MEMORANDUM

- TO:Missouri Public Service Commission Case File
Case No. EO-2021-0347, Evergy Missouri Metro's
2021 Annual Renewable Energy Standard Compliance Plan
- **FROM:** Amanda Coffer, Associate Engineer, Engineering Analysis

/s/ Claire M. Eubanks, P.E.06/01/2021/s/ Travis Pringle06/01/2021Engineering Analysis / DateStaff Counsel's Office / Date

- **SUBJECT:** Staff Report on Evergy Missouri Metro's 2021 Annual Renewable Energy Standard Compliance Plan
- **DATE:** June 1, 2021

SUMMARY

Staff has reviewed Evergy Missouri Metro's ("EMM") 2021 Annual Renewable Energy Standard Compliance Plan ("*Plan*"). Based on the information supplied EMM appears to have met the minimum requirements of 20 CSR 4240-20.100(8)(B).

OVERVIEW

On April 15, 2021, EMM filed its *Plan* for calendar years 2021 through 2023. The *Plan* was filed in accordance with Rule 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 annual RES compliance plan with the commission. The plan shall be filed no later than April 15 of each year." Subparagraphs 20 CSR 4240-20.100(8)(B)1.A. through G. provide the minimum requirements for the plan. Subsection 20 CSR 4240-20.100(8)(D) requires that Staff examine the plan and file a report of its review within forty-five (45) days of the filing.

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DISCUSSION

Staff has reviewed EMM's *Plan* in accordance with the established requirements to verify that EMM has provided all the information required by the rule. The results of the review are below, with appropriate rule subparagraphs A. through G. identified and quoted.

A. "A specific description of the electric utility's planned actions to comply with the RES;"

EMM generates renewable energy at its wholly-owned Spearville 1 and 2 wind facilities and will continue to do so during the 2021-2023 RES Compliance Plan period. Additionally, EMM has Power Purchase Agreements ("PPAs") from ten wind facilities. EMM's non-solar renewable resources¹ are in the table below. EMM expects to have banked unexpired RECs at the end of 2020 plus the addition of RECs generated by the wind facilities' actual generation.

| Renewable Resource | Commercial Operation Date | Term (Years) | Capacity (MW) | Expected Annual Generation (MWh) | Missouri Cumulative Expected Annual Generation (MWh) ² |
|-----------------------|---------------------------------|-----------------|------------------|---|---|
| Spearville 1-2 | 2006 & 2010 | n/a | 148.5 | 439,825 | ** |
| Cimarron II | 6/1/2012 | 20 | 131.1 | 749,611 | ** |
| Spearville 3 | 10/1/2012 | 20 | 100.8 | 298,558 | ** |
| Slate Creek | 12/30/2015 | 20 | 150 | 608,296 | ** |

¹ All non-solar renewable resources with expected annual generation.

² Values represent the expected generation in year 2023 from EMM's RRI calculation provided in Attachment A and included with its *Plan*.

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| Renewable Resource | Commercial Operation Date | Term (Years) | Capacity (MW) | Expected Annual Generation (MWh) | Missouri Cumulative Expected Annual Generation (MWh) ² |
|-----------------------|---------------------------------|-----------------|------------------|---|---|
| Waverly | 1/4/2016 | 20 | 200 | 802,818 | ** |
| Osborn | 12/15/2016 | 20 | 120 ³ | 539,818 | ** |
| Rock Creek | 11/8/2017 | 20 | 180 ⁴ | 550,425 | ** |
| Pratt | 12/13/2018 | 20 | 110 ⁵ | 402,731 | ** |
| Prairie Queen | 8/12/2019 | 20 | 90 ⁶ | 346,062 | ** |
| Ponderosa | 11/27/2020 | 20 | 100 ⁷ | 444,921 | ** |
| Expedition | 3 rd Quarter 2021 | 20 | 150 ⁸ | 574,000 | ** |

EMM projects the non-solar RES requirement in 2023 (end of planning period) to be 1,226,635 MWhs. As shown in the table above, EMM's Missouri jurisdictional expected annual generation is well in excess of the projected 2023 RES requirements. Staff concludes that Slate Creek, Waverly, Osborn, Rock Creek, Pratt, Prairie Queen, Expedition, and Ponderosa are in excess of the Missouri RES Requirements.⁹

³ EMM's Osborn PPA is for 120 MW of the 200 MW.

⁴ EMM's Rock Creek PPA is 180 of the 200 MW.

⁵ EMM's Pratt PPA is 110 of the 244 MW.

⁶ EMM's Prairie Queen PPA is 90 of the 200 MW.

⁷ EMM's Ponderosa PPA is for 100 MW of the 199 MW.

⁸ EMM's Expedition PPA is for 150 MW of the 199 MW.

⁹ Staff's assessment assumes the oldest wind PPAs are used for RES compliance which is not necessarily based on least-cost resources.

For solar compliance, EMM expects to utilize solar renewable energy credits ("S-RECs") obtained from customer-generators for the 2021 to 2023 plan period. EMM also generates S-RECs from the solar generation facilities installed as a part of the SmartGrid¹⁰ project (refer to Table 2 of the *Plan* for a listing of specific projects).

B. "A list of executed contracts to purchase RECs (whether or not bundled with energy), including type of renewable energy resource, expected amount of energy to be delivered, and contract duration and terms;"

EMM provided a list of executed contracts for the wind PPAs. EMM has provided the following executed agreements in response to Staff Data Requests: **



C. "The projected total retail electric sales for each year;"

EMM has provided its values for projected retail electric sales. The values appear to be reasonable estimates.

D. "Any differences, as a result of RES compliance, from the utility's preferred resource plan as described in the most recent electric utility resource plan

¹⁰ These solar installations were part of the plan to install approximately 180 kW of utility owned and operated solar in and around the SmartGrid demonstration project area to integrate renewables and new technologies to modernize and automate the electric grid. The final installation of SmartGrid solar was completed in the second quarter of 2014. ¹¹ Staff Data Request No. 0002.2 in EO-2014-0287.

¹² Staff Data Request No. 0002.2 in EO-2014-0287

 ¹³ Staff Data Request No. 0002 in EO-2013-0265.

¹⁴ Staff Data Request No. 0002 in EO-2018-0290.

¹⁵ Staff Data Request No. 0002 in EO-2018-0290.

¹⁶ Staff Data Request No. 0002 In EO-2018-0290.

¹⁷ Staff Data Request No. 0002 III EO-2020-0551.

¹⁷ Staff Data Request No. 0002 In EO-2020-0331.

filed with the commission in accordance with 4 CSR 240-22,¹⁸ Electric Utility Resource Planning;"

Pursuant to 20 CSR 4240-22.080(1), EMM's Integrated Resource Plan (IRP) was due to be filed April 1, 2021. On March 2, 2021 EMM requested an extension to file its IRP by April 30, 2021 and was approved by the Commission on March 11, 2021. EMM submitted its most recent IRP on April 30, 2021 (Case No. EO-2021-0035). In its *Plan*, EMM referred to its previously filed IRP, filed March 10, 2020 (Case No. EO-2020-0280). During the three year RES planning period, EMM's *Plan* (consistent with the 2021 IRP) includes one new wind addition; the Expedition wind farm expected to be commercially operational in the 3rd quarter of 2021. This wind addition is also in excess of the RES requirements over the three-year planning period.

E. "A detailed analysis providing information necessary to verify that the RES compliance plan is the least cost, prudent methodology to achieve compliance with the RES;"

The *Plan* notes the installation of Spearville 1 prior to the RES rules, as part of EMM's Comprehensive Energy Plan. The costs associated with Spearville 1 and Spearville 2 are already included in revenue requirements.¹⁹

EMM currently has the following wind PPAs: Spearville 3, Cimarron 2, Slate Creek, Waverly, Osborn, Prairie Queen, Pratt, Rock Creek, Ponderosa, and Expedition. EMM notes in the *Plan* that it does not consider these wind contracts as directly attributable to RES compliance. As described in Section A of this report, the following wind farms

¹⁸ Since the Commission's move to the Department of Commerce and Insurance, this rule can now be found at 20 CSR 4240-22.

¹⁹ In-service requirements for Spearville 1 met in Case No. ER-2006-0314; In-service requirements for Spearville 2 met in Case No. ER-2010-0355.

are in excess of the Missouri RES requirements: Slate Creek, Waverly, Osborn, Rock Creek, Pratt, Prairie Queen, Expedition, and Ponderosa.²⁰

For compliance with the solar portion of the RES, EMM plans to use S-RECs from customer-generators and future EMM owned solar installations.

Staff wants to be clear that it has not made a ratemaking determination whether the *Plan* is the least cost, prudent method for complying with the RES. Staff reserves the right to address this when rate recovery is requested, and suggests the Commission be clear in any Order it issues in this case that it is not making any ratemaking determination.

F. "A calculation of the RES retail impact limit calculated in accordance with section (5) of this rule. This calculation should be accompanied by workpapers including all the relevant inputs used to calculate the retail impact limits for the planning interval which is included in the RES compliance plan. The electric utility may designate all or part of those calculations as highly confidential, proprietary, or public as appropriate under the commission's rules; and"

The *Plan* includes an explanation of the calculation of the RES Retail Rate Impact (RRI). Work papers supporting the calculation were provided with its filing. EMM's calculation results in a rate impact of less than 1 percent on average over the planning period.

Section 3.3 of the *Plan* includes wind and solar resource additions based on the assumptions used in the 2020 IRP with the exception of Jayhawk, which was terminated February 18, 2021. **

** As noted on page 8 of the *Plan*, EMM does

²⁰ Staff's assessment assumes the oldest wind PPAs are used for RES compliance which is not necessarily based on least-cost resources.

not consider the wind PPAs as directly attributable to RES compliance due to their favorable economics.

G. "Verification that the utility has met the requirements for not causing undue adverse air, water, or land use impacts pursuant to subsection 393.1030.4., RSMo, and the regulations of the division."

EMM states that, to its knowledge, all facilities utilized by EMM to meet the requirements of the RES have received all necessary environmental and operational permits and are in compliance with any necessary federal, state, and/or local requirements related to air, water and land use.²¹

CONCLUSION

Staff concludes that EMM has met the base requirements of 20 CSR 4240-20.100(8)(B).

²¹ Rule 10 CSR 140-8.010(4).

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's Submission of its 2021 Renewable Energy Standard Compliance Plan

Case No. EO-2021-0347

AFFIDAVIT OF AMANDA COFFER

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

COMES NOW AMANDA COFFER and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff Report* in memorandum form; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

AMANDA COFFER

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 15μ day of June 2021.

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

Diama L. Vaugt Notary Public