

MEMORANDUM

TO: Missouri Public Service Commission
Official Case File, Case No. EO-2023-0359
Ameren Missouri's Filing of the Renewable Energy Standard
Compliance Plan for 2023-2025

FROM: Cedric E. Cunigan, PE, Engineering Analysis

/s/ Cedric E. Cunigan, PE / 06-29-2023
Engineering Analysis / Date

/s/ Eric Vandergriff / 06-29-2023
Staff Counsel's Office / Date

SUBJECT: Staff Report and Conclusion on Ameren Missouri's 2022 Renewable Energy
Standard Compliance Report

DATE: June 29, 2023

SUMMARY

Staff has reviewed the Union Electric Company, d/b/a Ameren Missouri ("Company" or "Ameren Missouri") 2022 Renewable Energy Standard Compliance Report. Staff utilized the North American Renewables Registry ("NAR") to independently verify the retirement of the renewable energy credits ("RECs") by the Company. Ameren Missouri has retired sufficient RECs to satisfy the 2022 RES requirements. Ameren Missouri has requested a variance from subsection 20 CSR 4240-20.100(8)(A)1.I. and 20 CSR 4240-20.100(8)(A)1.J. in Case No EE-2023-0409. The purpose of subsection 20 CSR 4240-20.100(8)(A)1.I. is to identify details regarding renewable energy resources not owned by the electric utility. Ameren Missouri has provided supplemental information in lieu of the rule requirements as further discussed in Section I of this memorandum. The purpose of subsection 20 CSR 4240-20.100(8)(A)1J is to identify details regarding renewable energy purchased from customer generators on Ameren Missouri's system. Ameren Missouri provided the required information under this rule for certified systems and does not need a variance. Also, this information is required for other purposes as discussed in Section J of this memorandum. Staff recommends that the Commission grant the variance for 20 CSR 4240-20.100(8)(A)1.I. for the third party REC purchases. However, Staff recommends the Commission reject the variance for 20 CSR 4240-20.100(8)(A)1.J for reporting on customer-owned systems.

In addition, 20 CSR 4240-20.100(3)(J) allows for up to 10% of required RECs to be retired between January 1 and April 15 of the following year. Ameren Missouri previously requested a variance and was granted a waiver of this rule in Case No. EE-2023-0127.

OVERVIEW

On April 14, 2023, Ameren Missouri filed its Renewable Energy Standard (“RES”) Compliance Report (Compliance Report) for calendar year 2022 (Case No. EO-2023-0359), in accordance with 20 CSR 4240-20.100(8), Electric Utility Renewable Energy Standard Requirements, Annual RES Compliance Report and RES Compliance Plan. This rule states, in part, “Each electric utility shall file an RES compliance report no later than April 15 to report on the status of both its compliance with the RES and its compliance plan as described in this section for the most recently completed calendar year.” Subparagraphs 20 CSR 4240-20.100(8)(A)1. A. through P. provide the minimum requirements for the Compliance Report. Subsection 4 CSR 240-20.100(8)(D) requires that Staff examine the Company’s Compliance Report and file a report within forty-five (45) days of the filing. Staff requested an extension to file its report on May 30, 2023 in order to work with the Company to address deficiencies identified during Staff’s initial review. The Commission granted an extension until June 29, 2023. The Company has addressed identified issues or requested variances from the Commission.

Staff utilized NAR to independently verify the retirement of the RECs and S-RECs by the Company.

DISCUSSION

Staff reviewed the Company’s Compliance Report in accordance with the established requirements to verify the Compliance Report contains the information required. The results of this review are detailed below, with appropriate rule subparagraphs A. through P. identified and quoted.

A. “Total retail electric sales for the utility, as defined by this rule:”

The Company provided the total retail electric sales for 2022 expressed as total megawatt-hours (“MWh”) sold to Ameren Missouri consumers consistent with the

amount of 31,866,242 MWh listed within the 2022 FERC Form 1 submitted in EFIS on April 13, 2023.¹

B. “Total jurisdictional revenue from the total retail electric sales to Missouri customers as measured at the customers’ meters;”

The Company provided the total sales to ultimate customers for 2022 expressed as annual operating revenues (dollars) from Ameren Missouri consumers as \$3,035,773,677 in the RES report. This number equates to the total sales to ultimate customers on page 300-301 line 10, column b of the FERC Form 1 plus \$86,269,178 in other MO jurisdictional revenues.

C. “Total retail electric sales supplied by renewable energy resources, as defined by section 393.1025(5), RSMo, including the source of the energy;”

The Company utilized nine (9) company-owned renewable energy generating facilities during 2022:

- Keokuk Hydroelectric Generating Station (“Keokuk”),
- Maryland Heights Renewable Energy Center (“MHREC”),
- O’Fallon Renewable Energy Center (“OREC”),
- BJC Solar facility (“BJC”),
- Ameren Missouri headquarters office building (“HQ”),
- High Prairie Renewable Energy Center (“HPREC”),
- Atchison County Renewable Energy Center (“AREC”),
- South St. Louis Renewable Energy Center (“SSREC”), and the
- Cape Girardeau Renewable Energy Center (“CGREC”).

¹ Page 300-301 of 2021 FERC Form 1, Line 10, column d.

The Company also acquired energy through a power purchase agreement (“PPA”) with Pioneer Prairie II Wind Farm (“Pioneer Prairie”). The total amount of energy generated in 2022 for the above listed renewable energy facilities was ** [REDACTED] **.

D. “The number of RECs and S-RECs created by electrical energy produced by renewable energy resources owned by the electric utility. For the electrical energy produced by these utility-owned renewable energy resources, the value of the energy created. For the RECs and S-RECs, a calculated REC or S-REC value for each source and each category of REC;”

The Company reported the following information on pages 7 of its Compliance Report:

Resource	RECs	MO Equivalent RECs	Value of Energy ¹
AMO Headquarters Solar	84	105	\$5,201
O'Fallon REC	4,190	5,238	\$259,445
BJC Solar Facility	1,708	2,135	\$105,759
Cape Girardeau REC	405	506	\$25,078
South St. Louis REC	316	395	\$19,257
High Prairie REC	945,033	1,181,291	\$38,414,209
Atchison REC	997,450	1,246,813	\$26,445,321
Keokuk Hydro-electric	894,812	894,812	NA
Maryland Heights REC	53,358	66,698	\$3,303,927

The Company has stated in previous filings that RECs created by Keokuk do not have value due to restrictive nature of utilizing hydroelectric to meet renewable portfolio standards in other states and the fact that Keokuk’s costs are already part of the existing rate structure. Ameren Missouri treats the RECs as a government incentive. Staff believes there is a value to the RECs and S-RECs created by the Company’s owned generation though that value is not transparent. Values for HPREC and AREC represent actual market energy settlements for 2022. The values for the remaining facilities were

calculated by multiplying the MWhs generated by the average 2022 Day ahead LMP energy price (\$/MWh) at the Missouri generation node.²

E. “The number of RECs acquired, sold, transferred, or retired by the utility during the calendar year;”

The Company provided the following information regarding the number of RECs acquired in 2022:

Source	Pioneer Prairie II	Customer Solar ³	3 rd Party Non-Solar Purchase
RECs/ S-RECs	** [REDACTED] **	81,146 (101,433)	454,022 (567,528)

The Company provided information regarding the number of RECs/SRECs retired for 2022 compliance. The Company reported rounded values affected by the 1.25 MO multiplier. Staff verified the actual numbers on the following page in NAR⁴.

² MOGEN is the aggregate hub node of Missouri generation nodes used in the Midcontinent Independent System Operator LMP historical reports

³ The number in parenthesis represents the final value for compliance after the 1.25 credit for in state generation is applied.

⁴ Facilities denoted with * qualified for the 1.25 multiplier for MO generation facilities. A portion of the 3rd party non-solar purchase qualified.

RECS Retired		
Facility/Vintage	RECs	MO Equivalent
Keokuk 2021	164,548.00	164,548.00
Keokuk 2022	886,953.00	886,953.00
MHREC 2022*	53,358.00	66,697.50
Pioneer Prairie 2021	327,318.00	327,318.00
High Prairie 2020*	97,507.00	121,883.75
High Prairie 2021*	183,182.00	228,977.50
High Prairie 2022*	945,033.00	1,181,291.25
Atchison 2022*	997,450.00	1,246,812.50
3rd Party Non-Solar*	356,515.00	445,643.75
Total RECs	4,011,864.00	4,670,125.25
Facility/Vintage	SRECs	MO Equivalent
Customer Solar 2022*	81,230.00 ⁵	101,537.50
OREC 2022*	4,190.00	5,237.50
BJC 2020*	1,708.00	2,135.00
CGREC*	405.00	506.25
SSREC*	316.00	395.00
Total SRECs	87,849.00	109,811.25
Total Combined	4,099,713.00	4,779,936.50

⁵ Ameren incorrectly recorded 72 additional customer solar RECs in 2022 due to systems being taken offline, but not being removed from the associated aggregation. Staff worked with the Company and NAR to solve this issue. The RECs could not be deleted, so the 72 additional RECs were retired for 2023 compliance and not used for 2022 compliance. Also, the same number of RECs were reduced from 2023 generation amounts.

Staff verified through NAR that the Company retired a total of 4,099,713 RECs (4,779,936.5 MO equivalency), with at least 2% from solar sources. The company was required to retire 4,799,936 total RECs with at least 95,599 being S-RECs. Ameren retired 14,212.25 (MO equivalent) more S-RECs than were required for solar compliance and applied them to the general REC requirements. These RECs were registered and retired in the electronic tracking system⁶ utilized for compliance purposes. In accordance with statute and regulation, a certified renewable energy resource produced these RECs and they were banked and utilized appropriately.⁷

Ameren Missouri stated that there were no RECs sold during the calendar year.

F. “The source of all RECs acquired during the calendar year;”

The Company acquired RECs from Pioneer Prairie, third party REC purchases, and its customer-generators during 2022. See Sections D, E, and I of the report for the amounts. See Section I for more discussion of the third party REC purchases.

G. “The identification, by source and serial number, or some other identifier sufficient to establish the vintage and source of the REC, of any RECs that have been carried forward to a future calendar year;”

The Company provided a listing of RECs carried forward for future year(s) as Exhibit 1 of the Compliance Report. Exhibit 1 includes the serial numbers for RECs generated by Keokuk.⁸

⁶ North American Renewables Registry: <http://narecs.com/>.

⁷ Renewable Energy Resource per Section 393.1025(5), RSMo and 20 CSR 4240-20.100(1)(N); Banked RECs per Section 393.1030.2., RSMo and 20 CSR 4240-20.100(1)(M).

⁸ RECs from the Keokuk were the only remaining RECs as of December 31, 2022; however, Ameren has generated and purchased more RECs as of the date of this report.

H. “An explanation of how any gains or losses from sale or purchase of RECs for the calendar year have been accounted for in any rate adjustment mechanism that was in effect for the utility;”

Ameren Missouri states that there were no sales of RECs and all purchased RECs were used to meet 2022 compliance requirements or banked for future compliance requirements.

I. “For acquisition of electrical energy and/or RECs from a renewable energy resource that is not owned by the electric utility, the following information for each resource that has a rated capacity of ten (10) kW or greater:”

“(I) Facility name, location (city, state), and owner;”

The Company provided the necessary information for ** [REDACTED] **. Facility owner was not provided for all third party REC purchases, however Ameren did supply counterparty name, trade date, quantity, vintage year, some information on the type of generation, and a deal number. Ameren has requested a variance of this rule in case number EE-2023-0409. Staff is able to verify that the total number of RECs retired from third party sources in NAR matches the total amount listed in the compliance report. Ameren also provided invoices for individual sales with the REC quantities transferred by asset and vintage year for each sale. Staff recommends the Commission approve the request for variance from the requirements of 20 CSR 4240-20.100(8)(A)1.I. for the third party REC purchases. This would apply to sections (I) through (V) of 20 CSR 4240-20.100(8)(A)1.I.

“(II) That the energy was derived from an eligible renewable energy technology and that the renewable attributes of the energy have not been used to meet the requirements of any other local or state mandate;”

The Company provided an affidavit for ** [REDACTED] ** as Exhibit 2 of the Compliance Report, which indicates it was derived from an eligible technology and that the renewable attributes have not been used for other purposes.

No affidavit was provided for the third party REC purchases; however, the third party REC purchases were tracked through the Commission designated renewable energy tracking system. Staff confirmed that the RECs purchased from third parties were on the list of MDNR-DE's list of certified renewable energy generation facilities. Staff recommends the Commission approve the request for variance from the requirements of 20 CSR 4240-20.100(8)(A)1.I. for the third party REC purchases.

“(III) The renewable energy technology utilized at the facility;”

Ameren Missouri provided the type of generation for third party purchases and PPAs, all sources being wind. Staff was able to confirm through MDNR-DE and NAR, the technology for individual facilities, and the RECs associated with those facilities. Staff recommends the Commission approve the request for variance from the requirements of 20 CSR 4240-20.100(8)(A)1.I. for the third party REC purchases.

“(IV) The dates and amounts of all payments from the electric utility to the owner of the facility;”

The dates and amounts for the payments to ** [REDACTED] ** were provided in Exhibit 3 of the Compliance Report. Trade dates were reported for third party REC purchases. Staff recommends the Commission approve the request for variance from the requirements of 20 CSR 4240-20.100(8)(A)1.I. for the third party REC purchases.

“(V) All meter readings used for the calculation of the payments referenced in part (IV) of this paragraph;”

The RECs generated on a monthly basis were provided for ** [REDACTED] ** in Exhibit 3 of the Compliance Report along with an affidavit from the owner of the facility in Exhibit 2 of the Compliance Report.

Staff recommends the Commission approve the request for variance from the requirements of 20 CSR 4240-20.100(8)(A)1.I. for the third party REC purchases. The purpose of this subparagraph is to demonstrate the validity of RECs and/or S-RECs obtained from sources that are not owned by the electric utility. Generation of renewable energy at company-owned resources is typically monitored by revenue quality meters and/or reported through an independent system operator. Resources in which this subparagraph applies to are not necessarily monitored by the utility that seeks to retire the associated RECs for compliance purposes. This subparagraph compensates for the lack of utility ownership/control of the renewable energy resource. In the past, Staff has recommended a variance based on the availability of a reasonable substitute to the meter readings, such as invoices. In this instance, invoices would not have been paid by Ameren Missouri on a monthly basis. Ameren did provide invoices for sales with the quantity of RECs purchased by asset and vintage.

J. “For acquisition of electrical energy and/or RECs from a customer-generator:

(I) Location (zip code);

(II) Name of aggregated subaccount in which RECs are being tracked in;

(III) Interconnection date

(IV) Annual estimated or measured generation; and

(V) The start and end date of any estimated or measured RECs being acquired;”

Ameren Missouri provided the required information in its 2022 RES Compliance Report, Exhibit 6. Ameren Missouri did note that projects from 2020 to 2022 were not included in Exhibit 6. The reasoning was that projects associated with 2022 solar rebate payments have not been certified by MDNR-DE, and projects associated with 2020 and 2021 had been certified, but not yet entered into NAR.

Ameren requested a variance from section (III) of this regulation asking to specify the year instead of the interconnection date stating that the records indicate the year, but not the specific date of interconnection. Staff recommends the Commission deny this portion of the variance request. The information included in Exhibit 6 includes interconnection date with day, month, and years. Further, the Commission’s rules and Ameren’s tariff require this information of customer generators in the interconnection application and this information is necessary for prorating the amount of RECs received from customer generation aggregations in the first and final years.

K. “The total number of customers that applied and received a solar rebate in accordance with section (4) of this rule;”

The Company paid 1,375 solar rebates during calendar year 2021.

L. “The total number of customers that were denied a solar rebate and the reason(s) for denial;”

The Company stated that no customers were denied a solar rebate.

M. “The amount expended by the electric utility for solar rebates, including the price and terms of future S-REC contracts associated with the facilities that qualified for the solar rebates;”

The Company paid \$3,936,030 in solar rebates for calendar year 2022.

- N. The Company stated that all funding has been paid for the Solar Rebate Tariff associated with RSMO 393.1030.⁹ The compliance tariff sheets in Case No. ER-2022-0337, which have are pending approved at this time, propose removing this program from the tariff sheets.¹⁰ The program associated with RSMO 393.1670 is still active. The company provided Solar Rebate Tariffs in Exhibit 4 of the Compliance Report and the Solar Renewable Energy Credit Purchase Tariff in Exhibit 5. Ameren noted that the Solar Rebate Energy Credit Purchase Tariff was removed from Ameren’s Tariff book on April 1, 2022.¹¹ **“An affidavit documenting the electric utility’s compliance with the RES compliance plan as described in this section during the calendar year;”**

The Company filed the affidavit in Exhibit 7 of the Compliance Report.

- O. **“If compliance was not achieved, an explanation why the electric utility failed to meet the RES.”**

Ameren Missouri has retired enough RECs to achieve compliance with the 2022 RES requirements, however, the number of RECs retired between January 1 and April 15 exceeded the 10% allowed by 20 CSR 4240-20.100(3)(J)¹². Ameren retired 3,504,571.75 RECs (compliance equivalency included) or 73% of the required 4,779,936 RECs in calendar year 2022. The remaining 1,275,364.75 RECs

⁹ MO P.S.C. Schedule No. 6 Sheets 88.9 through 88.13.

¹⁰ Tariff tracking number YE-2023-0222

¹¹ MO P.S.C. Schedule No. 6 Sheets 89 through 89.4 is now the Community Solar Program, which became effective on March 16, 2022 through Commission order in Case No. ER—2021-0240.

¹² 20 CSR 4240-20.100(3)(J) For compliance purposes, electric utilities shall retire RECs in sufficient quantities to meet the RES portfolio requirements of this rule. The RECs shall be retired during the calendar year for which compliance is sought. Electric utilities may retire RECs from January 1 through April 15 of the following year, following the calendar year for which compliance is being sought and designate those retired RECs as counting towards the requirements of that previous calendar year. Any RECs retired in this manner shall be specifically annotated in the registry designated in accordance with subsection (F) of this section and the annual compliance report filed in accordance with section (7) of this rule. RECs retired from January 1 through April 15 of the following year, to be counted towards compliance for the previous calendar year in accordance with this subsection shall not exceed ten percent (10%) of the total RECs necessary to be retired for compliance for that calendar year.

(compliance equivalency included) or 27% of the required 4,779,936 RECs in March of 2022¹³.

P. “A calculation of its actual calendar year retail rate impact.”

The Company provided a calculation of its actual calendar year retail rate impact¹⁴ in its 2022 RES Compliance Report. The 2022 actual calendar year retail rate impact was reported as 1.01%.

¹³ Ameren was granted a waiver of 20 CSR 4240-20.100(3)(J), which requires retirement of 90% of RECs needed for compliance in the calendar year, in Case No EE-2023-0127.

¹⁴ Total RES Compliance Cost divided by the Adjusted Revenue Requirement. Adjusted Revenue Requirement is the Revenue Requirement less the fixed costs associated with existing renewable resources.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)
d/b/a Ameren Missouri's Filing of the)
Renewal Energy Standard Compliance Plan)
for 2023-2025

File No. EO-2023-0359

AFFIDAVIT OF CEDRIC E. CUNIGAN, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW CEDRIC E. CUNIGAN, PE, and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Recommendation, in Memorandum form*; and that the same is true and correct according to his best knowledge and belief.

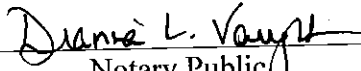
Further the Affiant sayeth not.



CEDRIC E. CUNIGAN, PE

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 29th day of June, 2023.



Notary Public

