

## MEMORANDUM

TO: Missouri Public Service Commission  
Official Case File, Case No. EO-2018-0287  
Ameren Missouri Renewable Energy Standard Compliance Report for  
Calendar Year 2017

FROM: Claire M. Eubanks, P.E., Energy Unit – Engineering Analysis

/s/ Daniel I. Beck, PE / 5/21/18                      /s/ Steven Dottheim / 5/21/18  
Engineering Analysis / Date                                      Staff Counsel’s Office / Date

SUBJECT: Staff Report and Conclusion on Ameren Missouri’s 2017 Renewable Energy  
Standard Compliance Report

DATE: May 21, 2018

### SUMMARY

The Staff has reviewed the Union Electric Company, d/b/a Ameren Missouri (“Company” or “Ameren Missouri”) 2017 RES Compliance Report. Staff has 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 2017 RES requirements.

On May 8, 2018, Ameren Missouri filed a request for variance from 4 CSR 240-20.100(3)(J), which allows an electric utility to make REC retirements in the first quarter of the year following the compliance year, but limits those retirements to 10%. For the 2017 compliance year, Ameren Missouri retired just under 15% of the required RECs during 2018 (January 1 - April 15, 2018), above the 10% limitation in 4 CSR 240-20.100(3)(J). Ameren Missouri explained the reasoning for the error in its May 8, 2018 Request For Variance pleading and noted that the larger percentage of first quarter 2018 retirements did not impact the cost of RECs, cost of retirements, or any of the costs of compliance with the RES. Staff concurs

that there was no identified cost impact to the larger percentage of first quarter 2018 retirements. Staff recommends the Commission grant Ameren Missouri the requested variance from 4 CSR 240-20.100(3)(J) for the 2017 compliance year.

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Other than the issues discussed above, Staff has not identified any deficiencies in Ameren Missouri's 2017 RES reporting.

### **OVERVIEW**

On April 13, 2018, Ameren Missouri filed its Renewable Energy Standard ("RES") Compliance Report (Compliance Report) for calendar year 2017 (Case No. EO-2018-0287), in accordance with 4 CSR 240-20.100(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 4 CSR 240-20.100(8)(A)1. A. through P. provide the minimum requirements for the Compliance Report.

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<sup>1</sup> See also Exhibit 2 and Response to Staff Data Request No. 0008.

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 utilized the North American Renewables Registry ("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 2017 expressed as total megawatt-hours ("MWh") sold to Ameren Missouri consumers consistent with the amount listed within the 2017 FERC Form 1 submitted in EFIS on April 15, 2018, of 31,597,238 MWh.<sup>2</sup>

#### **B. "Total jurisdictional revenue from the total retail electric sales to Missouri customers as measured at the customers' meters;"**

The Company provided the total retail electric sales for 2017 expressed as annual operating revenues (dollars) from Ameren Missouri consumers as \$3,397,201,686.<sup>3</sup> In the past the Company has reported the total sales to ultimate customers, \$2,944,964,305.<sup>4</sup>

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<sup>2</sup> Page 301 of 2017 FERC Form 1, Line 10.

<sup>3</sup> Page 300 of 2017 FERC Form 1, Line 27 provided in response to Staff Data Request No. 0011.

<sup>4</sup> Page 300 of 2017 FERC Form 1, Line 10 (Data Request No. 0011) or Page 300 of 2017 FERC form 1 filed as the Annual Report, Line 10 + Line 9.

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

The Company utilized four (4) company-owned renewable energy generating facilities during 2017: the Keokuk Hydroelectric Generating Station (“Keokuk”), the Maryland Heights Renewable Energy Center (“MHREC”); the O’Fallon Renewable Energy Center (“OREC”), and the GOB (“GOB”). 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 2017 for the above listed renewable energy facilities was \*\* \_\_\_\_\_ \*\*.

**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 and 8 of its Compliance Report:

Facility	Number of RECs	Compliance Equivalency for In-State <sup>5</sup>	Value of Energy	Value of RECs (\$/REC)
Keokuk	1,017,277	n/a	\$26,691,959 <sup>6</sup>	Not assigned
GOB	91	113.75	Not assigned <sup>7</sup>	Not assigned
MHREC	39,306	49,133	** _____ **	Not assigned
OREC	5,943	7,429	\$170,272 <sup>8</sup>	Not assigned

<sup>5</sup> Renewable resources located in Missouri, qualifies for the one and twenty-five hundredths (1.25) credit multiplier allowed by statute and regulation; 393.1030.1., RSMo; 4 CSR 240-20.100(3)(G).

<sup>6</sup> Provided in supplemental response to Staff Data Request No. 0003.

<sup>7</sup> The full output of this facility is consumed on site at the Company’s headquarters building, therefore no values for the energy or S-RECs have been assigned.

The generation output, and therefore RECs associated with Keokuk for 2017, is higher than is typical due to upgrades and unusually favorable river flows. Ameren Missouri has made various upgrades to 13 of the 15 units at Keokuk since 2011; some upgrades have increased the nameplate ratings of the individual generators to 8.8 MWs.<sup>9</sup>

The Company reported the value of generation produced by the MHREC in 2017 as \*\* \_\_\_\_\_ \*\*. <sup>10</sup> Staff will note that the value of generation reported for the MHREC \*\* \_\_\_\_\_ \*\*. \*\*

The Company does not assign a value to RECs created by renewable generation assets that have been fully placed into rate base. Ameren Missouri treats the RECs as a government incentive.<sup>11</sup> 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.

**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 and retired during the calendar year:

	<b>Number of RECs (Compliance Equivalency)</b>	<b>Number of S-RECs (Compliance Equivalency)</b>
Acquired	** _____ ** <sup>12</sup> (n/a)	60,041 (75,051)
Retired	1,532,295 (1,548,265)	25,278 (31,597)

<sup>8</sup> The value is based on the locational marginal pricing (“LMP”) through Midcontinent Independent System Operator (“MISO”).

<sup>9</sup> Response to Staff Data Request No. 0007.

<sup>10</sup> In previous years this value was based on the heat rate of the generators and the contract purchase price of methane.

<sup>11</sup> Response to Staff Data Request No. 0004.

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\*\* See Exhibit 2 and response to Staff Data Request No. 0008.

The Company did not report any RECs sales or transfers in 2017.<sup>13</sup>

Non-Solar Renewable Energy Credits Retired for Compliance:

Staff verified that the Company retired 1,138,496 Keokuk RECs (2015-2016 Vintage), 329,919 Pioneer Prairie RECs (2015 Vintage), and 79,850 MHREC RECs<sup>14</sup> (2015 Vintage) to meet the non-solar requirement of 1,548,265 RECs.<sup>15</sup> These RECs were registered and retired in the electronic tracking system<sup>16</sup> 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.<sup>17</sup>

Solar Renewable Energy Credits Retired for Compliance:

Staff verified that the Company retired 31,598 customer-generator S-RECs<sup>18</sup> (2015 Vintage) to meet the solar requirement of 31,597 S-RECs.

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

The Company acquired RECs from Pioneer Prairie and its customer-generators during 2017.

**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;”**

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<sup>13</sup> Report page 10 and response to Staff Data Request No. 0004.

<sup>14</sup> 63,880 RECs with a compliance equivalency of 79,850 RECs.

<sup>15</sup> Pursuant to 4 CSR 240-20.100(1)(R)2., the amount of RECs necessary is determined by calculating five percent (5%) of the Company’s total retail sales, less the solar requirement.

<sup>16</sup> North American Renewables Registry: <http://narecs.com/>.

<sup>17</sup> Renewable Energy Resource per Section 393.1025.(5), RSMo and 4 CSR 240-20.100(1)(N); Banked RECs per Section 393.1030.2., RSMo and 4 CSR 240-20.100(1)(M).

<sup>18</sup> 25,278 S-RECs with a compliance equivalency of 31,598 S-RECs.

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, MHREC, OREC, \*\* \_\_\_\_\_ \*\*, and aggregated S-RECs.<sup>19</sup>

**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;”**

The Company did not incur any gains or losses associated with REC purchases or sales. No RECs were sold and all RECs purchased will be utilized for future compliance purposes.

**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.

**“(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. \*\* \_\_\_\_\_

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<sup>19</sup> Aggregated S-RECs include customer generated S-RECs and the GOB.

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See Exhibit 2 and response to Staff Data Request No. 0008.

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

The affidavit for Pioneer Prairie includes the technology type used.

**“(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 were provided in Exhibit 3 of the Compliance Report.

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

The meter readings were provided 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;”**

The Company provided the required information in its 2017 RES Compliance Report, Exhibit 6.



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

The Company paid four (4) solar rebates during calendar year 2017. Staff notes that the Company has not yet paid solar rebates equaling the stipulated cap of \$91.9 million, which was expected to be completed during 2014. The Company sent “Expression of Interest” forms to customers who are in the reservation queue but have not yet installed solar electric systems. Currently, there are 16 customers in the queue with active rebate commitments.<sup>20</sup>

**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. Please note that some customers who applied for a solar rebate may not have been offered one due to the spending limit stipulated in Case No. ET-2014-0085.

**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 \$97,125 in solar rebates for calendar year 2017.

The Company provided information regarding the Standard Offer Contract tariff that was in effect prior to House Bill 142 and included the funds paid to customers in 2015 for past Standard Offer Contracts. Additionally, the Company included the Solar Rebate Tariff in Exhibit 4 of the Compliance Report.

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<sup>20</sup> Response to Staff Data Request No. 0006.

**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 referenced in the Compliance Report as Exhibit 7.

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

Ameren Missouri has achieved compliance with the 2017 RES requirements. However, as explained in its May 8, 2018 Request For Variance pleading, Ameren Missouri retired a higher percentage of RECs than allowed during January 1 – April 15, 2018 for compliance year 2017. Ameren Missouri explained the reasoning for the error and noted that the larger percentage of first quarter 2018 retirements did not impact the cost of RECs, cost of retirements, or any of the costs of compliance with the RES. Staff concurs that there was no identified cost impact to the larger percentage of first quarter 2018 retirements. Staff recommends the Commission grant Ameren Missouri the requested variance from 4 CSR 240-20.100(3)(J) for the 2017 compliance year.

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

The Company provided a calculation of its actual calendar year retail rate impact<sup>21</sup> in its 2017 RES Compliance Report. The 2017 actual calendar year retail rate impact was reported as 0.31%.

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<sup>21</sup> Total RES Compliance Cost divided by the Adjusted Revenue Requirement.

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

In the Matter Union Electric d/b/a Ameren     )  
Missouri's Filing of the Renewable Energy    )  
Standard Compliance Plan for 2018-2020     )     Case No. EO-2018-0287

**AFFIDAVIT OF CLAIRE M. EUBANKS, PE**

STATE OF MISSOURI     )  
  )  
COUNTY OF COLE     )     ss.

COMES NOW CLAIRE M. EUBANKS, PE and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing Staff Report (2017 RES Compliance Report) in Memorandum form; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Claire M Eubanks  
CLAIRE M. EUBANKS, 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 21<sup>st</sup> day of May 2018.

**D. SUZIE MANKIN**  
Notary Public - Notary Seal  
State of Missouri  
Commissioned for Cole County  
My Commission Expires: December 12, 2020  
Commission Number: 12412070

D. Suzie Mankin  
Notary Public