

Exhibit No. 501

Sierra Club – Exhibit 501
Testimony of Caroline Palmer
Surrebuttal
Case No. ET-2025-0184

Exhibit No.:	
Issue:	Large Load Tariff
Witness:	Caroline Palmer
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Sponsoring Party:	Sierra Club
Case No.:	ET-2025-0184
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STATE OF MISSOURI

MISSOURI PUBLIC SERVICE COMMISSION

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

Surrebuttal Testimony of Caroline Palmer

**On Behalf of
Sierra Club**

November 3, 2025

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q Please state your name, business address, and position.**

3 A My name is Caroline Palmer. I am a Principal Associate at Synapse Energy Economics,
4 Inc. (“Synapse”), located at 485 Massachusetts Avenue, Suite 3, Cambridge, MA 02139.

5 **Q On whose behalf are you testifying in this case?**

6 A I am testifying on behalf of Sierra Club.

7 **Q Are you the same Caroline Palmer who filed rebuttal testimony in this docket?**

8 A Yes.

9 **Q What is the purpose of your surrebuttal testimony?**

10 A I respond to rebuttal testimony from Amazon, Google, and Missouri Industrial Energy
11 Consumers (“MIEC”) regarding Ameren’s large load customer proposals. If I do not
12 comment on a rebuttal topic, it should not be interpreted as agreement.

13 **II. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS**

14 **Q Please summarize your recommendations.**

15 A In addition to my rebuttal testimony recommendations, I recommend that the
16 Commission:

- 17 1. Reject Google’s and Amazon’s recommendations of penalty-free capacity
18 reductions of 20% and 30%, respectively. If the Commission approves any
19 penalty-free reduction, it should only approve a small, MW-limited reduction.
- 20 2. Only approve capacity reductions beyond a penalty-free reduction that are
21 subject to a capacity reduction fee and require Ameren to extend capacity
22 reduction fees for the entire length of the remaining contract.
- 23 3. Reject Google’s recommendation to shorten Ameren’s proposed contract term.

4. Reject Google's recommendation that minimum demand charges terminate at the end of the contract term.
5. Only approve Amazon's recommended flexibility during the ramp period if large load customers must still reach full contract capacity by the originally agreed date and provide advance notice of any changes to ramp demand.
6. Reject Amazon's recommendation not to require Commission approval for Energy Service Agreements.
7. Approve MIEC's recommendation to identify and collect all information necessary to enable separate rate class treatment into the future, if Ameren cannot already create a separate large load customer rate class in its next rate case.
8. Approve MIEC's recommendation to make new clean energy riders available to all customers, if Ameren modifies riders to specify that any new capacity or renewable resources under the Riders would not otherwise be selected or built.
9. Approve Amazon's recommendation that Ameren recover only incremental costs in clean energy riders, additionally under which customers would pay the difference between the selected clean resources and the Company's preferred resource portfolio, with payments adjusted annually to reflect actual fuel prices.

III. LARGE PRIMARY SERVICE TARIFF TERMS

Q Please summarize Google's and Amazon's recommendations regarding contract capacity reductions.

A Google and Amazon both recommend that Ameren allow a certain level of capacity reductions without any fee or penalty. Google recommends allowing reductions up to

1 20% of contract capacity without a capacity reduction charge¹ while Amazon
2 recommends allowing a one-time reduction of up to 30% without penalty, subject to a 24-
3 month notice period.² Both parties also recommend allowing further contract capacity
4 reductions (beyond their proposed allowances of 20% and 30%), subject to a capacity
5 reduction fee for Google and “subject to agreement and approval by Ameren” for
6 Amazon.³ Amazon further recommends that the Commission require Ameren to mitigate
7 the capacity reduction fee to be consistent with the mitigation Ameren proposes for
8 elective termination. That is, if Ameren can find a replacement customer to take on the
9 capacity or can sell the capacity into the market.

10 **Q How do you respond to Google’s and Amazon’s recommendations regarding**
11 **penalty-free contract capacity reductions?**

12 A I recommend that the Commission reject both proposals for penalty-free capacity
13 reductions. These reductions would allow a large load customer to shift responsibility
14 (*i.e.*, risk) to other ratepayers for a massive amount of capacity that Ameren secured for
15 that customer. For a large customer of 1,000 MW, for example, a 20% capacity reduction
16 would remove 200 MW of demand that Ameren had planned for, while 30% would
17 remove 300 MW of demand. These potential reductions would be enormous – equivalent
18 to six to nine times the load of Ameren’s largest existing customer (32 MW), and two to
19 three times larger than the minimum qualifying load for the large load subclass (100
20 MW) under Ameren’s proposal. In other words, these proposals would allow a single
21 customer to substantially and abruptly reduce Ameren’s total planned load.

¹ Rebuttal Testimony of Dr. Carolyn A. Berry, p.16.

² Rebuttal Testimony of Dr. Albert W. Bremser, p. 21.

³ *Id.*

1 Amazon claims that a contract capacity reduction would “enable Ameren to resell this
2 unused capacity which would mitigate the buildout of new, unnecessary, infrastructure to
3 serve other customers.”⁴ Amazon’s statement rests on an unsubstantiated and
4 unpredictable assumption that additional very large customers will come online and
5 absorb the unused capacity precisely at the time that one or more large customers reduces
6 their contract capacity. Amazon also claims that a 30% reduction allowance would still
7 maintain “revenue certainty for the utility.”⁵ In reality, if Ameren cannot immediately
8 find another customer to take on and pay for the excess capacity, the resulting shortfall
9 would become a cost and risk that falls entirely on Ameren’s other customers, requiring
10 them to provide the claimed “revenue certainty.” Amazon’s and Google’s proposals shift
11 the potential costs of capacity reductions onto others without any offsetting benefits.

12 If the Commission chooses to approve any penalty-free capacity reduction, it should only
13 approve a small, MW-limited reduction. The recent unanimous settlement regarding
14 Evergy Kansas’ large load tariff sets a reasonable precedent, allowing a reduction of no
15 more than 25 MW or 10 percent of the contract capacity (whichever figure is lower on a
16 MW basis).⁶

⁴ *Id.*

⁵ *Id.*

⁶ Joint Motion for Approval of Unanimous Settlement Agreement of the Procedural Schedule, Docket No. 25-EKME-315-TAR, *In the Matter of the Application of Evergy ... for Approval of Large Load Power Service Rate Plan and Associated Tariffs*, at p. 5, (Aug. 18, 2025). Available at: <https://estar.kcc.ks.gov/estar/ViewFile.aspx/S202508181202168915.pdf?Id=9e907841-85a6-49d2-8321-59acf777cfd6>.

1 **Q How do you respond to Google’s and Amazon’s recommendations regarding**
2 **contract capacity reductions beyond a penalty-free contract capacity reduction?**

3 A I am not opposed to contract capacity reductions that are subject to an appropriate
4 capacity reduction fee, and I recommended in rebuttal testimony that the capacity
5 reduction termination fee extend for the entire length of the remaining contract.⁷
6 However, Amazon’s condition of “subject to agreement and approval by Ameren” is
7 insufficiently specific regarding penalties for capacity reduction. Mitigation of capacity
8 reduction fees is also reasonable if the Company can do so, subject to the concerns I
9 raised in my rebuttal testimony regarding allocation of mitigated costs.⁸

10 **Q Please summarize Google’s recommendation regarding contract term.**

11 A Google recommends shortening the proposed contract term from 15-to-17 years to 10-to-
12 12 years, with an optional load ramping period of up to 4 years that would extend the
13 term up to 14-to-16 years. Google justifies its recommendation by stating that Ameren
14 can manage excess capacity by selling it in the market or to other willing buyers such as
15 municipalities, or by reducing planned investment if load does not materialize.⁹

16 **Q How do you respond to Google’s recommendation to shorten the contract term?**

17 A I oppose shortening Ameren’s proposed contract term. Google’s recommendation asks
18 non-large load customers to bear the risk if Ameren cannot actually manage excess
19 capacity in the ways that Google described. Google has not demonstrated that these
20 approaches are certain, or even likely, to manage excess capacity without shifting costs to

⁷ Rebuttal Testimony of Caroline Palmer, p.23.

⁸ If Ameren secures capacity-market revenues, those should be allocated among the customer classes consistent with the Company’s established revenue allocation practices, not preferentially allocated to data center customers. *See* Rebuttal Testimony of Caroline Palmer, p.18 and 20.

⁹ Rebuttal Testimony of Dr. Carolyn A. Berry, p.11.

1 other ratepayers. If the numerous GW of large load that Ameren expects¹⁰ ramps up to
2 full capacity in the next decade – representing at least a 31% increase in Ameren’s peak
3 demand – there is no guarantee that there will be a robust pipeline of customers ready to
4 absorb that capacity at the end of Google’s proposed 10-year contract term.

5 **Q Would the revenues collected from large load customers over a 10-year term offset**
6 **the incremental costs associated with that new load?**

7 A It is not clear that they would. Ameren did not conduct a risk analysis for a 10-year
8 contract term. Ameren’s risk analysis did demonstrate that the incremental revenues that
9 new large load customers would contribute by paying embedded-cost retail rates for the
10 proposed 15-year contract term would only offset the expected incremental generation
11 revenue requirement impact of large load customers under one of three scenarios,¹¹ and
12 my rebuttal testimony disputed several of the Company’s assumptions underlying that
13 finding.¹² Neither Ameren nor Google has demonstrated that a large load customer’s
14 revenues from an even shorter period of time would cover the incremental generation
15 revenue requirement. This means that if a customer departs after 10 years and the
16 capacity built for them is not used to serve new customers, costs could shift onto
17 remaining ratepayers.

¹⁰ The Company has executed construction agreements for transmission-level infrastructure necessary to serve approximately 2.3 GW of new large customer load, several of those customers have also requested that Ameren study an additional 1.7 GW of load, and a further 11 GW of potential new load have requested transmission studies. *See* Rebuttal Testimony of Caroline Palmer p.6-7.

¹¹ Direct Testimony of Steven M. Wills, p.35.

¹² Rebuttal Testimony of Caroline Palmer, section V, p.23-35.

1 **Q Do the examples from other jurisdictions support Google’s proposal?**

2 A No. Google provides three examples from other jurisdictions,¹³ but only one of these
3 supports Google’s proposal. The other two have a contract term of 12 years plus up to
4 five years of ramping period, which does not support Google’s proposal for a 10-year
5 term with up to four years of ramping period.

6 **Q Please summarize Google’s recommendation to discontinue minimum demand**
7 **requirements after the contract term.**

8 A Google recommends that minimum demand charges terminate at the end of Google’s
9 proposed 10-to-12-year contract period. Google justifies its recommendation by stating
10 that when the contract expires, “there will be a greatly diminished risk of stranded costs
11 or risk of unjust or unreasonable rate impacts on other customers, thus the rationale for
12 the minimum demand charge would not apply.”¹⁴ Google also suggests that Ameren and
13 the large load customer can negotiate a new contract when the initial contract expires.¹⁵

14 **Q Has Google demonstrated that the risk of stranded costs will be “greatly**
15 **diminished” after 10 years?**

16 A No. Neither Google nor Ameren has provided evidence that the risk greatly diminishes
17 after Google’s proposed 10-year term – or even after Ameren’s proposed 15-year term. It
18 is unclear why there would be any higher likelihood that customer demand won’t fall
19 below the minimum billing demand after 10 years or any higher likelihood of finding
20 other large customers to absorb the capacity that Ameren built for the data centers 10
21 years after they built it. As mentioned above, Ameren’s risk analysis also does not

¹³ Rebuttal Testimony of Dr. Carolyn A. Berry, p.10-11.

¹⁴ *Id.* at p.12.

¹⁵ *Id.*

1 demonstrate that the customer will have paid their share of the system costs after 10
2 years.

3 **Q Is it reasonable to rely on negotiation of a new contract when the initial contract**
4 **expires?**

5 A No. While I understand Google's desire for flexibility and negotiation, this
6 recommendation puts the risk on other customers. Google's suggestion that Ameren and
7 the customer can simply negotiate a new contract at the end of the initial term fails to
8 recognize the asymmetry of bargaining power that would exist at that point. By the end of
9 the 10-year period, Ameren will have already made substantial, long-lived investments—
10 such as generation and transmission capacity—based on the customer's contracted
11 demand. Those costs are largely sunk, and this fact gives the large load customer greater
12 negotiating leverage.

13 If the large load customer threatens to leave unless Ameren offers a lower price or more
14 favorable terms, Ameren will face two unattractive options: (1) agree to the customer's
15 demands, or (2) risk the customer departing and leaving other ratepayers to shoulder the
16 stranded costs associated with the dedicated or shared infrastructure built to serve that
17 load. Either outcome disadvantages Ameren's other customers. Thus, the prospect of
18 negotiation exposes Ameren's customers to heightened risks.

19 If the Commission chooses to accommodate Google's desire for the opportunity to
20 negotiate at the end of the contract term, I recommend that the Commission approve
21 Ameren's recommendation that the minimum level of demand charges continue
22 automatically beyond the contract term. Negotiation should only be permitted in the

1 event that Ameren can demonstrate that it can, in fact, realize the scenarios that Google
2 described, such as selling excess capacity into markets or to municipalities, such that the
3 stranded-cost risk is truly eliminated.

4 **Q Please summarize Amazon’s recommended flexibility during the ramp period.**

5 A Amazon recommends that large load customers have the right to change their ramp
6 demand for any 12-month period during the ramp period after the first 24 months.

7 **Q How do you respond to Amazon’s recommended flexibility during the ramp period?**

8 A Amazon has not included sufficient restrictions on this recommendation, such as
9 requiring large load customers to still reach full contract capacity by the originally agreed
10 date, or requiring advance notice of any changes to ramp demand. Such restrictions are
11 necessary for this to be a reasonable recommendation.

12 **Q Please summarize Amazon’s recommendation not to require Commission approval**
13 **for Energy Service Agreements (“ESAs”).**

14 A Amazon opposes Ameren’s proposal that each ESA be approved by the Commission
15 alongside a risk analysis from Ameren. Amazon calls this a “double approval” – first, the
16 Commission must approve the proposed LPS Tariff itself, and then separately approve
17 every ESA executed under the proposed tariff.¹⁶ Amazon states that such “double
18 approval” appears inconsistent with statute, claiming that “the statute is clear that what
19 must meet the statutory standard are the schedules themselves, not individual customer
20 ESAs.”¹⁷

¹⁶ Rebuttal Testimony of Dr. Albert W. Bremser, p.15.

¹⁷ *Id.* at p.17.

1 **Q How do you respond to Amazon’s recommendation not to require Commission**
2 **approval for each ESA?**

3 A I am not a lawyer, but my understanding is that the statute implicates large load
4 customers’ *rates*. Amazon quotes the statute as saying that “[t]he schedules should
5 reasonably ensure such customers’ **rates** will reflect the customers' representative share
6 of the costs incurred to serve the customers.”¹⁸ To the extent that there are any terms in
7 the ESA that affect large load customer rates or other customers’ rates, Commission
8 review and approval are essential. For example, provisions such as negotiated capacity
9 reduction terms or other customized contractual elements could materially alter the
10 allocation of costs and risks among customers. Thus, the Commission should retain
11 approval authority over each ESA to ensure that customer-specific agreements remain
12 consistent with statutory requirements and protect other ratepayers from undue cost
13 shifts.

14 **Q Please summarize MIEC’s recommendation to gather data to enable a future**
15 **separate rate class.**

16 A MIEC recommends requiring Ameren “to retain all of the necessary investment and load
17 pattern information that will be required in the future to evaluate whether the current LPS
18 rate or another rate would be appropriate.”¹⁹

¹⁸ Rebuttal Testimony of Dr. Albert W. Bremser, p.16-17 (emphasis added).

¹⁹ Rebuttal Testimony of Maurice Brubaker, p.8.

1 **Q How do you respond to MIEC’s recommendation to gather data to enable a future**
2 **separate rate class?**

3 A I recommended in rebuttal testimony that Ameren create a separate large load customer
4 rate class as soon as possible, including filing a cost of service study with a separate large
5 load class in its next rate case to better reflect cost causation associated with large load
6 customers under current cost of service methodologies and facilitate direct assignment of
7 large load customer-specific costs.²⁰ However, if the Commission does not accept my
8 recommendation or Ameren cannot implement a separate rate class at that time, I support
9 MIEC’s recommendation to identify and collect all information necessary to enable
10 separate rate class treatment into the future. Such data collection lays necessary
11 groundwork for effectuating my recommendation as soon as the Company is able to do
12 so.

13 **IV. CLEAN ENERGY RIDER TERMS**

14 **Q Please summarize MIEC’s recommendation to make Ameren’s proposed new clean**
15 **energy rider options available to all customers, not only to LLC customers.**

16 A MIEC recommends that all customers have an opportunity to participate in Ameren’s
17 proposed new clean energy rider programs.²¹

18 **Q Do you support MIEC’s recommendation to make the new clean energy rider**
19 **options available to all customers?**

20 A Yes, as long as Ameren modifies the Clean Capacity Advancement Program and
21 Renewable Solutions Program (Riders CCAP and RSP) to specify that any new capacity

²⁰ Rebuttal Testimony of Caroline Palmer, p.11-12.

²¹ *Id.* at p.4-6.

1 or renewable resources under the Riders must be for resources that would not otherwise
2 be selected or built.²²

3 **Q Please summarize Amazon’s recommendation that clean energy riders only recover**
4 **incremental costs.**

5 A Amazon recommends that clean energy riders only recover incremental costs for the
6 renewable or carbon-free energy attributes of rider-specific resources and that costs not
7 “related to the [r]ider’s specific resources should not be recovered” under the rider.²³

8 **Q How do you respond to Amazon’s recommendation that clean energy riders only**
9 **recover incremental costs?**

10 A In general, I agree with Amazon’s recommendation; however, for Rider CEC, the
11 customer should pay all incremental costs, not just the cost for renewable attributes. For
12 example, if the cost of clean energy resources exceeds the cost of the preferred resource
13 portfolio from the Company’s integrated resource plan, the large load customer should
14 pay the incremental cost of the requested portfolio (the cost difference), if any.²⁴ Further,
15 Ameren should implement a true-up mechanism, under which customers would pay the
16 difference between the selected clean resources and the Company’s preferred resource
17 portfolio, with payments adjusted annually to reflect actual fuel prices.

²² Rebuttal Testimony of Caroline Palmer, p.43.

²³ Rebuttal Testimony of Dr. Albert W. Bremser, p.20.

²⁴ Ameren’s proposed Rider CEC states that “the Requesting Customer shall cover costs associated with its specific request for clean resources,” not explicitly that it shall cover the *incremental* costs. See Schedule SMW-D2 Rider CEC.

1 **Q Why should the difference in costs between the preferred portfolio and the**
2 **requested portfolio be trued-up annually?**

3 A The actual costs of different resource portfolios depend on the price of gas, which is not
4 known in advance. If Ameren's preferred resource portfolio anticipated low gas prices
5 and instead gas prices rise, large load customers would have overpaid for the difference
6 between the large load customer's clean portfolio and the Company's preferred resource
7 portfolio and could be eligible for a refund, or vice versa. Thus, the payment amount
8 should be adjusted annually, with refunds or surcharges to the customer as appropriate.

9 **Q Does this conclude your testimony?**

10 A Yes.

**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

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Case No. ET-2025-0184

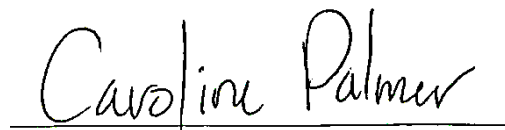
AFFIDAVIT

Pursuant to Missouri Public Service Commission requirements, I, Caroline Palmer,
hereby state:

1. My name is Caroline Palmer, and I am a Principal Associate at Synapse Energy Economics, Inc. My business address is 485 Massachusetts Avenue, Suite 3, Cambridge, Massachusetts 02139.
2. Attached hereto and made part hereof for all purposes is my Surrebuttal Testimony on behalf of Sierra Club which has been prepared in written form for introduction into evidence in the above-referenced docket.
3. I hereby swear and affirm that based upon my personal knowledge, the facts stated in the surrebuttal testimony are true. In addition, my judgment is based upon my professional experience, and the opinions and conclusions stated in the testimony are true, valid, and accurate.

Under penalty of perjury, I declare that the foregoing is true and correct to the best of my knowledge and belief.

Date: November 3, 2025



Caroline Palmer