

MEMORANDUM

TO: Missouri Public Service Commission
Official Case File, Case No. EO-2022-0283
Ameren Missouri's 2021 Renewable Energy Standard Compliance Report

FROM: Cedric E. Cunigan, P.E., Professional Engineer, Engineering Analysis

/s/ Cedric E. Cunigan P.E. 07/15/2022
Engineering Analysis / Date

/s/ Paul Graham 07/15/2022
Staff Counsel's Office / Date

SUBJECT: Staff Report and Conclusion on Ameren Missouri's 2021 Renewable Energy Standard Compliance Report

DATE: July 15, 2022

SUMMARY

Staff has reviewed the Union Electric Company, d/b/a Ameren Missouri ("Company" or "Ameren Missouri") 2021 Renewable Energy Standard Compliance Report filed April 14, 2022 and the Corrected 2021 RES Compliance Report filed July 5, 2022. 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 2021 RES requirements. 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 was granted a variance of this rule in Case No. EE-2022-0074. Staff has not identified any deficiencies in the Compliance Report. However, Staff has noted an error in Ameren Missouri's reporting of its Missouri jurisdictional revenue.

OVERVIEW

On April 14, 2022, Ameren Missouri filed its Renewable Energy Standard ("RES") Compliance Report (Compliance Report) for calendar year 2021 (Case No. EO-2022-0283), 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 20 CSR 4240-20.100(8)(D) requires that Staff examine the Company’s Compliance Report and file a report within forty-five (45) days of the filing. Staff noted issues with the report and requested an extension of 45 days on May 26, 2022. The Commission granted the extension request on May 26, 2022. Ameren Missouri submitted a corrected Compliance Report on July 5, 2022¹.

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 2021 expressed as total megawatt-hours (“MWh”) sold to Ameren Missouri consumers consistent with the amount of 31,120,872 MWh listed within the 2021 FERC Form 1 submitted in EFIS on April 15, 2022.²

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 2021 expressed as annual operating revenues (dollars) from Ameren Missouri consumers as \$3,232,295,619 in the RES report. This number appears to be total operating

¹ References to the Compliance Report in the following below refer to the Corrected report filed on July 5, 2022.

² Page 300-301 of 2021 FERC Form 1, Line 10, column d.

revenues, and not Missouri jurisdictional sales.³ Total Missouri Jurisdictional Revenue as listed in the Missouri jurisdictional annual report is \$2,861,718,816.

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 eight (8) company-owned renewable energy generating facilities during 2021:

- 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”), and
- South St. Louis Renewable Energy Center (“SSREC”).

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 2021 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:

³ \$3,232,295,619 reported on page 300-301 line 27, column b of the FERC Form 1.

Resource	RECs	MO Equivalent RECs ^{4, 5}	Value of Energy
AMO Headquarters Solar	80	100	\$2,787
O'Fallon REC	6,480	8,100	\$225,763
BJC Solar Facility	1,861	2,326	\$64,837
South St. Louis REC	114	143	\$3,972
High Prairie REC	809,999	1,011,249	\$28,220,365
Atchison REC	697,139	871,424	\$24,288,323
Keokuk Hydro-electric	923,373	923,373	NA
Maryland Heights REC	67,284	84,105	\$2,344,175

In regards to the value of energy from Company-owned resources, the Company has stated 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. The other values were calculated by multiplying the MWhs generated by the average 2021 Day ahead Locational Marginal Pricing ("LMP") energy price (\$/MWh) at MOGEN.⁶ Ameren Missouri did not report a value of RECs or S-RECs from Company-owned facilities in this report. In Case No. EE-2022-0074, Ameren Missouri stated "While RECs costs have been low in previous years, those costs have been increasing and currently are around \$7.00 per REC."⁷ 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.

⁴ 20 CSR 4240-20.100 (3)(G) RECs created by the generation of electricity by a renewable energy resource physically located in the state of Missouri shall count as one and twenty-five hundredths (1.25) RECs for purposes of compliance with this rule. This additional credit shall not be tracked in the tracking systems specified in subsection (F) of this section. This additional credit of twenty-five hundredths (0.25) shall be recognized when the electric utility files its annual compliance report in accordance with section (7) of this rule.

⁵ The Company reported rounded values for Missouri Equivalent RECs.

⁶ MOGEN is an aggregate hub node of Missouri generation nodes used in the MidContinent Independent System Operator LMP historical reports.

⁷ Case No. EE-2022-0074, Request for Variance From 10% Limitation REC Retirements in 2022 for 2021 paragraph 5.

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 2021:

Source	Pioneer Prairie II	Customer Solar	3 rd Party Solar Purchase	3 rd Party Non-Solar Purchase
RECs/ S- RECs	** [REDACTED] **	82,480 (103,100)	14,561	1,290,806 (1,464,571)

The Company provided information regarding the number of RECs/SRECs retired for 2021 compliance. The Company rounded values affected by the 1.25 MO multiplier. Staff verified the actual numbers below in NAR.

RECS Retired		
Facility/Vintage ⁸	RECs	MO Equivalent
Keokuk 2021	758,825.00	758,825.00
Keokuk 2020	153,495.00	153,495.00
MHREC 2021*	67,284.00	84,105.00
MHREC 2020*	24,425.00	30,531.25
Pioneer Prairie 2021	224,747.00	224,747.00
High Prairie 2021*	625,817.00	782,271.25
High Prairie 2020*	30,366.00	37,957.50
Atchison*	697,139.00	871,423.75
3rd Party Non-Solar*	1,290,806.00	1,464,570.50

⁸ Facilities denoted with * qualified for the 1.25 multiplier for MO generation facilities. A portion of the 3rd party non-solar purchase qualified.

Total RECs	3,872,904.00	4,407,926.25
Facility/Vintage	SRECs	MO Equivalent
Customer Solar 2018-2019*	14,061.00	17,576.25
Customer Solar 2020*	83,419.00	104,273.75
Customer Solar 2021*	82,560.00	103,200.00
OREC 2020*	5,913.00	7,391.25
OREC 2021*	6,480.00	8,100.00
BJC 2020*	2,107.00	2,633.75
BJC 2021*	1,861.00	2,326.25
South STL*	114.00	142.50
3rd party Solar 2020	14,561.00	14,561.00
Total SRECs	211,076.00	260,204.75
Total Combined	4,083,980.00	4,668,131.00

Staff verified through NAR that the Company retired a total of 4,083,980 RECs (4,688,131 MO equivalency), with at least 2% from solar sources. The company was required to retire 4,688,131 total RECs with at least 93,363 being S-RECs. Ameren retired 166,841.75 (MO equivalent) more SRECs than were required for solar compliance and applied them to the general REC requirements. These RECs were registered and retired in the electronic tracking system⁹ utilized for compliance

⁹ North American Renewables Registry: <http://narecs.com/>.

purposes. In accordance with statute and regulation, a certified renewable energy resource produced these RECs and they were banked and utilized appropriately.¹⁰

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 2021. See Sections D, E, and I of this memo 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.

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 2021 compliance requirements or banked for future compliance requirements.

¹⁰ 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).

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 Pioneer Prairie and the third party REC purchases. In lieu of the owner of the facility, the Company provided the Counterparty to the REC purchases. The specific owner of each facility is listed in NAR and MDNR-DE’s list of certified renewable energy facilities.

“(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 Pioneer Prairie 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. Staff confirmed that the RECs purchased from third parties were on MDNR-DE’s list of certified renewable energy generation facilities.

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

The affidavit for Pioneer Prairie includes the technology type used. Ameren Missouri provided the type of generation for third party purchases in Section I of the Compliance Report.

“(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 Pioneer Prairie were provided in Exhibit 3 of the Compliance Report. Trade dates were reported for third party REC purchases in section I of the Compliance Report.

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

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 lieu of meter readings, Ameren provided REC amounts, trade dates, payment dates, and amount paid for third party REC purchases.

The meter readings and payments were provided for Pioneer Prairie in Exhibit 3 of the Compliance Report.

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 2021 RES Compliance Report, Exhibit 6. Ameren Missouri did note that some projects associated with 2020 and 2021 solar rebate payments have not yet been certified by MDNR-DE, and that those projects were not included in this report.

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

The Company paid nine hundred forty-four (944) 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 \$2,995,247 in solar rebates for calendar year 2021.

Funding is no longer available for the solar rebate program under RSMO 393.1030, however, the solar rebate program under RSMO 393.1670 still has funding available.

The company provided Solar Rebate Tariffs in Exhibit 4 of the Compliance Report and the Solar Renewable Energy Credit Purchase Tariff in Exhibit 5.¹¹

¹¹ The Solar Renewable Energy Credit Purchase Tariff is not currently in effect for new customers, but the Company is still receiving RECs from participants who entered into an agreement previously.

N. “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.¹²

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 2021 RES requirements. Ameren Missouri was granted a variance from 20 CSR 4240-20.100(3)(J)¹³ in Case No. EE-2022-0074. Ameren retired 3,558,462.25 RECs (compliance equivalency included) or 76.2% of the required 4,688,131 RECs in calendar year 2021. The remaining 1,109,668.75 RECs (compliance equivalency included) or 23.8% of the required 4,688,131 RECs in March of 2022.

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 2021 RES Compliance Report. The 2021 actual calendar year retail rate impact was reported as 2.29%.

¹² The signature was provided in the public version of the report, but was omitted in the confidential version of the report.

¹³ 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.

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.


**In the Matter of Union Electric Company
d/b/a Ameren Missouri's Filing of the
Renewable Energy Standard Compliance
Plan and Renewable Energy Compliance
Report pursuant to 20 CSR 4240-20.100**

File No. EO-2022-0283

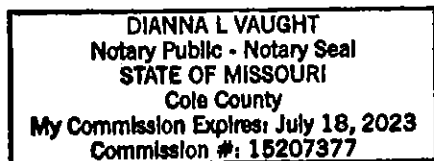
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COMES NOW, Cedric E. Cunigan, PE, and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached *Staff Report on Ameren Missouri's 2021 Renewable Energy Standard Compliance Report, in Memorandum form*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.


Cedric E. Cumigan

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 15th day of July, 2022.



Dianne L. Vaughn
Notary Public