

## Exhibit No. 213

*Exhibit No.:*  
*Issue(s):* Revenue Requirement,  
Meramec Tracker,  
R&D Bitcoin Project,  
High Prairie Wind  
Curtailment  
*Witness:* Lisa M. Ferguson  
*Sponsoring Party:* MoPSC Staff  
*Type of Exhibit:* Rebuttal Testimony  
*Case No.:* ER-2021-0240  
*Date Testimony Prepared:* October 15, 2021

**MISSOURI PUBLIC SERVICE COMMISSION**

**FINANCIAL AND BUSINESS ANALYSIS DIVISION**

**AUDITING DEPARTMENT**

**REBUTTAL TESTIMONY**

**OF**

**LISA M. FERGUSON**

**UNION ELECTRIC COMPANY  
d/b/a AMEREN MISSOURI**

**CASE NO. ER-2021-0240**

*Jefferson City, Missouri  
October 2021*

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REBUTTAL TESTIMONY**

**OF**

**LISA M. FERGUSON**

**UNION ELECTRIC COMPANY  
d/b/a AMEREN MISSOURI**

**CASE NO. ER-2021-0240**

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**REBUTTAL TESTIMONY**

**OF**

**LISA M. FERGUSON**

**UNION ELECTRIC COMPANY,  
d/b/a AMEREN MISSOURI**

**CASE NO. ER-2021-0240**

Q. Please state your name and business address.

A. Lisa M. Ferguson, 111 N. 7<sup>th</sup> Street, Suite 105, St. Louis, MO 63101.

Q. By whom are you employed?

A. I am employed by the Missouri Public Service Commission ("Commission") as a member of the Auditing Staff ("Staff").

Q. Are you the same Lisa M. Ferguson who contributed to Staff's *Revenue Requirement Cost of Service Report* filed September 3, 2021 in this case?

A. Yes, I am.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. My rebuttal testimony will update the Commission regarding a change in Staff's revenue requirement position from direct after inclusion of some error corrections. I will also address Ameren Missouri witness Mitchell Lansford regarding the Meramec Retirement Tracking proposal and the Sioux Research & Development (R&D) Bitcoin project. I will also address OPC witness Geoff Marke and MIEC witness Greg Meyer in regards to the wind curtailment issue at the High Prairie Energy Center.

1 **REVENUE REQUIREMENT**

2 Q. What was Staff's recommended revenue requirement (i.e., increase in rates) for  
3 Ameren Missouri's electric operations as presented in direct testimony?

4 A. Staff's revenue requirement was \$221,386,208.

5 Q. Please explain the error corrections that have been made since that time.

6 A. Staff has corrected errors in multiple areas of its filed direct accounting  
7 schedules in the current electric case, as follows:

- 8 • Included an adjustment for non-labor wind operations & Maintenance (O&M)  
9 that was erroneously omitted;
- 10 • Corrected a transposition error in an adjustment related to COVID expense  
11 normalization;
- 12 • Corrected the adjustment to bilateral transactions;
- 13 • Corrected the adjustment that erroneously removed lease expense twice;
- 14 • Corrected fuel expense in the cash working capital (CWC) schedule;
- 15 • Included the plant in service accounting (PISA) test year depreciation that was  
16 erroneously omitted;
- 17 • Corrected the adjustment for removal of Missouri Energy Efficiency Investment  
18 Act (MEEIA) test year costs;
- 19 • Corrected the property tax adjustment that erroneously removed non-utility  
20 expense twice;
- 21 • Corrected the adjustment related to removal of capitalized operations &  
22 maintenance (O&M) depreciation;

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- 1 • Corrected the sign on the adjustment to remove alcohol expense from the test
- 2 year;
- 3 • Included an omitted normalization adjustment for the exceptional performance
- 4 bonus expense;
- 5 • Corrected a transposition error in an adjustment related to short term incentive
- 6 compensation;
- 7 • Correction to a calculation error related to payroll lobbying expense;
- 8 • Correction to include the correct amount of Callaway overtime labor within the
- 9 payroll calculation;
- 10 • Included an adjustment to allocate a portion of the removal of test year company
- 11 owned life insurance (COLI) gains, losses and premiums in order to be included
- 12 in gas operations;
- 13 • Correction to the Small Primary Service (SPS) revenue adjustments related to
- 14 weather, days and growth; and
- 15 • Corrected the sign on the adjustment to remove coal refinement expense from
- 16 the test year.
- 17 • Corrected depreciation rates for various amortized accounts with associated
- 18 income tax impact

19 Q. After these corrections and revenue adjustment, what is Staff's current revenue  
20 requirement for Ameren Missouri's electric operations?

21 A. Staff's revenue requirement is currently \$187,686,064 prior to Staff's true-up  
22 audit.

1 **MERAMEC RETIREMENT TRACKER**

2 Q. Please provide a summary of Ameren Missouri's proposal regarding the  
3 Meramec Energy Center.

4 A. Ameren Missouri plans to retire the Meramec Energy Center in December 2022.  
5 Ameren Missouri has included a proposed tracking mechanism in this case by which 1/5<sup>th</sup> of  
6 the revenue requirement impacts of plant in service, accumulated reserve, accumulated deferred  
7 income taxes, coal inventory, general materials and supplies, inventory, O&M expenses, and  
8 depreciation are to be included in Ameren Missouri's cost of service. This approach essentially  
9 includes 1/5<sup>th</sup> of the return and depreciation associated with the rate base components of the  
10 Meramec Energy Center facility in the cost of service as well as includes 1/5<sup>th</sup> of the O&M and  
11 depreciation in expense. The remaining 4/5<sup>th</sup> of the Meramec Energy Center revenue  
12 requirement will be deferred. This also in turn reduces income taxes. Ameren Missouri  
13 believes that this position is consistent with the approach taken regarding the treatment of costs  
14 related to Evergy's Sibley plant and its retirement. The Company proposes to recover the  
15 remaining 4/5<sup>th</sup> of the Meramec Energy Center costs in rates over a five-year period starting  
16 with the effective date of rates in its next rate case (including carrying costs equal to the  
17 Company's weighted-average-cost-of capital applied to deferrals included in rate base and  
18 carrying costs equal to the Company's short-term borrowing rate applied to deferrals excluded  
19 from rate base).

20 Q. Does Staff agree with Ameren Missouri's proposal?

21 A. Partially. Staff agrees to inclusion of 1/5<sup>th</sup> of the appropriate amount of costs  
22 being included in base rates as part of this rate case and deferring the remaining 4/5<sup>th</sup> of the  
23 appropriate amount of costs related to the retirement of the Meramec Energy Center. Staff is

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1 also not opposed to the proposal regarding carrying costs. Staff does recommend inclusion of  
2 1/5<sup>th</sup> of the property tax and insurance expense related to the Meramec Energy Center be  
3 included in rates and 4/5<sup>th</sup> of these items be included in the deferral as discussed below. Staff  
4 also recommends that the deferral consist of all costs and all cost savings that directly result  
5 from the closing of the Meramec Energy Center and that the deferral begin being amortized  
6 with the effective date of rates in Ameren Missouri's next general rate case. The 1/5<sup>th</sup> base  
7 amount included in rates resulting from this rate case will then be used to compare to the actual  
8 costs incurred by Ameren Missouri to operate the Meramec facility from the effective date of  
9 rates in this proceeding through the facility's retirement and will also encompass all cost savings  
10 directly associated with the closing of the facility. In Ameren Missouri's next electric rate  
11 proceeding, the deferral balance (the difference between the costs included for the Meramec  
12 facility in this case and the ongoing costs until the facility retirement as well as the cost savings  
13 resulting subsequent to the closure of the plant). The deferral balance to be amortized as well  
14 as the amortization period would be determined by the parties and/or the Commission once all  
15 amounts are fully known.

16 As part of its direct testimony, it does not appear that the Company has proposed to  
17 defer costs or cost savings in the tracking mechanism past the retirement date of Meramec (i.e.  
18 for any costs or cost savings incurred subsequent to the retirement). That approach seems one-  
19 sided and does not appear to truly encompass the Company's intention of ensuring "that this  
20 significant retirement does not benefit or harm any party through regulatory lag"<sup>1</sup>. Staff  
21 recommends that the deferral mechanism begin with the effective date of rates in the current  
22 electric rate case and conclude at the true-up cutoff in Ameren Missouri's next electric rate

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<sup>1</sup> Direct Testimony of Mitchell Lansford, pg. 9 lines 22-23 and pg. 10 line 1.



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1 proceeding. The deferral balance as established by the parties and/or the Commission can then  
2 begin to be amortized starting at the effective date of rates in the next electric rate case over an  
3 amortization period to be determined by the parties and/or the Commission once all amounts  
4 are fully known.

5 Q. Are there aspects that other interveners have raised regarding the proposed  
6 Meramec rate treatment and tracking mechanism that Staff believes is appropriate?

7 A. Yes. Based on the direct testimony by the intervening parties, specifically the  
8 Midwest Industrial Energy Consumers (MIEC), there are some proposals that Staff agrees  
9 would be appropriate in the cost of service and tracking mechanism. Staff agrees that it is  
10 reasonable to:

- 11 • Include 1/5<sup>th</sup> of 10 months' worth of power plant maintenance expense in revenue  
12 requirement and 4/5<sup>th</sup> in the tracking mechanism - representing the time between the  
13 operation of law date and the planned retirement date
- 14 • Similarly, include 1/5<sup>th</sup> of 10 months' worth of insurance expense and property tax  
15 related to Meramec in revenue requirement and 4/5<sup>th</sup> in the tracking mechanism -  
16 representing the time between the operation of law date and the planned retirement date
- 17 • Include 1/5<sup>th</sup> of the coal inventory and materials and supplies related to the Meramec  
18 facility as of the operation of law date in this case in revenue requirement and 4/5<sup>th</sup> in  
19 the tracking mechanism

20 However I differ somewhat on the proposed MIEC treatment of the Meramec investment itself.

21 Staff recommends:

- 22 • Including 1/5<sup>th</sup> of the revenue requirement impact of the net investment (plant in service  
23 less accumulated depreciation) and ADIT as of the operation of law date in the cost of

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1 service in this case and 4/5<sup>th</sup> in the tracking mechanism – which would consist of the  
2 following:

- 3 ○ The 10 remaining months of depreciation expense between the operation of law  
4 date and the planned retirement date, including 1/5<sup>th</sup> in this case in revenue  
5 requirement and the remaining 4/5<sup>th</sup> in the tracking mechanism
- 6 ○ The return on the 10 remaining months of the net investment less ADIT as of  
7 the operation of law date in this case, including 1/5<sup>th</sup> in revenue requirement and  
8 4/5<sup>th</sup> in the tracking mechanism

9 The approach recommended by Staff above would allow Ameren Missouri a reasonable means  
10 of recovering the costs of a generating facility that will still be used and useful as of the effective  
11 date of rates for this proceeding, and defer for later determination and recovery the difference  
12 in actual return on and of the investment, tax impacts, and cost savings in a future rate  
13 proceeding. This would allow Ameren Missouri recovery of prudent costs and would allow  
14 customers to benefit from any cost savings that occur due to the closure of the Meramec facility.

15 **SIOUX RESEARCH & DEVELOPMENT (BITCOIN) PROJECT**

16 Q. Please provide a brief summary of the issue regarding the Sioux R&D project.

17 A. As one of many R&D projects that Ameren Missouri has instituted, the  
18 Company has recently executed a project in which it mines Bitcoin cryptocurrency using a  
19 converted shipping container with computers that is located on the distribution lines at the Sioux  
20 generation facility.

21 Q. Did an Ameren Missouri witness discuss this project or any of its repercussions  
22 on the revenue requirement in this case?

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Lisa M. Ferguson

1           A.     No. Ameren Missouri did not have discussion in its direct testimony regarding  
2 seeking recovery of any costs related to this R&D project. Staff did, however, learn at a later  
3 date that capital costs related to this project were included in the estimated plant in service  
4 included in Ameren Missouri's revenue requirement in the accounting schedules provided with  
5 Company witness Mitchell Lansford's direct testimony.

6           Q.     Staff mentioned in its direct testimony in this case that the R&D issue potentially  
7 impacted four Ameren Missouri case filings. How has this issue been resolved in those cases?

8           A.     In its direct testimony, Staff referred to four different cases that Ameren  
9 Missouri had filed before the Commission for requested authorization to include the Sioux  
10 R&D project associated costs and revenues in customer rates. The interrelated cases discussed  
11 were Case Nos. ER-2021-0240 (general base rate proceeding), ER-2022-0026 (FAC rider  
12 recovery), EU-2022-0030 (AAO regulatory liability request), and potentially EM-2021-0309  
13 (request for lease of fiber optic assets).

14           On September 8, 2021, Ameren Missouri and the Commission Staff filed a  
15 Stipulation & Agreement in Case No. ER-2022-0026, and agreed to resolve the issue regarding  
16 the cost of electricity consumed for the research and development project involving the mining  
17 of digital currency being included in the FAR. Ameren Missouri agreed to remove the costs and  
18 associated kilowatt hours from the proposed FAR. Ameren Missouri and Staff also agreed that  
19 the tariff sheet attached to the agreement should be substituted for the one originally filed and  
20 that the substitute tariff be approved by the Commission or allowed to take effect on  
21 October 1, 2021. The agreement also provided that when the Stipulation was approved by the  
22 Commission, Ameren Missouri would withdraw its application for deferral of the costs of the  
23 research and development project in File No. EU-2022-0030. The agreement also provided that

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1 the capital assets used in the digital currency mining research and development  
2 project would not be included in the revenue requirement used to set rates in the current rate  
3 Case No. ER-2021-0240. The Commission ordered approval of the Stipulation & Agreement  
4 on September 15, 2021.

5 Ameren Missouri also filed to dismiss Case No. EU-2022-0030 on September 15, 2021  
6 and that filing was acknowledged by the Commission on September 20, 2021.

7 Upon further Staff discovery regarding Case No. EM-2021-0309, Ameren Missouri has  
8 explained to Staff that the excess fiber optic capacity not currently utilized for electric  
9 operations will be leased to outside users and is not being employed for purposes of the Sioux  
10 Bitcoin R&D project and Staff proposed conditions in that case requesting that if the  
11 Commission approves the specific lease addressed in that case that it require Ameren to notify  
12 the Commission if it will utilize this OPGW cable in the Sioux R&D project. Ameren Missouri  
13 did not oppose that condition and the Commission approved Ameren Missouri's application in  
14 that case on October 6, 2021.

15 In regards to the current rate case proceeding, Case No. ER-2021-0240, in its direct  
16 testimony Staff explained that Ameren Missouri had included, as part of its estimated  
17 investment increase in its direct case, assets such as a modified shipping container and  
18 computers that are used for this Bitcoin mining project. At the time of its direct testimony,  
19 Staff had proposed an adjustment of \$615,556 in this current rate case to remove the assets from  
20 the estimated plant additions from plant-in-service. Staff has verified that as of August 2021,  
21 Ameren Missouri has moved all the plant-in-service, overhead and AFUDC of \$1,026,124  
22 related to the Sioux R&D project to construction work in process (CWIP) and those amounts  
23 are no longer being recorded as plant in the cost of service. There are also no incremental costs

1 related to the project that will be included in the revenue requirement. Staff will continue to  
2 verify this is the case during its true-up audit for all project costs through September 30, 2021.

3 Q. Does Staff continue to have concerns regarding Bitcoin or cryptocurrency  
4 projects and its effect on regulated rates?

5 A. Yes. Staff is continuing to research this issue and its effects on cost of  
6 service ratemaking.

7 **WIND CURTAILMENT AT HIGH PRAIRIE ENERGY CENTER**

8 Q. Please provide a brief summary regarding the wind curtailment issue at the High  
9 Prairie wind facility.

10 A. Ameren Missouri has included the investment as well as the operations &  
11 maintenance costs and energy sales for its High Prairie wind facility in its direct filed case.  
12 Ameren Missouri states that both the High Prairie and Atchison Renewable Energy Wind  
13 facilities are necessary to comply with Missouri's Renewable Energy Standard requirements.  
14 In its direct filing, Staff also included all investment, O&M costs and purchases/sales from the  
15 facility's participation in the Midcontinent Independent System Operator (MISO) Regional  
16 Transmission Organization (RTO) in the proposed revenue requirement. In their direct  
17 testimony, Office of Public Counsel (OPC) and Missouri Industrial Energy Consumers (MIEC)  
18 have raised the issue regarding voluntary curtailment of the wind generation at the High Prairie  
19 facility due to the deaths of threatened and endangered species and those parties have proposed  
20 investment related adjustments to the cost of service related to the voluntary curtailment.

21 Q. Has Staff proposed an adjustment to the High Prairie investment as part  
22 of this case?

23 A. No.

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Lisa M. Ferguson

1 Q. Did Staff join a stipulation and agreement in Case No. EA-2018-0202, regarding  
2 the High Prairie wind facility?

3 A. Yes.

4 Q. Did the Commission approve that stipulation and agreement?

5 A. Yes.

6 Q. Is a true and accurate copy of that stipulation and agreement attached to your  
7 testimony as LMF-r1?

8 A. Yes.

9 Q. What does paragraph 12 at pages 3 through 4 of that stipulation and  
10 agreement state?

11 A. Paragraph 12 states the following:

12 Prudence: The Signatories agree that they shall not challenge the  
13 prudence of the decision to acquire the facility under the terms of  
14 the BTA, including Non-Compliant wind turbine generators  
15 under the terms of the BTA, and to merge TG High Prairie, LLC  
16 into Ameren Missouri if the acquisition of the facility closes  
17 pursuant to the BTA. Nothing in this Stipulation limits the ability  
18 of any Signatory or other party from challenging the prudence of  
19 the design, construction costs, interconnection costs, and all other  
20 project related costs, including costs impacted by construction  
21 duration.

22 Q. Does BTA refer to the Build Transfer Agreement between Ameren Missouri and  
23 TG High Prairie Holdings, LLC?

24 A. Yes.

25 Q. Does the Build Transfer Agreement between Ameren Missouri and TG High  
26 Prairie Holdings, LLC, provide for the construction of the High Prairie wind facility in Adair  
27 and Schuyler Counties in Missouri?

28 A. Yes.

Rebuttal Testimony of  
Lisa M. Ferguson

1 Q. What does paragraph 4 of the Stipulation say as to Renewable Energy Standard  
2 compliance costs?

3 A. Paragraph 4 states in part that "The Signatories agree the costs of this Project  
4 are Renewable Energy Standard Compliance costs so long as the facility is certified by the  
5 Division of Energy as a renewable energy resource under 4 CSR 340-8.010."

6 Q. Has Staff endeavored to determine the impacts of the wind curtailment on  
7 customers' rates?

8 A. Yes. Staff issued several data requests seeking additional information regarding  
9 the timeline of events at High Prairie, planned mitigation efforts, the economics of the facility,  
10 repercussions of permit violations that may occur at the facility, the full breadth of the situation  
11 surrounding the bat deaths caused at the facility and the resulting nighttime generation  
12 shutdown as well as logs that reflect actual generation and foregone generation. Staff sought  
13 information regarding the economics of the facility because of the curtailment issues.  
14 Ameren Missouri has relayed in its response to Staff data request 856 that ...all costs of owning  
15 and operating the facility, as well as the return "on" and the return "of" the investment is not  
16 currently being fully covered by revenues resulting from operations. This uneconomic status  
17 is due to the curtailment of generation due to the environmental issues surrounding the facility.  
18 The High Prairie facility has only been in service for approximately 10 months and mitigation  
19 measures have not yet been fully deployed. Please refer to Staff witness Claire Eubanks'  
20 testimony for a more detailed discussion regarding the environmental issues, mitigation efforts  
21 that are planned on the part of Ameren Missouri, and Renewable Energy Standard (RES)  
22 compliance.

Rebuttal Testimony of  
Lisa M. Ferguson

1 Q. How does Staff respond to the issue of economics regarding the High Prairie  
2 facility?

3 A. Staff has serious concerns surrounding the current economics and the operations  
4 of the High Prairie wind facility. After several internal discussions Staff has determined not to  
5 propose an adjustment at this time related to the current curtailment of generation. Staff will  
6 continue to monitor this issue in the present case and future cases, and may seek different  
7 ratemaking treatment to account for the curtailment if appropriate at a later time.

8 Q. Does this conclude your rebuttal testimony?

9 A. Yes, it does.



**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

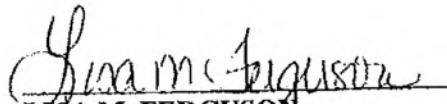
In the Matter of Union Electric Company            )  
d/b/a Ameren Missouri's Tariffs to Adjust Its        )  
Revenues for Electric Service                        )        Case No. ER-2021-0240

**AFFIDAVIT OF LISA M. FERGUSON**

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

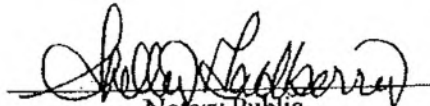
**COMES NOW LISA M. FERGUSON** and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Rebuttal Testimony of Lisa M. Ferguson*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

  
**LISA M. FERGUSON**

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of St. Louis, State of Missouri, at my office in St. Louis, on this 14 day of October 2021.

  
Notary Public

**SHELLY GADBERRY**  
Notary Public - Notary Seal  
Jefferson County - State of Missouri  
Commission Number 18841276  
My Commission Expires May 30, 2022

**MISSOURI PUBLIC SERVICE COMMISSION**

**SCHEDULE LMF-r1**

**Rebuttal Testimony of  
Lisa M. Ferguson**

**UNION ELECTRIC COMPANY  
d/b/a Ameren Missouri**

**CASE NO. ER-2021-0240**

**BEFORE THE PUBLIC SERVICE  
COMMISSION OF THE STATE OF MISSOURI**

In the Matter of the Application of Union Electric                    )  
Company d/b/a Ameren Missouri for Permission and                    )  
Approval and a Certificate of Public Convenience and                ) File No. EA-2018-0202  
Necessity Authorizing it to Construct a Wind Generation         )  
Facility.    )

**THIRD STIPULATION AND AGREEMENT**

**COME NOW** Union Electric Company, d/b/a Ameren Missouri ("Ameren Missouri" or the "Company"), the Staff of the Missouri Public Service Commission ("Staff"), Renew Missouri Advocates ("Renew Missouri"), the Missouri Industrial Energy Consumers ("MIEC"), the Missouri Department of Conservation ("MDC"), the Missouri Department of Economic Development – Division of Energy ("DE"), the Natural Resources Defense Council ("NRDC"), and the Office of the Public Counsel ("OPC") (collectively, the "Signatories") and submit this Stipulation and Agreement ("Agreement") and respectfully state as follows (the Sierra Club, the only other party to this case, has authorized the Signatories to indicate that it does not oppose this Agreement):

**BACKGROUND**

1. On May 21, 2018, Ameren Missouri filed its *Application*, which requested a Certificate of Convenience and Necessity ("CCN") and approval of a Renewable Energy Standard Rate Adjustment Mechanism ("RESRAM").
2. Renew Missouri, NRDC, MIEC, the Sierra Club, the Division of Energy, and MDC applied for, and were granted, intervention.
3. After several discussions, the Signatories have reached a Stipulation and Agreement ("Agreement"), as is set forth below. This Agreement supersedes the Stipulation and Agreement filed on September 27, 2018, which superseded the Stipulation and Agreement filed

on August 17, 2018.

#### AGREEMENTS AMONG THE SIGNATORIES

4. Ameren Missouri, Staff, Renew Missouri, MIEC, DE, the Sierra Club, the NRDC, and OPC agree that, with the conditions provided below, the Missouri Public Service Commission ("Commission") should grant Ameren Missouri's request for a CCN pursuant to Section 393.170.1 to construct and own a wind generation facility to be constructed in Schuyler and Adair Counties in Missouri, under the Build Transfer Agreement ("BTA") with TG High Prairie Holdings, LLC (the "Project") as set forth in the Company's *Application*. This authority includes permission to acquire any Non-Compliant wind turbine generators, as defined by and according to the terms of the BTA. The Signatories agree the costs of this Project are Renewable Energy Standard compliance costs so long as the facility is certified by the Division of Energy as a renewable energy resource under 4 CSR 340-8.010. MDC's principal interest in this case are the wildlife issues addressed in paragraph 10 of this Agreement. Therefore, it neither supports nor opposes the grant of the CCN.

5. Authority to Merge: The Signatories agree the Commission should grant Ameren Missouri authority to merge the special purpose entity TG High Prairie, LLC into Ameren Missouri with Ameren Missouri to be the surviving entity pursuant to § 393.190.1, as set forth in the Company's *Application*.

6. Plans and Specifications: Ameren Missouri shall file with the Commission quarterly progress reports on the plans and specifications for the Project, and the first report shall be due on the earlier of the first day of the first calendar quarter beginning after this Agreement is approved, or January 1, 2019. Ameren Missouri will file complete plans and specifications prior to commencement of construction.

7. Permits: Ameren Missouri shall include an update on all permits obtained as part of its quarterly progress reports.

8. Ameren Missouri must receive approval from the Federal Energy Regulatory Commission pursuant to § 203 of the Federal Power Act.

9. In-Service Criteria: In-service criteria must be agreed upon and filed with the Commission on or before December 31, 2018 that would satisfy the fully operational and used for service standard in § 393.135, RSMo, and the applicable Internal Revenue Service requirements to qualify for Production Tax Credits. The Company, the Staff, and any other Signatory desiring to have input on the in-service criteria will work together reasonably and in good faith to develop such in-service criteria by such date.

10. Wildlife: Appendix A attached hereto and incorporated herein by this reference reflects terms and conditions agreed upon by the Signatories relating to conservation issues raised in testimony in this case.

11. Depreciation: The Signatories agree that until such time as a different depreciation rate is approved by the Commission for wind facility investments recorded to FERC Account 344, the currently-approved depreciation rate of 6.81% shall be used. The Signatories further agree until such time as a different net salvage percentage is approved by the Commission, a net salvage percentage of -17% shall be used and tracked on the Company's books. The Signatories agree that the direct testimony of Ameren Missouri supports a life of the wind assets of 30 years. Prior to the in-service date for the Project, Ameren Missouri will provide a depreciation study potentially proposing a new depreciation rate for the wind facility investments recorded to FERC Account 344.

12. Prudence: The Signatories agree that they shall not challenge the prudence of the

decision to acquire the facility under the terms of the BTA, including Non-Compliant windturbine generators under the terms of the BTA, and to merge TG High Prairie, LLC into Ameren Missouri if the acquisition of the facility closes pursuant to the BTA. Nothing in this Stipulation limits the ability of any Signatory or other party from challenging the prudence of the design, construction costs, interconnection costs, and all other project related costs, including costs impacted by construction duration.

13. Production Tax Credits (“PTCs”): Ameren Missouri will provide the full grossed-up value of PTCs to customers through the RESRAM or in rates when earned (subject to normal billing lags), without any reduction and without a return on any deferred tax assets, regardless of Ameren Missouri’s tax position (the “PTC Guarantee”). Notwithstanding the foregoing, this PTC Guarantee will not apply to the extent a change in law or a force majeure event results in a tax position for Ameren Missouri that prevents Ameren Missouri from utilizing the PTCs in the year earned. If the PTC Guarantee did not apply in a given year because of the immediately preceding sentence, the Company will provide to customers the grossed-up value of the PTCs that are earned in that year when and to the extent that those PTCs are actually utilized to reduce the Company's tax liability. For purposes of this agreement, a “force majeure event” is defined as an act of God such as an earthquake, tornado, or severe flood, or a war or act of terrorism.

14. By signing this Agreement, the Signatories agree that neither OPC nor MIEC is waiving their right, in any subsequent Company general rate proceeding, or other subsequent proceeding in which the rate design applicable to RES compliance costs is at issue, to present evidence and argument to the Commission that the rate design applicable to the RES compliance costs reflected in the revenue requirement upon which base rates are set should treat the RES

compliance costs associated with the wind generation facility as fixed costs, nor are OPC or MIEC waiving their right in any such proceeding to present evidence and argument that the rate to be charged/credited to customers under the RESRAM should be determined as a percentage of customer bills instead of as a uniform amount per kilowatt-hour for all customers.

15. By signing this Agreement, the Signatories agree that OPC has not conceded OPC's argument that the 15% of the return and depreciation that is not deferred to a regulatory asset under Section 393.1400 cannot be included in the Company's RESRAM. Consequently, if the Commission disagrees with OPC's argument, all Signatories agree that the Commission should approve a RESRAM on the terms reflected in the tariff sheets attached hereto as Appendix B. If, however, the Commission were to agree with OPC's argument, all Signatories agree that the Commission should approve a RESRAM on the terms reflected in the tariff sheets attached hereto as Appendix C. The Signatories agree to resolve this issued based upon the pre-filed testimony and after an up-to one day evidentiary hearing and post-hearing briefing. The Signatories further agree that the Commission should approve this Agreement and issue the CCN prior to resolving the issue that is the subject of this ¶ 15.

16. Variances: The Signatories agree the Commission should grant Ameren Missouri the limited variances listed as follows:

A. **4 CSR 240-20.100(6)13:** "An electric utility that has implemented a RESRAM shall file revised RESRAM rate schedules to reset the RESRAM charge to zero (0) when new base rates and charges become effective following a commission report and order establishing customer rates in a general rate proceeding that incorporates RES compliance costs or benefits previously reflected in a RESRAM in the utility's base rates. If an over- or under-recovery of RESRAM revenues or over- or under-pass-through of RESRAM benefits exists after the RESRAM charge has been reset to zero (0), that amount of over- or under-recovery, or over- or under-pass-through, shall be tracked in an account and considered in the next RESRAM filing of the electric utility."

*Variance: The Signatories recommend the Commission grant a variance to allow the RESRAM rate to be adjusted upon conclusion of a rate case to remove the RES Revenue Requirement that is being moved to base rates from the RESRAM rate, but the RESRAM rate continues to reflect recovery/return of any existing over/under (1) recovery balance, (2) True-up, or (3) Ordered Adjustment.*

B. 4 CSR 240-20.100(6)(A)10: "The RESRAM charge will be calculated as a percentage of the customer's energy charge for the applicable billing period."

*Variance: The Signatories recommend the Commission grant a variance to allow the RESRAM rate to be billed customers as a flat rate per kWh of energy consumed.*

C. CSR 240-20.100(6)(C): "RESRAM for equal to or greater than two percent (2%) actual increase in utility revenue requirements. The commission shall have no less than thirty days . . . to hold a hearing and issue a report and order approving the electric utility's rate schedules . . ."

*Variance: The Signatories recommend the Commission grant a variance to allow a RESRAM rate change of 2% or more to take effect 120 days after its filing if the Commission has not yet resolved a dispute about the rate change on an interim, subject to refund basis, in the same manner provided for by the Commission's fuel adjustment clause ("FAC") rules. See 4 CSR 240-20.090(4) (Which provides that if the Commission has not issued an order approving an FAC rate adjustment, the adjustment takes effect as an interim rate, as follows: "the commission shall either issue an interim rate adjustment order approving the tariff schedules and the FAC rate adjustments within sixty (60) days of the electric utility's filing or, if no such order is issued, the tariff schedules and the FAC rate adjustments shall take effect sixty (60) days after the tariff schedules were filed."). Without such a variance, it will be difficult if not impossible to calculate a RESRAM rate that accurately recovers the costs (or returns the benefits) that are appropriate under the RESRAM because such a calculation must be predicated on knowing (a) when the rate adjustment will occur, and (b) how long that RESRAM rate will be in effect. As a result, it is appropriate to allow the RESRAM rate to go into effect within 120 days in all circumstances in order to ensure the RESRAM rate in each RESRAM rate filing can be developed accurately. If, after resolution of any dispute about the RESRAM rate the Commission determines that the rate was incorrect, an adjustment can be made via the "Ordered Adjustment" factor in the RESRAM tariff sheets, with*



*interest.*

**D. 4 CSR 240-20.100(6):** “In all RESRAM applications, the increase in utility revenue requirements shall be calculated as the amount of additional RES compliance costs incurred since the electric utility’s last RESRAM application or general rate proceeding, net of any reduction in RES compliance costs . . . and any new RES compliance benefits.”

*Variance: The Signatories recommend the Commission grant a variance to allow the market value at generation node/meter of the energy generated and associated capacity sold from a renewable resource (a RES compliance benefit) to be included in the determination of base and actual net energy costs in the Company’s fuel adjustment clause instead of in the RESRAM.*

17. RESRAM: The Signatories agree that Ameren Missouri's request for a RESRAM should be granted subject to the conditions contained in this Agreement. With respect to the RESRAM:

A. The Signatories agree that costs currently included under its Renewable Energy Standard ("RES") tracker and the existing solar rebate tracker will continue to be tracked pursuant to the mechanisms already authorized for those specific costs. Also excluded from the RESRAM are all current and future costs associated with existing renewable generation facilities, Renewable Energy Credits ("RECs") from existing renewable purchase power agreements and any RECs purchased prior to the effective date of the Commission order approving this Agreement. This results in a starting base factor of \$0.00 for the RESRAM tariff. All new RES compliance costs and benefits, as defined in the RESRAM tariff, including REC purchases made after the effective date of an order approving this Agreement and the solar rebates authorized under Section 393.1670 RSMo (effective August 28, 2018), will flow through the RESRAM.

B. RESRAM Accounting: In order to ensure RESRAM costs are tracked appropriately and that double recovery is avoided, Ameren Missouri agrees to meet with

members of Staff's Auditing group and to give OPC reasonable advance notice of such a meeting (s) such that OPC has a reasonable opportunity to attend while developing the accounting process to implement the RESRAM. Ameren Missouri anticipates this process will begin in October of 2018.

C. Rate of Return for RESRAM: If the dispute referenced in ¶ 15 of this Agreement is resolved against OPC's position such that the exemplar tariff sheets attached hereto as Appendix B are adopted as the RESRAM, the initial capital structure ratios for purposes of the RESRAM shall utilize the percent of common equity and long-term debt reflected in the last Commission-approved capital structure for the Company.<sup>1</sup> Thereafter, the capital structure ratios for purposes of the RESRAM will be those approved by the Commission in subsequent general rate proceedings. The return on common equity applied to the common equity ratio shall be based on the Commission's most recent allowed return on equity for the Company. The return applied to the long-term debt ratio shall be based on Ameren Missouri's embedded cost of long-term debt as of the most recent fiscal quarter before each RESRAM filing with the Commission.

D. RESRAM Benefits to Account for 5% Fuel Adjustment Sharing: The Signatories agree that for any new RES compliance generation with a nameplate capacity greater than 10 megawatts that comes online, that 5% of the market value at generation node/meter of the energy generated and associated capacity sold be credited to the RESRAM until the market benefits from the generation are included in net base energy costs in a general rate proceeding.

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<sup>1</sup> The Commission last approved a capital structure for the Company in File No. ER-2014-0258.

## GENERAL PROVISIONS OF AGREEMENT

18. This Agreement is being entered into solely for the purpose of settling the issues in this case explicitly set forth above. Unless otherwise explicitly provided herein, none of the Signatories to this Agreement shall be deemed to have approved or acquiesced in any ratemaking or procedural principle, including, without limitation, any cost of service methodology or determination, depreciation principle or method, method of cost determination or cost allocation or revenue-related methodology.

19. This Agreement is a negotiated settlement. Except as specified herein, the Signatories to this Agreement shall not be prejudiced, bound by, or in any way affected by the terms of this Agreement: (a) in any future proceeding; (b) in any proceeding currently pending under a separate docket; and/or (c) in this proceeding should the Commission decide not to approve this Agreement, or in any way condition its approval of same. This Agreement has resulted from extensive negotiations among the Signatories, and the terms hereof are interdependent. If the Commission has questions for the Signatories' witnesses or Signatories, the Signatories will make available, at any on-the-record session, their witnesses (if any) and attorneys on the issues resolved by this Stipulation, so long as all Signatories have had adequate notice of that session. The Signatories agree to cooperate in presenting this Stipulation to the Commission for approval, and will take no action, direct or indirect, in opposition to the request for approval of this Stipulation.

20. If the Commission does not approve this Agreement unconditionally and without modification, then this Agreement shall be void and no Signatory shall be bound by any of the agreements or provisions hereof.

21. If approved and adopted by the Commission, this Agreement shall constitute

a binding agreement among the Signatories. The Signatories shall cooperate in defending the validity and enforceability of this Agreement and the operation of this Agreement according to its terms.

22. If the Commission does not approve this Agreement without condition or modification, and notwithstanding the provision herein that it shall become void, (a) neither this Agreement nor any matters associated with its consideration by the Commission shall be considered or argued to be a waiver of the rights that any Signatory has for a decision in accordance with RSMo. §536.080 or Article V, Section 18 of the Missouri Constitution, and (b) the Signatories shall retain all procedural and due process rights as fully as though this Agreement had not been presented for approval, and any suggestions, memoranda, testimony, or exhibits that have been offered or received in support of this Agreement shall become privileged as reflecting the substantive content of settlement discussions and shall be stricken from and not be considered as part of the administrative or evidentiary record before the Commission for any purpose whatsoever.

23. If the Commission accepts the specific terms of this Agreement without condition or modification, only as to the settled issues in these cases explicitly set forth above, the Signatories each waive their respective rights to present oral argument and written briefs pursuant to RSMo. §536.080.1, their respective rights to the reading of the transcript by the Commission pursuant to §536.080.2, their respective rights to seek rehearing pursuant to §536.500, and their respective rights to judicial review pursuant to §386.510. This waiver applies only to a Commission order approving this Agreement without condition or modification issued in this proceeding and only to the issues that are resolved hereby. It does not apply to any matters raised in any prior or subsequent Commission proceeding nor any matters not explicitly addressed

by this Agreement.

24. This Agreement embodies the entirety of the agreements between the Signatories in this case on the issues addressed herein, and may be modified by the Signatories only by a written amendment executed by all of the Signatories.

25. Contingent upon Commission approval of this Stipulation without modification, the Signatories hereby stipulate to the admission into the evidentiary record of the testimony of their witnesses.

**WHEREFORE**, the Signatories request the Missouri Public Service Commission (a) issue an order approving the terms and conditions of this Stipulation and Agreement, including (in the case of all Signatories except MDC, which neither supports nor opposes issuance of the CCN) issuing a CCN subject to the terms hereof in its approval order and that is not dependent on resolving the issue that is the subject of ¶ 15, and (b) scheduling a one-day evidentiary hearing, which the Signatories suggest could be held on one of the originally-scheduled hearing dates between October 31, 2018 to November 2, 2018, and thereafter issuing its order approving the RESRAM tariff sheets in the form of Appendix B or Appendix C hereto, depending on the Commission's resolution of the issue that is the subject of ¶ 15.

Respectfully submitted,

/s/ James B. Lowery

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*Attorneys for the Office of the  
Public Counsel*

**CERTIFICATE OF SERVICE**

The undersigned certifies that true and correct copies of the foregoing have been e-mailed or mailed, via first-class United States Mail, postage pre-paid, to counsel of record this 12<sup>th</sup> day of October, 2018.

/s/ James B. Lowery

James B. Lowery

**APPENDIX A TO THIRD STIPULATION AND AGREEMENT  
FILE NO. EA-2019-0202**

The Company<sup>1</sup> agrees to the imposition of conditions on the CCN as reflected in Items 1-7 and 9-13 below. In consideration of the Company's agreement, MDC agrees to the terms of Item 8 below.

1. The Company will not clear known active or inactive eagle nest trees.
2. The Company will not clear known bat maternity trees.
3. In order to afford MDC the opportunity to audit post-construction monitoring requirements of an Eagle Take Permit or Incidental Take Permit for bats, MDC will be allowed for the first six years of the facility's operation (upon completion of the Company's standard requirements for third parties to access Company property) to accompany Company or contracted monitoring personnel for two up to three-day sampling events per season (Spring to Fall) when those personnel conduct post-construction monitoring for bats and for an additional two up to three-day sampling events per calendar year when those personnel conduct post-construction monitoring for eagles.
4. The Company will use its best efforts to obtain an Eagle Take Permit (pursuant to an approved Eagle Conservation Plan (ECP) from the United States Fish and Wildlife Service (USFWS)).
5. The Company will use its best efforts to obtain an Incidental Take Permit (ITP) covering the Indiana bat, the northern long eared bat, the little brown bat, and the tricolored bat (pursuant to an approved Habitat Conservation Plan (HCP) from the USFWS).
6. For purposes of Items 4 and 5, "best efforts" means diligent pursuit of each permit but not an absolute obligation to obtain the same if the terms required by USFWS are such that operation without one or both the permits would be in the interest of the Company's customers.
7. The Company's post-construction monitoring of state species of conservation concern (now listed or added pursuant to MDC's approval process during the post-constructing monitoring period under the ITP) will be the same as its monitoring of the four species of bats covered by the HCP, with results reported directly to MDC in an excel format (MDC's bat reporting form or USFWS Region 3's Indiana bat reporting form), at least annually, in accordance with MDC's Wildlife Collector Permit process. Copies of reports sent to USFWS and MDC under an HCP and ECP and reporting under this Item shall be submitted as business confidential information. MDC may include information from such submittals in MDC's Natural Heritage Database. Any data provided to MDC pursuant to this Item which is requested by third parties, except the USFWS, pursuant to a data sharing request will be provided as follows: a) using at least a 2.5-mile radius polygon that contains the sites at which bats were present, and b) eagle nest locations are buffered (at least 1.0-mile).

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<sup>1</sup> References to the Company during that period of time prior to the Company taking ownership of the facility shall be deemed to be references to Terra-Gen.



8. No citations for violation of Chapter 252, RSMo or related state regulations (collectively, the "Wildlife Code") shall be issued by MDC or at MDC's suggestion for the incidental take of species at the facility authorized by a federal permit, reported on as part of the monitoring described in Item 7, or discovered as part of the research project described in Item 9.
9. Prior to commencement of operations at 6.9 meters/second or higher during the active bat season at night when temperatures are 50 degrees Fahrenheit or above, the Company will in good faith work with MDC toward the goal of reaching agreement on a research plan involving post-construction monitoring for a limited time period (between one and three years) and with appropriate confidentiality protections, to be conducted at the Company's expense for research purposes as a part of a collaboration between the Company and MDC relating to conservation issues with wind facilities, with such research plan to be implemented if an Incidental Take Permit for bats is not obtained and/or the Company operates the Project during the active season at a cut-in speed of 6.9 meters/second or higher.
10. Ameren Missouri will provide reasonable advanced notice to MDC of all scheduled meetings and conference calls (related to the Project) with the USFWS.
11. Ameren Missouri will provide MDC a copy of all documents and/or reports related to the Project that it provides to the USFWS at the same time as they are provided to the USFWS.
12. Ameren Missouri agrees to notify and consult with MDC regarding potential sites for future utility-scale wind generation facilities sited in Missouri (a) for which Ameren Missouri is serving as the project developer, and (b) that are not already under development.
13. In future Requests for Proposals issued by the Company for utility-scale wind generation facilities sited in Missouri, the Company will ask respondents if they have had any conversations with MDC about the site under consideration.

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93

CANCELLING MO.P.S.C. SCHEDULE NO. SHEET NO.

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM

APPLICABILITY

This rider is applicable to all kilowatt-hours (kWh) of energy supplied to all customers served under all of the Company's Service Classifications.

Charges or credits passed through this rider reflect Missouri Renewable Energy Standard (section 393.1030 et. seq., RSMo.) ("RES") Compliance Costs, which consist of prudently incurred costs, both capital and expense, directly related to RES compliance which are not reflected in a regulatory asset arising under Section 393.1400.2, RSMo., and also reflect the pass-through of benefits received as a result of RES compliance to the extent those benefits are not passed through to customers in the Fuel Adjustment Rate under Rider FAC ("RESRAM Benefits"). RES Compliance Costs shall include solar rebates paid under Section 393.1670. The RES costs and benefits subject to inclusion in this rider are costs incurred related to new RES investments placed into service or RES compliance activities initiated on or after the effective date of Mo. P.S.C. Schedule No. 6 Original Sheet No. 93.

The revised RESRAM Rate effective on the date of the rate schedules published as a result of a general rate proceeding shall reset the RESRAM Rate so that it excludes factor RRR, as defined below, except for any portion of RES Compliance Costs or RESRAM Benefits reflected in factor RRR that were not included in the revenue requirement established in that general rate proceeding.

Schedule LMF-r1
Page 16 of 33

DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019
ISSUED BY Michael M. Moehn President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.1

CANCELLING MO.P.S.C. SCHEDULE NO. SHEET NO.

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

The following items 1 to 3 apply to revised RESRAM rate schedules to adjust the RESRAM Rate other than when the RESRAM Rate is reset upon the effective date of rate schedules published as a result of a general rate proceeding or as a result of an offset adjustment being ordered:

- 1. Accumulation Period (AP): the historical calendar months during which RES Compliance Costs and RESRAM Benefits are incurred or received and for which over- or under-recoveries of those costs/benefits (factor ROUR, defined below) are calculated and accumulated through the ROUR. The initial AP under this rider shall begin on the first day of the first month that begins on or after the date this rider becomes effective and shall end on July 31, 2019. Each subsequent AP shall begin on August 1st, and shall end on July 31st of the following year.
2. Recovery Period (RP): the billing months during which the over-/under-recoveries (factor ROUR) of RES Compliance Costs and RESRAM Benefits from the immediately preceding AP shall be reflected in the RESRAM Rate, along with the actual RES Revenue Requirement (factor RRR, defined below), True-Up Amount (factor T, defined below), and the Ordered Adjustment (factor OA, defined below) for that RP. Each RP shall begin on the first day of the billing month of February following each AP, and shall be in effect for one year until the next RP begins.
3. RESRAM Rate Adjustment Filings: The Company shall adjust its RESRAM Rate by filing a revised RESRAM Rate Schedule (1) no later than 60 days after the end of each AP to take effect concurrently with the beginning of the February billing month, (2) concurrent with rate schedules effectuating a general rate proceeding as applicable to reset the RESRAM Rate and to update Base Amount unless otherwise ordered, and (3) in compliance with any Commission order as applicable to incorporate an Required Offset Amount ("ROA") as the result of a Commission order.

Schedule LMF-r1
Page 17 of 33

DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019
ISSUED BY Michael M. Moehn President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

**UNION ELECTRIC COMPANY ELECTRIC SERVICE**

M.O.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.2

CANCELLING M.O.P.S.C. SCHEDULE NO. \_\_\_\_\_ SHEET NO. \_\_\_\_\_

APPLYING TO MISSOURI SERVICE AREA

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RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

RESRAM RATE DETERMINATION

Application of the RESRAM Rate, net of benefits received from RES compliance other than the RESRAM Benefits, shall not generate an annual amount of revenue that exceeds the one percent (1%) retail rate impact limitation as provided in the RES and 4 CSR 240-20.100(5), and any applicable successor Commission Rule. Any amounts otherwise recoverable under this rider but for the retail rate impact limitation shall be deferred to a regulatory asset, at a carrying cost each month equal to the Company's monthly Short-Term Borrowing Rate to be recovered in a subsequent RP or reflected in the revenue requirement established in the Company's next general rate proceeding, if not already fully recovered.

For each RESRAM Rate adjustment filing, the RESRAM Rate is calculated as:

$$\text{RESRAM Rate} = \text{TRR}_{\text{RATE}} + \text{ROA}$$

Where:

$\text{TRR}_{\text{RATE}}$  = The minimum of the rate determined by dividing TRR by  $S_{RP}$ , and the rate reflected in RAC

TRR = Total RESRAM Recoveries

$$\text{TRR} = \text{ROUR} + \text{RRR} + \text{T} + \text{OA}$$

$S_{RP}$  = Estimated recovery period sales in kWh.

RAC = Rate Adjustment Cap.

ROA = Required Offset Amount

$$\text{ROA} = \text{DA} / \text{DPE}$$

DA = Disallowance Amount - an amount ordered by the Commission to be disallowed during a subsequent general rate proceeding or prudence review under this rider that was previously reflected in a RESRAM rate.

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DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019  
ISSUED BY Michael M. Moehn President St. Louis, Missouri  
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.3

CANCELLING MO.P.S.C. SCHEDULE NO. SHEET NO.

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

DPE = Disallowance Period Energy - the energy projected to be sold in the six (6) months beginning with the first billing month following the promulgation of a RESRAM Rate that includes a DA.

ROUR = RES Over/Under Recovery

ROUR = ARC - RCR + I

ARC = Actual RES Costs

The actual RES Compliance Costs and RESRAM Benefits incurred or received during the recently completed AP, including monthly adjustments to rate base included in the MBAs and the RBAs for accumulated depreciation and accumulated deferred income taxes.

RCR = RES Costs Recovered

The RES Compliance Costs and RESRAM Benefits reflected in the RBA and the sum of the applicable MBA for the AP.

I = Interest applicable to the following:

- (i) the difference between RCR and ARC for each month of each AP;
(ii) Ordered Adjustments ("OA"), if any;
(iii) adjustments due to a required offset amount ("ROA");
(iv) all under- or over-recovery balances created through operation of this RESRAM, as determined in the true-up filings ("T") provided for herein.

Interest shall be calculated monthly at the Short-Term Borrowing Rate, applied to the month-end balance of items (i) through (iv) in the preceding sentence.

DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019
ISSUED BY Michael M. Moehn President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS

**UNION ELECTRIC COMPANY     ELECTRIC SERVICE**

MO.P.S.C. SCHEDULE NO. 6                                     Original                                     SHEET NO. 93.3

CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_                                     SHEET NO. \_\_\_\_\_

APPLYING TO \_\_\_\_\_ **MISSOURI SERVICE AREA** \_\_\_\_\_

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Schedule LMF-r1  
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DATE OF ISSUE May 21, 2018                                     DATE EFFECTIVE January 1, 2019

ISSUED BY Michael M. Moehn                                     President                                     St. Louis, Missouri  
NAME OF OFFICER                                     TITLE                                     ADDRESS

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

- RRR = RESRAM Revenue Requirement: An amount equal to the revenue requirement associated with all RES Compliance Costs net of RESRAM Benefits that are not reflected in the revenue requirement that was established in the Company's last general rate proceeding. The RRR shall consist of (1) the capital costs associated with investments in renewable energy resources used to comply with the RES that have been placed into service on the Company's books as of the end of each AP, except the 85% of the return and depreciation on such investments which is reflected in a mechanism authorized under Section 393.1400; and (2) the non-capital RES Compliance Costs and RESRAM Benefits reflected on the Company's books during that AP except to the extent those costs and benefits are addressed under the company's Rider FAC, on an annualized basis for the first AP which may be less than twelve months in length, or if the asset to which the costs and benefits relate was only in service for a portion of the AP. Notwithstanding the previous sentence, if a wind generation asset used for RES compliance ceases to earn Production Tax Credits during an AP, an adjustment necessary to offset the annual impact of those Production Tax Credits as reflected in rates established in a general rate proceeding shall be included.
- T = True-Up Amount: An amount calculated at the end of each AP reflecting the difference between (1) the revenues billed for the first 6 months of the then-effective RP and projected to be billed for the second 6 months of the RP and (2) the revenues authorized for collection through this rider during the first 6 months of the then-effective RP and projected to be collected during the second 6 months of the RP, excluding amounts of authorized and actual revenues associated with factor RRR, resulting from the difference in forecasted RP total kWh usage, and actual total kWh usage from the RP. Forecasted amounts shall be trued-up with actual amounts in the next applicable calculation.
- OA = Ordered Adjustment: The amount of any adjustment to the TRR ordered by the Commission not reflected as an ROA.
- MBA = Monthly Base Amount: Is one-twelfth of the Base Amount. The Base Amount is the revenue requirement associated with RES Compliance Costs and RESRAM Benefits reflected in the revenue requirement established in the applicable general rate proceedings. At the conclusion of each general rate proceeding, unless otherwise ordered, the Base Amount shall be published on a replacement sheet for Sheet 93.6.

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DATE OF ISSUE	<u>May 21, 2018</u>	DATE EFFECTIVE	<u>January 1, 2019</u>
ISSUED BY	<u>Michael M. Moehn</u>	TITLE	<u>President</u>
	NAME OF OFFICER		ADDRESS
			<u>St. Louis, Missouri</u>

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.5

CANCELLING MO.P.S.C. SCHEDULE NO. SHEET NO.

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

RBA = RESRAM Base Amount: is the sum of the monthly RESRAM Revenue Requirements (which is one-twelfth of the applicable factor RRR) for each month in the AP. Each month's RESRAM Revenue Requirement is associated with the amount reflected in RRR used to determine the RESRAM Rate that is in effect for that month.

RAC = Rate Adjustment Cap: applies to the RESRAM rate and shall apply so long as the rate caps provided for by Section 393.1655, RSMo. are in effect, and shall be calculated by multiplying the baseline rate as determined under Section 393.1655.4 by the 2.85% CAGR compounded for the amount of time that has passed since the effective date of rate schedules published to effectuate the Commission's Order that approved the Stipulation and Agreement that resolved File No. ER-2016-0179, and subtracting the then-current FAR under Rider FAC and the average base rate determined from the most recent general rate proceeding as calculated pursuant to Section 393.1655.

"Short-Term Borrowing Rate" = A rate applied monthly that is equal to the weighted average interest rate paid on the Company's short-term debt.

The RESRAM Rates applicable to customer bills shall be rounded to the nearest 0.00001 cents, to be charged on a cents/kWh basis for each applicable kWh billed.

PRUDENCE REVIEWS:

A prudence review shall be conducted no less frequently than every twenty-four (24) months. RES Compliance Costs which are determined by the Commission to have been imprudently incurred or incurred in violation of the terms of this rider shall be credited to customers through factor DA with interest using factor I. RES Compliance Costs included in the revenue requirement in a general rate proceeding shall not be subject to further prudence review hereunder.

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Page 22 of 33

DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019
ISSUED BY Michael M. Moehn President St. Louis, Missouri
NAME OF OFFICER TITLE ADDRESS



**UNION ELECTRIC COMPANY ELECTRIC SERVICE**

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.6

CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_ SHEET NO. \_\_\_\_\_

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

RESRAM Rate Schedule

Accumulation Period Ending:		mm/dd/yy
1. Actual RES Costs Incurred in AP (ARC)		\$0
2. RES Expenses Recovered in AP (RCR)=(RBA + sum of monthly MBAs) =		\$0
3. RES Over/Under Recovery (ROUR)	=	\$0
3.1 Interest	+	\$0
3.2 (Over)/Under Recovered Costs (ARC-RCR)	+	\$0
4. RES Revenue Requirement (RRR)	+	\$0
5. True-Up (T)	+	\$0
6. Ordered Adjustment (OA)	±	\$0
7. Total RESRAM Recoveries (TRR)=(ROUR+RRR+T+OA)	=	\$0
8. Estimated Recovery Period Sales (SRP)	÷	0 kWh
9. TRR <sub>RATE</sub> = MIN of ((TRR/SRP), (RAC))	=	
\$0.00000/kWh		
10. RESRAM <sub>RATE</sub> = TRR <sub>RATE</sub> + ROA <sup>1</sup>	=	\$0.00000/kWh
11. Required Offset Amount (ROA)	+	\$0.00000/kWh
12. RESRAM <sub>RATE</sub> (applicable for the first 6 billing months if ROA is greater than \$0.00000)	=	\$0.00000/kWh

\*A negative RESRAM Rate represents a per kWh credit that would be applied to a customer's bill.

Recovery Period for Above RESRAM Rate

\_\_\_\_\_ to \_\_\_\_\_

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Page 23 of 33

<sup>1</sup> If ROA is equal \$0.00000, The RESRAM<sub>RATE</sub> stated in this Line 10 shall apply for the entire Recovery Period. If ROA is greater than \$0.00000, the RESRAM<sub>RATE</sub> shall be the value shown on line 12 for the first 6 billing months and, thereafter, the value shown on Line 10.

DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019  
 ISSUED BY Michael M. Moehn President St. Louis, Missouri  
NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY      ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6      Original      SHEET NO. 93.6

CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_      SHEET NO. \_\_\_\_\_

APPLYING TO MISSOURI SERVICE AREA

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Current RBA = \$0

Base Amount File No. ER-2016-0179 = \$0.00

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DATE OF ISSUE	<u>May 21, 2018</u>	DATE EFFECTIVE	<u>January 1, 2019</u>
ISSUED BY	<u>Michael M. Moehn</u>	<u>President</u>	<u>St. Louis, Missouri</u>
	NAME OF OFFICER	TITLE	ADDRESS

## UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93

CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_ SHEET NO. \_\_\_\_\_

APPLYING TO MISSOURI SERVICE AREA

### RIDER RESRAM

### RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM

#### APPLICABILITY

This rider is applicable to all kilowatt-hours (kWh) of energy supplied to all customers served under all of the Company's Service Classifications.

Charges or credits passed through this rider reflect Missouri Renewable Energy Standard (section 393.1030 et. seq., RSMo.) ("RES") Compliance Costs, which consist of prudently incurred costs, both capital and expense, but not including any depreciation expense and return associated with recording to plant-in-service directly related to RES compliance, and also reflect the pass-through of benefits received as a result of RES compliance to the extent those benefits are not passed through to customers in the Fuel Adjustment Rate under Rider FAC ("RESRAM Benefits"). RES Compliance Costs shall include solar rebates paid under Section 393.1670. The RES costs and benefits subject to inclusion in this rider are costs incurred related to new RES investments placed into service or RES compliance activities initiated on or after the effective date of Mo. P.S.C. Schedule No. 6 Original Sheet No. 93.

The revised RESRAM Rate effective on the date of the rate schedules published as a result of a general rate proceeding shall reset the RESRAM Rate so that it excludes factor RRR, as defined below, except for any portion of RES Compliance Costs or RESRAM Benefits reflected in factor RRR that were not included in the revenue requirement established in that general rate proceeding.

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DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019

ISSUED BY Michael M. Moehn President St. Louis, Missouri  
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UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.1

CANCELLING MO.P.S.C. SCHEDULE NO. SHEET NO.

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

The following items 1 to 3 apply to revised RESRAM rate schedules to adjust the RESRAM Rate other than when the RESRAM Rate is reset upon the effective date of rate schedules published as a result of a general rate proceeding or as a result of an offset adjustment being ordered:

- 1. Accumulation Period (AP): the historical calendar months during which RES Compliance Costs and RESRAM Benefits are incurred or received and for which over- or under-recoveries of those costs/benefits (factor ROUR, defined below) are calculated and accumulated through the ROUR. The initial AP under this rider shall begin on the first day of the first month that begins on or after the date this rider becomes effective and shall end on July 31, 2019. Each subsequent AP shall begin on August 1st, and shall end on July 31st of the following year.
2. Recovery Period (RP): the billing months during which the over-/under-recoveries (factor ROUR) of RES Compliance Costs and RESRAM Benefits from the immediately preceding AP shall be reflected in the RESRAM Rate, along with the actual RES Revenue Requirement (factor RRR, defined below), True-Up Amount (factor T, defined below), and the Ordered Adjustment (factor OA, defined below) for that RP. Each RP shall begin on the first day of the billing month of February following each AP, and shall be in effect for one year until the next RP begins.
3. RESRAM Rate Adjustment Filings: The Company shall adjust its RESRAM Rate by filing a revised RESRAM Rate Schedule (1) no later than 60 days after the end of each AP to take effect concurrently with the beginning of the February billing month, (2) concurrent with rate schedules effectuating a general rate proceeding as applicable to reset the RESRAM Rate and to update Base Amount unless otherwise ordered, and (3) in compliance with any Commission order as applicable to incorporate an Required Offset Amount ("ROA") as the result of a Commission order.

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DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019
ISSUED BY Michael M. Moehn President St. Louis, Missouri
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UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.2

CANCELLING MO.P.S.C. SCHEDULE NO. SHEET NO.

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

RESRAM RATE DETERMINATION

Application of the RESRAM Rate, net of benefits received from RES compliance other than the RESRAM Benefits, shall not generate an annual amount of revenue that exceeds the one percent (1%) retail rate impact limitation as provided in the RES and 4 CSR 240-20.100(5), and any applicable successor Commission Rule. Any amounts otherwise recoverable under this rider but for the retail rate impact limitation shall be deferred to a regulatory asset, at a carrying cost each month equal to the Company's monthly Short-Term Borrowing Rate to be recovered in a subsequent RP or reflected in the revenue requirement established in the Company's next general rate proceeding, if not already fully recovered.

For each RESRAM Rate adjustment filing, the RESRAM Rate is calculated as:

RESRAM Rate = TRR\_RATE + ROA

Where:

TRR\_RATE = The minimum: of the rate determined by dividing TRR by S\_RP, and the rate reflected in RAC

TRR = Total RESRAM Recoveries

TRR = ROUR + RRR + T + OA

S\_RP = Estimated recovery period sales in kWh.

RAC = Rate Adjustment Cap.

ROA = Required Offset Amount

ROA = DA / DPE

DA = Disallowance Amount - an amount ordered by the Commission to be disallowed during a subsequent general rate proceeding or prudence review under this rider that was previously reflected in a RESRAM rate.

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ISSUED BY Michael M. Moehn President St. Louis, Missouri NAME OF OFFICER TITLE ADDRESS

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.3

CANCELLING MO.P.S.C. SCHEDULE NO. SHEET NO.

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

DPE = Disallowance Period Energy - the energy projected to be sold in the six (6) months beginning with the first billing month following the promulgation of a RESRAM Rate that includes a DA.

ROUR = RES Over/Under Recovery

ROUR = ARC - RCR + I

ARC = Actual RES Costs

The actual RES Compliance Costs and RESRAM Benefits incurred or received during the recently completed AP, including monthly adjustments to rate base included in the MBAs and the RBAs for accumulated depreciation and accumulated deferred income taxes.

RCR = RES Costs Recovered

The RES Compliance Costs and RESRAM Benefits reflected in the RBA and the sum of the applicable MBA for the AP.

I = Interest applicable to the following:

- (i) the difference between RCR and ARC for each month of each AP;
(ii) Ordered Adjustments ("OA"), if any;
(iii) adjustments due to a required offset amount ("ROA");
(iv) all under- or over-recovery balances created through operation of this RESRAM, as determined in the true-up filings ("T") provided for herein.

Interest shall be calculated monthly at the Short-Term Borrowing Rate, applied to the month-end balance of items (i) through (iv) in the preceding sentence.

UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.3

CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_ SHEET NO. \_\_\_\_\_

APPLYING TO MISSOURI SERVICE AREA

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DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019

ISSUED BY Michael M. Moehn President St. Louis, Missouri  
NAME OF OFFICER TITLE ADDRESS

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

- RRR = RESRAM Revenue Requirement: An amount equal to the revenue requirement associated with all RES Compliance Costs net of RESRAM Benefits that are not reflected in the revenue requirement that was established in the Company's last general rate proceeding. The RRR shall consist of (1) the capital costs associated with investments in renewable energy resources used to comply with the RES that have been placed into service on the Company's books as of the end of each AP, excluding 100% of the depreciation and return on such investments; and (2) the non-capital RES Compliance Costs and RESRAM Benefits reflected on the Company's books during that AP except to the extent those costs and benefits are addressed under the company's Rider FAC, on an annualized basis for the first AP which may be less than twelve months in length, or if the asset to which the costs and benefits relate was only in service for a portion of the AP. Notwithstanding the previous sentence, if a wind generation asset used for RES compliance ceases to earn Production Tax Credits during an AP, an adjustment necessary to offset the annual impact of those Production Tax Credits as reflected in rates established in a general rate proceeding shall be included.
- T = True-Up Amount: An amount calculated at the end of each AP reflecting the difference between (1) the revenues billed for the first 6 months of the then-effective RP and projected to be billed for the second 6 months of the RP and (2) the revenues authorized for collection through this rider during the first 6 months of the then-effective RP and projected to be collected during the second 6 months of the RP, excluding amounts of authorized and actual revenues associated with factor RRR, resulting from the difference in forecasted RP total kWh usage, and actual total kWh usage from the RP. Forecasted amounts shall be trued-up with actual amounts in the next applicable calculation.
- OA = Ordered Adjustment: The amount of any adjustment to the TRR ordered by the Commission not reflected as an ROA.
- MBA = Monthly Base Amount: Is one-twelfth of the Base Amount. The Base Amount is the revenue requirement associated with RES Compliance Costs and RESRAM Benefits reflected in the revenue requirement established in the applicable general rate proceedings. At the conclusion of each general rate proceeding, unless otherwise ordered, the Base Amount shall be published on a replacement sheet for Sheet 93.6.

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DATE OF ISSUE	<u>May 21, 2018</u>	DATE EFFECTIVE	<u>January 1, 2019</u>
ISSUED BY	<u>Michael M. Moehn</u>	TITLE	<u>President</u>
	NAME OF OFFICER		ADDRESS
			<u>St. Louis, Missouri</u>



UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.5

CANCELLING MO.P.S.C. SCHEDULE NO. SHEET NO.

APPLYING TO MISSOURI SERVICE AREA

RIDER RESRAM

RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

RBA = RESRAM Base Amount: is the sum of the monthly RESRAM Revenue Requirements (which is one-twelfth of the applicable factor RRR) for each month in the AP. Each month's RESRAM Revenue Requirement is associated with the amount reflected in RRR used to determine the RESRAM Rate that is in effect for that month.

RAC = Rate Adjustment Cap: applies to the RESRAM rate and shall apply so long as the rate caps provided for by Section 393.1655, RSMo. are in effect, and shall be calculated by multiplying the baseline rate as determined under Section 393.1655.4 by the 2.85% CAGR compounded for the amount of time that has passed since the effective date of rate schedules published to effectuate the Commission's Order that approved the Stipulation and Agreement that resolved File No. ER-2016-0179, and subtracting the then-current FAR under Rider FAC and the average base rate determined from the most recent general rate proceeding as calculated pursuant to Section 393.1655.

"Short-Term Borrowing Rate" = A rate applied monthly that is equal to the weighted average interest rate paid on the Company's short-term debt.

The RESRAM Rates applicable to customer bills shall be rounded to the nearest 0.00001 cents, to be charged on a cents/kWh basis for each applicable kWh billed.

PRUDENCE REVIEWS:

A prudence review shall be conducted no less frequently than every twenty-four (24) months. RES Compliance Costs which are determined by the Commission to have been imprudently incurred or incurred in violation of the terms of this rider shall be credited to customers through factor DA with interest using factor I. RES Compliance Costs included in the revenue requirement in a general rate proceeding shall not be subject to further prudence review hereunder.

# UNION ELECTRIC COMPANY ELECTRIC SERVICE

MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.6

CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_ SHEET NO. \_\_\_\_\_

APPLYING TO MISSOURI SERVICE AREA

## RIDER RESRAM

### RENEWABLE ENERGY STANDARD RATE ADJUSTMENT MECHANISM (Cont'd.)

#### RESRAM Rate Schedule

Accumulation Period Ending:		mm/dd/yy
1. Actual RES Costs Incurred in AP (ARC)		\$0
2. RES Expenses Recovered in AP (RCR)=(RBA + sum of monthly MBAs) =		\$0
3. RES Over/Under Recovery (ROUR)	=	\$0
3.1 Interest	+	\$0
3.2 (Over)/Under Recovered Costs (ARC-RCR)	+	\$0
4. RES Revenue Requirement (RRR)	+	\$0
5. True-Up (T)	+	\$0
6. Ordered Adjustment (OA)	±	\$0
7. Total RESRAM Recoveries (TRR)=(ROUR+RRR+T+OA)	=	\$0
8. Estimated Recovery Period Sales (SRP)	÷	0 kWh
9. $TRR_{RATE} = \text{MIN of } ((TRR/SRP), (RAC))$	=	
\$0.00000/kWh		
10. $RESRAM_{RATE} = TRR_{RATE} + ROA^1$	=	\$0.00000/kWh
11. Required Offset Amount (ROA)	+	\$0.00000/kWh
12. $RESRAM_{RATE}$ (applicable for the first 6 billing months if ROA is greater than \$0.00000)	=	\$0.00000/kWh

\*A negative RESRAM Rate represents a per kWh credit that would be applied to a customer's bill.

Recovery Period for Above RESRAM Rate  
 \_\_\_\_\_ to \_\_\_\_\_

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<sup>1</sup> If ROA is equal \$0.00000, The  $RESRAM_{RATE}$  stated in this Line 10 shall apply for the entire Recovery Period. If ROA is greater than \$0.00000, the  $RESRAM_{RATE}$  shall be the value shown on line 12 for the first 6 billing months and, thereafter, the value shown on Line 10.

DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019  
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MO.P.S.C. SCHEDULE NO. 6 Original SHEET NO. 93.6

CANCELLING MO.P.S.C. SCHEDULE NO. \_\_\_\_\_ SHEET NO. \_\_\_\_\_

APPLYING TO MISSOURI SERVICE AREA

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Current RBA = \$0

Base Amount File No. ER-2016-0179 = \$0.00

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DATE OF ISSUE May 21, 2018 DATE EFFECTIVE January 1, 2019  
ISSUED BY Michael M. Moehn President St. Louis, Missouri  
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