Exhibit No.:
Issue: On-System Fuel and Purchased Power Expense and New Coal Plants
Witness: Todd W. Tarter
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Empire District Electric
Case No. ER-2011-0004
Date Testimony Prepared: April 2011

Before the Public Service Commission
Of the State of Missouri

Rebuttal Testimony

of

Todd W. Tarter

April 2011

****Denotes Highly Confidential****

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TODD W. TARTER
ON BEHALF OF
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. ER-2011-0004

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REBUTTAL TESTIMONY OF
TODD W. TARTER
ON BEHALF OF
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. ER-2011-0004

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Todd W. Tarter. My business address is 602 S. Joplin Avenue, Joplin, Missouri.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. The Empire District Electric Company ("Empire" or "Company"). My title is Manager of Strategic Planning.

Q. ARE YOU THE SAME TODD W. TARTER THAT EARLIER PREPARED AND FILED DIRECT TESTIMONY IN THIS RATE CASE BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION ("COMMISSION") ON BEHALF OF EMPIRE?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. My rebuttal testimony is organized into two parts. First, I will comment on the Commission Staff's ("Staff") position on the on-system fuel and purchased power ("FPP") expense level for setting the base FPP rate, as proposed in the direct testimony of Staff witness Mr. Mark Oligschlaeger, and introduce Empire's current position on this topic. Second, by way of background concerning the regulatory plan discussions in the direct testimony of Staff witness Mr. Charles R. Hyneman, I will provide a high-level timeline of the events leading to Empire's regulatory plan and coal plant investments.

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II. ON-SYSTEM FPP EXPENSE AND THE FAC BASE

Q. WHAT IS EMPIRE'S POSITION ON ENERGY COST RECOVERY IN THIS CASE?

A. Empire is recommending the continuation of a fuel adjustment clause ("FAC"). In its direct filing, Empire recommended no change to the base fuel and purchased power rate in the FAC. Empire presented a model run that showed that a slight increase in the FAC base was warranted, but efforts were being made to limit the issues and streamline the rate case process as much as possible since this case so closely followed Empire's last electric rate case, Case No. ER-2010-0130. Empire has now made an updated model simulation run with more current data, and believes it appropriate to update the FAC base using Empire's updated fuel and energy information.

Q. DOES THIS TESTIMONY ADDRESS ALL OF THE COST COMPONENTS ASSOCIATED WITH THE FAC?

A. No. My rebuttal testimony will only discuss the on-system fuel and purchased power expense used to establish the base energy costs. Other cost components in Empire's current FAC include off-system FPP costs, the cost of consumables used by environmental equipment (e.g., ammonia, limestone, and powder activated carbon), and renewable energy credits. However, Empire's proposed calculation of the FAC base, which includes the on-system FPP expense I will discuss in this testimony and the other cost components associated with the FAC, can be found in Schedule TWT-1.

Q. IS IT IMPORTANT TO ESTABLISH THE APPROPRIATE LEVEL OF FUEL AND PURCHASED POWER EXPENSE IN THE BASE RATE?

A. Yes.

Q. PLEASE EXPLAIN WHY?

A. First, the current FAC does not recover or return 100% of the FPP expenses above or below the FPP expenses included in base rates. Under the current FAC, Empire collects 95% of prudently incurred FPP costs that are above the base. Likewise, Empire refunds 95% of prudently incurred FPP costs below the base. In its direct filing, Staff has proposed changing the 95% recovery percentage to 85%. If the Staff position is adopted, which Empire strongly opposes, establishing the correct level of the base FAC will become even more important. Second, since future FPP costs are unknown, an adequate estimate is needed so that the potential over/under energy cost balances that require either refunds or additional collections to customers do not become overly large. In order to be fair to both the Company and its customers, the base fuel expense should reflect the expected FPP cost level as accurately as possible.

Q. HOW HAS THE BASE FPP LEVEL IN EMPIRE'S FAC COMPARED TO THE ACTUAL FPP EXPENSE DURING THE PERIOD THAT EMPIRE'S FAC HAS BEEN IN PLACE?

A. There have been five cost accumulation periods since Empire's FAC was approved. The first accumulation period began in September 2008. The FAC was first approved in Case No. ER-2008-0093, and later modified in Case No. ER-2010-0130. The following table shows the results of each accumulation period to date:

FAC Accumulation Periods

Accumulation Period	(Over)/Under
1. Sep-2008 through Feb-2009	1,916,797
2. Mar-2009 through Aug-2009	(820,443)
3. Sep-2009 through Feb-2010	3,141,277
4. Mar-2010 through Aug-2010	5,540,191
5. Sep-2010 through Feb-2011	1,553,514
Total Under Collected to Date	11,331,335

As shown in the table above, Empire has under collected FPP costs in all FAC periods but one. The overall effect for the five FAC accumulation periods has been a net under collection of about $11.3 million. In other words, during this 30-month period, Empire's actual FPP expenses have been higher than the FPP expenses in Empire's base rates. Specifically, during the entire 30-month period Empire's FAC has been in effect, the total Missouri on-system FPP expense has been about 2 percent (2%) over the level of on-system FPP expense established in base rates and the FAC base. In accordance with the FAC tariff, in effect since the FAC began, Empire has absorbed 5% of the energy cost above the FAC base, which is about $593 thousand as of February 28, 2011.

Q. ARE THERE ANY FACTORS THAT HAVE RECENTLY INFLUENCED EMPIRE'S FPP EXPENSE THAT SHOULD BE NOTED?

A. Yes. Recently Empire's generation mix has changed. A 162 MW coal purchased power agreement (PPA) expired on May 31, 2010. Approximately 202 MW of new coal capacity has been added to the system (Iatan unit 2 and Plum Point) during the second half of 2010. Additionally, construction accounting for Iatan 2 has taken place and fuel and purchased power prices have changed since the FAC began.

Q. HAS EMPIRE TAKEN THESE FACTORS INTO ACCOUNT WHEN DEVELOPING THE APPROPRIATE LEVEL OF FPP EXPENSE FOR RATE

MAKING PURPOSES IN THIS CASE?

A. Yes. Empire has made all of the appropriate updates to its FPP model and base FAC calculations for this case. The level of FPP expense that Empire supports for this case, as described in this testimony, is based on the current generation mix, current contracts for coal and wind energy, current expectations for spot market purchased power prices, recent natural gas price information and the elimination of construction accounting for Iatan unit 2 energy.

Q. WHAT IS STAFF RECOMMENDING FOR THE ON-SYSTEM FPP COMPONENT FOR THE FAC BASE IN THIS CASE?

A. Staff's direct filing recommends a significant decrease to the FAC base.

Q. HOW DID STAFF ESTABLISH ITS PROPOSED FAC BASE?

A. Staff used a computer production cost model to estimate the on-system FPP expense on Empire's electric system for a period of one year. Outside the model, fuel related costs were added to the production cost model run. Staff developed and used a set of assumptions for inputs into the model and for fuel related costs added exogenous to the model.

Q. HAVE YOU REVIEWED STAFF'S FPP MODEL OUTPUT AND THE STAFF'S WORKPAPERS IN THIS AREA?

A. Yes.

Q. DO YOU HAVE ANY CONCERNS ABOUT THE ASSUMPTIONS THAT STAFF USED TO DEVELOP ITS PROPOSED FAC BASE?

A. Yes. Based on my review it appears that while Staff and Empire do have many similar assumptions in their respective normalized computer model runs used in this case, there

are items in Staff's model that need to be updated. My concerns are primarily related to some of the pricing information in Staff's model run and the omission of some costs from the on-system fuel and purchased power component used to calculate the FAC base. Specifically, my concerns are related to the solid fuel prices (coal and petroleum coke), the Elk River Wind Farm purchased power price, natural gas storage costs, and operation and maintenance (O&M) costs associated with the Plum Point purchased power agreement.

Q. IN GENERAL, WHAT IS THE OVERALL IMPACT OF THESE STAFF ASSUMPTIONS ON THE STAFF'S FAC BASE?

A. Each of the Staff assumptions in the areas of concern I listed above act to lower the Staff's FAC base estimate.

Q. WHAT CONCERNS DO YOU HAVE WITH STAFF'S SOLID FUEL PRICE ASSUMPTIONS?

A. The solid fuel price (coal and petroleum coke initial and freight) assumption used in Staff's model should reflect the pricing that is under contract and in effect when rates in this case become effective. From my review of Staff's workpapers, Staff utilized lower solid fuel prices than the Company has under contract and is currently experiencing in 2011. The following table summarizes the fuel pricing in Staff's model compared to the fuel prices the Company currently has under contract. Staff should use the prices in the Current Contracts column of the table below to determine Empire's base fuel cost and the base FAC cost.

Solid Fuel Cost Comparison (HIGHLY CONFIDENTIAL)

Solid Fuel Type	Staff Direct ($/MMBtu)	Current Contracts ($/MMBtu)
Asbury Coal I&F	** **	** **
Iatan Coal I&F	** **	** **
Plum Point Coal I&F	** **	** **
Riverton 7 Coal/Pet Coke I&F	** **	** **
Riverton 8 Coal I&F	** **	** **

Q. WHEN DID THE SOLID FUEL CONTRACTS YOU REFERENCED EARLIER BECOME EFFECTIVE?

A. The solid fuel prices that are utilized in Empire's production cost model are made up of several contracts. All of the initial and freight contracts that comprise the contract costs in the table above were effective January 1, 2011, with the exception of the Asbury and Riverton freight contract which has been effective since July 1, 2010.

Q. WHEN WERE THE SOLID FUEL CONTRACTS SIGNED?

A. A new rail contract for the Iatan fuel was signed on November 18, 2010. Two new Plum Point coal contracts were signed on October 20, 2010 and December 17, 2010. The most recent Asbury Blend coal contract was signed February 21, 2011. The new Riverton petroleum coke contract was signed November 29, 2010. All other contracts used to develop the solid fuel prices were signed prior to November 30, 2010.

Q. DID THE STAFF HAVE THE OPPORTUNITY TO REVIEW THESE SOLID FUEL CONTRACTS DURING THEIR RATE CASE AUDIT?

A. Yes. It is my understanding that all of the solid fuel initial and freight contracts were either made available to the Staff auditors or were sent to the Staff by the first week of March, 2011.

Q. WHAT CONCERNS DO YOU HAVE WITH STAFF'S ELK RIVER WIND FARM

ENERGY PRICE ASSUMPTION?

A. The Staff's model uses an Elk River energy price that was effective from January 2008 through December 2010. This price should be updated to the new price level that is currently in effect and that became effective on January 1, 2011. This price is established by contract. This contract, which contains twenty years of pricing information, was signed on December 10, 2004.

Q. WHAT CONCERNS DO YOU HAVE WITH STAFF'S ASSUMPTIONS REGARDING NATURAL GAS STORAGE COSTS?

A. In its direct filing, the Staff did not include this natural gas storage cost. As outlined in my direct testimony, Empire has signed a contract for natural gas storage that became effective on April 1, 2011. This gas storage agreement was signed on June 17, 2010 for the term April 1, 2011 until April 1, 2016. It is Empire's position that these costs should be included in the base FPP expense and FAC base.

Q. WHAT CONCERNS DO YOU HAVE WITH STAFF'S PLUM POINT PURCHASED POWER COST ASSUMPTIONS?

A. Both the Staff and Empire modeled the 50 MW Plum Point coal purchase and the 50 MW Plum Point coal ownership as one 100 MW coal unit in order to keep the random forced outages aligned. Outside the model, Empire then added the O&M costs associated with the 50 MW purchase to the calculation of on-system FPP expense, which is based on the actual billing practices. It is my understanding that the Staff did include the O&M costs for the Plum Point purchase in Staff's direct filing, but did not include it as an on-system FPP expense. The O&M costs associated with the Plum Point Purchase should be included with the on-system FPP cost component used to establish the base FPP expense and FAC

base.

Q. HAS EMPIRE REQUESTED A TRUE-UP IN THIS CASE RELATED TO THE UPDATES TO THE FPP INPUTS YOU HAVE DISCUSSED?

A. Yes. Empire has requested that a true-up be ordered and conducted in this case, updating information through March 31, 2011. Among the items that Empire requested to be updated are FPP expense to include, but not be limited to, updated contract prices for coal, wind power, fuel transportation, and fuel storage.

Q. PLEASE DESCRIBE THE CHANGES THAT EMPIRE HAS MADE TO THE FPP MODEL RUN SINCE THE MODEL RUN PRESENTED IN EMPIRE'S DIRECT FILING.

A. The on-system FPP model run for Empire's direct filing was developed prior to the September 2010 filing date. The updated model run presented in this rebuttal testimony (April 2011) includes three updates: (1) the solid fuel prices were updated to the contract prices that were described earlier in this testimony, (2) the natural gas price has been updated to more recent information, and (3) since the projected spot natural gas prices have been modified, the spot market purchased power prices have been adjusted.

Q. PLEASE DESCRIBE EMPIRE'S UPDATES TO THE SOLID FUEL PRICE INPUTS.

A. Empire has updated the solid fuel prices in the model based on the most recently effective contracts that were described earlier in this testimony. The following table summarizes the changes.

Solid Fuel Cost Comparison (HIGHLY CONFIDENTIAL)

Solid Fuel Type	Staff Direct ($/MMBtu)	Empire Direct ($/MMBtu)	Current Contracts ($/MMBtu)
Asbury Coal I&F	** **	** **	** **
Iatan Coal I&F	** **	** **	** **
Plum Point Coal I&F	** **	** **	** **
Riverton 7 Coal/Pet Coke I&F	** **	** **	** **
Riverton 8 Coal I&F	** **	** **	** **

Q. PLEASE DESCRIBE THE UPDATES TO THE NATURAL GAS PRICE INPUT.

A. Similar to the direct filing, Empire utilized projected natural gas price information for 2011 in the model. At the time of the direct filing, the natural gas pricing was based on Empire's natural gas hedged position for 2011 and projected spot market gas prices for delivery on Southern Star Central Gas Pipeline for 2011. This data was from Empire's Natural Gas Position report dated July 23, 2010. For the updated run, this data was updated to Empire's Natural Gas Position report dated March 11, 2011. The updated pricing information also contained lower spot market natural gas prices, which resulted in a lower overall weighted average natural gas price. In Empire's direct filing, the weighted average natural gas price used in the model was about $5.70 /MMBtu. In the updated model, this gas price was lowered to about $5.65 /MMBtu. Even though Empire's approach to developing the natural gas price input for the model was different than the approach used by the Staff, the $5.65 /MMBtu price used by Empire in the updated model is roughly equivalent to the natural gas price used by the Staff in their direct filing.

Q. PLEASE DESCRIBE THE UPDATES TO THE SPOT MARKET PURCHASED POWER PRICE INPUTS.

A. Since Empire's update used lower natural gas prices in its modeling, the spot market purchased power price inputs in the model were also lowered accordingly. In Empire's

direct filing, the average spot market purchase price in the model was $41.88 /MWH. In the updated model, this price was lowered to $38.59 /MWH.

Q. PLEASE COMPARE THE RESULTS OF THE ON-SYSTEM FPP MODEL RUNS EMPIRE HAS MADE FOR THIS CASE.

A. In its direct filing, Empire presented a model that estimated an annual normalized total company on-system FPP expense of $163,510,920 or $30.28 /MWH, excluding purchase demand charges and other non-fuel items such as the sale of renewable energy credits and air quality control consumables. With the changes described in this testimony, Empire updated its model to include an estimated value of $161,268,205 or $29.86 /MWH. This average cost is within 0.27% of the $29.78 $/MWH average on-system FPP cost currently built into Empire's FAC base (excluding purchase demand charges and other non-fuel items such as the sale of renewable energy credits and air quality control consumables).

Q. WHAT IS EMPIRE'S POSITION FOR SETTING THE FAC BASE IN THIS CASE?

A. Empire proposes to update the FAC base using the results of Empire's updated on-system model described in this testimony. When combined with the other FAC cost components, the proposed average FAC base cost is $29.95 /MWH. The proposed FAC base worksheet which incorporates the updated model run described in this testimony is attached to this testimony as Schedule TWT-1.

III. COAL PLANT INVESTMENTS AND THE EXPERIMENTAL REGULATORY PLAN

Q. PLEASE PROVIDE A HIGH-LEVEL TIMELINE OF EVENTS RELATED TO EMPIRE'S EXPERIMENTAL REGULATORY PLAN AND EMPIRE'S PARTICIPATION IN THE IATAN UNIT 2 AND PLUM POINT UNIT 1 COAL

PLANTS.

A. In the early to mid 2000s, Empire's generation planning was focused on developing a replacement for the 162 MW coal PPA from the Westar Jeffrey Energy Center (Westar JEC PPA) since this contract was set to expire on May 31, 2010. The Westar JEC PPA base load resource represented a significant source of capacity and energy on Empire's electrical system. Efforts were also being made to reduce Empire's natural gas exposure due to the volatility of natural gas prices. The following high-level timeline should provide some context related to Empire's experimental regulatory plan and participation in the new coal-fired units— Iatan unit 2 and Plum Point unit 1— in the 2010 timeframe.

- Since October 1999, Empire has met with Missouri stakeholders twice each year for integrated resource planning (IRP) meetings.
- In June 2000, the Westar JEC PPA began at the 162 MW level
- In September 2003, Black and Veatch completed a long-term resource planning study (B&V Study) for Empire. This study was provided to the Staff.
- Around November 2003, Empire began to seek wind resources to help reduce natural gas exposure.
- During parts of 2004 and 2005, Empire participated in a Kansas City Power and Light (KCP&L) workshop that led to the KCP&L experimental regulatory plan that was related to KCP&L long-term investments including the construction of Iatan unit 2.
- In December 2004, Empire signed a 20-year contract to receive all of the energy from the 150 MW Elk River Wind Farm which became operational in late 2005.
- In February 2005, Empire began a workshop with interested Missouri stakeholders

in an attempt to develop the Empire experimental regulatory plan.

- In April 2005, Empire made a presentation to the Staff concerning feedback from Standard and Poor's related to various generation plan scenarios.
- In July 2005, in Case No. EO-2005-0263, Empire signed a Stipulation and Agreement with Missouri stakeholders for approval of an experimental regulatory plan related to generation plant.
- In July 2005, Empire issued a request for proposals (RFP) for base load resources in the 2010 timeframe which would correspond with the expiration of the Westar JEC PPA contract.
- In September 2005, Empire presented the base load resource RFP analyses to Missouri stakeholders.
- In December 2005, the 150 MW Elk River Wind Farm began commercial operation.
- In February 2006, Empire had a phone conference with the Staff about the potential of participation in the Plum Point coal project which was making strides to become a viable project. Following the phone call, additional information was shared via written correspondence.
- In late February 2006, Empire announced participation in the Plum Point unit 1 coal project.
- In June 2006, Empire announced participation in the Iatan unit 2 coal project.
- In August 2006, Empire presented a new resource plan to Missouri stakeholders. This plan was a requirement of the experimental regulatory plan. It considered Iatan unit 2 and Plum Point coal-fired generating units as committed resources.

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- In November 2006, as a result of the recently completed resource plan, Empire issued an RFP for additional wind resources.
- In April 2007, the new V84 combustion turbine located at the Riverton Kansas generation station (known as Riverton unit 12) began commercial operation. This resource was a part of the Empire experimental regulatory plan.
- In June 2007, Empire signed a 20-year contract to receive energy from the Meridian Way Wind Farm, which became operational in late 2008.
- In September 2007, Empire filed a new IRP in Missouri to meet the requirements of the Commission's Chapter 22 resource planning rules in Case No. EO-2008-0069. This IRP considered Iatan unit 2 and Plum Point coal-fired generating units as committed resources.
- In February 2008, the Asbury selective catalytic reduction (SCR) environmental equipment was placed in service. This environmental retrofit was a part of the Empire experimental regulatory plan.
- In December 2008, the Meridian Way Wind Farm began commercial operation. Empire has a PPA for 105 MW from this facility.
- In April 2009, the Iatan unit 1 air quality control system (AQCS) was placed in service. This environmental retrofit was a part of the Empire experimental regulatory plan.
- On May 31, 2010 the 162 MW Westar JEC PPA contract expired.
- In September 2010, the Plum Point unit 1 coal-fired plant began commercial operation.
- In September 2010, Empire filed a new IRP in Missouri to meet the requirements of

the Commission's Chapter 22 resource planning rules in Case No. EO-2011-0066. This IRP considered Iatan unit 2 and Plum Point coal-fired generating units as committed resources.

- In December 2010, the Iatan unit 2 coal-fired plant began commercial operation. This resource was a part of the Empire experimental regulatory plan.

Q. WHAT WERE THE CONCLUSIONS AND RECOMMENDATIONS FROM THE SEPTEMBER 2003 B&V STUDY THAT YOU REFERENCED?

A. In preparation for the expiration of the Westar JEC PPA contract, the key findings in the B&V Study were related to the 2010 timeframe. The study concluded that Empire should continue to actively pursue all joint coal unit options and that participation in jointly owned coal plants may offer significant savings, due to the economy of scale, if transmission costs are reasonable. But as a backup to joint unit options, the B&V Study recommended that Empire should plan for smaller, solely-owned coal units. The study further concluded that 92 MW of Empire's older coal-fired capacity would not be able to continue in the long term and that Empire should begin discussions with rating agencies abut the opportunities to invest in coal options. More specifically, page 6-1 of the B&V study concluded, "the generating capacity expansion plan that appears to most likely minimize future revenue requirement for Empire customers while providing returns to shareholders necessary to sustain investment, calls for simple cycle combustion turbine additions followed by the installation of 300 megawatt (MW) of coal fueled capacity in 2010." Since this study was prepared, Empire's load growth has slowed, no base load unit retirements have occurred, and Empire found a larger simple cycle combustion turbine than was envisioned in the B&V report at an economical price. Empire's actual capacity

expansions, as compared to the conclusions in the B&V Study, are outlined in the timeline above. These additions included the Riverton 12 combustion turbine and roughly 202 MW of new coal-fired capacity in the 2010 timeframe (approximately 102 MW Iatan unit 2 and approximately 100 MW from Plum Point unit 1).

Q. DID EMPIRE INVESTIGATE EXTENDING THE PURCHASE AGREEMENT WITH WESTAR?

A. Yes, Empire contacted Westar and tried to negotiate an extension of the Westar JEC PPA. Ultimately, Westar declined to extend the contract and Empire had to pursue other options.

Q. DID EMPIRE CONSIDER ANY SOLELY-OWNED OPTIONS FOR COAL UNITS DURING THIS PERIOD?

A. Yes. Since timing/availability and transmission costs were key risk factors, Empire did consider two additional solely-owned units at its Asbury site as a backup option. Economic analysis performed in conjunction with the above-mentioned base load RFP analysis showed this option to be the most expensive coal option available at the time. Empire's part-ownership and participation in two large-scale generators (Iatan 2 and Plum Point) provided economies of scale that could not be achieved by a smaller, solely-owned option at the Asbury facility.

Q. WHAT CIRCUMSTANCES LED TO EMPIRE'S PARTICIPATION IN THE IATAN UNIT 2 PROJECT?

A. Empire evaluated several coal-fired generation options, including participating in the Sand Sage project in southwest Kansas, jointly building a new coal-fired unit within Empire's service territory, or building additional coal-fired generation at Empire's Asbury plant. Ultimately, these options either did not progress to the construction phase on a timely basis

or did not prove as economical as the options that Empire chose to pursue at the time the Company made its participation decision. The possibility of an additional unit at the Iatan plant had been discussed since Unit 1 went into operation in the early 1980's. The option of a second unit at an existing plant always had appeal to Empire. While these options were being considered, KCP&L, Aquila (now KCP&L Greater Missouri Operating Company), and Empire, the owners of Iatan unit 1, all had base load generation needs arising in the 2010 timeframe. Through a collaborative experimental regulatory process that took place in the states of Kansas and Missouri, KCP&L made the decision to move forward with the construction of Iatan unit 2. While it was, at times, contemplated that Empire may own more than approximately 102 MW of Iatan unit 2, ultimately the design of the unit called for an 850 MW unit and an ownership agreement was negotiated that allowed Empire to own 12% of Iatan unit 2, the same percentage as Empire's ownership share in Iatan 1. Empire proceeded with this option as it was the most economic and viable option with the least risk at the time of the decision. As mentioned earlier, the unit was a part of the Empire experimental regulatory plan.

Q. WHAT CIRCUMSTANCES LED TO EMPIRE'S PARTICIPATION IN THE PLUM POINT UNIT 1 PROJECT?

A. It became apparent that if Empire could participate in the Iatan unit 2 project, it would be at a 12% level (or roughly 102 MW). In order to replace the 162 MW Westar JEC PPA and meet coal capacity levels from the B&V Study, Empire continued to search for additional joint coal options. Empire distributed an RFP for additional base load capacity in July 2005. This RFP was distributed to over 40 organizations. Empire received responses from five organizations and screened a total of ten options. Five of the options were

ownership options and the other five were PPA options. Empire's final screening showed all of the options were similar on a net present value of revenue requirement (NPVRR) basis. Of the list of RFP finalists, only Plum Point proceeded with construction. Thus, it was the only viable alternative of the RFP options. Plum Point was also scheduled for a target online date in the 2010 timeframe, which was consistent with Empire's capacity needs. On February 23, 2006, Empire announced its intentions to own approximately 50 megawatts of Plum Point as well as its plans to control an additional approximately 50 megawatts through a long-term PPA for a total of roughly 100 MW from this facility.

IV. SUMMARY

Q. PLEASE SUMMARAIZE YOUR REBUTTAL TESTIMONY.

A. This testimony is organized into two sections: (1) on-system FPP expense and the FAC base and (2) coal plant investments and the experimental regulatory plan. Section one explains that Empire is requesting a continuation of the FAC tariff. In conjunction with an FAC, it is important to correctly establish the level of on-system FPP expense in the FAC. At this time, Empire is recommending an update to the FAC base based on the model forecast presented in this testimony and as outlined in Schedule TWT-1. Empire has a few concerns regarding the Staff's FPP forecast in this case. All of the concerns Empire has identified to-date indicate the Staff's model has understated the on-system FPP cost and resulted in an understatement of the Staff's proposed FAC base. The concerns Empire has identified with the Staff's proposal are primarily related to the need to update to the current solid fuel prices based upon current contracts, the need to update to the Elk River Wind Farm PPA energy price based on the current contract, and the omission of costs in Staff's on-system FPP costs concerning natural gas storage and Plum Point PPA O&M costs. The second section of the testimony provides a

high-level timeline related to recent coal plant additions and the experimental regulatory plan.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

Schedule TWT-1

Empire Base Fuel and Purchased Power Costs for FAC Calculation

Description	Proposed FAC Base Total Company
Fuel	
Annualized Fuel	97,197,827
Gas Transportation - Fixed	5,922,465
Gas Transportation - Variable	98,624
Gas LUF at Cost of Gas	809,673
Gas Storage Costs	1,135,150
Iatan Unit 1 AQCS (Ammonia, Limestone, PAC) - Variable	350,008
Iatan Unit 2 AQCS (Ammonia, Limestone, PAC) - Variable	612,371
Plum Point AQCS (Ammonia, Limestone, PAC) - Variable	471,166
Asbury AQCS (Ammonia, Limestone, PAC) - Variable	463,244
SLCC AQCS (Ammonia, Limestone, PAC) - Variable	112,582
Total Fuel	107,173,110
Fuel Related Costs	
Total Fuel Related Costs	4,002,880
Purchased Power Energy Charges	
Purchased Power	49,342,632
Plum Point PPA O&M	2,758,954
Total Purchased Power Energy	52,101,587
RECS	
Less: Renewable Energy Credits	1,516,715
TOTAL FUEL AND PURCHASED POWER FOR FAC BASE	161,760,861
Total MWH	5,400,342
Base Cost per MWH	29.95
Informational Only:	
Weighted Average Natural Gas Price $/MMBtu	5.65
On-System F&PP Costs without Purchase Demand $	161,268,205
On-System F&PP $/MWH	29.86

AFFIDAVIT OF TODD W. TARTER

STATE OF MISSOURI)
) ss
COUNTY OF JASPER)

On the 12th day of April, 2011, before me appeared Todd W. Tarter, to me personally known, who, being by me first duly sworn, states that he is Manager of Strategic Planning of The Empire District Electric Company and acknowledges that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.

Todd W. Tarter

Subscribed and sworn to before me this 12th day of April, 2011.

JULIA L BLACKBURN
Notary Public - Notary Seal
State of Missouri
Commissioned for Newton County
My Commission Expires: August 26, 2011
Commission Number: 07216221

Julia L Blackburn
Notary Public

My commission expires: Aug 26, 2011.