MISSOURI PUBLIC SERVICE COMMISSION

STAFF RECOMMENDATION

REBUTTAL

UNION ELECTRIC COMPANY,
d/b/a AMEREN MISSOURI

CASE NO. ET-2025-0184

Jefferson City, Missouri
September 5, 2025

** Denotes Confidential Information **

TABLE OF CONTENTS OF

STAFF RECOMMENDATION / REBUTTAL

UNION ELECTRIC COMPANY, d/b/a AMEREN MISSOURI

CASE NO. ET-2025-0184

STAFF RECOMMENDATION / REBUTTAL

UNION ELECTRIC COMPANY,
d/b/a AMEREN MISSOURI

CASE NO. ET-2025-0184

Introduction

Staff recommends rejection of the tariffs described in the direct testimony of Steven M. Wills.[1] Union Electric Company, d/b/a Ameren Missouri (Ameren Missouri) names its proposed addition to the Large Power Service (LPS) tariff, the Large Load Customer Electric Service (LLCS). Staff recommends finalization and promulgation of its recommended tariff for service to LLCS customers, and recommended changes to related tariff provisions.[2] Staff's recommended tariff is attached as Appendix 2 - Schedule 1. The analysis provided by Mr. Wills has no predictive value for the actual rates Missouri ratepayers should be expected to pay, and is not reliable for determining whether its proposed LLCS treatment complies with the statutory requirement that in approving LLCS rates and terms, this Commission "reasonably ensures such customers' rates will reflect the customers' representative share of the costs incurred to serve the customers and prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to such customers."[3]

Ameren Missouri faces essentially no risk in the acquisition of LLCS customers. When constructing new power plants, Ameren Missouri will expect to avoid negative regulatory lag through the use of Plant in Service Accounting (PISA), the Renewable Energy Standard Rate Adjustment Mechanism (RESRAM), and by purposeful rate case timing. However, the Commission should also expect Ameren Missouri to maximize positive regulatory lag by avoiding rate case recognition of new LLCS customer revenues. The only risk to Ameren Missouri that is not insulated by captive ratepayers would be in the form of disallowances for power plants, or imputation of revenues of LLCS customers.

[1] The tariffs appended to Mr. Wills testimony are not actually filed in EFIS for promulgation.

[2] This Report is provided by the indicated Staff witnesses. The credentials of those witnesses are provided as Appendix 1 to this Report.

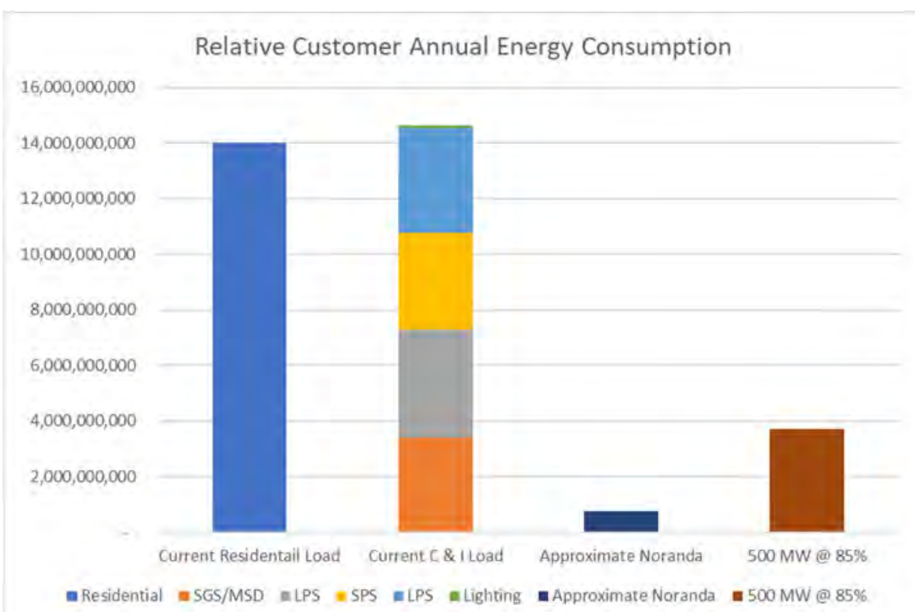
[3] Section 393.130.7, RSMo., effective August 28, 2025, enacted pursuant to SB 4.

In general, Ameren Missouri has the obligation to supply electric service to requesting qualified customers in its service territory, although that obligation is subject to reasonable limitations.[4]

As noted by Mr. Steven M. Wills in his testimony at page 10:

> A single customer that is larger than the 100 MW threshold established for the large load subclass itself would require the majority of the capacity of a single such combustion turbine unit when accounting for the fact that 100 MW of nameplate capacity does not equate to 100 MW of accredited capacity and after taking into account planning reserve margin requirements generated by new load. That a single customer will require a majority or the entirety of the capacity of a typical new gas unit is indicative of the unique impact large load customers can have on generation investment.

Ameren Missouri currently has four Commercial and Industrial (C & I) rate classes, and each serves roughly the same annual load, at around 3,200,000-3,400,000 MWh each. A single 500 MW customer with an 85% load factor, is the same approximate size as any one of these classes. The 100 MW threshold proposed by Ameren Missouri for LLCS service, is a higher demand than that of the single largest customer Staff is aware of in State history. The Noranda aluminum smelter previously served by Ameren Missouri at a maximum capacity of approximately 95 MW at its highest operation.



[4] "The certificate of convenience and necessity issued to the utility is a mandate to serve the area covered and it is the utility's duty, within reasonable limitations, to serve all persons in an area it has undertaken to serve. *State v. Public Service Commission*, 343 S.W.2d 177, 181 (Mo.App.1960)." State ex rel. Missouri Power and Light Co. v. Pub. Serv. Commn. of State of Mo., 669 S.W.2d 941, 946 (Mo. App. W. Dist. 1984).

There is also an inherent tension between the obligation to serve customers already physically located within the utility's monopoly service territory, the utility's interest in drawing in additional customers to its service territory, and restrictions on undue discrimination in customer treatments.[5] Essentially, Missouri's body of regulatory law has historically been about balancing the interests of the utility's shareholders with the interests of customers who have no other options for the provision of electric service. The Commission is presently being asked to resolve the balance of interests between a utility's shareholders, the interests of customers who have no other options for the provision of electric service, and the interests of customers who may be shopping regionally, nationally, or internationally for electric service.

However, statutory guidance has been provided. Senate Bill 4, effective August 28, 2025, amended Section 393.130 at 393.130.7, RSMo., to require each Missouri utility to have tariff provisions applicable to customers who are reasonably projected to have above an annual peak demand of one hundred megawatts or more, that "**reasonably ensure such customers' rates will reflect the customers' representative share of the costs incurred to serve the customers** and **prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to such customers**,"[6] and allows the Commission to order tariff schedules applicable to customers with lower annual peak demand. As Staff will explain, to achieve this balance, proper treatment of revenues is the key.

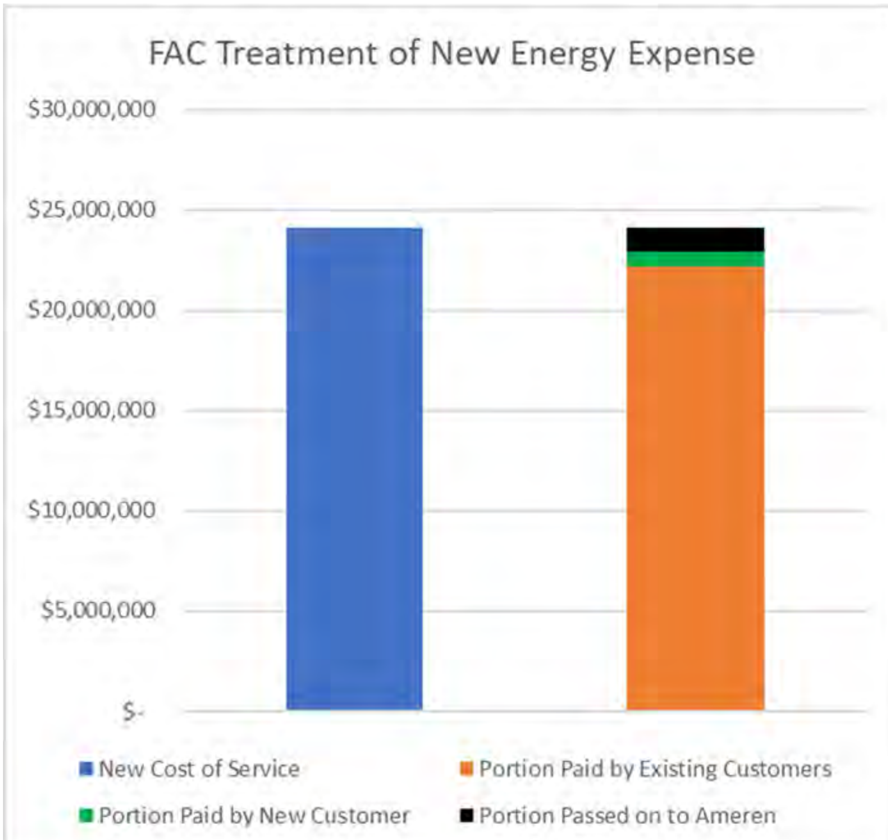
Ameren Missouri's proposed LLCS tariffs, associated riders, and other tariff changes will not prevent other customer classes' rates from reflecting unjust and unreasonable costs to other customers. This is due to a combination of the requested rate structure, and due to a failure to specify how the revenue from LLCS customers will be treated. Specifically, prior to a rate case recognizing the addition of an LLCS customer, essentially all incremental expenses associated with that LLCS customer will flow through the Fuel Adjustment Clause (FAC), however, all revenues from the LLCS customer will flow to shareholders. While Mr. Wills recognizes the double-counting that will result with regard to contractually-dedicated capacity transactions for LLCS customers, Ameren Missouri does not address the larger-scale double-counting that will result from wholesale energy purchases to serve LLCS load prior to the time that load is recognized

[5] "Discrimination" here, refers to different treatment, whether preferential or anti-preferential. Section 393.140(5), RSMo.

[6] Section 393.130.7, RSMo., effective August 28, 2025, enacted pursuant to SB 4 [Emphasis added.].

in a general rate case.[7] The treatment of revenues and changes in costs of service is discussed in more detail in the section, "Regulatory Lag Considerations."

Without addressing additional revenue requirement from new power plants, through the operation of the FAC, for every 876,000 MWh of new load,[8] the addition of an LLCS customer will raise the bills of existing Ameren Missouri customers approximately $22 million, each year, from the time the customer comes on to the system until the customer's load is recognized in a rate case.[9]

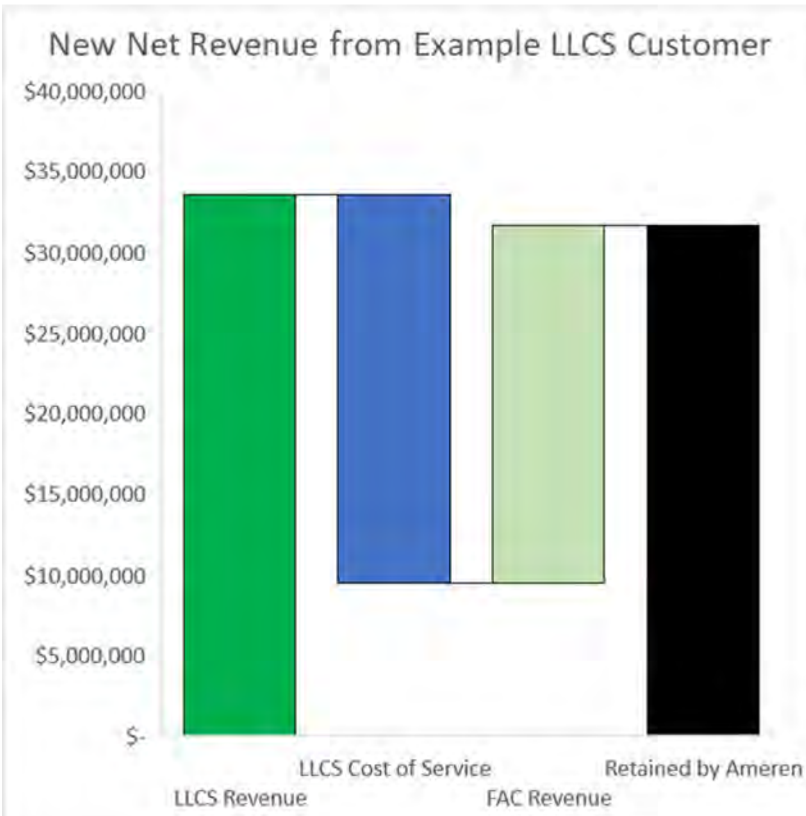


[7] *See* Steven M. Wills Direct, page 51, "If the Company were to enter into any contractual arrangements under which capacity revenues and/or costs were dedicated to a large load customer (including mitigation of termination fees), then the revenues and costs of that capacity should not be included in the FAC, which would pass them on to all customers and would result in the potential for double counting of their impact. The Company has developed tariff language that it proposes to incorporate into its FAC to carve out the capacity costs and revenues that are directly related to contractually dedicated capacity transactions."

[8] This would be the equivalent load to demand of 100 MW in every hour of the year.

[9] Unless a new power plant is simultaneously built, serving new load will result in some combination of reducing capacity auction revenue or increasing capacity auction expense – either effect will be passed through the FAC.

Meanwhile, annually, for every 100 MW of stable new load, Ameren Missouri will receive around $33.5 million in new revenue from that customer through the basic LPS rates. Assuming that the annual expense for wholesale energy, increased RTO expenses, and market capacity position changes to serve the new customer's load is around $27.50 per MWh, the annual increase to Ameren Missouri's expenses to serve the new customer will be approximately $24 million. All customers, including the new customer, will provide around $22.9 million in new FAC revenue.



All told, without further Commission orders on the treatment of revenue and expenses associated with LLCS customers, Ameren Missouri shareholders will benefit from around $31.6 million of new net revenue from the example 100 MW new LLCS customer, every year, until that customer and revenue level is recognized in a rate case.

Before addressing the reasonableness of the rates and other terms requested by Ameren Missouri in this case, Staff must conclude that this approach, which for each 100 MW of stable LLCS load, simultaneously (1) shifts $22 million in additional FAC charges every year for up to four years to existing ratepayers, and (2) provides Ameren Missouri with $31.6 in new net revenues every year for up to four years, is not compliant with the directive of SB 4 to "prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to such customers."[10]

Staff does not take a position on the propriety of serving any given potential customer of a regulated utility in this case. However, Staff must note that resources such as land are finite, and that resources such as electric capacity are temporally finite. Staff also must note that generation capacity is expensive, cannot be instantaneously built, is subject to extensive federal and environmental regulation, increases cost of service for decades, and causes its own risks to captive ratepayers. Given the scale of the capacity that will be consumed by a given LLCS customer, some entity other than Ameren Missouri must have reasonable input in the allocation of massive amounts of capacity among potential LLCS customers and between LLCS customers and captive ratepayers. State-level entities such as the Department of Natural Resources, the Department of Natural Resources Division of Energy, the Department of Economic Development, and the Governor's office operate in this space, but Ameren Missouri has the ultimate decision of which customers it will allow onto its system and what capacity it constructs for current and potential customers. Even under the tariff that Ameren Missouri has proposed, it is Ameren Missouri alone to determine which potential LLCS customers will enter an Electric Service Agreement (ESA). Ameren Missouri has requested that the Commission approve the ESA for each LLCS customer. However, there is no opportunity for the Commission to receive evidence on which customers Ameren Missouri did not allow to make it before the Commission, or for how Ameren Missouri has chosen to allocate available capacity among customers.

While it is also necessary to "reasonably ensure [LLCS] customers' rates will reflect the customers' representative share of the costs incurred to serve the customers,"[11] Staff suggests that the first step is to enact regulatory protections to mitigate the risk that aggressive customer additions will result in unjust and unreasonable costs being passed on to current captive customers. The next step is to design rates that reasonably align the LLCS customer cost causation with the charges to be billed to LLCS customers. The final step is to be thoughtful about rider design, the interaction of optional services and base rates, and system planning.

[10] Section 393.130.7, RSMo., effective August 28, 2025, enacted pursuant to SB 4.
[11] Section 393.130.7, RSMo., effective August 28, 2025, enacted pursuant to SB 4.

This Recommendation Report represents Staff's best efforts to implement the mandate that the LLCS customers' rates reflect their representative share of the costs incurred to serve them and prevent other customers from reflecting any unjust or unreasonable costs arising from service to LLCS customers.[12] However, there will be at least some times when other customers' rates will be higher than they otherwise would be due to buildout of new, costly, capacity to eventually serve LLCS customers, even under this structure.[13] This is because new generation capacity is incredibly expensive, as acknowledged by over a decade of programs under the Missouri Energy Efficiency Investment Act (MEEIA) to compensate shareholders for the benefit of reducing energy sales and avoiding construction of costly new power plants.

Investor Owned Utilities such as Ameren Missouri are in the business of investing shareholder dollars for a return that is paid through regulated rates for the provision of electric service to retail customers. From time to time, Ameren Missouri builds power plants to facilitate that business. There is no requirement or check in current Missouri regulation that requires Ameren Missouri to vet potential customers for the best economic, environmental, public benefit, or any other interest of the State of Missouri, its service territory, or a given community – other than this Commission.[14] As this Recommendation Report will illustrate, how the revenues from LLCS customers are treated; has as much to do with the level of harm caused to captive Ameren Missouri ratepayers, as the setting of the rates themselves.

Staff Witness: Sarah L.K. Lange

Contradictory Policy

Ameren Missouri has received approximately $108 million premised as prepayment of earnings on power plants that Ameren Missouri was not going to get to build because of energy and demand savings caused by Ameren Missouri's programs under the Missouri Energy Efficiency Investment Act (MEEIA). In total, (excluding the rate increases associated with MEEIA rebasings in general rate cases) Ameren Missouri ratepayers have paid more than $1.2 billion through

[12] Section 393.130.7, RSMo., effective August 28, 2025, enacted pursuant to SB 4.

[13] Under the Ameren-proposed structure, there will be additional or pervasive times when other customers' rates will reflect the risk and costs of variable energy market expenses that are not appropriately recovered from the LLCS class.

[14] As described in the testimony of James Busch, those jurisdictions with more mature large load customers are continuing to address the unique challenges and issues presented by large load customers.

Commission approved Demand-Side Investment Mechanisms (DSIM).[15],[16] The programs that are implemented through the DSIM are premised on the concept of avoiding capacity costs, or the costs to build generation facilities. Rates paid under the DSIM are to compensate Ameren Missouri for (1) the margin on the charges for energy it isn't selling during the time between when the MEEIA program occurs and the next general rate case, (2) the cost of the actual MEEIA programs, and (3) the return on equity (ROE) Ameren Missouri won't get to earn on power plants it wouldn't need to build. Now, Ameren Missouri is actively seeking large customers that will require massive amounts of new generation facilities which will be recovered through the rates of all captive ratepayers, effectively erasing the proposed benefit of avoiding generation facility costs. And Ameren Missouri plans to retain the margin on the new energy and demand revenue it will receive from the LLCS customer.

The load associated with customers that will be served by an LLCS tariff is still uncertain based upon several factors that have the potential for massive implications on the rates of Ameren Missouri's captive ratepayers. The actual load profiles, ramping of load, length of service, and certainty of immediate, mid-range, and long term forecasted demands of LLCS customers will all play a role in generation resource acquisitions. Electric generating plants are generally depreciated for 30+ years, and can have practical lifetimes of more than twice that length, depending on the asset management strategy of Ameren Missouri. If the load from LLCS customers dwindles over-time, Ameren Missouri's captive ratepayers run the risk of paying for a massive generation build-out that is unnecessary to serve the remaining customer base, and for which the cost of service is unlikely to be fully offset by capacity market revenues.[17]

The Commission should not expect that new power plants will "pay for themselves," or produce revenues from energy and capacity sales that offset the cost of service increases they cause. Mr. Wills addressed this concept in his surrebuttal testimony in EA-2023-0286 regarding Ameren Missouri's application for Solar Certificate of Convenience and Necessity (CCNs):

[15] This dollar value does not account for ratepayer impacts that result from rebasing the DSIM through the general rate case process.

[16] Case No. ER-2025-0168.

[17] While historically Ameren Missouri has had excess capacity and excess energy available to flow through the FAC, as explained below, given the increase in the costs associated with new generation it is not reasonable to assume that the benefits of new power plants will fully offset the increased cost of service caused by new power plants.

> Q. Have generation additions for which CCNs have been approved historically been justified on the grounds that they were expected to pay for themselves?
>
> A. Not the ones with which I am familiar. The Commission granted CCNs to the Company for its Meramec, Sioux, Labadie, Rush Island, and Callaway baseload plants, and its Taum Sauk and Howard Bend peaking plants. The Staff discusses these and seven other generation CCNs in its briefing in the South Harper CCN case. Some of those other plants are baseload units and some peaking or combined cycle units. I am confident that those plants were not built based upon speculation that they would generate revenues in excess of their costs. And as I noted, some of them are peakers, which would never be expected to pay for themselves, even today. And while I have not reviewed the dockets for all of the Ameren Missouri plants listed above, I have reviewed some of them, notably for Meramec, Sioux, Labadie, and Rush Island, and there is nothing in those case files suggesting that the Company justified them on the basis that they would be "free" and pay for themselves, that the Commission approved CCNs on that basis, or that the Staff, when it came to those fossil-fueled resources, claimed that the test in a generation CCN case is whether the resource will generate revenues in excess of its costs.[18]

Staff Witness: J Luebbert

Rising Cost Environment

In certain situations, as production increases for a given product, the price per unit goes down. However, on a dollar per MW basis, the ratebase of a new power plant built in 2030 will be much higher than the ratebase of an old power plant kept in operation since the 1970s.

The original capital cost of Ameren Missouri's generation fleet is approximately $12.2 billion. Net of depreciation reserve and adjusted for the ratebase value of its fuel inventories, that amount is about $7 billion. Accumulated Deferred Income Tax (ADIT) is the total amount of money that ratepayers have paid in for decades for income taxes, that Ameren Missouri has yet to pay in income taxes, because Ameren Missouri was able to use accelerated depreciation for tax purposes. While allocation methods for ADIT will vary depending on exactly what the allocation is needed for, looking just at gross plant amounts, around $1.3 billion of ADIT offsets the ratebase of Ameren Missouri's current generation fleet, bringing the net capital cost for Ameren Missouri's

[18] Surrebuttal of Steven M. Wills in File No. EA-2023-0286, page 56, line 23 – page 57, line 12.

current generation fleet in Ameren Missouri's current rates to around $5.7 billion, which is about $0.9 million per MW, for the current Ameren Missouri total demand of about 6,220 MW.

While much of Ameren Missouri's existing power plant fleet was built in the 1970s-1990s at costs typical for their times, for 2023, the Energy Information Administration reported average construction costs of $1.6 million per MW for photovoltaic power plants, $1.3 million per MW for batteries, and $1.7 million for wind. For simple cycle combustion turbines, the reported cost for 2023 was $562 million per MW. For combined cycle units, the CT portion was $782 million and the Heat Recovery Steam Generator (HRSG) portion was $1.122 million.[19] The cost of power plants has risen since 2023, and will likely continue to rise.

The Commission has issued CCNs for six new Ameren Missouri power plants in three cases, and also has before it a CCN application for a new simple cycle CT power plant and new battery energy storage. Ameren Missouri has also filed, in Case No. EA-2025-0239, a new CCN for 250 MW of new solar located in Callaway County, Missouri. The CONFIDENTIAL table below shows the current net ratebase (including ADIT) of Ameren Missouri's power plants, and the capital costs and nameplate capacities of the additional power plants, excluding the recently-requested Callaway solar plant. If the solar power plants are adjusted to a plug capacity value of 70% of nameplate, and all projects come in on budget, these additions alone will increase the cost per MW of the Ameren Missouri generation fleet by about 29%.

**

[redacted]

**

The current capital cost divided by the current peak demand for Ameren Missouri is shown in the CONFIDENTIAL graph below, compared to the estimated capital cost per nameplate AC MW of the new resources. This does not attempt to address accredited capacity of the new resources, which will vary from nameplate.

[19] https://www.eia.gov/electricity/generatorcosts/, accessed 7/31/2025.

**

[redacted]

**

Quite simply, potential LLCS customers are big, are sophisticated, and are potential players in the bulk electric system. It is likely that an LLCS customer would not become an LLCS customer unless the pricing and terms offered by Ameren Missouri are better than the LLCS customer could build or obtain on its own. The terms for new capacity that the LLCS customer can obtain on its own will be reflective of the current or future cost of a power plant, and not the Ameren Missouri fleet net rate base. The Ameren Missouri generation fleet is largely decades old, and has lower original cost. The Ameren Missouri generation fleet is also offset by decades of depreciation reserve and income tax value that have been paid by captive rate payers. Without adequate safeguards, captive Ameren Missouri ratepayers will be covering the difference between the revenue LLCS customers provide and the increases in cost of service caused by LLCS customers and the relatively higher cost of new power plants.

Ameren Missouri's willingness to build additional power plants is not an adequate safeguard against economies of scale. Only the Commission's careful exercise of grants of CCN authority, careful application of prudence reviews, and development and enforcement of robust resource planning can be that safeguard to "prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to [LLCS] customers," that will be caused by the relatively higher cost of new power plants.[20] As discussed in Section "Charge for Generation Capacity Cost of Service," an important feature in minimizing the harm to captive

[20] Section 393.130.7, RSMo., effective August 28, 2025, enacted pursuant to SB 4.

ratepayers caused by the increasing cost of expanding the generation fleet, is calculating the generation demand charge without offsetting that charge for the ADIT that has been prepaid by captive ratepayers.

Staff Witness: Sarah L.K. Lange

Issues to Be Resolved

Staff provides the following preliminary identification of the primary issues requiring Commission Resolution:

1. Should LLCS be a subclass of the LPS or a stand-alone class?
2. What should be the threshold for LLCS, and what other existing programs and riders should be available to LLCS customers, if any?
3. How much interconnection and related transmission infrastructure should be the responsibility of an LLCS customer?
4. What minimum term of service should be required for an LLCS customer?
5. What collateral or other security requirements, and termination provisions are appropriate to comply with Section 393.130.7, RSMo.?
6. Should LLCS customers be included in the FAC? If so, what FAC changes are necessary in the next general rate case?
7. Should LLCS customers be served from a separate, unique, designated load node?
8. Is a waiver of RES requirements 20 CSR 4240-20.100(1)(W) and the authorizing statute lawful and reasonable with regard to LLCS customers?
9. What is the appropriate treatment of LLCS customers, load, and plant additions under the RESRAM?[21]
10. What is a reasonable rate structure and design to comply with Section 393.130.7, RSMo.?
11. How should revenues from LLCS customers be treated?
12. What additional riders, if any, should be authorized by the Commission at this time, including the "Clean Capacity Advancement Program," the "Clean Energy Choice Program," the "Nuclear Energy Credit Program," the "Renewable Solutions Program – Large Load Customers,"
13. Is the ESA proposed by Ameren Missouri adequate and appropriate?

Staff Witness: Sarah L.K. Lange

[21] This issue will also be impacted by new legislation through SB 4, as well as the related rulemaking. Because the resolution of this issue is intimately interrelated with multiple other issues, Staff does not address this at this time, but reserves the opportunity to further develop a recommendation for appropriate implementation of tariffs in this matter.

I. Regulatory protections to mitigate the risk that service of LLC customers will result in unjust and unreasonable costs being passed on to current captive customers

Revenues that are not realized in rate cases cannot offset rate increases and FAC increases. When a new power plant is built, rates will go up. When additional energy is sold to Ameren Missouri retail customers, the FAC will go up. Staff's recommended risk mitigation strategy is to defer the value of positive regulatory lag to regulatory liabilities, and to use those regulatory liabilities to offset the ratebase of new power plants.

In summary, Staff recommends:

1. Deferral of positive regulatory lag,
2. Use of deferred revenues to offset ratebase of new power plants,
3. Future exclusion of LLCS customer from the FAC, or FAC modification to create a "Reverse N Factor," and "N Factor."
4. Providing LLCS customers with an option to be billed actual MISO[22] integrated energy market costs, enabling and promoting cost-based electric consumption and demand response for LLCS customers, and shielding captive ratepayers from excessive risk and cost shifts from the FAC. Under this option the LLCS customer load would be removed from the FAC.
5. A large load customer approval process before the Commission.

Staff Witness: Sarah L.K. Lange

Ameren Missouri Proposal

Ameren Missouri plans to benefit from positive regulatory lag from LLCS customer revenues, with the exception of termination fee revenues, capacity reduction fee revenues, the expenses of short -term contractual capacity purchases, and certain revenues from its requested riders. Ameren Missouri also proposes a flat rate for energy, which shields LLCS customers from diurnal and seasonal energy price variations and does not empower LLCS customers to conserve energy on an economically efficient basis – which passes the risk of extreme pricing events on to all customers through the FAC.

Staff Witness: Sarah L.K. Lange

Staff Response

There are few, if any, expense increases which would offset the LLCS revenue from creating positive regulatory lag. As explained in the Introduction to this Recommendation Report,

[22] Midcontinent Independent System Operator, Inc. (MISO).

Ameren Missouri will recover approximately 95% of the expense of serving an LLCS customer that is passed through the FAC. This will include the following expenses:

1. The day ahead and real time energy to serve the LLCS customer,
2. The ancillary services to serve the LLCS customer,
3. The transmission expense (subject to sharing) to serve the LLCS customer,
4. The market value of the capacity cost to serve the LLCS customer (this may be either an increase to amounts owed in the MISO auction, or a decrease to revenues received through the MISO auction),[23] or
5. Interim capacity for which Ameren Missouri may directly bill the LLCS customer.

Under the Ameren Missouri proposal (and the Staff approach) the cost of customer facilities such as the transmission interconnection, the interconnecting lines, and the meter, would be paid by the LLCS customer, so there will not be significant increases to the experienced cost of service to offset the positive regulatory lag of new customer revenues. Ameren Missouri may incur expense for (1) Renewable Energy Credits necessary for compliance with the Missouri Renewable Energy Standard for new LLCS customer load, (2) customer service associated with interactions with LLCS customers and load forecasting, and (3) operation and maintenance expenses such as property taxes and insurance associated with the new transmission facilities and customer interconnection assets, and labor to run the facility, if applicable. Essentially all other changes in revenue requirement that adding a new LLCS customer will cause, will flow through the FAC.

Whether the LLCS customers pay rates that are too high, too low, or just right, under Ameren Missouri's approach, whatever the LLCS customer does pay for up to four years, other customers will pay the same base rates and higher FAC rates that entire time. Necessarily, captive ratepayers will also be paying higher rates than they otherwise would, due to the increases in cost of service caused by building new power plants which are more expensive than the existing power plants. Thus, the Ameren Missouri approach to allow Ameren Missouri to retain the revenues of LLCS customers through positive regulatory lag does not comply with the required statutory safeguard that the tariffs resulting from this case "prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to [LLCS] customers."[24]

Staff Witness: Sarah L.K. Lange

[23] If the former, the increase in capacity costs could trigger increases in the cost of capacity for all Ameren load, not just that of the new customer. The full increase would be passed through the FAC.

[24] Section 393.130.7, RSMo.

Regulatory Lag Considerations

Ameren Missouri is substantially shielded from negative regulatory lag associated with construction of renewable generation (unless that rate-base addition increases revenues by allowing service to new customer premises) under the provisions of Section 393.1400, RSMo., related to Plant in Service Accounting (PISA). Recently enacted SB 4 allows the same protection from negative regulatory lag for new natural gas generation units, effective August 28, 2025. The Renewable Energy Standard Rate Adjustment Mechanism (RESRAM), provides additional protection from negative regulatory lag for qualifying renewable power plants, which also allows deferral of expenses, and any amounts not covered by PISA treatment.[25]

It is important to note that Ameren Missouri is recovering the full cost of owning and operating its generation fleets from existing customers as of the conclusion of its last rate cases. If a new LLCS customer begins paying for the generation fleet – as they should – then Ameren Missouri will over-recover that amount. As a very simple example, consider four friends who decide to buy a $20.00 pizza. Each of the four hands $5 to the cashier. Just then a fifth friend walks in and joins them. Should this newcomer also give the cashier $5? Or should the newcomer give $1 to each of those who already paid? Ameren Missouri is in the position of the restaurant manager, who would be pleased to accept a $5.00 gratuity on that $20.00 pizza. As described below, reasonable accounting authority should be ordered to ensure a fair outcome for the existing rate payers, and to avoid unreasonable accumulation of positive regulatory lag to the benefit of shareholders.

Due to the inherent lag between when an LLCS customer begins paying its bills, and when that revenue is recognized in a rate case, Ameren Missouri will experience positive regulatory lag. This lag is different than ordinary positive lag associated with customer growth due to its scale,

[25] The Commission has allowed RESRAM and PISA treatment for the High Prairie wind farm, approved in Case No. ER-2018-0202. Staff is not conceding that simultaneous treatment in the RESRAM and PISA is appropriate for future cases, nor is Staff conceding that new power plants qualify for PISA treatment if those power plants are built to allow service to new customers. Staff will review the applicability of these treatments as requested on a case by case basis.

and the lack of offsetting revenue requirement increases.[26] This lag is unlawful due to the statutory requirement that LLCS customers' rates will reflect the customers' representative share of the costs incurred to serve the customers and prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to LLCS customers.

Ameren Missouri participates in the MISO capacity auction. Ameren therefore has three routes available to serve new customers. The first is using auction capacity,[27] the second is through contractual arrangements,[28] and the third is to build or buy a new power plant. If a new power plant is built, it is unlikely that there would be a timing scenario where a rate case would capture the increased revenues from a new LLCS customer prior to capturing the increased revenue requirement associated with the new generation asset. This is because that timing would be unlikely to be chosen by Ameren Missouri, who controls the pace of construction activities and has discretion in the timing of customer additions, and also, for the practical reason that if Ameren Missouri needs to build additional capacity to serve the full load of an LLCS customer, then Ameren Missouri will not be serving that customer at full load until that capacity addition is up and running unless some other arrangement is in place.

---

[26] When a new home or business begins taking service, not only is the scale of revenue growth much smaller than will be the case for an LLCS customer, but also there are more offsetting increases to revenue requirement. For an LLCS customer, Ameren Missouri will not be paying for some or all of the costs to install a meter, a service line, or a line transformer, although going forward its cost of service will include some amount of expenses associated with ownership and operation of these customer-contributed facilities. However, those costs will be recognized in rates at the time that the associated revenue will be recognized in rates. Nor will Ameren Missouri be paying for the accumulated need to expand distribution systems or substations to serve customers collectively with the addition of an LLCS customer. Rather, the LLCS customer will be prepaying for its transmission interconnection, its meter, and any infrastructure in between. This required customer contribution is reasonable and appropriate, but it also distinguishes LLCS growth from ordinary customer growth.

[27] This would pass through the FAC and be socialized to all customers, including the LLCS customer, subject to the 5% Ameren Missouri sharing.

[28] If the terms of those contracts or capacity arrangements are less than 1 year, those expenses are included in the FAC, subject to the Commission effectuating the Ameren Missouri position in Steven M. Wills Direct, page 51, "If the Company were to enter into any contractual arrangements under which capacity revenues and/or costs were dedicated to a large load customer (including mitigation of termination fees), then the revenues and costs of that capacity should not be included in the FAC, which would pass them on to all customers and would result in the potential for double counting of their impact. The Company has developed tariff language that it proposes to incorporate into its FAC to carve out the capacity costs and revenues that are directly related to contractually dedicated capacity transactions." However, the referenced capacity revenues are not a certainty. The proposed "Interim Capacity" language states that the LLCS customer "*may*, based upon the agreed upon terms, be subject to an additional demand charge," [Emphasis added.] related to specific agreements that Ameren Missouri enters into for capacity to serve the customer.

Consider the following illustration:

A. Ameren Missouri is currently authorized to collect about $3.23 billion from its retail ratepayers, and it sells around 27.4 billion kWh of energy each year. This works out to an average of $0.118/kWh.

B. Assume Ameren Missouri builds a new 500 MW power plant.[29] Ameren Missouri anticipates that a new 500 MW LLCS customer will begin taking service. A rate case occurs and the power plant is incorporated into revenue requirement, but the new customer is not yet taking service. The net revenue requirement of the power plant is $100 million for the first year. The new net cost of service is $3.33 billion. The rate increase will result in an average cost to a retail customer for a kWh of energy of $0.122/kWh.

C. The day after the Commission Order approving the rate increase is issued, the LLCS customer begins taking service, 500 MW with an 85% Load Factor. The LLCS customer pays $146,979,371 for each of the next four years, and also pays into the FAC.[30] Non-LLCS ratepayers continue to pay $3.33 billion for each of the next four years, and also pay into the FAC.

D. For each of the next four years, Ameren Missouri receives revenues of $3.477 billion in non-FAC revenue from its retail ratepayers (including the LLCS customer) and the FAC continues to operate.

E. Over the next 35 years, fuel expenses, market energy and capacity expenses, escalate by 2% per year to account for inflation. Rate increases occur every 4 years with a 6.12% increase in each case. No other changes in energy sold or cost of service occur.[31] The LLCS rates are increased by the system-average amount in every rate case, and it closes its doors after 16 years.

The $100 million discussed in Step “B” is a cost reflected in the rates of other customers arising from Ameren Missouri’s strategy to provide service to LLCS customers. Ratepayers will pay rates that are $100 million higher than they would have been to enable capacity for Ameren Missouri to acquire an LLCS customer.[32] That $100 million will include an annual value for ROE of

[29] For purposes of this illustration, the new power plant has a 35-year life, it had an original ratebase value of $750 million, and it generates at a 50% capacity factor consistently over its life, with an initial fuel cost of $20.00 per MWh, and revenue of $27.50/MWh, which includes value for market capacity. The plant in this example has capital costs on the low end of expectation for a CT, but generates energy at a capacity factor that is more typical of a combined cycle. In other words, the power plant used in this example is a better deal for ratepayers than should be expected to actually occur.

[30] This is the average bill calculated pursuant to Ameren Missouri’s requested tariff, increased by the system-average increase associated with the new power plant.

[31] This illustration is designed to identify positive regulatory lag associated with a new power plant and with a new LLCS customer, and any other changes in cost of service which would otherwise occur are irrelevant.

[32] Staff understands that Ameren Missouri and LLCS customers will argue that the new plant is not a cost of serving the LLCS customer, but rather it is a cost of robust system planning and no one plant is built for any one customer. There can be zero doubt that Ameren Missouri will need to build more or bigger power plants to serve LLCS load, and such arguments about any specific power plant are irrelevant to understanding this illustration.

about $32.6 million. Over the life of the plant, assuming perfect ratemaking, shareholders would receive $487.7 million as ROE, and ratepayers would provide $122 million in income tax expense related to that ROE – a lifetime total of $609.6 million of total cost of service of $1.434 billion, about 42.5%.[33]

However, with a 4-year rate case interval, Ameren Missouri will receive the benefit of positive regulatory lag. In the context of a power plant addition, regulatory lag means that ratepayers will be paying more in the second, third, and fourth year after a rate case than they should, but that ratepayers will be receiving 95% of the increased net margin on operating the plant through the FAC.[34] The interaction of regulatory lag and the FAC means that, over the 35-year life of the plant, ratepayers will pay $33 million more than they would under perfect ratemaking, and the utility will receive $71.5 million more than they would have under perfect ratemaking.[35]

	Total Cost to Ratepayers	**Revenue Available for ROE & Taxes**
Perfect Ratemaking	$ 2,564,049,937	$ 609,609,375
Base Rate Regulatory Lag	$ 69,674,773	$ 69,674,773
FAC	$ (36,187,742)	$ 1,904,618
Combined Lag & FAC	$ 2,597,536,969	$ 681,188,766
Net Regulatory Lag	$ 33,487,031	$ 71,579,391
	(Additional Cost)	(Additional Benefit)

Ultimately, due to regulatory lag, the power plant will cause ratepayers in total to pay $2.6 billion over the life of the plant, and the power plant is built to enable service of LLCS customers.

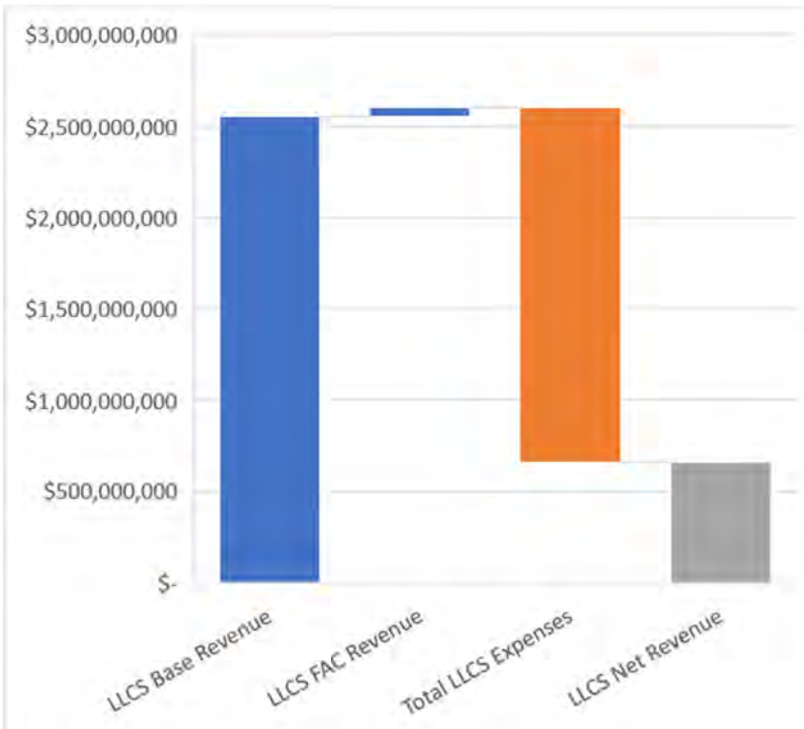
[33] For year-by-year information concerning these illustrations, see Appendix 2, Schedule 2. When perfect ratemaking is assumed, annual rate cases would essentially negate the FAC for purposes of an annual analysis. Staff acknowledges that if Ameren Missouri is able to utilize accelerated depreciation for tax purposes the lifetime cost of service for the plant may be lower through the operation of ADIT to reduce the net rate base subject to capital cost recovery through regulated rates in certain years. However, as this plant is entirely hypothetical, the complexity of detailed income tax accounting is not reflected.

[34] If the power plant were a renewable plant subject to RESRAM treatment, this result would vary.

[35] The FAC operation in this case reduces the cost to ratepayers, and increases the total revenue to the utility. Staff understands that other costs and expenses may be increasing between rate cases, however, that is not relevant to the required statutory analysis.

The illustration analysis now shifts to whether those rates paid by an LLCS customer will be sufficient to "prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to such customers."[36]

Moving to Steps "C," through "E.," the LLCS customer in this illustration ultimately takes service for 16 years, during which it provides $2.6 billion in total revenue, including the FAC. During this time the costs of energy and capacity for the customer are $1.9 billion, meaning the customer provided $657 million in revenue net of direct cost of service over the total term.[37]



However, even with all of that revenue net of expense coming from the LLCS customer, and even with the power plant being perfectly sized for the LLCS customer (e.g., ignoring reserve margins), other ratepayers still pay $2.48 billion more over the next 35 years than they would have paid if the new power plant had not been built and the LLCS customer had not been acquired.

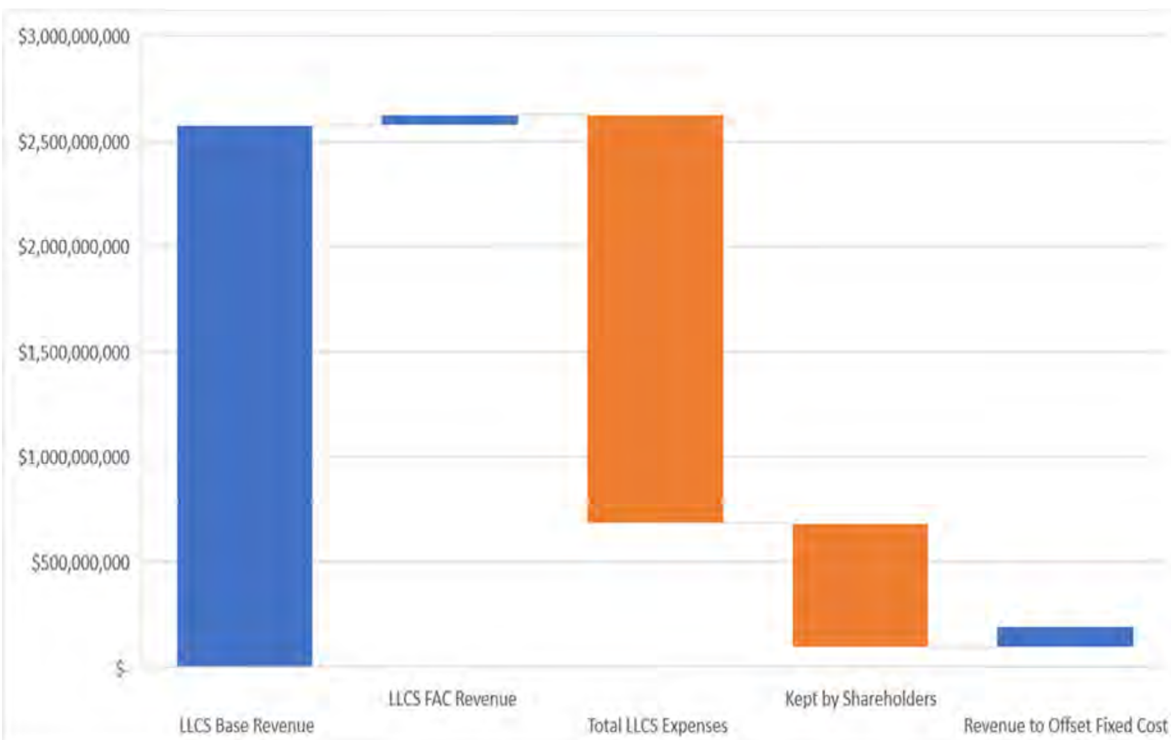
- Net Harm from Adding Plant (Perfect Ratemaking) $2,564,049,937
- Net Harm from Plant, with Regulatory Lag $2,597,536,969
- Net Harm from Plant & LLCS Customer (16 Year) $2,481,406,393

[36] Section 393.130.7, RSMo., effective August 28, 2025, enacted pursuant to SB 4.

[37] For purposes of this illustration only.

The explanation for why there is only a $116 million change in the net harm to non-LLCS customers when the LLCS customer is providing net revenues of $2.6 billion is because of regulatory lag flowing the LLCS revenues to shareholders, where it cannot offset the revenue requirement of the new plant and "prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to such customers."[38]

Whatever revenue LLCS customers provide, none of it will be recognized to offset Ameren Missouri's cost of service until those revenues are realized in a rate case to the benefit of other customers. Under this illustration, which assumes that Ameren Missouri will time its cases to maximize its beneficial regulatory lag, Ameren Missouri will obtain $582.7 million in positive regulatory lag over 35 years, with **$573 million of positive regulatory lag in the first four years in which the LLCS customer takes service**.[39] This means of the $2.6 billion dollars in revenue paid by an LLCS customer, only $97 million will actually offset the existing cost of service, including the new power plant built to serve the customer in this example.



[38] Section 393.130.7, RSMo., effective August 28, 2025, enacted pursuant to SB 4.

[39] The scale of an LLCS customer and the associated LLCS revenue are such that Ameren Missouri will almost certainly base its general rate case timing exclusively on the consideration of accumulating as much unrecognized LLCS revenue as possible. It is the prerogative of utility management to time rate cases to maximize shareholder benefit. With ordinary customer growth, offsetting increases to revenue requirement would negate some of the positive benefits of regulatory lag to shareholders. However, LLCS customer growth will be offset by increases in revenue requirement to a much smaller extent than normal customer growth.

In conclusion – appropriate treatment to address positive regulatory lag is necessary to enable LLCS rates that do reflect LLCS customers' cost of service to prevent unjust and unreasonable rate increases to other customers, and to prevent the LLCS customer rates from simply benefiting Ameren Missouri shareholders, as required by statute.

Staff Witness: Sarah L.K. Lange

Staff Recommendation

There are three areas where Commission action is needed to "prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to [LLCS] customers" such as - deferrals to address regulatory lag, changes related to the FAC, and requirements related to LLCS customers.

Staff recommends that the Commission order:

1. To address regulatory lag, creation of a deferred regulatory liability account into which Ameren Missouri defers the level of LLCS revenues described in Staff's recommended tariff, Appendix 2, Schedule 1. The revenues to be deferred, would include the Generation Demand Charge revenue, and the Variable Fixed Revenue Contribution and Stable Fixed Revenue Contribution charge revenues. This account would offset production ratebase, and be amortized over a 50-year period.[40]
2. To address the FAC and facilitate other recommendations:
    a. The Commission should order the creation of a deferred regulatory liability account into which Ameren Missouri defers the level of LLCS revenues each month that are equal to the values incurred for the LLCS customer that are subject to FAC treatment. These deferred amounts should be flowed back to customers through the FAC after a future rate case, using an amortization period of 4 years or less.
    b. The Commission should order Ameren Missouri to register a separate Commercial Pricing Node for each LLCS customer.
    c. The Commission should order Ameren Missouri to change its FAC tariff language as described below, in a general rate case.
3. As risk mitigation for captive ratepayers, the Commission should order the provisions related to interconnection, termination, collateral, minimum terms, minimum sizes, and economic discount applicability, other rider applicability, and the customer approval process as described below.

Staff Witness: Sarah L.K. Lange

[40] Periodically, these deferrals should be bundled and a new amortization period set to lessen administrative complexities. For example, at the conclusion of a general rate case, existing deferrals could be bundled and the new amortization period set based on the weighted average years remaining.

Staff-Recommended Deferral Treatment

Using the illustration above, and relying on Ameren Missouri's recommended LLCS rates for consistency with that illustration, implementation of Staff's recommended deferral treatment will substantially reduce the harm to captive ratepayers.[41] To facilitate illustration of the interaction of one power plant and one LLCS customer with other captive ratepayers, Staff has estimated impacts of its recommended deferrals to coincide with the retirement of the underlying power plant. Staff's actual recommended deferral treatment would be longer-lived, and would offset the harm to captive ratepayers over various supply-side additions over time. With those caveats, a comparison of the net harm to captive ratepayers under the indicated scenarios is set out below:

- Net Harm from Adding Plant (Perfect Ratemaking) $2,564,049,937
- Net Harm from Plant, with Regulatory Lag $2,597,536,969
- Net Harm from Plant & LLCS Customer (16 Year) $2,481,406,393
- Net Harm with Deferrals & Perfect Ratemaking $1,434,478,313
- Net Harm with Deferrals & Regulatory Lag $1,473,276,406

The specific deferrals recommended by Staff refer to revenue from charges within the Staff recommend tariff. Please see section "Revenue Treatment"

Staff Witness: Sarah L.K. Lange

Staff-Recommended FAC Treatment and Related Issues

Nodal Pricing and Recommendation for Separate Nodes for LLCS Customers

Every kWh of energy that Ameren Missouri sells to any retail customer must be purchased through the MISO integrated marketplace.[42] Every additional kWh of load results in an overall increase in purchased power expense net of revenues.[43] Every kWh of energy required by an

[41] While there will be harm to ratepayers caused by capacity plant additions to serve new LLCS customers, over time, if rates for LLCS customers are set properly, this harm should be mitigated if the rates for LLCS customers are set sufficiently.

[42] The relatively small amounts of generation from net metered solar and from utility sources such as the landfill gas plant or small solar sites does offset load requirements at the distribution level.

[43] For financial reporting purposes, FERC requires that utilities report the value of the net amount of energy transacted in a given interval, as opposed to the actual value of both the energy sold and the energy purchased. Therefore, in a given interval the expense of the energy for Ameren Missouri's load may be booked as a purchased power expense, or as a net negative energy revenue. Each day, generators owned by its market participants, including Ameren Missouri, are bid into the market, and MISO chooses which ones to dispatch to serve its system-wide load on a least-cost basis. System-wide generation is dispatched on a system-wide least cost basis, and any one utility's load will only coincidentally cause an increase in that utility's instructed generation if that utility's generation happens to be next in

LLCS customer will cause Ameren Missouri to purchase an additional kWh of energy in the interval in which it is needed, at the price of the Locational Marginal Price (LMP) at the interconnection node.[44] If a transmission constraint exists between the node at which energy is required and the nodes at which the lowest-priced energy could be generated, then the price of energy at the interconnecting load node will be increased to account for redispatch of energy at a location that can serve the load despite the transmission constraint.

No Missouri utility has experience with a single interconnecting load the size of contemplated LLCS customers. The larger the load at a given interconnecting node, the more likely a transmission constraint will occur, and that the magnitude of the potential transmission constraints will be greater. A new LLCS customer is somewhat equivalent to the addition of a new medium-sized city, essentially overnight, located at a single transmission load node. Depending on the location of the specific constraint in a given interval, these constraints could raise the LMPs of other regional load nodes too.[45]

As a Load Serving-Entity, (LSE), Ameren Missouri participates in the MISO integrated market (IM) for transmission, energy, and supportive services such as voltage support, ramping, and regulation. Ameren Missouri also participates in these markets as a transmission owner and as power producer. Ameren Missouri is also responsible for meeting the resource adequacy requirements of MISO and applicable Federal authorities.

Given the size of potential LLCS customers, Staff recommends that the Commission require that each LLCS customer be registered with MISO as a separate commercial pricing node. Absent this treatment, it is difficult to isolate the expenses caused by LLCS customers that would otherwise be flowed through the FAC and which may cause unreasonable impacts on captive ratepayers. Specific expenses and complications are discussed below. In general, Staff's recommended LLCS tariff sets out each area as a discrete charge in its recommended rate structure. Generally, the Ameren Missouri proposed tariffs fail to recognize the determinants

the cost-ordered stack. While additional load may result in additional generation sales, or in increased LMPs for generation sales transactions, this relationship is coincidental, at best.

[44] While a single load node LMP is reported, the reported LMP is actually an average of the LMPs at each interconnecting node, weighted by the load transacted at that node. For example, if in a given interval Ameren Missouri requires 100 MWh at Node A, transacted at $20, and 50 MWh at Node B, which is congested, transacted at $100, then the published LMP would be calculated as 100 * $20 = $2,000, 50 * $100 = $5,000, then $7,000 / 150 = $46.67/MWh.

[45] Eventually, it is likely that transmission solutions will be developed to address major constraints. The cost of these solutions should be allocated to the LLCS class.

associated with each of these discrete integrated market expenses for LSEs. The requested Ameren Missouri riders also induce problematic interactions with the integrated energy market.

Staff recommends that the Commission order in this case include a condition that LLCS customers will be served via a separate commercial pricing node and that Ameren Missouri develop subaccounts that would allow for simple and concise tracking of the MISO costs and revenues directly associated with each customer.

In the absence of separate commercial pricing nodes for each LLCS customer, Staff recommends that the Commission order each of the conditions included in Appendix 2, Schedule 3. The conditions included in Appendix 2, Schedule 3 are not a perfect solution for identifying the costs associated with the LLCS customers, will not allow for full cost causation transparency, and will create additional work processes for Staff and other parties.

Staff Witness: J Luebbert

FAC Treatment

As Staff will explain in the section, "Wholesale Energy Charge," Staff has developed a new approach in this case to the charges for wholesale energy than what it provided in its recommendations for Evergy Metro, Inc., d/b/a Evergy Missouri Metro (EMM) and Evergy Missouri West, Inc., d/b/a Evergy Missouri West (EMW) and The Empire District Electric Company, d/b/a Liberty (Empire).[46] This approach includes a tariffed flat energy rate, and an option for an LLCS customer to enter into an agreement to pay the actual wholesale energy expense associated with the LLCS customer's load node in lieu of paying that tariffed flat energy rate.[47] For customers who opt into this wholesale energy expense arrangement, it is appropriate to remove the customer's load and wholesale energy expense from the FAC, and that change should be made in the next general rate case. Staff anticipates that LLCS customers will opt into the wholesale energy expense arrangement, as it provides significant opportunities for bill savings. However, it would still be necessary to incorporate the Reverse N Factor and N Factor treatments,

[46] Staff proposed tariffs and terms in the pending Empire rate case, ER-2024-0261, however that testimony was struck.

[47] As an alternative, if the Commission rejects this primary rate structure recommendation, Staff has prepared rates for wholesale energy consistent with its recommendations in EMM, EMW, and Empire, which are included in Appendix 2, Schedule 4. The Reverse N Factor and N Factor would be necessary if this approach is taken, as well as any other approach that would otherwise result in Ameren Missouri effectively double-recovering the wholesale energy expense of serving a new LLCS customer.

described below, into Ameren Missouri's FAC in the next general rate case to apply to any LLCS customers who do not opt to enter into an agreement to pay the actual wholesale energy cost.

Under any rate structure, until the next rate case, it is necessary to create a regulatory liability in the amount of LLCS customer wholesale energy expenses that are included in the FAC, to prevent double-recovery of those expenses. It is also necessary to create a regulatory liability in the amount of FAC revenue paid by an LLCS customer who has opted-in to the wholesale energy expense arrangement.

Staff Witness: Sarah L.K. Lange

Capacity Costs and Revenues in the FAC

Ameren Missouri witness Steven M. Wills identifies in his direct testimony, that if Ameren Missouri were to enter into any contractual arrangements under which capacity revenues and/or costs were dedicated to a large load customer (including mitigation of termination fees), then the revenues and costs of that capacity should not be included in the Fuel Adjustment Clause (FAC), since including them would pass them on to all customers and would result in the potential for double counting of their impact.[48] Ameren Missouri has developed tariff language that it proposes to incorporate into its FAC to carve out the capacity costs and revenues that are directly related to contractually dedicated capacity transactions. Mr. Wills also states,

> I am advised by counsel that the FAC tariff cannot be changed outside of a general rate case, so in the context of this case I have attached an exemplar tariff illustrating the required change to my testimony as Schedule SMW-D3. Upon approval of the large load framework by the Commission, the Company will submit the FAC tariff changes reflected in the illustrative tariff for formal approval and implementation in a subsequent rate case.[49]

Staff has reviewed the proposed FAC tariff language in Schedule SMW-D3, and as of the date of this filing, does not have any concern with it, or the concept of removing the costs and revenues of the capacity dedicated to a large load customer. However, Staff recommends that Ameren Missouri track these capacity costs and revenues in a separate subaccount so they are easily identified and isolated from the FAC monthly reports as having been removed. This is subject to the Commission's order in this case and how the commercial pricing nodes (see energy and

[48] Direct Testimony of Ameren Witness Steven M. Wills, page 51, lines 9-22.

[49] Direct Testimony of Ameren witness Steven M. Wills, page 51, line 13 - page 52, line 2.

transmission costs in the FAC section below) are treated. Therefore, Staff reserves the right to revise its position on this issue in a future general rate case.

Staff Witness: Brooke Mastrogiannis

Program Riders and how they affect the FAC

Ameren Missouri stated in its response to Staff Data Request (DR) 12 regarding the Renewable Energy Solutions Program, Clean Capacity Adjustment Program, and Nuclear Energy Program (Programs) that "[n]o Program costs or revenues associated with any of the identified Programs, will be included in the FAC, but would instead be included in the tracker proposed by the Company in this case to ensure that all net benefits of the Programs are available to offset revenue requirements that impact existing customer rates." If the Commission approves the Programs, Staff does not take issue with these program costs or revenues not being included in the FAC, as Ameren Missouri witness Steven M. Wills has already identified that the FAC tariff sheets cannot be changed outside of a general rate case.

Staff Witness: Brooke Mastrogiannis

Energy and Transmission Costs in the FAC

When a new LLCS customer comes onto the system it will begin paying for every kWh of energy it consumes. Simultaneously, Ameren Missouri will reflect additional energy cost in its FAC. While required FERC netting may result in this additional load appearing as an increase to expense or as a decrease to revenue in any given accumulation period filing, the reality is that the simple act of selling more energy to retail customers results in Ameren Missouri transacting more energy purchases through the FAC. This is applicable to the Day Ahead market, the Real Time market, the ancillary services market, and for various MISO schedules which are assessed to Ameren Missouri based on metrics like the load-ratio share, or various measures of demand.

Adding a 500 MW LLCS customer with an 85% load factor on the FAC, will generate about $143.6 million in additional rate revenue.

		MW:	500		
LPS		*Load Factor:*	85%		
Customer Charge	$	412.66	12	$	4,952
LIPP	$	291.99	12	$	3,504
Energy Charge - Summer	$	0.04060	1,241,000,000	$	50,384,600
Energy Charge - Winter	$	0.03710	2,482,000,000	$	92,082,200
Demand Charge - Summer	$	23.90	2000	$	47,800
Demand Charge - Winter	$	10.63	4000	$	42,520
		Revenue:		$	142,565,576
		Average $/kWh:		$	0.03829

Using a plug value of $27.50 per MWh for all expenses the customer causes that are included in the FAC, Staff has reviewed the approximate annual impact of the energy to serve that customer on the FAC. Annually, Ameren Missouri will receive $126,262,026 in revenue in excess of cost of service, through the operation of the FAC:[50]

LLCS Revenue under LPS Rates	$	142,565,576
LLCS Cost of Service	$	(102,382,500)
FAC Revenue	$	86,078,950
Retained by Ameren	$	126,262,026

Depending on the actual size of the LLCS customer and the wholesale cost of energy in the future, Ameren Missouri will recover substantial portions of the LLCS customer's cost of energy through the FAC, and fully recover that cost of energy through LLCS rates.

Staff Witness: Sarah L.K. Lange

Staff acknowledges a reverse effect as well if a large load customer leaves the system and reduces Ameren's load after that customer has been recognized in base rates and the FAC base factor. Ameren would then no longer incur the wholesale energy and transmission expense associated with service to that customer.

As discussed in Section "Nodal Pricing and Recommendation for Separate Nodes for LLCS Customers," Staff recommends Ameren have a separate commercial pricing (CP) node for the large load customers, create a separate subaccount for the CP node to isolate these costs, and remove the costs/revenues from the FAC.

If the Commission does not approve Staff's recommendation to have a separate CP node to isolate and remove these costs/revenues from the FAC, Staff recommends the alternative of making an adjustment similar to the "N Factor" that was utilized in the Ameren Missouri FAC associated with its service to Noranda.[51] To calculate this adjustment, the following information should be retained:

---

[50] This is on an annual basis, for illustration.

[51] In Case No. ER-2016-0130, on January 12, 2016, the Signatories filed a Non-Unanimous Stipulation and Agreement under which they agreed that an amount in dispute arising from the calculation of an adjustment triggered by Noranda Aluminum, Inc.'s (Noranda) load changes (an adjustment commonly referred to as the "N Factor") would not be included in the Fuel Adjustment Rate (FAR) called for by the Company's FAC. An adjustment is triggered if the actual metered kWh sales for either Service Classification 13(M) or 12(M) is equal to or greater than 40,000,000 kWh (the normalized monthly kWh billing determinant that was established in Case No. ER-2014-0258).

1. Actual hourly kWh for each LLCS customer,
2. Actual hourly locational marginal prices for load. If individual load nodes are developed for each customer, those values should be utilized. Otherwise, the applicable Ameren Missouri weighted load node values should be used,
3. Actual monthly values of other expenses included in the FAC, such as transmission expenses.

Staff recommends that the FAC LLCS adjustments be incorporated in the FAC tariff sheet and agreed to by the parties to take place in the next general rate case. Until then, however, the LLCS adjustments should be tracked and recorded as a regulatory asset or liability until the next rate case.

Staff Witness: Brooke Mastrogiannis

Other Staff-Recommendations to Mitigate Captive Customer Risks

Interconnection

Generally, Staff understands that it is Ameren Missouri's intent that LLCS customers will be required to pay entirely for the facilities required to interconnect the customer to the bulk transmission system. Staff agrees that LLCS customers should pay entirely, in advance, for interconnection facilities, as well as upstream transmission upgrades that may be required. Additional terms to effectuate these recommendations are included in Staff's recommended LLCS tariff, as contemplated by provisions on Sheets 109 and 122, "H. High Voltage Service," and "M. Modification or Enlargement of System for High Voltage Service," respectively.

Staff also recommends that the following tariff changes be ordered in this case:

Sheet 97, remove "distribution,"

Sheet 98, remove "distribution,"

Sheet 100, remove "distribution,"

Sheet 105, remove "distribution,"

Sheet 122, change "50" to "25".

For convenience, Staff has included the text of these and related tariff provisions as Appendix 2, Schedule 5.

Staff Witness: Sarah L.K. Lange

Collateral and Termination

The Commission should be aware that, in general, termination notices from LLCS customers who will cease taking service are for the benefit of the utility to time rate cases as opposed to the benefit of existing captive customers. While a timely termination notice could result in Ameren Missouri scaling back planned build-out of new power plants, such notice would likely need to be significantly longer than the two years requested by Ameren Missouri.

Staff acknowledges that a two- to three-year termination notice may facilitate bringing on new customers as essentially a replacement for a departing customer, but that would imply that Ameren Missouri would not be acquiring the replacement customer anyway. Nonetheless, Staff generally supports the termination approach requested by Ameren Missouri, except that Staff recommends the termination fee calculation detailed in Staff's recommended tariff, Appendix 2, Schedule 1. Staff appreciates Ameren Missouri's recognition of the necessity to track and defer the revenue from termination and capacity reduction fees.[52]

Staff's rate of return experts have reviewed Ameren Missouri's requested collateral requirements language. Because this is a unique and developing area, Staff has no specific recommendations concerning the requested language at this time. Staff continues to monitor customer responses and gather information regarding the collateral requirements proposed by Ameren Missouri, based on customer credit quality, and will report its findings and recommend revised language, if needed, in subsequent testimony in this proceeding or in Ameren Missouri's next general rate proceeding.

Staff Witness: Sarah L.K. Lange

---

[52] Wills Direct, page 52, "Additionally, the termination fee (and capacity reduction fee) provisions of the tariff framework are a key affordability protection mechanism for all customers. A tracker is needed to ensure that all of those affordability benefits (from the three programs as well as any termination/capacity reduction fees) do ultimately accrue to all customers. In order to make that happen, the Company is requesting that the Commission authorize it to track all net program revenues associated with the three optional programs proposed in this case that generate new incremental revenues (in the case of the RSP-LLC program the net revenues are those based on the net bill of subscribers, reflecting both charges and credits) so that those revenues can be reflected in base rates (by lowering future revenue requirements) through an amortization in future rate proceedings, as well as similar tracking and amortization of termination/capacity reduction fees. Without this tracker, the entirety of those benefits may not be captured for all customers but instead could accrue to the Company by operation of regulatory lag."

Minimum Size and Minimum Term

Ameren Missouri has proposed a minimum term of 15 years, with an allowable ramp period. Staff is not opposed to this minimum service term, as it is generally consistent with the approach Staff has recommended in EMM, EMW, and Empire.

Staff Witness: Sarah L.K. Lange

Economic Development Discounts and Other Rider Applicability

Ameren Missouri proposes that LLCS customers not be eligible for receipt of Economic Development Discounts. Staff agrees with this approach as necessary for alignment of LLCS bills to customers with the cost of service associated with serving LLCS customers. Further, the Commission should order that LLCS customers not be eligible for the LPS Optional Time-of-Day Adjustment, Charge Ahead programs, Rider B (discounts for customer-owned substations), Rider D (temporary service), Rider E (supplementary service), Rider F (shut-down service), the Renewable Solutions Program, the Economic Development Incentive, the Economic Development and Retention Rider, the Economic Re-Development Rider, the Community Solar Program, the Standby Service Rider, or the Renewable Choice Program. At this time, LLCS customers should not be eligible for participation in any compensated demand response or curtailment programs, except as discussed under the "Optional Agreement for Payment of Actual MISO Charges."

Staff Witness: Sarah L.K. Lange

Customer Approval Process

Ameren Missouri requests the Commission specifically approve Electric Service Agreement (ESA) terms that it enters with a given LLCS customer[53] and for that approval to be made in less than 90 days. As Staff explains in Section "Concerns with Ameren Missouri's Proposed ESA,", Ameren Missouri's draft ESA should not be approved. However, Staff does recommend that the Commission include in its order in this case:

1. A process for review of a new LLCS customer prior to Ameren Missouri constructing interconnection facilities for that customers making upstream transmission investments to facilitate service to that customer; or building or acquiring power plants, or energy contracts, or capacity contracts to serve that customer.

[53] Ameren Missouri's response to Staff DR 13 states in part "[t]he Company anticipates that the Commission's review of the ESA will include an evaluation to ensure that the terms are just, reasonable, and not unduly discriminatory, and that they are consistent with the applicable statutes and currently proposed tariff."

2. Minimum filing requirements for the direct testimony of Ameren Missouri in a proceeding seeking authorization to serve a new LLCS customer.
3. A commitment from the Commission to prioritize such proceedings to the extent possible.

For the minimum filing requirements in proceedings to authorize service of a new LLCS customer, Ameren Missouri should file the following information under affidavit, and simultaneously file in the EFIS docket fully operable supporting workpapers describing:

1. The interconnection facilities to serve the LLCS customer, including:
    a. a projection of the cost of removing the facilities at the end of the contract term,
    b. a projection of property tax and insurance expense, each year, associated with the facilities for the projected life of the facilities,
    c. a projection of operation and maintenance expenses, each year, associated with the facilities for the projected life of the facilities,
2. All information required under the Service Agreement included in Staff's recommended tariff. At a high level this includes projected demands and energy requirements for the full term of service, information related to financial assurances, and information related to day-to-day load management.
3. An updated capacity forecast without the new LLCS customer.
4. An updated capacity forecast with the new LLCS customer.

In addition to fully operable[54] supporting workpapers, Ameren Missouri should file supporting documentation including:

1. Evidence that site control by the proposed customer is established, including local zoning approval as applicable.
2. The boundary of Ameren Missouri's facilities serving the customer in a format supported by the State's geographic information system (GIS) software.
3. Documentation of customer consultation with other utility providers (i.e. water, sewer, gas) that will provide service to the proposed customer whether regulated by the Commission or not.
4. Evidence that Ameren Missouri has completed all internal engineering studies supporting the interconnection.
5. Proposed annual reporting requirements for Ameren Missouri to report to the Commission and the public on the proposed customer.

Staff Witness: Claire M. Eubanks, P.E.

[54] Executable excel files with formulas intact and assumptions supported.

Concerns with Ameren Missouri's Proposed ESA

Staff reviewed and analyzed Ameren Missouri's proposed form ESA. The form ESA is subject to review by the Commission in this case. Additionally, Ameren Missouri proposes that individual ESAs be reviewed and approved by the Commission.[55] Staff agrees with Ameren Missouri's position that the form ESA be included in the tariff with the individual ESA approved by the Commission. However, Ameren Missouri's form ESA as presented in this case should not be approved by the Commission, as it is based on Ameren Missouri's requested rate structure and approach to treatment of LLCS customers, which vary significantly from the rate structure and treatments recommended by Staff. In section "Service Agreement and Description of Expected Demands and Loads," Staff recommends LLCS tariff provisions describing what should be included in an appropriate Service Agreement. In Section "Customer Approval Process," Staff provides a recommended process for Commission review and authorization of extending service to an LLCS customer, as Staff is concerned by Ameren Missouri's position that "[t]he Commission shall make its determination within ninety (90) days of the ESA's submission."[56]

Ameren Missouri's general approach in this case is to modify the terms of service under its LPS tariff with the ESA. Ameren Missouri's proposed ESA has a term of 15-17 years, consisting of a ramp period between zero (0) and five (5) years, followed by a minimum 12-year period that is extended if the ramp period is less than three years long, which is largely consistent with Staff's recommendation. Ameren Missouri's ESA implements termination and collateral requirements while also including a minimum charge, both during and after the ramp period, which is called the Minimum LLC Demand Charge and is based on 70% of the maximum demand. These provisions are not consistent with Staff's recommendations, as discussed elsewhere in this Recommendation Report.

Ameren Missouri's proposal allows customer modification to the approved ESA without prior Commission approval in two instances:

(1) ramp period amendment after two years; and

(2) a single decrease of the Maximum Capacity LLC.

---

[55] Staff notes that Evergy has not proposed a similar Commission review process in its large load case, Case No. EO-2025-0154.

[56] Ameren Missouri's proposed Large Load Tariff sheet no. 61.7, Section 8(f).

A ramp period amendment process is begun by the customer providing written notice to Ameren Missouri, and Ameren Missouri agreeing with the change. The ESA clearly states that this can be done without Commission approval.[57]

The customer may initiate a decrease of its Maximum Capacity LLC by giving Ameren Missouri 24 months' notice and paying a capacity reduction fee provided the decrease is limited to 10%. While the Reduction of Maximum LLC Capacity does not state that this can be done without Commission approval, its requirements and fees would be detailed within the form ESA as an option the customer could take if approved by the Commission in this case. Ameren Missouri proposes a capacity reduction fee of 10% of the current termination fee.

Under this Ameren Missouri requested rate structure, a customer using between 70% and 100% of their Maximum Capacity LLC is unaffected by the Minimum LLC Demand Charge, and after paying the maximum Capacity Reduction Fee, a customer using between 63% and 90% of their original Maximum LLC Capacity is unaffected by the Minimum LLC Demand Charge. Unlike the actual termination fee, this fee is non-refundable, which Ameren Missouri has stated "incentivizes the large load customer to maintain their existing contracted capacity."[58]

Any other modifications to the ESA, including all Maximum Capacity LLC increases, subsequent Maximum Capacity decreases, and Maximum Capacity Decreases of more than 10% require Commission review and approval.

Staff is concerned with Ameren Missouri's proposed ESA and recommends stakeholders collaborate to draft and finalize the Service Agreement form recommended by Staff as part of compliance tariffs in this case as outlined in section "Service Agreement and Description of Expected Demands and Loads,". Staff's concerns with Ameren Missouri's proposed ESA include:

- The ESA includes provisions that relate to Ameren Missouri's requested rate structure and termination calculations for LLCS customers, and which vary significantly from the rate structure and termination calculations recommended by Staff.
- At the time the ESA term ends, the proposed tariff, if approved, will still exist and refer to then expired ESA(s). In other words, it is unclear what the parameters of service for a large load customer will be after the expiration of the ESA.[59]

[57] From Ameren Missouri's proposed ESA, Article 6.2.

[58] Ameren Response to Staff DR 18, Appendix 2, Schedule 6.

[59] Ameren Missouri Response to Staff DR 19.1 is attached, which includes additional explanation of Ameren Missouri's intent, which is not reflected in its proposed tariff. See Appendix 2, Schedule 7.

- While Staff agrees that under an ESA approved by the Commission, Ameren Missouri should be the sole electric utility provider at a customer's site, Staff is not opposed to customer self-supply and recommends clarity be added to compliance tariffs resulting from this case.[60]
- The proposed tariff limits the Commission to 90 days to review. Additionally, the proposed ESA **requires** the Commission to approve ESAs in every instance it finds compliance with subsection 7 of Section 393.130.[61] Further, Ameren Missouri argues this 90 day approval process should result in the Commission finding "the terms are just, reasonable, and not unduly discriminatory, and that they are consistent with the applicable statutes and currently proposed tariff."[62]

Ameren Missouri proposes that an executed ESA will expire after at most 17 years. After this time, the customer is served under the provisions of Ameren Missouri's LPS tariff with the exception of Section 8, which covers the ESA. However, Ameren Missouri plans to continue holding customers subject to information and provisions within both the ESA and Section 8 of the tariff. These include the LLC Demand Charge and the Maximum LLC Capacity, which are both defined within the ESA. Any service agreement approved in this case should include clear provisions concerning renewal, extension, or full termination at the end of the initial term.

ESA Article 8.2 currently states "<u>No Alternative Provider</u>. During the Term of this Agreement, Customer agrees that Ameren Missouri shall be the sole and exclusive provider of electric service to the Project."[63] While this article is not intended to exclude the customer itself from providing electrical service from behind the meter,[64] the article can be interpreted as such. A customer should be allowed to use their own onsite generation, such as backup generation. Not allowing potential customers to have backup generation may dissuade customers who need a continuous supply of energy from locating within Ameren Missouri's system. Further, as discussed in Section "Wholesale Energy Charge," qualifying customers may choose to self-generate for economic or other reasons in times of high market energy costs or transmission congestion.

Staff does not support Ameren Missouri's proposed tariff term that "The Commission shall make its determination within ninety (90) days of the ESA's submission."[65]

[60] Article 8.2 of Ameren Missouri's proposed ESA.
[61] Section 8.f of the Large Load Tariff.
[62] Ameren Missouri Response to Staff DR 13, Appendix 2, Schedule 8.
[63] From ESA Article 8.2(a).
[64] Ameren Missouri response to Staff DR 44, Appendix 2, Schedule 9.
[65] Section 8.f of the Large Load Tariff.

While Staff understands that Ameren Missouri and large customers may desire a quick approval process, the Commission should not be forced into making a decision within a rigid period for most cases. Including the term in the tariff, even if the Commission intends to make a determination within 90 days, is unreasonably rigid and introduces procedural roadblocks should 91 or 92 days be required. Further, Ameren proposes this limited review in conjunction with requiring the Commission to find that serving a specific customer, out of an unknown customer pool, with finite resources, is in the Public Interest. While Ameren Missouri has not performed an analysis of the costs to itself or the Commission of applying, reviewing, and approving or denying an ESA within only 90 days,[66] Staff proposes recommended application requirements within Section "Customer Approval Process," to streamline the Commission's review of whether or not Ameren Missouri is authorized to proceed with extending service to a potential LLCS customer.

Ameren Missouri proposes to limit the Commission's review and require approval in all instances where the Commission finds the standards of Section 393.130 subsection 7. Section 8(f), which currently states "Should the Commission find that the ESA complies with this Section 8 and the statutory standard is satisfied, it shall approve the ESA and applicable CEA Agreements."[67] In other words, Ameren Missouri proposes to limit the Commission's review and authority.[68]

Staff Witness: Brodrick Niemeier

Interconnection Studies

In the Evergy LLPS case, Evergy presented its "Path to Power" process which generally contemplates steps for studying large load customers, documenting such a process in its commission-approved tariffs, and inclusion of study fees in its tariffs. Staff recommends stakeholders engage in development of rules and regulations to be included in Ameren Missouri's compliance tariffs resulting from this case that provide its potential large load customers similar guidance.

[66] Ameren Missouri Response to Staff DR 13.2, Appendix 2, Schedule 10.

[67] From Ameren's proposed Large Load Tariff sheet no. 61.7, Section 8(f).

[68] Section 8(f) also requires any CEA Agreements to be approved if the ESA they are associated with are found to comply with the associated statutes. This is further discussed in Section "Customer Approval Process."

For Commission awareness, in contrast to Evergy, Ameren Missouri does not plan to complete cluster studies for the interconnection of large load customers.[69] Additionally, while Ameren Missouri specifies IEEE[70] 519 Standard for Harmonic Control in Electric Power Systems, unlike Evergy,[71] it is not clear that Ameren Missouri requires the inclusion of high-speed monitoring devices at large load customer sites to enable measurement of harmonics and other potential impacts to the transmission system.

Staff Witness: Claire M. Eubanks, P.E.

Emergency Energy Conservation Plan

The North American Electric Reliability Corporation (NERC) established a Large Load Task Force (LLTF). The purpose of the LLTF is to "better understand the reliability impact(s) of emerging large loads … and their impact on the bulk power system".[72] As the Commission is aware, there are many challenges that the electric industry is facing. As NERC[73] notes:

> Integrating emerging large loads onto the grid poses several challenges including accurately forecasting future demand, ensuring that transmission and generation capacity keeps pace with this demand, and managing rapid fluctuations in consumption during all conditions – both fault and normal – which can destabilize the grid.

NERC's work plan includes several whitepapers. Recently, the first whitepaper was published addressing the unique risks of large loads, Appendix 2, Schedule 12, and the second will assess whether existing "Reliability Standards can adequately capture and mitigate reliability impact(s) of large loads interconnected to the BPS [Bulk Power System]."[74] Additionally, the task force plans to develop a reliability guideline identifying potential risk mitigations, which is expected to be completed in the second quarter of 2026.

Ameren Missouri's Emergency Energy Conservation Plan is tariffed in Section VIII of its General Rules and Regulations.[75] These tariffs outline Ameren Missouri's actions in the

---

[69] Response to Staff DR 37, Appendix 2, Schedule 11.

[70] Institute of Electrical and Electronics Engineers.

[71] Evergy response to Staff DR 142 in EO-2025-0154.

[72] https://www.nerc.com/comm/RSTC/Pages/LLTF.aspx.

[73] https://www.nerc.com/comm/RSTC/LLTF/Large Loads FAQs.pdf.

[74] https://www.nerc.com/comm/RSTC/LLTF/LLTF Work Plan.pdf.

[75] MO. P.S.C. Schedule 6 1st Revised Sheet No. 146 through 148.

occurrence of a capacity emergency or a transmission system emergency event and are required to be reviewed annually. After Reliability Coordinator review is complete, Ameren Missouri is required by its tariffs to make a revised Plan available to Commission Staff and Office of the Public Counsel as Ameren Missouri's plans are considered Critical Energy/Electric Infrastructure Information (CEII).

Staff recommends the Commission order Ameren Missouri to include in its Emergency Energy Conservation Plan tariffs the following language:

> Customers taking service under Schedule LLCS may be interrupted during grid emergencies under the same circumstances as any other customer.

Staff Witness: Claire M. Eubanks, P.E.

II. Rate structures and designs rates that reasonably align the LLCS customer cost causation with the charges to be billed to LLCS customers

Staff recommends discrete charges for the rates applicable to LLCS customers that correspond to elements of the cost of service. This facilitates transparency for LLCS customers, the Commission, and other customers. For example, Staff recommends a separate generation demand charge and transmission demand charge. This allows the Commission – at a glance – to see the differences between the cost of service for these customers at the Missouri-regulated utilities. More importantly, these discrete charges should actually decrease the complexity of setting rates for LLCS customers in future rate cases, in that Staff's approach explicitly identifies the cost of service calculation underlying each rate element, and ties the determinant for each rate element directly to its cost causation.

Essential to this construct is the deferral of revenues so that the rates paid by LLCS customers can offset the cost of service of new power plants to serve those customers, to mitigate the harm caused to captive ratepayers.

Staff Witness: Sarah L.K. Lange

Ameren Missouri Proposal

In general, Ameren Missouri's request is that LLCS customers be served on the LPS rate schedule at LPS rates.

Staff Witness: Sarah L.K. Lange

Staff Response

Staff does not support Ameren Missouri's request to serve LLCS customers on the LPS rate schedule. This is problematic for several reasons, including that the LPS rate schedule is in need of modernization. The Commission has recognized the need for modernization of Ameren Missouri's existing rates in prior rate cases; see Case Nos. ER-2021-0240,[76] and ER-2022-0337.[77] Rate modernization was not at issue in ER-2024-0319, because, as noted in the "Notice Regarding Status of Issues" filed in ER-2022-0337 on June 14, 2024, "Ameren Missouri and Staff have discussed how Ameren Missouri anticipates restructuring its non-residential rates by removing Rider B in a rate case subsequent to ER-2024-0319 and implementing charges within applicable rate classes to reflect the voltage of service received by customers. Ameren Missouri and Staff have further discussed how the end result of this restructuring would likely include discrete rate components for customers served at (1) transmission voltages, (2) subtransmission voltages, and (3) primary voltages. Given these discussions, Ameren Missouri and Staff agree that implementing such restructuring in a rate case subsequent to ER-2024-0319, with the goals of the restructuring to include alignment of revenue responsibility and cost causation while considering customer impacts in the timing and implementation of a restructuring, would reasonably address the Rider B sub-issue which the Commission directed be addressed in the Commission's above-referenced Report and Order." The problems that the parties are attempting to address in Ameren Missouri's rate modernization are exacerbated by applying Ameren Missouri's LPS rate to massive new customers.

Another concern is that while some level of averaging energy expenses by season and across time and using non-specific demand charges may be reasonable with the size of current LPS customers, further specificity is appropriate for LLCS customers given not only the size of these customers, but also the relative sophistication of these customers. Staff has determined, perhaps most significantly, that it is most appropriate for LLCS customers to be billed for the gross cost of service of capacity and the full expense of market energy, without offset for revenues from wholesale energy sales or the benefit of accumulated deferred income taxes. This consideration is detailed in the section "Charge for Generation Capacity Cost of Service," below.

---

[76] Report and Order in ER-2021-0240, pages 29 – 34.

[77] Report and Order in ER-2022-0337, pages 23 and 49.

Finally, to ensure compliance with the requirements of SB 4, it makes practical sense to place these customers in a separate rate class. This separation facilitates future class cost of service studies and simplifies reference to these customers where specific treatment may be ordered or provided in a tariff.

Staff Witness: Sarah L.K. Lange

Staff Recommendation

Staff recommends creation of the LLCS tariff provided in Appendix 2, Schedule 1. In the alternative, Staff has prepared an alternative version of a LLCS tariff recommendation, provided as Appendix 2, Schedule 4, which is consistent with Staff's recommendations for EMM, EMW, and Empire, in the respective cases.[78] However, Staff has developed a new tariff structure which affords greater flexibility to LLCS customers, and further risk mitigation for captive ratepayers.

The filed rate doctrine ensures that customers of regulated utilities have notice of the rates at which they will be billed for service prior to use of the service that will be billed at those rates. In other words, under the filed rate doctrine, a rate for the service must be published in the tariff, the utility cannot simply bill the customer at some other rate after the fact. However, customers can enter into agreements to pay actual cost of service in lieu of published tariff rates. With this in mind, Staff recommends that the Ameren Missouri LLCS tariff include a published rate for energy of $0.051 per kWh. However, LLCS customers may opt, instead, to pay for actual MISO charges associated with the Commercial Pricing (CP) node of that LLCS customer.

Staff Witness: Sarah L.K. Lange

continued on next page

[78] Appendix 2, Schedule 13, explains the calculation of the rates provided in this alternative tariff, and explains applicable FAC treatment including future rate case changes.

Walk-through of Staff Recommended Tariff

Staff's recommended tariff for LLCS customers is attached as Appendix 2, Schedule 1. The rate elements are provided in the following table, and described below, along with other tariff terms:[79]

Charge	Rate	Determinant
Customer Charge	$10,000	$/Customer
Low Income Pilot Program Charge	$ 291.99	$/Customer
Facilities Charge	$ 0.0225	$/$ of Assets
Demand Charge 1 - Charge for Generation Capacity Cost of Service	$ 16.60	$/kW during demand window
Demand Charge 2 - Charge for Transmission Capacity Cost of Service	$ 4.79	$/kW during demand window
Energy Charge	$ 0.051	$/kWh
Alternative to Energy Charge	Execution of an Optional Agreement for Payment of Actual MISO Charges	
RES compliance charge	**_**	$/kWh
Variable Fixed Revenue Contribution	23.4%	Percent of other charges
Stable Fixed Revenue Contribution	23.4%	Percent of other charges
Demand Deviation Charge	$11.3475	$/kW of deviation
Imbalance Charge, Lesser of:	$11.3475	$/kW of deviation
Or, Spring	TBD	
Or, Summer	TBD	
Or, Fall	TBD	
Or, Winter	TBD	
EDI Responsibility Charge	$ -	$/kWh
Capacity Shortfall Rate, if applicable	TBD	$/kW
Capacity Cost Sufficiency Rider, if applicable	TBD	$/Month
Reactive Demand Charge	$ 0.4481	$/kVar

25 MW Threshold for LLCS Service

Staff recommends that the LLCS rate schedule be applicable to all new customers in excess of 25 MW, and all new transmission voltage customers. However, a grandfather clause is included.

continued on next page

[79] Currently, Staff calculates a reasonable rate for this charge at ** [redacted] ** per kWh.

Schedule LLCS

Customers eligible for service on the LLCS rate schedule are required to take service on this rate schedule.

Applicability:

Any customer taking service at 34 kV or greater except those served under the Large Primary Service rate schedule prior to January 1, 2026, or any customer with an expected 15-minute customer Non-Coincident Peak (NCP) of 25 kW or greater at a contiguous site (whether served through one or multiple meters) shall be subject to this Schedule LLCS.

In the event that a customer with a demand that did not exceed 25 MW prior to January 1, 2026, (1) increases its demand to 29 MW or greater, or (2) requires installation of facilities operating at transmission voltage to accommodate increases in its demand, Ameren Missouri shall expeditiously work with such customer to execute a service agreement and fully comply with the provisions of this Schedule LLCS within 6 months of (1) the customer's notice that such customer's demand is expected to equal or exceed 29 MW or (2) Ameren Missouri's determination that transmission facilities are required.

Other Tariff Applicability:

Customers taking service under Schedule LLCS are not eligible for service under or participation in:

1. The LPS Optional Time-of-Day Adjustment,
2. Charge Ahead programs,
3. Rider B (discounts for customer-owned substations),
4. Rider D (temporary service),
5. Rider E (supplementary service),
6. Rider F (shut-down service),
7. Renewable Solutions Program,
8. Economic Development Incentive, or Economic Development and Retention Rider, or Economic Re-Development Rider,
9. Community Solar Program,
10. Standby Service Rider,
11. Renewable Choice Program,
12. Any compensated demand response or curtailment programs.

In response to discovery in the Evergy LLPS case, File No. EO-2025-0154, Staff learned that 25 MW is an industry standard demarcation for customers that must practically be served at transmission voltage. This is consistent with trends that Staff has observed in utility infrastructure. This is also generally consistent with the demand of a customer for whom a utility would seek a special contract or develop a tariff with that particular customer in mind. While SB 4 establishes a floor of 100 MW for Ameren Missouri's large load customer class, it includes the option for the Commission to set a lower floor.

Service Agreement and Description of Expected Demands and Loads

Staff's recommended LLCS tariff provisions related to the Service Agreement are set out below. Staff's intention is that stakeholders will cooperate to draft and finalize the Service Agreement form as part of the compliance tariff process in this case.

Service Agreement:

The form of the application for LLCS service shall be the Company's standard written application form *[which shall be approved by the Commission in this or another proceeding prior to utilization].* This form shall include:

A. The customer's full corporate name and registration information, and that of any and all parent companies.
B. A description of all terms of the Interconnection and Facilities Extension infrastructure and monetary terms, with a statement of the value of Customer Specific Infrastructure to be used in calculating the Facilities Charge.
C. The anticipated load, by month and year, for a minimum of 15 years. This shall include:
    i. A description of weather sensitive load, in monthly kW and monthly kWh,
    ii. A description of non-weather sensitive load, in monthly kW and monthly kWh,
    iii. An explanation of the variables driving changes in non-weather sensitive load, in monthly kW and monthly kWh,
    iv. A commitment to provide updated load-forecasts for the upcoming year by January 1 of that year, in monthly kW and monthly kWh, (Service Agreement Annual Update)
    v. A commitment to notify Ameren of any anticipated deviations of +/-10% or more of previously-anticipated load as soon as such potential deviations become anticipated, the Service Agreement Annual Update,

vi. A commitment to cooperate in daily load forecasting.
  1. Information for load management purposes, including,
     a. Contact information for the person or persons responsible for the LLCS customer's load forecasting,
     b. Contact information for the person or persons responsible for executing curtailment of the LLCS load,
     c. A commitment to maintain updated contact information.

D. A pledge of collateral or other security as ordered by the Commission in this proceeding, which shall equal or exceed the indicated termination fees.
E. A commitment to pay or cause to be paid any applicable termination charges, as defined in the LLCS tariff. In the event that any additional termination provisions may be necessary or appropriate to address additional risk with a particular LLCS customer, those provisions shall be defined in the Service Agreement.
F. The minimum term of service for a customer qualifying for service under LLCS shall be 10 years, following a ramp-up period of up to 5 years.
G. Details pertinent to calculation and verification of rates for the Capacity Cost Sufficiency Rider, if applicable.
H. Any applicable terms for renewal or extension of the Service Agreement term.
I. Any applicable terms for transfer of capacity to other LLCS customers
J. Ameren Missouri is prohibited from constructing interconnection facilities for any potential LLCS customer, making upstream transmission investments to facilitate service to that customer; or building or acquiring power plants, or energy contracts, or capacity contracts to serve that customer, unless and until it is authorized to do so by the Commission.

The Service Agreement provisions encompass several different concerns. Forecasting concerns are addressed below, while collateral, termination, and other provisions are discussed elsewhere.

Day to Day Load Forecasts

Accurate daily load forecasts are necessary to mitigate real time market exposure in the MISO integrated marketplace.[80] While there may be an implicit assumption that LLCS load will be steady and come with a high load factor, this is not a justified assumption and is contrary to Staff's expectations. Data center loads can be quite weather sensitive in climates such as Missouri,

[80] As discussed in the section, "Wholesale Energy."

in that cooling can be a major driver due to the waste heat produced by computing equipment. Other factors can drive inconsistencies in the day-to-day energy consumption of data centers.

It is Staff's experience that while certain manufacturing or metallurgical processes result in a very high load factor (90%+), others can be very poor load factor, and can have dramatic swings in the energy consumed hour-to-hour over the course of a day. For example, electric arc furnaces can be turned on or off as needed to match the availability of applicable raw material, or to coincide with demand through a just in time approach. This modern dispatchable smelting technology is in contrast to blast furnaces or pot lines which require constant and consistent energy. Staff is also aware of other use cases which may result in week-to-week or seasonal swings in the customer's demand or required energy level. For example, just in time manufacturing may involve temporary layoffs of a given manufacturing shift, or national and international companies may shift production or processing among various locations.

Staff's assessment of day-to-day variability in energy requirements is not intended as a qualitative judgement, rather, it is to emphasize the potential for variability in energy requirements, which drives exposure to the MISO real time market. This is because Load Serving Entities, such as Ameren Missouri, are required to provide forecasted load for the next day to MISO so that MISO can efficiently dispatch resources to meet that aggregated load. Tight coordination between the LLCS customer and utility personnel can mitigate this exposure through simply relaying that an evening shift is being suspended, a batch of metal will be smelted at 4:00 pm instead of the normal 2:00 pm, or that 5 MW of HVAC equipment will be expected to kick on to maintain appropriate temperatures in a server building.

Long and Mid-term Forecasts

Given the size of potential LLCS customers relative to Ameren Missouri's available capacity and current customer sizes, it is important to have reasonable expectations of the energy and capacity requirements of an LLCS customer over the expected duration of that customer's service requirements. Given the need for Ameren Missouri to comply with current and potential future resource adequacy requirements, it is important to have reasonably accurate demand forecasts for purposes of satisfying resource adequacy requirements.[81] Overestimated demand will

[81] As discussed in the section "Resource Adequacy-Related Requirements and Cost of Service."

result in harm to customers due to over-procurement of capacity, and under certain circumstances an LSE may be subject to a Capacity Deficiency charge if the PRMR is not met.[82]

Regarding the requirements in the Staff-recommended service agreement, it is anticipated that Ameren Missouri will have to build or otherwise acquire capacity to serve LLCS customers. Generally, production assets have lives measured in decades, with revenue requirement impacts to match. While the details of Staff's recommended termination provisions will be discussed below, the risk of underutilized generation assets or long-lived contractual capacity arrangements exceeding the service requirement of an LLCS customer falls on captive ratepayers.[83]

Staff recommends that in the event that Ameren Missouri requires capacity arrangements to serve LLCS load, that Ameren Missouri should seek to expeditiously promulgate a tariff so that those additional expenses can be appropriately recovered from the LLCS customer causing the need for additional capacity. Staff's recommended tariff language is provided below:

A. Capacity Cost Sufficiency Rider
In the event that Ameren Missouri does not have sufficient capacity to reliably serve a requesting LLCS customer and its other load in a given season of a given year of the anticipated Service term, Ameren Missouri may obtain contractual capacity to reliable serve the requesting customer. Ameren Missouri shall file an ET case and tariff with no less than 45 days effective date, and shall file testimony explaining the potential LLCS customer, that customer's energy and capacity needs, and the capacity arrangements applicable to reliably serving that customer. Ameren Missouri may seek a protective order for portions of the testimony as appropriate, but any Capacity Cost Sufficiency Rider Rate to be charged to any LLCS customer must be contained in a published tariff. The Capacity Cost Sufficiency Rider tariff shall contain terms related to treatment of revenues generated by the rider to prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to such customers.

Staff Witness: Sarah L.K. Lange

[82] As discussed in the section "Resource Adequacy-Related Requirements and Cost of Service."

[83] Staff is not opposed to development of a reasonable risk-sharing arrangement so that shareholders bear some or all of the long-term risk of underutilized assets.

Recommended Rate Structure

Quantification of rate components is a challenge because Ameren Missouri currently has no LLCS customers and does not have a pending general rate case. Due to these circumstances, except where noted, Staff has relied heavily upon a set of accounting schedules (EMS run) that reflects the agreed upon revenue requirement increase from Ameren Missouri's most recent rate case, ER-2024-0319. This run is a hypothetical construct of the agreed-to overall revenue requirement increase, and should not be interpreted as representative of the settlement position of all parties or any party, particularly in regard to the rate of return relied upon.

Staff has developed this recommended rate structure by identifying the cost of service which will vary with the addition of an LLCS customer and identifying the determinant that causes variation in the cost of service. Rate structure is typically a balance between customer understandability, ease of administration, and the alignment of cost/expense recovery with cost/expense causation. However, LLCS customers are sophisticated customers who can tolerate and understand the more complex billing structure, which enables greater transparency. This increased transparency facilitates compliance with the statutory requirement that these customers be billed rates that "reflect the customers' representative share of the costs incurred to serve the customers and prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to such customers,"[84] and also provides for cleaner calculations of rates in future rate cases.

While the rates discussed in this section and the following section concerning the Alternative proposed charges are intended to correspond to Staff's recommended LLCS rate

[84] Section 393.130.7, RSMo., effective August 28, 2025, enacted pursuant to SB 4. Section 393.130.7 provides:

> Each electrical corporation providing electric service to more than two hundred fifty thousand customers shall develop and submit to the commission schedules to include in the electrical corporation's service tariff applicable to customers who are reasonably projected to have above an annual peak demand of one hundred megawatts or more. The schedules should reasonably ensure such customers' rates will reflect the customers' representative share of the costs incurred to serve the customers and prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to such customers. Each electrical corporation providing electric service to two hundred fifty thousand or fewer customers as of January 1, 2025, shall develop and submit to the commission such schedules applicable to customers who are reasonably projected to have above an annual peak demand of fifty megawatts or more. The commission may order electrical corporations to submit similar tariffs to reasonably ensure that the rates of customers who are reasonably projected to have annual peak demands below the above-referenced levels will reflect the customers' representative share of the costs incurred to serve the customers and prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to such customers.

structure, the values calculated and presented are also, necessarily, rebuttal to Ameren Missouri's reliance on existing LPS rates.

As will be discussed in the section "Charges for Contributions to Fixed Cost Recovery,", under Staff's recommended structure and design, the LLCS rate will be set to essentially the floor for economic development recipients established by Section 393.1640, RSMo., in that LLCS rates will be set to collect 120% of the cost of service that varies with the addition of a new LLCS customer. The intent of this provision is so that LLCS customers contribute toward the "fixed costs," within the Ameren Missouri revenue requirement. "Fixed cost" is an often used, but not particularly useful, term.[85] The initial screen for identifying a "fixed cost" would be to consider any revenue requirement component that does not vary directly with changes in the utility's overall load, overall demand, or overall number of customers to not be "fixed," with those remaining revenue requirement components – such as computer systems, computer software, office buildings, office furniture, management employees, investor relations costs and expenses, other overheads, and the revenue requirement associated with policy-driven activities, such as solar rebates, electric vehicle charging stations, and supports for low-income rate payers. These revenue requirement components do not relate to the often-referenced utility functions of "production/generation", "transmission," or "distribution," but are to be recovered by the utility from its ratepayers. While analysts will disagree on how to most reasonably recover this revenue requirement in a given case, there is no dispute that all customers will bear some portion of this revenue requirement. Staff's recommended LLCS rate schedule and design attempts to quantify – based on the limited information available outside of a general rate case – the revenue requirement components that will vary due to LLCS customers, and to separately bill for each component. The recommended rate structure then incorporates a charge element to recover 20% of those variable bill charges, so that LLCS customers contribute to the "fixed cost" recovery of the utility.

Customer Charge

The intent of this charge is to recover the cost of service associated with interfacing with the customer for load forecasting to MISO, the salaries and benefits of employees serving

[85] The revenue requirement associated with owning a generation facility changes over time through the effects of depreciation, repairs, upgrades, and additions. The same is true of transmission lines and all other sorts of utility-related infrastructure.

LLCS customers, and metering and billing expenses. Staff recommends this charge be initially set at $10,000. In future cases, this customer charge and all charges will be subject to review and adjustment. This rate in particular will be subject to case-to-case volatility based on the number of LLCS customers, the number and expenses of LLCS-facing employees, and the number and expenses of employees required for LLCS load forecasting and interfacing with MISO.

The annual revenue produced by this charge is $120,000 per LLCS customer.

Facilities Charge

While the details vary, both Ameren Missouri and Staff recommend that LLCS customers pay for the transmission assets that customer will require to interconnect. However, excluding the transmission asset from rate base does not exclude the expenses of owning and operating that asset from a utility's revenue requirement.

The intent of Staff's recommended facilities charge is to recover the cost of service associated with the customer-specific transmission and substation infrastructure serving the customer. At this time, Staff expects this cost of service to consist of labor and nonlabor operations and maintenance (O&M) expense, property tax expense, and insurance expense.

Different LLCS customers will require different demand-carrying capabilities of infrastructure, but there may also be significant differences in the length of required conductors and the number and size of required transmission poles. For example, more assets may be required to serve a 100 MW customer who locates 10 miles from an adequate transmission line and requires crossing bodies of water or difficult topography than a 500 MW customer who locates adjacent to an existing transmission substation with adequate capacity. The expenses described above will vary more directly relative to the dollars of assets required by each customer than the demand of either customer.

Therefore, Staff recommends the Facilities Charge be charged based on the dollar value of customer-specific infrastructure. This value will be specified in the Service Agreement. The rate will be set based on the proportion of those transmission expenses for each utility to that utility's gross transmission plant. Staff does not intend to require individual tracking of these expenses per customer, rather the rates will be set based on the total applicable expenses for all transmission assets, divided by the total transmission plant for each utility, divided by 12.

Ameren Missouri has around $2.4 billion in original cost transmission assets. The revenue requirement for the property taxes, insurance, and operation and maintenance for those facilities is about $54 million per year. So, every dollar of existing transmission assets causes about $0.0225 in cost of service each year, not including capital cost or depreciation. Dividing that value by 12, gives us a monthly rate of $0.0019. If a new LLCS customer builds and pays for $50 million of new transmission assets, it will cost Ameren Missouri about $1,126,350, on average per year for insurance, property taxes, and O&M on that new infrastructure, even though the rate base value of the asset is $0.00. Therefore, it is reasonable to bill LLCS customers to cover this new cost of service. The determinant for the charge is the dollars of original asset cost for the transmission infrastructure to interconnect the new customer. Therefore, an LLCS customer requiring a $100 million interconnection will pay a facilities charge twice as much as a different LLCS customer requiring a $50 million interconnection.

Going forward, the rate will be updated in each rate case based on the relationship between the total transmission original capital costs (including the original cost of customer-contributed assets) in the denominator, and the cost of the property taxes, property insurance, and transmission operations and maintenance in the numerator.

Billing Demand Charges

Staff recommends that the LLCS rate structure include two separate Demand Charges, although each will be billed using the same determinant. The first charge is intended to recover the gross cost of service of generation capacity. The second charge is intended to recover the cost of service of transmission capacity, as offset by related transmission revenues.

In calculating its recommended rates, Staff has not included the cost of service associated with things like owning office buildings, offering executive compensation, Plant in Service Accounting (PISA) impacts, or other items which may be thought of as “fixed costs.” These cost of service elements are generally included in the functionalized production and transmission revenue requirements presented in utility rate cases, with a portion of these elements allocated to the functions “production,” “transmission,” “distribution,” and “customer.” Staff’s recommended rates do not include offsets for ADIT and related offsets, which would also be typically allocated to these functions in a class cost of service study.[86]

[86] Accumulated Deferred Income Taxes (ADIT) are ratebase offsets that result from tax timing differences under which legacy ratepayers have effectively prepaid the taxes for utility assets relative to the utility’s actual payment of taxes on those assets. Missouri law requires as of August 28, 2025, that the LLCS tariffs to be developed in this case “reasonably ensure such customers' rates will reflect the customers' representative share of the costs incurred to serve

Each recommended demand charge will be billed based on the actual peak demand of an LLCS customer each winter month between 6:00 AM and 11:00 AM and between 5:00 PM and 9:00 PM, and each spring, summer, and fall month between 3:00 PM and 10:00 PM.[87] While these charges could be combined if necessary for billing purposes, Staff prefers they remain separate to promote transparency and to simplify future rate setting.

Charge for Generation Capacity Cost of Service

Staff considered the theoretical reasonableness of several bases for deriving a reasonable rate for the generation capacity requirements of LLCS customers.

Reasonable bases include:

1. The entire revenue requirement of the most recent generation asset addition, divided by the estimated LLCS demand determinant. For example, if a new 500 MW Combined Cycle gas unit has a first-year revenue requirement of $170,000,000; and if there is 300 MW of LLCS load, then the rate per kW of LLCS demand each month would be $47.22.
2. The portion of the revenue requirement of the most recent generation asset addition, prorated by total estimate LLCS demand determinants, plus a reserve margin. For example, if a new 500 MW Combined Cycle gas unit has a first-year revenue requirement of $170,000,000; and if there is 300 MW of LLCS load, then accounting for a 10% reserve margin, the LLCS load should be responsible for 67% of the plant's revenue requirement – which would be $112,200,000. Using this approach, the rate per kW of LLCS demand each month would be $31.17.
3. A Cost of New Entry (CONE) calculation, on a kW-Month basis. The current MISO CONE calculation for Missouri is $136,170 per MW Year. This is equivalent to $11.35 per kW-month, which would yield a rate of $12.48/kW, accounting for a reasonable reserve requirement estimate.
4. The cost of owning and operating the actual generation fleets of each utility, excluding the cost of fuel and fuel-related operating expenses, divided by the capacity requirements of existing ratepayers.

---

the customers." It would be inconsistent with that law, general rate making policy, and patently unfair to offset the rates of large incremental customers causing incremental plant investment with the prepayment of income tax by legacy ratepayers. Further, Missouri law requires that the tariffs under development in this case "prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to such customers." Allocating away a substantial portion of the prepaid tax burden of legacy customers to discrete new customers would be inconsistent with this legislation, inconsistent with general rate making policy, and would be patently unfair.

[87] These time periods coincide with the on-peak seasonal time periods Staff recommends, the derivation of which is discussed below.

Staff determined that, among other non-reasonable bases, that any valuation which offsets the cost of owning and operating current generation fleets with revenues currently produced through the operation of those fleets is unreasonable and fails to comply with SB 4.[88] The existing LPS rates, as proposed by Ameren Missouri, are not reasonable for LLCS customers, as those rates are calculated reflecting the net revenues associated with energy sales, and also with capital costs offset by Accumulated Deferred Income Taxes that have been paid by current ratepayers over decades, as well as Excess Deferred Income Taxes accrued in the past.

In a given rate case, the net expense or revenue associated with fuel to generate energy, energy market revenues from the utility's generation, and the expense of wholesale energy to serve load are typically netted for resolution of revenue requirement issues and for setting the FAC base. However, increasing load will increase wholesale energy market expenses. Since the net effect of adding significant load is increasing the net expense or reducing the net revenue, it is not reasonable to allocate the revenue to the customer causing the revenue reduction.[89]

In Case No. ER-2024-0319, the ADIT balance was approximately $2.9 billion. That is to say, in the past, Ameren Missouri's ratepayers have paid nearly $3 billion more in rates for Ameren Missouri's income tax bill than what Ameren Missouri's tax bill has actually been. LLCS customers do not exist yet and necessarily have not prepaid those taxes to create the offset amount.[90] While parties will dispute how much of that offset is reflected in the current LPS rates and how, it is Staff's position that none of that offset should be recognized for LLCS customers who will be driving significant build out of expensive new power plants.

While it could be reasonable and compliant with SB 4 to develop an LLCS rate that allocates the full revenue responsibility for new generation facilities prompted by load growth, and that rate could be reasonably offset by the net revenues associated with those new generation facilities, this approach would be difficult and potentially impossible to administer over time. Because a customer of the size that is subject to the LLCS tariff could necessitate the addition

[88] While it could be reasonable and compliant with SB 4 to develop an LLCS rate that allocates the full revenue responsibility for new generation facilities prompted by load growth and that rate could be reasonably offset by the net revenues associated with those new generation facilities, this approach would be difficult and potentially impossible to administer over time.

[89] Staff does not allocate fuel or net market expense to the LLCS class in its demand charge quantification under any of its recommended designs. Staff does recommend that LLCS customers be billed an energy charge based on the wholesale cost of energy to serve LLCS customers.

[90] Even if future LLCS customers are affiliates of current or past Ameren Missouri customers, the difference in scale between any existing customer and any potential LLCS customer is obvious.

of an entire new power plant, or a significant portion of a new large power plant, it could be reasonable to allocate the cost of that plant (net of the revenues produced by that plant) to the LLCS customers. However, as plants are built and retired over time, and as other customer classes grow and contract over time, it would be difficult-to-impossible to track where revenue responsibility for a given plant should appropriately lie. Further, at this time, generally, a simple cycle natural gas combustion turbine would be the least costly means of meeting additional capacity requirements caused by an LLCS customer; however, overall system needs should dictate the appropriate type of plant addition which may be a combined cycle or other more expensive capacity.

The production cost of service for Ameren Missouri, excluding fuel and variable labor, and without allocated overheads, is $1.24 billion per year.[91] Ameren Missouri's current load as a single coincident peak is approximately 6,200 MW. This MW value, adjusted to kW, and multiplied by 12, produces a denominator for the calculation of 74,644,579 kW of annual monthly demand. This results in an LLCS generation-related demand charge of $16.60 $/on-peak kW.[92]

These charges should be expected to increase significantly in any rate case in which Ameren Missouri incorporates new generation. With Ameren Missouri's current generation net rate base of $7 billion, the addition of a billion-dollar generation asset coupled with an additional 5% of load will increase the demand charge to around $18.31 per kW. If those load increases do not materialize, or if there is a gap between when the generation assets are recognized in a rate case and when the load is fully recognized in a rate case, generation demand charges of about $18.40 per kW should be expected.

Charge for Transmission Capacity Cost of Service

The intent of this charge is to recover the net cost of service for transmission for all customers, including the LLCS customer. While the LLCS customers will each have some level of customer-specific transmission facilities, and will also cause specific transmission expenses, these customers will also rely on the interconnected transmission system and should contribute

[91] Reflecting plant in service of $12.1 billion, and net rate base of $7 billion.

[92] In future rate cases, Staff anticipates that this rate would be calculated by allocating to the LLCS class responsibility for the capital costs, maintenance expenses, and non-variable operating expenses of Ameren Missouri's power plants and any applicable capacity contracts or PPAs, proportionate to the LLCS class coincident demand. Staff does not anticipate allocating to the LLCS class any fuel costs, variable operating expenses, revenue from energy or capacity, or offsets to ratebase, such as ADIT.

towards the cost of service associated with building, owning, and operating transmission lines, and with the RTO-related costs of participating in the shared transmission system. Because Ameren Missouri builds transmission not only to serve its own loads, but also through participation in the RTOs, it is reasonable to offset the Transmission Capacity cost of service by those revenues. In future general rate cases, the LLCS allocation of these costs will ideally be calculated through the CCOS study. Historically, transmission costs, revenues, and expenses have been allocated using the 12 monthly Coincident Peaks. In this case, Staff bases the initial charge development using the summer utility Coincident Peak. This results in demand charges of $4.79 $/on-peak kW.

Energy Charges

For transparency, Staff recommends separate energy charges for Wholesale Energy, RES Compliance, and Economic Development Discount Responsibility. As explained below, Staff has developed a tariff structure for this case that differs from its prior recommendations with regard to Wholesale Energy charges.[93] This new approach facilitates direct pass-through of wholesale energy expense and transmission expense from MISO to the LLCS customer. In a future rate case,[94] the FAC should be modified to remove the LLCS customer from the FAC.[95] This recommendation, in conjunction with appropriate deferrals, would also eliminate the need for the FAC changes Staff described in the EMM, EMW, and Empire cases, and would address the over-recovery issues Staff discusses with regard to wholesale energy.

Wholesale Energy

Ameren Missouri incurs wholesale energy expense for essentially every kWh consumed by its customers, except for the energy generated at the distribution level by small solar installations, the excess generation provided by customer-owned roof top solar, and other small distribution-interconnected resources. Ameren Missouri is a Load Serving-Entity, (LSE), in the MISO integrated energy market. Every day, as an LSE, Ameren Missouri must provide forecasts

---

[93] Staff has calculated time-based energy charges consistent with its recommendations in EMM, EMW, and Empire in case the Commission does not accept this revised recommendation. They are provided below.

[94] Modification to the RESRAM may also be necessary, however because the resolution of this issue is intimately interrelated with multiple other issues, Staff does not address this at this time. Staff reserves the opportunity to further develop a recommendation for appropriate implementation of tariffs in this matter.

[95] In this case, if this approach is taken, the Commission should establish a regulatory asset account for the wholesale energy expense of each LLCS customer, and a regulatory liability account for the energy revenues of each LLCS customer, to be reconciled into the FAC/RESRAM operation in a future general rate case.

to MISO of expected energy usage for each hour of the next day. These projected loads are transacted by MISO at the Day Ahead Locational Marginal Price (LMP) for each node.[96] Every day, MISO reviews the amount of energy actually used in each interval on a given day, and subtracts the forecast from that interval for the actual energy used in that interval. The difference is transacted at the Real Time LMP for each node. While as regulators we see these LMPs as a single Day Ahead (DA) LMP for each interval and a single Real Time (RT) LMP for each interval, the actual bills are written based on the value of the variation at every single point of interconnection for that utility. The single interval values that are provided as load LMPs are actually the weighted-average value of dozens of separate points of interconnection between the utility's distribution system and the transmission system.

Changes to actual operational loads of LLCS customers compared to expected loads that are not reflected in Ameren Missouri's bids for load purchases from MISO can cause imbalances in the overall purchased power costs that will flow through the FAC if these costs are not identified and isolated. The expected LLCS customers' relative loads are important to consider because the load of these customers will be the largest on the Ameren Missouri system, and will dramatically impact Ameren Missouri's overall level of cost for wholesale energy. The exact dollar impact cannot be determined at this time because the imbalance will be determined on an hour by hour basis, comparing the cleared DA and RT costs, as well as projected load, compared to actual RT load.

Wholesale Energy Charge

The Commission should not approve Ameren Missouri's request to serve LLCS customers using LPS tariff rates which are reduced by the value of energy sold from the existing generation fleet. If this approach is used, there were 1,296 hours in 2024 when the Ameren Missouri-proposed rate would not have been sufficient to cover even the day-ahead MISO energy expense for that energy.[97] The energy rates paid by LLCS customers should address the cost of obtaining energy to serve those customers through the MISO integrated markets, and should not include either fuel or energy revenues.

[96] Ameren Missouri also, every day, informs MISO what units it is able and willing to operate at various price points. MISO uses the generation bids from Ameren Missouri and from every other generator operator in the region to establish dispatch instructions to serve the bid loads of all LSEs.

[97] The actual energy expense flows to all customers through the FAC, and LLCS customers are of a size and sophistication to potentially arbitrage the below-cost rate proposed by Ameren Missouri.

As mentioned above, Staff has developed a different recommendation for this case than it initially recommended for EMM, EMW, and Empire. Namely, Staff recommends that the LLCS tariff include a charge of wholesale energy of $0.051/kWh. However, the tariff should provide an option for LLCS customers to bear all MISO charges associated with that LLCS customers CP node in lieu of the "Charges for Day Ahead Energy Expense," and "Load-Servicing Energy Charge," which Staff recommended for EMM, EMW, and Empire.[98]

This approach will allow customers who opt-in to the "Optional Agreement for Payment of Actual MISO Charges," (Optional Agreement) to directly manage their bills by avoiding high cost times and maximizing low cost times, for an overall response comparable to demand response; improve price signals for responses to any utility-required curtailments; and enhance the ability of the customer to more accurately balance the expenses incurred for serving its load with the revenues that may be generated through off-site customer-controlled renewable generation.

Facilitation of Behind the Meter Generation

As discussed below, Staff recommends rejection of Ameren Missouri's proposed riders.

However, for customers who have executed an Optional Agreement Staff is not opposed to allowing the customer to operate generation behind the meter. The Optional Agreement's use of actual energy prices would align the energy pricing relationship of the resources with the LLCS customer's billing. This could enable customers choose to meet energy needs with the local resource instead of the market energy availability, and would enable the customer to receive the full energy market value of that generated energy. If a diesel genset or other dispatchable generation[99] is located behind the meter, it enables the customer to strategically participate in economic self-dispatch or demand response-type activities.[100]

For a customer with behind the meter generation:

1. The customer will pay the required demand charges under the LLCS tariff based on the amount of capacity Ameren Missouri must keep available for that customer under resource adequacy requirements,
2. The customer uses the energy they want to use when they want to use it,

[98] Staff has calculated these charges for Ameren, in the event the Commission does not accept Staff's primary recommendation in this case. The development of these charges, and the need for FAC treatment referred to as the "N Factor," and the "Reverse N Factor," are included in Appendix 2, Schedule 13. The tariff version including these charges is provided as Appendix 2, Schedule 4.

[99] The Optional Agreement would not be available to Qualifying Facilities under PURPA.

[100] Demand billing would continue to reflect contract demand. Contract demand may reflect behind-the-meter generation offsets, but the amount of such offset would be curtailed in the event of failure of behind-the-meter generation.

3. Other ratepayers receive the benefit of the Variable Fixed Revenue Contribution charge on the value of the energy the LLCS customer consumes from the wholesale market, so that the customer is making a contribution towards cost of service like Ameren Missouri's office buildings and executive salaries,

4. Ameren may include specific terms in the Optional Agreement to satisfy the customers' or some third parties' standards related to claiming renewable energy usage, net zero compliance, etc., so long as such terms are otherwise prudent.

Improved Facilitation of Power or Capacity Purchase Agreements with LLCS Customers

Staff does not object to Ameren Missouri entering reasonable agreements with LLCS customers for the purchase of capacity or energy from customer-owned or customer-controlled generation that is not located behind the customer meter, so long as those arrangements are otherwise prudent.[101] However, those contractual relationships should not be allowed to vary the determinants for the actual metered usage of LLCS customers. However, using the actual pricing in the Optional Agreement, LLCS customers who contract separately for sale of energy or capacity to Ameren Missouri and who participate in the Optional Agreement, essentially:

1. The customer will pay the required demand charges under the LLCS tariff based on the amount of capacity Ameren Missouri must keep available for that customer under resource adequacy requirements,

2. Ameren Missouri will pay the customer some capacity value for some capacity amount determined through prudent utility decision-making for that generation, and/or energy value for the energy amounts contracted for though prudent utility decision-making,

3. The customer uses the energy they want to use when they want to use it, which may or may not be influenced by what the resource is generating wherever it is located, and the wholesale market governs the treatment of each,

4. Other ratepayers receive the benefit of the Variable Fixed Revenue Contribution charge on the value of the energy the LLCS customer consumes, so that the customer is making a contribution towards cost of service like Ameren Missouri's office buildings and executive salaries,

5. Ameren Missouri may include specific terms in the PPA and/or customer agreement to satisfy the customers' or some third parties' standards related to claiming renewable energy usage, net zero compliance, etc., so long as such terms are otherwise prudent.

The feasibility of this approach is significantly improved with Staff's recommended requirement for a separate CP node for each LLCS customer, and with Staff's recommendation to remove LLCS customers from the FAC.

Staff Witness: Sarah L.K. Lange

[101] Any such contract would be the result of arms-length agreements and would not be part of the Optional Agreement.

Missouri Renewable Energy Standard Compliance Charge

This charge will recover the approximate value of Renewable Energy Certificates associated with requirements under the Missouri Renewable Standard (RES) for serving LLCS customers.[102] Among other things, the RES requires that Ameren generate or purchase renewable energy, or purchase Renewable Energy Certificates (RECs), equal to at least 15% of each utility's load for years after 2021.[103] Staff recommends that each kWh of LLCS load be billed at a rate equal to 15% of the value of a REC as established in each rate case.

Currently, Staff calculates a reasonable rate for this charge at ** [redacted] ** per kWh. This value is based on ** [redacted] **

Economic Development Discount Responsibility Charge

The Economic Development Discount Responsibility Charge will be designed to recover the value of the discounts allocated to the LLCS class in future rate cases. Missouri statute Section 393.1640.2 RSMo. states:

> In each general rate proceeding concluded after August 28, 2022, the difference in revenues generated by applying the discounted rates provided for by this section and the revenues that would have been generated without such discounts shall not be imputed into the electrical corporation's revenue requirement. Instead, such revenue requirement shall be set using the revenues generated by such discounted rates and the impact of the discounts provided for by this section shall be allocated to all the electrical corporation's customer classes, including the classes with customers that qualify for discounts under this section through the application of a uniform percentage adjustment to the revenue requirement responsibility of all customer classes.

At this time, this rate should be set at $0.00, as such an allocation will only occur at the conclusion of a general rate case in which LLCS customers are recognized.

---

[102] Ameren's request for a waiver of the RES is addressed in the Section "Request for Waiver of Renewable Energy Standard."

[103] Section 393.1030, RSMo.

Staff's recommended tariff provision for energy charges is provided below:

Optional Agreement for Payment of Actual MISO Charges:

The Service Agreement may include terms specifying that the LLCS customer agrees to pay all charges received by Ameren Missouri for service at the LLCS customer's commercial pricing node, including but not limited to charges for the day ahead market, the real time market, all ancillary services, and all other charges applicable under MISO's OATT, including administrative and transmission charges. However, these charges will not include any capacity auction charges or revenues.

Ameren Missouri shall provide a copy of such charges to the LLCS customer no later than 1 business day after received by Ameren Missouri, including any revisions, rebills, or other modifications which may be presented by MISO to Ameren Missouri.

The customer shall pay the full amount of each such charges no later than 21 business days after the charges were provided to the customer by Ameren Missouri.

Customers may operate behind the meter generation as detailed in the terms of this Optional Agreement.

If a customer enters into this Optional Agreement as described above, the customer shall not be billed the otherwise applicable Wholesale Energy Charge.

Reactive Demand Charge

This charge will recover the cost of service associated with voltages support and regulation to the extent that an LLCS customer requires reactive demand that is out of balance with that customer's consumption of real power. Staff's recommended rates for this charge are the current tariffed rates of $0.4481 $/kVar.

Charges for Contributions to Fixed Cost Recovery

The charges discussed above do not reflect any of Ameren Missouri's day-to-day costs of doing business, such as computer systems, computer software, office buildings, office furniture, management employees, investor relations costs and expenses, other overheads, and the revenue requirement associated with policy-driven activities, such as solar rebates, electric vehicle charging stations, and supports for low-income rate payers.

Staff's recommended structure includes two charges so that the LLCS rate will be set to essentially the floor for economic development discount recipients established by Section 393.1640 RSMo., and so that, with appropriate accounting treatments, these rate schedules will reasonably ensure LLCS customers rates will reflect the customers' representative share of the costs incurred to serve the customers and prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to LLCS customers. To account for income tax, the bill components will actually need to be multiplied by 23.4% to accomplish a 20% contribution to "fixed costs."

Staff recommends two separate Fixed Cost Recovery charges. The Variable Fixed Revenue Contribution charge will be calculated using the actual demand or usage calculated charge for a given month. The Variable Fixed Revenue Contribution will be applied to the actual billed amounts for the Customer Charge, the Facilities Charge, the Wholesale Energy Charge, whether billed as a flat rate or under the Optional Agreement, and the RES Compliance Charge.

The Stable Fixed Revenue Contribution Charge will be applied to only the Demand Charge amounts. This charge calculation varies in that it recovers for the greater of actual demand in a month or contracted demand for that month. Specifically, the Stable Fixed Revenue Contribution Charge applies to the greater of the rate for the Generation Capacity Charge rate multiplied by the updated contract demand for the month OR the actual charge calculated for the Generation Capacity Charge, and to the greater of the rate for the Transmission Capacity Charge rate multiplied by the updated contract demand for the month OR the actual charge calculated for the Transmission Capacity Charge.

Other Demand-Related Charges

As explained in the recommended tariff language in the section "Long and Mid-term Forecasts," Staff recommends that in the event that Ameren Missouri requires capacity arrangements to serve LLCS load, it should seek to expeditiously promulgate a tariff so that those additional expenses can be appropriately recovered from the LLCS customer causing the need for additional capacity. This charge would be reflected on that customer's bill as the "Capacity Cost Sufficiency Rider." Staff also recommends inclusion of distinct charges to accommodate differences in the initially-forecast demands and the current-year updated forecast, and for differences in the current-year updated forecast demands, and the actual experienced demands. Staff also recommends a separate charge be included (at an initial rate of $0.00) for the potential recovery of revenue associated with any MISO action through which Ameren Missouri ratepayers become responsible for payments associated with MISO capacity deficiency charges.

Staff Witness: Sarah L.K. Lange

Demand Deviation and Imbalance Charges

Staff recommends specific charges be implemented to address variation between the capacity requirements that LLCS customers indicated, and actual capacity requirements of LLCS customers. These recommended charges are:

1. The Demand Deviation Charge, which addresses differences, if any, between the capacity requirements stated when a customer initially applies for service, and the capacity requirements stated during an annual update process:
    a. The approximated Deficiency Payment be used as the basis of a Demand Deviation Charge equal to $ 136.17/kW to account for year over year changes to projected demand;
    b. To be applied as 12 equal monthly amounts for any deviations between initial contract demand and the current-year updated contract demand;
    c. Deviations from the original contract of less than +/-5% will not incur a penalty, however: deviations of more than +/-5% will be billed at $11.3475/kW-month.
2. An Imbalance Charge, if applicable, for the difference between the current-year updated contract demand and the actual demand charge, to account for imbalances in projected demand and actual demand.
    a. Ameren Missouri will file a tariff to update these charges based on the current year MISO Planning Resources Auction price for the specified season. This charge will be applied to the difference between the projected demand for each month and the actual demand realized during the demand window for that month at a rate of the lesser of $11.3475/kW or the current year MISO Planning Resource Auction price for the specified season.

Because deviations in either direction of the year over year projected demand could cause additional costs to be incurred, it is reasonable to apply a charge for both under and over projections to provide a financial incentive for LLCS customers to provide projections that are as accurate as possible for purposes of MISO Resource Adequacy Requirements.

The Imbalance Charge accounts for differences in realized demand during peak periods compared to the contracted demand for that year providing the LLCS customer a financial incentive to operate consistent with the contracted demand.

The Demand Deviation Charge and Imbalance Charge should be revisited in future general rate cases to reflect changes in the MISO calculated value of CONE and PRA results, including but not limited to, timing of the measured demand (i.e. changes to seasonality), MISO Balancing Authority Area Planning Reserve.

Staff Witness: J Luebbert

Additional Staff-Recommended Tariff Provisions and Regulatory Treatments

Staff's recommended LLCS tariff also includes basic terms of service, and captive customer risk measures, as set out below:

Other Terms:

A. LLCS customers shall be billed on a calendar month basis.
B. LLCS bills shall be rendered by the fifth business day of the following calendar month, except as otherwise specified in an Optional Agreement.
C. LLCS bills shall be paid by the fifteenth business day of the month issued, except as otherwise specified in an Optional Agreement.
D. Demand is measured as four times the sum of the energy consumed in three consecutive five minute intervals in which the most energy is consumed during the applicable periods. - winter months between 6:00 AM and 11:00 AM and between 5:00 PM and 9:00 PM, -spring, summer, and fall months between 3:00 PM and 10:00 PM.
E. The Demand Deviation Charge is calculated based on the difference in a given month's demand forecast in the initial Service Agreement and the current Service Agreement Annual Update.
F. The Imbalance Charge is calculated based on the difference in a given month's actual demand and the level of demand for that month in the current Service Agreement Annual Update.
G. The Variable Fixed Revenue Contribution will be applied to the actual billed amounts for the Customer Charge, the Facilities Charge, the Wholesale Energy Charge, whether billed as a flat rate or under the Optional Agreement, and the RES Compliance Charge. The Stable Fixed Revenue Contribution Charge applies to the greater of the rate for the Generation Capacity Charge rate multiplied by the updated contract demand for the month OR the actual charge calculated for the Generation Capacity Charge, and to the greater of the rate for the Transmission Capacity Charge Rate multiplied by the updated contract demand for the month OR the actual charge calculated for the Transmission Capacity Charge.
H. Deferral accounts associated with LLCS customers may be consolidated in a general rate case for administrative convenience, with the resulting amortization period to approximate a weighted

average of the remaining amortization periods of the consolidated accounts.

I. Service on this schedule is limited to 33% of Ameren Missouri's annual Missouri jurisdictional load.

J. Prior to execution of a Service Agreement with a prospective LLCS customer, Ameren Missouri shall ensure that it has adequate capacity available for resource adequacy calculations to serve all existing customers and the prospective LLCS customer. In the event Ameren Missouri executes a Service Agreement without adequate capacity, Ameren Missouri's existing customers shall be held harmless from any MISO or other RTO capacity charges, and held harmless from any penalties assessed by any entity related to those capacity shortfalls.

K. Capacity Cost Sufficiency Rider
In the event that Ameren Missouri does not have sufficient capacity to reliably serve a requesting LLCS customer and its other load in a given season of a given year of the anticipated Service term, Ameren Missouri may obtain contractual capacity to reliable serve the requesting customer. Ameren Missouri shall file an ET case and tariff with no less than 45 days effective date, and shall file testimony explaining the potential LLCS customer, that customer's energy and capacity needs, and the capacity arrangements applicable to reliably serving that customer. Ameren Missouri may seek a protective order for portions of the testimony as appropriate, but any Capacity Cost Sufficiency Rider Rate to be charged to any LLCS customer must be contained in a published tariff. The Capacity Cost Sufficiency Rider tariff shall contain terms related to treatment of revenues generated by the rider to prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to such customers.

L. Interconnection and Facility Extension
   a. When applying for service, a prospective LLCS customer shall be responsible for prepayment of the transmission extension, which shall consist of all substations, conductors, devices, poles, conduits, transformers, and all appurtenant facilities and meter installation facilities installed by Company or for which the Company is financially responsible for installation, whether or not under the functional control of the Company, including any and all equipment necessary to ensure adequate power quality with the addition of prospective LLCS customer's load.
   b. Prior to construction of any electrical facilities for service to a prospective LLCS customer, the Company and the prospective LLCS customer shall prepay an estimate of the construction costs of the required facilities, including the cost of all materials, labor, rights-of-way, trench and backfill, together with all incidental underground and overhead expenses connected therewith.

> (1) The prospective LLCS customer will be responsible for nonrefundable charges for infrastructure that is owned and under the functional control of Ameren Missouri, which would not have been constructed but-for the provision of service to the prospective LLCS customer.
> (2) The prospective LLCS customer will be responsible for refundable charges that may be reimbursed to that LLCS customer during the five years following completion of the transmission extension, and shall consist of (a) the portion of charges for infrastructure that is owned and under the functional control of Ameren Missouri, which has been constructed in excess of the level of infrastructure that would not have been constructed but-for the provision of service to the prospective LLCS customer, and (b) the portion of charges for infrastructure that is not under the functional control of Ameren Missouri, but for which Ameren Missouri is compensated by entities other than its Missouri retail ratepayers.
> (3) To the extent that future prospective customers request service which utilizes the infrastructure referenced in part 2 within five years following the completion of construction, payment for such infrastructure, when obtained, shall be provided to the LLCS customer who initially funded such infrastructure.
> (4) Upon completion of construction, Ameren Missouri shall prepare a reconciliation of the actual construction costs and estimate construction costs, which shall promptly be refunded to, or paid by, the LLCS customer, as applicable.

Staff also recommends that the tariff address Revenue Treatment, Termination Charges, and specific provisions to provide some rate mitigation to captive ratepayers. The effects of positive and negative regulatory lag must be considered in establishing rates that will reasonably ensure LLCS customers rates will reflect the customers' representative share of the costs incurred to serve the customers and prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to LLCS customers.[104] It is essential that the Commission use reasonable requirements and regulatory treatments as outlined below to mitigate the risks of unreasonable rate increases to non-LLCS customers caused by Ameren Missouri’s managerial decisions related to LLCS customers.

[104] SB 4 also set out an 80MW threshold applicable to both EMM and EMW with regard to compliance with the Missouri Renewable Energy Standard for qualifying customers.

The recommended revenue treatments, termination charges, and risk mitigation strategies interplay. These recommendations are also complicated because the FAC tariffs cannot be modified outside of a general rate case. In a future general rate case, Staff intends to make recommendations to implement the recommended rate structure. In the meantime, Staff provides recommendations here that will be subject to future modification pending the changes to the FAC.

Staff Witness: Sarah L.K. Lange

Revenue Treatment

To mitigate the unreasonable retention of positive regulatory lag, Staff recommends the following provision be incorporated into the LLCS tariff:

Treatment of LLCS Customer Revenues

A. All revenue from the Charge for Generation Capacity, the Variable Fixed Revenue Contribution Charge, the Stable Fixed Revenue Contribution Charge, the Demand Deviation Charge, the Imbalance Charge, and the RES Compliance Charge will be recorded to a regulatory liability account. The resulting regulatory liability will be treated as an offset to production ratebase with a 50 year amortization. The revenue recorded to the regulatory liability account will not be treated as revenue in setting rates.

B. Until the first rate case recognizing a new LLCS customer at its anticipated full requirements, revenue from the Transmission Capacity Cost of Service Charge that is in excess of the level of revenue from that charge that has been recognized in rates will be recorded to a regulatory liability account. The resulting regulatory liability will be treated as an offset to transmission ratebase with a 50 year amortization. Normalized transmission revenues will be reflected in revenue in setting rates.

C. All revenue billed under Imbalance Charge, Capacity Shortfall Rate, and the Capacity Cost Sufficiency Rider will be used to offset expense associated with the increased cost of service caused by the LLCS customer in any applicable rate case or through the FAC, if applicable.

D. Revenue from the Energy Charge or revenue under an Optional Agreement for Payment of Actual MISO charges shall be deferred as a regulatory liability and incorporated into the FAC in a future general rate case. In the event the FAC is modified to exclude all costs and expenses associated with an LLCS customer, revenue from these charges will be treated as ordinary revenue.

These provisions ensure that Ameren Missouri does not experience excessive positive regulatory lag, and enables the revenues provided by LLCS customers to prevent other customer classes' rates from reflecting any unjust or unreasonable costs arising from service to LLCS customers. Treatment of these accumulated revenues to reduce the ratebase associated with production facilities is intended as a risk mitigation strategy. LLCS customers are going to prompt increases to generation revenue requirement. To the extent that LLCS customers' capacity needs may increase the bills paid by other customers, it is reasonable to capture the lagging LLCS revenues to effectively buy down the increased generation rate base caused by those customers.[105]

If, in a future general rate case, these customers are exempted from the FAC or if the FAC is revised to incorporate a mechanism related to the historic Ameren "N Factor," then the full inclusion of the energy charge revenues in this regulatory liability should be adjusted. Also, in future cases, it could be reasonable to consolidate regulatory liability tranches to simplify accounting.

Staff Witness: Sarah L.K. Lange

Termination Charges

Staff's recommended tariff includes termination charges which are intended to discourage early termination and to mitigate the risks faced by Ameren captive ratepayers. Staff also attempts to avoid a situation where a brief downturn for an LLCS customer would trigger termination charges which would force a closure. Staff's recommended provisions to balance these interests are:

> **Early Termination:**
>
> In the event that an LLCS customer's monthly load (in kWh) is 50% or less of its expected load under its updated contract load for 3 consecutive months, the customer will be required to pay, or cause to be paid, all amounts expected for the remainder of the contract under the following charges: Facilities Charge, Demand Charge for Generation Capacity, Demand Charge for Transmission Capacity, Variable Fixed Revenue Contribution, and Stable Fixed Revenue Contribution.

[105] If, for whatever reason, capacity is built to serve LLCS customers, and LLCS customers terminate service prior to that capacity being fully depreciated, the regulatory liability will at least offset some portion of that generation asset to the extent the Commission includes the generation asset in rate base in future cases.

A. If a customer anticipates a temporary closure or load reduction related to retooling, construction, or other temporary causation, this anticipated reduction shall not trigger the termination charges described above until the anticipated load reduction has exceeded the anticipated duration by three months;

B. The amount due under the Variable Fixed Revenue Contribution Charge in the event of early termination shall be due at the level associated with normal usage in the most recent applicable rate proceeding. If a rate proceeding has not occurred establishing normal usage, or if the customer was not recognized at the anticipated contract maximum load in the prior rate proceeding, the amount due under the Variable Fixed Revenue Contribution Charge shall be at the level associated with the contract projected usage;

C. In the event an LLCS customer either declares bankruptcy, the facility is closed, or is more than 5 business days late in payment of a properly-rendered bill for service, termination charges are immediately due;

D. Except in the case of bankruptcy, closure, or lack of timely payment, termination charges are due on the due date of the bill for the third month of 50% or lower usage;

E. The portion of termination charge revenue associated with the Facilities Charge shall be recorded as a regulatory liability, and treated as an offset to transmission plant. The amortization period for this regulatory liability shall be set to coincide as closely as is practicable with the depreciable life of the transmission-related infrastructure associated with the LLCS customer;

F. The remaining termination charge revenue shall be recorded as a regulatory liability and treated as an offset to production ratebase with a 50 year amortization;

G. These termination provisions can be waived or varied by the Commission if the Commission determines that it is just and reasonable to do so upon application of Ameren Missouri and an opportunity for hearing;

H. Provisions contained herein supersede the Termination of Service provisions of the Rules and Regulations of the generally-applicable tariff.

A summary table of the charges, rates, and applicabilities of the revenue contribution charges and termination charges is provided below:

Charge	Rate	Determinant	Revenues Deferred Until Recognized in Rate Case - To be Ordered in this Case	Ongoing Revenue Deferral - To be Reflected in Tariff	Include in Revenue Contribution?	Include in Termination?
Customer Charge	$10,000	$/Customer			Variable	
Low Income Pilot Program Charge	$ 291.99	$/Customer				
Facilities Charge	$ 0.0225	$/$ of Assets			Variable	Yes
Demand Charge 1 - Charge for Generation Capacity Cost of Service	$ 16.60	$/kW during demand window	Yes	Yes	Stable	Yes
Demand Charge 2 - Charge for Transmission Capacity Cost of Service	$ 4.79	$/kW during demand window	Yes		Stable	Yes
Energy Charge	$ 0.051	$/kWh	Yes, if Applicable	Not if excluded from FAC	Variable, if Applicable	Yes, if Applicable
Alternative to Energy Charge	Execution of an Optional Agreement for Payment of Actual MISO Charges		Yes, if Applicable	Not if excluded from FAC	Variable, if Applicable	Yes, if Applicable
RES compliance charge	**_**	$/kWh		Yes	Variable	
Variable Fixed Revenue Contribution	23.4%	Percent of other charges	Yes	Yes		Yes
Stable Fixed Revenue Contribution	23.4%	Percent of other charges	Yes	Yes		Yes
Demand Deviation Charge	$11.3475	$/kW of deviation	Yes	Yes		
Imbalance Charge, Lesser of:	$11.3475	$/kW of deviation	Yes, if Applicable	Yes, if Applicable		
Or, Spring	TBD		Yes, if Applicable	Yes, if Applicable		
Or, Summer	TBD		Yes, if Applicable	Yes, if Applicable		
Or, Fall	TBD		Yes, if Applicable	Yes, if Applicable		
Or, Winter	TBD		Yes, if Applicable	Yes, if Applicable		
EDI Responsibility Charge	$ -	$/kWh				
Capacity Shortfall Rate, if applicable	TBD	$/kW	Yes, if Applicable			
Capacity Cost Sufficiency Rider, if applicable	TBD	$/Month	Yes, if Applicable			
Reactive Demand Charge	$ 0.4481	$/kVar				

Staff Witness: Sarah L.K. Lange

III. Requested Riders and Other Issues

Request for Waiver of Renewable Energy Standard

Description

Ameren Missouri is requesting a variance from certain Renewable Energy Standard rule requirements in 20 CSR 4240.20.100(1)(W).[106] Paragraph 15 of the Application states that Ameren is seeking a waiver from this rule in order to exclude Large Load Customer's load that is supported with renewables it receives or is reasonably projected to receive that are sufficient to cover the applicable Renewable Energy Standard (RES) Portfolio Requirement in 20 CSR 4240-20.100(1)(R). In his Direct Testimony, Mr. Wills uses the following example:[107]

> Imagine a customer with 1 million MWh of load in a year that has a 100% carbon free energy goal that it meets entirely through participation in Rider RSP-LLC. The customer has acquired 1 million MWh worth of RECs on its own. Now imagine that the Company separately produces the necessary RECs to meet its RES obligation related to that same load by virtue of its inclusion in the Company's total retail electric sales and the application of the RES portfolio requirement of 15%. In total, there would have been RECs retired, specific to that same 1 million MWh of load, equal to 1.15 million MWh, exceeding the load itself by the 15% of duplicative RECs.

[106] The cited statutory authority for this rule includes Sections 393.1030, 386.040 and 386.250, RSMo.

[107] Steven M. Wills Direct Testimony, Page 48, line 19 – Page 49, line 3.

Discussion

The Renewable Energy Standard is a portfolio requirement for all electric utilities to generate or purchase electricity generated from renewable energy resources.[108] The RES requirements specify the amount of renewable energy[109] that utilities must generate or purchase as a percentage of an electric utility's retail electric sales. Renewable Energy Certificates (RECs) and Solar Renewable Energy Certificates (SRECs) are utilized to show compliance with the Renewable Energy Standard requirements. Each REC represents that 1 MWh of electricity was generated from a renewable energy source and each SREC represents that 1 MWh of electricity was generated specifically from a solar energy source. The current requirement is that no less than 15% of an electric utility's retail electric sales shall come from renewable energy, with at least 2% of the 15% derived from solar energy (i.e. no less than 14.7% from renewable resources and no less than 0.3% from solar resources). According to 20 CSR 4240-20.100(3)(B), RECs and SRECs may only be used once and may not also be used to satisfy any other nonfederal renewable energy standard requirement. Additionally, RECs or SRECs may not be double counted. Any RECs or SRECs retired under a green pricing program may not be used for compliance with the RES requirements. A green pricing program is a voluntary program that provides a utility's retail customers an opportunity to purchase renewable energy or renewable energy credits.[110] For instance, Ameren Missouri's solar subscriber program is an example of a green pricing program. In the above scenario which Mr. Wills provided in his Direct Testimony, he alleges that the scenario leads to duplicative RECs, however the intent of 20 CSR 4240-20.100(3)(B) is to specifically exclude a company's REC sales to customers from impacting the RES requirements.

In his Direct Testimony Mr. Wills states that without this variance Ameren would need to plan for and produce or acquire substantial quantities of RECs. In recent years, Ameren Missouri has been unable to comply with its Renewable Energy Standard requirements without requesting variances related to retirement timing and purchasing additional RECs anyway. Knowing this, Ameren Missouri continues to dedicate certain renewable resources to renewable energy programs rather than its RES compliance.[111]

[108] Section 393.1030, RSMo.

[109] 20 CSR 4240-20.100(1)(R) and 20 CSR 4240-20.100(2).

[110] 20 CSR 4240-20.100(1)(H).

[111] EA-2023-0286, Notice Regarding Renewable Solutions Resources.

The new requirements in Section 393.1030.2, RSMo., allow for EMM and EMW to exclude renewable energy contracted for by accelerated renewable buyers from the total electric utility's sales used to determine portfolio requirements. The new requirements of Section 393.1030.2, RSMo., specifically exclude companies with greater than 1,000,000 retail customers such as Ameren Missouri and those with less than 250,000 retail customers such as The Empire District Electric Company, d/b/a Liberty.

Recommendation

Aside from the clear intent in the RES rule to exclude company's REC sales to customers from impacting RES requirements, and the legislative intent to specifically exclude Ameren Missouri and Liberty from the new requirements in Section 393.1030.2. RSMo., Ameren Missouri's proposed variance goes beyond the language in Section 393.1030.3. RSMo. that ties the retirement of RECs by an accelerated renewable buyer with the portion offset from the utility's obligation. Staff recommends the Commission deny Ameren Missouri's request for a variance from 20 CSR 4240.20.100(1)(W) to exclude Large Load Customers load that is supported with renewables it receives or is reasonably projected to receive that are sufficient to cover the applicable Renewable Energy Standard (RES) Portfolio Requirement in 20 CSR 4240-20.100(1)(R). If the Commission finds it appropriate to grant a variance, the Commission should require proof of compliance as contemplated by Senate Bill 4 and laid out in Section 393.1030.2. RSMo.

Staff Witness: Amanda Arandia

Nuclear Energy Credit Program

Program Description

The Nuclear Energy Credit Program (Rider NEC) is a proposed program under which Large Load Customers can enter into a participation agreement to receive nuclear energy credits (NECs) generated by Ameren Missouri's Callaway Nuclear Energy Center or any other future nuclear energy centers at a quantity,[112] price, and term that is specified in the participation agreement.[113] The customer will be billed a program charge equal to the quantity of subscribed NECs multiplied by the NEC Rate specified in their participation agreement. NECs will be trued-up and a refund will be issued for any NECs that could not be delivered.[114]

[112] The specified quantity will not exceed their annual anticipated energy usage.
[113] Steven M. Wills Testimony, page 23, lines 11-13.
[114] Steven M. Wills Testimony, page 23, lines 17-20.

Discussion

Missouri's Renewable Energy Standard[115] specifically excludes nuclear energy from the definition of renewable energy resources. The Commission approved REC tracking system NAR, does not track NECs. Ameren Missouri proposes to have the NECs annually certified by a third-party,[116] however they have not yet selected a third-party to certify the NECs.[117] This also means that Ameren Missouri cannot provide information on the cost of running the program. Additionally, Ameren Missouri has not proposed a program rate and has not provided any workpapers on a proposed pricing calculation. Ameren Missouri stated in response to Staff DR 29 that it is considering pricing based upon market rates for similar attributes across the country but has provided no information regarding which similar attributes they are referring to.

Recommendation

Ameren Missouri has not provided enough program details for Staff to be able to recommend approval of this program at this time, and Staff questions whether such a program is necessary. If Ameren Missouri wishes to sell AECs via contracts with its large load customers, Staff is unsure why a tariff would be needed if none of the details of the agreement are included in the tariff. Staff recommends the Commission reject the program as currently written until such time that Ameren Missouri can present the full details of the proposed program.

Staff Witness: Amanda Arandia

Renewable Solutions Program – Large Load Customers

Program Description

The proposed Renewable Solution Program – Large Load Customers (RSP-LLC) is proposed as a variant of the Company's existing Renewable Solutions Program (RSP), which has been modified to accommodate large load customers. In the proposed program customers will be able to subscribe to receive the renewable attributes (RECs) for a specific generation capacity (MW) of a resource.[118]

---

[115] Section 393.1030 RSMo.

[116] Steven M. Wills Direct Testimony, Schedule SMW-D2.

[117] Response to Staff DR 31.

[118] Steven M. Wills Direct Testimony, page 18, lines 14-16.

The program will include a Renewable Resource Charge which is a cost to the customer based on the capital cost of the facility to which they are subscribing, and a Renewable Benefits Credit related to the energy output of that facility.[119] Subscribers will be billed the net of Renewable Resource Charge and the Renewable Benefits Credit on their monthly bill on top of their base tariff charges.[120] The Renewable Resource Rate and the Renewable Benefits Credit will be customer specific, rather than published in the proposed tariff as contemplated in the original RSP.[121]

Unlike the original RSP, in which all program resources are subscribed for a 15-year term, the term of the RSP-LLC may be customized for each resource based on the time it goes into service and the relevant term of the customers Electric Service Agreement (ESA). The program is proposed in this manner to accommodate subscriptions for multiple resources that are all subscribed by the same customer which would go into service at different points in time. The specifics will be reflected in the participation agreement that will be executed between the customer and the Company.[122] Ameren proposes to establish the price by year for each participant so if one program resource comes online in year one and another comes online in year three, they will both be subject to the same price in year three and thereafter.[123] The volume of the subscription will be stated in the subscribing customer’s participation agreement as a number of MW of capacity by resource, rather than as a percentage of a customer’s annual usage as in the original RSP in order to accommodate for large load customers who would be subscribing to the full capacity of multiple resources.[124]

<u>Discussion</u>

In his testimony, Mr. Wills provided an estimate of the projected revenue from the RSP-LLC program, this projected revenue is based on the original RSP program using an inferred dollar per REC value based on assumptions about the capacity factor at which program resources

[119] Steven M. Wills testimony, page 18, lines 14-18.
[120] Steven M. Wills testimony, page 19, lines 1-3.
[121] Steven M. Wills testimony, page 19, lines 18-20.
[122] Steven M. Wills testimony, page 19, lines 9-17.
[123] Steven M. Wills testimony, page 20, lines 13-14.
[124] Steven M. Wills testimony, page 20, lines 15-19.

will operate.[125] There was no cost benefit analysis performed.[126] Ameren Missouri stated in response to Staff DR 26 that a cost/benefit analysis was not specifically necessary because the programs are designed such that they produce no incremental costs beyond any minor program administration costs and only provide an incremental benefit by monetizing renewable attributes "for resources that would be implemented irrespective of the existence of the programs."[127] The program currently has no proposed price. Ameren Missouri has provided no method or workpapers with which it plans to calculate pricing.[128] Ameren Missouri has not dedicated any specific resources to the program, nor was Ameren Missouri able to explain how new resources will be sourced for the program.[129]

Ameren Missouri has had some difficulty meeting its Renewable Energy Standard requirements and has had to request a variance from 20 CSR 4240-20.100(3)(J) which requires 90% of the RECs needed to comply with the RES requirements for the compliance year be retired during the compliance year because they have not had enough RECs banked in order to meet the requirement without purchasing RECs.[130]

Additionally, the purpose/availability section of the tariff is misleading. Sheet No. 74.11 states that subscribers will "receive renewable energy service (RE Service) from existing or new renewable wind and/or solar generation resource capacity available to the Large Load Customer under the Program." This statement is inaccurate. Subscribers will not be directly receiving service from these resources, they will be purchasing RECs from these resources.

<u>Recommendation</u>

Ameren Missouri has not provided enough program details for Staff to be able to recommend approval of this program at this time, and Staff questions the need for such a program. If Ameren Missouri wishes to sell RECs via contracts with its large load customers, it is able to do so outside of a tariff according to 20 CSR 4240-20.100(3)(I). Additionally, Staff continues to be concerned that Ameren Missouri is proposing more tariffs to sell RECs to its customers while at the same time Ameren Missouri is unable to comply with its own Renewable Energy Standard

[125] Steven M. Wills testimony, page 37, lines 5-13.
[126] Response to Staff DR 26.
[127] DR 26 asked if a cost benefit analysis had been performed for Riders RSP-LLC, NEC, CCAP, and CEC.
[128] Response to Staff DR 29.
[129] Response to Staff DR 28 and 28.1.
[130] EE-2024-0376, EE-2024-0037, EE-2023-0127, EE-2022-0074.

requirements without purchasing RECs and requesting variances related to retirement timing. While Ameren Missouri has presented compliance plans annually, expecting that RECs purchases will taper off as Commission-approved resources become operational, each year the dependence on REC purchases and variances continues.[131] Further, as Staff discussed in testimony in the recent Ameren Missouri rate case, Ameren Missouri continues to include resources in its RES compliance planning that it has dedicated to subscription-based programs.[132] Staff recommends the Commission reject the program as currently written until such time that Ameren can present the full details of the proposed program along with a plan to meet its RES requirements while maintaining the program.

Staff Witness: Amanda Arandia

Clean Capacity Advancement Program

Program Description

The Clean Capacity Advancement Program (CCAP) is a program that will allow large load customers to enable clean energy storage systems (ESS) to help integrate higher levels of clean but variable energy production systems.[133] Customers who wish to participate will enter into a CCAP participation agreement that will specify the MW quantity of battery or other energy storage assets that the customer wishes to support, the price per MW that the customer will pay each month, the specific asset along with the expected in-service date, and the term. The monthly charge will be a price times quantity calculation and the total amount due will be added to the customers' bill for utility service.[134]

Discussion

There was no cost benefit analysis performed for Rider RSP-LLC.[135] Ameren Missouri stated in response to Staff DR 26 that a cost/benefit analysis was not specifically necessary because the programs are designed such that they produce no incremental costs beyond any minor program administration costs and only provide an incremental benefit by monetizing renewable attributes

---

[131] EO-2025-0281, Ameren RES Compliance Plan 2025-2027, pages 8-9.

[132] ER-2024-0319, Rebuttal Testimony of Claire M. Eubanks, page 7. EA-2023-0286, Notice Regarding Renewable Solutions Resources, EO-2025-0281, Ameren RES Compliance Plan 2025-2027, page 6-7.

[133] Steven M. Wills Direct Testimony, page 21, lines 6-9.

[134] Steven M. Wills Direct Testimony page 21, line 22 – page 22, line 1.

[135] Response to Staff DR 26.

"for resources that would be implemented irrespective of the existence of the programs." The program currently has no proposed price and Ameren Missouri has only stated that it will be a price times quantity calculation without providing any workpapers or explanation on how it plans to set pricing.[136] Ameren Missouri has not dedicated any specific resources to the program, nor was Ameren able to explain how new resources will be sourced for the program.[137]

Recommendation

Ameren Missouri has not provided enough program details for Staff to be able to recommend approval of this program and Staff questions the need for such a program. If Ameren Missouri wishes to sell battery storage via contracts with its large load customers, Staff is unsure why a tariff would be needed if none of the details of the agreement are included in the tariff. Staff recommends the Commission reject the program as currently written until such time that Ameren Missouri can present the full details of the proposed program.

Staff Witness: Amanda Arandia

Clean Energy Choice Program

Staff has reviewed Ameren Missouri's proposed Clean Energy Choice Program (Rider CEC). Ameren Missouri witness Steven M. Wills' Direct Testimony, page 24, lines 1-7 states:

> Rider CEC or the Clean Energy Choice Program (which is included in attached Schedule SMW-D2), is a very flexible and customizable framework under which the Company and large load customers can collaborate to explore, and potentially implement, subject to Commission approval, additional deployment of clean energy technologies above and beyond the amounts of those resource types reflected in the Company's Preferred Resource Plan (PRP), as selected in the Company's Integrated Resource Planning Process (IRP).

Rider CEC would allow an LLCS customer, or customers, to influence Ameren Missouri's IRP analysis, Ameren Missouri's Preferred Resource Plan (PRP),[138] and Ameren Missouri's resource

[136] Response to Staff DR 29.

[137] Response to Staff DR 28 and 28.1.

[138] 20 CSR 4240-22.020(46) defines preferred resource plan as "the resource plan that is contained in the resource acquisition strategy that has most recently been adopted by the utility decision-maker(s) for implementation by the electric utility."

acquisition strategy.[139] In other words, Ameren Missouri's generation fleet would be something other than what it would have been if Ameren Missouri had followed the plan that it considered most prudent.

20 CSR 4240-22.080(1)(C) requires Ameren Missouri to submit its triennial compliance filing (IRP) every three years, starting on April 1, 2014.[140] On September 26, 2023, in Case No. EO-2024-0020, Ameren Missouri filed its 2023 triennial compliance filing (2023 IRP) that included its 2023 PRP. 20 CSR 4240-22.080(3)(B) requires Ameren Missouri to prepare an annual update report in the years a triennial compliance filing is not required. On October 1, 2024, in Case No. EO-2025-0123, Ameren Missouri filed its 2024 annual report. In its 2024 annual report, Ameren Missouri stated that it continues to execute on its 2023 PRP. 20 CSR 4240-22.080(12) allows a utility to change its PRP in between triennial compliance filings if the utility's business plan or acquisition strategy becomes materially inconsistent with the current PRP. On February 28, 2025, in Case No. EO-2025-0235, Ameren Missouri filed its *Notice of Change in Preferred Resource Plan* (2025 PRP). One of the stated primary reasons for the change in PRPs was that since the filing of Ameren Missouri's 2023 PRP, Ameren Missouri has seen significant growth in interest of potential data center customers to locate in Ameren Missouri's service territory. This will be further discussed below in this section. However, due to the IRP rule requirement for an annual update filing and the potential for multiple filings if there is a change in the PRP, Staff sent DR 20 in this case, which asked:

> Could Ameren Missouri take into consideration any large load customer's want or need for new clean energy in its IRP modeling for IRP annual updates or triennial compliance filings in lieu of the proposed Rider CEC? Could Ameren Missouri still allocate any incremental costs of additional new clean energy resources to the requesting large load customer(s)?

Ameren Missouri's response to DR 20 stated:

> The answer to the first question is "no". By its nature, Rider CEC would apply to resources that the Rider CEC customer proposes for implementation by the Company that the Company would <u>not</u> implement absent the Rider CEC customer's agreement to pay the difference between

[139] 20 CSR 4240-22.020(51) defines resource acquisition strategy as "a preferred resource plan, an implementation plan, a set of contingency resource plans, and the events or circumstances that would result in the utility moving to each contingency resource plan. It includes the type, estimated size, and timing of resources that the utility plans to achieve in its preferred resource plan."

[140] Ameren Missouri has requested, and been approved for, a variance to this rule to file on, or around, October 1 in the years a triennial compliance filing is due. Ameren Missouri's most recent request for a variance regarding its triennial IRP filing date was made in File No. EE-2025-0202.

> the costs reflected from implementing the Company's Preferred Resource Plan and the costs that would be incurred from implementing the alternative Clean Preferred Resource Plan the Rider CEC customer proposes.
>
> In answer to the second question, as just explained, the Rider CEC customer is required to pay for the incremental cost of implementing the Clean Energy Preferred Resource Plan above the cost of the Company's Preferred Resource Plan.

Staff sent Evergy Metro, Inc., d/b/a Evergy Missouri Metro (EMM) and Evergy Missouri West, Inc., d/b/a Evergy Missouri West (EMW) a similar data request, DR 58, in Case No. EO-2025-0154.[141] EMM and EMW responded:

> Yes, the Company could include customer requests in its IRP modeling, however the Rider is useful to set clear terms and conditions for the consideration and to clearly provide for the recovery of the incremental cost between the Company Preferred Plan and the Clean Energy Preferred Resource Plan. Concerning allocation, the similar is true. Incremental cost could be allocated, but the Rider would clarify and formalize the treatment.

Staff is concerned with the contradicting responses from two electric utilities regulated by the Commission for similar, if not identical, riders. Staff is concerned with adding Rider CEC, a new tariffed rider, where one company states it could consider customer requests and cost allocation in its current IRP modeling and another company states it could not consider customer requests and cost allocations in its current IRP modeling.[142]

Further, the IRP process will drastically change with the recent passage and signing of Senate Bill 4 (SB 4). SB 4 adds Section 393.1900, RSMo., and Section 393.1900.1, RSMo. states in part that, "[t]he commission shall, by August 28, 2027, and every four years or as needed thereafter, commence an integrated resource planning proceeding for electrical corporations."

In DR 22, Staff asked in part:

> Based on current prospective large load customers' expected in-service date for permanent service, what is the soonest date Ameren Missouri anticipates a customer with demand greater than or equal to 100 MW would receive service under the new LPS subclass?

---

[141] In Evergy's Large Load Power Service Tariff filing, Case No. EO-2025-0154, Evergy proposes a Clean Energy Choice Rider (Schedule CER), which is similar, if not identical, to Ameren Missouri's Rider CEC in this case.

[142] Staff is not advocating deviations from prudent resource planning to accommodate customer preferences with or without the CER.

Ameren Missouri responded that:

> Conversations with prospective customers to whom the new LPS subclass requirements would apply are still ongoing. In-service date and the effective date of the ESA are established in the ESA itself, which would be approved by the MPSC. As those conversations are ongoing as of today, we cannot provide an exact answer to this question. However, based on the current status of these ongoing discussions with prospective customers, they are generally targeting in-service dates ranging from approximately Q4 2026 – Q4 2027.

In Ameren Missouri's *Notice of Change in Preferred Resource Plan* (public version) (2025 PRP), filed on February 28, 2025, in Case No. EO-2025-0235, Ameren Missouri stated:

> After considering the prospects for new large load additions and the other changes noted above and with the above stated objectives in mind, Ameren Missouri has selected a PRP that will support 1.5 GW of new additional demand by 2032 and 2.5 GW by 2040.[143]

Ameren Missouri further states that:

> Since the time of its 2023 IRP filing, Ameren Missouri has seen significant growth in the prospects for data centers in its service territory. Ameren Missouri had included incremental economic development load in its 2023 IRP forecast starting at 40 MW in 2025 and reaching 220 MW in 2031. However, the requests Ameren Missouri has received to date far exceed those assumed additions. Ameren Missouri has determined that large load additions, including data centers, are expected to add 500 MW to 2 GW of demand by 2032, and continued growth beyond 2032 could increase total demand to 2.5 – 3.5 GW by 2040… Note that the timing of load additions, including in the near term, is still uncertain.[144]

Lastly in regard to Ameren Missouri's 2025 PRP, Staff filed comments in that case. One of Staff's comments was the following:

> The Company recognizes the uncertainty regarding potential data center load additions in its development and analysis of its contingency plans. It is that uncertainty and the analysis around it that causes Staff concern. Ameren Missouri states on page 24 in its 2025 PRP Report that, "In fact, analysis results show that alternative plans with higher data center demand result in lower levelized rates than those with lower data center demand (or none)…" The calculation of levelized rates is total revenue requirement in dollars divided by load in kWh. The larger the load, the more kWh the revenue requirement dollars are spread over and therefore lower levelized rates.

[143] File No. EO-2025-0235, EFIS Item No. 1, Change in Preferred Plan Report – Public, pg.2.

[144] File No. EO-2025-0235, EFIS Item No. 1, Change in Preferred Plan Report – Public, pgs. 14-15.

> However, if the Company builds/buys new generation facilities and total revenue requirement increases, but the data center load never comes to fruition and there is less kWh to spread the increased revenue requirement over, then levelized rates increase.[145]

In EO-2025-0235, Staff asked the following in DR 3.1:

> Please refer to Ameren Missouri's response to Staff's data request 0003, which states in part that "Regardless of the rate structure applied to data centers, the levelized rates would be the same as long as the total revenue requirement and the total load are the same as reported in the report." If the revenue requirement is the same as reported in the report, but the total load is less than that reported in the report, will the result be higher levelized rates?

Ameren Missouri provided the following response to DR 3.1:

> Since it is just a division and if the numerator (revenue requirement) stays the same while denominator (load) goes down, the result of the division (rate) would be higher than the original number. However, it should be kept in mind that the revenue requirement includes costs to serve the load (e.g., energy and capacity purchases). Consequently, even if there were no changes in resources that may be needed/avoided, if the load goes down, it is highly unlikely that the revenue requirement would stay the same.

With all of the uncertainty previously mentioned surrounding large customers that would receive service under the LLCS rate no sooner than the fourth quarter of 2026, and the new legislation requiring an integrated resource planning proceeding commencing by August 28, 2027, Staff is of the position that a new rider such as Rider CEC not be approved at this time. The Commission should allow for the new IRP process to be developed and understood prior to considering a rider that allows for customers to influence prudent resource planning.

In this case, Staff sent DR 24 in regard to Rider CEC asking:

> Is the Company aware of any other programs/tariffs submitted or approved in other states that are the same or similar to the proposed Rider CEC? If so, please provide those programs/tariffs and a detailed description of the similarities and differences between those programs/tariffs and the proposed Rider CEC.

---

[145] Case No. EO-2025-0235, EFIS Item No. 4, *Memorandum in Response to Ameren Missouri's Change in Preferred Resource Plan,* filed on May 14, 2025.

Ameren Missouri's response to DR 24 stated:

> Other than Evergy's proposed Schedule CER, which conceptually is similar to Ameren Missouri's proposed Rider CEC, no. The Company is aware of NV Energy's Clean Transition Tariff which can result in a different deployment of resources than the utility might have otherwise deployed, but that tariff is different than the Company's proposed rider in several respects.

According to a Utility Dive article, Google and NV Energy requested "permission to enter into a power supply agreement based on the 'Clean Transition Tariff' that would allow large energy users to pay a premium for 24/7 clean energy from new resources."[146] "Under the power supply agreement, NV Energy would buy electricity from Fervo Energy's 115 MW Corsac Station Enhanced Geothermal Project, and sell it to Google for a set rate. Google would receive credit for the project's energy and generation capacity on electric bills for its data centers in Storey County, Nevada, offsetting demand charges associated with those facilities."[147] "The tariff is intended to spur the deployment of more carbon-free dispatchable energy resources, like geothermal or nuclear generation, by allowing energy users to make up the difference between the cost of these capital intensive resources and low-cost options like solar or natural gas".[148] A Google spokesperson stated that "[i]nstead of having to overbuild solar and add new natural gas to keep up with customers' desire for renewable energy while ensuring firm supply, the utility will gain access to firm, dispatchable renewable energy without running afoul of least-cost regulatory requirements."[149]

NV Energy's Clean Transition Tariff is similar to the Rider CEC in that it appears to allow customers to influence resources deployed by the utility (as Ameren Missouri states in its DR 24 response) by entering into a power supply agreement for specific generation – potentially offsetting, or potentially partially offsetting the need for other generation. However, it does appear to differ in nearly all other respects, as Ameren Missouri also stated in its response. With the changes to the IRP process due to the passage of SB 4, and the relatively near-term timeline for those changes to take place, a seemingly first-of-its-kind rider which allows customers to influence a utility's prudent resource planning further contributes to Staff's concern.

---

[146] Emma Penrod, NV Energy seeks new tariff to supply Google with 24/7 power from Fervo geothermal plant, Utility Dive, https://www.utilitydive.com/news/google-fervo-nv-energy-nevada-puc-clean-energy-tariff/719472/ (accessed August 26, 2025).

[147] *Id.*

[148] *Id.*

[149] *Id.*

On pages 24 – 25 of Mr. Wills' Direct Testimony in this case he states:

> The large load customer will enter into a CEC participation agreement (to ultimately be approved by the Commission) that details the terms of payment. It is anticipated that, due to the nature of Rider CEC that may result in the selection of a PRP with a higher net present value of revenue requirement (NPVRR) than the Company's then-existing PRP, more stringent terms will apply to participation agreements under this program than under the other three voluntary programs. By this I mean there will potentially be more stringent termination and credit provisions in order to ensure that the increased NPVRR is covered by the requesting customer. That said, because of the very customized nature of solutions expected to be contemplated under Rider CEC, the program tariff provides a template for engaging in the study and selection of alternative Clean Energy PRPs, while leaving the specifics of program pricing and payments to be fully detailed within the participation agreement itself. Again, all such terms and conditions, including prices, quantities, duration, termination provisions, and any other salient features of the agreement will be brought before the Commission for approval prior to implementation of any Clean Energy PRP.

Staff sent DR 25, and the questions Staff asked and Ameren Missouri's responses to each are as follows:

1) What happens if a customer terminates service before the cost differential is fully paid, then challenges the outstanding cost differential?

   Response: Due to the customized nature of the Clean Energy Choice program, agreements under the program will have well defined provisions relating to termination of service obligating the customer to pay the differential, and such agreements (including those provisions) must be approved by the Commission prior to implementation of the Clean Energy PRP. If disputes arise, the Company would vigorously enforce such agreements with any such dispute to be ultimately adjudicated by the courts.

2) What are the Company's plan(s) to pursue collection of an outstanding cost differential from a customer?

   Response: As noted above, the Company would vigorously pursue collection of any amounts due by the terms of an agreement under the program.

3) What will the Company do if a customer ultimately does not pay the outstanding cost differential?

Response: The Company will exhaust its legal options to receive payment, including application of any collateral that may have been posted by the customer in furtherance of its collection efforts.

4) If the customer does not pay the outstanding cost differential, will other customers have to bear the cost?

Response: The Commission as is the case with all costs will determine the costs (including any cost differential that in theory might not be collected despite collection efforts) to be reflected in the Company's rates via application of its well-established prudence standard.

5) What will happen to the generating unit(s) included in the Clean Energy PRP that were requested by a customer that has terminated service, both before and after the cost differential has been payed?

Response: The resources would continue to operate as a part of the Company's overall generation fleet used to serve its customers.

6) Is there a scenario where the generating unit(s) become a stranded asset?
Response: The Commission has the ability to approve or not approve any given Clean Energy PRP and the associated agreements, which as earlier noted will require full payment of the cost differential by the customer at issue. This, by definition, means that no asset implemented as part of a Clean Energy PRP will be "stranded".

7) How will the Company ensure that the generating unit(s) do not become a stranded asset?

Response: The Company would treat the resource like any other generating unit or plant in its fleet used to serve its retail customer base.

8) If a Clean Energy PRP is requested by a large load customer, and adopted by Ameren Missouri, are the additional clean energy technologies above and beyond the amounts of those resource types reflected in Ameren Missouri's PRP, as selected in the Company's IRP process, considered additional resources only for the service of the requesting large load customer?

Response: No.

Staff is greatly concerned with Ameren Missouri's response to subpart 4) above. Staff is of the position that the cost differential agreed to be paid by the LLCS customer(s) should not be paid by any other customers in any scenario. Even though Ameren Missouri's response in subpart 5) states that a resource added as a result of a Clean Energy PRP would continue to operate as a part of the Company's overall generation fleet used to serve its customers if a large load customer terminates service, and subpart 8) states additional clean energy technologies above and beyond the amounts of those resource types reflected in Ameren Missouri's PRP would not be considered additional resources only for the service of the requesting large load customer, those resources would be added as a direct request by a sponsoring customer to meet its renewable energy goals. Additional concerns with revenue treatment and the long-term impact on captive rate payer cost of service are discussed in the section "Reliance on Present Valuation".

Proposed tariff sheet MO.P.S.C. SCHEDULE NO. 6 2nd Revised SHEET NO. 74.5 attached to Mr. Wills' Direct Testimony in Schedule SMW-D2 states:

CLEAN ENERGY ATTRIBUTES

> If applicable, the Requesting Customer shall receive the clean energy attributes associated with the Clean Energy Resources as contemplated by the Customer's Clean Energy Choice Agreement. The Company shall retire the clean energy attributes to which the Requesting Customer is entitled on their behalf, up to an amount equal to the Requesting Customer's annual energy usage. Any excess clean energy attributes beyond those retired on behalf of customer, will be transferred to Customer. Alternatively, Ameren Missouri may assign or transfer to Customer all rights necessary for Customer to register, hold, and manage the clean energy attributes in Customer's account, in which case Ameren Missouri will provide documentation required by the Registry to verify the transfer of the clean energy attributes associated with generation of the clean energy resource. If the Clean Energy Preferred Resource Plan includes more than one Requesting Customer, the clean energy attributes to which they are collectively entitled will be allocated to the Requesting Customers on the equivalent basis as the cost differential, as applicable and as determined by Company and addressed in the Customer's Clean Energy Choice Agreement.

Further, along with the IRP process change due to SB 4, the CCN process for certain resources will be changing as well. For example, Section 393.1900.5.(1), RSMo., states in part, that:

> If the commission determines that the preferred resource plan is a reasonable and prudent means of meeting the electrical corporation's load serving obligations, such determination shall constitute the commission's permission for the electrical corporation to construct or acquire the specified supply-side resources, or a specified quantity of supply-side resources by supply-side resource type, or both, identified by the commission… With respect to such resources, when the electrical corporation files an application for a certificate of convenience and necessity to authorize

> construction or acquisition of such resource or resources… the commission shall be deemed to have determined that the supply-side resources for which such a determination was made are necessary or convenient for the public interest. In such a certificate of convenience and necessity proceeding, the commission's inquiry shall be limited… The commission shall take all reasonable steps to expedite such a certificate of convenience and necessity…

The new IRP process is very likely to be contentious with the Commission now having the authority to determine that an electric utility's preferred resource plan is reasonable and prudent and grant permission to the utility to construct or acquire specified resources. That contentiousness would likely be exacerbated with a rider such as the proposed Rider CEC that would allow customers to influence the IRP. For all of the reasons and concerns stated above, Staff recommends the Commission reject Ameren Missouri's proposed Rider CEC.

While Staff recommends rejection of Rider CEC, in the event the Commission does approve some form of the rider or the concept underlying the rider, no power plants built as a result should receive RESRAM treatment.

Staff is not opposed to Ameren Missouri's entry into capacity purchases or power purchase agreements with its LLCS customers, so long as those agreements are otherwise prudent. Further, Staff is not opposed to inclusion of terms in those agreements that may address desires of those customers to represent publicly or for internal purposes that the customer obtains their energy or capacity from that resource. However, these arrangements should not be permitted to modify the charges, rates, and conditions applicable to that customer based on their metered consumption of energy at their interconnection.

Staff Witness: Brad J. Fortson

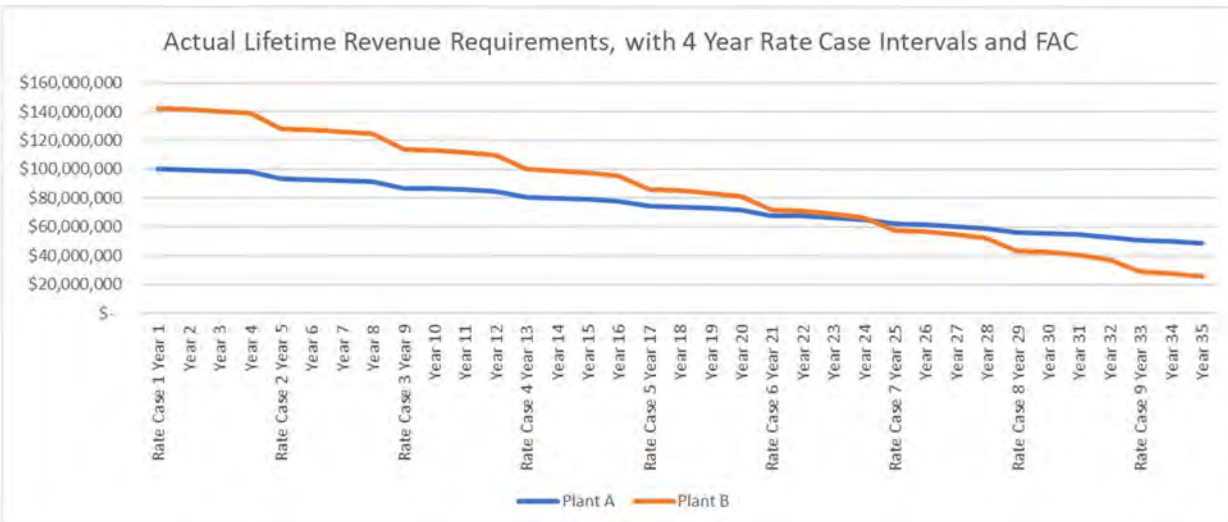
Reliance on Present Valuation

While the CEC tariff itself simply states that "the Requesting Customer shall cover costs associated with its specific request for clean resources," the testimony of Steven M. Wills at pages 24 – 25 references increases in Net Present Value of Revenue Requirement (NPVRR). The ratepayers of regulated utilities such as Ameren Missouri are not in the same position as the shareholders of a non-regulated business, and NPVRR is not a clean tool to evaluate the costs and benefits of investment opportunities for ratepayers.

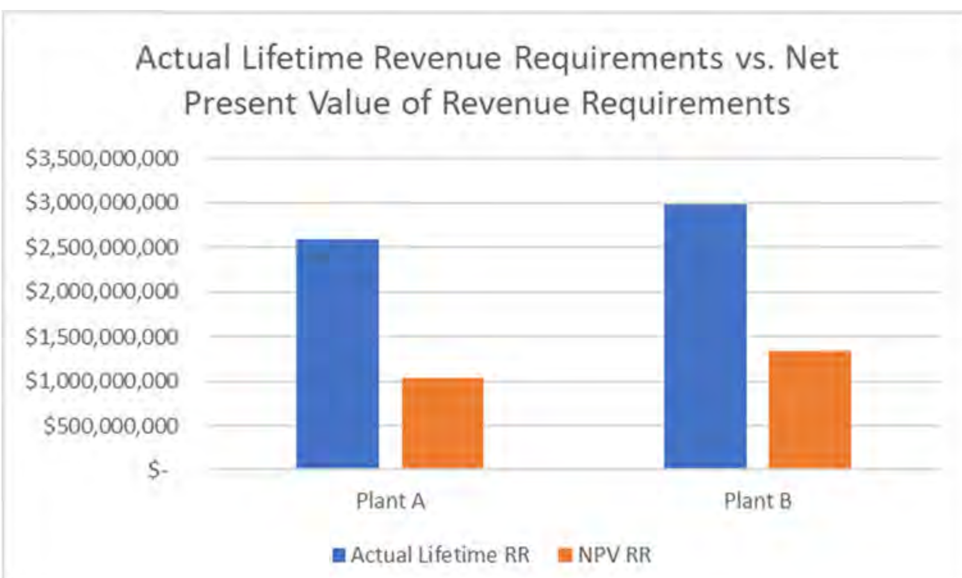
Using upfront payments from LLCS customers based on the NPVRR difference of alternative resource plans will not fairly compensate captive ratepayers for the long-terms change in resource plan.

As an illustration:

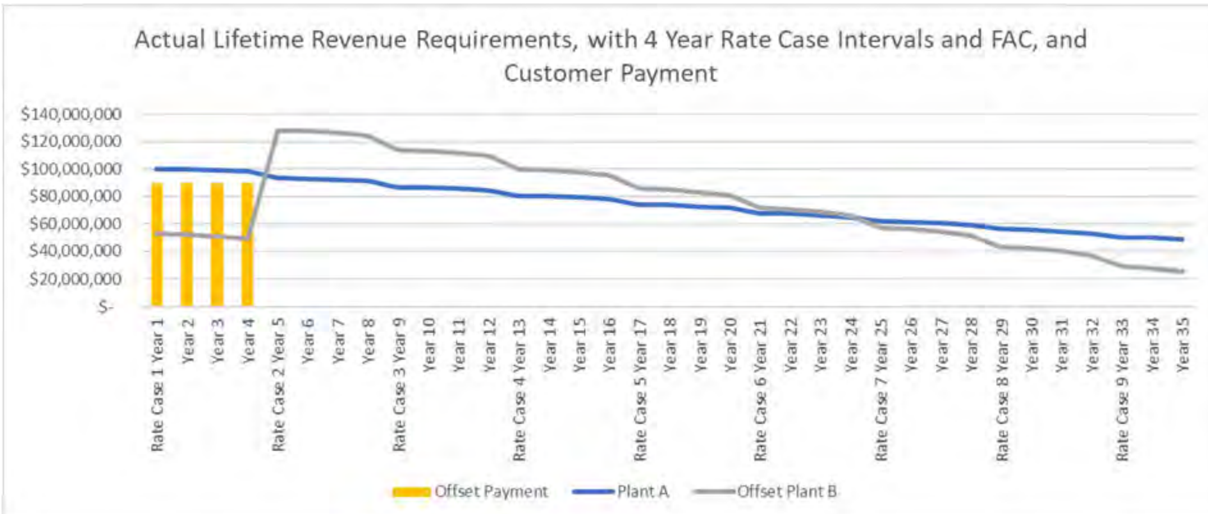
Assume Ameren Missouri can build either a gas plant with an initial ratebase value of $750 million and a starting revenue requirement of $100 million, or a solar plant with an initial ratebase value of $1.3 billion and a starting revenue requirement of about $142 million. The actual stream of revenue requirements from Plant A, assuming 4 year rate case intervals, is about $2.6 billion. For Plant B, the equivalent amount is about $3 billion, a difference of $391 million.



However, the net present value of these differences would only be about $299.5 million, as Plant A has a NPVRR of $1.04 billion, and Plant B has a NPVRR of about $1.34 billion.



If an LLCS customer who desired that Plant B be constructed instead of Plant A made four payments of $89,443,932 in each of the first four years of Plant B, then the NPVRR of Plant B minus the customer payments would exactly match the NPVRR of Plant A. However, looking at the stream of revenue requirements, the symmetry of the payments to ratepayers is doubtful:



For 20 of the 35 years, ratepayers would pay rates that are higher than they would pay with Plant A. Over the lifetime of the plant, ratepayers would pay $33.375 million more under the "Offset Plant B" scenario than the Plant A scenario, although the NPVRR of the two is identical. In other words, the Commission should not substitute an NPVRR analysis for its own good judgement.

Staff Witness: Sarah L.K. Lange

Load and Resource Diversity Complications

The price for energy varies at each interconnection with the transmission system due to congestion. Some variations are slight, some are significant. Generally, energy is worth less closer to generation, and worth more closer to load. Therefore, expense and revenue imbalances exist throughout the service area of Ameren Missouri, and between the service area and generation such as solar facilities located and the gas units located in Illinois.

Ameren Missouri has proposed riders that would treat distant generation as an offset to the metered energy and demand of LLCS customers. However, this is not reasonable. The energy utilized by the LLCS customer may cost more than the revenue received from energy generated during the same time period at a different location. Furthermore, if the generation added does not coincide perfectly with the load additional cost and revenue imbalances may exist between the timing of energy usage and energy production. To the extent that these imbalances exist in the future, and add to the cost to serve load or reduce off-system sales revenues, non-LLCS customers would realize additional costs through the FAC. Each generation station currently owned by Ameren Missouri has its own commercial pricing node. As noted in the section below, Staff recommends separate commercial pricing nodes for each of the LLCS customers served by Ameren Missouri.

Staff Witness: J Luebbert

IV. Ameren Capacity and MISO Interactions

Ameren Missouri Resource Adequacy

The figure below shows Ameren Missouri's estimate of Summer Capacity Position for 2025-2035 as filed in its most recent IRP and its change of preferred resource plan filing using all current and approved new resource additions.

**

[redacted]

**

Ameren Missouri had included incremental economic development load in its 2023 IRP forecast starting at 40 MW in 2025 and reaching 220 MW in 2031. In the 2025 Change of Preferred Plan, Ameren Missouri used the following Load Addition Scenarios in the 2025 Change of Preferred Plan:[150]

[150] https://www.ameren.com/-/media/corporate-site/files/environment/irp/2025-preferred-plan.ashx Pgs. 14-15.

Table 2.2: Data Center Load Addition Scenarios

@Transmission	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
500 MW	300	500	500	500	500	500	500	500	500	500	500	500	500	500	500
2500 MW	300	500	700	1,000	1,200	1,400	1,500	1,625	1,750	1,875	2,000	2,125	2,250	2,375	2,500
3500 MW	300	700	1,000	1,300	1,600	1,900	2,000	2,200	2,400	2,600	2,800	3,000	3,200	3,400	3,500

It should be noted that Ameren Missouri has two Certificates of Convenience and Necessity cases currently before the Commission: Case Nos. EA-2025-0238 and EA-2025-0239. In EA-2025-0238, Ameren Missouri is requesting to add four 200 MW natural gas CTs and 400 MW of batteries. In EA-2025-0239, Ameren Missouri is requesting to add 250 AC MW of solar. If either or both are approved, those projects will decrease the need shown in the Summer and Winter Resource Adequacy charts

The figure below shows Ameren Missouri's estimate of Winter Capacity Position for 2025-2035.

**

[redacted]

**

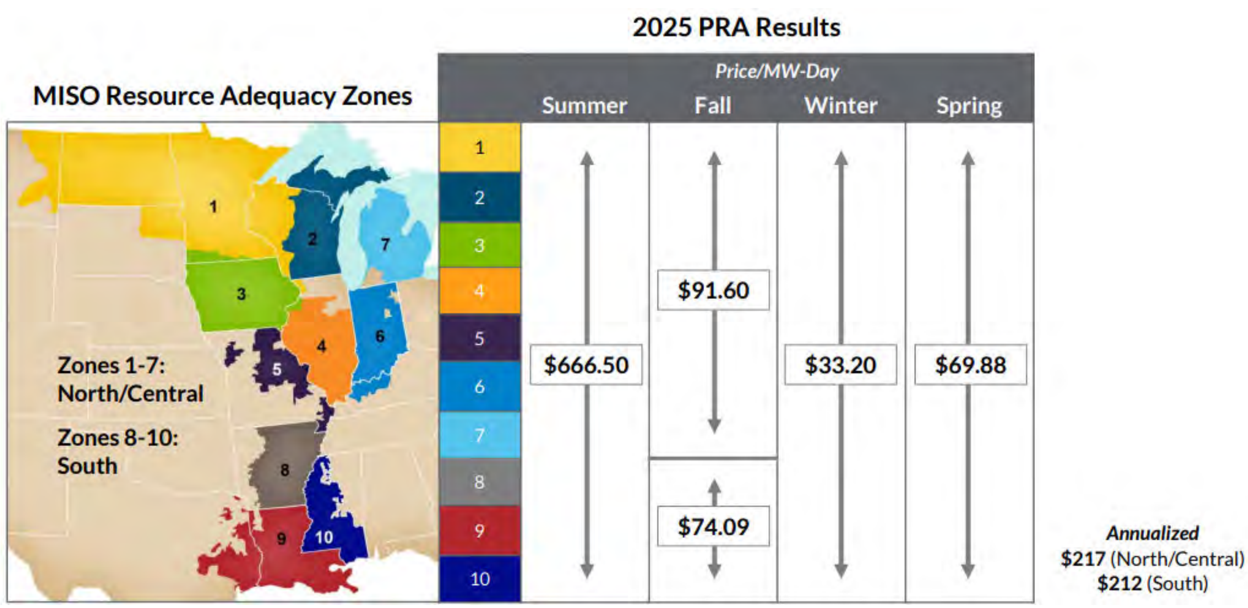
Staff Witness: Shawn E. Lange, P.E.

MISO Reserve Margin Requirements and Capacity Auctions

MISO annually updates the planning reserve margins for each MISO region using probabilistic analysis. Requirements for MISO's reserve auctions are provided in MISO's Business Practice Manual 011, Resource Adequacy.

MISO has one capacity auction with four seasons (winter, spring, summer, and fall). This auction allows market participants to buy or sell capacity to other market participants. For the capacity auctions, MISO is split into ten regional zones, with Ameren Missouri's service territory consisting of the majority of Zone 5 load. The depiction below illustrates the results of the most recent MISO auction:

MISO's 2025-2026 Planning Year Results.[151]



In the presentation, MISO stated that, "New capacity additions did not keep pace with decreased accreditation, suspensions/retirements and external resources [from the 2024 Planning Reserve Auction to the 2025 Planning Reserve Auction]." In short, resource adequacy requirements for MISO were met, but with less capacity surplus across the region which increased the auction prices from the prior year.

[151] Planning Resource Auction Results for Planning Year 2025-26, April 2025, Corrected on 05/29/25. PowerPoint Presentation (28AUG2025).

The results indicated a general shortage of capacity in Zone 5, which includes Ameren Missouri and other customers such as the City of Columbia. Zone 5 imported capacity for each season. It is not clear if Ameren Missouri relies on imported capacity itself to clear the Planning Reserve Margin (PRM) or if the imports are due to the other customers in Zone 5. Zone 4, which includes Ameren Illinois, was also importing capacity for all seasons except spring. Zone 3, roughly Iowa, exported capacity for all seasons.

Final seasonal PRM and Local Reliability Requirement (LRR) values for the Planning Year June 1, 2026 - May 31, 2027, will be published to the MISO public website under the Resource Adequacy page on November 1, 2025. Staff expects that large loads, such as new data centers, will continue to put pressure on MISO's capacity auctions and increase prices. In the recent Midwest Energy Policy Series on Infrastructure held on August 21, 2025, in Kansas City, one of the panelists indicated that the three nuclear power plants that are planning on being restarted were shutdown solely due to cheap natural gas prices. Natural gas is still relatively cheap, at approximately $3/MMBtu, so it would seem that the increased demand for generation is driving the restarts of the nuclear power plants.

Staff Witness: Michael L. Stahlman

Ancillary Services

Adding large amounts of load to the Ameren Missouri system over a relatively short time frame also has the potential of adding additional costs for ancillary services.[152] The MISO Business Practice Manual 002 covers Energy Market rules and details roles of market participants.

The changes to these costs would be difficult if not impossible to accurately isolate and quantify, but they should be considered as they could impact the overall costs to all Ameren Missouri ratepayers through the FAC.

Staff Witness: J Luebbert

[152] https://cdn.misoenergy.org/Fact%20Sheet%20-%20MISO%20Market%20Participation%20Overview632546.pdf. In addition to energy, MISO's ancillary services market includes several Operating Reserve products - Regulating Reserve, Spinning Reserve and Supplemental Reserve – as well as Ramp Capability and 30-minute Short-Term Reserve. These ancillary service help ensure reliability and address system flexibility needs, such as the ability to change energy output quickly.

Resource Adequacy-Related Requirements and Cost of Service

As a participant and LSE in the MISO markets, Ameren Missouri is required to meet MISO planning reserve margin requirement (PRMR). There are multiple avenues for an LSE to meet these requirements including, but not limited to, participation in MISO's Planning Resource Auction process which assigns a cost of capacity for four MISO designated seasons by MISO zone. Under certain circumstances an LSE may be subject to a Capacity Deficiency charge if the PRMR is not met.[153]

As discussed elsewhere, Staff recommends discrete charges for LLCS customers to recover changes in costs of service caused by those customers. Staff recommends specific charges be implemented to address variation between the capacity requirements that LLCS customers indicated, and actual capacity requirements of LLCS customers. These recommended charges are a "Demand Deviation Charge," to address differences between the capacity requirements stated when a customer initially applies for service, and the capacity requirements stated during an annual update process, and an "Imbalance Charge," for the difference between the current-year updated contract demand and the actual demand charge, to account for imbalances in projected demand and actual demand.

Because deviations in either direction of the year over year projected demand could cause additional costs to be incurred, it is reasonable to apply a charge for both under and over projections to provide a financial incentive for LLCS customers to provide projections that are as accurate as possible for purposes of MISO Resource Adequacy Requirements. Put simply, if the projected demand estimate is too high, Ameren Missouri might choose to acquire more capacity than necessary and conversely, if the projected demand estimate is too low, Ameren Missouri might incur costs to acquire additional capacity or incur a Capacity Deficiency charge. Both of those outcomes have the potential to impact non-LLCS customers and should be mitigated or avoided if possible.

The Imbalance Charge accounts for differences in realized demand during peak periods compared to the contracted demand for that year providing the LLCS customer a financial incentive to operate consistent with the contracted demand.

[153] See MISO Business Practice Manual 011 – Resource Adequacy.

The Demand Deviation Charge and Imbalance Charge should be revisited in future general rate cases to reflect changes in the MISO PRMR requirements, including but not limited to, timing of the measured demand (i.e. changes to seasonality), MISO Balancing Authority Area Planning Reserve, MISO PRA results, and MISO calculated value of CONE.

Given the size of the customers contemplated by Ameren Missouri's LLCS tariff and Ameren Missouri's projected pipeline of potential LLCS customers, Ameren Missouri ratepayers face increased risk of being subject to additional capacity purchases through the MISO PRA and Capacity Deficiency charges as a direct result of LLCS customers being integrated into the Ameren Missouri system prior to additional generation being built. Staff recommends that any Deficiency Payment incurred after the addition of LLCS customers be borne solely by the LLCS customer class in proportion to the overall peak demand of each customer.

Staff Witness: J Luebbert

MISO Update

Unlike the proposal to integrate large loads into the Southwest Power Pool (SPP) system as discussed in Staff's Report for Case No. EO-2025-0154, Staff is currently unaware of any formal proposal to alter MISO's tariffs or business practice manuals to integrate large load customers into MISO's grid. A PowerPoint presentation by Clean Grid Alliance[154] suggests that MISO's current rules and tariffs are inefficient at incorporating large loads onto its system, but that simple edits to some of MISO's Business Practice Manuals would resolve much of these issues.

Staff Witness: Michael L. Stahlman

Green House Gas (GHG) rule

The U.S. Environmental Protection Agency's (EPA) New Source Performance Standards (NSPS) aim to reduce greenhouse gas emissions from new and modified gas turbine power plants (GHG Rule).[155]

[154] Coordinating Large Load and Generator Interconnection. January 29, 2025. 20250129 PSC Item 07 Sharing and Coordinating MTEP and DPP to Accomodate Large Load (PAC-2024-7)674624.pdf (28AUG2025).

[155] EPA proposed a rulemaking on June 17, 2025 to repeal all GHG rules for fossil fuel-fired power plants under 40 CFR 60. A virtual public hearing was held on July 8, and comments on the repeal must have been received on or before August 7; 127,230 comments were received https://www.federalregister.gov/documents/2025/06/17/2025-10991/repeal-of-greenhouse-gas-emissions-standards-for-fossil-fuel-fired-electric-generating-units.

For new and reconstructed fossil fuel-fired combustion turbines, EPA is proposing to create three subcategories based on the function the combustion turbine serves:[156]

1. A low load (peaking units) subcategory that consists of combustion turbines with a capacity factor of less than 20 percent with standards of performance ranging from 120 lb CO2/MMBtu to 160 lb CO2/MMBtu, depending on the type of fuel combusted:
2. An intermediate load subcategory for combustion turbines with a capacity factor that ranges between 20 percent and a source-specific upper bound that is based on the design efficiency of the combustion turbine with two different performance standards phases:
   - 1st phase standards: 1,150 lb CO2 /MWh-gross – based on performance of a highly efficient natural gas fired simple cycle turbine
   - 2nd phase standards: 1,000 lb CO2 /MWh-gross – based on performance of a highly efficient natural gas fired simple cycle turbine co-firing 30% (by volume) by 2032;[157] and
3. A base load subcategory for combustion turbines that operate above the upper-bound threshold for intermediate load turbines with three phases of performance standards:
   - 1st phase standards: 770 – 900 lb CO2 /MWh-gross, depending on the base load rating – based on the performance of a highly efficient natural gas-fired combined cycle combustion turbine. Standard is higher for combustion turbines burning non-natural gas fuels with higher emission rates on a lb CO2 /MMBtu basis.
   - 2nd phase standards for base load units on the CCS pathway: 90 – 100 lb CO2 /MWh-gross, depending on the base load rating – based on the performance of a highly efficient natural gas-fired combined cycle combustion turbine implementing 90% CCS by 2035.
   - 2nd phase standards for base load units on the low-GHG hydrogen pathway: 680 lb CO2 /MWh-gross – based on the performance of a highly efficient natural gas-fired combined cycle combustion turbine co-firing 30% (by volume) low-GHG hydrogen by 2032.
   - Phase 3 standards are based on 96% (by volume) low-GHG hydrogen by 2038.

The GHG rules would also affect Ameren Missouri's coal fleet. The GHG rules require coal units to (1) retire before January 1, 2032, (2) retire before January 1, 2039 and co-fire with at least 40 percent gas starting on January 1, 2030, or (3) install carbon capture and storage with at least a 90 percent capture rate by January 1, 2032.[158]

Staff Witness: Shawn E. Lange, P.E.

---

[156] https://www.epa.gov/system/files/documents/2023-05/FS-OVERVIEW-GHG-for%20Power%20Plants%20FINAL%20CLEAN.pdf Pg. 4.
[157] https://www.epa.gov/system/files/documents/2023-05/111%20Power%20Plants%20Stakeholder%20Presentation2_4.pdf Slide 10.
[158] 89 Fed. Reg. 38,798 (May 9, 2024).

Reliability Standards

The North American Electric Reliability Corporation (NERC), the Electric Reliability Organization (ERO) for North America, is subject to oversight by FERC, and is developing new standards that will require grid planners and operators to assess their ability to consistently meet electricity energy demand at all times.

First, Project 2022-03 Energy Assurance with Energy-Constrained Resources creates a new standard, BAL-007-1, requiring Balancing Authorities to assess the resources necessary to reliably supply energy to serve expected demand with operating reserves for a defined assessment period that is at minimum five days in duration, and at maximum six weeks in duration.

Project 2024-02 Planning Energy Assurance is intended to require the industry to perform energy reliability assessments greater than one year out and determine actions to mitigate any energy deficiencies that are identified.

Planning Scenarios being evaluated by NERC:[159]

> • The rapid decline of traditional power plants and their replacement with variable generation resources without an assured fuel supply continues, creating a supply-demand imbalance. This imbalance, coupled with sharp increases in electricity use, leads to significant energy shortfalls. If the shortages cannot be resolved with flexible demand reduction requests and/or through energy stored on the system, the grid operator will be forced to resort to load shedding, or intentionally cutting off power to certain customers to maintain the balance of supply and demand. Load shedding is a last resort to prevent a possible system collapse. The use of load shedding to address energy shortfalls, like those seen during winter storms Elliott and Uri, is increasing and could occur under less severe weather conditions.
>
> • Two-day drought of wind and solar resource output, combined with planned maintenance outages of dispatchable generation, exceed energy storage capabilities and require load shedding to balance supply and demand for a multi-day period.
>
> • A large number of utilities rely on energy imports to meet expected increases in electricity demand in their resource planning efforts. This leads to a broad under development of new generation across the region. A system event occurs with limited energy availability across the entire SPP footprint, reducing the availability of import capacity and requiring operator-initiated load shedding to maintain supply and demand balance.

---

[159] *See* pages 22 of MRO Regional Risk Assessment, January 2025 https://www.mro.net/document/mro-2025-regional-risk-assessment/?download.

Actions to Address Risk evaluated by NERC:[160]

> • The retirement of traditional, dispatchable power plants must be carefully managed to ensure a reliable and sufficient supply of electricity.
>
> • Flexible, on-demand resources, currently provided by natural gas-fired generation, are crucial for addressing the intermittent nature of variable, weather dependent generation like wind and solar. On-demand resources are capable of filling multi-day supply gaps when variable output is low and will be needed to meet anticipated increases in demand.
>
> • Resource adequacy assessments should consider new metrics that go beyond the frequency-based criterion of the "Loss of Load Expectation" (LOLE), which determines resources needed to allow one-day of customer load loss in a ten-year period, and include supplemental criteria considering the size, timing, and duration of energy shortfalls. A co-sponsored NERC and National Academy of Engineers Section 6 report on Evolving Planning Criteria for a Sustainable Power Grid identifies the need for more robust metrics and criteria for resource adequacy as well as identifies next steps to form an improved approach to resource adequacy.
>
> • Improve load forecasting to comprehensively determine future load growth based on the likelihood and timing of deploying new end-uses of electricity, such as electric vehicles, electric space heating, and large, single-point loads like data centers and industrial facilities.

Staff Witness: Shawn E. Lange, P.E.

Climate and Equitable Jobs Act

The Climate and Equitable Jobs Act (CEJA) is legislation that was signed into law in Illinois on September 15, 2021. This legislation has timelines for retirements of fossil generation types starting in 2030 and extending to 2045. Additionally, CEJA limits the emissions of Carbon Dioxide and copollutants.[161] Copollutants are other deemed pollutants that are created with the Carbon Dioxide through the combustion process. These may include sulfur dioxide, nitrogen oxides, and others.

---

[160] See pages 22-23 of MRO Regional Risk Assessment, January 2025 https://www.mro.net/document/mro-2025-regional-risk-assessment/?download.

[161] As of the effective date of the CEJA, no unit may emit, in any 12-month period, CO2e or copollutants in excess of that unit's existing emissions for those pollutants.

All of Ameren Missouri's fossil generation assets in Illinois[162] will have limitations on emissions and depending on certain factors in the legislation, may be required to retire earlier than expected prior to the legislation passage. Both of these impact Ameren Missouri with the potential for retirements as well as limiting the output of the natural gas generation facilities in Illinois.

Staff Witness: Shawn E. Lange, P.E.

Good Neighbor Rule

As of August 4, 2023, the "Good Neighbor rule" of the Clean Air Act is in effect. This rule will limit nitrogen emissions in Missouri and 21 other states, by implementing an allowance-based trading program. Ameren Missouri anticipates the rule to result in reductions in output of coal plants, in Missouri, during May through September each year without additional nitrogen controls.[163]

Staff Witness: Shawn E. Lange, P.E.

V. Conclusion and Summary of Recommendations

For the reasons stated in this Recommendation Report and discussed in the Rebuttal Testimony of James A. Busch, Staff recommends that the Commission order Ameren Missouri to cooperate with Staff to finalize tariffs for service to a new class of customers taking service at 34 kV or greater, or with a peak demand of 25 kW or greater, that is consistent with the recommended tariff and rates attached as Appendix 2 - Schedule 1. The Commission should also order the creation of the regulatory liability accounts for revenue from these customers as described in that tariff.

Staff also recommends that the Commission order Ameren Missouri to effectuate Staff's recommended changes concerning facilities extensions, increasing connected loads, emergency energy conservation planning, and the interconnection studies.

---

[162] The Ameren Missouri facilities physically located in Illinois and capacities are the Venice Energy Center (487 MW), the Raccoon Creek Energy Center (304 MW), Pinckneyville Energy Center (316 MW), Goose Creek Energy Center (438 MW), and the Kinmudy Energy Center (210 MW). https://www.ameren.com/-/media/corporate-site/files/aboutameren/amerencorporatefactsheet.ashx.

[163] EA-2023-0286 Michels Direct Pg. 32 lines 3-10. Staff notes that this rule may not be being current enforced. Matthew Daly, What it means for the Supreme Court to block enforcement of the EPA's 'good neighbor' pollution rule, Associated Press, https://apnews.com/article/supreme-court-epa-good-neighbor-air-pollution-ea23421c78999293267339faf4453cdb.

The Commission should also order that a separate commercial load node be established for each LLCS customer, order that any Capacity Deficiency Charge incurred after the addition of LLCS customers be borne solely by the LLCS customer class in proportion to the overall peak demand of each customer, order Ameren Missouri to create subaccounts for each set of interconnection infrastructure associated with each customer interconnecting at transmission voltage.

Staff does not recommend that the Riders that Ameren Missouri has proposed be approved at this time, but Staff will continue to work with Ameren Missouri and other Stakeholders for development of reasonable Riders as noted in the Report.

Staff Witness: Sarah L.K. Lange

Appendix 1 - Staff Credentials

Appendix 2 - Referenced Schedules

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of New Modified Tariffs for Service to Large Load Customers	))))	Case No. ET-2025-0184

AFFIDAVIT OF AMANDA ARANDIA

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

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

Further the Affiant sayeth not.

Amanda Arandia
AMANDA ARANDIA

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 3rd day of September 2025.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2029
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of New Modified Tariffs for Service to Large Load Customers	))))	Case No. ET-2025-0184

AFFIDAVIT OF CLAIRE M. EUBANKS, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

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 Recommendation / Rebuttal* in Report 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 4th day of September 2025.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2029
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of New Modified Tariffs for Service to Large Load Customers	))))	Case No. ET-2025-0184

AFFIDAVIT OF BRAD J. FORTSON

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW BRAD J. FORTSON and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Recommendation / Rebuttal* in Report form; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Brad J. Fortson

BRAD J. FORTSON

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 3rd day of September 2025.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2029
Commission Number: 12412070

D. Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of New Modified Tariffs for Service to Large Load Customers	))))	Case No. ET-2025-0184

AFFIDAVIT OF SARAH L.K. LANGE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW SARAH L.K. LANGE and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff Recommendation / Rebuttal* in Report form; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Sarah Lange
SARAH L.K. LANGE

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 3rd day of September 2025.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2029
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of New Modified Tariffs for Service to Large Load Customers	))))	Case No. ET-2025-0184

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 / Rebuttal* in Report 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 3rd day of September 2025.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2029
Commission Number: 12412070

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of New Modified Tariffs for Service to Large Load Customers	))))	Case No. ET-2025-0184

AFFIDAVIT OF J LUEBBERT

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW J LUEBBERT and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Recommendation / Rebuttal* in Report form; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

J Luebbert
J LUEBBERT

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 4th day of September 2025.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2029
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of New Modified Tariffs for Service to Large Load Customers	))))	Case No. ET-2025-0184

AFFIDAVIT OF BROOKE MASTROGIANNIS

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

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

Further the Affiant sayeth not.

Brooke Mastrogiannis
BROOKE MASTROGIANNIS

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 3rd day of September 2025.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2029
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of New Modified Tariffs for Service to Large Load Customers	))))	Case No. ET-2025-0184

AFFIDAVIT OF BRODRICK NIEMEIER

STATE OF MISSOURI COUNTY OF COLE	)))	ss.

COMES NOW BRODRICK NIEMEIER and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Recommendation / Rebuttal* in Report form; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Brodrick Niemeier

BRODRICK NIEMEIER

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 3rd day of September 2025.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2029
Commission Number: 12412070

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of New Modified Tariffs for Service to Large Load Customers	))))	Case No. ET-2025-0184

AFFIDAVIT OF MICHAEL L. STAHLMAN

STATE OF MISSOURI COUNTY OF COLE	)))	ss.

COMES NOW MICHAEL L. STAHLMAN and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Recommendation / Rebuttal* in Report form; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

MICHAEL L. STAHLMAN

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 3rd day of September 2025.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2029
Commission Number: 12412070

D Suzie Mankin
Notary Public