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Case No. ER-2016-0023  
Date Testimony Prepared: May 2016

**Before the Public Service Commission  
Of the State of Missouri**

**Surrebuttal Testimony**

of

**Todd W. Tarter**

**May 2016**



Empire Exhibit No. 21  
Date 6-2-16 Reporter KKF  
File No. ER-2016-0023



SURREBUTTAL TESTIMONY OF  
TODD W. TARTER  
ON BEHALF OF  
THE EMPIRE DISTRICT ELECTRIC COMPANY  
BEFORE THE  
MISSOURI PUBLIC SERVICE COMMISSION  
CASE NO. ER-2016-0023

1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

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

4 A. The Empire District Electric Company (“Empire”, “EDE” or “Company”). My title is  
5 Manager of Strategic Planning.

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

10 A. Yes.

11 Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

12 A. In my surrebuttal testimony, I will respond to the rebuttal testimony of Office of the Public  
13 Counsel (“OPC”) witness Ms. Lena Mantle regarding the continuation of Empire’s fuel  
14 adjustment clause (“FAC”).

15 Q. IN HER REBUTTAL TESTIMONY, OPC WITNESS MANTLE DISCUSSES THE  
16 “FAIRNESS” OF AN FAC BEGINNING ON PAGE 2. WHAT DO YOU MEAN  
17 WHEN YOU STATE THAT THE FAC IS FAIR?

18 A. I simply mean that with a properly designed FAC, the customer pays for the true cost of  
19 energy - no more or no less (outside the 5% sharing mechanism). If the cost of energy

1 rises above the amount included in base rates, then the additional amount would be  
2 collected by Empire through the FAC. Likewise, if the cost of energy falls below the  
3 amount included in base rates, the customer would be refunded through the FAC. This  
4 approach is fair and reasonable for both the customer and the utility.

5 **Q. HOW DO YOU RESPOND TO MS. MANTLE'S DISCUSSION OF "FAIRNESS OF**  
6 **THE FAC"?**

7 A. I will not devote time debating the semantics of "fair," nor attempt to determine if the FAC  
8 is "equally fair," as Ms. Mantle mentions on page 2, line 13 of her rebuttal testimony.  
9 Having a properly designed FAC is the "fairest" solution for energy cost recovery in this  
10 case. Ms. Mantle allocates about nine pages of rebuttal testimony to the topic of fairness.  
11 Ironically, she never applies her fairness tests to her own proposal of discontinuing the  
12 FAC, which, of all the proposed methods of handling energy cost recovery in this case, is  
13 the most unreasonable – or unfair.

14 **Q. WHY DO YOU SAY THAT HAVING NO FAC IS THE MOST UNFAIR METHOD**  
15 **OF ENERGY COST RECOVERY IN THIS CASE?**

16 A. The OPC recommendation of discontinuing the FAC would place a static estimate of all  
17 energy costs in base rates. This amount would be unchanged until the next general rate  
18 case. As actual energy costs increase and/or decrease over time, customers would pay  
19 either too little or too much for energy costs. Even if actual energy costs only deviate a  
20 small percentage from the amount in base rates, without an FAC this could still be a  
21 significant dollar amount, given the magnitude of the costs involved. Future energy costs  
22 are uncertain, subject to short-term and long-term volatility, and are largely beyond the  
23 control of the utility and the customer. It is unreasonable to expect that any estimate of

1 base fuel cost recovery without an FAC, would match actual energy costs in the rate year  
2 and beyond, since energy costs vary based on weather, wind, rainfall, fuel prices, market  
3 prices, resource availability, and many other variables.

4 **Q. ON PAGES 3 AND 4 OF HER REBUTTAL TESTIMONY, OPC WITNESS**  
5 **MANTLE CLAIMS SHE HAS DETERMINED WHAT EMPIRE IS WILLING TO**  
6 **PAY FOR THE REDUCTION OF RISK ASSOCIATED WITH HAVING AN FAC.**  
7 **HOW DO YOU RESPOND?**

8 A. Ms. Mantle has not determined what Empire is willing to pay for any risk reduction  
9 associated with the continuation of its FAC. Instead, Ms. Mantle has highlighted the need  
10 for an FAC and the fairness of a properly designed FAC. On page 4, lines 13-15 of her  
11 rebuttal testimony, Ms. Mantle states, “despite having to return \$7.4 million of revenue,  
12 Empire chose to request the continuation of its FAC in this case. This demonstrates  
13 Empire values the reduction in risk provided by an FAC by at least \$7.4 million.” This  
14 dollar amount is not the Company’s position of a quantification of risk, as Ms. Mantle  
15 seems to be imposing. This \$7.4 million level simply represents the results of the last two  
16 FAC accumulation periods (representing only a twelve month period), where Empire’s  
17 energy costs for its Missouri retail customers were about \$7.8 million less than the energy  
18 costs included in base rates set in the last case. For these two accumulation periods,  
19 Empire refunded about \$7.4 million (95% of \$7.8 million) to its customers via the FAC.  
20 This is a good example of the energy cost uncertainty, volatility, and magnitude that I  
21 mentioned earlier. When base rates were established in the last case, no one predicted that  
22 energy costs would have fallen to this level. Absent the FAC, as Ms. Mantle points out,  
23 the Company would have retained this difference, and the customers would have over-paid

1 for energy costs.

2 **Q. MS. MANTLE SEEMS TO BE IMPLYING THAT THE COMPANY SHOULD**  
3 **DISCONTINUE ITS FAC IN ORDER TO INCREASE ITS EARNINGS. HOW DO**  
4 **YOU RESPOND?**

5 A. Empire is not attempting to “game the system.” Empire has requested the continuation of  
6 the FAC in order to have the opportunity to recover prudently incurred energy costs and  
7 maintain the opportunity to earn a fair return, while insuring that customers neither over-  
8 pay or under-pay for these energy costs. Later in her rebuttal testimony on page 11, lines  
9 2-10, Ms. Mantle states, “therefore, Empire should, each time it files a general rate  
10 increase, evaluate whether or not it is in its best interest to request the continuation,  
11 modification or discontinuation of its FAC,” due to what she views as a detriment to an  
12 electric utility of having an FAC when energy costs are decreasing. Empire agrees that it  
13 should evaluate, each time it files a general rate case, whether an FAC is in the best interest  
14 of the Company and its customers. But the fault in Ms. Mantle’s logic is that it assumes  
15 that the Company will know what future energy costs will be and at what level the energy  
16 costs will be set in its base rates by the end of the general rate case process. As mentioned  
17 earlier, Ms. Mantle pointed out that Empire would have retained about \$7.4 million  
18 without an FAC during the last two accumulation periods. Instead, with the FAC in place,  
19 this amount will be returned to ratepayers. Actual energy prices were below the FAC base  
20 factor during this period, primarily due to mild weather, high wind generation, and  
21 historically low natural gas prices. How could this have been predicted with a high-level  
22 of certainty? If circumstances would have been different (e.g., extreme weather, natural  
23 gas price pressure, etc.), energy costs from this period could have just as easily been above

1 the FAC base factor set in the last case.

2 **Q. MS. MANTLE CLAIMS THAT AN FAC SENDS CUSTOMERS THE WRONG**  
3 **PRICE SIGNALS. HOW DO YOU RESPOND?**

4 A. I disagree. It seems that the basis for Ms. Mantle’s statement relies on the time lag between  
5 when actual energy costs occur and when they are billed through the FAC. On page 6 of  
6 her rebuttal testimony, beginning at line 15 she discusses this timing and concludes with,  
7 “by the time that the customers are billed the FAC rate, it is not an accurate measure of  
8 fuel cost at the time that the customers receive their bills.” Empire bills the Missouri FAC  
9 based on its FAC tariff, which specifies accumulation periods and recovery periods. This  
10 Missouri FAC process is the result of stakeholder discussions and Commission approval.  
11 This process does not allow for the FAC rate to be changed dynamically as energy costs  
12 change (not to mention the technology and costs that may be required to accomplish such a  
13 feat). And understandably, this process does not allow for the FAC rate to be changed for  
14 each billing period. There is obviously going to be some passage of time between when  
15 energy costs change and when the customer is billed. The Missouri FAC process also  
16 involves prior period true-ups and time allowed for regulators to review requested FAC  
17 rate changes. Currently, Empire updates its Missouri FAC rate twice per year, on a  
18 retrospective basis. On page 6, line 17, Ms. Mantle states, “in fact, there are times the  
19 FAC sends the wrong price signal.” I would like to point out that Ms. Mantle mentions  
20 that “there are times” that this might be true, but generally, in periods of mostly increasing  
21 or decreasing energy costs, customers would eventually see the correct price signal with an  
22 FAC, since with the FAC, customers ultimately pay the true cost of energy. Although there  
23 is a time lag between when actual energy costs occur and when they are billed through the

1 FAC, this time lag is much less than would be experienced in the absence of an FAC.

2 **Q. ON PAGE 9 OF YOUR DIRECT TESTIMONY, WHAT DID YOU MEAN BY**  
3 **STATING THE FAC CONVEYS A MORE ACCURATE COST OF ELECTRIC**  
4 **ENERGY TO EMPIRE'S CUSTOMERS?**

5 A. I am comparing the price signal sent to customers by having an FAC in place versus the  
6 situation of not having an FAC in place. I state that having the FAC conveys a more  
7 accurate cost of energy, since the FAC rate changes as actual energy costs change, albeit  
8 on a delayed schedule, as discussed previously. By comparison, without an FAC,  
9 customers are insulated from the actual cost of energy, since they are paying one fixed  
10 price for energy without regard to how energy prices are actually changing. For example,  
11 without the FAC in place, if natural gas prices dramatically change up or down, customers  
12 would pay the same energy price and would not see this fuel price signal in their bill at all.

13 **Q. ON PAGE 3, LINES 1-14 OF HER REBUTTAL TESTIMONY, OPC WITNESS**  
14 **MANTLE CLAIMS THAT IF ENERGY COSTS INCREASE, EMPIRE WOULD**  
15 **RECOVER A SIGNIFICANT AMOUNT OF THIS INCREASE BASED ON**  
16 **EMPIRE'S FAC PROPOSAL IN THIS CASE. HOW DO YOU RESPOND?**

17 A. Ms. Mantle states that the FAC as proposed by Empire is a guaranteed recovery of almost  
18 all energy cost increases, while ignoring the reciprocal benefit for customers. She states  
19 that with the 95%/5% sharing mechanism, if actual costs are 10% higher than what was  
20 included in base rates, Empire would recover 99.5% of its energy costs; and even in the  
21 unlikely event that energy costs were more than 150% higher than the energy costs in base  
22 rates, Empire would still recover 98.3% of its energy costs. I have not performed these  
23 calculations, but if Ms. Mantle's math is correct, I think this proves that the Missouri FAC

1 process is working as intended and that the FAC should be continued. Prior to the  
2 implementation of the Missouri FAC, this fuel cost recovery position certainly was not the  
3 case for Empire. The implementation of an FAC has been beneficial for Empire and its  
4 customers and will continue to be important in the future.

5 **Q. IN HER REBUTTAL TESTIMONY, MS. MANTLE REACTS TO YOUR**  
6 **STATEMENT THAT EMPIRE’S NATIVE LOAD WAS SUPPLIED FROM THE**  
7 **SOUTHWEST POWER POOL (“SPP”) MARKET AND NOT FROM EMPIRE**  
8 **RESOURCES. WHAT IS YOUR RESPONSE?**

9 A. I make this statement while describing the SPP integrated marketplace (“SPP IM”) which  
10 has been in place since March 2014. Briefly, with the implementation of the SPP IM,  
11 Empire now sells its generation into the market and purchases all of its customers’ load  
12 requirements from the market.

13 **Q. PLEASE STATE WHY IT IS IMPORTANT TO DESCRIBE THE SPP IM**  
14 **APPROACH FOR THIS CASE?**

15 A. The SPP IM is a fundamental change in the overall structure of Empire’s business. One of  
16 the primary reasons for describing the SPP IM approach for this rate case is to describe  
17 how the modeling was accomplished to determine the FAC base factor. This is the first  
18 rate case that Empire has attempted to model the SPP IM with a computer simulation  
19 model in order to calculate an FAC base factor level. On page 12 of her rebuttal  
20 testimony, Ms. Mantle seems to have some issue with my use of the term “supplies” when  
21 I describe that Empire’s native load is supplied from the SPP IM. Technically, I think this  
22 is accurate, but perhaps stating that Empire “purchases” its native load requirement from  
23 the SPP IM would have also described the process. Stating that Empire’s native load is



1 supplied from the SPP IM does not mean that SPP generates and provides electricity to  
2 Empire, nor does it mean that energy flows from Empire generators to an SPP site and then  
3 back to Empire customers, as Ms. Mantle ventures in her rebuttal testimony on page 12—  
4 even though I did not testify to this effect.

5 **Q. ON PAGE 12, LINE 18 OF OPC WITNESS MANTLE'S REBUTTAL TESTIMONY**  
6 **SHE DISCUSSES HOW ENERGY FLOWS BASED ON THE LAWS OF PHYSICS.**  
7 **HOW DO YOU RESPOND?**

8 A. As mentioned, my main purpose for describing the SPP IM was to explain the modeling  
9 approach used to calculate the FAC base factor for this rate case. I was not discussing how  
10 the electrons flow. How the electrons flow is irrelevant to my discussion of the computer  
11 modeling and the calculation of the FAC base factor.

12 **Q. DO YOU AGREE WITH THE MANNER THAT OPC WITNESS MANTLE HAS**  
13 **CHARACTERIZED THE SPP IM IN HER REBUTTAL TESTIMONY?**

14 A. No, I do not. There are multiple references to the SPP IM in her rebuttal testimony that do  
15 not appear to be accurate. For example, on page 12, beginning at line 9 of Ms. Mantle's  
16 rebuttal testimony, she makes the following statement about Empire's participation in the  
17 SPP IM:

18 *Empire's native load requirement is supplied by its own generation resources and*  
19 *long-term purchased power contracts supplemented by spot purchases of energy*  
20 *from other members of SPP when the SPP IM market price is below Empire's cost*  
21 *to provide the electricity needed for its customers.*

22 While Empire is still required to meet its reserve margin requirement, retain a diverse mix  
23 of generation resources to help lower its overall net fuel and purchased power expense, and

1 be able to offer in enough generation to cover anticipated load on a daily basis, in March  
2 2014, Empire largely turned over the function of committing and dispatching its generation  
3 resources to SPP and now offers its generation resources into SPP. SPP, in turn, determines  
4 the most economic and reliable commitment and dispatch solution for all generating units  
5 within the SPP footprint to serve the overall load of the SPP market. As a result, Empire  
6 offers all of its generation resources into the SPP market, if SPP determines that the resource  
7 will operate, the energy is sold into the SPP market where it will receive payment for the  
8 energy and Empire buys its entire retail load from that same market. Ms. Mantle's  
9 description of the SPP IM is quite different from the SPP IM described above. If I  
10 understand her testimony correctly, it appears that Ms. Mantle is describing a pre-SPP IM  
11 world, only with SPP making the resource decisions instead of Empire. This is not an  
12 accurate description of the SPP IM. If this is not what Ms. Mantle intended to convey,  
13 then I think her description of the SPP IM is very misleading.

14 **Q. CAN YOU PROVIDE ANOTHER EXAMPLE OF HOW MS. MANTLE HAS**  
15 **MISCHARACTERIZED THE SPP IM?**

16 **A.** Yes. On page 13, beginning at line 10 of Ms. Mantle's rebuttal testimony, she makes the  
17 following statement about Empire's participation in the SPP IM:

18 *Very simplistically, if SPP would dispatch Empire's generation resources at*  
19 *exactly the amount of electricity required by Empire's customers, the revenue*  
20 *provided for Empire's generation in the SPP IM would be exactly the same as the*  
21 *cost SPP charged for Empire's native load. The revenue and costs would net to*  
22 *zero.*

23 I do not believe this statement would be accurate except under the most unusual of

1 circumstances. A significant function of the SPP IM is the centralized unit commitment and  
2 dispatch of the generation assets registered in the SPP IM to serve market participant load.  
3 The power bought and sold in the SPP IM is not merely a financial transaction or an exchange  
4 for imbalance between a utilities online generation and on-system load but rather a physical  
5 sale to the Integrated Marketplace<sup>1</sup>. The energy produced from the committed generating  
6 resources is compensated based on locational marginal pricing (“LMP”) which include the  
7 marginal costs of energy, losses and congestion. However, the LMP paid to a generator for  
8 injection is separate from the LMP paid by the load for withdrawal, and this distinction is very  
9 important and integral to comprehending how the SPP IM functions. Utilities are not able to  
10 serve their own load by simply injecting generation into the market at a generator node and  
11 withdrawing that same price for power at a different load node. If that were the case then the  
12 utility would simply pay a net level of charges for the excess balance of power that is either  
13 injected or withdrawn for a certain interval. Even if a generation resource is self-committed,  
14 (e.g., providing power regardless of its economic position), the generation is still sold into the  
15 SPP IM. Because of differences in LMP caused by transmission outages, flowgate  
16 constraints, line losses and other factors, the cost of energy needed to serve native load will  
17 almost certainly be different from the level(s) of compensation received at the generator for  
18 energy produced.

19 **Q. IN MULTIPLE PLACES IN MS. MANTLE’S REBUTTAL TESTIMONY SHE**  
20 **MENTIONS “SPOT PURCHASED POWER.” WHAT IS YOUR RESPONSE?**

21 **A.** Again, this seems to be a pre-SPP IM concept, although this term can be used in varying  
22 contexts. As mentioned earlier, the SPP IM began on March 1, 2014. Prior to the advent

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<sup>1</sup> The SPP IM Protocols make it incontrovertible that the energy settlements for both the day-ahead (“DA”) and real-time (“RT”) markets are for physical energy bought and sold, net of Bilateral Settlement Schedules. Source: Integrated Market Protocols 33 – Pages 222, 342

1 of the SPP IM, Empire participated in the Energy Imbalance Service (“EIS”) market to  
2 identify energy purchase and sale opportunities that would lower energy costs. Prior to the  
3 start of the SPP IM, an Empire energy trader would contact potential counterparties,  
4 compare opportunities, and develop alternatives. When determining spot market purchase  
5 or sale opportunities, Empire energy traders accounted for generation and transmission  
6 constraints. Since Empire is a member of the SPP and is a network transmission service  
7 customer of SPP, this enabled opportunities for network purchases and sales in the pre-SPP  
8 IM world. However, the start of the SPP IM ended the EIS market. Bilateral deals may  
9 still be made with counterparties, and imports and exports with counterparties outside of  
10 SPP may still take place; but the SPP IM has fundamentally changed, if not nearly  
11 eliminated, the amount of traditional non-contract purchases that Empire formerly referred  
12 to as “spot energy purchases.” With the SPP IM in place, native load energy is purchased  
13 from the SPP market. Empire energy traders now bid in hourly demand and generation  
14 offers to SPP on a day-ahead basis, analyze opportunities for the most efficient  
15 procurement of energy for load, monitor the real time balancing market, hedge  
16 transmission congestion on a market based approach (via the Transmission Congestion  
17 Rights or TCR market), and make operating reserve offers to the market.

18 **Q. DO YOU HAVE A RESPONSE TO MS. MANTLE’S REBUTTAL TESTIMONY**  
19 **DESCRIPTION OF THE OFF SYSTEM SALES REVENUES?**

20 A. Yes. On page 15 beginning at line 12, she mentions Empire’s normalized off-system sales  
21 revenue of about \$152 million and Staff’s estimate of about \$150 million, from the  
22 respective direct filings. She correctly states that this is the revenue each party estimated  
23 Empire would receive from SPP for the dispatch of its resources. For purposes of

1 explaining the SPP IM, I just wanted to clarify that for Empire's calculation of the FAC  
2 base factor, the approximate \$152 million that was referenced represents revenues received  
3 for Empire generation sold into the market and is not the cost of energy to meet Empire's  
4 native load (how the electrons flow notwithstanding). The separate cost to serve Empire's  
5 native load was labeled by Empire on Schedule TWT-10 as "Native Load Cost." This  
6 represents the cost of energy purchased from the SPP market to serve Empire's native load  
7 (not the cost of energy from Empire resources), and this value from the direct filing was  
8 about \$147 million. The third key piece to the net fuel and purchased power cost  
9 calculation would be the fuel and purchased power costs (and other energy related costs  
10 eligible for the FAC) of Empire resources that were sold into the SPP market.

11 **Q. WHAT IS EMPIRE'S POSITION ON FUEL RECOVERY IN THIS CASE?**

12 A. As set forth in Empire's direct testimony, Empire supports the continuation of the FAC in  
13 this case. Completely eliminating the FAC would deny Empire the means to recover  
14 prudently incurred energy costs and would deny Empire the opportunity to earn a fair  
15 return. Elimination of the FAC would also remove the assurance that customers neither  
16 over-pay nor under-pay for these costs. It would also send a negative message to investors  
17 and credit rating agencies which, in turn, could harm Empire and its customers. The OPC  
18 proposal sponsored by Ms. Mantle to discontinue the Empire FAC is not in the public  
19 interest and should therefore be rejected.

20 **Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

21 A. Yes.

