 | 17.40% | 15.02% | |
| Piedmont Natural Gas Company | ф | 898,050,920 | 21.16% | 18.74% | |
| WGL Holdings, Inc. | ക | 927,208,800 | 10.63% | 9.94% | |
| Atmos Energy Corp. | ф | 1,646,237,800 | 9.15% | 8.77% | |
| Northwest Natural Gas Company | ŝ | 596,443,650 | 14.45% | 12.43% | |
| South Jersey Industries, Inc. | Υ | 435,155,050 | 19.99% | 16.50% | |
| EnergySouth, Inc. | θ | 111,064,550 | 25.80% | 18.80% | |
| Delta Natural Gas Company | ₩ | 51,697,650 | 11.58% | 11.17% | |
| RGC Resources, Inc. | ф | 40,182,150 | 10.50% | 9.72% | |
| Energy West | ф | 18,863,520 | 13.39% | 11.69% | |
| | Me | an a | 14.70% | 12.97% | |
| | Meo | dian | 12.48% | 11.43% | |

Data Sources:

<u>The Value Line Investment Survey - Sel</u>
 <u>Risk Premium Over Time Report : 2006</u>

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:

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:

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:

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:

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:

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:

\$

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:

•

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:

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 | 7001 | 1317 |
| | namena Kamananisha Makabba kasha kasha in tanu ina sasa sa | المحاجز والمحاجز والمحاجز والمحاجز المحاجز المحاجز والمحاجز | و مع الم المحمد المحمد الله المحمد الله المحمد ا | 47) * 10)-10)40 ⁴⁷⁾ 100 ⁴ 100 ⁴ 100 ⁴ 100 ⁴ 100 100 100 100 ⁴ 100 | 11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1 |
| 2003 | Retail | 40027 | 39610 | 7188 | 6768 |
| | Transportation | 91 | 88 | 1100 | 0700 |
| a present to the state of the s | n menangan kanangan kanangan di kanangan kanangan kanangan kanangan kanangan kanangan kanangan kanangan kanang | na a manana manga manana a sa manga kanana ang kanana kanana kanana kanana kanana kanana kanana kanana kanana k | د از در در از | | |
| 2004 | Retail | 39610 | 39088 | 6027 | 6524 |
| | Transportation | 88 | 207 | 0027 | 0024 |
| | n metalenten dari 1944 i 1944 eta arta dala batu arta dare arta dare da arta dare arta dare da arta dare da art | nan 19. mil 1. u Martin 1997 (Martin Landard) | an a statisting a statement water and the statement of the | | |
| 2005 | Retail | 39088 | 38702 | 6684 | 6306 |
| | Transportation | 207 | 215 | 0004 | 0000 |
| | n an | | | anna anns fair mha bhirthan ann a sann ar sann an san an | an a |
| 2006 | Retail | 38702 | 37836 | 6187 | 5310 |
| | Transportation | 215 | 213 | | 0010 |

* 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.

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:

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:

| | Fi | scal Yea | ars Ende | d June | 30 |
|--|-------------|-------------|-------------|-------------|------|
| | <u>2006</u> | <u>2005</u> | <u>2004</u> | <u>2003</u> | 2002 |
| 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>Fis</u> | <u>cal Ye</u> | ars Ende | d June | <u>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% | 6 | | | |

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:

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:

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:

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:

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 | | 148,724.00 | (b) |
| | Avg rate/hr (formula = a / b) | | 25.14 | |
| (3) | Depreciation for office equipment not included. | | | |
| | 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. | | | |
| (4) | CLERICAL INFORMATION | | | |
| | Clerical net annual salary as of 12/31/06 less taxes & benefits | \$ | 559,024.00 | (c) |
| | Clerical number of hours worked | | 29,398.00 | (d) |
| | Avg rate/hr (formula = c / d) | | 19.02 | |
| (5) | Depreciation for tools not included. | | | |
| (6) | AVERAGE COST OF TRANSPORTATION PER HOUR WO | ORK | ED | |
| | Transportation costs 12 months ended 12/31/06 | \$ | 886,112.00 | (e) |
| | Total number of hours worked | | 203,070 | (f) |

Avg transportation rate/hr (formula = e / f)

\$

4.36

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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:
| of 1 |
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| 30 |
| # DY |

| | 9000 nop-role | Calendar 1999 | Increase (Decrease) | Percentage |
|--|---------------|---------------|---------------------|----------------|
| As Report Per John Brown - adjusted for transportation | Calciual 2000 | 7 747 997 | (468,620) | -21% |
| Residential | 110,411,1 | | (45 867) | -8% |
| | 544,497 | 8CC,U8C | | 707 |
| Simail Non-Kesidennai | 888.907 | 950,624 | (61,717) | 0/0- |
| Large Non-Residential | 35.216 | 49,015 | (13,799) | -28% |
| Interruptible | 3 247,997 | 3,837,995 | (589,998) | -15% |
| Delta Natural Retail | 5 375 394 | 4,486,492 | 888,902 | 20% |
| Transportation - On-System | 8,525,855 | 1,340,166 | 7,185,689 | 536% |
| Transportation - Off-System Throughput | 17,149,246 | 9,664,653 | 7,484,593 | 17% |
| | Fiscal 2006 | Fiscal 1999 | Increase (Decrease) | Percentage |
| As Report Per Glenn Jennings | 1 768 263 | 2.222.981 | (454,718) | -20% |
| Residential | 547 887 | 584.540 | (41,653) | °∕₀ <i>L</i> - |
| Small Non-Residential | 883 659 | 962.218 | (78,559) | -8% |
| Large Non-Residential | 37 106 | 43,482 | (6,376) | -15% |
| Interruptible | 3 231.915 | 3,813,221 | (581,306) | -15% |
| Delta Natural Retail | 5 371 568 | 4,434,318 | 887,250 | 20% |
| Transportation - On-System | 8 788 963 | 1,144,356 | 7,644,607 | 668% |
| Transportation - Off-System | 20160110 | | | |
| 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

STANDARD Round Oak - VL18/21/24/30 Gas Logs | Gas Logs - Vent-Free Gas Logs by... Page 1 of 1

AG DR1-310 Exhibit 1



Home > View All Gas Logs > Vent-Free Gas Logs > Woodlands Vent-Free Gas Logs > STANDARD Round Oak - VI.18/21/24/30

Vent-Free Gas Logs

Woodlands Vent-Free Gas Logs STANDARD Round Oak VL18/21/24/30

Print This Page

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% <u>efficiency. Vermont Castings[™] vent-free logs require no</u> 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

CFM Corporation Home Site Terms & Privacy Policy

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Master Distributors Master Parts

Но



Vanguard Blue Flame Vent-Free Gas Space

Blue Flame Convection Heaters work muc a central heating system. They warm the first, then people and objects. Altogethe heat is more "gentle" as the warming preoccurs. Adding to its beauty, the blue fl glows through tempered, tinted glass for sintimate 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 c required, and a built in pressure regulator, installation³
- *Professional installation recommended
- Safe and clean burning, Vanguard Vent Free Gas Space design certified by the American Gas Association and me all government safety performance standards.
- A dual purpose safety pilot system protects against oxyg and any interruption in the fuel supply. If either occurs, off to the burner, turning the heater off.
- Provides heat during power outages. No electricity require them ideal as back up emergency heat.
- Clean, quite odorless operation
- Easy to use top mounted controls
- push button ignition. No matches required.

Page 1 of 2 AG DR1-310

Exhibit 3



STOVE SEARCH

Product:

Pellet Stove

Manufacturer: Whitfield



HOME 🏠

STOVE PRODUCTS

Pellet Stoves Wood Stoves Gas Stoves Multifuel Corn Stoves Pellet Fuel Mills Fireplace Heaters Chimney Caps Stove Top Fans Parts

SPA PRODUCTS

Phoenix Spas Price List

CUSTOMER SERVICE

Contact Us! Shop and Compare Download Stove Manuals Info Resource Center Customer Comments Warranties & Procedures Freight

TECHNICIAN EXCHANGE

Locate a Technician Join the Exchange





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 surfaceds, 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

DOWNLOAD OWNERS MANUAL (PDF)



View larger in

Your Wholesa \$1,700.{ -

| | Product Spec | cifications |
|-----------------|--|--|
| RELIABILITY | LENNOX 2508 SEREFINA GAS STOVE | |
| BEBCHLINE CHIPE | 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% |
| | | 1 |
| | 1209 Anderson Place SE, Albany, OR 97322 - 1-86 ©2004 <u>stovesandspas.com</u> - All prices, specifications OREGON STOVES AND SPAS D.B.A. STOV | 88-340-7727, e-mail: <u>sales@stovean</u> , and availability subject to change w VESANDSPAS.COM - PRIVACY PO |

OCTÓBER 1997

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

PAGE 100

SECTION 1 RESIDENTIAL DIRECT HEATING

OCTOBER 1997

| Model lumber | Foot Notes | Түре | input Btu/hr | Heating Capacity, Btu/hr | AFUE. % | Model Number | Foot Notes | Түре | Input Btu/hr | Heating Capacity, Btu/hr | AFUE, % |
|------------------------|---------------|----------|------------------|--------------------------------|--------------|---------------------------|---------------|----------------|----------------------------|--------------------------------|--|
| ATI ANITA STOUS | | | | | | CEM MAJESTIC INC. | ICONT'D | } | | | ************************************** |
| Trade Name: Atlanta | | | | | | FS42 | 2 | WF | 40,000 | 28,000 | 64.0 |
| NATURAL GAS | | | | | | FSDV42 HEB42 | 2 2 | WF | 40,000 | 28,000 | 65.O |
| ADG10 | 2 | WF | 10,000 | 6,500 | 59.0 | PROPANE GAS | | | | | |
| ADG2O ADG3O | 2 2 | WF WF | 18,000 | 12,600 | 62.0 63.0 | HE 25 | 2 | RH | 20,000 | 14,000 | 58.0 |
| #ASC50 ASC65T | 1 | WF WF | 50,000 60,000 | 37,500 45,000 | 74.0 74.0 | DV 32 | 2 | WF | 18,000 | 12,600 | 64.0 |
| PROPANE GAS | · | | | | | DVR33 FSDV30 DV14-2 | 2 2 2 | WF WF WF | 20,000 21,000 21,000 | 14,000 | 86.0 54.0 65.0 |
| ADG 10 | 2 | WF | 10,000 | 6,500 | 59.0 | DV 36 | 2 | WF | 21,000 | 14,700 | 65.0 65.0 |
| ADG2O ADG3O | 2 2 | WF WF | 18,000 27,000 | 12,600 | 62.0 63.0 | DVR36 | Ž | WF | 25,000 | 17,500 | 86.0 56.0 |
| #ASC50 ASC6ST | 1 | WF WF | 50,000 50,000 | 37,500 45,000 | 74 O 74 O | DV134-3 DV136 | 2 | WF | 25,000 | 17,500 | 66.0 |
| NATURAL OR PROPANE GAS | | | , | | | HEDV30-2 HEDV32 | 2 | WF WF | 27,000 | 18,900 | 66.0 66.0 |
| 51430/0530 | , | 55 | 30 000 | 21,000 | 56 0 | FS22 FS30-2 | 2 2 | WF WF | 30,000 30,000 | Z1,000 21,000 | 54.0 54.0 |
| F1445/AF45 | 2 | FF | 45,000 | 31,500 | 57.0 | FS32 HE30-2 | 2 2 | WF WF | 30,000 30,000 | 21,000 21,000 | 64.0 64.0 |
| F1405/AF05 | 2 | F# | 65,000 | 43,300 | 57 .U | FSOV22 | 2 | WF | 30,000 | 21,000 | 85.0 65.0 |
| AGF25 AGF35 | 2 | WF WF | 25,000 32,000 | 17,500 22,400 | 63.0 64.0 | DVR39 | 2 | WF | 30,000 | 21,000 | 86.0 66.0 |
| AGF 55 | 2 | WF | 50,000 | 35,000 | 65.0 | HEB32 | 2 | WF | 30,000 | 21,000 | 66.O |
| ATLANTA STOVE | | | | | | HEJZ DVRSL | 2 | WF | 30,000 | 21,000 | 87.0 |
| Trade Name: Thermo | laire | | | | | DVRSR DVT43 | 2 2 | WF WF | 30,000 31,500 | 21,000 | 55.0 |
| NATURAL OR PROPANE GAS | | | | | | DVRSJ DVTS2 | 2 2 | WF WF | 32,000 34,000 | 22,400 23,800 | 67.0 67.0 |
| SV220 | | ян | 20,000 | 13,000 | 58.0 | FS42 FSDV42 | 2 2 | WF WF | 36,000 36,000 | 25,200 25,200 | 64.0 65.0 |
| SVR340 | | RH | 40,000 | 28,000 | 64.0 64.0 | HEB42 | 2 | WF | 37,000 | 25,900 | 65.O |
| SVR350 | | RH | 50,000 | 35,000 | 65.0 | | | | | | |
| SVR365 | | RH | 65,000 | 45,500 | 65.0 | Trade Name: North | ern-Flam | e by N | lajestic | | |
| 54265 | | кн | 03,000 | 45,500 | 0.00 | NATURAL GAS | | | · | | |
| CFM MAJESTIC INC. | | | | | | A125 | 2 | RH | 20,000 | 14,000 | 58.0 |
| Trade Name: Insta-F | lame by | Majes | tic | | | 09333 | 2 | WF | 20,000 | 14,000 | 66.0 |
| NATURAL GAS | | | | | | D332 D234-2 | 2 | WF | 21,500 | 15,050 | 64.0 65.0 |
| HE 2 5 | 2 | RH | 20,000 | 14,000 | 58.0 | DR336 | 2 | WF | 25,000 | 17,500 | 66.0 |
| OVR33 | 2 | WF | 20,000 | 14,000 | 66.0 | DT 334-3 DT 336 | 2 | WF | 25,000 | 17,500 | 66.0 |
| DV 32 DV 34 - 2 | 2 2 | WF WF | 21,500 23,500 | 15,050 16,450 | 64.0 65.0 | D336 D130-2 | 2 | WF WF | 26,000 |) 18,200) 18,900 | 65.0 66.0 |
| DVR36 DVT34-3 | 2 | WF WF | 25,000 | 17,500 | 66.0 66.0 | D132 A130-2 | 2 | WF WF | 27,000 30,000 |) 18,900) 21,000 | 55.0 64.0 |
| DVT36 | 2 | WF WF | 25,000 | 17,500 | 66.0 65.0 | A222 | 2 | WF WF | 30,000 | 21,000 | 54.0 64.0 |
| HEDV 30-2 | 2 | WF | 27,000 | 18,900 | 66.0 | A232 | ź | WF | 30,000 | 21,000 | 64.0 |
| FSOV30 | 2 | WF | 30,000 | 21,000 | 64.0 | D230 D222 | 2 | WF | 30,000 | 21,000 | 65.0 |
| FS22 FS30-2 | 2 2 | WF WF | 30,000 30,000 | 21,000 | 64.0 64.0 | D232 AB132 | 2 | WF WF | 30,000 | 0 21,000 0 21,000 | 65.0 66.0 |
| FS32 HE30-2 | 2 2 | WF WF | 30,000 30,000 | 21,000 21,000 | 64.0 64.0 | A132 | 2 | WF | 30,000 | 0 21,000 | 66.0 |
| FSDV22 | 2 | WF | 30,000 | 21,000 | 85.0 65.0 | PROPANE GAS | | | | | |
| DVR39 | 2 | WF | 30,000 | 21,000 | 66.0 66.0 | A125 | 2 | RH | 20,000 | 0 14,000 | 58-0 |
| HEB32 | 2 | WF | 30,000 | 21,000 | 66.0 | 0332 | 2 | WF | 18,00 | 0 12,600 | 64.0 |
| DVRSL | 2 | WF | 30,000 | 21,000 | 67.0 | DR333 D230 | 2 | WF | 21,00 | 0 14,000 | 64.0 |
| DVRSR DVT43 | 2 2 | WF WF | 30,000 33,000 | 21,000 23,10J | 67.0 65.0 | D334 D336 | 2 2 | WF WF | 21,00 21,00 | 0 14,700 0 14,700 | 55.0 65.0 |
| OVRS3 OVTS2 | 2 | WF WF | 34,000 34,000 | 23,800 | 67.0 67.0 | DR336 DT334-3 | 2 2 | WF WF | 25,00 25,00 | 0 17,500 0 17,500 | 55.0 65.0 |
| DV40 | 2 | WF | 35,000 | 24,500 | 65 O | DT 3 3 6 | 2 | WF | 25,00 | 0 17,500 | 55.0 55.0 |
| | | | | | | 0132 | 2 | WF | 27,00 | 18,900 | 66.0 |
| | | | | | | A 1 30~2 A 2 2 2 | 2 | WF | 30,00 | 0 21,000 |) <u>64</u> 0 |

STANDARD FOOTNOTES:

1. Fan Type - With Blower

man we we are the region of the last directory.

2 Gravity Type - Without Blower

A222

 ${f {f H}}$ Rating revised by program since last directory

OCTOBER 1997 SECTION 1 RESIDENTIAL DIRECT HEATING

| Model Number | Foot Notes | Түре | input Btu/hr | Heating Capacity, Btu/hr | AFUE, % | Model Number | Foot Notes | Туре | Input Btu/hr | Heating Capacity, Btu/hr | AFUE, % |
|--|---------------------|---------------|------------------|--------------------------------|----------------------|--|---------------|----------------|----------------------------|--------------------------------|----------------------|
| A230-2 | (CONT'E 2 2 |) WF WF | 30,000 30,000 | 21,000 | 64.0 64.0 | HUNTER ENERGY AND Trade Name. Hunter | TECHN | OLOGII | ES INC. | | <u></u> |
| 0222 0232 | 2 | WF | 30,000 | 21,000 | 65.0 65.0 | NATURAL GAS | | | | | |
| AB132 A132 | 2 2 | WF WF | 30,000 30,000 | 21,000 21,000 | 88.0 66.0 | HWF 1 S HWF 30 | 2 | WF | 15,000 | 12,000 | 69.0 74.4 |
| BECA BITCHALLERAL | | | | | | PROPANE GAS | - | | 23,000 | 131000 | |
| Trade Name: Comfo | at INC. ort Glow | | | | | HWF15 | 2 | WF | 15,000 | 12,225 | 69.0 |
| NATURAL GAS | | | | | | NATURAL OR PROPANE GAS | ٤ | Wr | 25,000 | 20,000 | 14,4 |
| CGR 508NA | 1 | RH | 50,000 | 36,000 | 86.5 55 5 | FI25H-3(N.P) | 1 | RH | 70.000 | 13,200 | 58.7 |
| CGR65BNA CGR65NA | 1 | RH | 65,000 65,000 | 45,500 | 65.0 65,0 | HDS2000-3(N,P) PW/WF20-(2,3)(N,P) | | RH RH | 20,000 20,000 | 13,200 13,500 | 59.1 57.8 |
| PROPANE GAS | | | | | | PW/WF35-(2,3)(N,P) PW/WF50-(2,3)(N,P) | | RH RH | 35,000 50,000 | 25,000 35,600 | 65.8 66.4 |
| CGR508PA CGR50PA | 1 2 | RH RH | 50,000 50,000 | 36,000 36,000 | 66.5 66.5 | H85000 H810000 | 2 2 | WF WF | 5,800 9,400 | 4,296 7,520 | 72.8 77.3 |
| CGR658PA CGR65PA | 1 2 | RH RH | 65,000 65,000 | 45,500 45,500 | 65.0 65.0 | HWF IOMH HWF IOMM | 2 | WF WF | 10,000 | 7,550 7,550 | 69.0 69.0 |
| | | | | | | HDV2500-3(N,P) HDV30-3(N,P) | 2 | WF WF | 23,000 | 17,500 | 67.2 64.2 |
| DESA INTERNATION Trade Name: Vangu | AL INC. Iard | | | | | HDV30-4(N,P) HF130-3 HF540-3(N,P) | 1,3 2 2 | WF WF WF | 25,000 30,000 35,000 | 21,300 26,600 | 73.0 64.9 70.7 |
| NATURAL GAS | | | | | | Additional Footnotes | | | | ŗ | |
| DNV25NB DNV40NB | 1 1 | WF WF | 25,000 40,000 | 19,250 30,800 | 75.6 75.6 | J. Electronic ignit | ion, | | | | |
| PROPANE GAS | | | | | | HUNTER ENERGY AND | TECHN | IOLOGI | ES INC. | | |
| '25PB 0PB | 1 | WF WF | 25,000 40,000 | 19,250 30,800 | 75.6 75.6 | Trade Name: Atlanta | Stove | | | | |
| | | | · | · | | NATURAL GAS | 2 | we | 16 000 | 13,000 | 54 0 |
| EMPIRE COMFORT S Trade Name: Empir | e e | INC. | | | | ADGH25 | 2 | WF | 25,000 | 19,000 | 74.4 |
| NATURAL OR PROPANE G. | AS | | | | | PROPANE GAS | | | | | A B A |
| 3588-2 5088-2 | 2 2 | FF FF | 32,500 45,000 | 22,750 31,500 | 56.0 57.0 | ADGH15 ADGH25 | 2 2 | WF WF | 15,000 25,000 | 12,225 20,000 | 69.0 74.4 |
| 7088-2 | 2 | FF | 65,000 | 45,500 | 57.0 | NATURAL OR PROPANE GAS | <u>ì</u> | | | | |
| RH-25-5 RH-35-5 | 2 | RH RH | 25,000 | 17,500 | 63.0 64.0 | ADGB6 ADGB10 | 2 2 | WF WF | 5,800 9,400 | 4,640 7,520 | 72.8 77.3 |
| RH-50-4 RH-50-5 | 2 | RH | 50,000 | 35,000 | 65.0 | HWF10MH | 2 | WF | 10,000 | 7,550 | 69.0 |
| RH-65-5 | 2 | RH | 65,000 | 45,500 | 65.O | HUNTER ENERGY AND | D TECH | VOLOG | IES INC. | | |
| DV - 210 - 75G DV - 215 - 75G | 2 2 | WF WF | 10,000 15,000 | 7,000 10,500 | 62.0 62.0 | Trade Name: Martin | | | | | |
| DY - 20E - 3 DY - 25 - 25G | 1 2 | WF WF | 20,000 25,000 | 18,300 17,500 | 80.0 87.0 | NATURAL GAS | | | | (2 | <u> </u> |
| GWT-25-1(SG,RB) DY-35-2MH | 2 | WF WF | 25,000 | 18,500 24,500 | 70.0 68.0 | OGH25 | 2 | WF WF | 25,000 | 19,000 | 69.0 74,4 |
| GWT-35-25G GWT-35-1(SG,R8) DVC-35-1(SP,1P) | 2 | WF WF | 35,000 | 25,900 | 70.0 | PROPANE GAS | | | | | |
| FAW-40-1(SP, IP) DV-40E-3 | 1 | WF WF | 40,000 40,000 | 31,000 32,600 | 74.0 80.0 | DGH15 DGH25 | 2 2 | WF WF | 15,000 25,000 | 12,225 | 69.0 74.4 |
| #GWT-50-1(SG, RB) FAW-551P | 2 | WF WF | 50,000 55,000 | 37,000 42,000 | 70.0 74.0 | NATURAL OR PROPANE GA | <u>s</u> | | | | |
| FAW-555PP DV-551P DV-555PP | 1 | WF WF | 55,000 55,000 | 42,000 43,000 43,000 | 74.0 76.0 76.0 | DG86 DG810 | 2 | ₩F ₩F | 5,800 9,400 |) 4,640) 7,520 | 72.8 77.3 |
| DY-55E-3 | 1 | WF | 55,000 | 44,825 | 80.0 | HWF 10MH | 2 | WF | 10,000 | 7,550 | 69.0 |

STANDARD FOOTNOTES:

- 1. Fan Type With Blower
- # Rating Voluntarily revised since last directory.
- 2. Gravity Type Wilhout Blower

 ${f {f H}}$ Rating revised by program since last directory.

GE 102

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SECTION 1 RESIDENTIAL DIRECT HEATING OCTOBER 1997

| labc dmL | Foot Notes | Туре | input Btu/hr | Heating Capacity, Btu/hr | AFUE. % | Model Number | Foot Notes | Туре | input Btu/hr | Heating Capacity, Btu/hr | AFUE, % |
|----------------------|---------------|----------|------------------|--------------------------------|--------------|------------------------|---------------|-------------------|------------------|--------------------------------|--------------|
| JUISVILLE TIN A | ND STOVE (| CO. | | | | LOUISVILLE TIN AN | D STOVE | CO. (C | ONT'D) | 10 500 | |
| ade Name: Coz | Ŷ | | | | | COV-252 COV-252 | 2 | WF WE | 25,000 | 17,500 | 63.0 63.0 |
| ITURAL JAS | | | | | | W252E | 2 | WF | 25,000 | 17,500 | 83.0 |
| ON 3O A CENC | | FF FF | 30,000 30,000 | 21,000 21,000 | 57.0 57.0 | W258E W252-D | 2 | WF | 25,000 | 17,500 | 63.3 |
| 2N 50 | | FF | 50,000 | 35,000 | 58.0 | W256-D CDV-332 | 2 | WF WF | 25,000 33,000 | 23,100 | 63,3 64.0 |
| JN 50A | | FF | 62,000 | 43,400 | 58.0 | CDV-336 | 2 | WF WF | 33,000 | 23,100 | 64.0 64.1 |
| 0N65A 0N75 | | FF FF | 62,000 75,000 | 43,400 52,500 | 58.0 58.0 | W352E | 2 | WF | 35,000 | 24,500 | 64.1 |
| ON75A | | FF | 75,000 | 52,500 | 58.0 | W356-D W356E | 2 2 | WF WF | 35,000 | 24,500 | 64.1 64.1 |
| C201A | 2 | RH | 20,000 | 14,000 | 59.0 55.5 | CF354C CF354-B | 1 | WF WF | 35,000 35,000 | 28,000 28,000 | 74.0 74.8 |
| C351A | 2 | RH | 35,000 | 24,500 | 66.6 | CF358-B | 1 | WF | 35,000 35,000 | 28,000 28,000 | 75.4 75.4 |
| CR501A | 2 | RH | 50,000 50,000 | 35,000 | 65.0 56.0 | DVCF 404 | 1 | WE | 40,000 | 12,000 | 74.5 |
| CR701A | 2 | RH RH | 70,000 70,000 | 49,000 49,000 | 65.0 65.0 | DVCF404B | 1 | WF | 40,000 | 32,000 | 74.5 |
| 151 - VO | 2 | wc | 15,000 | 10 500 | 64 0 | DVCF 408 DVCF408A | 1 | WF WF | 40,000 40,000 | 32,000 | 76.1 |
| CV-155 | 2 | WF | 15,000 | 10,500 | 64.0 | DVCF4088 W502-D | 1 | WF WF | 40,000 50,000 | 32,000 35,000 | 76.1 65.1 |
| DV - 253 DV - 255 | 2 | WF | 25,000 | 17,500 | 63.0 | WSO2E | 2 | WF | 50,000 | 35,000 | 65.1 65.1 |
| 1251E 1255E | 2 2 | WF WF | 25,000 | 17,500 17,500 | 63.0 63.0 | WSOSE | 2 | ¥F | 50,000 | 35,000 | 65.1 |
| 1251-D 1255-0 | 2 | WF | 25,000 | 17,500 | 63.3 53.3 | CF 504-8 CF 504C |) | WF | 50,000 | 40,000 | 74.3 |
| 20V ~ 331 | 2 | WF | 33,000 | 23,100 | 64.0 | CF 558-8 DV CF 558B | 1 | WF WF | 55,000 55,000 | 44,000 44,000 | 76.0 76.0 |
| 1351-D | 2 | WF | 35,000 | 24,500 | 64.1 | CF558C | 1 | ₩F | 55,000 | 44,000 | 17.6 17.6 |
| 1351E 1355-0 | 2 2 | WF WF | 35,000 35,000 | 24,500 24,500 | 64.1 64.1 | DVCF558A | i | WF | 55,000 | 44,000 | 77.6 |
| 1355E | 2 | WF WF | 35,000 | 24,500 28,000 | 64.1 74.0 | DVCF 654 DVCF654A | 1 | WF | 62,500 | 50,000 | 74.3 |
| F31 | i | WF | 35,000 | 28,000 | 74.8 | DVCF654B CF654~B | f 1 | WF WF | 62,500 65,000 | 50,000 52,000 | 14.3 74.1 |
| CF357C | 1 | WF | 35,000 | 28,000 | 75,4 | CF654C | 1 | ₩F | 65,000 | 52,000 | 74.1 |
| DVCF403A | 1 | WF | 40,000 | 32,000 | 74.5 | NATURAL OR PROPANE | GAS | | | | |
| DVCF4038 DVCF 407 | 1 | WF WF | 40,000 40,000 | 32,000 32,000 | 74.5 76.1 | MHDV 156 | 2 | WF | 15,000 | 10,500 | 64.0 |
| 0VCF407A | 1 | WF WF | 40,000 | 32,000 | 76.1 | MHDV 305 | 2 | Wr | 30,000 | 21,000 | 05.1 |
| V501-0 | 2 | WF | 50,000 | 35,000 | 55.1 | MARTIN INDUSTRI | ES INC | | | | |
| 4505-D | 2 | WF WF | 50,000 | 35,000 | 65.1 | Trade Name: Mar | tin | | | | |
| ¥505E 2F503-8 | 2 | WF WF | 50,000 50,000 | 35,000 40,000 | 55.1 74.3 | NATURAL GAS | | | | | |
| CF503C CF557-8 | 1 | WF | 50,000 | 40,000 44,000 | 74.3 75.0 | V6975 | | RH | 35.000 | 24.500 | 64.0 |
| DVCF557B | | WF | 55,000 | 44,000 | 76.0 | 10333 | 2 | | 10,000 | 5 500 | 50.0 |
| DVCF 557 | 1 | WF | 55,000 | 44,000 | 77.6 | DG20 | 2 | WF | 18,000 | 12,500 | 62.0 |
| DVCF 653 DVCF653A | 1 | WF | 62,500 62,500 | 50,000 | 74.3 | DG30 | 2 | WF | 27,000 | 18,900 | 63.0 |
| DVCF6538 CF653-8 | 1 | WF | 62,500 65,000 | \$0,000 52,000 | 74.3 74.1 | PROPANE GAS | | | | | |
| CF653C | 1 | ₩F | 65,000 | \$2,000 | 74,1 | V6935 | | RH | 35,000 | Z4,500 | 64.0 |
| PROPANE GAS | | | | | | DG 10 | 2 | WF | 10,000 | 5,500 | \$9.0 |
| 909 30 | | FF | 30,000 | 21,000 | 57.0 | DG30 | 2 | WF | 27,000 | 18,900 | 63.0 |
| 90P 30A 90P 50 | | FF FF | 30,000 50,000 | 35,000 | 57.0 58.0 | NATURAL OR PROPANE | GAS | | | | |
| 90250A 90265 | | FF FF | 50,000 62,000 | 35,000 43,400 | 58.0 58.0 | F1430/4F30 | 2 | FF | 30.000 | 21.000 | 55.0 |
| 90P65A | | FF | 52,000 75,000 | 43,400 | 58.0 | F1445/AF45 | 2 | FF | 45,000 | 31,500 | 57.0 |
| 90P75A | | FF | 75,000 | 52,500 | 58.0 | F1465/AF65 | L | rr | 65,000 | 43,500 | 31.0 |
| VC2OZA | 2 | RH | 20,000 | 14,000 | 59.0 | V 2720 V 6835 | | RH RH | 20,000 35,000 | 13,000 24,500 | 58 O 54.0 |
| VCR352A VC3524 | 2 7 | ЯН ВН | 35,000 35.000 | 24,500 24.500 | 65.5 66.0 | V6850 | | RH ЯН | 50,000 50,000 | 35,000 | 65.0 65.0 |
| VC Y | 2 | RH | 50,000 | 35,000 | 65.0 66.0 | V6870 | | RH | 70,000 | 49,000 | 85.0 |
| YCR /UZA | 2 | RH | 70,000 | 49,000 | 65.0 | 40310 | | лл | 10,000 | 43,000 | |
| YU TUZA | Z | КН | 70,000 | 2 43,000 | 0.00 | GWF25 GWF35 | 2 | WF WF | 25,000 | 22,400 | 64.0 |
| CDV - 1 S2 | 2 | WF | 15,000 |) 10,500 | 54.0 | GWF55 | 2 | WF | 50,000 | 35,000 | 55.0 |

STANDARD FOOTNOTES:

1. Fan Type - With Blower

the sectory last directory

2. Gravity Type - Without Blower

 ${f \Phi}$ Rating revised by program since last directory.

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OCTOBER 1997 SECTION 1 RESIDENTIAL DIRECT HEATING PAGE 103

and the second
| Modei Number | Foot Notes | Түре | Input Btu/hr | Heating Capacity, Btu/hr | AFUE, % | Model Number | Foot Notes | Туре | Input Btu/hr | Heating Capacity, Btu/hr | AFUE, % |
|--|---|--|---|--|--|---|---|--|--|---|--|
| M IN INDUSTRIES Trade Name: Warm | 5, INC. Morning | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | PERFECTION-SCHWA WASV120SEN-A | NK, INC | (CONT | "D) 20,000 | 14,000 | 63.0 |
| NATURAL GAS | - | | | | | WASVIZOTN-A PW8Z5RTN-C | 2 | WF | 20,000 25,000 | 14,000 | 63.0 63.0 |
| Y2ORN Y3OKN6 YR4OGBN6 YR4OGN6 YR5ONBN6 YS0LBN6 YS0LN6 YS0LN6 YS65NBN6 YR65NBN6 Y65LBN6 Y65LBN6 | 2 2 1 2 1 2 2 2 2 1 2 | RH RH RH RH RH RH RH RH RH RH | 20,000 30,000 40,000 50,000 50,000 50,000 50,000 50,000 65,000 65,000 | 13,000 21,000 28,000 35,000 35,000 35,000 35,000 45,500 45,500 45,500 | 58.0 64.0 65.0 65.0 65.0 65.0 65.0 65.0 65.0 | PW825RIN-CS PW825SEN-C PW825SEN-C PW825SEN-C PW825TN-C PW825TN-C PW825TN-D ASV730RTN-T WASV730RTN-A WASV730RTN-A WASV730SEN-A PW835RTN-C PW835SEN-C | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | WF WF WF WF WF WF WF WF WF WF | 25,000 25,000 25,000 25,000 25,000 25,000 30,000 30,000 30,000 35,000 35,000 | 17,500 17,500 17,500 17,500 17,500 17,500 17,500 21,000 21,000 21,000 21,000 24,500 24,500 | 63.0 63.0 63.0 63.0 63.0 63.0 64.0 64.0 64.0 64.0 64.0 |
| #LSC5OTN LSC65T | 1 | WF WF | 50,000 50,000 | 37,500 45,000 | 74.0 74.0 | PW0355EN-CS PW0355EN-D PW035TN-C PW035TN-CS | 2 2 2 2 | WF WF WF | 35,000 35,000 35,000 35,000 | 24,500 24,500 24,500 24,500 | 64.0 64.0 64.0 |
| PROPANE GAS | | | | | | PW835TN-D CV740HN-C | 2 | WF WF | 35,000 | 24,500 31,160 | 64,0 73.3 |
| V20RP V30KP6 VR40GBP6 VR50NBP6 VR50NBP6 VS0LB6 V50LB6 V65NBP6 VR65NBP6 V65LBP6 V65LBP6 | 2 1 2 1 2 1 2 1 2 1 2 1 2 | RH RH RH RH RH RH RH RH RH RH RH RH RH | $\begin{array}{c} 20,000\\ 30,000\\ 40,000\\ 40,000\\ 50,000\\ 50,000\\ 50,000\\ 50,000\\ 50,000\\ 65,0$ | 13,000 21,000 28,000 28,000 35,000 35,000 35,000 35,000 45,500 45,500 45,500 | 58.0 64.0 64.0 65.0 65.0 65.0 65.0 65.0 65.0 65.0 65 | CY740N-C POWBSORTN-C POWBSORTN-CS PDWBSOSEN-C POWBSOSEN-C POWBSOSEN-D POWBSOTN-C POWBSOTN-C PDWBSOTN-C CY7SOHN-C CY7SOHN-C CY7SON-C | 1 2 2 2 2 2 2 2 2 2 1 | WF WF WF WF WF WF WF WF | 40,000 50,000 50,000 50,000 50,000 50,000 50,000 50,000 50,000 50,000 50,000 | 31, 160 35,000 35,000 35,000 35,000 35,000 35,000 35,000 35,000 35,000 35,000 39,300 39,300 | 73.3 55.0 65.0 65.0 65.0 65.0 65.0 65.0 74.3 74.3 |
| #LSC50TP LSC5CTP | 1 | WF WF | 50,000 60,000 | 37,500 45,000 | 74.0 74.0 | VC220TL-P VC220TL-R | | RH RH | 19,000 | 12,600 | 58.0 58.0 |
| PERFECTION-SCHWA Trade Name Perfect NATURAL GAS VC220TN-R VC220TN-P VC235SEN VC235TN-P VRC235TN-P VRC235TN-P VRC235TN-R VC250CEN VC250CTN-P VC250CEN VC250CTN-P VC250CEN VC250CTN-R VC250CEN VC250CTN-R VC250CEN VC250CTN-R VC250CEN VC250CTN-R VC250CEN VC250CTN-R VC250CEN VC270CEN VC270CEN VC270CEN VC270CEN | ANK, INC. | RH R R R R R R R R R R R R R R R R R R | 19,000 19,000 35,000 35,000 35,000 35,000 50,000 50,000 50,000 50,000 50,000 50,000 50,000 50,000 50,000 70,000 70,000 | 12,500 13,300 24,500 24,500 24,500 24,500 35,000 35,000 35,000 35,000 35,000 35,000 35,000 35,000 35,000 35,000 35,000 49,000 49,000 | 58.0 58.0 64.0 64.0 64.0 65.0 65.0 65.0 65.0 65.0 65.0 65.0 65 | VC220TL-R VC235SEL VC235TL-R VRC235SEL VRC235TL-R VRC235TL-P VRC235TL-P VC250CEL VC250CTL-P VC250CTL-P VC250TL-R VRC250CTL-R VRC250CTL-R WVRC250CTL-R WVRC250CTL-P VC270CTL-R VC270CTL-R VC270CEL VC270CTL-R VC270CEL VC270CTL-R VC270CEL VC270CTL-R VRC270CEL VC270CTL-R VRC270CTL-R VRC270CTL-R VRC270CTL-R VRC270CTL-R VRC270CTL-R VRC270CTL-R VRC270CTL-R VRC270CTL-R | 2 | \$ | 19,000 35,000 35,000 35,000 35,000 50,000 50,000 50,000 50,000 50,000 50,000 50,000 50,000 70,000 70,000 70,000 70,000 70,000 70,000 70,000 70,000 70,000 70,000 70,000 70,000 | 13,300 24,500 24,500 24,500 24,500 24,500 35,000 35,000 35,000 35,000 35,000 35,000 35,000 35,000 49,000 40,000 40,000 40,0000 40,0000 40,0000 40,0000 40,00000000 | 58.0 64.0 64.0 64.0 64.0 65.0 65.0 65.0 65.0 65.0 65.0 65.0 65 |
| YC270SEN YC270TN-P YC270CN-R VRC270CSEN YRC270CTN-R WYRC270CTN-P | | RH RH RH RH RH RH | 70,000 70,000 70,000 70,000 70,000 70,000 | 49,000 49,000 49,000 49,000 49,000 49,000 | 65.0 65.0 65.0 65.0 65.0 | ASV712SEL-T MHSV712RT-T MHSV712RT-T WASV712RTL WASV712SEL ASV12ORTL-T | 2 2 2 2 2 2 2 | WF WF WF WF WF | 12,000 12,000 12,000 12,000 12,000 20,000 | 8,400 8,400 8,400 8,400 8,400 14,000 | 60.0 60.0 60.0 60.0 60.0 60.0 |
| ASV712RTN-T ASV712SEN-T WASV712RTN WASV712REN ASV12ORTN-T ASV12OREN-T | 2 2 2 2 2 2 2 | WF WF WF WF WF | 12,000 12,000 12,000 12,000 20,000 20,000 | 8,400 8,400 8,400 8,400 14,000 14,000 | 60.0 60.0 60.0 60.0 63.0 63.0 | ASV120SEL-T MHSV120SEL-T MHSV120SEL-A WASV120SEL-A WASV120TL-A PWB25SEL-C PWB25SEL-C PWB25SEL-C PWB25SEL-O PWB25TL-CS PWB25TL-D ASY730RTL-T | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | WF WFF WFF WFF WFF WFF WFF WFF WFF WFF | 20,000 20,000 20,000 20,000 25,000 25,000 25,000 25,000 25,000 30,000 | 14,000 14,000 14,000 14,000 14,000 17,500 17,500 17,500 17,500 17,500 17,500 21,000 | 63.0 63.0 63.0 63.0 63.0 63.0 63.0 63.0 |

STANDARD FOOTNOTES:

1. Fan Type - With Blower

Rating Voluntarily revised since last directory

2. Gravity Type - Without Blower

 $m{\mathfrak{B}}$ Rating revised by program since last directory.

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SECTION 1 RESIDENTIAL DIRECT HEATING OCTOBER 1997

| Aodel Jumber | Fool Notes | Туре | Input Btu/hr | Heating Capacity, Btu/hr | AFUE, % | Model Number | Foot Notes | Туре | Input Btu/hr | Heating Capacity, Btu/hr | AFUE. % |
|--|---|---|--|--|---|---|---|--|--|--|--|
| PERFECTION~SCHWAN MHSV7 30RT-T MHSV7 30SE-T | NK, INC. 2 2 | (CONT WF WF | "D) 30,000 30,000 | 21,000 | 64 D 54 O | SEARS ROEBUCK & 0 693.359460 693.359400 | OMPANY | (CON RH RH | T 'D} 50,000 70,090 | 35,000 49,000 | 85.0 55.0 |
| WASV73ORTL-A WASV73OSEL-A PW83SRTL-C PW83SRTL-CS PW83SSEL-CS PW83SSEL-D PW83STL-C PW83STL-C PW83STL-C PW83STL-C CV740L-C CV740L-C CV740L-C | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | *************************************** | 30,000 35,000 35,000 35,000 35,000 35,000 35,000 35,000 40,000 40,000 | 21,000 21,000 24,500 24,500 24,500 24,500 24,500 24,500 24,500 24,500 31,160 31,160 | 54.0 64.0 64.0 64.0 64.0 64.0 64.0 64.0 6 | 693.357540 693.357710 633.357550 691.357520 693.357540 693.357590 693.357530 693.357660 693.357660 693.357680 693.357680 693.357680 | 2 2 2 2 2 2 2 2 2 2 2 2 2 1 2 | ME ME ME ME ME ME ME ME ME ME ME | 12,000 12,000 20,000 25,000 30,000 30,000 35,000 40,000 50,000 | 8,400 8,400 14,000 17,500 21,000 21,000 24,500 31,160 35,000 39,300 | 60.0 60.0 63.0 63.0 64.0 64.0 64.0 64.0 71.3 65.0 74.3 |
| PDW850R12-C5 PDW850SEL-C5 PDW850SEL-C5 PDW850SEL-D PDW850TL-C | 2 2 2 2 2 | WF WF WF WF | 50,000 50,000 50,000 50,000 50,000 | 35,000 35,000 35,000 35,000 35,000 | 65.0 65.0 65.0 65.0 | WILLIAMS FURNACE Trade Name: Williar | COMPAN ns | Y | | | |
| PDW850TL-CS PDW850TL-0 | 2 | WF | 50,000 | 35,000 35,000 | 65.0 65.0 | NATURAL GAS | | | | | |
| CV750HL-C CV750L-C CV750IPL-C | 1 1 1 | WF WF WF | 50,000 50,000 50,000 | 39,300 39,300 39,950 | 74,3 74,3 75,4 | 3005722 4505(6,7)22 6005522 6505722 | 2 2 2 2 | FF FF FF FF | 30,000 45,000 60,000 65,000 | 21,000 31,500 42,000 45,500 | 56.0 57.0 58.0 57.0 |
| RINNAI AMERICA COR Trade Name: Energy | IPORATI Saver | ON | | | | 200(16,17)(1,2)2 350(1,2)[7,8)12 | 2,3 2,3 | ЯН ЯН | 20,000 35,000 | 16,000 24,500 | 73.0 65.1 |
| NATURAL GAS | | | | | | 350(1,2)(5,9)(1,2)2 500(1,2)(7,8)12 500(1,2)(5,9)(1,2)2 | 2,3 2,3 2,3 | ЯН Ян Ян | 35,000 50,000 50,000 | 26,250 35,000 37,500 | 68.0 65.4 68.1 |
| RHFE J3IFA [IIN #RHFE-431FA-IIING RHFE-556FA |) 1 | WF WF WF | 16,700 16,700 21,500 | 13,553 13,553 17 420 | 80.8 80.8 80.0 | 650(1,2)(7,8)12 650(1,2)(5,9)(1,2)2 | 2,3 | ян Rh | 65,000 65,000 | 45,500 50,400 | 56.3 70,5 |
| RHFE SSGFA FTRA IIIN #RHFE-SSGFTRA RHFE-SSIFAN RHFE-IOOIFA/YAN | 1 | WF WF WF WF | 21,500 21,500 22,000 38,400 | 17,580 17,580 18,220 31,220 | 80.6 80.6 81.1 80.4 | PROPANE GAS 3005721 4505(6,7121 6005621 | 2 2 2 | FF FF FF | 30,000 45,000 60,000 | 21,000 31,500 42,000 | 56.0 57.0 58.0 |
| PROPANE GAS | | | | | | 6505721 | 2 | FF | 65,000 | 45,500 | 57.0 |
| RHFE 431FA IIIP #RHFE-431FA-IIILP RHFE-556FA RHFE 556FA FTRA III P #RHFE-556FTRA RHFE-551FAP RHFE-1001FA/YAP | 1 1 1 1 1 | WF WF WF WF WF | 15,700 16,700 20,100 20,700 20,700 21,000 36,500 | 13,900 13,900 16,770 16,990 16,990 17,390 29,580 | 84 0 84 0 80 0 84 2 84 2 81 1 80 4 | 200(15.17){1,2}} J50{1,2}{7,8}1 350(1,2){5,9}{1,2}1 500{1,2}{5,9}{1,2}1 500{1,2}{5,9}{1,2}1 500{1,2}{7,8}1 650{1,2}{5,9}{1,2}1 650{1,2}{5,9}{1,2}1 | 2,3 2,3 2,3 2,3 2,3 2,3 2,3 2,3 | ЯН ЯН RH RH ЯН ЯН ЯН | 20,000 35,000 35,000 50,000 50,000 65,000 65,000 | 16,000 24,500 26,250 35,000 37,500 45,500 50,400 | 73.0 55.1 68.0 55.4 68.1 66.3 70.5 |
| | | | | | | NATURAL OR PROPANE G | AS | | | | |
| SEARS ROEBUCK & C Trade Name: Kenmo | COMPAN re | Y | | | | 35(E,9)H(B)-3 50[E,R]H(B)-3 65(E,R]H(B)-3 | 2 2 2 | RH RH RH | 35,000 50,000 55,000 | 24,500 35,000 45,500 | 65.1 65.4 66.) |
| | | 04 | 18,000 | 13 300 | (R)) | Additional Footnote | <u>15</u> | | | | |
| 633.35930.2 693.359350 693.359420 693.357960 693.359450 | | RH RH RH RH | 35,000 35,000 50,000 50,000 | 24,500 24,500 35,000 35,000 | 64 O 64 O 65 O 65 O | 3. Suffix (.O, . cabinet variat | 1, 4, 5) () 005 and | (001) m ceramic | i logs. | ded to indi | cata |
| 693,359390 693,359410 | | RH RH | 70,000 70,000 | 49,000 49,000 | 65.0 65.0 | WILLIAMS FURNACE Trade Name. Debo | E COMPA | NΥ | | | |
| 693.357510 693.357520 | 2 2 | WF | 12,000 20,000 | 8,400 14,000 | 60.0 63.0 | NATURAL GAS | | | | | |
| 693.357630 693.357630 693.357650 693.358200 693.358200 | 2 2 1 2 | WF WF WF WF | 25,000 30,000 35,000 40,000 50,000 | 21,000 24,500 31,160 | 83.0 64.0 73.3 85.0 | 14037(1,2)2 22037(1,2)2 30037(1,2)2 | 2 2 2 | ЖЕ ЖЕ | 14,00 22,00 30,00 | 0 9,800 D 15,400 O 21,000 | 62,4 64,8 65,4 |
| 693.358220 | 1 | WF | 50,000 | 39,300 | 74.3 | PROPANE GAS | | | | | |
| PROPANE GAS | | | | | | 14NH-5, 1403421 14037(1, 2)1 | 2,3 2 | WF WF | 14,00 14,00 | 0 3,800 0 5,800 |) 62.4) 62.4 |
| 693.35932.2 693.359370 693.359430 693.359430 | | RH RH RH RH | 19,000 35,000 35,000 50,000 | 24,500 24,500 24,500 35,000 | 58 0 84.0 64 0 85.0 | 220J/[1,2]1 30MH-5,300342! 30037[1,2]1 | 2,3 2 | WF WF WF | 22,00 30,00 30,00 | 0 21,000 | 5 65.4 5 65.4 |

A Cation revised by program since last directory

OCTOBER 1997

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SECTION 1 RESIDENTIAL DIRECT HEATING

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| | Model Number | Foot Notes | Туре | Input Btu/hr | Heating Capacity, Btu/hr | AFUE. % | Model Number | Foot Notes | Түре | Input Btu/hr | Heating Capacity, Btu/hr | AFUE, % |
|---------------------------------------|---|---------------|----------------------------|--|--|--------------------------------------|--|------------------|----------------|----------------------------|--------------------------------|------------------------|
| i i i i i i i i i i i i i i i i i i i | WILLIAMS FURNAC | E COMPAN | Y (COI | NT'D) | 449 8 45.2000 April 2007 April 200-4 | | WILLIAMS FURNACE C | OMPAN | Ŷ | | | - Carallene Processing |
| | NATURAL OR PROPANE | GAS | | | | | NATURAL GAS | Y | | | | |
| | 14DV(~38,~58) 22DV(~38,~58) 30OV(~38,~58) | 2 2 2 | WF WF WF | 14,000 22,000 30,000 | 9,800 15,400 21,000 | 62.4 54.8 65.4 | 20GV(-A1,-C)(-3T,-ST) 25GV(-A1,-C)(-3T,-ST), | 2 | WF WF | 20,000 25,000 | 14,120 17,500 | 63.2 63.3 |
| | Additional Footnot | es | | | | | 25097(1,2)2 35GV(-C)(-3T,-5T), | 2 | WF | 35,000 | 24,500 | 64.1 |
| | 3. Mobile Home 9 | Furnace | | | | | 35097(1,2)2 50GV(-A1,-C)(-3T,-5T), 50097(1,2)2 | 2 | WF | 50,000 | 35,300 | 65.1 |
| | WILLIAMS FURNAC Trade Name: Fors | E COMPAN | IΥ | | | | PROPANE GAS | | | | | |
| 1 | NATURAL GAS | | | | | | 20GV(-A1,-C)(-3,-5) 25GV(-A1,-C)(-3,-5), | 2 2 | WF WF | 20,000 25,000 | 14,120 17,500 | 63.2 63.3 |
| | 3508732 | 1 | WF | 35,000 | 28,000 | 74.8 | 25097(1,2)1 35GY(-C)(-3,-5),35097 | 2 | WF | 35,000 | 24,500 | 64.1 |
| ۰. پ | 3508332 4007732 4007332 | 1 1 | WF WF WF | 35,000 40,000 40,000 | 28,000 32,000 32,000 | 75.6 75.4 76.5 | SOGY(~A1,~C)(~3,~5), 50097(1,2)1 | 2 | WF | 50,000 | 35,000 | 65.1 |
|) 0 0 | 5008732 5508332 5507332 6257732 6508732 | 1 1 1 | WF WF WF WF WF | 50,000 55,000 55,000 62,500 55,000 | 40,000 44,000 44,000 50,000 52,000 | 74.3 76.0 76.5 76.1 74.1 | WILLIAMS FURNACE O Trade Name: Montere | OMPAN ay Magr | IY Num | | | |
| .0 | PROPANE GAS | • | | 10,000 | 52,000 | | NATURAL GAS | | | | | |
| .0 | 3508731 | t | WF | 35,000 | 28,000 | 74.8 | 35095(1,2)2,35GVHE (-3T,-5T) | 2 | WF | 35,000 | 27,300 | 71.2 |
| 5.3 | 3508331 4007731 | 1 | WF WF | 35,000 40,000 | 28,000 | 75.6 75.4 | 50095(1,2)2 | 2 | WF | 50,000 | 38,500 | 71.2 |
| Ú. 5 | 5008731 5508131 | 1 | WF | \$0,000 \$0,000 | 40,000 | 74.3 | PROPANE GAS | | | 15 000 | 37 300 | 71.0 |
| \$6.0 | 5507331 6257731 | 1 | WF | 55,000 62,500 | 44,000 | 76.5 | (-3,~5) | 2 | WF | 50,000 | 27,300 | 71.2 |
| 57.0 58.0 57.0 | 6508731 NATURAL OR PROPANE | 1 GAS | WF | 65,000 | 52,000 | 74.1 | | | | 10,000 | 30,000 | ,,,, |
| 73.0 | 435FX-8 | 1 | WF | 35,000 | 28,000 | 74.8 | Trade Name: Monter | ey SRO | NΥ | | | |
| 65.1 68.0 | 435FEI 400DVX-R | 1 | WF WF | 35,000 40,000 | 28,000 32,000 | 75.8 75.4 | NATURAL GAS | | | | | |
| 65.4 68.1 66.3 | 4000V1 450FX-R 455FX-R 455FF1 | 1 | WF WF WF WF | 40,000 50,000 55,000 | 32,000 40,000 44,000 | 76.5 74.3 75.0 75.0 | 25095(1,2)2 35096(1,2)2 50096(1,2)2 | 2 2,3 2 | WF WF WF | 25,000 35,000 50,000 | 19,350 25,930 38,000 | 70.7 68.8 69.3 |
| 1011 | 550DVX-R 550DVI | 1 | WF WF | \$5,000 55,000 | 44,000 | 76.0 76.5 | PROPANE GAS | | | | | |
| 65.1 65.4 | #6250VX-R 465FX-R | 1 | WF WF | 62,500 65,000 | 50,000 52,000 | 76.1 74.1 | 25096(1,2)1 35096(1,2)1 | 2 2,3 | WF WF | 25,000 35,000 | 19,350 25,930 | 70.7 68.8 |
| 56.3 | WILLIAMS FURNA | CE COMPAN | IY | | | | Additional Footootes | L | WF | 50,000 | 18,000 | 1. 20 |
| .1 0 | Trade Name: Fors | aire Magnu | m | | | | 3. Suffix (.0, .3, | .4, .5) | (001) m | iay be add | ed to indi | 216 |
| 110 | NATURAL GAS | 1 | 145 | 60,000 | 49 500 | 77 1 | cabinet color v | riation | and ce | ramic loç | S | |
| | 5008332 5008132 5508532 5508132 | 1 | WF WF WF WF | 60,000 60,000 65,000 65,000 | 48,600 48,600 53,300 53,300 | 78.1 77.0 78.0 | WILLIAMS FURNACE (Trade Name: Magnu | COMPAI n Plus | VY | | | |
| | ROPANE GAS | | | · | | | NATURAL GAS | | | | | |
| 62. | 4 008531 | 1 | WF | 60,000 | 49,200 | 77.1 | 35099(1,2)2 | 2 | WF | 35,000 | 27,041 | 72.0 |
| . 65. | - 4 508531 - 508131 | 1 | WF WF WE | 65,000 | 49,200 | 77.0 | PROPANE GAS | | | | | |
|) 62 0 67 0 6 10 6 | 2 . 4 2 . 4: 4 . 8¦ 5 . فتر با | | | | | | 35099(1,2)1 | 2 | WF | 35,000 | 0 27,041 | 72.0 |
| | | | | | | | U OTI | | | | | |

STANDARD FOOTNOTES:

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1. Fan Type - With Blower

Rating Voluntarily revised since last directory.

2. Gravity Type - Without Blower

 ${f \Phi}$ Rating revised by program since last directory

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SECTION -1 RESIDENTIAL DIRECT HEATING OCTOBER 1997

| ₩ N. | ۶r | | Foot Notes | Туре | Input Btu/hr | Heating Capacity, Btu/hr | AFUE, % |
|----------------------|--|--------------------|---------------------|----------------|----------------------------|--------------------------------|----------------------|
| WIL. Trac | LIAMS FL le Name: | RNACE C | COMPAN erlain | Y | | | |
| NATU | RAL GAS | | | | | | |
| 1403 2203 3003 |)6(1,2)2 }6(1,2)2 }6(1,2)2 | | 2 2 2 | WF WF WF | 14,000 22,000 30,000 | 10,039 16,462 21,849 | 63.4 65.8 66.4 |
| PROP | ANE GAS | | | | | | |
| 1403 2203 3003 | 36 (1 , 2) 1 96 (1 , 2) 1 96 (1 , 2) 1 | | 2 2 2 | WF WF WF | 14,000 22,000 30,000 | 10,039 16,462 21,849 | 63.4 65.8 66.4 |
| WIL Trac | LIAMS FL te Name: | JRNACE (Chambe | COMPAN erlain Di | Y rect Ve | ent Syster | m | |
| NATL | JRAL GAS | | | | | | |
| 2503 | 3532 | | 1 | WF | 25,000 | 19,250 | 75.6 |
| PROF | PANE GAS | | 1 | ηr | 40,000 | 30,300 | 13.0 |
| 2503 | 1531 | , | 1 | WF | 25,000 | 19,250 | 75.6 |
| 400. | 1731 | | 1 | n <i>i</i> | 40,000 | 30,800 | 73.0 |
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| | | | STANDA | RD FOOT | INOTES: | | |

1. Fan Type - With Blower - ---- diractany 2. Gravity Type - Without Blower

Rating revised by program since last directory

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

ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATIÓN 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

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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

| List Current as of June 1, 2007 | | | Nationese Model Number |
|---------------------------------|-------------------------|-----|---|
| Manufacturer Name | Product Family Name | | or act all models starting with G95V |
| Airco | G95V | Gas | on All models starting with GTHR |
| Airco | GTHB | Gas | |
| | GTHC | Gas | 95/All models starting with GIMC |
| Alf GO | I lltramay III | Gas | 95 GTH - 50, 70, 85, 100 |
| Airco | | Gas | 92.5 All models beginning with G2D93 |
| Air-Ease | | Cae | 92.5 All products beginning with G2D93 |
| Air-Ease | Advantage 93 II | 000 | ast All models heatinning with G2D95 |
| Air-Ease | Enhanced 95 | Gas | OELAIL models beginning with G2D95C |
| Air-Ease | Enhanced 95V | Gas | on All models beginning with GUK or GCK |
| Air-Ease | Ultra SX 90 | Gas | |
| Air-Ease | Ultra SX 93 | Gas | |
| Air-Ease | Ultra SX 95 | Gas | 95/All models beginning with GUD93 |
| Air-Ease | Ultra V Advantage 93 | Gas | 0. El All models beginning with G2D93L |
| Air-Ease | Ultra V Advantage 93 II | Gas | 94.3) All Illoudels Deginining with G2D95 |
| Air-Ease | Ultra V Enhanced 95 | Gas | 94.3/All IIIOUEIS DEGILIARIA WITH CEDOCE |
| Air-Fase | Ultra V Tech 90 | Gas | SULATIONARIA DEGITIVITING WINT C1000 |
| Air-Fase | Ultra V Tech 91 | Gas | A1/All models beginning with 5 1231 |
| | | Gas | 92 AF90MPXXXXXX |
| Alfe-rio | | Gas | 92 All models beginning with AF92 |
| Alt-FIO | | Gas | 92 All models beginning with AF92V |
| AIT-FIO | 041/ | Gas | 94 All models beginning with NTVM |
| AirQuest | | Gas | 95/All models beginning with H9UHX |
| AirQuest | | 000 | 92 All models beginning with NCGM |
| AirQuest | | 043 | aplait models beginning with NTGM |
| AirQuest | DC 90 (upflow/horiz) | Gas | 02/01/02/02/02/02/02/02/02/02/02/02/02/02/02/ |
| AirQuest | DLX 90 Series | Gas | an 1 All models beginning with NTGS |
| AirQuest | DV 90 | Gas | 041 All models herinning with NUG9 |
| AirQuest | DV 90 | Gas | 001 All models beginning with H9MPT |
| AirQuest | IIS 90 Series | Gas | ool All models beginning with NCPM |
| AirOuest | NCPM | Gas | AL NI IIIOUEIS DEGINIMUS WITH AND |
| AirOllest | NTGS | Gas | 91 All models beginning with NTBM |
| AirQuest | NTPM | Gas | |
| AirOuest | PS 90 Series | Gas | |
| AirOuest | PS 90-DV Series | Gas | |
| Allstvle | | Gas | |
| Alletvie | | Gas | 80.41 DA 281.182 |

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| | Drodinet Eamly Name | | ting Model Number |
|-------------------|----------------------|-------|--|
| | | | 90.9 VCA Series |
| Allstyle | | | OD DIVSA Series |
| Allstyle | | Gas | 20.3 VOA Jeries |
| Amana | Air Command 90 | Gas | |
| Amana | Air Command 90 II | Gas | 92 All models beginning with GUSA |
| Amana | Air Command 95 II Q | Gas 9 | 5-96 All models beginning with GUVA and GCVA |
| | 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 |
| Amena | | Gas | 92 ACS90904CXA |
| | | Gas | 92 ACS90905DXA |
| | | Gas | 92/ACS91155DXA |
| Amaria | | Gas | 92 AMS90453BXA |
| Allala | | Gas | 92 AMS90703BXA |
| Amana | | 500 C | 92 AMS90704CXA |
| Amana | | 000 | 921AM/S90904/CXA |
| Amana | | 043 | api AMSqNqn5DXA |
| Amana | | Cas | 02 AMC01155DXA |
| Amana | | Gas | |
| Amana | | Gas | |
| Amana | | Gas | 45/ACV90905DXA |
| Amana | | Gas | 95 AMV90453BXA |
| Amana | | Gas | 95 AMV90704CXA |
| Amana | | Gas | 95/AMV90905DXA |
| Amana | | Gas | 95 AMV91155UXA |
| American Standard | Ameristar | Gas | 90 All models beginning with CUX or CUX |
| American Standard | Freedom 90 | Gas | 92.1 All models beginning with AUC of AUC |
| American Standard | Freedom 90 Comfort R | Gas | 93/All models beginning with AUY of AUT |

| | | | atingi Model Number |
|-------------------|----------------------------|------------|---|
| Manufacturer Name | | | 92.1 All models beginning with AUX1 or ADX1 |
| American Standard | Freedom 90 Single Stage of | Qas | |
| | High Efficiency | | 02 1 All models heginning with AUX2 or ADX2 |
| American Standard | Freedom 90 Two Stage | Gas | 22.1 Millioders Segmens with GLIM |
| Amonino | (None) | Gas | 90.11 All Illouels beginning with VNK |
| Alcoalle | 94V | Gas | |
| Arcoaire | Arcoaire | Gas | 95 All models beginning with haurio |
| Arcoaire | PCOD (downflow/horiz) | Gas | 90 All models beginning with NUGIVI |
| Arcoaire | | Las C | 92 All models beginning with NTGM |
| Arcoaire | | | 92 All models beginning with H9MPD |
| Arcoaire | DLX 90 Series | Cas | 01 All models heainning with NTG9 |
| Arcoaire | DV90 | Gas | 31 All models beginning with GUK. GDK, GCK |
| Arcoaire | Enviroplus 90 | Gas | |
| | | Loc C | 90 All models beginning with GCK |
| Arcoaire | GCK (downflow/noliz) | | 92 All models beginning with GNK |
| Arcoaire | GNK (upflow/horiz) | Cas | a1 All models beginning with GNM |
| Arcoaire | GNM | lGas | 04 All models beginning with GNP |
| Arcoaire | GNP | Gas | on All models beginning with H9MPT |
| Aroaire | IIS 90 Series | Gas | 22 All 11100613 50911 million with NTGS |
| Alcoalle | NTGS | Gas | |
| Arcoalle | PS 90 Series | Gas | |
| Arcoaire | IDS 90-DV Series | Gas | 90 All models beginning with Nalwir 2 |
| Arcoaire | | Gas | 92 All models beginning with ICK |
| Arcoaire | | | 92 All models beginning with TNK |
| Arcoaire | INK 92 | Ca3 | 92 All models beginning with H9MPV |
| Arcoaire | VS 90 Series | GdS | as FIAII models beginning with G2D93 |
| Armstrong Air | Advantage 93 II | Gas D | 05 All models herinning with G2D95 |
| Armstrong Air | Enhanced 95 | Gas | oct All anoducts beginning with G2D95 |
| Armstrond Air | Enhanced 95 | Gas | ortali module beginning with G2D95C |
| Armstrong Air | Enhanced 95V | Gas | on All models beginning with GUK or GCK |
| Armstrong Air | Ultra SX 90 | Gas | 00 All models beginning with GU 93 |
| | Ultra SX 93 | Gas | |
| | Ultra SX 95 | Gas | 95/All models beginning with 64003 |
| | IIIItra V Advantage 93 | Gas | 92.5 All models beginning with G1033 |
| Armstrong All | It litra V Advantade 93 II | Gas | 92.5 All models beginning with usuash |
| Armstrong Air | I litra V Enhanced 95 | Gas | 94.5 All models beginning with GZU93L |
| Armstrong Air | | Gas | 90 All models beginning with G1U90 |
| Armstrong Air | | Gas | 91 All models beginning with G1D91 |
| Armstrong Air | | | 91-92.3 All models beginning with 340AAV |
| Brvant | Bryant | <u>aas</u> | |

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| | | THE TO A STATE STEP | Ratho |
|--------------------------|-----------------------|---------------------|--|
| Manufacturer Name | | Coc Section Section | 90 All models beginning with 345MAV |
| Bryant | | (a) | and All models beginning with 351DAS |
| Bryant | Condensing Furnace | Gas | 01 All models beginning with 340MAV |
| Bryant | Condensing Furnace | Gas | 1 2 DE ELAIT models beginning with 350AAV |
| Bryant | Plus 90 | Gas | 0.2-33.3 Millingers Beginning with 350MAV |
| Bryant | Plus 90 | Gas | 22 All models beginning with 355AAV |
| Bryant | Plus 90i | Gas | 2.1-30.0 All III0005 Beginning with 355MAV |
| Brvant | Plus 90i | Gas | 34-90 All Illouels beginning with 3574AV |
| Brvant | Plus 90t | Gas | 91.4-93 All Illouels beginning with 352MAV |
| Briant | Plus 90t | Gas | |
| Brvant | Plus 95i | Gas | 95/All models beginning with 232DAV |
| Bryant Dav&Night, Pavne | Condensing Furnace | Gas | 90 All models beginning with 34300AV |
| Bryant Dav&Night Pavne | Condensing Furnace | Gas | 90.5 All models beginning with 3401MAV |
| Bryant Dav&Night, Pavne | Plus 90 | Gas | 92/All models beginning with 356MAV |
| Brvant, Dav&Night, Payne | Plus 90i | Gas | 94-96 All models beginning with 530 mm |
| Carrier | Carrier | Gas | |
| Carrier | Comfort 92 | Gas | 31.4-95.5 All models beginning with Follow A |
| Carrier | Condensing Furnace | Gas | |
| Carrier | Condensing Furnace | Gas | |
| Carrier | Condensing Furnace | Gas | 91 All models beginning with Jointon |
| Califier | Infinity | Gas | 94-96.6 All models beginning with 58WIVP |
| Califier | Infinity 96 | Gas | 92.7-96.6 All models beginning with 58MVB |
| Carner | Infinity 96 | Gas | 95 All models beginning with 58UVB |
| Carrier | Derformance 03 | Gas | 91.4-93 All models beginning with 58MTB |
| Carrier | | Gas | 92 All models beginning with 58MXA |
| Carrier | | (Jac | 93 All models beginning with 58MTA |
| Carrier | Vealheliviaker 300010 | Gas | 92 All models beginning with 58MXA |
| Carrier | | Sec. | 93 All models beginning with GTHB |
| Climate Energy | | Gas | 95 All models beginning with CE95V |
| Climate Energy | | 000 | 921GM9 |
| Coleman | Condensing Furnace | Gas | 01 - 04/G9T |
| Coleman | Condensing Furnace | Gas | 01 - 04 COV |
| Coleman | Condensing Furnace | Gas | 92 - 94 697 |
| Coleman | Condensing Furnace | Gas | 87+1 G8U |
| Colomon | Condensing Furnace | Gas | 94 (G9D |
| Coleman (Custom) | Condensing Furnace | Gas | 91 - 94 FG9 |
| | I an% Down flow | Gas | 90 DGAD060CD |
| Coleman-Evcort | | Gas | 90 DGAE080CD |
| Coleman-tvcon | 130 /0 DOWN 110M | | |

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| | | | auts Rating |
|-------------------|----------------------|-----|--|
| Manufacturer Name | Rootleasently Nettle | | 90 DGAF100CD |
| Coleman-Evcon | 90% Down flow | 200 | a1 - 94 Models beginning with G9 |
| Coleman-Evcon | Condensing furnace | Gas | 91 - 31 (JA105-E5 |
| Comfort Aire | Conquest 90 | Gas | 00 71 EI DH45-E3 |
| Comfort Aire | Conquest 90 | Gas | 02 8/21 LEE0 TO E0 |
| Comfort Aire | Conquest 90 | Gas | 92.0 GEORI 9-ES |
| Comfort Aire | Conquest 90 | Gas | 92.0 GLOA(3-E4 03 3 CT 1 1 A60-E3 |
| Comfort Aire | Conquest 90 | Gas | 90:0 GEORGO ES |
| Comfort Aire | Conquest 90 | Gas | 93.3 GLOA30-L3 |
| | Conquest 90 | Gas | 94.2 FLUA 120-E3 |
| | Conquest 90 | Gas | 94.3 FLUA45-E3 |
| Comfortmaker | (None) | Gas | 90.1/Ail models beginning with Com |
| | 94V | Gas | 94/All models beginning with CollILY |
| Conformaker | Comfortmaker | Gas | 95 All models beginning with Courty |
| Confidentiation | DLX 90 Series | Gas | |
| Comfortmaker | Enviroplus 90 | Gas | 80.1-92 All models beginning with GOV. COV. |
| | | | an All models heainning with GCK |
| Comfortmaker | GCK (downflow/horiz) | Gas | and MI models beginning with GNK |
| Comfortmaker | GNK (upflow/horiz) | Gas | or All models beginning with GNP |
| Controlation | GNP | Gas | 91 All models beginning with OMADT |
| Collicit unaker | IIS 90 Series | Gas | 92 All models beginning with Carter |
| | NTGS | Gas | 91 All models beginning with NGS |
| Comtortmaker | DS 00 Series | Gas | 90 All models beginning with N9WP1 |
| Comfortmaker | | Gas | 90 All models beginning with N9MPZ |
| Comfortmaker | F0 80-DV 36163 | Gas | 92 All models beginning with TCK |
| Comfortmaker | | 200 | 92 All models beginning with TNK |
| Comfortmaker | 1NK 92 | Gas | 92 All models beginning with C9MPV |
| Comfortmaker | VS 90 Series | 000 | 90 All models beginning with CG90 |
| Concord | Concord 90 | 200 | 90 All models beginning with FGRJ, FGTJ |
| Corsaire | | 000 | 92 All models beginning with CMPEV |
| Ducane | Fits-All 92V | 292 | go 11CMPx//xxxxX |
| Ducane Company | Fits-All | Gas | |
| | Fits-All | Gas | |
| | Condensing Furnace | Gas | 92 GF9 |
| EVCON | × | Gas | |
| | | Gas | 92-94 All models beginning with F 110, F 50 of |
| | | | P*ND |
| | Condensing Furnace | Gas | 92 All L1RC models |
| Frigidaire | | | |

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| | and a simily visites with | | VFUE Rating Model Number |
|------------|---------------------------|---------------|--|
| Fridaire | Condensing Furnace | Gas | 95.1 All FG6TE models |
| | Condensing Europe | Gas | 92 All FG6RC models |
| Frigidaire | | 000 | aplall FG6RI models |
| Frigidaire | Condensing Furnace | Cas | |
| Frigidaire | Condensing Furnace | Gas | 92/All FG61 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 | Dual \$aver | Gas | 95 All models beginning with GMH95 |
| Goodman | | 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 |
| Coodman | | Gas | 92 GMS90904CXA |
| GUUUIIIali | | Gac. | 92 GMS91155DXA |
| Goodman | | 000 | |
| Goodman | | Gas | |
| Goodman | | Gas | 92 GMV90902AA |
| Goodman | | Gas | 92 GMV91155DXA |
| Goodman | | Gas | 92.1 All models beginning with GKS9 |
| Goodman | Gas \$aver | Gasd (Nat/LP) | 95 All models beginning with AMS95 |
| 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, NDGM, NCGM |
| | | 1 | |

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| Wantiachter Name | | | 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 |
| HAI | 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 | Gas | 92 All models beginning with NCPM |
| | (downflow/horiz) | | |
| 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 |
| Keeprite | 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 G01MPV |

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| | | | EUE Rating |
|--------------------|-----------------------|-------------|--|
| Manufacturer Name | | Gas | 95 Models beginning with HM61-150 |
| Lennox | 1010 | | 96 Models beginning with HM61-100 |
| Lennox | HM61 | 000 | os 2 de 21 All models heginning with G21 or GSR21 |
| Lennox | oulse 21 Gas Furnace | Gas | 02.4.04.6 All models beginning with G21V or GSR21V |
| Lennox | Pulse 21V Gas Furnace | Gas | |
| | Condensing Furnace | Gas | 92 GM9 |
| Luxaire | COLIDERISTING LATTACC | Gas | 91 - 94 G9T |
| Luxaire | | 200 | 92 P*LU or P*LD |
| Luxaire | High Pertormance | 042 | 02 04/201/ |
| Luxaire | Peak Performance | Gas | 92 - 94 G3V 04 04 C0D |
| 1 uxaire | Performance Plus | Gas | |
| l uxaire (Basis) | Condensing furnace | Gas | |
| Mavtac | Condensing Furnace | Gas | |
| Mavtad | Condensing Furnace | Gas | |
| Martag | Condensing Furnace | Gas | 95.1 All MGF11E models |
| Iviayiay Martac | Condensing Furnace | Gas | 95.1 All PGF11E models |
| Iviaytag | Condensing Furnace | Gas | 90 All PGF1RL models |
| Maytag | Condensing Furnace | Gas | 92 All PGF1RC models |
| Maytag | Condensing Lumace | Gas | 92 All PGF1T* models |
| Maytag | | | 90.4 CCA Series |
| Meridian | | 200 | 90.4 CSA Series |
| Meridian | | C C C C | an alv/CA Sarias |
| Meridian | | Gas | 90.9 VCA Oction |
| Meridian | | Gas | |
| Millor | Condensing Furnace | Gas | 92/All M3RL models |
| | Condensing Furnace | Gas | 92 All GGRC models |
| | Condensing Furnace | Gas | 92 All G6RL models |
| IVIIIEI Millor | Condensing Furnace | Gas | 92 All M2K models |
| | G95V | Gas | 95 All models starting with 630V |
| Olsen | GTHB | Gas | 93 All models starting with 0110 |
| Olseil | CTHC | Gas | 95 All models starting with 51 HO |
| Olsen | II Iltramav III | Gas | 95 GTH-50, 70, 85, 100 |
| Olsen | | Cae | 95 All models starting with G95V |
| Oneida Royal | (340 V | 000 | 93 All models starting with GTHB |
| Oneida Royal | G1HB | 000 | 95/All models starting with GTHC |
| Oneida Royal | GTHC | G dS | as GTH - OR - 50 70 85 100 |
| Oneida Royal | Ultramax III | Gas | 04 El All models beginning with 490AAV |
| Pavne | Condensing Furnace | Gas | 00 All models beginning with PG9 |
| Payne | Condensing Furnace | Gas | |

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| | Product Samily Vanie | | ating Model Number |
|-------------|--|------|--|
| | | 06 | -92.1 All models beginning with PG9MAB |
| Payne | | | 92 All 1 1RC models |
| Philco | | 048 | 95 11 All KG6TE models |
| Philco | Condensing Furnace | CdS | an All GERC models |
| Philco | Condensing Furnace | cias | |
| Philco | Condensing Furnace | Gas | AZ AII GORE IIIUUEIS |
| Dhilco | Condensing Furnace | Gas | 92/All Go I models |
| DroSarias | | Gas | 92 PSCMPxxxxxxx |
| Phoon | Classic 90 Plus with Dual | Gas | 92 Models beginning with KGKK |
| Klieell | Comfort Control | | |
| Rheem | Classic Series | Gas | 92 Models beginning with RGTA |
| Rham | FURN/Classic 90 | Gas | |
| Rheem | FURN/Classic 90 Plus | Gas | 92-94 All models beginning with BCED BCCD |
| Rheem | FURN/Classic 90 Plus w/CCC | Gas | 94 All models beginning with KGFD. NGGD |
| | Acheiver Series | Gas | 92 Models beginning with UGTK |
| Ruud | | Las. | 92 Models beginning with UGRK |
| Ruud | Classic 30 Plus with Dual Comfort Control | 800 | |
| | EI IBNI/Achiavar 90 | Gas | 92 All models beginning with טפוט, טפוט |
| Ruud | | Cac | 92-94 All models beginning with UGRA, UGTA |
| Ruud | FUKN/Achiever 30 Plus | Cas | ad All models healinning with UGFD. UGGD |
| Ruud | FURN/Achiever 90 Plus | Gas | |
| | | U.S. | 92 All L1RC models |
| Tappan | | | as 1 All FG6TF models |
| Tappan | Condensing Furnace | Gas | |
| Tannan | Condensing Furnace | Gas | 2 All FOUND HOUSE |
| Tannan | Condensing Furnace | Gas | |
| Tannan | Condensing Furnace | Gas | 92/All FG01 models |
| Temostar | 94V | Gas | 94 All models beginning with NI LVW |
| Tempstar | DC 90 | Gas | 0.1-92 All models beginning with NOGIN, NOCIN, |
| | DCan (downflow/horiz) | Gas | 90 All models beginning with NCGM |
| lempstar | | (Jas | 92 All models beginning with NTGM |
| Tempstar | | (Jac | 92 All models beginning with T9MPD |
| Tempstar | | | 90 1 All models beginning with NTG9 |
| Tempstar | IDV 90 | Cas | an 1 All models beginning with NUG9 |
| Tempstar | DV 90 | Gas | ool All models beginning with TGMPT |
| Temostar | IIS 90 Series | Gas | AZ All ITIOUEIS DEGITI III I WILL TOTAL |
| Tomostor | NTGS | Gas | 91/All models beginning with the second |
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| | Product samily vame | | AFUE Rating |
|--------------------|----------------------------|-------------|--|
| Tomotor | PS 90 Series | Gas | 90 All models beginning with N9MP1 |
| | DO DU Sarias | Gas | 90 All models beginning with N9MP2 |
| Tempstar | | 000 | 02 All models hadinning with NCPM |
| Tempstar | SmartComfort I M II | Gas | |
| | | | 00 All models healipping with NTDM |
| Tempstar | SmartComfortTM II | Gas | |
| _ | (upflow/downflow) | | |
| Temostar | Tempstar | Gas | 95/All models beginning with 190HA |
| Temostar | VS 90 Series | Gas | 92 All models beginning with I 9MPV |
| Texas Furnace, LLC | Meridian + 90 | Gas | 90.4 CSA Series |
| Texas Furnace, LLC | Meridian + 90 | Gas | 90.9 VSA Series |
| Texas Furnace 1LC | TFC + 90 | Gas | 90.4 CSA Series |
| Texes Furnace 11 C | TFC + 90 | Gas | 90.9 VSA Series |
| | | Gas | 90.4 CCA Series |
| | | Gas | 90.4 CSA Series |
| | | Gas | 90.9 VCA Series |
| | | Gas | 90.9 VSA Series |
| TFO | an% Downflow Furnace | Gas | 90 All models beginning with GD***M |
| | 00% Multi Desition Furnace | Gas | 90/All models beginning GU***M |
| Thermal Zone | | Cuc Cas | 93/All models beginning with GU***N |
| Thermal Zone | | 200 | and all GGR1 models |
| Thermal Zone | Condensing Furnace | Gds | |
| Thermal Zone | Condensing Furnace | Gas | |
| Thermai Zone | Condensing Furnace | Gas | |
| ThermoPride | 90%+ Condensing Series | Gas | |
| ThermoPride | Premiere Series CHXI/CDXI | Gas | 93.0 - 94.5 All models beginning with CHXI of CUXI |
| ThermoPride | Downflow, fixed input, | Natural or | 91.5-93.0 All models beginning with CDB |
| | condensing furnace | Propane gas | |
| ThermoPride | Downflow, two-stage, | Natural or | 93 All models beginning with CUX |
| | condensing furnace | Propane gas | |
| ThermoPride | Upflow, fixed input, | Natural or | 93-94.5 All models beginning with CHB |
| | condensing furnace | Propane gas | |
| ThermoPride | Upflow, two-stage, | Natural or | 94.0, 94.5 All models beginning with CHA |
| | condensing furnace | Propane gas | |
| Trane | XB90 | Gas | 91/All models beginning with TLIC |
| Trane | XB90 | Gas | |
| Trane | XL90 | Gas | |
| Trana | XL90 | Gas | 92.5-93/All models beginning with I UX-K |
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| | | | ille Reithri |
|--------------------|---------------------------|------------|--|
| Manufacturer Name | | | 91 All models beginning with TDX |
| Trane | AR SU | | a2 11 All models beginning with TUX |
| Trane | XR 90 | Gas | 00 1 00 All models bacinning with TDY |
| Trane | XV 90 | Gas | 92. 1-93/All IIIOUGIS DEGININING With TUV |
| Trane | XV 90 | Gas | |
| Wastherking | FURN / 90 | Gas | 0.9 All models beginning with SUNA, SULD |
| Weatherking | FURN/Select 90 | Gas | 92 All models beginning with WGKJ, WGTJ |
| | FLIRN/Select 90 Plus | Gas | 92-94 All models beginning with WGRA, WGIA |
| WeatherKing | FURN/Select 90 Plus w/CCC | Gas | 94 All models beginning with WGFD, WGGD |
| | Condensing Furnace | Gas | 92 All L1RC models |
| Westingnouse | 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 |
| | Whirlood Gold | Gas | 0.93 WGFDC |
| | Whirlmool Gold | Gas | 0.93 WGFDU |
| VNIITPOOL | Whirlmool Gold | Gas | 0.93 WGFEC |
| Whiripool | Whithool Gold | Gas | 0.93[WGFET |
| VVniripool | | (Jac | 0.93 WGFEU |
| Whirlpool | | Cac Gae | 0.9WFCC |
| Whirlpooi | | 000 | D QIVIECT |
| Whirlpool | | Gas | |
| Whirlbool | | Gas | |
| Vork International | Coleman Echelon Series | Gas | |
| Vork International | Coleman Echelon Series | Gas | 92+% Models beginning with FC91 |
| York International | Coleman Echelon Series | Gas | 92+% Models beginning with FC9V |
| Vork International | Coleman Echelon Series | Gas | 95 Models beginning with FC9C |
| Vork International | Coleman Echelon Series | Gas | 95 Models beginning with FC9M |
| Vork International | Condensing Furnace | Gas | 92 GM9 |
| | Condensing Furnace | Gas | 0.92 Models beginning with GF95 |
| | Condensing Furnace | Gas | 92+% Models beginning with GM9S |
| York International | | Gas | 92+% Models beginning with GM9T |
| York International | | 202 | a2+%/Models beginning with GM9V |
| York International | Condensing Furnace | Gas | 01 - 04 FG9 |
| York International | Condensing furnace | las | 01 - 34 I 03 |
| York International | Deluxe Diamond 95 Series | Gas | |
| York International | Diamond 90 Series | Gas | |
| York International | Diamond 90 Series | Gas | 91 - 94 F OK, T DD |

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| | Product Samily Name | Ettel IVDe AFUE Rating | Model Number |
|---------------------|----------------------------|------------------------|----------------------------------|
| | Diamond 95 i litra Series | Gas 94 P*XL | J-V, PXD-V |
| Y Ork International | I rivaire Acclimate Series | Gas 0.92 Mode | els beginning with FL9S |
| York International | Luxairo Acolimato Corios | Gas 92+% Mod | els beginning with FL9T |
| York International | | 00+00 00+00 00+00 000 | als heainning with FL9V |
| York International | Luxaire Acclimate Series | | |
| York International | Luxaire Acclimate Series | Gas | |
| Vork International | Luxaire Acclimate Series | Gas 95 Mod | els beginning with FLSIVI |
| Voul International | York Affinity Series | Gas 0.92 Mod | els beginning with PS9 |
| | Vorte Affinity Corrige | Gas 92+% Mod | els beginning with PT9 |
| York International | | | ale hadinning with PV9 |
| York International | York Attinity Series | | |
| York International | York Affinity Series | Gas 90 Mod | |
| Vork International | York Affinity Series | Gas 95 Mod | els beginning with PIVIS |
| Vork International | York Latitude Series | Gas 0.92 Mod | eis beginning with GY9S |
| | FLIRN/ 90 | Gas 90 All n | nodels beginning with EGRJ, EGTJ |
| Lepity | | | |

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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
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:

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:

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:

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:

ATTORNEY GÉNERAL'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:

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:

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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:

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:

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:

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:

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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:

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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:

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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?

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RESPONSE:

Subject to Commission approval, the CEP rate would be volumetric.

Responsible Witness:

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

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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:

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

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.

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Responsible Witness:

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:

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Martin J. Blake

Item: 330 Pg 1/8

Page 1

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.

I'tem 330 Pg 2/8

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

Lten 330 Pg 3/8

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.
Lten 330 Pg 4/8

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



Jim Sullivan, President Jan Cook, Commissioner George C. Wallace, Jr., Commissioner

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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 the 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

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

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

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

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

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

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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:

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 45day review period envisioned in the Company's CRS proposal?

RESPONSE:

Please refer to KYPSC DR2-27.

Responsible Witness:

Matthew D. Wesolosky

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:

27

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See attached and page 17 of the Direct Testimony of William Steven Seelye.

Responsible Witness:

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Attorney General's Initial Data Request Question 337 Page 1 of 1

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 | 291,779 | 106,980 | 2,063 | 1,228,206 | 9,240 | 1,218,229 | 2,801,367 | 8,525,855 365 | 14,183,719 |
| Days in Year Mcf per Day as Delivered | 365 799 | 365 293 | 365 6 | 365 3,365 | 365 25 | 365 3,338 | 303 7,675 | 23,359 | 38,860 |
| | | | | | | | | | |
| Temperature Sensitive Load Mef ner Derree Dav as Delivered | 333 | 86 | 7 | 220 | 9 | • | ı | • | 664 |
| | 546 27 | 6.957 | 482 | 18,325 | 433 | 3,338 | 7,675 | 23,359 | 84,012 |
| | | A 78% | 0.57% | 21.81% | 0.52% | 3.97% | 9.14% | 27.80% | 100.00% |
| Percentage of I otal | 0/02.17 | 2010 | • | | | | | | |

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 offsystem 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:

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:

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Cust01, Cust02 and Cust03 are used to allocate year-end plant, rate base, etc., and Cust04 is used to allocate annual expenses.

Responsible Witness:

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

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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:

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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.

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Responsible Witness:

DELTA NATURAL GAS COMPANY, INC. A/C 376 - DISTRIBUTION MAINS At 12/31/06

| | Footage | Miles | Net Book <u>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 |
| | 7,705,996 | 1,459.47 | 39,749,126 |

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

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:

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:

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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.

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RESPONSE:

See attached.

Responsible Witness:

John B. Brown

Delta Natural Gas Company, Inc. Case No. 2007-00089 AG 1st Request # 344

WNA Adjustments Since Inception

| | | | 1.480.070 WNA | |
|--------|-------|---------------|---------------|---------------|
| | | 1.480.060 WNA | SMALL NON- | |
| Year | Month | RESIDENTIAL | 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 | 5 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 | 3 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 | 7 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 |
ATTORNEY GENERAL'S INITIAL REQUEST FOR INFORMATION DATED 6/07/07

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:

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:

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:

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:

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 nonresidential 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:

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

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:

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

351. Provide any workpapers, calculations or other documentation that support the rates to interruptible customers?

RESPONSE:

See Seelye Exhibit 4, page 5.

Responsible Witness:

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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

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

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

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:

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

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:

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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:

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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:

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

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

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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 costeffectiveness 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