115

Exhibit No.	
Witness:	Maurice Brubaker
Type of Exhibit:	Direct Testimony
Sponsoring Party:	Explorer Pipeline Company and Praxair, Inc.
Issue:	Recovery of Fuel and Purchased Power Costs
Case No.	ER-2004-0570

Before the
Missouri Public Service Commission

In the Matter of the Tariff Filing of The Empire District Electric Company to Implement a General Rate Increase for Retail Electric Service to Customers in its Missouri Service Area.	)	**Case No. ER-2004-0570**

FILED
DEC 2 8 2004
Missouri Public Service Commission

Direct Testimony of

Maurice Brubaker

On Behalf of

Explorer Pipeline Company and Praxair, Inc.

September 20, 2004
Project 8228

BAI
BRUBAKER & ASSOCIATES, INC.
ST. LOUIS, MO 63141-2000

Exhibit No. 115
Case No(s). ER-2004-0570
Date 12-08-04 Rptr AF

BEFORE THE

PUBLIC SERVICE COMMISSION OF MISSOURI

In the Matter of the Tariff Filing of The Empire District Electric Company to Implement a General Rate Increase for Retail Electric Service Provided to Customers in its Missouri Service Area.	)))))	Case No. ER-2004-0570

Affidavit of Maurice Brubaker

STATE OF MISSOURI)
) SS
COUNTY OF ST. LOUIS)

Maurice Brubaker, being first duly sworn, on his oath states:

1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, MO 63141-2000. We have been retained by Explorer Pipeline Company and Praxair, Inc. in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my direct testimony and schedule which were prepared in written form for introduction into evidence in the ER-2004-0570 Proceeding.

3. I hereby swear and affirm that my direct testimony and schedule are true and correct and show the matters and things they purport to show.

M S Brubaker

Maurice Brubaker

Subscribed and sworn before this 17th day of September, 2004.

CAROL SCHULZ
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: Feb. 26, 2008

Carol Schulz

Notary Public

My Commission expires on February 26, 2008.

Before the
Missouri Public Service Commission

In the Matter of the Tariff Filing of The Empire District Electric Company to Implement a General Rate Increase for Retail Electric Service to Customers in its Missouri Service Area.	)))))	**Case No. ER-2004-0570**

Direct Testimony of Maurice Brubaker

Q **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A Maurice Brubaker. My business address is 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.

Q **WHAT IS YOUR OCCUPATION?**

A I am a consultant in the field of public utility regulation and president of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q **PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

A I have been involved in the regulation of electric utilities, competitive issues and related matters over the last three decades. Additional information is provided in Appendix A, attached to this testimony.

Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A I am appearing on behalf of Explorer Pipeline Company and Praxair, Inc. Both are large customers of The Empire District Electric Company (Empire). Explorer operates three pipeline pumping stations on the Empire system and takes firm service on the LP rate. Praxair operates an air separation facility and takes a combination of firm and interruptible service on Schedule SC-P.

Q WHAT IS THE SUBJECT OF YOUR TESTIMONY?

A I will discuss Empire's proposed approaches to the recovery of fuel and purchased power costs in developing its rates and revenue requirements.

The fact that other revenue requirement issues are not addressed in this testimony should not be construed as an endorsement of the positions advanced by Empire.

Q WHAT IS THE POSITION OF EXPLORER AND PRAXAIR WITH RESPECT TO WHETHER OR NOT THE COMMISSION CAN ORDER INTO EFFECT A TEMPORARY FUEL CLAUSE RECOVERY MECHANISM WITHOUT AGREEMENT BY THE PARTIES?

A It is my understanding that Explorer and Praxair take the position that the Commission may not order into effect such a recovery mechanism absent a unanimous stipulation by the participating parties. The fact that I will discuss a temporary recovery mechanism in my testimony does not constitute an abandonment of that position, but rather sets forth considerations and factors that Explorer and Praxair would find appropriate to include in any temporary recovery mechanism, should the parties be successful in reaching a unanimous stipulation with respect to this matter.

RECOVERY OF FUEL AND PURCHASED POWER COSTS

Q WHAT PROPOSAL HAS EMPIRE MADE WITH RESPECT TO RECOVERY OF FUEL AND PURCHASED POWER COSTS?

A Empire has put forward three different alternatives. The first is to establish rates based on fuel and purchased power costs of $121.7 million, and to also put in place a fuel adjustment clause. (In this testimony, unless otherwise indicated, all dollar amounts for fuel and purchased power are total company amounts for on-system requirements, and include both fixed and variable components.)

The development of the $121.7 million amount is shown on Page 7 of Empire witness Brad Beecher's testimony and is based on 2003 actual experience adjusted for increases in natural gas and coal prices, a new gas transportation contract, a weather normalization adjustment and the expiration of a purchased power contract. In this context, the actual 2003 fuel and purchased power cost was $104.7 million. Mr. Beecher arrives at his pro forma amount by making the adjustments noted above, including an adjustment to the price of natural gas purchased using the actual 2003 quantity of natural gas of 6.5 million MMBtu.

Q WHAT IS THE SECOND ALTERNATIVE DISCUSSED BY EMPIRE?

A The second alternative discussed by Empire is not to have an FAC, but to set rates based on a total cost of $123 million, as developed in Run No. 1 of the fuel model approach sponsored by Empire witness Jill Tietjen. Although I note this option second, it is Empire's third choice.

Q WHAT OTHER ALTERNATIVE DOES EMPIRE OFFER?

A The third alternative offered by Empire is to utilize an Interim Energy Charge (IEC), which would be similar to the mechanism previously employed in Empire's Case No. ER-2001-299. (I would note that the parties stipulated to, and the Commission approved, a temporary recovery mechanism for Aquila Networks-L&P and Aquila Networks-MPS in Case No. ER-2004-0034.)

Q PLEASE EXPLAIN IN MORE DETAIL EMPIRE'S THIRD ALTERNATIVE.

A Based on a variety of fuel model scenarios sponsored by Ms. Tietjen (see direct testimony of Brad Beecher at Page 15) Empire proposes to include $105 million of non-refundable costs in the base tariffs, and a separate refundable $20 million surcharge, for a total of $125 million in rates.

Q DO YOU BELIEVE THAT SOME MECHANISM, WHICH PROVIDES FOR THE POSSIBILITY OF REFUNDS TO CUSTOMERS, IS PREFERABLE TO FIXING COSTS IN THE REVENUE REQUIREMENT WITHOUT THE POSSIBILITY OF ADJUSTMENT?

A Yes, at this point in time, I do.

Q PLEASE EXPLAIN THE BASIS FOR YOUR OPINION.

A There are two primary factors. First, natural gas has become a fairly significant component of Empire's resource mix. This is unlike what was the case historically, and unlike the case for some other Missouri electric utilities who continue to be primarily dependent on coal and nuclear fuel. In 2003, Empire produced approximately 16% of its resource requirements (fuel plus purchased power) by burning natural gas.

Second, natural gas prices are high as measured by historical levels, and have become increasingly volatile in the last few years. This makes it extremely difficult to make accurate projections of the cost of natural gas that will be experienced in the market during any finite period of time. Thus, some short-term mechanism to address this circumstance is appropriate.

Q HAS EMPIRE IMPLEMENTED A HEDGING PROGRAM IN AN EFFORT TO TRY TO STABILIZE THE COST OF GAS?

A Yes. Empire has implemented a hedging program which I would describe as "buy over time." Under this hedging program, Empire locks in the price of certain specified quantities of natural gas (within a range) in advance of the time when the gas will actually be burned. This is described in Mr. Beecher's testimony in more detail, but essentially the program entails locking up the prices for increasing percentages of natural gas requirements for a given year beginning four years in advance of the year when the gas bill be burned. This approach allows Empire to buy its requirements on something other than either an "all at once" commitment in advance, or purchasing all of its requirements at market prices at the time of consumption. The "buy over time" strategy helps to stabilize prices and allows for greater certainty of the costs that will be incurred in future years, but since the hedging strategy does not call for all requirements to be hedged as far in advance as two or three years, there remains a residual amount of uncertainly with respect to the unhedged volumes.

Q WHAT ARE THE RISKS TO CUSTOMERS IF RATES ARE SET USING FIXED GAS PRICES, BASED ON THE CURRENT MARKET, WITHOUT THE POSSIBILITY OF REFUNDS IF GAS PRICES DECREASE?

A The risk is that if the revenue requirement is set based on a certain assumed level of gas prices, and those gas prices turn out to have been higher than what Empire actually incurs, then Empire will have collected more funds than was necessary to cover its fuel and purchased power costs, and consumers will have been disadvantaged because they have paid more than necessary without the possibility of any refund.

Q WHAT ARE THE RISKS TO THE UTILITY IF RATES ARE SET USING FIXED GAS PRICES?

A The risk is essentially the opposite of the risk faced by the consumers. If the actual gas prices turn out to be higher than what was used to set the revenue requirement, then the utility is in the position of recovering less than required to cover its actual costs.

Q ARE GAS PRICES THE ONLY FACTOR TO BE CONSIDERED?

A No. In addition to gas prices, of course, there is the question of how effectively did the utility manage its fossil resources, other than gas (i.e., coal) and how effectively did it purchase when economical sources of purchased power were available to substitute for higher-cost gas-fired resources. It is for this reason that any recovery mechanism should look at the cost of all fuels, as well as purchased power, in order to determine whether or not the actual experience was more than or less than the amounts embedded in the mechanism.

Q **DO YOU SUPPORT EMPIRE'S PROPOSAL TO HAVE A BASE COST OF $105 MILLION AND A $20 MILLION REFUNDABLE AMOUNT, BRINGING THE TOTAL RATE RECOVERIES UP TO $125 MILLION PER YEAR?**

A No, not entirely.

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Q **PLEASE EXPLAIN.**

A A review of Schedule JST-14 attached to witness Tietjen's testimony indicates that the only scenarios that approach or exceed the $125 million level are those which incorporate gas requirements in the 10 million MMBtu range. By historical standards, this is high. Empire has not purchased this much natural gas in pursuit of fulfilling its resource requirements in any of the last five calendar years (1999-2003). In fact, the response to Staff Data Request No. 440 shows that Empire typically has purchased in the vicinity of 7 million MMBtu. (Empire did purchase over 10 million MMBtu in the 12 months ended June 30, 2002, but the calendar 2001 and 2002 totals were 7.4 million and 7.8 million MMBtu, respectively.)

Accordingly, I believe the high-end number of $125 million is excessive. I also believe that given the percentage of gas requirements that have been hedged by Empire (for 2005 and 2006) a $5.50 average cost of natural gas – as is reflected in Run Nos. 11 and 12, is excessive.

Q **WHAT IS YOUR RECOMMENDATION FOR THE AMOUNT TO INCLUDE IN THE COST RECOVERY MECHANISM?**

A I recommend that the upper end value be set no higher than $120 million, rather than $125 million as proposed by Empire.

Q DO YOUR AGREE WITH THE $105 MILLION BASE RATE AMOUNT?

A No, not entirely. Forward prices for natural gas for 2005 and 2006 are now somewhat higher than when Empire filed its testimony. I believe the base amount should be set so that there is some realistic possibility that if Empire is aggressive in taking advantage of the purchased power market and in operating its coal-fired resources efficiently, it could beat the base amount (i.e., spend less) and thereby benefit along with customers. Accordingly, I believe it would be more reasonable to include in base rates $110 million of fuel cost recovery. This would make the total amount subject to refund $10 million.

Q BASED ON THESE TOTAL COMPANY AMOUNTS, HAVE YOU DEVELOPED THE AMOUNTS THAT SHOULD BE INCLUDED IN THE MISSOURI JURISDICTIONAL REVENUE REQUIREMENT?

A Yes, I have. This is shown on Schedule 1 attached to this testimony. Column 1 shows the amounts that would be incorporated in base rates and Column 2 shows the total, including the amount to be recovered through a refundable surcharge. As discussed above, on a total Company basis the amounts are $110 million and $120 million, respectively.

Q WHAT ADJUSTMENTS ARE MADE TO THESE NUMBERS?

A There are two adjustments. First is to remove the purchased power demand charges and the fixed transportation costs from these amounts. This was done on Lines 2 and 3. The reason for removing these amounts is that they are basically known and fixed, and will be incurred regardless of the level of gas prices and the mix of fuel and purchased power. They are therefore not subject to uncertainty and volatility. The net total Company amounts are shown on Line 4 and are $88.3 million in base rates, and $98.3 million in total.

The final adjustment is to determine the amounts allocated to the Missouri jurisdiction. Line 5 shows the allocation factor for these costs from Empire's cost allocation study, and the bottom line on Schedule 1 shows that $72.8 million should be included in base rates, and that the total, including the refundable amount, would be $81.0 million.

Q **HOW SHOULD THESE AMOUNTS BE INCLUDED IN RATES?**

A For inclusion of costs in rates, and for determining refunds, I would recommend utilizing the same approach that was used in the Aquila case I mentioned above, specifically in Case No. ER-2004-0034. In my cost of service/rate design testimony, which will be filed on September 27, I will discuss in more detail the allocation of any revenue increase and how the refundable mechanism should work in conjunction with that allocation.

Q **HOW LONG SHOULD THIS RECOVERY MECHANISM BE IN EFFECT?**

A I would propose it be in effect for a period not to exceed two years. Empire should be required to file a new revenue requirement case timed such that rates from that case could go into effect at the same time that the mechanism would expire. Limiting the term is reasonable for two primary reasons.

First, natural gas markets currently can be characterized as volatile. In a two-year period the prices for natural gas could be significantly different from what they are today and what current forecasts and forward market prices would suggest.

Thus, limiting the term is reasonable so that an appropriate amount can be re-determined.

Second, a form of temporary rate recovery mechanism focused on one type of costs (i.e., fuel and purchased power) is an exception to the usual prohibition against "single issue" ratemaking.

Q **PLEASE EXPLAIN.**

A Single-issue ratemaking is usually avoided because it allows the utility to collect for increases in certain specific costs, without considering whether the utility's revenue requirement has decreased as a result of changes in other costs or revenues. The revenue requirement could decrease as a result of, for example, additional revenue from load growth, increased margins from wholesale power transactions, decrease in costs from higher efficiencies as a result of new technologies or work procedures, refinancing of debt and decreases in costs as a result of changes in the business structure. In order to mitigate the possibility that Empire might more than offset any increases in fuel and purchased power costs with these offsetting factors, it is prudent to limit any temporary recovery period to not more than two years.

Q **WHEN WOULD THE DETERMINATION BE MADE AS TO WHETHER THERE SHOULD BE A REFUND?**

A That determination would be made at the end of the period.

Q **AS A PART OF THIS DETERMINATION, SHOULD A PRUDENCY REVIEW BE REQUIRED?**

A Yes. Empire should be required to file a complete and detailed explanation of its acquisition practices for both fuel and purchased power during the period for which reconciliation is provided. The evidence should be subject to testing in a regular evidentiary proceeding. Any costs that are found to have been imprudently incurred should be refunded to customers as a part of the process. This would be in addition to refunds because actual incurred costs were less than the amount included in the refundable recovery mechanism.

Q **IF THE FILING BY THE UTILITY INDICATES THAT A REFUND IS APPROPRIATE, SHOULD THE REFUND BE DELAYED UNTIL THE FULL PRUDENCY REVIEW IS CONDUCTED?**

A No. If Empire believes that customers are due a refund, it should be required to include a refund plan in its filing. As soon as the Commission has reviewed and approved the plan, these refunds should be made. To the extent that the prudency review reveals the need to refund any additional amounts, those amounts can be refunded after the Commission has processed the prudency review and reached a determination. Customers should not be required to wait until the prudency review is completed to receive refunds that Empire has agreed are appropriate.

Q **WHAT WOULD BE THE MECHANICS OF DETERMINING THE REFUND OBLIGATION AFTER THE PRUDENCY REVIEW HAS BEEN COMPLETED?**

A The same structure and mechanics that were utilized in the stipulation in the above-mentioned Aquila case, Case No. ER-2004-0034, should be incorporated.

Q **DOES THIS CONCLUDE YOUR DIRECT TESTIMONY ON REVENUE REQUIREMENTS?**

A Yes, it does.

Qualifications of Maurice Brubaker

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Maurice Brubaker. My business mailing address is P. O. Box 412000, 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.

Q PLEASE STATE YOUR OCCUPATION.

A I am a consultant in the field of public utility regulation and President of the firm of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in Electrical Engineering. Subsequent to graduation I was employed by the Utilities Section of the Engineering and Technology Division of Esso Research and Engineering Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of New Jersey.

In the Fall of 1965, I enrolled in the Graduate School of Business at Washington University in St. Louis, Missouri. I was graduated in June of 1967 with the Degree of Master of Business Administration. My major field was finance.

From March of 1966 until March of 1970, I was employed by Emerson Electric Company in St. Louis. During this time I pursued the Degree of Master of Science in Engineering at Washington University, which I received in June, 1970.

In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis, Missouri. Since that time I have been engaged in the preparation of numerous studies relating to electric, gas, and water utilities. These studies have included analyses of the cost to serve various types of customers, the design of rates for utility services, cost forecasts, cogeneration rates and determinations of rate base and operating income. I have also addressed utility resource planning principles and plans, reviewed capacity additions to determine whether or not they were used and useful, addressed demand-side management issues independently and as part of least cost planning, and have reviewed utility determinations of the need for capacity additions and/or purchased power to determine the consistency of such plans with least cost planning principles. I have also testified about the prudency of the actions undertaken by utilities to meet the needs of their customers in the wholesale power markets and have recommended disallowances of costs where such actions were deemed imprudent.

I have testified before the Federal Energy Regulatory Commission (FERC), various courts and legislatures, and the state regulatory commissions of Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming.

The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and assumed the utility rate and economic consulting activities of Drazen Associates, Inc., founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed. It includes most of the former DBA principals and staff. Our staff includes consultants with backgrounds in accounting, engineering, economics, mathematics, computer science and business.

During the past ten years, Brubaker & Associates, Inc. and its predecessor firm has participated in over 700 major utility rate and other cases and statewide generic investigations before utility regulatory commissions in 40 states, involving electric, gas, water, and steam rates and other issues. Cases in which the firm has been involved have included more than 80 of the 100 largest electric utilities and over 30 gas distribution companies and pipelines.

An increasing portion of the firm's activities is concentrated in the areas of competitive procurement. While the firm has always assisted its clients in negotiating contracts for utility services in the regulated environment, increasingly there are opportunities for certain customers to acquire power on a competitive basis from a supplier other than its traditional electric utility. The firm assists clients in identifying and evaluating purchased power options, conducts RFPs and negotiates with suppliers for the acquisition and delivery of supplies. We have prepared option studies and/or conducted RFPs for competitive acquisition of power supply for industrial and other end-use customers throughout the Unites States and in Canada, involving total needs in excess of 3,000 megawatts.

In addition to our main office in St. Louis, the firm has branch offices in Corpus Christi, Texas; Plano, Texas; Denver, Colorado; and Chicago, Illinois.

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THE EMPIRE DISTRICT ELECTRIC COMPANY

Development of Missouri Jurisdictional Variable Fuel and Purchased Power Amounts ($ Millions)

Line	Description	Base Rates (1)	Total (2)
1	Total Fuel and Purchased Power	$110.0	$120.0
2	Purchased Power Demand Charge	(16.2)	(16.2)
3	Fixed Gas Transportation Costs	(5.5)	(5.5)
4	Net Amount	88.3	98.3
5	Missouri Allocation Factor	82.42%	82.42%
6	Missouri Jurisdictional Amount	$ 72.8	$ 81.0

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