DIRECT TESTIMONY

OF

JAMES A. BUSCH

CASE NO. ER-2004-0570

EMPIRE DISTRICT ELECTRIC COMPANY

Q. Please state your name and business address.

A. My name is James A. Busch and my business address is P. O. Box 2230, Jefferson City, MO 65102.

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

A. I am a Public Utility Economist with the Missouri Office of the Public Counsel (Public Counsel).

Q. Please describe your educational and professional background.

A. In June 1993, I received a Bachelor of Science degree in Economics from Southern Illinois University at Edwardsville (SIUE), Edwardsville, Illinois. In May 1995, I received a Master of Science degree in Economics, also from SIUE. Prior to joining Public Counsel, I worked just over two years with the Missouri Public Service Commission as a Regulatory Economist in the Procurement Analysis Department and worked one year with the Missouri Department of Economic Development as a Research Analyst. I accepted my current position with Public Counsel in September 1999. Further, I also am a member of the adjunct faculty of Columbia College, Jefferson City Campus, teaching Economics at the undergraduate and graduate level.

Q. Have you previously testified before this Commission?

A. Yes. Attached is Schedule JAB-1, which is a list of the cases in which I have filed testimony before this Commission.

Q. What is the purpose of your testimony in Case No. ER-2004-0570?

A. The purpose of my testimony is to provide Public Counsel's recommendation and support for the appropriate price of natural gas Empire District Electric Company (Empire or Company) should utilize in the establishment of its base rates in this proceeding.

Q. What materials and resources did you review in preparation of this testimony?

A. I have reviewed and studied the natural gas futures market over the past few years. This includes the two and half years I worked as an Economist in the Procurement Analysis Department with the Staff of the Commission. I have also reviewed storage data as reported by the Energy Information Administration (EIA) and the Short-Term Energy Outlook produced monthly by the EIA. I also review publications in order to stay abreast of the natural gas industry. This review includes "InsideFERC" and a daily email publication called "Enerfax Daily", a daily review of the natural gas industry. I also read articles concerning natural gas in the Wall Street Journal and from an email publication called "RIGZONE Industry" news.

Q. Are those materials that are typically relied upon by experts in the field of energy and fuel-related policy for regulated utilities?

A. Yes they are.

NATURAL GAS PRICE MOVEMENT IN THE PAST YEAR

Q. What has been the general price level in the natural gas market over the past year?

A. In late 2003, natural gas hit a price level just under $4.50 per MMBtu. Since that time, the price of natural gas, based off of monthly NYMEX expirations, as been trading between $5.00 and $6.70 per MMBtu through 2004.

Q. What is NYMEX?

A. NYMEX is the New York Mercantile Exchange. This is the central location for the trading of futures and option contracts in natural gas and various other commodities. The NYMEX price for natural gas is widely regarded as the benchmark price of natural gas in the market. The NYMEX futures contract is based on delivery at the Henry Hub in Louisiana. This is the market hub for various natural gas interstate pipelines that serves the Midwest, East Coast, and Gulf Coast in the U.S.

Q. Where does Empire receive most of its natural gas supplies?

A. Empire receives most of its natural gas supplies via the Southern Star Central pipeline. This interstate pipeline generally connects Empire with natural gas supplies in the Mid-Continent and/or Rocky Mountain area.

Q. What were some of the factors that led the price of natural gas to remain at those inflated levels?

A. One factor is the current uncertainty in the Middle East. The problems occurring in the Middle East have caused oil prices to reach high levels, approaching $50 per barrel. These high levels for oil prices have had a negative impact on the price of natural gas. Further, since there seems to be a constant threat of

disruption in the supply of oil, the price of natural gas remains high. Another factor is the perceived shortage of U.S. natural gas supplies in the face of an overall increase in demand. Even though there has been substantial demand destruction in the natural gas market, there is still a tremendous level of demand for natural gas from the industrial and power generation sector. Further, there has been a downward trend in the development of newer natural gas supplies in recent years.

Q. Has the price of oil subsided in recent weeks?

A. Yes. The price of oil has fallen slightly to the $40 per barrel range. OPEC has set a target of anywhere between approximately $25 and $30 per barrel. So even though prices have receded from recent highs, the price for oil is still elevated.

CURRENT CONDITIONS IN THE NATURAL GAS MARKET

Q. What are the current conditions in the natural gas market?

A. Currently, the natural gas market is nearing the end of the injection season. The injection season generally runs from April to October. This indicates that Local Distribution Companies (LDCs) are generally injecting natural gas into storage facilities for future use. The period of November through March is generally considered the withdrawal season. This indicates that natural gas is being withdrawn from storage to meet the increased demand associated with winter heating needs. Current storage levels are above both the five-year average and above last year's storage amount. As of September 10, 2004, the most current information released by EIA on September 16, 2004, there is 2.874 Tcf of natural gas in storage. To be considered 100% full, there would need to be approximately

3.3 Tcf in storage. This current amount of storage is nearly 10% above last year's level and approximately 7.5% greater than the five-year average.

Q. What is the current 12-month NYMEX futures strip?

A. As of September 16, 2004, the 12-month futures strip is $5.9514 per MMBtu. This represents the 12-months of October 2004 through September 2005.

Q. What is causing the 12-month futures strip to remain so high?

A. In the past few weeks, the futures price of natural gas for October has dropped considerably. At the close of business on Thursday, September 16, 2004, the October 2004 contract closed at $4.719 per MMBtu. However, the February 2005 contract closed at $6.558 per MMBtu. This spread of nearly $2.00 per MMBtu is unusual. It is this huge gap between current prices and the winter futures prices that is causing the 12-month strip to be so high. Fundamentally, there does not seem to be a solid reason for this disparity. One factor, however, could be the threat of a cold winter. Some traders in the market believe a cold snap could potentially strain natural gas supplies even though storage is again nearing record levels. Also, the ongoing threat of global disruption in the oil market could be a factor. Another theory that tries to explain the gap between current prices and winter futures is that the threat of a cold winter has already been priced into the futures market. If this is the case, a cold winter should not cause a spike in the price of natural gas. On the other hand, if the weather proves to be normal or warmer-than-normal, further reductions in price should occur.

POTENTIAL FUTURE MOVEMENT IN THE PRICE OF NATURAL GAS

Q. What is the outlook for the price of natural gas for this winter's heating season?

A. Current conditions point to a continued reduction in the price of natural gas, assuming normal or below-normal weather this winter. Gas prices have been falling dramatically lately due to the lack of demand in the market. This has caused natural gas storage to reach near record levels. One reason why the futures price is running high is the threat of shortages if the weather is colder-than-normal this winter. If this is the case, colder weather will not affect the price all that much. On the other hand, normal to below normal weather could lead to further erosion in the price of natural gas.

Q. What is the outlook for the price of natural gas beyond this winter?

A. Assuming a normal winter, storage levels should remain relatively strong as the industry leaves the winter heating season and enters the injection season in April. Under this scenario, I believe that the price of natural gas at NYMEX should drop to the $4.25 to $5.75 range over the foreseeable future, once this current heating season ends. This assumes a winter of normal to below-normal temperatures.

INTERIM ENERGY CHARGE

Q. Please describe the Interim Energy Charge.

A. The Interim Energy Charge (IEC) is an additional charge that would be added to each customer's bill. The IEC was originally designed by parties to a past Empire case acting in collaborative recognition of a time period of high prices and volatility in the natural gas market. In the rate case prior to Empire's last rate case, Case No. ER-2001-299, an amount was built into rates for fuel and purchased power expense to develop a "base" rate. This figure included a level of natural gas prices that was approximately $3.50 per MMBtu. Changing the price

of natural gas to around $5.50 per MMBtu while keeping all other factors constant derived the "ceiling" for fuel costs. The difference between the base and ceiling was the additional amount to be charged to customers, or the IEC. At the time of the stipulation reached in that case, the IEC was $0.0054 per kWh.

Q. How did the IEC work?

A. In simple terms, the IEC insulated the Company from the impact of upward swings in natural gas prices. It worked as follows: if the combined, prudently incurred energy costs of Empire are above the base level but below the ceiling, the Company would refund the difference between the IEC it has been charging its consumers and its actual costs. If total energy costs exceed the amount collected from the IEC, the Company must absorb those excess charges above the ceiling. If total energy costs are below the base, the Company retains the amount of the cost reductions below the base. Therefore, the Company benefits from price movements below the base and is insulated from price increase up to the ceiling.

Q. What was the original term of the IEC?

A. The Stipulation and Agreement in Case No. ER-2001-299 contemplated that the IEC would be charged from October 1, 2001 through September 30, 2003. However, the Stipulation and Agreement in that case did not address whether a rate case filed after the IEC took effect and ending prior to the expiration of the IEC would have affected the IEC.

Q. What factors were relevant in the natural gas market at the time of the implementation of the IEC for Empire?

A. One of the reasons driving Empire's rate case at that time was the impact the price of natural gas was having, and could have had in the future, on the Company. Prices at the beginning of 2001 were near $10 per MMBtu and had only fallen back to the $5.00 range by the spring of that year. In Case No. ER-2001-299, Empire requested recognition of a going forward price of natural gas of roughly $5.50 per MMBtu, based upon then current futures market price level. Public Counsel and Staff, each using different techniques, countered that the appropriate price of natural gas on a going forward basis should have been closer to $3.50 per MMBtu. Through the negotiation phase of the case, it was determined that **for that particular time**, the market was extremely unstable and an alternative solution should be explored for determining the appropriate mechanism for pricing natural gas. Thus the concept of an interim energy charge was agreed upon to help enable Empire to weather the storm of extremely high and volatile natural gas prices in a way that also provided some protection for consumers.

Q. How were consumers protected by the IEC?

A. If Empire had taken the natural gas cost issue to hearing in Case No. ER-2001-299 and had prevailed, the going forward price of approximately $5.50 per MMBtu would have been used in the fuel run to help determine rates. As the price of natural gas fell and Empire started purchasing cheaper natural gas, any amounts below the built in rate would have essentially gone to Empire's bottom line as profits. Therefore, the IEC created a base rate that allowed consumers the opportunity to benefit from lower natural gas prices, down to the base amount. Once costs drop below the base level, the Company receives all of the benefits.

Q. How many IECs have been implemented for Missouri electric companies?

A. There have been two negotiated IECs. Empire was the first to implement an IEC in Case No. ER-2001-299. Aquila, Inc received an IEC in its last rate case, ER-2004-0034.

Q. How were these IECs determined?

A. In both cases, the parties reached a settlement agreement to implement an IEC.

Q. Does Public Counsel believe the Commission has the authority to order an IEC type mechanism absent a settlement among the parties?

A. No. It is Public Counsel's opinion that the Commission does not have the legal authority to impose an IEC without approval of all parties. This opinion stems primarily from the Missouri Supreme Court case UCCM v. PSC, which outlawed the use of the fuel adjustment clause (FAC) in the state of Missouri. Public Counsel believes that the IEC method contains elements that are sufficiently similar in nature to the elements of the illegal FAC, which is outlawed under Missouri law.

Q. Is Empire recommending an IEC in this proceeding?

A. Yes. In its direct testimony, Empire asked for either a FAC or an IEC. However, since the Legislature chose not to enact a FAC, Empire has abandoned the FAC and has focused solely on the IEC.

Q. Is the IEC that Empire is proposing in this case similar to Empire's original IEC?

A. It is similar to the original IEC in many respects. It is my understanding that the main difference is that Empire is proposing a five-year time frame for this IEC.

Q. Is Public Counsel recommending an IEC in this case?

A. No. However, Public Counsel has initiated settlement negotiations with regard to the fuel issue, including the implementation of an IEC. As always, Public Counsel is willing to listen to various proposals in the context of settling issues in the course of any proceeding.

Q. Does Public Counsel have policy concerns regarding the IEC Empire is proposing in this proceeding?

A. Yes. I plan to address these concerns in my rebuttal testimony.

PUBLIC COUNSEL'S RECOMMENDATION

Q. Based on your expert analysis and the discussion above, what is Public Counsel's recommendation for the price of natural gas to be imbedded in rates in this case?

A. At this time, Public Counsel recommends the use of the traditional method of incorporating a natural gas price into a fuel run to determine an appropriate level of fuel costs to be used in the development of electric rates on a going forward basis.

Q. What should be the price level utilized to determine the appropriate fuel costs in the determination of Empire's base rates?

A. Public Counsel recommends that the price used should be $4.59 per MMBtu. However, due to the current state of the natural gas industry, I reserve the right to update my estimation if significant market factors change in the near future.

Q. How did you arrive at that price level?

A. I utilized a weighted average of Empire's actual hedged price of natural gas for the year 2005 and my estimation of what prices may be during that time.

Q. Please explain.

A. According to Empire's Gas Position Summary[1] and direct testimony in this case, Empire has approximately 40% of its expected natural gas usage hedged at $4.15 per MMBtu. To determine my recommended price, I took this $4.15 price, and I weighted that price with my calculation of the potential future price of natural gas, in a manner similar to the methodology used by Empire witness Brad Beecher in his direct testimony. I determined the potential future price of natural gas by taking the 24-month NYMEX futures settlement strip prices as of the close of business on September 16 averaged with the past 24-month NYMEX expirations. The 24-month period that I used for future settlements was the period October 2004 – September 2006. The 24-month period that I used for historical NYMEX expirations was October 2002 – September 2004. This resulted in a price of $5.42 per MMBtu. Combining the hedged amount with my blended mix of prices gives me a weighted average of approximately $4.59 per MMBtu. Thus I recommend that a price of $4.59 should be the amount utilized in a fuel run to help determine the ultimate rates for Empire in this proceeding. Please see Schedule JAB-2 for the calculation I used to determine my recommendation.

Q. Have you used this methodology in the past?

A. Yes. I have generally utilized a blend of both historical and futures prices to come up with an estimated price of natural gas to include in ratemaking calculations.

Q. Does Empire have any gas hedged beyond 2005?

A. Yes it does. According to its Gas Position Summary, Empire has gas hedged in various amounts through 2008.

[1] Empire's response to OPC Data Request No. 601.

Q. What is the general price at which Empire has hedged in those years?

A. Empire has locked in approximately ** _____ ** of its expected natural gas supplies between ** _____ * for those years. Thus with a modest decrease in natural gas price, Empire should be well positioned regarding natural gas prices if my recommended level of $4.59 per MMBtu is utilized in this case.

Q. Does the traditional methodology you used establish the appropriate incentives?

A. Yes. In fact, this methodology allows Empire to manage its resources at its discretion to make the most economical choices in providing electricity to its customers. When used in conjunction with purchase power and coal, and any other methodology utilized by Empire to provide electricity to its customers, Empire's shareholders will profit when costs fall. When used in an IEC formula, Empire's shareholders lose the opportunity to profit by the economical choices it could make in its dispatch. It is this type of incentive created by using a price certain that Public Counsel feels is in the best interest of ratepayers and the Company.

Q. Please summarize your position.

A. In summary, Public Counsel recommends that the Commission establish a price certain for natural gas to be used in the fuel run in the determination of rates for Empire. In this case, the price of natural gas that should be used should be $4.59 per MMBtu. The traditional method of using a given price for fuels and purchase power provides superior incentives to the Company and should be maintained.

Q. Does this conclude your Direct Testimony?

A. Yes it does.

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