MEMORANDUM

TO: Missouri Public Service Commission

Official Case File, Case No. EE-2020-0411

Ameren Missouri's Request for a Variance Regarding its Renewable

Energy Standard Compliance Report

FROM: Cedric E. Cunigan, Engineering Analysis

/s/ Claire M. Eubanks, PE / 07-22-2020 /s/ Nicole Mers / 07-22-2020 Engineering Analysis / Date Staff Counsel's Office / Date

SUBJECT: Staff Report and Conclusion on Ameren Missouri's Request for a Variance

Regarding its Renewable Energy Standard Compliance Report

DATE: July 22, 2020

SUMMARY

Staff has reviewed the Union Electric Company, d/b/a Ameren Missouri ("Company" or "Ameren Missouri") Request for Variance and Waiver of 60-Day Notice Requirement. The Request for Variance is for Commission Rule 20 CSR 4240-20.100(8)(A)1.I.¹ which requires submittal of information about energy and RECs acquired that were not generated by the reporting utility. Staff investigated this matter during Case No. EO-2020-0328 and concluded that Ameren Missouri should request a waiver. Staff now concludes that there is good cause to grant the Request for Variance.

OVERVIEW

On April 15, 2020, Ameren Missouri filed its Renewable Energy Standard ("RES") Compliance Report ("Compliance Report") for calendar year 2019 (Case No. EO-2020-0328).

¹ 20 CSR 4240-20.100(8)(A)1.I. For acquisition of electrical energy and/or RECs from a renewable energy resource that is not owned by the electric utility, except for systems owned by customer generators, 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;

⁽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;

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

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

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

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On May 29, 2020, Staff requested an extension of time to file its report while waiting on additional information from Ameren Missouri. The Commission granted the extension request on May 29, 2020. Staff filed its report on June 12, 2020. In its report, Staff suggested that Ameren Missouri apply for a waiver of Commission Rule 20 CSR 4240-20.100(8)(A)1.I. Also on June 12, 2020, Sierra Club filed comments in Case No. EO-2020-0328. On June 23, 2020, Ameren Missouri filed its Request for Variance in this case, Case No. EE-2020-0411. Ameren Missouri stated in its Request for Variance that it initially operated under the belief that variances granted in Case No. EO-2012-0150 covered the information it did not possess in its most recent RES report.² Staff views a variance as effective only for the specific reporting period in which it is requested, unless otherwise specified in the Commission's order.

DISCUSSION OF THE VARIANCE REQUEST

REC purchases are specifically allowed under RSMo. 393.1030.1.³ RSMo. 393.1030.2. states that the Commission and Department of Economic Development ("DED")⁴ will select a program for tracking and verifying the trading of renewable energy credits. The tracking program designated by the Commission is the North American Renewables Registry ("NAR"). Commission regulations for Electric Utility Renewable Energy Standard Requirements are found in 20 CSR 4240-20.094. The Commission's rule sets the definitions, structure, operation, and procedures relevant to compliance with the Renewable Energy Standard. Missouri Department of Natural Resources – Division of Energy ("MDNR-DE") regulations for certification of Renewable Energy and Renewable Energy Standard Compliance Account are found in 10 CSR 140-8.010. MDNR-DE's rule implements provisions of 393.1025 RSMo et. seq, including the certification of renewable energy facilities and their environmental impact.

Ameren Missouri needed to retire 3,211,938 RECs for 2019 RES Compliance. Ameren Missouri purchased a total of 3,063,312 third party RECs from two parties, the Alabama Power

² Case No. EE-2020-0411 Ameren Missouri's Request for Variance and Waiver of 60-Day Notice Requirement page 1-2.

³ From RSMo. 393.1030.1 "... A utility may comply with the standard in whole or in part by purchasing RECS..."

⁴ Since the last re-writing of RSMo. 393.1030, the Division of Energy ("DE") has moved to the Missouri Department of Natural Resources ("MDNR"). 393.1030 was written when DE was a part of MDNR, then re-written when DE was moved to DED. 393.1030 has not been re-written again since the most recent move of DE back to MDNR.

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Company and STX Services B.V. ("STX"), to meet its compliance requirements. The RECs were purchased from entities in two separate tracking systems, PJM Generation Attribute Tracking System ("PJM-GATS") and North Carolina Renewable Energy Tracking System ("NC-RETS"), and imported into NAR. Staff reviewed the operating procedures for NAR, PJM-GATS, and NC-RETS specifically for how generating units are certified, RECs generated, and how RECs are transferred between tracking systems. The three tracking systems' operating procedures are substantially similar in these three aspects. It should be noted that APX built all three tracking systems and currently operates NAR and NC-RETS.

In the current case, Ameren Missouri has requested a variance that would remove its requirement to submit the following information:

- (I) Facility name, location (city, state), and owner;
- (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;
- (III) The renewable energy technology utilized at the facility;
- (IV) The dates and amounts of all payments from the electric utility to the owner of the facility; and
- (V) All meter readings used for calculation of the payments referenced in part (IV) of this paragraph;

The majority of the information for items (I), (II), and (III) is made publicly available on NAR for all imported facilities with exception of the owner and that the renewable attributes have not been used to meet the requirements of any other local or state mandate. Staff is able to see the owner information through its NAR account. Item (II) includes two parts, that the energy is derived from an eligible renewable energy technology and that the renewable attributes have not been previously used. The certification issued by MDNR-DE indicates the energy is derived from an eligible renewable energy technology. Tracking systems are designed to track RECs from generation until retirement and ensure that that the RECs are only used once. NAR tracks each REC with a unique serial number that identifies the origin of the REC and the time of generation.

Items (IV) and (V) are not directly applicable to Ameren Missouri because Ameren Missouri purchased several months' worth of RECs unbundled from the energy at one time.

Ameren did supply analogous information in an attempt to satisfy the rule. Payments from the electric utility to the owner of the facility were not made. Ameren Missouri did provide payments and contracts to each broker for the two purchases, which would be analogous the information required in Items (IV) and (V) for Ameren's situation. Additionally, the monthly RECs generated by a facility, which are calculated from the meter readings required in Item (V), can be reached through the tracking programs. The specific meter readings are not visible to the Commission, but the monthly RECs produced by each facility, which should correspond directly to the monthly meter readings, can be seen on reports available to the Commission.

STAFF RECOMMENDATION ON THE VARIANCE REQUEST

All of the applicable information required by 20 CSR 4240-20.100(8)(A)1.I. was provided by Ameren Missouri or is made available through NAR; therefore, good cause exists to grant the request for variance.

ADDITIONAL INFORMATION RELEVANT TO SIERRA CLUB'S CONCERNS RAISED IN PREVIOUS CASES

The RECs purchased, specifically the four WestRock biomass facilities, were put under scrutiny by Sierra Club in Case No. EO-2020-0328⁵ and Case No. EW-2020-0377.⁶ Sierra Club specifically states in Case No. EW-2020-0377, "It appears that the PSC, as final holder of compliance RECs, has limited knowledge and limited access to information about compliance RECs, perhaps not enough to fully document compliance. We hope the Commission has access to the utilities' Retirement Compliance Reports." Staff does have access to the compliance retirement accounts for Ameren Missouri, and the other regulated Missouri electric utilities. A discussion of the information Staff reviewed for Ameren Missouri's RES Compliance Report and to address Sierra Club comments follows.

Sierra Club further stated that "Credible information has reached Sierra Club showing that some of these RECs come from sources that are ineligible for compliance with

⁵ Case No. EO-2020-0328 Comments of Sierra Club pages 1-2. Sierra Club references the Fernandina, Florence, Hodge, and Panama City mills on page 2, paragraph 3.

⁶ Case No. EW-2020-0377 Comments of Sierra Club pages 1-2.

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Missouri's Renewable Energy Standard." An ineligible REC being reported would be a violation of the generating facility's certification.⁸

Staff reviewed the list of certified facilities provided by MDNR-DE and confirmed that the facilities that supplied RECs for the purchases were certified facilities. Staff noticed differences in the listed capacities from MDNR-DE's certified list and the capacities shown in NAR. Neither MDNR-DE's certified list given to Staff⁹, nor NAR¹⁰ indicated that the biomass facilities were co-firing, multi-fuel facilities.¹¹ Staff conferred with MDNR-DE and confirmed again that each of the facilities was certified. The difference in capacity was due to reporting differences between MDNR-DE and NAR operating procedures for most cases. MDNR-DE reports total renewable capacity on a facility level. NAR reports the renewable capacity for each individual generating unit at a facility and each feedstock that the unit can accept. By adding capacity of each generation unit for a single feedstock reported in NAR for a facility, the MDNR-DE capacity matched NAR capacity in all cases with one exception, Hodge Mill facility, a WestRock CP, LLC facility, ("Hodge Mill").

MDNR-DE listed Hodge Mill at 75MW of capacity. NAR listed Hodge Mill at 66.2 MW of capacity. The Energy Information Administration ("EIA") lists the facility at 66.4 MW of capacity. The RECs for Hodge Mill originated in PJM-GATS and were imported into NAR. Static project information associated with the imported RECs, including nameplate capacity of the generating unit, would have been created in PJM-GATS when the RECS were generated. ¹³

Staff notified MDNR-DE of the discrepancy in how the facilities are reported. Since MDNR-DE confirmed that the facilities were certified and reported a higher capacity than that

⁷ Case no. EO-2020-0328 Comments of Sierra Club page 1, third paragraph.

⁸ 10 CSR 140-8.010(4)(C)6. has a specific method for the public to file a complaint should a certified facility violate its certification, though it does require that the complaint list the alleged violation(s), the facility name, date of violation(s), types of violation(s), and the address of the facility.

⁹ See Attachment 1.

¹⁰ See Attachment 2. Excerpt was taken from https://apx.com/registries/nar-1/public-records-and-reports/.

¹¹ Multi-fuel facilities burn multiple types of waste to produce energy. Cofiring facilities burn multiple fuel types simultaneously to produce energy. The energy attributed to renewables must be separated from the non-renewable energy by calculating the btu value of each fuel type and proportioning the energy accordingly. NAR indicated that the biomass facilities used multiple feedstocks, but not that the facilities were cofiring with non-renewable fuels.

¹² Form EIA 860 2018 dataset shows three generating units for a combined total of 66.4 MW.

¹³ PJM-GATS Operating Procedures Appendix B Generator Static Data Fields.

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reported by NAR and EIA, in its report in Case No. EO-2020-0328, Staff moved forward with the assumption that the RECs were eligible for compliance. With the additional information discussed above, Staff is still of the opinion that the RECs are eligible for compliance.

Sierra Club also stated that the energy from the biomass facilities was "likely" used for station service. Station service is defined by NC-RETS as "the portion of electricity or thermal energy produced by a Renewable Energy Facility that is immediately consumed at that same facility in order to power the facility's pumps, etc., or to process fuel. Such energy is not eligible for issuance of Certificates." NAR and PJM-GATS define station service as "The electric supply for the ancillary equipment used to operate a generating station or substation." RECs created in either of the three tracking systems should be net of station service and eligible for use in Missouri assuming that they come from an approved renewable energy resource.

Further, Staff has reviewed the operating procedures for the three tracking systems regarding co-firing, multi-fuel facilities, as well as the applications made by the four WestRock biomass facilities to MDNR-DE. All three tracking systems have operating procedures that are in line with 20 CSR 4240-20.100(3)(E)¹⁵ when it comes to co-firing facilities. **

** Staff has confirmed with DNR-DE that each of the facilities are certified in Missouri and that MDNR-DE has determined that the biomass fuel used in these facilities is an eligible renewable resource.

¹⁴ Case No. EO-2020-0328 Comments of Sierra Club page 5, first paragraph.

¹⁵ 20 CSR 4240-20.100(3)(E) If an eligible renewable energy fuel source is co-fired with an ineligible fuel source, only the proportion of the electrical energy output associated with the eligible renewable energy fuel source shall be permitted to count toward compliance with the RES portfolio requirements. For co-fired generation of electricity, the renewable energy resources shall be determined by multiplying the electricity output by the direct proportion of the as-fired British thermal unit (BTU) content of the fuel burned that is a source of renewable energy resources as defined in this rule to the as-fired BTU content of the total fuel burned.

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<u>Attachment 1: Certified Non-Solar Renewable Energy Generation Facilities</u>¹⁶

| Facility Name Certification Local Date | | Location | Applicant | Resource Type | Total Nameplate Capacity |
|--|------------|---------------------|---|------------------|-----------------------------|
| Spearville I | 7/6/2011 | Ford County, KS | KCP&L | Wind | 100.5 MW |
| Spearville II | 7/6/2011 | Ford County, KS | KCP&L | Wind | 48 MW |
| Elk River Wind Farm | 9/12/2011 | Butler County, KS | Empire | Wind | 150 MW |
| Meridian Way, Cloud County Windfarm, LLC | 9/12/2011 | Cloud County, KS | Empire | Wind | 105 MW |
| Ozark Beach Hydroelectric Project | 9/12/2011 | Taney County, MO | Empire | Hydro | 16 MW |
| Pioneer Prairie Wind Farm I | 9/28/2011 | Mitchell County, IA | Ameren Missouri | Wind | 102.3 MW |
| Keokuk Energy Park | 9/28/2011 | Lee County, MO | Ameren Missouri | Hydro | 137 MW |
| Gray County Wind Energy, LLC | 11/23/2011 | Gray County, KS | KCP&L | Wind | 112.2 MW |
| St. Joseph Landfill Gas Facility | 8/3/2012 | Buchanan County, MO | KCP&L-GMO | Landfill Gas | 1.6 MW |
| Maryland Heights Renewable Energy Center | 8/27/2012 | St Louis County, MO | Ameren Missouri | Landfill Gas | 14 MW |
| Cimarron II Wind Farm | 10/5/2012 | Gray County, KS | Cimarron Windpower II, LLC | Wind | 131.1 MW |
| Spearville 3, LLC | 11/5/2012 | Ford County, KS | KCP&L | Wind | 100.8 MW |
| Ensign Wind, LLC | 12/6/2012 | Gray County, KS | KCP&L-GMO | Wind | 98.9 MW |
| Hampton Feedlot Animal Waste to Electricity Project | 4/29/2014 | Chariton County, MO | Hampton Alternative Energy Products, LLC | Biogas | 0.3 MW |
| Waverly Wind Farm, LLC | 1/26/2016 | Coffey County, KS | EDP Renewables North America LLC | Wind | 199 MW |
| Slate Creek Wind Project | 3/7/2016 | Sumner County, KS | KCP&L | Wind | 150 MW |

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¹⁶ List was received from MDNR-DE in 2020. The list published on MDNR-DE's website at https://energy.mo.gov/resources/renewable-energy is dated 4/18.

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| Facility Name | Certification Date | Location | Applicant | Resource Type | Total Nameplate Capacity |
|------------------------------|-----------------------|----------------------|------------------|------------------|-----------------------------|
| OsbornWind Farm, LLC | 3/14/2017 | DeKalb County, MO | KCP&L KCP&L-GMO | Wind | 200 MW |
| Rock Creek Wind Project, LLC | 4/17/2018 | Atchison County, MO | KCP&L KCP&L-GMO | Wind | 300 MW |
| Pratt Wind, LLC | 5/29/2019 | Pratt County, KS | KCP&L KCP&L-GMO | Wind | 244 MW |
| Chisholm View Wind Farm | 6/19/2019 | Enid, OK | Southern Company | Wind | 235.2 MW |
| Westervelt Biomass Facility | 6/26/2019 | Moundville, AL | Southern Company | Biomass | 5.5 MW |
| Fernandina Mill | 6/12/2019 | Fernandina Beach, FL | WestRock CP, LLC | Biomass | 96 MW |
| Florence Mill | 6/12/2019 | Florence, SC | WestRock CP, LLC | Biomass | 102 MW |
| Hodge Mill | 6/12/2019 | Hodge, LA | WestRock CP, LLC | Biomass | 75 MW |
| Panama City Mill | 6/12/2019 | Panama City, FL | WestRock CP, LLC | Biomass | 34 MW |

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Attachment 2: Excerpt of NAR Imported Facilities Table¹⁷

| Tracking System | Tracking System ID | NAR ID | State/ Province | Country | Asset | Multi- Fuel Indicator | Fuel/Project Type | Commenced Operation Date | Nameplate Capacity | МО |
|--------------------|--------------------------|----------|--------------------|---------|--------------------------------------|-----------------------------|------------------------------|--------------------------------|-----------------------|-----|
| | | | | | Pioneer Prairie Wind Farm | | | | | |
| M-RETS | 492 | IMP43 | IA | US | Phase 2 - Pioneer Prairie Phase 2 | No | Wind | 12/27/2008 | 102 | Yes |
| | | | | | | | Biomass | | | |
| NC-RETS | 960 | IMP2982 | FL | US | PC REC Project - GEN4 | No | Combustion - Black Liquor | 3/1/1949 | 10 | Yes |
| | | | | | | | Biomass | | | |
| | | | | *** | | | Combustion - | | • 0 | |
| NC-RETS | 961 | IMP2983 | FL | US | PC REC Project - GEN6 | No | Wood Waste | 3/1/1956 | 20 | Yes |
| | | | | | | | Biomass | | | |
| NG DETG | 1022 | D (D2004 | T.Y. | TIG | Fernandina Beach Mill - | | Combustion - | 1/1/1000 | 27 | ** |
| NC-RETS | 1023 | IMP2984 | FL | US | Turbine Generator 5 | No | Black Liquor | 1/1/1988 | 37 | Yes |
| | | | | | | | Biomass | | | |
| NG DETT | 1022 | D (D2005 | T.Y. | TIG | Fernandina Beach Mill - | | Combustion - | 1/1/1000 | 27 | ** |
| NC-RETS | 1023 | IMP2985 | FL | US | Turbine Generator 5 | No | Wood Waste | 1/1/1988 | 37 | Yes |
| | | | | | | | Biomass | | | |
| NG DETE | 1240 | D (D200) | T.Y. | TIG | Fernandina Beach Mill - | | Combustion - | 0/1/1002 | 50 | ** |
| NC-RETS | 1240 | IMP2986 | FL | US | Turbine Generator 6 | No | Black Liquor | 9/1/1982 | 59 | Yes |
| | | | | | | | Biomass | | | |
| | | | | *** | Fernandina Beach Mill - | | Combustion - | | | |
| NC-RETS | 1240 | IMP2987 | FL | US | Turbine Generator 6 | No | Wood Waste | 9/1/1982 | 59 | Yes |
| | | | | | | | Biomass | | | |
| NG DETG | 005 | n (D2000 | 9.0 | TIG | Florence Mill REC Project - | | Combustion - | 11/20/1062 | 1.2 | *** |
| NC-RETS | 805 | IMP2988 | SC | US | GEN1 | No | Black Liquor | 11/30/1963 | 13 | Yes |

¹⁷ Information was filtered and taken from NAR's Imported Facilities table at https://apx.com/registries/nar-1/public-records-and-reports/.

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| Tracking System | Tracking System ID | NAR ID | State/ Province | Country | Asset | Multi- Fuel Indicator | Fuel/Project Type | Commenced Operation Date | Nameplate Capacity | МО |
|--------------------|--------------------------|---------|--------------------|---------|---|-----------------------------|------------------------------|--------------------------------|-----------------------|-----|
| | | | | | | | Biomass | | | |
| NC-RETS | 805 | IMP2989 | SC | US | Florence Mill REC Project - GEN1 | No | Combustion - Wood Waste | 11/30/1963 | 13 | Yes |
| | | | | | | | Biomass | | | |
| NC-RETS | 806 | IMP2990 | SC | US | Florence Mill REC Project - GEN2 | No | Combustion - Black Liquor | 11/30/1974 | 17 | Yes |
| | | | | | | | Biomass | | | |
| NC-RETS | 806 | IMP2991 | SC | US | Florence Mill REC Project - GEN2 | No | Combustion - Wood Waste | 11/30/1974 | 17 | Yes |
| | | | | | | | Biomass | | | |
| NC-RETS | 807 | IMP2992 | SC | US | Florence Mill REC Project - GEN3 | No | Combustion - Wood Waste | 3/30/1987 | 72 | Yes |
| | | | | | | | Biomass | | | |
| NC-RETS | 959 | IMP2993 | FL | US | PC REC Project - GEN3 | No | Combustion - Black Liquor | 5/1/1930 | 4 | Yes |
| | | | | | WestRock Company | | Biomass | | | |
| PJM-GATS | 175813 | IMP2994 | LA | US | Biomass - WestRock Company Hodge (BWW) | No | Combustion - Wood Waste | 1/1/1972 | 66.2 | Yes |
| | | | | | WestRock Company | | Biomass | | | |
| PJM-GATS | 175813 | IMP2995 | LA | US | Biomass - WestRock Company Hodge (BBL) | No | Combustion - Black Liquor | 1/1/1972 | 66.2 | Yes |

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

| n the Matter of Union Electric Company d/b/a Ameren Missouri's Request for a Variance Regarding its Renewable Energy Standard Compliance Report |) Case No. EE-2020-0411) |
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| AFFIDAVIT OF C | EEDRIC E. CUNIGAN |
| STATE OF MISSOURI)) ss. COUNTY OF COLE) | |
| and lawful age; that he contributed to the forego | N and on his oath declares that he is of sound mind oing <i>Staff Recommendation</i> in memorandum form; to his best knowledge and belief, under penalty of |
| Further the Affiants sayeth not. | |
| | /s/ Cedric E. Cunigan CEDRIC E. CUNIGAN |