BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Tariff Filing of Union Electric Company d/b/a Ameren Missouri Pursuant to 20 CSR 4240-3.155, 20 CSR 4240-20.060, and 20 CSR 4240-20.065	))))	**Case No. ET-2023-0249** Tracking No. JE-2023-0124

STAFF RECOMMENDATION

COMES NOW Staff of the Missouri Public Service Commission and submits its Staff Recommendation in this matter and in support thereof respectfully states as follows:

1. On February 10, 2023, the Commission issued an *Order Suspending Tariff Sheets and Directing Filing* ("Order") in this matter, which ordered Staff to file its recommendation no later than May 23, 2023. Filed concurrently herewith, in memorandum form, is Staff's recommendation, which is incorporated herein by reference.

2. As discussed in detail in the accompanying Staff recommendation memorandum, Staff recommends that the Commission issue an order (1) approving the tariff sheets that are the subject of this proceeding[1] (Tariff Tracking No. JE-2023-0124) to go into effect for service on and after June 12, 2023, and (2) that the Commission further order that, for all future cogeneration tariff rate filings, Ameren Missouri provide calculations and all supporting documentation to justify the Ameren Missouri position associated with the avoided capacity credit treatment within the proposed cogeneration tariff rate.

[1] MO PSC SCHEDULE No. 6, 6th Revised Sheet No. 170 canceling 5th Revised Sheet No. 170 and 5th Revised Sheet No. 171 canceling 4th Revised Sheet No. 171.

WHEREFORE Staff respectfully submits its Staff Recommendation and prays the Commission issue such orders as it deems just and reasonable under the circumstances.

Respectfully submitted,

/s/ Jeffrey A. Keevil
Jeff Keevil
Deputy Counsel
Missouri Bar No. 33825

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, or transmitted by facsimile or electronic mail to counsel of record as reflected on the certified service list maintained by the Commission in its Electronic Filing Information System this 23rd day of May, 2023.

/s/ Jeffrey A. Keevil

MEMORANDUM

TO: Missouri Public Service Commission
Official Case File, Case No. ET-2023-0249, JE-2023-0124
Cogeneration and Net Metering rate for
Union Electric Company d/b/a Ameren Missouri

FROM: Shawn E. Lange, P.E., Senior Professional Engineer, Engineering Analysis

/s/ Shawn E. Lange, P.E. / 05-23-2023	/s/ Jeff Keevil / 05-23-2023
Engineering Analysis / Date	Staff Counsel's Office / Date

SUBJECT: Staff Report on the Cogeneration and Net Metering rate for
Union Electric Company d/b/a Ameren Missouri

DATE: May 23, 2023

SUMMARY

Staff has reviewed Union Electric Company d/b/a Ameren Missouri's ("Ameren Missouri") rate tariff sheets filed on January 13, 2023 and associated cogeneration filing. Ameren Missouri provided supplemental supporting calculations on February 13, 2023 which show the inputs used as well as the calculation steps used by Ameren Missouri to arrive at its result.

Staff recommends that the Commission approve the tariff sheets, as filed on January 13, 2023, to go into effect for service on and after June 12, 2023. Staff recommends for all future cogeneration tariff rate filings Ameren Missouri provide calculations and all supporting documentation to justify the Ameren Missouri position associated with the avoided capacity credit treatment within the proposed cogeneration tariff rate.

OVERVIEW

On January 13, 2023, Ameren Missouri filed two (2) tariff sheets in JE-2023-0124 with proposed effective dates of February 12, 2023. Staff filed a motion to suspend the tariff sheets on February 3, 2023, to allow Staff sufficient time to conduct discovery necessary for Staff to make an informed recommendation to the Commission regarding Ameren Missouri's proposed cogeneration and net-metering rate for 2023-2024. The Commission issued an Order Suspending Tariff Sheets and Directing Filing on February 10, 2023, which suspended the tariff sheets until June 12, 2023, and ordered Staff to file a recommendation no later than May 23, 2023.

The Commission's Cogeneration Rule, 20 CSR 4240-3.155, provides, in part, that "tariffs providing standardized rates for facilities at or under one hundred (100) kilowatts on design capacity (subpart (2)) … shall be submitted no later than January 15, 2005, and updated and revised on or before January 15 of every odd-numbered year after that, unless otherwise ordered by the Commission (subpart (3))."

The Commission's Net Metering Rule, 20 CSR 4240-20.065, implements §386.890, RSMo., the "Net Metering and Easy Connect Act." The Act makes it easier to obtain net metering service from electric utility service providers in Missouri, including Ameren Missouri. As a part of its Net Metering Rule, the Commission requires regulated utilities' net metering rate to be the same as its cogeneration rate. Specifically, the Commission's Net Metering Rule, 20 CSR 4240-20.065(1)(B) states "avoided fuel cost means the incremental costs to the electric utility of electric energy, but for the purchase from the customer generator, the utility would generate itself or purchase from another source. Avoided fuel cost is used to calculate the electric utility's standard rate for purchase from systems less than one hundred (100) kilowatts pursuant to 20 CSR 4240-20.060. "

Through its filings, Ameren Missouri is proposing the same rate change for both the rates Ameren Missouri will pay its customers under its rate schedules titled "Electric Power Purchases from Qualifying Facilities" and the rates Ameren Missouri will pay its customers under its "Electric Power Purchases from Qualifying Net Metering Units."

DISCUSSION

Biennially, in odd-numbered years, the electric utilities submit and Staff reviews the cogeneration and net metering rate tariff filings. Staff reviews these filings to ensure compliance with the filing requirements and to ensure the proposed rates are reasonable. Typically, Staff completes its review within 30 days (20 CSR 4240-2.065(5)). In the case of the current January 2023 filings, Staff noticed a divergence in the proposed rates across the four electric utilities.[1] Specific to Ameren Missouri, Staff noted a substantial increase in the proposed rate as compared to its previous filings. For these reasons, Staff requested additional time to allow for discovery regarding the proposed rates.

Filing Requirements

Staff reviewed the information submitted by Ameren Missouri to determine whether it met the cogeneration filing requirements of 20 CSR 4240-3.155. The filing requirements include the following components:

- Standardized rates for facilities 100 kW or less. The standard rates are to take account of the aggregate output of small systems. When the capacity of the dispersed systems, in the aggregate, allows the utility to avoid a capacity cost and can be reasonably estimated, a corresponding credit must be included in the standard rates. [2]
- Submittal of a standard form contract for facilities over 100 kW. Issues such as avoided costs, losses, reliability and ability to schedule are to be considered in the contract.
- Provide and maintain for public inspection:
    - Avoided energy cost stated in blocks of not more than 100 MW for systems with peak demand of 1,000 MW or more. Avoided energy costs shall be stated on a cents/kWh basis, daily and seasonal peak and off-peak periods, by year, for the current calendar year and each of the next 5 years.
    - Plans for capacity additions (by amount and type) during the next ten years.

[1] Liberty and Ameren Missouri's proposed cogeneration/net-metering rates for purchases for 2023-2024 are substantially higher than its respective 2021-2022 rates. Evergy Missouri West proposed a modest increase to its cogeneration/net-metering rates for purchase while Evergy Missouri Metro proposed a decrease.
[2] As of 12/31/2022, Ameren Missouri reports it has a total of 7,575 net metering agreements (106,529 kW) and 38 Qualifying Facility agreements (9,696 kW). Ameren Missouri noted the totals shown do not include interconnected generation which never exports across the customer meter to the Ameren Missouri distribution system since in those cases no Qualifying Facility agreement exists. Ameren Missouri Response to Staff DR 1.

- Estimated capacity costs at completion of the planned capacity additions ($/kW) and associated energy costs (cents/kWh).

As part of Ameren Missouri's response to Staff DR 2.1, Ameren Missouri provided its currently effective tariff which applies to systems sized less than 500 kW as its standard form contract for facilities over 100 kW as required by 20 CSR 4240-3.155(2)(B).[3]

Ameren Missouri initially designated its entire workpaper as confidential. The cogeneration filing requirements require certain information be maintained by the electric utilities for public inspection and that information is contained in Ameren Missouri's confidential workpaper. Staff contacted Ameren Missouri regarding its designation of the entire workpapers and Ameren Missouri provided an updated workpaper on February 2, 2023 that allows for public inspection.

Cogeneration/Net-Metering Rate

The Cogeneration/net-metering rate is the rate electric utilities pay customer-generators for the output of certain renewable and cogeneration resources. PURPA and Commission rule 20 CSR 4240-20.060(4)(A) require that rates for purchases be just and reasonable to the electric consumer of the electric utility and in the public interest and shall not discriminate against qualifying cogeneration and small power production facilities. Cogeneration facilities means a facility that produces electricity as well as other useful forms of energy such as steam. Small power production facilities means a facility which is an eligible solar, wind, waste, or geothermal facility.

The proposed rate for purchases, as well as the rates from the previous two biennial filings are shown in the table below:

	2023-2024	2021-2022	2019-2020
Summer	$0.0539/kWh	$0.0287/kWh	$0.0315/kWh
Winter	$0.0392/kWh	$0.0284/kWh	$0.0290/kWh

[3] Ameren Missouri clarified through its response to Staff Data Request 2.2 that it does not have a standard form contract for facilities over 500 kW.

Ameren Missouri's calculation was performed utilizing (1) 36 months of actual, historical, hourly day-ahead locational marginal prices for its commercial pricing node[4], for calendar years 2020-2022; (2) 36 months of actual, historical miscellaneous MISO load base charges (Revenue Neutrality Uplift, administrative charges, inadvertent, ancillary services); and (3) the average indicative Multi-Value Project Usage Rate published by MISO for 2023 and 2024.

As a reasonable check, Staff attempted to replicate the results of Ameren Missouri's analysis with hourly locational marginal price data from MISO. Staff was unable to replicate Ameren Missouri's analysis. Ameren Missouri provided an additional workpaper on February 13, 2023. With the additional data provided in the additional workpaper, Staff was able to verify the inputs used by Ameren Missouri as well as the calculation steps used by Ameren Missouri.

Staff is not opposed to the proposed rates for avoided energy costs for the following reasons:

(1) Ameren Missouri represents that its methodology in this case is consistent with previous cogeneration/net-metering filings.

(2) Ameren Missouri is utilizing a method that is consistent with that used in its general rate cases for the determination of normalized market prices used in establishing net off-system sales revenue and in the production costs models to dispatch generating units.

The proposed cogeneration tariff does not include an avoided capacity cost component. Likewise, the proposed net-metering tariff does not include an avoided capacity component which is consistent with the net metering rule's definition of avoided fuel costs as avoided energy costs.[5] FERC has established that it is appropriate for the avoided cost rate for capacity to be set

[4] AMMO.UE

[5] 20 CSR 4240-20.065(1)(B) Avoided fuel cost means the incremental costs to the electric utility of electric energy, but for the purchase from the customer-generator, the utility would generate itself or purchase from another source. Avoided fuel cost is used to calculate the electric utility's standard rate for purchase from systems less than one hundred (100) kilowatts pursuant to 20 CSR 4240-20.060. The information used to calculate this rate is provided to the Commission biennially and maintained for public inspection.

at $0 when a utility demonstrates it does not need capacity.[6] 20 CSR 4240-3.155(2)(A) requires that "[w]hen that aggregate capacity value which allows the utility to avoid a capacity cost occurs and can be reasonably estimated, a corresponding credit must be included in the standard rates." Ameren Missouri reports it has a total of 38 Qualifying Facility agreements totaling approximately 9.7 MW.

As part of the filing requirements outlined in section 20 CSR 4240-3.155(4)(B) and (4)(C), Ameren Missouri provided a list of capacity additions as well as capacity retirements covering the period of 2023-2032 consisting of 3,600 MWs of wind/solar additions and 2,859 MWs of retirements. Ameren Missouri has filed and is expected to file for Certificates of Convenience and Necessity for additional generation projects. Ameren Missouri witness Matt Michels, in direct testimony for EA-2022-0245, stated (Pg. 14 lines 10-11) "we do have a need for winter capacity in 2026" and (Pg. 3 lines 24-25) "each renewable energy project takes 5 to 8 years to develop and construct." The capacity auction in MISO for the 2022 – 2023 Planning Resource Auction showed MISO north cleared at the Cost of New Entry[7] of $236.66/MW-day. On May 19, 2023, MISO presented the 2023-2024 Planning Resource Auction results. The Ameren Missouri local resource zone results are:

- Summer: $10/MW-day,
- Fall: $15/MW-day,
- Winter: $2/MW-day, and
- Spring: $10/MW-day.

Given Ameren Missouri's winter capacity need and the aggregate size of Qualifying Facilities, Staff inquired of Ameren Missouri the reasoning of not including an avoided capacity component of the proposed rate. In determining avoided costs, 20 CSR 4240-20.060(4)(E) outlines certain factors, to be considered:

> 1. The data provided pursuant to 4 CSR 240-3.155, including PSC review of any such data;

[6] City of Ketchikan, 94 FERC ¶ 61,293, at 62,061 (2001) ("[A]voided cost rates need not include the cost for capacity in the event that the utility's demand (or need) for capacity is zero. That is, when the demand for capacity is zero, the cost for capacity may also be zero."

[7] Cost of New Entry is an industry-wide term, used to indicate the current, annualized, capital cost of constructing a power plant.

2. The availability of capacity or energy from a qualifying facility during the system daily and seasonal peak periods, including:

A. The ability of the utility to dispatch the qualifying facility;

B. The expected or demonstrated reliability of the qualifying facility;

C. The terms of any contract or other legally enforceable obligation, including the duration of the obligation, termination notice requirement and sanctions for noncompliance;

D. The extent to which scheduled outages of the qualifying facility can be usefully coordinated with scheduled outages of the utility's facilities;

E. The usefulness of energy and the capacity supplied from a qualifying facility during system emergencies, including its ability to separate its load from its generation;

F. The individual and aggregate value of energy and capacity from qualifying facilities on the electric utility's system; and

G. The smaller capacity increments and the shorter lead times available with additions of capacity from qualifying facilities;

3. The relationship of the availability of energy or capacity from the qualifying facility as derived in paragraph (4)(E)2. of this rule, to the ability of the electric utility to avoid costs, including the deferral of capacity additions and the reduction of oil use; and

4. The costs or savings resulting from variations in line losses from those that would have existed in the absence of purchases from a qualifying facility, if the purchasing electric utility generated an equivalent amount of energy itself or purchased an equivalent amount of electric energy or capacity.

In its response to Staff DR 3, Ameren Missouri explained that all of its current cogeneration facilities are larger than 500 kW and do not produce energy in excess of their own load. Further, Ameren Missouri explained the small power producers on its system, to whom the standard rate is applicable, are primarily solar.[8] Ameren Missouri conceptually addressed the availability of capacity from a qualifying facility with respect to the aggregate value of capacity on its system stating:

> Even if one were to consider only that amount of customer-generation in excess of customer load, it is extremely unlikely that a significant amount excess generation kWh

[8] Ameren Missouri states in part: "The standard rate is applicable to customer-generation with a design capacity of 500 kW or less. All of the current cogeneration facilities subject to Ameren Missouri's retail tariffs are larger than 500 kW, none of these facilities produce energy in excess of their own load. It is important to note that with the exception of less than ten wind generators, all of the customer-generators receiving the standard avoided cost rate are solar. All of these customer-generators (wind and solar) are located behind the customer meter."

> occur during system peak times that define capacity requirements, as loads also tend to be high during those periods and when loads are high, kWh generated are more likely to be offsetting load behind the retail meter rather than being exported to the grid and receiving avoided cost rates. This is particularly true during the winter period.

Ameren Missouri provided limited workpapers relating to the conceptual discussion above, citing to a workpaper from its most recent rate case, with which Staff raised issues. Staff recommends for all future cogeneration tariff rate filings Ameren Missouri provide calculations and all supporting documentation to justify the Ameren Missouri position associated with the avoided capacity credit treatment within the proposed cogeneration tariff rate.

Staff recommends that the Commission approve the following tariff sheets, as filed on January 13, 2023, to go into effect for service on and after June 12, 2023:

P.S.C. Mo. No. 6

6th Revised Sheet No. 170 Canceling 5th Revised Sheet No. 170

P.S.C. Mo. No. 6

5th Revised Sheet No 171 Canceling 4th Revised Sheet No. 171

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Tariff Filing of Union Electric Company d/b/a Ameren Missouri Pursuant to 20 CSR 4240-3.155, 20 CSR 4240-20.060 and 20 CSR 4240-20.065	))))	File No. ET-2023-0249 Tracking No. JE-2023-0124

AFFIDAVIT OF SHAWN E. LANGE, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW SHAWN E. LANGE, 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.

Shawn E. Lange
SHAWN E. LANGE, 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 22nd day of May 2023.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2025
Commission Number: 12412070

D Suzie Mankin
Notary Public