Exhibit No.: Issue(s): Witness: Sponsoring Party: MoPSC Staff Date Testimony Prepared:

Fuel Adjustment Clause Brooke Mastrogiannis *Type of Exhibit:* Surrebuttal Testimony *Case No.: ER-2021-0312* January 20, 2022

MISSOURI PUBLIC SERVICE COMMISSION

INDUSTRY ANALYSIS DIVISION

ENERGY RESOURCES DEPARTMENT

SURREBUTTAL TESTIMONY

OF

BROOKE MASTROGIANNIS

THE EMPIRE DISTRICT ELECTRIC COMPANY, d/b/a Liberty

CASE NO. ER-2021-0312

Jefferson City, Missouri January 2022

** Denotes Confidential Information **

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| 1 | SURREBUTTAL TESTIMONY | | | |
|--------|--|--|--|--|
| 2 | OF | | | |
| 3 | BROOKE MASTROGIANNIS | | | |
| 4 5 | THE EMPIRE DISTRICT ELECTRIC COMPANY, d/b/a Liberty | | | |
| 6 | CASE NO. ER-2021-0312 | | | |
| 7 | Q. Please state your name, employment position, and business address. | | | |
| 8 | A. My name is Brooke Mastrogiannis. I am a Utility Regulatory Supervisor with | | | |
| 9 | the Missouri Public Service Commission ("Commission"), 200 Madison Street, Jefferson City, | | | |
| 10 | Missouri 65101. | | | |
| 11 | Q. Are you the same Brooke Mastrogiannis who has previously provided testimony | | | |
| 12 | in this case? | | | |
| 13 | A. Yes. I contributed to the <i>Staff Report – Cost of Service (Public and Confidential)</i> , | | | |
| 14 | with Appendices ("COS Report") filed on October 29, 2021, and the Staff Report - Class Cost | | | |
| 15 | of Service (Public and Confidential), ("CCOS Report") filed on November 17, 2021, in | | | |
| 16 | this case. I also filed Rebuttal Testimony (Public and Confidential), on December 20, 2021, in | | | |
| 17 | this case. | | | |
| 18 | EXECUTIVE SUMMARY | | | |
| 19 | Q. What is the purpose of your surrebuttal testimony? | | | |
| 20 | A. The purpose of my surrebuttal testimony is to respond to Empire witness | | | |
| 21 | Aaron Doll's Fuel Adjustment Clause ("FAC") rebuttal testimony regarding including 100% | | | |
| 22 | of Southwest Power Pool ("SPP") and Mid-Continent Independent System Operator ("MISO") | | | |
| 23 | transmission costs and revenues in the FAC. | | | |
| | | | | |

| 1 | I will also respond to the Office of the Public Counsel ("OPC") witness Lena Mantle's | | | |
|----|---|--|--|--|
| 2 | rebuttal testimony regarding: | | | |
| 3 | 1) including the benefits of Paygo and production tax credits ("PTCs") | | | |
| 4 | in Empire's rate case revenue requirement with tracking mechanisms to | | | |
| 5 | 5 reconcile to actuals in Empire's next rate case instead of as a benefit in | | | |
| 6 | the FAC; | | | |
| 7 | 2) including the benefits of SPP energy market revenues Renewable | | | |
| 8 | Energy Credits ("RECs") in the FAC; | | | |
| 9 | 3) including OPC to receive notices and be provided with a copy of | | | |
| 10 | additional reporting information along with deadlines for Empire's | | | |
| 11 | quarterly FAC surveillance reports; and | | | |
| 12 | 4) Ms. Mantle's alternative proposal to modify Empire's FAC so that | | | |
| 13 | 100% of the Market Protection Plan Mechanism ("MPPM") costs and | | | |
| 14 | revenues flow through the FAC, while the 5% incentive still applies to | | | |
| 15 | the rest of the FAC costs and revenues. | | | |
| 16 | Lastly, I will update schedule BMM-d1 I provided in my Direct Testimony, and this | | | |
| 17 | updated schedule will now be BMM-s1. | | | |
| 18 | FAC TRANSMISSION EXPENSES AND REVENUES | | | |
| 10 | O Company witness Doll suggests again in his reputted testimony on page 12 that | | | |

Q. Company witness Doll suggests again in his rebuttal testimony on page 12 that
Empire believes that 100% of its transmission costs should be eligible for recovery. Does Staff
continue to oppose the Company's proposal to include 100% of both SPP and MISO
transmission expenses and revenues in the FAC?

| 1 | A. Yes. As stated in my rebuttal testimony, ¹ in regards to the Company's proposal | | | |
|---|--|--|--|--|
| 2 | to include 100% of SPP transmission costs and revenues in the FAC, in its Report and Order | | | |
| 3 | issued in Case No. ER-2014-0370, the Commission stated, | | | |
| 4 5 7 8 9 10 11 12 13 14 15 | The evidence shows in this case that on a daily basis, KCPL sells all of the power it generates into the SPP market and purchases from SPP 100% of the electricity it sells to its retail customers. However, based on the Commission's analysis in the two cases cited above, it would not be lawful for KCPL to recover all of its SPP transmission fees through the FAC. In addition, while KCPL's transmission costs are increasing, those costs are known, measurable, and not unpredictable, so the costs are not volatile. The Commission concludes that the appropriate transmission costs to be included in the FAC are 1) costs to transmit electric power it did not generate to its own load (true purchased power); and 2) costs to transmit excess electric power it is selling to third parties to locations outside of SPP (off-system sales). ² | | | |
| 16 | In addition to that case, the Commission concluded similarly on this issue in its findings | | | |
| 17 | in Case Nos. ER-2014-0258, ³ ER-2014-0351, ⁴ and ER-2019-0374. ⁵ Therefore, Staff's position | | | |
| 18 | is to continue including in the FAC only transmission costs consistent with what the | | | |
| 19 | Commission has previously approved in all of the above mentioned Report and Orders. | | | |
| 20 | FAC COMPONENTS RELATED TO WIND MARKET REVENUES | | | |
| 21 | Q. What is the Company's and Staff's proposal for certain FAC components related | | | |
| 22 | to wind market revenues? | | | |
| 23 | A. Company witness Doll states on page 16 of his direct testimony that Empire | | | |
| 24 | proposes to include the following additional sources of revenue and expense received in the | | | |
| 25 | "market revenue calculation": Paygo, tax equity distributions, PTCs, and RECs. Also, | | | |

¹ Brooke Mastrogiannis' Rebuttal Testimony in ER-2021-0312, pages 2-6.
² Report and Order, ER-2014-0370, page. 35 (Sept. 2, 2015).
³ Report and Order, filed on April 29, 2015, page 115.
⁴ Report and Order, filed on June 24, 2015, page 29.
⁵ Amended Report and Order, filed on July 23, 2020, page 72.

1 Company witness Todd Mooney states in his rebuttal testimony that the Company proposes that 2 the "market revenue," which includes Paygo, be treated exactly as Empire treats the revenue 3 from the rest of its generation assets; that is, to include it in the Company's FAC. Paygo is 4 directly related to generation levels and is variable in nature. Therefore, it can be included in 5 the Company's FAC where customers can receive this additional revenue in between general 6 rate cases.⁶ Also, Staff included in Staff's Direct COS Report, in Appendix 3, Schedule 7 BMM-d1, the included subaccounts for Paygo, tax equity distributions, PTCs, and RECs in the 8 FAC, which is aligned with what the Company proposed in Direct. Staff determined that it is 9 appropriate to include these since all of these revenue components are tied to Empire's new 10 wind generation.

Furthermore, Mr. Mooney and Mr. Doll both state in their rebuttal testimony that the
Company is open to discussing the possibility of a tracker mechanism for the wind-related costs
and revenues, including Paygo.⁷

Q. Does OPC witness Mantle provide alternatives for some of these components? 14 15 Yes. Although Ms. Mantle states in her direct testimony, on page 25, lines 20-21, A. 16 that SPP market revenues and REC revenues should be included in Empire's FAC with tracking 17 mechanisms to reconcile to actuals in Empire's next rate case, she also states in her direct 18 testimony, on page 25, lines 17 -19, that estimated benefits of Paygo and PTCs should be 19 included in Empire's rate case revenue requirement with tracking mechanisms to reconcile to 20 actuals in Empire's next rate case.

⁶ Empire witness Todd Mooney's Rebuttal Testimony, page 5.

⁷ Empire witness Todd Mooney's Rebuttal Testimony page 5 and Empire witness Aaron Doll's Rebuttal Testimony page 10.

Q.

Then, in rebuttal testimony, Ms. Mantle expanded on her direct testimony by stating that the best way to ensure timely pass through of these benefits is to include a normalized amount of revenue for them in Empire's revenue requirement and then track the difference. If the normalized amount is accurate, then there should be little variation and any additional benefits can be provided to customers in Empire's next general rate case.⁸

6

What is Staff's opinion of Ms. Mantle's expanded proposal?

7 Staff's opinion is that the Paygo, tax equity distributions, PTCs, and RECs A. 8 should be included in the FAC because they are related to the new wind generation and 9 the revenues will be refunded to customers more quickly. However, Staff agrees that 10 OPC's proposal is another option for customers to receive those benefits in Empire's next 11 general rate case. If the Commission accepts OPC's position, Staff recommends the net wind revenue definition in the Company's FAC tariff sheets detail the inclusion or exclusion of the 12 13 above-mentioned components, along with an update to the list of subaccounts to be included and excluded in the FAC. Additionally, the FAC base factor would need to be updated 14 15 accordingly.

Q. What is Ms. Mantle's proposal for SPP energy market revenues and
REC revenues?

A. Ms. Mantle proposes that revenues from the SPP energy market should be
treated exactly as Empire treats its SPP market revenue from the rest of its generation. Also,
revenue from the sale of RECs should be included in the FAC, just as the revenue from the sale
of RECs from Empire's two wind PPAs are included in its FAC.⁹ Ms. Mantle also states that

⁸ OPC witness Lena Mantle's Rebuttal Testimony, page 58.

⁹ OPC witness Lena Mantle's Rebuttal Testimony, page 56.

Q.

the price per REC for the three wind farms Empire is *** ***, she instead
 implies that this seems extremely low and it should be in the range of \$1 to \$8 per REC.¹⁰

3

Does Staff agree with Ms. Mantle's SPP energy market and REC revenues?

A. Yes, Staff already included both sources of revenue in the base factor
calculation provided on November 17, 2021. Furthermore, Empire has recently provided
Staff an average price per REC in Data Request Response No. 0390, which is approximately
** *** *** ***. As such, Staff recommends Empire update its REC revenue calculation
for the three wind farms accordingly. Then, Staff recommends the FAC base factor be updated
accordingly.

10

11

Q. What is Ms. Mantle's position on the interplay between the MPPM and the FAC costs and revenues?

12 A. As stated in Ms. Mantle's rebuttal testimony, because of the way the FAC 95/5% 13 incentive mechanism is set up, Empire would be required to track the differences in the total MPPM costs and revenues and what flows through the FAC. Ms. Mantle then states regulatory 14 15 assets and liabilities for each of the costs and revenues would have to be applied in the next rate 16 case to assure both customers and shareholders that all revenues are received by the customers 17 and all costs are paid by the customers. With that being said, her alternative proposal is to 18 modify Empire's FAC so that 100% of the MPPM costs and revenues flow through the FAC, while the 5% incentive still applies to the rest of the FAC costs and revenues.¹¹ 19

20

Q.

Does Staff support OPC's alternative proposal?

¹⁰ OPC witness Lena Mantle's Rebuttal Testimony, page 59.

¹¹ OPC witness Lena Mantle's Rebuttal Testimony, page 47.

No. Staff is unclear what implications Ms. Mantle's alternative proposal 1 A. 2 would have on Empire's FAC and Fuel Adjustment Rate ("FAR") calculation. It is Staff's 3 understanding that Ms. Mantle's alternative proposal would allow for 100% of the MPPM costs and revenues to flow through the FAC, while the "5% incentive," as mentioned above, still 4 5 applies to the rest of the FAC costs and revenues. However, line 1 of tariff sheet 17q, is 100% 6 of Total Energy Cost ("TEC"), which under Ms. Mantle's alternative proposal would include 7 100% of the MPPM costs and revenues, but the 95% adjustment is applied on line 7 to the TEC, 8 after subtracting out the net base energy costs and applying the Missouri jurisdictional factor, 9 therefore inherently adjusting the MPPM costs and revenues 95%. It seems that Ms. Mantle's 10 alternative proposal would require additional line items in tariff sheet 17q, complicating that 11 tariff sheet and the FAR calculations even further.

12

Q.

Q.

Is Staff updating its Schedule BMM-d1 from Direct Testimony?

A. Yes. Attached as Schedule BMM-s1 is an updated Schedule of the subaccounts
to be included and excluded in the FAC. Specifically, Staff is now excluding the wind hedges
subaccount from the FAC.

16

Why is Staff making this change to this Schedule?

A. Since the filing of my direct testimony, Staff has learned after reading the
rebuttal testimony of Ms. Mantle that the hedge payments are a condition of Empire's contract
with the tax equity partners to assure a certain revenue for each MWh. As a condition of its
contract with its tax equity partners, Empire will be making a payment for every MWh of
generation to assure a certain revenue for each MWh. Therefore, these payments are a price
hedge for the tax equity partners and provide no benefit to its customers.¹²

¹² OPC witness Lena Mantle's Rebuttal Testimony, page 50.

The FAC tariff sheets currently describe hedging as, "Hedging costs are defined as 1 2 realized losses and costs (including broker commission fees and margins) minus realized gains 3 associated with mitigating volatility in the Company's cost of fuel, fuel additives, fuel 4 transportation, emission allowances and purchased power costs, including but not limited to, 5 the Company's use of derivatives whether over-the-counter or exchanged trading including, without limitation, futures or forward contracts, puts, calls, caps, floors, collars and swaps." 6 7 Staff's understanding is that these new wind hedges would not be mitigating volatility in the 8 Company's cost of fuel, fuel additives, fuel transportation, emission allowances, and purchased 9 power costs. As a renewable generation resource, the wind projects should not cause costs to 10 be incurred for fuel, fuel additives, fuel transportation, emission allowances, or purchased 11 power costs. Therefore, the hedge agreements associated with the projects do not mitigate 12 volatility of the cost categories included in the tariffed hedging definition. Furthermore, in 13 contrast to the other types of fuel hedging activities, the wind project hedges will not result in realized gains from mitigating the ascribed volatility. Instead, it is only mitigating volatility 14 15 for their tax equity partner. Based on this new understanding of the wind hedges, it is 16 Staff's opinion that these type of hedges are not includable in the FAC as it is stated in the 17 FAC tariff sheets.

18

OPC OTHER FAC CHANGES

Q. What does OPC witness Mantle recommend for the FAC reporting requirements
in her rebuttal testimony?

21

22

A. Ms. Mantle recommends on page 62 of her rebuttal testimony that the OPC and other parties to this case should also receive the notices and be provided with a copy of this

| 1 | additional reported information. She also recommends that the Commission set a deadline for | | | |
|----|--|---|----------------------|--|
| 2 | the quarterly FAC surveillance reports. The deadlines she recommends ¹³ are as follows: | | | |
| 3 | | Quarter Ending: | Submission deadline: | |
| 4 | | March 31 | End of May | |
| 5 | | June 30 | End of August | |
| 6 | | September 30 | End of November | |
| 7 | | December 31 | End of February | |
| 8 | Q. | Does Staff agree with Ms. Mantle's proposals? | | |
| 9 | А. | Yes. | | |
| 10 | Q. | Q. Does this conclude your surrebuttal testimony? | | |
| 11 | A. Yes, it does. | | | |
| | | | | |

¹³ OPC witness Lena Mantle's Rebuttal Testimony, page 62.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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In the Matter of the Request of The Empire District Electric Company d/b/a Liberty for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in its Missouri Service Area

Case No. ER-2021-0312

AFFIDAVIT OF BROOKE MASTROGIANNIS

| STATE OF MISSOURI |) | |
|-------------------|---|-----|
| |) | SS. |
| COUNTY OF COLE |) | |

COMES NOW BROOKE MASTROGIANNIS, and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Surrebuttal Testimony of Brooke Mastrogiannis;* and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Mastrainann

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this $\underline{\neg h}$ day of January, 2022.

DIANNA L. VAUGHT Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: July 18, 2023 Commission Number: 15207377

Dianne L. Vaux

List of Sub-Accounts Included and Excluded for FAC

GL

506

506127

506128

506129

506201

506202

506203

506204

548

548202

447

447113

447124

447133

447143

447810

447820

447830

447840

447850

447860

447851

447861

447

447430

447540

447610

447620

447861

447630

447640

457

457137

457138

457141

457142

457160 457

457131

457139

457140

| GL | Descriptions | | |
|------------------|--|--|--|
| 501 | Included: | | |
| 501042 | Fuel -Coal | | |
| 501045 | Fuel -Oil | | |
| 501054 | Fuel -Natural Gas | | |
| 501183 | Sales Of Ash | | |
| 501211 | Ineffect (Gain)Loss Deri Steam | | |
| 501212 | Effective (Gn)Lss Deriv Steam | | |
| 501216 | NonFAS133Deriv(Gain)/LossSteam | | |
| 501300 | | | |
| 501401 | Ops Mtls-Fuel Handling | | |
| 501607 | Fuel Adm E Trader Commission | | |
| 501 | Excluded: | | |
| 501011 | Conv & Seminar-Fuel | | |
| 501400 | Ops Labor-Fuel Handling | | |
| 501601 | Fuel Administration -Asbury | | |
| 501604 | Fuel Administration -Riverton | | |
| 501605 | Fuel Administration Plum Point | | |
| 547 | Included: | | |
| 547205 | Natural Gas SLCC Tolling | | |
| 547206 | Nat Gas-Tollng SLCC Ineffectiv | | |
| 547207 | Nat Gas-Tolling SLCC Effective | | |
| 547208 | Comb Turb Fuel Sales -Nat Gas | | |
| 547210 | Combust Turb Fuel Natural Gas | | |
| 547211 547212 | Ineffect (Gain)Loss Deriv Gas | | |
| 547212 547213 | Effective (Gain)Loss Deriv Gas Fuel -No 2 Oil Fuel | | |
| 547213 | NonFAS133 Deriv (Gain)/Loss | | |
| 547301 547302 | Wind Hedge (Gain)/Loss [*] DELETE | | |
| 547607 | Fuel Adm E Traders Commission | | |
| 047007 | | | |
| 547 | Excluded: | | |
| 547605 | Fuel Adm State Line | | |
| 547606 | Fuel Adm Energy Center Natural Gas Fixed Transportation and Fixed Storage | | |
| 547210 | | | |
| 409 | Included: | | |
| 409115 | Prov-Red Inc-PTC[*] | | |
| 411 | Included: | | |
| 411800 | Gains-Disposition Emmiss Allow | | |
| 509 | Included | | |
| 509052 | Included: Emission Allowance Exp | | |
| | | | |

Footnotes: [*] indicates new proposed account. [#] indicates account previously excluded from FAC. [@] indicates account Empire proposed to include and Staff proposes to keep excluded

| | Descriptions | GL | Descriptions | |
|--------------------|--|----------------------|---|-----------------|
| | Included: | 555 | Included: | |
| | Limestone Expense -latan | 555430 | Direct Purchases | |
| | Powdered Activated Carbon | 555431 | Purchase Power Tolling Fees | |
| | Ammonia Expense | 555432 | Energy Imbalance | |
| | Limestone Expense | 555437 | Interrupt Svc Compensation | |
| | Ammonia Expense | 555800 | DA Asset Energy | |
| | Powdered Activated Carbon | 555810 | DA Non-Asset Energy | |
| | Lime Expense | 555820 | DA Virtual Energy | |
| | | 555840 | DA Reg-Up | |
| | Included: | 555850 | DA Reg-Down | |
| | Ammonia Expense | 555860 555870 | DA Spinning DA Supplemental | |
| | Included: | 555880 | DA Supplemental DA Other PP Expense | |
| | Gen Ark Off-Sys Sale-Resale | 555900 | RT Asset Energy | |
| | Gen Ks Off-System Sale-Resale | 555910 | RT Non-Asset Energy | |
| | Gen Mo Off-Sys Sale-Resale | 555920 | RT Virtual Energy | |
| | Gen Ok Off-Sys Sales-Resale | 555940 | RT Reg-Up | |
| | SPP IM Revenue -AR | 555950 | RT Reg-Down | |
| | SPP IM Revenue -KS | 555960 | RT Spinning | |
| | SPP IM Revenue -MO | 555970 | RT Supplemental | |
| | SPP IM Revenue -OK | 555980 | RT Other PP Expense | |
| | SPP IM Revenue | 555999 | Purchased Power - Net Metering [*] | |
| | Bilateral/Off Line Aux Revenue | | | |
| | MJMEUC Revenue [#] | 555 | Included: | |
| | MJMEUC FAC Revenue Excluding Long-Term | 555990 555995 | TCR Activity ARR Activity | |
| | Excluded: | | | |
| | Aec -Off-Sys-Missouri | | Excluded: | |
| | Oklahoma G R D A Off-System | 555501 | Wind Hedge - (Gain)/Loss [*] | Replaces 547302 |
| | Energy Imbalance -Arkansas | 555502 | Wind Hedge Stub Period- (Gain)/Loss [*] | |
| | Energy Imbalance -Kansas | | | |
| | MJMEUC FAC Revenue Long-Term Capacity Only [#] | 565 | Included: | |
| | Energy Imbalance -Missouri | 565413 | Trans Of Electricity By Others | |
| | Energy Imbalance -Oklahoma | 565414 565416 | SPP Fixed Chg -Native Load Exclude S1-A Non SPP Fixed Chg -Native Load | |
| | Excluded: | 565417 | PP Non SPP Var -Native Load | |
| | | | | |
| | Ot EI RvOffSys LTFSTF PTP Trns [@] | 565418 | Gen Non SPP Var -Native Load | |
| | Ot El RvOffSys NnFrm PTP Trns [@] | 565419 | Off Sys Sales Trans Costs | |
| | Sch 11 NITS [@] | | | |
| | Sch 11 PTP [@] | 565 565414 | Excluded: | |
| | Sch 1 PTP [@] | 565414 565415 | SPP Schedule 1-A only [@] | |
| | Excluded: | 505415 | SPP Var Chg Schedule 12 [@] | |
| | Oth El Rev-Sched Sys Ctrl&Disp | 575 | Excluded: | |
| | Ot El RvOffSys NITS Rev | 575700 | IM Market Facilitation, Monitor [*] [@] | |
| | Oth El Rev-Off-Sys Losses | 0.0.00 | | |
| | - | 456 | Included: | |
| | | 456071 | Misc Elec Rev-Green Credits-AR | |
| | | 456072 | Misc Elec Rev-Green Credits-KS | |
| | | 456073 456074 | Misc Elec Rev-Green Credits-MO Misc Elec Rev-Green Credits-OK | |
| | | 456074 | REC Revenue | |
| | | 456210 | REC Revenue - Wind [*] | |
| | | 456230 | PTC Revenue - Wind [*] | |
| s to keep excluded | | 456250 | Misc Revenue - Wind [*] | |
| | | 456260 | Wind – PAYGO – FAC [*] Wind – Partner Contribution/Distributions – FAC [*] | |
| | | 456270 | Wind – Partner Contribution/Distributions – FAC [*] | Cabadad |
| | | | | Schedule |

Schedule BMM-s1 Case No. ER-2021-0312 Page 1 of 1