MISSOURI PUBLIC SERVICE COMMISSION

STAFF

REBUTTAL REPORT

UNION ELECTRIC COMPANY,
d/b/a AMEREN MISSOURI

CASE NO. EA-2025-0239

Jefferson City, Missouri
January 23, 2026

** Denotes Confidential Information **
*** Denotes Highly Confidential Information ***

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STAFF RECOMMENDATION

UNION ELECTRIC COMPANY, d/b/a AMEREN MISSOURI

CASE NO. EA-2025-0239

I. Executive Summary

On August 29, 2025, Union Electric Company, d/b/a Ameren Missouri ("Ameren Missouri") filed an application ("Application") seeking a Certificate of Public Convenience and Necessity ("CCN") under subsection 1 of Section 393.170, RSMo, authorizing Ameren Missouri to construct, install, own, operate, maintain, and otherwise control and manage a 250-megawatt ("MW")[1] solar generation facility to be constructed in Callaway County, Missouri (the "Reform Solar Project" or "Project"), including a new 345 kV switching station (the "Odyssey Switching Station") to which the Reform Solar Project will connect to the existing 345 kV transmission system.

Ameren Missouri's Application also requests a variance from the requirement in 20 CSR 4240-20.045(6)(J) to include an overview of plans for restoration of safe and adequate service after significant, unplanned/forced outages and a variance from the requirement in 20 CSR 4240-20.045(3)(C) so that as-built drawings for the Project can be supplied after the exercise of authority under the CCN. Staff reviewed Ameren Missouri's Application and Direct Testimony based upon the five factors the Commission listed in *In Re Tartan Energy*, 3 Mo.P.S.C.3d 173 (1994) ("Tartan Criteria"):

[1] References to generating capacity (MW) are to mega-watts-AC unless otherwise noted.

1. Need,
2. Qualifications to own, operate, control and manage the facilities and provide the service,
3. Financial ability to provide the proposed service,
4. Economic feasibility of the proposed project, and
5. Promotion of the public interest.

These factors provide an over-arching general framework to organize discussion of the evidence when reviewing the various types of CCN applications that come before the Commission. However, the Commission's inquiry does not end at a surface-level Tartan analysis. Each CCN case must be evaluated while considering the regulatory context and operating circumstances of a project.

Based on Staff's review, 1) Reform Solar Project is needed to provide RECs required for its Renewable Energy Standard ("RES") obligations as described by Staff Witness Arandia; 2) Ameren Missouri is qualified to own, operate, control and manage the associated facilities and provide the service as described by Staff Witness Fontana; 3) Ameren Missouri has the financial ability to provide the proposed service as described by Staff Witness Won; 4) the Project is economically feasible; 5) the project is in the public interest as discussed in further detail by Staff Witness Bowman.

Ultimately, Staff recommends that the Commission conditionally approve the granting of CCNs and requested variances for the Project. The conditions recommended by Staff are fully presented in the public interest section of this report, covering economic, auditing, and engineering conditions.

II. Application Summary

Ameren Missouri filed its Application in accordance with Sections 393.170.1, RSMo, 20 CSR 4240-2.060, and 20 CSR 4240-20.045, requesting a CCN under subsection 1 of Section 393.170, RSMo, for the Reform Solar Project, and a variance from the requirements in 20 CSR 4240-20.045(6)(J) and 20 CSR 4240-20.045(3)C).

Ameren Missouri outlines the specific requirements of 20 CSR 4240-20.045 in Section II, Part D, Paragraph 30, of its Application for the Reform Solar Project. Staff's brief discussion of these requirements is provided below and a further discussion is provided by Staff Witness Fontana in Schedule 2.

Ameren Missouri included a description of the Reform Solar Project site as well as a map of the expected location within Schedule C of its Application.[2] Ameren Missouri currently owns approximately 3,600 acres of land in this part of Callaway County, Missouri, and leases a large portion of it to the Missouri Department of Conservation ("MDC"), who manages the land known as the Reform Conservation Area for public use. On July 1, 2025, the boundaries for public access to Reform Conservation Area changed to allow Ameren Missouri to further complete planning and development of future energy development to support Missouri's future energy needs. Public access is now only allowed south of the Callaway Nuclear Power Plant.[3] The site is roughly 13 miles from Fulton, Missouri in Callaway County, and is adjacent to the Ameren Missouri Callaway Nuclear Energy Center.

Ameren Missouri also provided a list of utilities, owned by third parties, which the proposed construction would cross in Schedule D of its Application.[4] Project specifications and

[2] Required by rule 20 CSR 4240-20.045(6)(A).
[3] Paraphrased from a Notice posted on the Reform Conservation Area | Missouri Department of Conservation web page.
[4] Required by rule 20 CSR 4240-20.045(6)(B).

existing drawings are included in Witness Tindall's and Witness Wibbenmeyer's direct testimonies although Ameren Missouri is seeking a variance to the requirement in 20 CSR 4240-20.045(3)(C) so that as-built drawings for the Project can be supplied after the exercise of authority under the CCN which is addressed in Witness Fontana Schedule 2.[5,6] Additionally, the base case estimated cost is *** [redacted]. ***[7,8] Witness Wibbenmeyer states that the Reform Solar Project is a ground mounted, single-axis tracking photovoltaic solar generation plant with a capacity of approximately 250 Megawatts ("MW"). It will also include a 200-foot generator lead line that will interconnect to Ameren Missouri's existing 345 kilovolt ("kV") transmission system through the 345 kV Odyssey Switching Station, which is to be constructed.[9,10]

Construction of the Project is expected to begin in Q2 of 2026 and is expected to be placed in service in 2028.[11] The Application also states at Paragraph 30.e. that the Reform Solar Project has no common plant to be included in the construction project.[12] Witness Lansford states on page 4, lines 10-23, that Ameren Missouri plans to fund the Reform Solar Project, as Ameren Missouri typically funds projects, using operating cash flow, short-term and long-term debt issued by the company, and occasionally, cash contributed as equity from Ameren Corporation that is sourced from third party common stock investors. Witness Lansford further stated that Ameren Missouri may also utilize or monetize investment tax credits to help support the project funding.[13]

[5] Application, page 1.
[6] Wibbenmeyer schedules SW-D1, SW-D2 and SW-D3 and Tindall's schedules LMT-D1 and LMT-D2.
[7] Required by rule 20 CSR 4240-20.045(6)(C).
[8] Application, page 6, paragraph 24.
[9] Required by rule 20 CSR 4240-20.045(6)(C).
[10] Wibbenmeyer Direct Testimony page 3, lines 12 - 19.
[11] Required by rule 20 CSR 4240-20.045(6)(D).
[12] Required by rule 20 CSR 4240-20.045(6)(E).
[13] Required by rule 20 CSR 4240-20.045(6)(F).

The Reform Solar Project is contemplated by Ameren Missouri's 2025 Preferred Resource Plan ("PRP") as explained in Witness Michels' direct testimony.[14] The 2025 PRP included an additional "2,200 MW of solar generation by 2030 (including 500 MW placed in service in late 2024, another 400 MW for which the Commission approved CCNs, and another 1,300 MW, including the Reform Solar [P]roject for which the Company is seeking a CCN in this case)."[15] Witness Michels says this represents an acceleration of solar generation additions which were planned in the 2023 Integrated Resource Plan ("IRP") and that "[r]enewable resource additions are a particularly important consideration in attracting and serving new LLCs [Large Load Customers], such as data centers."[16]

Ameren Missouri used a competitive bidding process to select the Engineering, Procurement, and Construction ("EPC") contractor and related equipment as described in further detail on pages 7 - 9 of Scott Wibbenmeyer's direct testimony. For the Odyssey Switching Station, Ameren Missouri will use a combination of procurement under its Procurement Policy and Procedures and competitive bidding.[17] The Reform Solar Project will be managed and operated by the Ameren Missouri Energy Management & Trading group, which is similar to how Ameren Missouri's existing generation is managed and operated.[18]

Ameren Missouri requested a variance from the provisions of 20 CSR 4240-20.045(6)(J) which would allow it to submit its plans for restoration of safe and adequate service after significant, unplanned/forced outages ninety days prior to the time the Reform Solar project is

[14] Required by rule 20 CSR 4240-20.045(6)(G).
[15] Michels Direct Testimony, page 6, lines 17 - 20 and page 7, lines 1 - 6.
[16] *Id*.
[17] Required by rule 20 CSR 4240-20.045(6)(H).
[18] Required by rule 20 CSR 4240-20.045(6)(I).

placed in service.[19,20] The entirety of the project will be constructed on property owned by Ameren Missouri.[21] As a result, no landowners will be affected, and notice is not required.[22]

III. Five Tartan Criteria

A. Whether there is a need for the facilities and service

In evaluating whether a project is needed, Staff generally considers the following questions:

a) Is the project both important to the public convenience and desirable for public welfare?

b) Or is the project effectively a necessity because the lack of the service is such an inconvenience?[23]

In his direct testimony, Ameren Missouri Witness Matt Michels discusses the need for the project to meet the energy needs of new and existing customers,[24] the need for Renewable Energy Credits ("RECs") to meet Ameren Missouri's RES obligations,[25] and further discusses benefits such as near-term implementation, avoiding the risk of delays, taking advantage of federal

[19] Required by rule 20 CSR 4240-20.045(6)(J).
[20] Application, page 2.
[21] Application, page 16, paragraph 30.k.
[22] Required by rule 20 CSR 4240-20.045(6)(K).
[23] [The Kansas City Court of Appeals, Missouri] in State ex rel. Missouri, Kansas & Oklahoma Coach Lines v. Public Service Commission, 238 Mo. App. 317, 179 S.W.2d 132, loc. cit. 136, made the following comment on the question: "Necessity' as used in the phrase 'convenience and necessity', as applied to regulations by Public Service Commissions, does not mean essential or absolutely indispensable, but is used in the sense that the motor vehicle service would be such an improvement as to justify or warrant the expense of making the improvement; that the inconvenience of the public occasioned by the lack of motor vehicle transportation is so great as to amount to a necessity. Chicago, R. I. & P. R. Co. v. State, 123 Okl. 190, 252 P. 849. 'Any improvement which is highly important to the public convenience and desirable for the public welfare may be regarded as necessary. If it is of sufficient importance to warrant the expense of making it, it is a public necessity. Inconvenience may be so great as to amount to necessity'. Wabash Chester & Western R. R. Co. v. Commerce Commission ex rel., 309 Ill. 412, 418, 141 N.E. 212, 214'. State ex rel. Transport Delivery Co. v. Burton, 317 S.W.2d 661, 664 (Mo. App. 1958).
[24] Direct Testimony of Matt Michels, page 2, lines 20 - 21.
[25] Direct Testimony of Matt Michels, page 3, lines 1 - 3.

tax credits, and providing a hedge against fuel costs and critical risk mitigation against existing or future environmental regulations.[26]

Due to reasons that are explained in more detail below, Staff asserts that whether or not Ameren Missouri's projected large load growth materializes, the Reform Solar Project is needed to provide RECs required for its RES obligations, required by Missouri Statute, on the basis that the project effectively is a necessity because the lack of the service is such an inconvenience.

1. Energy Need

In his direct testimony, Ameren Missouri Witness Matt Michels discusses Ameren Missouri's recent changes to its PRP. He noted that the changes were due to a surge in interest from LLCs locating in Ameren Missouri's service territory and further stated that Ameren Missouri has signed construction agreements relating to over two gigawatts of new load.[27] Mr. Michels stated in his testimony that his conclusion that the Reform Solar Project is necessary to meet the energy needs of new and existing customers is based on Ameren Missouri's expected energy position without new resources,[28] and included graphs of what he terms is Ameren Missouri's "energy capability position,"[29] because it considers the full energy production capability of resources.[30] He further explains that the graphs, labeled as "Net Energy Position", show that without new resources Ameren Missouri expects to be short energy capability starting in 2027 and continuing through the planning period at steadily increasing levels,[31] and that for

[26] Direct Testimony of Matt Michels, page 3, lines 4 - 11.
[27] Direct Testimony of Matt Michels, page 3, lines 19 - 22.
[28] Direct Testimony of Matt Michels, page 13, lines 3 - 4.
[29] Direct Testimony of Matt Michels, page 13, line 17.
[30] Direct Testimony of Matt Michels, page 13, line 16.
[31] Direct Testimony of Matt Michels, page 14, lines 3 - 5.

those years, Ameren Missouri "would be a net purchaser of energy in the [Midcontinent Independent System Operator] MISO market."[32]

Mr. Michels presents this scenario as proof of an energy need, however as previously discussed in Case No. EA-2023-0286 by Staff Witnesses Shawn E. Lange, PE[33] and Michael L. Stahlman,[34] being a net purchaser of energy on an annual basis is not a bad thing and is not indicative of an energy need. In fact, utilities plan to meet energy needs through energy markets such as MISO in order to take advantage of favorable economics. At any given time an electric company could be a net purchaser, not because they are not generating enough energy on their own or are not capable of doing so, but because they can purchase the energy cheaper than they can generate it. Staff further notes, as discussed by Staff Witness Shawn E. Lange, PE in Case No. EA-2023-0286, the ability (or inability) to meet the non-peak or net-peak hours load requirement must also be assessed.[35] Ameren Missouri's analysis presented in this case does not demonstrate an energy need during net-peak hours. Thus Staff recommends the Commission not rely on Ameren Missouri's assertion of its energy capability position in determining whether the Project is needed.

2. RES Need

Missouri statute[36] requires that investor-owned utilities acquire renewable resources equal to increasing percentages of their respective retail sales. The current requirement is that 15% of an electric utility's retail electric sales shall be from renewable energy resources, with at least 2%

[32] Direct Testimony of Matt Michels, page 14, lines 10 - 11.
[33] Case No. EA-2023-0286, Rebuttal Testimony of Shawn E. Lange, PE, page 14, lines 3 - 11.
[34] Case No. EA-2023-0286, Rebuttal Testimony of Michael L. Stahlman, page 7, line 15, through page 8, line 18.
[35] EA-2023-0286 Rebuttal Testimony of Shawn E Lange, PE, page 3, line 10 through page 8, line 13.
[36] Section 393.1030, RSMo.

from solar energy.[37] The RES includes a 1.25 times multiplier for renewable energy generated within the state of Missouri to encourage in-state development of renewable resources so that one (1) MW of generation in Missouri results in 1.25 RECs for RES compliance purposes. Additionally, RECs cannot be double counted – that is they cannot be utilized in a green energy program and then also counted for RES compliance.

Staff is aware that Ameren Missouri needs RECs to meet its RES requirements. In recent years, Ameren Missouri has been unable to comply with its RES requirements without requesting variances[38] related to retirement timing and purchasing additional RECs every year. Since 2020, Ameren Missouri has purchased ** [redacted] ** RECs at a total cost of ** [redacted] ** for RES compliance.[39] Further, Staff concluded in its recent recommendation in Case No. EE-2026-0114 that Ameren Missouri does not have sufficient resources dedicated to RES compliance.[40]

This issue was discussed by Mr. Michels in his direct testimony. Mr. Michels stated that Ameren Missouri showed a need for 332,000 RECs in 2029 and determined that it would need to add an additional 450 MW of solar generation in 2029 and beyond to ensure compliance over the next ten years.[41] Mr. Michels included a table (shown below) of annual REC need in his discussion regarding the need for RECs to meet RES requirements.[42]

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
REC Surplus/ (Shortfall) (MWh)	(85,774)	(665,176)	(54,742)	(143,784)	(231,510)	(312,176)	(369,218)	(430,689)	(496,220)	(565,444)	(622,277)

[37] *Id.*
[38] Most recently, Ameren Missouri filed its variance request in EE-2026-0114.
[39] Case No. EE-2026-0114, Staff Memorandum, page 7.
[40] Case No. EE-2026-0114, Staff Memorandum, page 7.
[41] Direct Testimony of Matt Michels, page 20, lines 3 - 8.
[42] Direct Testimony of Matt Michels, page 21, Table 3.

Mr. Michels further stated in his direct testimony that the Reform Solar Project is expected to produce 623,648 RECs per year for purposes of Missouri RES compliance.[43] Given that construction on the Reform Solar Project would be expected to begin in the second quarter of 2026 and placed into service by the fourth quarter of 2028,[44] it is expected that these RECs would be available starting in 2029. According to the table that Mr. Michels provided, the RECs from the Reform Solar Project will be sufficient to cover the REC deficiency, however Mr. Michels utilizes in his calculations data from Ameren Missouri's 2025-2027 RES Compliance Plan[45] and as Staff previously noted in EE-2026-0114, Ameren Missouri's 2025-2027 RES Compliance Plan was inaccurate due to the inclusion of resources which will not be utilized for RES compliance, ** [redacted] . **[46]

As previously mentioned, Mr. Michels stated that Ameren Missouri determined that 450 MW of solar generation will be needed to ensure compliance over the next ten years. Staff would like to point out two things in regard to this statement. First, this number was established using incorrect data and is therefore inaccurate. Second, Ameren Missouri does not specifically need solar RECs ("SRECs"). In fact, it has more than sufficient SRECs to cover the solar requirement and is able to utilize the excess SRECs toward the general REC requirement.

To get an accurate picture of the REC needs for Ameren Missouri, and how it would be affected by the Reform Solar Project, Staff excluded the aforementioned resources which will not be utilized for RES compliance and included the Reform Solar Project. The results are shown in the tables below. The first table shows the years leading up to the inclusion of the Reform Solar Project and the second shows the years after.

[43] Direct Testimony of Matt Michels, page 21, line 9.
[44] Application, page 6, paragraph 11.
[45] Direct Testimony of Matt Michels, page 20, lines 20 - 21.
[46] Case No. EA-2023-0286, Notice Regarding Renewable Solutions Resources.

	2025	2026	2027	2028
BEFORE REFORM				
SRECS	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **
RECS	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **
TOTAL	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **
AFTER REFORM				
SRECS	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **
RECS	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **
TOTAL	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **

	2029	2030	2031	2032	2033
BEFORE REFORM					
SRECS	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **
RECS	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **
TOTAL	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **
AFTER REFORM					
SRECS	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **
RECS	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **
TOTAL	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **	** [redacted] **

It is evident that Ameren Missouri needs RECs for RES compliance, and in greater numbers than Ameren Missouri has indicated, with the specific quantity depending on the degree of load growth and the materialization and retention of large load customers. As previously noted,

Ameren Missouri does not specifically need SRECs as would be generated from the Reform Solar Project, and it can also be noted that the Reform Solar Project is not the only means of obtaining additional RECs, solar or otherwise,[47] however these SRECs can be used to supplement Ameren Missouri's non-solar RES requirement. Therefore, while the Reform Solar Project will not entirely solve the REC deficit, it will certainly help by decreasing the amount of RECs that Ameren Missouri would potentially need to purchase in order to meet its RES obligations.

Staff would like to point out an additional concern that came up during Ameren Missouri's most recent RES variance request, EE-2026-0114. Staff expressed concerns that Ameren Missouri has previously applied for CCNs for renewable resources, indicating that the resources will possibly be used for RES compliance - including these resources - in its annual RES plan, and then instead use the resources for its renewable program offerings.[48] This is a major concern because, as in this case, if Ameren Missouri states in its CCN Application and testimony that resources will possibly be used for RES compliance, Staff takes this into consideration, along with the information provided in its RES compliance plan, to establish a basis of need. If the Commission grants this CCN, Staff recommends that the Commission order Ameren Missouri to specifically designate the Reform Solar Project for RES compliance as it has stated that it would.

Staff Witness: Amanda Arandia

B. Qualification of Ameren to Construct, Own, Operate, and Maintain the Projects

Ameren Missouri was initially formed through a merger of Union Electric Company and Central Illinois Public Service Company and has effectively been in operation in Missouri for

[47] Some options that are available to Ameren Missouri are: purchase RECs from third parties, purchase SRECs from its customer-generators, enter into Power Purchase Agreements ("PPA"), and utilize renewable resources for RES compliance rather than green pricing programs.
[48] Case No. EA-2023-0286, Notice Regarding Renewable Solutions Resources.

over 120 years. Ameren Missouri currently serves approximately 1.2 million customers, in areas including St. Louis, and eastern and central Missouri.

Ameren Missouri has extensive resources including in-house engineering, in-house construction, in-house bidding and project management, and ample financial resources. For the proposed construction of the new facilities, Ameren Missouri intends to use an EPC contract. The EPC contractor has already been selected as part of an Ameren Missouri Request for Proposal ("RFP") process. The scope of the EPC Contractor's responsibilities will include providing the balance of plant design; foundations; buildings; materials; commissioning; and erection of Ameren Missouri-furnished materials. The EPC contractor selected through the RFP process is McCarthy Building Companies, Inc. ("McCarthy"). The Odyssey Switching Station construction will be done by Ameren Missouri consistent with its Procurement Policy and Procedure and competitive bidding process.[49]

Ameren Missouri owns and operates a 2,970-mile transmission system that operates at voltages from 138-kV to 345-kV.[50] Considering all the generation, transmission, and distribution infrastructure Ameren Missouri owns and operates, which includes thirteen solar facilities, twelve simple cycle combustion turbine facilities, two wind facilities, two coal-fired centers, three hydro-electric sites, and one nuclear power energy center, Staff concludes Ameren Missouri is qualified to provide the service.

Staff Witness: Donald A. Fontana, PE

[49] Specific construction details of the Odyssey Switching Station are provided in Company Witness Leslie M. Tindall's Direct Testimony.
[50] Ameren Missouri 2020 IRP Chapter 7, page 2.

C. Whether the applicant has the financial ability for the undertaking

Staff presents evidence and provides a recommendation regarding the financial ability of the Ameren Missouri for a CCN for the Reform Solar Project, that Ameren Missouri is developing to meet its need to supply low-cost energy to its customers as part of its balanced supply-side portfolio consisting of dispatchable, renewable, and low-carbon generation resources.[51]

Based on the EPC contract with McCarthy in June 2024, the agreed contract price was *** [redacted] *** and construction would commence in March 2025.[52] The Company expects to receive an updated cost estimate from the EPC once they reach 60% design,[53] which should occur in the first quarter of 2026, prior to issuing Full Notice to Proceed.[54] To account for fluctuations in costs, a base-case project cost estimate of *** [redacted] *** and a risk-adjusted estimate of *** [redacted] *** has been developed, which includes costs for both the solar project and the interconnection and network upgrades.[55]

In its Application, Ameren Missouri states, "Ameren Missouri has the financial ability to construct the Reform Solar Project because it can access the equity and debt capital necessary to do so while maintaining strong financial metrics."[56] Ameren Missouri expects to finance the Reform Solar Project through a mix of long-term debt and equity in line with current capitalization ratios utilized in developing revenue requirements for ratemaking purposes.[57] Ameren Missouri reported a capital structure consisting of 50.91% common equity, 0.51% preferred stock,

[51] Page 2, lines 12 - 16, Scott Wibbenmeyer's Direct Testimony.
[52] Page 9, lines 14 - 16, Scott Wibbenmeyer's Direct Testimony.
[53] Page 10, lines 5 - 6, Scott Wibbenmeyer's Direct Testimony.
[54] Page 9, lines 4 - 5, Scott Wibbenmeyer's Direct Testimony.
[55] Page 10, lines 8 - 10, Scott Wibbenmeyer's Direct Testimony.
[56] Application, page 10, paragraph 23.
[57] *Id.*, paragraph 24.

and 48.58% long-term debt as of June 30, 2025, and has projected a risk-adjusted capital structure consisting of 50.95% common equity, 0.49% preferred stock, and 48.56% long-term debt.[58]

With consideration of Ameren Missouri's financial capacity, the Applicant has the financial ability to complete the Project. Ameren Missouri projects average capital expenditures of approximately $3.3 billion per year from 2025 through 2029.[59] Ameren Missouri is a wholly owned subsidiary of Ameren Corporation ("Ameren Corp."). Ameren Corp. has planned to spend about $26.3 billion on utility investments through 2029, with approximately 64% of its capital spending allocated to Ameren Missouri.[60]

S&P and Moody's each rated both Ameren Missouri and Ameren Corp. as investment grade. S&P rated both Ameren Missouri and Ameren Corp. as "BBB+", while Moody's rated them as "Baa1".[61] The expected total project cost is less than 3% of Ameren Missouri's 5-year average annual capital expenditures.[62] In addition, after reviewing the financial impact of the proposed Reform Solar Project, Staff found no material change in Ameren Missouri's financial risk profile due to the Project.[63] Considering the proposed cost and financial impact of the Reform Solar Project, it is reasonable to conclude that Ameren Missouri has the financial ability to undertake the Project.

Staff Witness: Seoung Joun Won, PhD

D. Whether the proposal is economically feasible

When considering the economic feasibility of a project, Staff recommends the Commission assess the utility's decision to address an identified generation need and the proposed resources

[58] Ameren Missouri Response to Staff's DR No. 0003.
[59] SEC 10-K 2024, Ameren Corp., February 18, 2025.
[60] Ameren Corporation, RatingsDirect, S&P Global Ratings, April 16, 2025.
[61] S&P Capital IQ Pro. Retrieved September 24, 2025.
[62] Ameren Missouri Response to Staff DR No. 0005, and SEC 10-K, 2024.
[63] Ameren Missouri Response to Staff DR No. 0001 and 0002.

to satisfy that need. The approach to address the need presented by the utility depends on the circumstances of the application, the utility, and the present operating and regulatory environment. If the service is not designated as mandatory or essential to utility operations in the regulations, is the project so convenient to be necessary and justify the costs of the improvement (i.e., is it convenient)?

The Cambridge Dictionary defines "economic feasibility" as "the degree to which the economic advantages of something to be made, done, or achieved are greater than the economic costs."[64] Feasibility studies should assess whether a proposed project or solution is financially viable and cost-effective with respect to given alternative solutions.

Staff finds the following questions to be appropriate in making its recommendation regarding the economic feasibility of the Project:

1. Is the project of sufficient importance to warrant the expense of making it?
2. Or, is the project of such an improvement to justify or warrant the expense of making the improvement?

The section on economic feasibility is divided into two sections as follows:

1. Staff Witness Justin Tevie discusses Ameren Missouri's evaluation of economic feasibility and provides an overview of uncertainties in the generator interconnection costs.
2. Staff Witness Hari K. Poudel, PhD discusses the reasonableness of the IRP cost assumptions.

As stated in the Need for the Facilities and Service section of this report, due to the need for RECs, Staff concludes that the Project is effectively a necessity because the lack of service is

[64] ECONOMIC FEASIBILITY definition | Cambridge English; https://dictionary.cambridge.org/us/dictionary/english/economic-feasibility?q=Economic+Feasibility.

such an inconvenience. Based on the conclusion of need, Staff has reviewed the options for meeting that need to develop its position in this case.

1. Economic feasibility and interconnection cost

a. Discussion of Ameren Missouri's Evaluation of Economic Feasibility

Ameren Missouri discusses economic feasibility in Section II, Paragraphs 16-22, of its Application. Mr. Matt Michels, Mr. Steven Wills, and Mr. Scott Wibbenmeyer also discuss the economics of the Project, benefits and costs, on several pages of their testimonies.[65] Ameren Missouri relies on the Net Present Value of Revenue Requirement ("NPVRR") of alternative resource plans in the Ameren Missouri analysis as the fundamental basis for justification of this Project.[66] However, IRP and NPVRR analysis should not be conflated as a review of the economic feasibility of individual generating assets.

Staff issued Data Request (DR) No. 0024, which in part requested, "a list of proposed alternatives to the Reform project and their associated costs". Ameren Missouri's response included, ** [redacted].[67] [redacted] **[68] Matt Michel's testimony stated that Ameren Missouri's alternative plans will include a mix of both dispatchable generation and renewables, but the Company was leaning towards solar projects because they pose fewer implementation challenges.

[65] Steven Wills Direct Testimony, page 10, lines 7 - 13; Matt Michels Direct Testimony, page 3, lines 1 - 11; and Scott Wibbenmeyer Direct Testimony page 14, lines 4 - 11.
[66] Steven Wills Direct Testimony page. 10, lines 14 - 18.
[67] Scott Wibbemeyer Direct Testimony, page. 4, lines 15 - 22, and page 5 lines 1 - 11.
[68] Matt Michels Direct Testimony, pages 10 - 29.

Ameren Missouri's response to DR No. 0024 also stated that *** [redacted] ***

Staff agrees that the Reform Solar Project is needed to fulfill RES requirements and that an investment tax credit bonus could improve project economics. In future IRP filings, Ameren Missouri should demonstrate that the proposed CCN Project is financially viable and cost-effective with respect to given alternative solutions.

Staff Witness: Justin Tevie

b. Generator Interconnection Costs Uncertainty

The current estimated interconnection and upgrade cost, including contingencies, is ** [redacted] **[69] for the Odyssey Switching Station. The Project entered the MISO queue in 2020 and has completed the MISO interconnection study process, so the upgrade costs are known.[70] Staff Witness Shawn E. Lange, PE presents the interconnection costs in the Public Interest section of the report. Because MISO has completed its interconnection study, it provides certainty regarding interconnection costs, thereby reducing the transmission interconnection risks for the Project. However, the cost of interconnecting may run the risk of additional costs of interconnection because the generator interconnection agreement ("GIA") is not fully executed.[71]

Staff Witness: Justin Tevie

[69] Leslie Tindall Direct Testimony, page 4, lines 13 - 14.
[70] Scott Wibbenmeyer Direct Testimony, page 12, lines 21 - 23.
[71] Ameren Missouri Response to Staff DR No. 0018.

2. Conclusion and Recommendations

Based on the benefits of the projects, it is reasonable to assume that the project could be economically feasible. Staff recommends:

1. That the Commission order Ameren Missouri to provide thorough explanation of the exclusion of alternative generation types to address identified needs in future IRP and CCN cases; and
2. Ameren Missouri should inform the Commission of any changes in the generator interconnection facilities costs. Ameren Missouri shall notify the Commission and provide an updated economic analysis if the upgrade cost exceeds those outlined in the GIA, more than 15%.

Staff Witness: Justin Tevie

3. Reasonableness of IRP Cost Assumptions

The Reform Solar Cost section discusses Ameren Missouri's proposed solar cost per kilowatt ($/kW) by analyzing three different cost scenarios:

1. The proposed project cost exceeds industry-standard benchmarks;
2. The 2023 IRP cost estimates and the current project cost do not align; and
3. The 2023 IRP cost estimates are lower than the proposed project cost.

Staff Witness: Hari K. Poudel, PhD

a. The proposed project cost estimates exceed industry-standard benchmarks

Ameren Missouri presents the Reform Solar Project with the following parameters.

Table: 1 Ameren Missouri's Reform Solar Project's parameters.[72]

	Reform Solar Project
Size (MW)	*** [redacted] ***
Base Case Cost ($M)	*** [redacted] ***
Annual Generation (MWh)	*** [redacted] ***
Solar project cost ($/kW)	*** [redacted] ***
Modeled COD	*** [redacted] ***

The Reform Solar Project proposes a solar cost of approximately *** [redacted] ***, representing a noticeable deviation from the industry-standard cost benchmarks. In the past ten years, there has been a substantial reduction in the cost of utility-scale photovoltaic ("PV") systems, leading to the emergence of cost-effective energy generation specifically during daylight hours. Over time, there has been a consistent drop in the annual capacity-weighted average construction costs for solar photovoltaic systems in the United States. Based on a recent analysis conducted by the U.S. Energy Information Administration ("EIA"), it was observed that the cost experienced a decrease of slightly less than 3% during the period spanning from 2013 to 2019.[73] In 2019, the average construction costs for utility-scale solar power generating amounted

[72] EA-2025-0239, Matt Michels Workpaper- "Project Modeling Assumptions - Reform Solar 2025-08-05 - NRIS ERIS Increases_HC".
[73] Bolinger, M.' Seel, J; Robson, D. (2019). Utility-Scale Solar: Empirical Trends in Project Technology, Cost, Performance, and PPA Pricing in the United States. Lawrence Berkeley National Laboratory. Retrieved from https://escholarship.org/uc/item/336457p8.

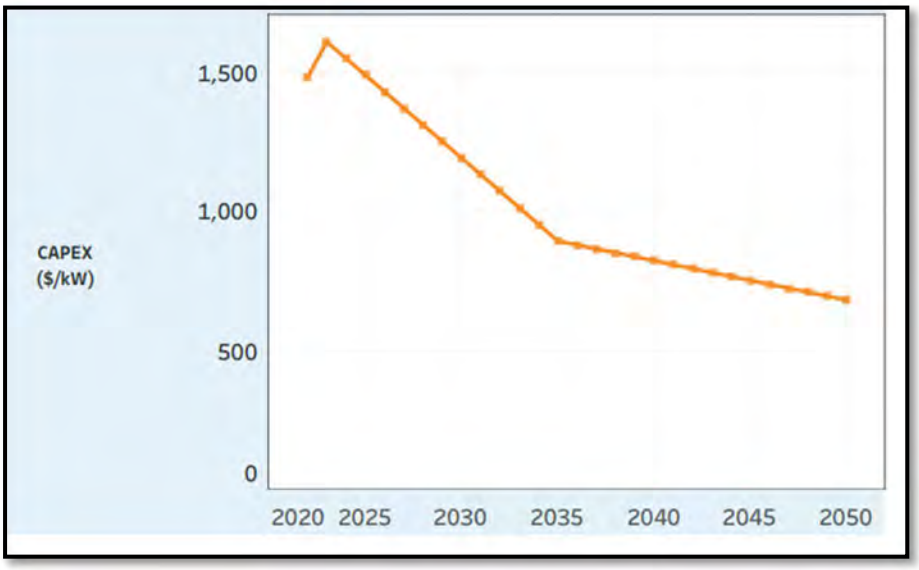
to $1,796/kW, indicating a drop of 2.8% compared to the previous year (2018).[74] Similarly, Lawrence Berkeley National Laboratory ("Berkeley") also found that the capital expenditure ("CapEx") of PV have fallen by 8% since 2022, to $1.43/WAC ($1.08/WDC) in 2023.[75]

Experts in the field consistently indicate a steady decline in the cost of solar projects over time.[76,77] According to a Berkley report, installed utility-scale PV costs fell by 73% between 2010 and 2022, but have been flat or slightly increased since then in real dollar terms.[78] Ameren Missouri used National Renewable Energy Laboratory ("NREL") Annual Baseline Technology ("ATB") assumptions to inform the cost of the renewable resources in its 2023 IRP.[79] The ATB provides cost and performance data for electricity-generating technologies, both at present and growth projections through 2050.[80] ATB's three metrics are CapEx, operation and maintenance ("O&M") costs, and capacity factor ("CF"). NREL considers the moderate projections scenario as representing the expected level of technology innovation."[81] The cost assumptions made by NREL encompass a comprehensive range of cost scenarios in order to estimate the expenses associated with utility-scale solar projects.

[74] Bolinger, M.' Seel, J; Robson, D. (2019). Utility-Scale Solar: Empirical Trends in Project Technology, Cost, Performance, and PPA Pricing in the United States. Lawrence Berkeley National Laboratory. Retrieved from https://escholarship.org/uc/item/336457p8.
[75] https://escholarship.org/uc/item/4q73115g. This study adjusted costs to account for general inflation.
[76] Barbose G, Darghouth N. Tracking the Sun 2021 Edition: Pricing and design trends for distributed photovoltaic systems in the United States. Berkeley, CA: Lawrence Berkeley National Laboratory (LBNL); 2021.
[77] Seel, J., Kemp, J. M., Cheyette, A., Gorman, W., Darghouth, N. R., Robson, D., ... & Jeong, S. (2025). US Utility-Scale Solar, 2025 Data Update. Lawrence Berkeley National Laboratory.
[78] Seel, J., Kemp, J. M., Cheyette, A., Gorman, W., Darghouth, N. R., Robson, D., ... & Jeong, S. (2025). US Utility-Scale Solar, 2025 Data Update. Lawrence Berkeley National Laboratory.
[79] EO-2024-0020, Chapter 6. New Supply-Side Resources CONF, Page 7.
[80] https://atb.nrel.gov/electricity/2024/index.
[81] https://atb.nrel.gov/electricity/2024b/definitions.

In Figure 1 below, Staff selected a CapEx[82] parameter using NREL's assumptions to estimate solar cost.[83] The ATB provides cost and performance data at present and growth projections through 2050.[84]

Figure 1. Solar Overnight Capex ($/kW- AC) generated by Staff using NREL assumptions.



The 2024 NREL ATB data for utility-scale solar PV shows a sharp decrease in costs until 2035, followed by a relatively flat trend thereafter.[85] However, the cost of *** [redacted] *** included in Ameren Missouri's IRP Update appears higher, given ongoing technological advancements and declining solar prices. This higher cost could result in higher revenue requirement calculations.

Staff Witness: Hari K. Poudel, PhD

[82] The CapEx is the amount of money that a company spends for solar generation at the utility-scale. The CapEx includes a series of cost items, such as electrical infrastructure and interconnection cost, transmission substation upgrades, generation equipment and infrastructure, installation, labor and materials, engineering, environmental studies and permitting, insurance, legal fees, property taxes, fencing, buildings for operation and maintenance, and so on (https://atb.nrel.gov/electricity/2024b/definitions).
[83] https://atb.nrel.gov/electricity/2024b/definitions.
[84] https://atb.nrel.gov/electricity/2024b/index.
[85] https://atb.nrel.gov/electricity/2024/utility-scale_pv.

b. The 2023 IRP cost estimates and the current project do not align

An IRP is a long-term planning document that utilities use to forecast future resource requirements and determine the preferred mix of resources to meet those needs. A PRP is a plan developed by Ameren Missouri to account for changes in energy demand and to reflect the various costs and risks associated with those changes in order to serve its customers. Ameren Missouri's 2025 PRP reflects significant changes from its prior plans, primarily driven by expectations of new large customer loads. In the 2022 Updated IRP, Ameren Missouri estimated a solar project cost of approximately *** [redacted]. ***[86] This number increased to *** [redacted] *** in the 2023 IRP.[87] In the current filing (EA-2025-0239), Ameren Missouri proposes three cost scenarios, with the "low" case cost at *** [redacted], ***[88] which is —higher than prior estimates. Ameren Missouri used 2023 IRP's generic solar cost assumptions in the recent annual update filing.[89]

Staff performed a solar cost comparison between the 2023 IRP (EO-2024-0024) and the Reform Solar Project (EA-2025-0239). Staff utilized the capital expenditure ($/kW) from the workpaper provided by Ameren Missouri.

Table 2. Comparison of solar project cost ($/kW)

$/kW (EA-2025-0239) Reform Solar Project	$/kW (EO-2024-0024) 2023 IRP	Change ($/kW)	% Change
*** [redacted] ***	*** [redacted] ***	*** [redacted] ***	*** [redacted] ***

Table 2 indicates that current application estimates the cost of the solar project at approximately *** [redacted], *** reflecting a noticeable deviation from the cost estimates outlined in the 2023 IRP used to support the resource selection. Despite this discrepancy, in

[86] EA-2023-0286, Ameren Missouri Witness Mr. Matt Michels, Page 12, Figure 8, Schedule MM D-2.
[87] EO-2024-0020, Chapter 6-Appendix A Table 6A,3- Cost Estimate, Page 8.
[88] Matt Michels Workpaper- "Solar Cost Assumptions_Highly Confidential".
[89] Ameren Missouri response to Staff DR No. 0091.

response to Staff DR No. 0091,[90] Ameren Missouri witness Mr. Michels stated that no changes were made to its solar cost assumption in this filing. However, the current application shows a higher cost than the earlier IRP assumptions, which reflects differences in the timing of when the solar cost estimates were made. As a result, the cost estimates in the 2023 IRP and the current application are not aligned, despite the general expectation of declining solar costs. This inconsistency highlights the need for a thorough assessment of resource planning in the future to ensure that planning is based on the most accurate and up-to-date cost information.

Staff Witness: Hari K. Poudel, PhD

c. The 2023 IRP cost estimates are lower than the proposed project cost

Table 2 clearly indicates that the 2023 IRP solar cost estimates are lower than the proposed project cost in this application. Particularly, the Reform Solar Project cost has increased approximately *** [redacted] *** between the 2023 IRP and this application. However, the solar cost is expected to decline over time.

Ameren Missouri Witness Mr. Michels states that Ameren Missouri used the NREL's moderate cost projection for solar cost estimation in the IRP analyses.

The cost assumptions made by NREL encompass a comprehensive range of cost scenarios in order to estimate the expenses associated with utility-scale solar projects. NREL's CapEx ($/kW) was estimated to be $1,119.82/kW in 2022, which was almost similar to the value (*** [redacted] ***) reported in Company's 2020 IRP assumption. However, Ameren Missouri's 2022 Updated IRP assumed approximately *** [redacted] . *** One of the NREL's, "Solar Futures" study used the ATB Advanced projections and this study reported that CapEx will

[90] In a response to Staff DR No. 0091, Ameren Missouri witness Mr. Michels states that there were no changes in solar cost assumptions in the 2025 Updated PRP (EO-2026-0088) from the Triennial Resource Plan (EO-2024-0020) and the 2025 Change in its PRP (EO-2025-0235), despite the difference in costs for this project and the prior IRP assumptions.

fall to 50% of their 2020 values by the early 2030s. The cost to install solar projects in this context is expected to decrease significantly. Ameren Missouri expects that, on average, the solar project cost will continue to decline over the coming years. This expectation is also guided by the NREL's ATB report. As a result, Ameren Missouri is applying a solar cost forecast model that features a downward-sloping curve to reflect these anticipated solar cost reductions. Nevertheless, the Reform Solar Project cost is approximately *** [redacted] *** higher than 2023 IRP's cost assumptions.

The key takeaway from Ameren Missouri's cost assumption is noticeably higher than industry benchmarks. While Ameren Missouri claims to use NREL's moderate scenario as a reference, the graphical representation exposes a persistent gap, with Ameren Missouri's projected costs trending above NREL's estimates. Staff noticed that the estimates provided by Ameren Missouri's 2023 IRP and NREL regarding the cost of solar differ significantly and do not appear to be aligned with the industry standards. Ameren Missouri's assumed solar project cost for the Reform Solar Project exceeds industry benchmarks and NREL estimates, suggesting a divergence from the observed trends of decline in solar costs. Given the increase in costs compared to the IRP analysis and industry benchmarking, Staff recommends that the Commission order Ameren Missouri to identify all cost mitigation techniques that Ameren Missouri will employ to mitigate additional cost increases.

Staff Witness: Hari K. Poudel, PhD

d. Large Load Materialization

On February 28, 2025, Ameren Missouri filed its Notice of Change in PRP in Case No. EO-2025-0235 in accordance with Commission Rule 20 CSR 4240-22.080(12). Ameren Missouri has concluded that the PRP presented in its 2023 triennial compliance filing, filed in Case EO-2024-0020, is no longer appropriate and should be revised. The 2025 PRP report

highlights two key changes in the planning environment: a) Large Load potential and b) Changes in Company-Sponsored Energy Efficiency Programs.

Ameren Missouri's 2025 PRP states that,

> The new PRP includes the same total solar additions as the prior PRP – 2,700 MW – but with accelerated timing for the additions to provide energy for new demand growth and clean energy to support the corporate clean energy goals of new large customers.[91]

The 2025 PRP projects significant future electricity demand, largely driven by expectations of large new customers, particularly large load customers growth. On page 6 of the 2025 Change in Preferred Plan, Table 1.1 shows how Ameren Missouri's plan accelerates the solar generation additions as the amount of the large load demand increases. For example, Ameren Missouri's plan shows the addition of *** [redacted] *** of solar generation with the anticipation of adding *** [redacted] *** of the large loads, and solar generation has increased to *** [redacted] *** with the anticipation of adding *** [redacted] *** large loads by 2030. Ameren Missouri is planning to scale up its solar generation projects in response to anticipated increases in large load demand. However, Ameren Missouri states that *** "[redacted]." ***[92] Ameren Missouri's Witness Mr. Ajay K. Arora also states that the need for additional energy is primarily load growth in Ameren Missouri's service territory.[93] The larger load demand Ameren Missouri expects, the more aggressively it plans to add new solar generation. Ameren Missouri acknowledges that "the extent and timing of data center load additions is uncertain,"[94] and Ameren Missouri states that there is no guarantee these customers will materialize as forecasted,

[91] EO-2025-0235, Ameren Missouri 2025 Change in Preferred Resource Plan, Page 28.
[92] EO-2025-0235, 2025 Change in Preferred Plan, Page 15.
[93] Page 6, lines 20 - 22 Direct Testimony Ajay Arora.
[94] EO-2025-0235, Ameren Missouri 2025 Change in Preferred Resource Plan, Pages 6 and 28.

or on the expected timeline.[95] If these anticipated loads do not appear, Ameren Missouri could end up with excess generation resources, leading to higher costs for customers, stranded assets, or reduced utility earnings. If anticipated demand does not materialize, ratepayers could face higher costs or stranded assets.

Staff Witness: Hari K. Poudel. PhD

e. Energy Hedge

Ameren Missouri positions the Reform Solar Project as a hedge against fuel price volatility. This argument is based on the fundamental difference between conventional generation resources (e.g., coal, natural gas) and renewables like solar.

Unlike fossil-fueled plants, solar projects do not require fuel. Ameren Missouri Witness, Mr. Michels, states that this project provides a fuel price risk hedge.[96] He argues that solar generation is a hedge because it has no fuel expenses and generates revenue straight into the market. Additionally, as market electricity prices rise, the cost of solar generation remains stable upon completion of a given project. In addition to these comparative advantages, federal tax incentives can greatly reduce or offset the upfront costs of solar generation projects.[97] While the theoretical argument for renewables as a fuel hedge is well established in the industry, Ameren Missouri has not provided an empirical analysis quantifying this effect for the Reform Solar Project.

According to the NREL, the incremental impact or marginal value of renewable energy tends to decline as renewable energy penetration increases.[98] This means the first increments of

[95] Page 7, lines 16 - 18 Direct Testimony Ajay Arora.
[96] Page 22, lines 15 - 22, Direct Testimony Matt Michels.
[97] Page 22, lines 15 - 22, Direct Testimony Matt Michels.
[98] https://docs.nrel.gov/docs/fy13osti/59065.pdf.

solar provide the greatest hedging value, but additional capacity yields diminishing returns in terms of fuel risk mitigation.

An empirical analysis explaining why Ameren Missouri considers renewable energy generation as a hedge against fuel price fluctuations would help Staff quantify the impact of solar generation compared to alternative resource additions. However, this CCN Application does not include such information. In response to Staff DRs (No. 0091 and 0096), seeking quantitative support for the hedging claim, Ameren Missouri witness Mr. Michels referred to his Direct Testimony, but did not supply substantive empirical data or modeling to support the Reform Solar Project as a hedge against fuel price risk. The Reform Solar Project has been portrayed as a hedge against variable fuel prices due to its lack of fuel requirements, although Ameren Missouri has not provided empirical evidence or quantitative analysis. Without such data, the actual risk mitigation benefits of the Project remain unquantified, limiting the ability to fully assess its value as a fuel price hedge.

Staff Witness: Hari K. Poudel, PhD

4. Conclusion and Recommended Conditions

Ameren Missouri's assumed solar project cost for the Reform Solar Project exceeds industry benchmarks, IRP assumptions, and NREL estimates, suggesting a divergence from the observed trends of decline in solar costs. Ameren Missouri continues to rely on the 2023 IRP[99] NPVRR results in the current CCN application. Using generic solar cost assumptions in the IRP analysis that Ameren Missouri provided in support of this application might not reflect factors that could impact the outcome of the IRP analysis. Furthermore, Ameren Missouri's reliance on

[99] Ameren Missouri Response to Staff DR No. 0091.

accelerated solar deployment is closely tied to uncertain large load growth projections, which introduces heightened financial risk for both the utility and its ratepayers. Ameren Missouri itself acknowledges that there is significant risk around the timing and magnitude of this large customer growth. Taken together, these findings indicate that Ameren Missouri's filings do not fully reflect current industry trends or adequately safeguard against the risk of stranded assets. In light of the observed increase in solar costs ($/kW) in this CCN application relative to both the IRP analysis and current industry benchmarks, Staff recommends that the Commission require Ameren Missouri to clearly identify all available solar cost mitigation strategies to address and limit further solar cost escalations. Additionally, Staff recommends that if Ameren Missouri intends to rely upon IRP analysis in future CCN applications, that Ameren Missouri be directed to perform cost analysis using the updated solar cost assumptions to accurately reflect all relevant factors- both direct and indirect- that influence project costs. This approach will help ensure solar cost estimates remain aligned with industry standards and will also reflect appropriate revenue requirements calculations. To effectuate this approach Staff recommends the Commission order the following conditions:

1. If the expected cost of a future CCN application project on a $/kw basis or $/kw-accredited exceeds both the assumed cost in the IRP analysis and the assumed cost of another resource type that is capable of satisfying the need identified for the CCN application, Ameren Missouri shall provide an updated IRP analysis utilizing updated cost assumptions.
2. Ameren Missouri should clearly identify all available solar cost mitigation strategies to address and limit further solar cost escalations.

Staff Witness: Hari K. Poudel, PhD

E. Whether the Proposal is in the Public Interest

Staff's public interest assessment for this case involves the evaluation of the other Tartan Criteria: need for the project, the project's economic feasibility, the company's qualifications to construct and operate the project, and the company's financial ability to finance the project. Staff evaluates each criterion separately and then balances each when recommending whether a project promotes the public interest. Staff also reviews other considerations not included within the Tartan Criteria, which in this case are:

1. Project siting (Donald A. Fontana, PE),
2. Reform Solar Facility Bid Evaluation (RFP Scoring), (Donald A. Fontana, PE),
3. Construction Reporting (Donald A. Fontana, PE),
4. In-service Criteria (Amanda Arandia),
5. Public comments (Donald A. Fontana, PE),
6. Rate making considerations (Benjamin H. Burton),
7. Cost Allocation and Rate Impacts (Sarah L.K. Lange, Randall T. Jennings),
8. Interconnection standards (IEEE 2800) (Shawn E. Lange, PE).

Finally, Staff recommends several conditions to the granting of the CCN which are outlined further at the end of this Report.

1. Project siting

Ameren Missouri conducted an evaluation for the existing Montgomery County Community Solar Center in 2020. During that evaluation, the proposed Reform Solar site was identified as being a potential location for an additional solar generation site, when Ameren Missouri evaluated the feasibility of siting new solar generation facilities on property which was already in the possession of Ameren Missouri. One location that fit this parameter was the property associated with the Callaway Nuclear Energy Center. The site was deemed to have favorable site attributes, which included positive aspects such as minimal grading and site preparation would be

required due to the existing topography and cover. Additionally, the Reform Solar site was remote with respect to populated areas; had good tree lines that could double as screening for the facility; was located in an area of Callaway County that had limited permitting requirements; was high enough in the watershed to be out of the Regulatory Floodplain; and, consisted of land that was already owned by Ameren Missouri.[100]

The Reform Solar Facility will be constructed on multiple locations of vacant, undeveloped ground around the northern "perimeter" of the Callaway Energy Center campus where the Callaway 1 nuclear generation infrastructure is located. Although the land is owned by Ameren Missouri, a portion of it has been referred to as the Reform Conservation Area for many years. Specifically, the Reform Conservation Area is located on land owned by Ameren Missouri, who leases the ground to the MDC. In July 2025, Ameren Missouri redrew the boundary of the leased land, and as such, the public use area of the Reform Conservation Area is now located on Ameren Missouri land to the south of the Callaway Energy Center.

The Supplemental Schedule SW-D1 (Part 1 - 4) to Direct Testimony of Scott Wibbenmeyer includes *** [redacted] ***[101]

[100] See the Direct Testimony of Scott Wibbenmeyer, pages 4 – 5, lines 13 – 22, and 1 – 4.
[101] There are four separate components of the Highly Confidential Schedule SW-D1attached to the Direct Testimony of Scott Wibbenmeyer, and visual aids associated with discussion in this paragraph of the Siting evaluation are in Schedule SW-D1_Part2 HC.pdf and Schedule SW-D1_Part3 HC.pdf.

There will be ample land remaining at the Callaway Energy Center, should Ameren Missouri ever decide that future facility expansions are necessary, including for a new nuclear generation facility, and/or a battery energy storage system. Company Witness Scott Wibenmeyer states that the Reform Solar Facility project could also support future expansions due to the associated installation of a large interconnecting substation and transmission network upgrades.[102]

Staff Witness: Donald A. Fontana, PE

2. Reform Solar Facility Bid Evaluation (RFP Scoring)

The Reform Solar Facility will be constructed under an EPC contract. Ameren Missouri awarded the EPC contract to McCarthy.[103] Ameren Missouri Witness Scott Wibbenmeyer states:

> The Company performed a competitive bid process for the EPC contract. For this Project, the Company issued a Request for Proposal ("RFP") to a select list of bidders. This list was generated based on firms with which Ameren Missouri has experience, either with prior bid processes or in directly working for Ameren Missouri on earlier projects. More specifically, the contractor list was developed based on the following criteria:
>
> Firms that have successfully completed other solar projects.
>
> Firms that have expressed a desire to bid.
>
> Firms that have extensive engineering, construction or solar manufacturing experience.
>
> Based on the criteria, five bidders were selected to receive the RFP. Of those selected, four bidders submitted a response to the RFP. Ameren Missouri then evaluated each bidder's response in a consistent and objective manner using responses to questions or requirements identified in the RFP as the basis of the evaluation.[104]

Ameren Missouri developed a scorecard matrix to evaluate the RFP submittals. The key factors that the Company used to evaluate the submittals included: “compliance with specification

[102] See the Direct Testimony of Scott Wibbenmeyer, page 6, lines 7 – 20.
[103] See Company Witness Scott Wibenmeyer’s direct testimony on page 8, lines 5 – 6.
[104] *Id.* at page 7, lines 6 – 19.

format and completeness of bid proposal, engineering design, safety record, project plan, project team and staff, past performance and references, project schedule, commercial terms and conditions of contract, and price and proposed percent mark-ups."[105] Once Ameren Missouri completed the assessment of all RFP submittals through use of their evaluation matrix, they negotiated with the top respondents so all bids could be refined, and the terms of the commercial agreement could be finalized.[106] Through this process, Ameren Missouri states that McCarthy distinguished itself as the respondent offering the highest score, the best value to the Company, and who offered the most comprehensive bid, deciding that McCarthy's proposal best met the overall contract and project requirements.[107]

According to Ameren Missouri Witness Scott Wibbenmeyer, McCarthy will provide the engineering and design for the Reform Solar Facility, and Ameren Missouri will review and provide approval of the design.[108] McCarthy will obtain all the project materials, except for the main power transformers, the high voltage breakers, and the solar panels, which will all be supplied by the Company.[109] For the Reform Solar Facility project to be eligible for investment tax credits, McCarthy is required to pay prevailing wage and provide apprenticeship opportunities.[110] Under the terms of the GIA[111] that authorizes the Reform Solar Facility to interconnect to the Midcontinent Independent System Operator, Inc. ("MISO") transmission system, Ameren Missouri will oversee making the interconnection to the 345 kV transmission system.[112]

[105] *Id.* at page 7, line 21 – page 8, line 1.
[106] *Id.* at page 8, lines 2 - 3.
[107] *Id.* at page 8, lines 3 - 6.
[108] *Id.* at page 8, lines 7 – 10.
[109] *Id.* at page 8, lines 11 - 12.
[110] *Id.* at page 8, lines 13 - 14.
[111] Note: To the knowledge of Staff, the GIA has not been finalized as January 22, 2026.
[112] See Company Witness Scott Wibenmeyer's direct testimony on page 8, lines 15 – 17.

Additionally, Ameren Missouri will design and construct the Odyssey Switching Station on land the Company already owns, which is adjacent to the existing 345-kV Mongomery-Callaway-7 transmission line.[113] Components of the Odyssey Switching Station portion of the overall Reform Solar Facility project include: construction of the physical Odyssey Switching Station; construction of the Transmission Owner Interconnection Facilities ("TOIF") at the Odyssey Switching Station; and all necessary line work that will be needed to split the existing 345-kV Mongomery-Callaway-7 transmission line that will allow it to re-terminate at the new Odyssey Switching Station.[114]

Ameren Missouri is procuring materials to construct the Odyssey Switching Station under existing supplier agreements. The Company intends to contract the construction work through a competitive bidding process.[115] The Direct Testimony of Ameren Missouri Witness Leslie M. Tindall states:

> Generally, the sourcing process is comprised of: (i) formation of a contract development team to identify and write the scope of work to be completed, identification of qualified contractors for bidding, and the contractor selection criteria necessary; (ii) evaluation and acceptance of the statements of qualifications and bids received (where applicable); and (iii) negotiation of the terms and conditions most favorable to Ameren Missouri. This rigorous sourcing process assures Ameren Missouri secures market-based, cost competitive equipment, materials, and services for efficient and effective construction.[116]

Staff Witness: Donald A. Fontana, PE

[113] See Company Witness Leslie M. Tindall's direct testimony on page 3, lines 2 – 10.
[114] *Id.* at page 4, lines 3 - 8.
[115] *Id.* at page 6, lines 12 - 14.
[116] *Id.* at page 6, lines 14 - 20.

3. Construction Reporting

The Reform Solar Facility project is somewhat of a hybrid type of construction project. There are two components to the project:

A. Engineering, design, procurement, and construction of the solar generation infrastructure.
B. Engineering, design, procurement, and construction of the Odyssey Switching Station and associated line work.

Both components had a ** [redacted] **[117] Ameren Missouri's EPC contractor[118] is responsible for providing the design and engineering for the solar facility, but Ameren Missouri staff will do the design and engineering for the Odyssey Switching Station and associated line work in house.[119] Ameren Missouri has initiated the process for any related permit approvals.[120] Procurement of materials for the solar component of the proposed project will be the responsibility of the EPC contractor, except for the main power transformers, the high voltage breakers, and the solar panels.[121] These three parts of the apparatus to build the project will be acquired by Ameren Missouri. Procurement of the materials required to construct the Odyssey Switching Station will also be provided by Ameren Missouri.[122] Commissioning of both components of the proposed project will be conducted by the various contractors, but Ameren Missouri will make the tie-in to the existing 345-kV transmission

[117] Ameren Missouri Confidential Response to Staff DR No. 0053.
[118] See Company Witness Scott Wibbenmeyer's direct testimony, pages 6 – 7, lines 21 - 22, and, lines 1 – 19.
[119] Direct Testimony of Leslie Tindall, page 3, lines 7 – 9.
[120] See Company Witness Scott Wibbenmeyer's direct testimony, page 11, lines 8 – 14.
[121] *Id.*, page 8, lines 11 – 12.
[122] See Company Witness Leslie M. Tindall's direct testimony, page 2, lines 12 – 14.

system.[123] Lastly, Ameren Missouri has developed the Operations and Maintenance (O&M) procedures for their other existing solar facilities and switching stations, and O&M for the Reform Solar Facility is expected to follow established protocols.[124]

With respect to construction reporting, the EPC contract is structured to contain four milestones that will accompany various stages of the project:

1. Limited Notice to Proceed ("LNTP")
2. Full Notice to Proceed ("FNTP")
3. Substantial Completion
4. Final Completion

The initial LNTP phase designation covered the project phase in which Ameren Missouri issued a purchase order to McCarthy that authorized the project engineering and design to occur. The LNTP is limited and does not include the entirety of work that will occur to construct the project. Once Ameren Missouri issues the FNTP, they will essentially be issuing a purchase order to McCarthy which permits them to perform the entire scope of work associated to the terms of the contract for this project. The threshold which equates to the Substantial Completion phase requires that all components of the project have been installed; that there is availability of interconnection; and that capacity testing requirements have been successfully accomplished, allowing the project to meet the In-Service definition of the EPC contract. The Final Completion phase will apply to the project once any punch list items have been addressed, and no outstanding items exist as pertain to the EPC contract.[125]

[123] See Company Witness Scott Wibbenmeyer's direct testimony, page 8, lines 15 – 17.
[124] Direct Testimony of Leslie Tindall, page 7, lines 2 – 5.
[125] See Company Witness Scott Wibbenmeyer's direct testimony, pages 8 – 9, lines 17 – 23, and, 1 – 11.

Documentation and discussion will occur at each of the four milestones listed above, but this is only written into the structure of the EPC contract and won't pertain in the same way to the future successful low bidder of the Odyssey Switching Station. Ultimately in a hybrid construction project like this, all three entities; Ameren Missouri, McCarthy, and the future successful low bidder for the Odyssey Switching Station portion of the Reform Solar Project, will have to make a concerted effort to maintain good project coordination and keep in regular communication with each other. One way this is typically accomplished is through construction progress meetings that are held at an agreed upon time interval. It is assumed that this type of structure will be required by Ameren Missouri, but it is unknown at this time if this would include all construction contractors in the room at the same time for progress meetings, or if it would involve one contractor at a time.

Staff Witness: Donald A. Fontana, PE

f. Recommendations

Staff refers the Commission to Auditing Condition Number 2, and recommends adding that condition to approval of the CCN Application.

Staff Witness: Donald A. Fontana, PE

4. In-service Criteria

In-service criteria is a set of operational tests or requirements developed to determine whether a new unit is "fully operational and used for service."[126] The criteria typically include items such as "all major construction work is complete", "all preoperational tests have been

[126] Section 393.135, RSMo.

successfully completed", and "meets contract operational guarantees."[127] The purpose of these criteria is to demonstrate to the Commission that Missouri ratepayers are getting what they will ultimately be paying for through rates.

Ameren Missouri is proposing the same in-service criteria approved by the Commission in File No. EA-2023-0286.[128] Ameren Missouri witness Scott Wibbenmeyer included these criteria as Schedule SW-D3 to his Direct Testimony. Staff recommended these same criteria in other cases and finds that it is reasonable that they be used for the Reform Solar Project in this case. Staff recommends the Commission order the in-service criteria shown in Schedule SW-D3 for use in determining whether the Project is fully operational and used for service.

Staff Witness: Amanda Arandia

5. Public comments

As of January 12, 2026, there were fourteen (14) comments in the Commission's Electronic Filing and Information System ("EFIS") pertaining to this case.

The comments which have been received to date are predominantly positive toward the project and encourage energy diversification, although not entirely so. A concern was voiced not specifically about the proposed project, but about increases to electric bills due to data centers, and one mistakenly thought the project would be taking place on public land.

Additionally, an in-person Local Public Hearing ("LPH") was held at the Legends Rec-Plex in Fulton, Missouri, on January 6, 2026. Approximately 50 people were in attendance.

In addition to the in-person LPH, a virtual LPH was held on January 8, 2026, to allow another opportunity for input from the public.

[127] See Case No. EA-2023-0286, Rebuttal Testimony of Shawn Lange, PE, Confidential Schedule SEL-r2.
[128] Direct Testimony of Scott Wibbenmeyer, page 20, lines 18 - 21.

The LPHs were attended by Chair Hahn, Commissioner Coleman, Commissioner Kolkemeyer, and Regulatory Law Judge Fewell. Five people provided testimony at the in-person Hearing, and five people provided testimony during the Virtual Local Public Hearing as well.

In summary, the overall response from the public through comments placed in EFIS, and at the in-person and virtual LPH seems to be positive toward the Reform Solar Project, but Staff respectfully recommends that the Commissioners read the comments associated with this CCN Application.[129]

Staff Witness: Donald A. Fontana, PE

6. Rate making considerations

a. Ratemaking Mechanisms

The Reform Solar Project may be eligible for Plant in Service Accounting ("PISA").[130] Staff recommends that any PISA ratemaking treatment for the Reform Solar Facility be determined in a future rate case when the asset is in service.

The remaining 15% of depreciation and return would then be eligible to be included into the Renewable Energy Standard Rate Adjustment Mechanism ("RESRAM") if the project is in fact utilized to meet RES compliance.[131] However, if Ameren Missouri elects to utilize the project for the Renewable Solutions Program ("RSP"), then the project cannot also be utilized for meeting RES compliance as the RECs retired from the facility would not be for Ameren Missouri's compliance, but rather for large general service (3M), small primary service (4M), and large

[129] Staff notes that additional comments may have been filed in EFIS during or after the preparation of this Staff Report.
[130] The Reform Solar facility would be eligible for PISA if considered "qualifying electric plant" that does not increase revenue by allowing service to new customer premises.
[131] Section 393.1030.1, RSMo.

primary service (11M) customers. This means that PISA may be eligible for ratemaking recovery, but the RESRAM would not be utilized for the remaining 15% of return on and of the asset.

If the Commission approves this CCN without Staff's condition that the Reform Solar Project be designated for RES compliance, Staff recommends that the Commission order Ameren Missouri to notify Staff within this docket regarding whether the Reform Solar Project will be utilized for RES compliance or for the RSP subscriber program.

PISA was enacted into law in June 2018 by Missouri Senate Bill 564 and allows Missouri investor-owned electric utilities the option to defer to a regulatory asset eighty-five percent of all depreciation expense and return associated with the qualifying plant investment and recorded to "plant-in-service" on the utility's books. Qualifying electric plant consists of all rate-base additions, except rate-base additions for new coal-fired generating units, new nuclear generating units, or rate-base additions that increase revenue by allowing service to new customer premises.[132] The PISA statute[133] was recently modified per Missouri Senate Bill 4 that was signed into law on April 9, 2025. The PISA statute now allows PISA to be utilized for rate-base additions that include new natural gas units.

The Missouri RES was approved by voters in 2008 and requires investor-owned electric utilities in Missouri to generate or purchase a certain amount of retail sales using renewable energy resources. Ameren Missouri complies with this standard through the retirement of RECs. RECs are an asset on Ameren Missouri's books and can be actively traded or sold. The dollar amount of RECs that are included in rates are determined during a rate case.

[132] Section 393.1400.3, RSMo.
[133] Section 393.1400, RSMo.

Staff Witness Amanda Arandia provides additional discussion within this rebuttal report regarding RES compliance and recommends that the Solar Reform facility be utilized to meet RES compliance. The RESRAM is a special rate-making mechanism that allows an investor-owned electric utility in the State of Missouri to adjust rates outside of a general rate case. This rider enables Ameren Missouri to recover prudently incurred RES compliance costs and pass-through benefits to customers.

The RSP is a subscription-based program that Ameren Missouri offers to Missouri businesses so that the business can claim clean energy, reduce their carbon footprint, and meet sustainability goals. An RSP asset produces RECs for Ameren Missouri, but those RECs are retired semi-annually on behalf of the business paying the subscription under the authorized tariff. The payment costs for the subscription are an additional charge on the customer's bill calculated as laid out within the tariff.[134]

Staff recommends, similar to Case Nos. EA-2022-0245 and EA-2023-0286, that if the Reform Solar Project is not ordered by the Commission to be utilized for RES compliance and allows the asset to be utilized as an asset for the RSP, that Ameren Missouri track and specifically delineate within each Federal Energy Regulatory Commission ("FERC") account all revenues, investments and expenses associated with the Renewable Solutions Program Reform Solar Project. The tracked information shall accompany or be made available with the filing of its next rate case for Commission consideration.

Staff Witness: Benjamin H. Burton

[134] Renewable Solutions Program begins on sheet 74.11 within the tariff.

b. Income Tax Credits

The One Big Beautiful Bill Act ("OBBBA") altered both investment tax credit ("ITC") an production tax credit ("PTC") qualifications. The Reform Solar Project is a clean energy generation project and as such is eligible for either tax credit. Since the enactment of the Inflation Reduction Act ("IRA"), ITCs and PTCs qualify for only clean energy projects. Both types of tax credits offer an emission-based incentive that is neutral and flexible between clean electricity technologies. Both allow taxpayers to deduct a percentage of the cost of the eligible renewable energy systems from their federal taxes; however, they work in different ways. PTCs are based on the amount of energy that the renewable resource generates and are typically included in the cost of service within the income tax calculation and RESRAM base (if the project is for RES compliance). ITCs are based on a percentage determined by meeting certain requirements prior to being placed in service. While both the ITC or PTC would be beneficial to rate payers by reducing the overall cost of the project, only one type of income tax credit can be utilized per project.

In general, the Clean Electricity Investment Tax Credit ("CEITC") base credit is 6% of the qualified investment.[135] The base credit can be multiplied by up to five (5) times, or 30%, for facilities that meet prevailing wage and registered apprenticeship requirements.[136] There is also an additional 10% bonus credit for the Reform Solar Project being a part of an "energy community".

[135] Clean Electricity Investment Credit, Internal Revenue Service; https://www.irs.gov/credits-deductions/clean electricity-investment-credit.
[136] Prevailing Wage and Apprenticeship Requirements, Internal Revenue Service; Prevailing wage and apprenticeship requirements | Internal Revenue Service.

According to the IRS an energy community is defined as:

1. A brownfield site; or
2. A metropolitan statistical area or non-metropolitan statistical area which has (or, at any time during the period beginning after December 31, 2009, had) 0.17 percent or greater direct employment or 25 percent or greater local tax revenues related to the extraction, processing, transport, or storage of coal, oil, or natural gas (as determined by the Secretary), and has an unemployment rate at or above the national average unemployment rate for the previous year (as determined by the Secretary); or
3. A census tract in which after December 31, 1999, a coal mine has closed, or after December 31, 2009, a coal-fired electric generating unit has been retired;[137] or
4. For purposes of any qualified facility which is an advanced nuclear facility, a metropolitan statistical area which has (or, at any time during the period beginning after December 31, 2009, had) 0.17 percent or greater direct employment related to the advancement of nuclear power, including employment related to an advanced nuclear facility, advanced nuclear power research and development, nuclear fuel cycle research, development, or production, including mining, enrichment, manufacture, storage, disposal, or recycling of nuclear fuel, and the manufacturing or assembly of components used in an advanced nuclear facility.

In this instance, the Reform Solar Facility meets requirement three above to be eligible for the energy community bonus credit.

Currently, Ameren Missouri plans to utilize the ITC since it is expected to provide the most benefit to customers, at 40% of total project cost.[138] The project is expected to qualify for a base ITC of 30% as the project is expected to meet the labor requirements and then an additional bonus

[137] Ameren Missouri Response to Staff DR No. 0052, Ameren Missouri states this is what qualifies this project as an energy community.
[138] Direct Testimony of Scott Wibbenmeyer, page 14, lines 19 - 21.

credit for being located within an Energy Community (10%). Additionally, Ameren Missouri states that there might be another additional bonus credit of 10% related to domestic content for a total ITC applied to the project of 50%.[139] However, not all equipment orders with the EPC have been finalized, so a detailed analysis cannot be determined yet. The anticipated costs to meet the domestic content tax credit are not expected to be above the benefit received from the tax credit bonus.[140] Staff recommends that all documentation related to tracking, monitoring and ensuring that the prevailing wage and apprenticeship and any domestic content requirements be available for Staff review in the rate case following the in-service date of the project.

Ameren Missouri does not have to elect between the ITC and the PTC until the project is in service. If Ameren Missouri elects to utilize the ITC at the time the Reform Solar Project is placed in service, which Ameren Missouri estimates to be in 2028, Ameren Missouri will apply the actual tax credits that are claimed on the Company's consolidated income tax return as a reduction to its taxes due, assuming Ameren Missouri has the tax appetite to do so. If Ameren Missouri elects to utilize the PTC, then once the project is in service Ameren Missouri will monitor the actual generation, and a tax credit will be applied per kilowatt-hour (kWh). The monetary value of the PTC varies based on the facility's construction date, energy source, and whether labor and domestic content requirements are met. For facilities meeting all requirements, the credit can be up to 3 cents per kilowatt-hour, adjusted for inflation and available for 10 years of operation.

[139] The Domestic Content bonus credit is eligible for projects in which 100% of any steel or iron that is a component of the facility and 40% of the manufactured products that are components of the facility were produced in the United States. The credit is increased by 2% for projects that do not meet labor requirements, but up to a 10% increase for those projects that do meet labor requirements. All structural steel or iron products that are components of the facility must be produced in the United States and a threshold percentage of the total costs of manufactured products of the facility need to be mined, produced, or manufactured in the United States.
[140] Ameren Missouri Response to Staff DR No. 0084.

However, if Ameren Missouri does not have the tax appetite to utilize the tax credits (via ITC or PTC), they can be sold to a third party and the proceeds of the sale of the tax credits will be reflected in the IRA tracker after transaction completion. The amortization of the IRA tracker balance for the project would begin when rates take effect after the first general rate case occurring after the completion of credit monetization or sale of the credits.

Staff recommends that the Commission order Ameren Missouri to notify Staff within this docket which tax credit they have elected to utilize for the Reform Solar Project as soon as the election is made. Also, Staff recommends the Commission order Ameren Missouri to provide Staff with an analysis during a rate case proceeding demonstrating that the tax strategy ultimately chosen for the Reform Solar Project was most beneficial to customers.

Staff Witness: Benjamin H. Burton

c. Impacts of the OBBA

Within the OBBBA signed by President Trump on July 4, 2025, there were major changes to the previous IRA.[141] The credits under IRS code sections 45Y and 48E are terminated for applicable wind and solar facilities placed in service after December 31, 2027 (the "prior credit termination date"). There are earlier phaseouts for other technologies, and adjustments to the domestic content requirements, including introduction of Foreign Entity of Concern ("FEOC") restrictions.

Prior to the OBBBA, there were two methods in which a project could demonstrate it had met the beginning of construction deadline and is therefore not subject to the prior credit termination date. The project owner/taxpayer would need to demonstrate the financial

[141] The previous IRA was signed into law in 2022 for certain types of generation technologies.

"5% safe harbor rule"[142] was met or meet a requirement where physical work of a significant nature had occurred. Under the OBBBA, to qualify for income tax credits, Ameren Missouri can no longer use the 5% safe harbor rule for the Reform Solar Project to demonstrate beginning of construction. Instead, the company must show a "physical work test" as further described in schedule BHB 2 attached to this rebuttal report.[143] This type of work may include on-site, and off-site activities performed by or for Ameren Missouri such as installation of racks or other structures to affix photovoltaic (PV) panels, collectors, or solar cells to a site; or preparation of said structures for installation to a site. Ameren Missouri states it has met this requirement by executing purchase orders with WEG Transformers USA, LLC.[144]

Ameren Missouri must also meet the "continuity requirement".[145] This requirement is satisfied if the project involved continues physical work of a significant nature and the solar project is placed into service no more than four calendar years after the calendar year construction begins. Ameren Missouri plans to meet this requirement by having the Project in service by the fourth quarter of 2028.[146]

As mentioned above, the OBBBA limits foreign influence in the United States clean energy sector through the creation of FEOC restrictions. In other words, it limits foreign influence in the

[142] The 5% safe harbor rule, at the time, generally allowed a taxpayer to establish a project's eligibility for certain energy tax credits by paying or incurring at least 5% of the total project cost. It is now only available for projects under 1.5MW. *See* IRS Notice 2025-42.
[143] IRS Notice 2025-42. The physical work test is when physical work of a significant nature begins and is focused on the nature of the work performed, not the amount or the cost; and does not include preliminary activities such as planning, design, etc. Work performed by the taxpayer and work performed for the taxpayer by other persons **under a binding written contract that is entered into prior to the manufacture, construction, or production of the applicable wind or solar facility** for use by the taxpayer in the taxpayer's trade or business (or for the taxpayer's production of income) is taken into account in determining whether construction has begun. Both off-site and on-site work may be taken into account for purposes of demonstrating that the project meets the requirements. [Emphasis added.]
[144] Ameren Missouri Response to Staff DR No. 0020.
[145] IRS Notice 2025-42.
[146] Direct Testimony of Steven M. Wills, page 3, line 2.

United States clean energy sector by limiting goods or services from specified foreign entities ("SFE") and foreign-influenced entities ("FIE"). Projects owned or controlled by SFEs or FIEs are ineligible for tax credits. Additionally, tax credits are ineligible for projects that receive "material assistance" from an SFE or FIE and there is allowance for 100% recapture of an ITC if a taxpayer makes certain payments to an SFE or FIE within 10 years of placing a project in service. Wind and solar projects must show 40% non-SFE content for tax credit eligible investment in 2026 in order to still qualify for tax credits.

Through discovery, Ameren Missouri has stated that it believes it will meet the "physical work test", the "continuity requirement", and believes that since the Project officially began construction prior to the deadline of July 4, 2026,[147] the SFE and FEOC will not be applicable to this Project.[148] However, if the Project is deemed to not meet the requirements, the Project cost could inherently increase.

Staff recommends that Ameren Missouri also notify Staff within this docket of the final ITC percentage (including bonus credits) Ameren Missouri believes will be applied to the Project costs if the ITC is utilized for the Project.

Finally, the OBBBA also permanently extends 100% bonus depreciation under Internal Revenue Code ("IRC") Section 168(k) and introduces a new elective 100% depreciation allowance under Section 168(n) for qualified production property ("QPP"). The Reform Solar Project is considered to be eligible for 100% bonus depreciation. However, since Ameren Missouri is a regulated utility, certain property used in public utility businesses is not eligible for the additional first-year depreciation deduction (bonus depreciation) for tax years beginning after December 31,

[147] *See* IRS Notice 2025-42.
[148] Ameren Missouri Response to Staff DR No. 0084.

2017. The IRC provides that Ameren Missouri can elect to deduct interest expense or bonus depreciation, but not both. Due to this, Ameren Missouri stated that it believes deducting interest expense each year is the most beneficial option for its customers and will forgo accelerated depreciation.[149]

Staff Witness: Benjamin H. Burton

d. Impact of Tax Credits

If Ameren Missouri elects to utilize the ITC for the Reform Solar Project, a 40% or possible 50% tax credit would be applied to only the overall cost of the project investment. However, not all costs of the project will be eligible for purposes of calculating the ITC. Only costs integral to the energy property[150] will be considered ITC eligible costs in which the 40% - 50% ITC would be applied.[151] Ameren Missouri has not completed a cost segregation study specifically for the Reform Solar Project at this time, but intends to hire a third party to complete a cost segregation study upon the Project achieving commercial operation.[152] It is estimated that *** [redacted] *** of the Reform Solar Project costs are ITC eligible.[153]

The chart below represents the Base and Risk Adjusted cases summarizing the overall dollar impact of the ITCs for the Reform Solar Project, if the ITC is elected to be used for the Project rather than the PTC.

[149] Ameren Missouri Response to Staff DR No. 0065.
[150] Energy property refers to specific types of equipment and systems that generate and are eligible for U.S. federal tax credits to promote clean energy (solar, wind, geothermal, batteries).
[151] The eligible tax basis of the project includes the purchase and installation of the solar panels, inverters, wiring, mounting hardware/racking equipment, monitoring equipment, as well as the associated sales tax, freight, and construction labor directly tied to the installation.
[152] Ameren Missouri Response to Staff DR No. 0086.
[153] Ameren Missouri Response to Staff DR No. 0066.

	Reform Base Case	Reform Risk Adj. Case
Total CapEX[154]	*** [redacted] ***	*** [redacted] ***
CapEx after 40% ITC (Received Yr 1)	*** [redacted] ***	*** [redacted] ***
CapEx after 50% ITC (If 10% domestic content bonus credit is achieved)[155]	*** [redacted] ***	*** [redacted] ***

If Ameren Missouri utilized the PTC, it estimates the tax credit benefit to be approximately ** [redacted] ** over the 10-year window available for tax credits from the Project.[156] However, that assumes certain estimated generation of the facility over the same time period.

Staff Witness: Benjamin H. Burton

e. Inventory

Staff issued discovery regarding possible inventory that may be required to be kept on hand when the Reform Solar Project is placed in service. Ameren Missouri stated that it is the EPC contractor's responsibility to finalize the list and provide pricing for the selected spare parts. The specific items and cost of each cannot be finalized until all design is complete and the equipment to be installed has been procured.[157]

Staff Witness: Benjamin H. Burton

[154] Highly Confidential Attachment to Ameren Missouri Response to Staff DR No. 0066.
[155] The amount of CapEx excludes any interconnection costs as they are not eligible for ITCs or PTCs.
[156] Ameren Missouri Response to Staff DR No. 0061.
[157] Ameren Missouri Response to Staff DR No. 0016.

f. Operations & Maintenance (O&M) Expense, Property Tax Expense, and Interconnection Expense

Through discovery, Ameren Missouri has said it forecasted annual ongoing expenses, but at the time of Application, it did not have any projections for future capital costs associated with the Project. Ameren Missouri has not entered into any O&M contracts as of the time of discovery.

The ongoing expenses will be related to property tax, interconnection, and O&M expense.[158] The ongoing O&M costs are estimated to be *** [redacted] *** These expenses consist of labor, materials, and supplies for operation and maintenance of the facility and will be recorded in FERC account 558. The ongoing interconnection costs are estimated to be approximately *** [redacted] *** per year and will be recorded in FERC account 550.

Ameren Missouri intends to establish an agreement with Callaway County for Chapter 100 financing for the Reform Solar Project. A Chapter 100 financing agreement is an option that benefits rate payers as a Payment in Lieu of Taxes ("PILOT") and is typically less costly than traditional property taxes. It authorizes cities and counties to issue industrial development bonds to finance a wide variety of commercial facilities and to offer property tax abatements. The county in which the facility is located holds title to the project and leases the project back to a company pursuant to a lease agreement. The lease payments under the agreement equal debt service payments on the bonds, making the property exempt from property taxes.[159]

Typically, property taxes are centrally assessed, and utility property is treated as distributable property by the State Tax Commission. Once assessed, it is taxed at the same local tax rates where the property is located. The Chapter 100 structure allows facilities to avoid

[158] Ameren Missouri Response to Staff DR No. 0039.
[159] Chapter 100 of the Missouri Revised Statutes generally describes Industrial Development Projects.

ad valorem taxes (property taxes) when the title to the facility is owned by a tax-exempt entity. Based on the location of the Project, the tax-exempt entity is Callaway County. The county will hold legal title of the project but will lease back to Ameren Missouri in a "sale and leaseback transaction". Ameren Missouri will make PILOTs directly to Callaway County throughout the term as a lessee. This in turn reduces the total cost of property tax expenses that are included in customer rates. Throughout this agreement, Ameren Missouri will operate and control this property as if it holds the legal right including recognizing the asset and depreciation on its books as well as allowing for PISA treatment, if deemed appropriate.

However, as of the filing date, the *** [redacted]. *** The PILOT current estimate is *** [redacted]. ***[160]

	Traditional Property Tax (Base Case)	**Traditional Property Tax (Risk Adjusted)**	**PILOT Assuming 250 MW**[161]
Reform Project[162]	*** [redacted] ***[163]	*** [redacted] ***	*** [redacted] ***

The actual PILOT amount will be included in the property tax tracker once incurred, after the asset goes into service.

[160] Ameren Missouri Response to Staff DR No. 0062.

[161] Assuming *** [redacted] ***

[162] Project costs for traditional property tax is calculated upon the project eligible amount, excluding interconnection costs.

[163] Ameren Missouri assumed a consistent annual property tax valuation and taxed amount over the 30-year life of the asset without considering asset depreciation.

In regard to insurance expense, Ameren Missouri will hold excess liability insurance that would provide coverage during construction when the plant is in-service for third party claims. Once in-service Ameren will add this project to its Master Solar Property program.

In regard to transmission revenue and expense, the first year's revenue is estimated to be ** [redacted], ** while the first year's expense is estimated to be ** [redacted].**[164]

Staff Witness: Benjamin H. Burton

g. Recommendations

1. Ameren Missouri will retain and provide to Staff, during the next rate case proceeding that includes the Reform Solar Project in rate base, all supporting documentation relied upon by Ameren Missouri for eligibility of the ITC for the project, including but not limited to, FEOC restriction requirements, and any third-party consultant documentation related to the tracking, monitoring and ensuring that wage and domestic content requirements are met.
2. Ameren Missouri will file quarterly progress reports of the construction of the Reform Solar Project, with a provision that Staff can occasionally request more frequent construction reporting, should there be a need to verify that proper coordination of all parties is occurring. This report shall include, but not be limited to, updates on permitting, plans, specifications, construction costs and milestone updates, as well as updates regarding any impacts from legislative or executive actions, including tariffs, tax credits and Foreign Entities of Concern implications.
3. Staff recommends that any PISA ratemaking treatment for the Reform Solar Facility be determined in a future rate case when the asset is in service.
4. Staff recommends that the Commission order Ameren Missouri to notify Staff within this docket which tax credit it has elected to utilize for the Reform Solar Project as soon as the election is made. Also, Ameren Missouri needs to provide Staff with an analysis during a rate case proceeding demonstrating that

[164] Ameren Missouri Response to Staff DR No. 0037.

the tax strategy ultimately chosen for the Reform Solar Project was most beneficial to customers.

5. Staff recommends that all documentation related to tracking, monitoring and ensuring that the prevailing wage and apprenticeship and any domestic content requirements be available for Staff review in the rate case following the in-service date of the Project.
6. Staff recommends that Ameren Missouri also notify Staff within this docket of the final ITC percentage (including bonus credits) Ameren Missouri believes will be applied to the Project costs if the Investment Tax Credit is utilized for the Project.
7. Staff recommends that the Reform Solar Project be utilized as an asset for RES compliance. However, if the Commission grants the asset for the RSP, Staff recommends that Ameren Missouri track and specifically delineate within each FERC account all revenues, expenses and investment associated with the Renewable Solutions Program Reform Solar Project. The tracked information shall accompany or be made available with the filing of its next rate case for Commission consideration.[165]
8. If total Project costs change by more than 15% of either the base amount or risk adjusted project costs, Ameren Missouri shall notify the Commission within this docket, and provide a description of the change in cost, the reason for the cost increase and how Ameren Missouri attempted to mitigate that cost.

Staff Witness: Benjamin H. Burton

7. Cost Allocation and Rate Impacts

To provide context for the Commission in its review of the Application in this case, Staff provides a year-by-year revenue requirement impact of the Project, assuming perfect ratemaking, not addressing regulatory adjustment mechanisms, and relying on Ameren Missouri's

[165] *See* EA-2022-0245, Report and Order, Page 37, paragraph 4 ("Ameren Missouri shall track and specifically delineate within each FERC account all revenues, investments and expenses associated with the Renewable Solutions Program and the Boomtown Solar Project. The tracked information shall accompany or be made available with the filing of its next rate case for Commission consideration.").

projected annual revenue requirements. Staff's use of the allocators described below for this exercise is not an endorsement of the use of these allocation approaches in future rate cases. The results of these class-level revenue requirement impacts are described by Staff Witness Randall T. Jennings. Staff also provides these same calculations but incorporating a new 500 MW large load operating at an 85% load factor, to facilitate review of how historic allocation results will allocate the net cost of service of the Project with and without an addition of a large load customer.[166]

For the revenue requirements for the Project, Staff relied on Ameren Missouri's response to Staff DR No. 0023. In DR No. 0023, Staff requested that Ameren Missouri "[p]lease provide an analysis, in an executable MS Excel format, of the revenue requirement by year and by line item."

Staff has not adjusted any aspect of the yearly summarized revenue requirements provided by Ameren Missouri in response to this DR, in part because in DR No. 0023 Staff also requested that Ameren Missouri "[p]lease provide the energy production expected from the Reform Solar Project by month for the lifespan of the project," to which Ameren Missouri responded that "[t]he Company does not have a monthly energy production estimate for the lifespan of the Project." Staff also requested that Ameren Missouri "[p]lease provide the expected expenses by month for the lifespan of the project," to which Ameren Missouri responded that "[t]he Company does not have expected expenses by month for the lifespan of the project." Staff also requested that Ameren Missouri "[p]lease provide the expected cost per/kWh by month for the lifespan of the project," to which Ameren Missouri responded that "[t]he Company does not have a monthly estimate of expected costs per/kWh by month for the lifespan of the project."

[166] See Direct Testimony of Matt Michels at pages 8 - 9, indicating that additions of 500-3,500 MW of large load customer load at an 85% load factors were evaluated by Ameren Missouri for near term large load addition modeling.

Finally, Staff DR No. 0023 requested that Ameren Missouri "[p]lease identify any expected ratemaking treatment between base rates and rider rates." Ameren Missouri's response was, "[a]s stated in Company Witness Wills' Direct Testimony, the company expects to utilize Plant In Service Accounting ('PISA'). Beyond PISA, the Company may also decide in the future to seek inclusion of the costs and benefits of the Project in its RESRAM to the extent it is determined that the primary purpose of the Project is that the output of the Project is needed to satisfy the Company's Renewable Energy Standard compliance requirements."[167] Thus, Staff's year-by-year revenue requirement impact summary, provided below, does not address RESRAM treatment, nor does it reflect the customer impact of any PISA-related rate recovery occurring prior to the Project being fully reflected in a rate case.

To estimate the allocation of costs and benefits that may result from the Project among customer classes, based on Ameren Missouri's response to Staff's DR No. 0023, Staff allocated the line items by year provided by Ameren Missouri using the allocation factors used by Ameren Missouri in its most recent rate case (ER-2024-0319). Staff did not incorporate rate case timing, FAC operation, RESRAM operation, or make any adjustments to Ameren Missouri's response to Staff's DR No. 0023.

For purposes of this case, Staff used the same energy values by class, energy allocator, capacity allocator (the Average and Excess 4 NCP), and transmission allocator (12 CP) utilized by Ameren Missouri in its most recent rate case (ER-2024-0319). Staff recalculated these allocators from Case No. ER-2024-0319 to incorporate a 500 MW new large load customer operating with an 85% load factor.

[167] Staff DR No. 0026 requested, "1) Please provide the anticipated impact to the revenue requirement by year, for the life of the project, from the addition of the project including an MS Excel spreadsheet (with formulas intact) illustrating any calculations performed; 2) Based on Ameren's most recent allocation approach in a general rate case, please provide the anticipated impact to each rate class resulting from the addition of the project by year, for the life of the project, including an MS Excel spreadsheet (with formulas intact) illustrating any calculations performed. To the extent that any of the source documentation is another spreadsheet, please provide cell specific citations for the source information requested." Ameren Missouri's response was, "1. Please see the response to Subpart 1 to Data Request number 23 and the associated attachment. 2. The Company has not performed the analysis."

At page 3, lines 12 - 14, of his direct testimony, Scott Wibbenmeyer testifies that "[t]he Reform Solar Project is a ground-mounted, single-axis tracking photovoltaic solar generation plant and associated facilities with a capacity of approximately 250 MW. Its estimated annual production of energy is approximately 530,000 mega-watt hours ('MWh')." The annual projected energy output of the Project would equal the annual energy consumption of a 71 MW customer operating at an 85% load factor. The energy requirements of a 500 MW large load customer operating at an 85% load factor is 3,723,000 MWh, or approximately 702% of the output Ameren Missouri has projected for the Project.

To observe the allocators that would result from scaling load additions to the size of the Project, Staff also recalculated the allocators from Case No. ER-2024-0319 to incorporate 71 MW of new load operating with an 85% load factor, as the largest customer that would have its "energy need"[168] met by this Project.[169]

The allocators with and without the new large load customer(s) are provided below:

	Capacity Allocator (A&E 4 NCP)		
	ER-2024-0319	500 MW New LLC	71 MW New Load
Res.	51.0%	47.4%	50.5%
SGS	11.3%	10.4%	11.1%
LGS/SPS	29.6%	27.4%	29.2%
LPS	7.9%	7.3%	7.8%
Lighting	0.3%	0.3%	0.3%
New Large Load	0.0%	7.2%	1.1%

	Energy Allocator (Class MWh)		
	ER-2024-0319	500 MW New LLC	71 MW New Load
Res.	43.1%	38.8%	42.4%
SGS	10.5%	9.5%	10.3%
LGS/SPS	34.7%	31.2%	34.2%
LPS	11.3%	10.1%	11.1%
Lighting	0.4%	0.4%	0.4%
New Large Load	0.0%	10.1%	1.6%

[168] "Energy need," is discussed further by Staff Witness Amanda Arandia.
[169] A customer of this size would not qualify for LLC service, as the threshold is 75 MW for LLC service.

	Transmission Allocator (12 CP)		
	ER-2024-0319	500 MW New LLC	71 MW New Load
Res.	49.7%	45.3%	49.0%
SGS	10.7%	9.8%	10.6%
LGS/SPS	31.3%	28.5%	30.8%
LPS	8.2%	7.5%	8.1%
Lighting	0.2%	0.1%	0.2%
New Large Load	0.0%	8.8%	1.4%

Staff applied these allocators to each year of post-in-service cost of service and revenues provided in Ameren Missouri's response to DR No. 0023, simulating annual rate cases and no riders such as the FAC or the RESRAM. Consistent with recent Ameren Missouri-filed class cost of service ("CCOS") studies, and relying on the breakdown and level of detail provided by Ameren Missouri, Staff allocated the interconnection facilities on the basis of the 12 CP transmission allocator, O&M and revenue on the basis of class energy, and the following elements of the solar net revenue requirement using the A&E 4 NCP allocator:

- Book Depreciation (Incremental Capital Investment)
- Property Taxes (During In-Service Years)
- Interest Expense - During Construction Period
- Interest Expense - During In-Service Period
- Deferred Income Taxes
- Equity Return
- Current Income Taxes During Construction & In-Service Periods
- Total Revenue Requirement - Unadjusted for Regulatory Lag (Excluding Tax Credits)
- Amortization of Deferred Investment Tax Credit (Regulated Companies Only)

The annual revenue requirements, as provided by Ameren Missouri and as functionalized by Staff relying on Ameren Missouri's historic functionalization approach, is attached as Confidential Schedule 2, Pages 28 - 35. The annual allocated revenue requirements are attached as Confidential Schedule 2, Pages 21 - 27.

Staff Witness: Sarah L.K. Lange

a. Results

In considering the need, economic feasibility, and public interest of the proposed Project, Staff recommends the Commission consider the potential rate impacts to be expected in future cases under the class cost of service allocation approach taken by Ameren Missouri in its most recent rate case, and Ameren Missouri's allocator calculations.[170]

Staff Witness Sarah L.K. Lange allocated the annual revenue requirement for the Project as provided in Ameren Missouri's response to Staff DR No. 0023 and used the class allocators from the most recent general rate case (ER-2024-0319).

It is important to note that scenarios discussed in this section do not address rate case timing, rate increases for any reason over the life of the plant and rely solely upon workpapers provided by Ameren Missouri in response to Staff DR No. 0023. Figure 2 models the rate impact by class without additional customers.

Figure 2 – Unadjusted Annual Rate Impact without New Large Load customers

**

**

[170] *See* Case No. ER-2024-0319.

If the Project is completed but no additional customers are added, the Residential rate class would pay approximately ** [redacted] ** in additional rate charges over the lifespan of the project or 55% of the total additional rate charges this Project will cause during that time frame. Each hypothetical residential customer would pay an additional ** [redacted] ** over the life of the plant.

Figure 3 models the rate impact by class with 500 MW of Large Load Customers being added. In this hypothetical model, the Residential rate class would still pay approximately ** [redacted] ** million in additional rate charges over the lifespan of the project. While this amount is ** [redacted] ** less than if no Large Load Customers are added, it still represents an increase in rates for each customer within the Residential rate class of ** [redacted] ** over the lifespan of the project.

Figure 3 – Unadjusted Annual Rate Impact with 500 MW New Large Load

**

**

Other rate classes will also be affected by inclusion of the Project. The table below lists the number of customers in each rate class, the total amount paid by each customer in the respective rate classes over the lifespan of the Project based upon an estimated average power usage, whether

or not 500 MW of new LLC is added, and the totals for each rate class. Once again, this table does not address rate case timing, rate increases for any reason over the life of the plant and relies solely upon workpapers provided by Ameren Missouri in response to Staff DR No. 0023. Schedule RJ-1 filed with this report contains additional detail.

** [redacted] **

For example, if the project is completed but no additional customers are added, the Residential rate class will pay approximately ** [redacted] ** of the total project costs. If 500 MW of new LLC is added, the percentage of costs paid by the Residential rate class will be reduced to ** [redacted] ** of the total project costs.

As previously discussed, Figure 4 represents the annual bill impact on a single residential customer[171] over the life of the plant. This hypothetical residential customer would pay an additional ** [redacted] ** over the life of the plant depending on whether no new load or whether 500 MW of LLC load is added, respectively. The annual impact on each of the ** [redacted] ** hypothetical residential customers ranges from ** [redacted] ** to ** [redacted] ** over the 30-year life span of the plant. Once again, Figure 4 does not address rate case timing, rate increases for any reason over the life of the plant and relies solely upon workpapers provided by Ameren Missouri in response to Staff DR No. 0023.

[171] Assuming the residential customer uses 1,088.72 kWh each month.

Figure 4 – Annual Bill Impact on a Residential Customer

**

[redacted]

**

Ameren Missouri's allocators were used in Schedule RJ-1 for the purpose of illustrating the potential bill impact to a residential customer. However, Staff is not recommending the Commission make a determination on the allocation of the cost of service of the Project in this case. Such a determination is appropriate for subsequent rate cases in which recovery for these assets is sought so that the Commission may consider all relevant factors in place at that time.

Staff Expert: Randall T. Jennings

8. Interconnection

Ameren Missouri filed an interconnection application into the 2020 MISO generator interconnection study cycle to begin the process of securing transmission interconnection rights for future solar development.[172]

** [redacted][173]

[redacted]

[172] Scott Wibbenmeyer Direct Testimony, page 5, lines 8 - 11.
[173] Ameren Missouri Confidential Response to Staff DR No. 0037.

[redacted]

**

A GIA has not been executed as Ameren Missouri has chosen to wait for GIA negotiations until after the Generator Interconnection Study has been finalized. Copies of both will be provided upon finalization and execution, respectively.[174]

Staff recommends any CCN granted for the proposed project be conditioned upon Ameren Missouri providing executed Generator Interconnection Agreement.

[174] Ameren Missouri Response to Staff DR No. 0036.

Ameren Missouri filed an interconnection application into the 2020 MISO generator interconnection study cycle to begin the process of securing transmission interconnection rights for future solar development.

** [redacted] **

A GIA has not been executed as Ameren Missouri has chosen to wait for GIA negotiations until after the Generator Interconnection Study has been finalized. Copies of both will be provided upon finalization and execution, respectively.

Staff recommends any CCN granted for the proposed project be conditioned upon Ameren Missouri providing executed Generator Interconnection Agreement.

Staff Witness: Shawn E. Lange, PE

a. Interconnection standards (IEEE 2800)

IEEE Standards Association ("IEEE SA") published a new standard (IEEE Standard 2800™) related to large solar projects such as Reform Solar in 2022. IEEE Standard 2800™ is the Standard for Interconnection and Interoperability of Inverter-Based Resources Interconnecting with Associated Transmission Electric Power Systems. IEEE SA explained the need to establish a new standard, stating "[r]ecent events in North America such as the Blue Cut Fire Disturbance as well as institutional challenges in North America that suggest the inappropriate use

of IEEE Standard 1547™ for large-scale solar plants underscores this need."[175] IEEE Standard 1547™ is the IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces. The IEEE 1547 ™ is appropriate for distributed energy resources, such as net-metered customers.

North American Electric Reliability Corporation[176] ("NERC") also highlighted the need for developing a standard that is pertinent to inverters used for generation that will be connected to the transmission system in its *1,200 MW Fault Induced Solar Photovoltaic Resource Interruption Disturbance Report*.

Staff is aware that IEEE Standard 2800™ will require its adoption by the regional authority governing interconnection requirements ("AGIR").[177]

The project will be designed such that it is capable of complying with the IEEE 2800 standard.[178] Ameren Missouri expects that a number of the IEEE 2800 requirements will be proposed in the Reform Solar GIA. However, the draft GIA for Reform Solar has not been provided to Ameren Missouri by MISO as of the date this Report was prepared, and neither Staff nor Ameren Missouri are able at this time to confirm which sections of IEEE 2800 will be applicable.[179]

Staff Witness: Shawn E. Lange, PE

[175]IEEE SA, IEEE P2800 – Standard for Interconnection and Interoperability of Inverter-Based Resources Interconnecting with Associated Transmission Electric Power System, *available at:* https://sagroups.ieee.org/2800/#:~:text=Given%20that%20IEEE%20standards%20are%20voluntary%20industry%20standards%2C,resources%20interconnecting%20with%20associated%20transmission%20electric%20power%20systems.

[176] The North American Electric Reliability Corporation is a not-for-profit international regulatory authority whose mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.

[177] For IEEE 2800, AGIR is an entity that defines, codifies, communicates, administers, and enforces the policies and procedures for allowing electrical interconnection of inverter-based resources interconnecting with associated transmission electric power systems. Other IEEE standards may have slightly different definitions for AGIR, such as IEEE 1547-2018.

[178] Ameren Missouri Response to Staff DR No. 0099.

[179] Ameren Missouri Response to Staff DR No. 0099.

9. Conclusion and Recommended Conditions

In summary, based on Staff's review, 1) Reform Solar Project is needed to provide RECs required for its RES obligations; 2) Ameren Missouri is qualified to own, operate, control and manage the associated facilities and provide the service; 3) Ameren Missouri has the financial ability to provide the proposed service; 4) the Project is economically feasible; 5) the Project is in the public interest with the conditions recommended by Staff. Staff recommends the Commission approve the Project, subject to the following conditions.

a. Economic Conditions

1. The Commission should order Ameren Missouri to provide thorough explanation of the exclusion of alternative generation types to address identified needs in future IRP and CCN cases.
2. Ameren Missouri should inform the Commission of any changes in the generator interconnection facilities costs. Ameren Missouri shall notify the Commission and provide an updated economic analysis if the upgrade cost exceeds those outlined in the GIA, more than 15%.
3. If the expected cost of a future CCN application project on a $/kw basis or $/kw-accredited exceeds both the assumed cost in the IRP analysis and the assumed cost of another resource type that is capable of satisfying the need identified for the CCN application, Ameren Missouri shall provide an updated IRP analysis utilizing updated cost assumptions.
4. Ameren Missouri should clearly identify all available solar cost mitigation strategies to address and limit further solar cost escalations.

b. Auditing Conditions

1. Ameren Missouri will retain and provide to Staff, during the next rate case proceeding that includes the Reform Solar Project in rate base, all supporting documentation relied upon by Ameren Missouri for eligibility of the ITC for the project, including but not limited to, FEOC restriction requirements, and any third-party consultant documentation related to the tracking, monitoring and ensuring that wage and domestic content requirements are met.
2. Ameren Missouri will file quarterly progress reports of the construction of the Reform Solar Project, with a provision that Staff can occasionally request more frequent construction reporting, should there be a need to verify that proper coordination of all parties is occurring. This report shall include, but not be limited to, updates on permitting, plans, specifications, construction costs and milestone updates, as well as updates regarding any impacts from legislative or executive actions, including tariffs, tax credits and Foreign Entities of Concern implications.
3. Staff recommends that any PISA ratemaking treatment for the Reform Solar Facility be determined in a future rate case when the asset is in service.
4. Staff recommends that the Commission order Ameren Missouri to notify Staff within this docket which tax credit it has elected to utilize for the Reform Solar Project as soon as the election is made. Also, Ameren Missouri needs to provide Staff with an analysis during a rate case proceeding demonstrating that the tax strategy ultimately chosen for the Reform Solar Project was most beneficial to customers.
5. Staff recommends that all documentation related to tracking, monitoring and ensuring that the prevailing wage and apprenticeship and any domestic content requirements be available for Staff review in the rate case following the in-service date of the Project.

6. Staff recommends that Ameren Missouri also notify Staff within this docket of the final ITC percentage (including bonus credits) Ameren Missouri believes will be applied to the Project costs if the Investment Tax Credit is utilized for the Project.
7. Staff recommends that the Reform Solar Project be utilized as an asset for RES compliance. However, if the Commission grants the asset for the RSP, Staff recommends that Ameren Missouri track and specifically delineate within each FERC account all revenues, expenses and investment associated with the Renewable Solutions Program Reform Solar Project. The tracked information shall accompany or be made available with the filing of its next rate case for Commission consideration.[180]
8. If total Project costs change by more than 15% of either the base amount or risk adjusted project costs, Ameren Missouri shall notify the Commission within this docket, and provide a description of the change in cost, the reason for the cost increase and how Ameren Missouri attempted to mitigate that cost.

c. Engineering Conditions

1. Ameren Missouri should provide an executed Generator Interconnection Agreement.
2. Ameren Missouri should specifically designate the Reform Solar Project for RES compliance.
3. Ameren Missouri shall file with the Commission as-built drawings for the Project within 100 days after the "Final Completion Date or Final Acceptance Date," as defined in the, as applicable, BTA, PSA, or EPC agreement, provided that if developer/contractor is excused

[180] *See* EA-2022-0245, Report and Order page 37, paragraph 4 ("Ameren Missouri shall track and specifically delineate within each FERC account all revenues, investments and expenses associated with the Renewable Solutions Program and the Boomtown Solar Project. The tracked information shall accompany or be made available with the filing of its next rate case for Commission consideration.").

under the terms of the agreement from providing certain as-built drawings by that deadline, Ameren Missouri will file such as-built drawings within ten (10) days after receipt thereof. Ameren Missouri will notify the Staff of the Commission within ten (10) days after the Final Completion Deadline or Final Acceptance Date if there are any as-built drawings for which developer/contractor was excused from delivering by that deadline.

4. Ameren Missouri shall submit an overview of its plans for restoration of safe and adequate service after significant, unplanned/forced outages within ninety (90) days prior to the date that each Project will be placed in-service, and Ameren Missouri shall submit final plans for restoration of safe and adequate service after significant, unplanned/forced outages no later than sixty (60) days after each Project is placed in-service.

IV. Variance Requests

Ameren Missouri requested two variances to the application requirements:

- A variance from the requirement in 20 CSR 4240-20.045(3)(C) so that as-built drawings for the Reform Solar Project can be supplied after exercise of authority under the CCN consistent with the condition related to as-built drawings adopted by the Commission in File No. EA-2023-0286[181]; and
- A variance from the provisions of 20 CSR 4240-20.045(6)(J) allowing it to submit an overview of its plans for restoration of safe and adequate service after significant, unplanned/forced outages ninety (90) days prior to the time that the Reform Solar Project is placed in-service, consistent with the Commission's most recent CCN order for Ameren Missouri.[182]

[181] Application, page 18.
[182] Application, page 16, paragraph j.

For context 20 CSR 4240-20.045(3)(C) requires that if any of the items required under this rule are unavailable at the time the application is filed, the unavailable items may be filed prior to the granting of authority by the Commission, or the Commission may grant the certificate subject to the condition that the unavailable items be filed before authority under the certificate is exercised. And 20 CSR 4240-20.045(6)(J) requires an overview of plans for safe and adequate service after significant, unplanned/forced outages of an asset.

Staff Witness Fontana mentions these requests in Schedule 2, Pages 43 - 48 and does not oppose these requests.

In reference to the variance from the requirement in 20 CSR 4240-20.045(3)(C), a condition was adopted by the commission in File No. EA-2023-0286 allowing Ameren Missouri to

> file with the Commission as-built drawings for the Project within 100 days after the "Final Completion Date or Final Acceptance Date," as defined in the, as applicable, BTA, PSA, or EPC agreement, provided that if developer/contractor is excused under the terms of the agreement from providing certain as-built drawings by that deadline, Ameren Missouri will file such as-built drawings within ten (10) days after receipt thereof. Ameren Missouri will notify the Staff of the Commission within ten (10) days after the Final Completion Deadline or Final Acceptance Date if there are any as-built drawings for which developer/contractor was excused from delivering by that deadline.[183]

Ameren also requested a similar variance to 20 CSR 4240-20.045(6)(J) in EA-2025-0238; which Staff did not oppose subject to the conditions.[184]

Staff recommends the Commission grant variance from the requirements of Commission Rules 20 CSR 4240-20.045(3)(C) and 20 CSR 4240-20.045(6)(J), subject to the following conditions:

[183] EA-2023-0286, Stipulation and Agreement, paragraph l.
[184] EA-2025-0238, Staff Rebuttal Report, page 94, lines 16 - 20.

1. Ameren Missouri shall file with the Commission as-built drawings for the Project within 100 days after the "Final Completion Date or Final Acceptance Date," as defined in the, as applicable, BTA, PSA, or EPC agreement, provided that if developer/contractor is excused under the terms of the agreement from providing certain as-built drawings by that deadline, Ameren Missouri will file such as-built drawings within ten (10) days after receipt thereof. Ameren Missouri will notify the Staff of the Commission within ten (10) days after the Final Completion Deadline or Final Acceptance Date if there are any as-built drawings for which developer/contractor was excused from delivering by that deadline.
2. Ameren Missouri shall submit an overview of its plans for restoration of safe and adequate service after significant, unplanned/forced outages within ninety (90) days prior to the date that each Project will be placed in-service, and Ameren Missouri shall submit final plans for restoration of safe and adequate service after significant, unplanned/forced outages no later than sixty (60) days after each Project is placed in-service.[185]

Staff Witness: Malachi Bowman

Schedule 1 – Staff Credentials

Schedule 2 – Confidential

[185] Condition consistent with recommended condition in File No. EA-2025-0238.

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 Permission and Approval and Certificates of Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities	)))))	Case No. EA-2025-0239

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 Rebuttal Report*; 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 15th day of January 2026.

D. Suzie Mankin
Notary Public

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

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 Permission and Approval and Certificates of Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities	)))))	Case No. EA-2025-0239

AFFIDAVIT OF MALACHI BOWMAN

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

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

Further the Affiant sayeth not.

MALACHI BOWMAN

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 15th day of January 2026.

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

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 Permission and Approval and Certificates of Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities	)))))	Case No. EA-2025-0239

AFFIDAVIT OF BENJAMIN H. BURTON

STATE OF MISSOURI)
) ss.
COUNTY OF ST. LOUIS)

COMES NOW BENJAMIN H. BURTON and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Rebuttal Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Benjamin H. Burton
BENJAMIN H. BURTON

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of St. Louis, State of Missouri, at my office in St. Louis, on this 21st day of January 2026.

LISA M. FERGUSON
Notary Public - Notary Seal
State of Missouri
Commissioned for St. Louis County
My Commission Expires: June 23, 2028
Commission Number: 16631502

Lisa M. Ferguson
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 Permission and Approval and Certificates of Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities	)))))	Case No. EA-2025-0239

AFFIDAVIT OF DONALD A. FONTANA, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW DONALD A. FONTANA, PE, and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Rebuttal Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Donald A. Fontana, P.E.
DONALD A. FONTANA, 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 15th day of January 2026.

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 Permission and Approval and Certificates of Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities	)))))	Case No. EA-2025-0239

AFFIDAVIT OF RANDALL T. JENNINGS

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW RANDALL T. JENNINGS and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Rebuttal Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

RANDALL T. JENNINGS

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 15th day of January 2026.

Notary Public

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

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 Permission and Approval and Certificates of Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities	)))))	Case No. EA-2025-0239

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 Rebuttal Report*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Sarah L.K. 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 15th day of January 2026.

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 Permission and Approval and Certificates of Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities	)))))	Case No. EA-2025-0239

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 Rebuttal Report*; 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 15th day of January 2026.

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 Permission and Approval and Certificates of Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities	)))))	Case No. EA-2025-0239

AFFIDAVIT OF HARI K. POUDEL, PhD

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW HARI K. POUDEL, PhD, and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Rebuttal Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

HARI K. POUDEL, PhD

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 15th day of January 2026.

Notary Public

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

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 Permission and Approval and Certificates of Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities	)))))	Case No. EA-2025-0239

AFFIDAVIT OF JUSTIN TEVIE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

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

Further the Affiant sayeth not.

JUSTIN TEVIE

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 20th day of January 2026.

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

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 Permission and Approval and Certificates of Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities	)))))	Case No. EA-2025-0239

AFFIDAVIT OF SEOUNG JOUN WON, PhD

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW SEOUNG JOUN WON, PhD, and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Rebuttal Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

SEOUNG JOUN WON, PhD

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 15th day of January 2026.

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

Notary Public

Amanda Arandia

Present Position:

I am an Associate Engineer in the Engineering Analysis Department, of the Industry Analysis Division of the Missouri Public Service Commission.

Educational Background and Work Experience:

I received my Bachelor of Science in Chemical Engineering from the University of Missouri in 2012. I was employed by the Missouri Department of Natural Resources as an Environmental Engineer from 2015 through 2018. I have been employed by the Commission since 2018.

Case History:

Case Number	Utility	Type	Issue
EC-2020-0252	Evergy West	Electric	Formal Complaint
EO-2019-0315	KCPL	Electric	RES Compliance Report
EO-2019-0317	KCPL	Electric	RES Compliance Plan
EO-2019-0396	City of Gallatin	Electric	Addendum to Territorial Agreement
EO-2020-0060	Farmers' Electric	Electric	Territorial Agreement
EO-2020-0329	Evergy Metro	Electric	RES Compliance
EO-2020-0331	Evergy Metro	Electric	RES Compliance
EO-2020-0341	Evergy Metro	Electric	Vegetation Management Report
EO-2020-0342	Evergy West	Electric	Vegetation Management Report
EO-2021-0001	Empire	Electric	Reliability Compliance Report
ET-2021-0082	Ameren	Electric	Surge Protection Program
SA-2019-0161	United Services	Sewer	Depreciation
SR-2019-0157	S.K.&M.	Sewer	Depreciation
EA-2020-0371	Ameren	Electric	CCN Application Requirements
EO-2021-0163	SEMO	Electric	Change of Supplier
EO-2021-0345	Evergy Metro	Electric	RES Compliance
EO-2021-0346	Evergy West	Electric	RES Compliance
EO-2021-0347	Evergy Metro	Electric	RES Compliance
EO-2021-0348	Evergy West	Electric	RES Compliance
SA-2022-0014	Elm Hills	Sewer	Depreciation

SA-2022-0029	Mid Mo Sanitation	Sewer	Depreciation
EE-2022-0074	Ameren	Electric	Variance Request
WA-2021-0391/SA-2021-0392	Missouri American Water	Water/Sewer	Depreciation
WA-2022-0049	Missouri American Water	Water/Sewer	Depreciation
ER-2021-0240	Ameren	Electric	Rate Case
ER-2021-0312	Empire	Electric	Rate Case
ER-2022-0129	Evergy	Electric	Rate Case – Green Pricing Plan
WA-2023-0003	Confluence Rivers	Water/Sewer	Depreciation
GR-2022-0179	Spire	Gas	Depreciation
EA-2022-0244	Ameren	Electric	Renewable Energy
WR-2022-0303	Missouri American Water	Water/Sewer	Depreciation
ER-2022-0337	Ameren	Electric	Solar Rebate Tariff, Landfill and Solar In-Service Criteria
ET-2023-0197	Empire	Electric	Solar Rebate Tariff
EO-2023-0361	Evergy Metro	Electric	RES Compliance
EO-2023-0362	Evergy West	Electric	RES Compliance
WR-2023-0344	Raytown	Water	Depreciation
EE-2024-0037	Ameren	Electric	Variance
EO-2024-0301	Evergy Metro	Electric	RES Compliance Report
EO-2024-0299	Evergy Metro	Electric	RES Compliance Plan
GR-2024-0106	Liberty Midstates	Gas	Depreciation
SR-2024-0306	TBJ Sewer	Sewer	Depreciation
ER-2024-0189	Evergy West	Electric	Depreciation, Continuing Property Record, Steam Allocations
WR-2024-0104	Liberty Water	Water	Depreciation
ER-2024-0319	Ameren	Electric	Depreciation
EO-2025-0040	Evergy	Electric	Depreciation Accounting Order
EO-2025-0283	Evergy West	Electric	RES Compliance
EO-2025-0282	Evergy Metro	Electric	RES Compliance

EA-2024-0292	Evergy	Electric	Solar CCN
HO-2025-0244	Evergy	Steam	Depreciation Accounting Order
EO-2025-0154	Evergy	Electric	Renewable Programs
ER-2024-0261	Empire	Electric	Electrification Program
ET-2025-0154	Ameren	Electric	Renewable Programs
WR-2025-0292	Environmental Utilities	Water	Depreciation
EE-2026-0114	Ameren	Electric	RES Variance
EA-2025-0238	Ameren	Electric	CCN

CREDENTIALS AND CASE PARTICIPATION OF MALACHI BOWMAN

PRESENT POSITION:

I am an Associate Engineer in the Engineering Analysis Department, Industry Analysis Division, of the Missouri Public Service Commission.

EDUCATIONAL BACKGROUND AND WORK EXPERIENCE:

I received my Bachelors of Science degree in Mechanical Engineering from the University of Kansas in December of 2020. I was employed as a Sales Engineer in the commercial heating, ventilation, & air conditioning ("HVAC") industry from 2022-2024. I have been employed by the Commission since May of 2024 as an Associate Engineer.

CASE PARTICIPATION:

Company	Case Number	Issues
Missouri-American Water Company	WR-2024-0320	Depreciation
Holtgrewe Farms	WR-2024-0343 & SR-2024-0344	Depreciation
Ameren Missouri	EA-2024-0237	CCN – Staff Report
Ameren Transmission Company of Illinois	EA-2024-0302	CCN – Staff Report
Ameren Transmission Company of Illinois	EA-2025-0087	CCN – Staff Report
Ameren Missouri (Gas)	GR-2024-0369	Depreciation
Spire (Gas)	GR-2025-0107	Depreciation
Empire (Electric)	ER-2024-0261	Depreciation
Ameren Missouri (Electric)	EA-2025-0238	CCN – Staff Report

Benjamin H. Burton

Present Position:

I am a Senior Utility Regulatory Auditor, Auditing Department, Financial & Business Analysis Division of the Missouri Public Service Commission. As a Senior Utility Regulatory Auditor, I assist in research and analysis of the financial aspects of public utility operations.

Educational Credentials and Work Experience:

I received a Bachelor of Science degree in Finance from Lindenwood University in May 2023. In July, 2025 I received a Master of Business Administration (MBA) degree with an emphasis in Accounting from Lindenwood University. I am currently enrolled in New Mexico State University's Public Utility Regulation and Economics (PURE) graduate certificate program. I have been employed by the Missouri Public Service Commission since June 2023.

Prior to my present position I worked part-time as an intern for the Commission's St. Louis Unit from March 2023 through June 2023. My duties during this time period primarily consisted of compiling large volumes of data into Microsoft Excel spreadsheets for review and analysis as part of a large formal water and sewer rate case. From June 2022 through August 2022 I also completed an internship as a data analytics consultant with New York Life Insurance Company while working in New York City, NY. My duties as an intern included creating Microsoft Excel documents that were presented to a New York Life management team on a daily, monthly and quarterly basis.

Past Rate Case Proceedings:

Company Name	**Case No.**	**Issue(s)**
Union Electric Company dba Ameren Missouri	GR-2024-0369	Gas Revenue, Other Miscellaneous Revenue, Gross Receipts Tax Expense, Uncollectible Expense, Insurance Expense, PGA Fuel Cost Removal, Misbooked Electric/Gas costs in test year, Rents and Leases
Union Electric Company dba Ameren Missouri	ER-2024-0319	Property Taxes, Property Tax Tracker, Rate Case Expense, PSC Assessment, Plant in Service and Depreciation Reserve, Materials and Supplies, Prepayments, Customer Deposits, Customer Advances, Emission Allowances, Capitalized O&M Depreciation, Fuel Inventories, Advertising, Misbooked Allocation of Gas costs in test year, AMR and AMI meter adjustment, radioactive waste disposal expense, employee relocation expense, NRC fees
Liberty Midstate's Gas	GR-2024-0106	Fuel Expense, Advertising, Payroll & Payroll Tax Expense, Severance, Dues and Donations, Lobbying Expense, Board of Directors Fees, and Legal Expense
Union Electric Company dba Ameren Missouri	EA-2023-0286	General Ledger and Recordkeeping (Renewable Solutions Program and Boomtown Order)

Donald A. Fontana, PE

Current Position:

I am a Senior Professional Engineer in the Engineering Analysis Department – Industry Analysis Division of the Missouri Public Service Commission.

Educational Background and Work Experience:

I received a Bachelor of Science degree in Civil Engineering from the University of Missouri – Columbia in 1998, and I am a Registered Professional Engineer in the State of Missouri.

After graduation, I was initially employed as a consultant Designer (Engineer-In-Training) by Central Missouri Professional Services from June 1998 through May 2003.

I was next employed as a Design Engineer and Project Manager by the Missouri Department of Conservation from May 2003 to March 2007. I obtained licensure in Missouri as a Professional Engineer in 2004 (License Number 2004017168).

I was next employed by the City of Jefferson City, Missouri – Department of Public Works from March 2007 to November 2024, as the City's Stormwater Engineer and Floodplain Administrator.

I have been employed as a staff member with the Missouri Public Service Commission from December 2024 through the present (currently November 2025). To date, I have not testified before the Missouri Public Service Commission.

Testimony Filed:

Case Number	Utility	Testimony	Issue
EA-2025-0028	Ameren Missouri	Staff Report	Application Requirements, Qualifications, Public Interest, Recommended Conditions
EA-2024-0292	Evergy Missouri West	Staff Report	Application Requirements, Qualifications, Siting Study, Recommended Conditions
EA-2025-0075	Evergy Missouri West / Evergy Missouri Metro	Staff Report	Qualifications, Siting Study, Recommended Conditions
EA-2025-0087	Ameren Transmission Company of Illinois (ATXI)	Staff Report	Qualifications, Public Interest, Recommended Conditions, Routing Study

EA-2025-0222	Ameren Transmission Company of Illinois (ATXI)	Staff Report	Executive Summary, Tartan Analysis – Need, Tartan Analysis – Routing and Conditions
EA-2025-0238	Ameren Missouri	Staff Report	Tartan Public Interest – Consumer Comments, BESS Safety, Contributed to the Restoration/ Operational Plans section
EA-2025-0239	Ameren Missouri	Staff Report	General – Review Application Rule Requirements Tartan Factors – Qualification of Ameren to Construct, Own, Operate, and Maintain Public Interest – Consumer Comments -Siting Evaluation -Construction Reporting/ Bid Evaluation (RFP Scoring)

Randall Jennings

Present Position:

I began employment with the Missouri Public Service Commission in October 2021 as a Utility Regulatory Auditor and was later promoted to the position of Senior Utility Regulatory Auditor; both in the Financial Analysis Department of the Financial and Business Analysis Division. In July 2024 I moved to the Tariff and Rate Design Department of the Industry Analysis Division as a Research and Data Analyst and in November 2025, was promoted to the position of Senior Research and Data Analyst with the same department.

Educational Background and Work Experience:

I earned a Bachelor of Science degree in Business Administration from Drury University in Springfield, MO. I was previously employed as a Regulatory Auditor and Supervisor with the Missouri Division of Professional Registration for 11 years and prior to that as an Investigator for the Missouri Attorney General for 8 years.

Case Participation:

Company Name	Case Number	Case Type / Type of Testimony or Filing	Utility
The Raytown Water Company	WF-2021-0427	Finance – Staff Memorandum	Water
Evergy Missouri West, Inc., d/b/a Evergy Missouri West	EF-2022-0103	Finance – Staff Memorandum	Electric
Summit Natural Gas of Missouri, Inc.	GR-2022-0122	Tariff Revision – Rebuttal & Surrebuttal Testimony	Gas
Missouri American Water Company	WF-2022-0161	Finance – Staff Memorandum	Water
Union Electric Company, d/b/a Ameren Missouri	EF-2022-0164	Finance – Staff Memorandum Financing Compliance – Staff Memorandum	Electric
Spire Missouri Inc.	GF-2022-0169	Finance – Staff Memorandum	Gas
Summit Natural Gas of Missouri, Inc.	GF-2022-0216	Finance – Staff Memorandum	Gas
S.K. & M. Water and Sewer Company	SR-2022-0239 WR-2022-0240	Rate Case – Staff Memorandum	Water
Missouri American Water Company	WR-2022-0303	Rate Case – Direct, Rebuttal & Surrebuttal Testimony	Water
Argyle Estates Water Supply	WR-2022-0345	Rate Case – Staff Memorandum	Water
Liberty Utilities (Midstates Natural Gas) Corp., d/b/a Liberty	GF-2023-0280	Finance – Staff Memorandum	Gas
The Raytown Water Company	WR-2023-0344	Rate Case – Direct, Rebuttal & Surrebuttal Testimony	Water
Evergy Metro Inc., d/b/a Evergy Missouri Metro	EF-2023-0425	Finance – Staff Memorandum	Electric
Union Electric Company, d/b/a Ameren Missouri	EO-2023-0448	Nuclear Decommissioning – Rebuttal & Surrebuttal Testimony	Electric
Evergy Missouri West, Inc., d/b/a Evergy Missouri West	ER-2024-0189	RESRAM Prudence – Staff Memorandum	Electric
Evergy Missouri West, Inc., d/b/a Evergy Missouri West	EA-2024-0292	CCN - Staff Recommendation	Electric
Union Electric Company, d/b/a Ameren Missouri	ER-2024-0319	RESRAM Prudence – Staff Memorandum	Electric
Holtgrewe Farms Water Company, LLC	SR-2024-0344 WR-2024-0343	Rate Case – Staff Memorandum	Sewer Water

Missouri American Water Company	WF-2024-0353	Finance – Staff Memorandum	Water
Union Electric Company, d/b/a Ameren Missouri	ER-2025-0119	RESRAM Adjustment Mechanism – Memorandum	Electric
Evergy Missouri West, Inc., d/b/a Evergy Missouri West	ET-2025-0121	RESRAM Tariff Sheet – Memorandum	Electric
Evergy Missouri Metro, Inc., d/b/a Evergy Missouri Metro	EO-2025-0173	DSIM Rider Rate Adjustment and Rate Tariff Sheet – Memorandum	Electric
Evergy Missouri West, Inc., d/b/a Evergy Missouri West	EO-2025-0174	DSIM Rider Rate Adjustment and Rate Tariff Sheet – Memorandum	Electric
The Empire District Electric Company d/b/a Liberty	ER-2024-0261	Rate Case – Direct and Rebuttal Testimony	Electric
Evergy Missouri Metro, Inc., d/b/a Evergy Missouri Metro	EO-2025-0325	DSIM Rider Rate Adjustment and Rate Tariff Sheet – Memorandum	Electric
Evergy Missouri West, Inc., d/b/a Evergy Missouri West	EO-2025-0326	DSIM Rider Rate Adjustment and Rate Tariff Sheet – Memorandum	Electric
Union Electric Company, d/b/a Ameren Missouri	ER-2026-0081	RESRAM Adjustment Mechanism – Memorandum	Electric
Evergy Missouri West, Inc., d/b/a Evergy Missouri West	ET-2026-0086	RESRAM Adjustment Mechanism – Memorandum	Electric
Evergy Missouri Metro, Inc., d/b/a Evergy Missouri Metro	EO-2026-0138	DSIM Rider Rate Adjustment and Rate Tariff Sheet – Memorandum	Electric
Evergy Missouri West, Inc., d/b/a Evergy Missouri West	EO-2026-0139	DSIM Rider Rate Adjustment and Rate Tariff Sheet – Memorandum	Electric

Sarah L.K. Lange

I received my J.D. from the University of Missouri, Columbia, in 2007, and am licensed to practice law in the State of Missouri. I received my B.S. in Historic Preservation from Southeast Missouri State University, and took courses in architecture and literature at Drury University. Since beginning my employment with the MoPSC I have taken courses in economics through Columbia College and courses in energy transmission through Bismarck State College, and have attended various trainings and seminars, indicated below.

I began my employment with the Commission in May 2006 as an intern in what was then known as the General Counsel's Office. I was hired as a Legal Counsel in September 2007, and was promoted to Associate Counsel in 2009, and Senior Counsel in 2011. During that time my duties consisted of leading major rate case litigation and settlement, and presenting Staff's position to the Commission, and providing legal advice and assistance primarily in the areas of depreciation, cost of service, class cost of service, rate design, tariff issues, resource planning, accounting authority orders, construction audits, rulemakings and workshops, fuel adjustment clauses, document management and retention, and customer complaints.

In July 2013 I was hired as a Regulatory Economist III in what is now known as the Tariff / Rate Design Department. In this position my duties include providing analysis and recommendations in the areas of RTO and ISO transmission, rate design, class cost of service, tariff compliance and design, and regulatory adjustment mechanisms and tariff design. I also continue to provide legal advice and assistance regarding generating station and environmental control construction audits and electric utility regulatory depreciation. I have also participated before the Commission under the name Sarah L. Kliethermes.

Presentations

Midwest Energy Policy Series – Impact of ToU Rates on Energy Efficiency (August 14, 2020)

Billing Determinants Lunch and Learn (March 27, 2019)

Support for Low Income and Income Eligible Customers, Cost-Reflective Tariff Training, in cooperation with U.S.A.I.D. and NARUC, Addis Ababa, Ethiopia (February 23-26, 2016)

Fundamentals of Ratemaking at the MoPSC (October 8, 2014)

Ratemaking Basics (Sept. 14, 2012)

Participant in Missouri's Comprehensive Statewide Energy Plan working group on Energy Pricing and Rate Setting Processes.

Relevant Trainings and Seminars

FRI Advanced Seminar on Transformation Utility Pricing & Rate Design (April 7 - 9, 2025)

Regional Training on Integrated Distribution System Planning for Midwest/MISO Region (October 13-15, 2020)

"Fundamentals of Utility Law" Scott Hempling lecture series (January – April, 2019)

Today's U.S. Electric Power Industry, the Smart Grid, ISO Markets & Wholesale Power Transactions (July 29-30, 2014)

MISO Markets & Settlements training for OMS and ERSC Commissioners & Staff (January 27–28, 2014)

Validating Settlement Charges in New SPP Integrated Marketplace (July 22, 2013)

PSC Transmission Training (May 14 – 16, 2013)

Grid School (March 4–7, 2013)

Specialized Technical Training - Electric Transmission (April 18–19, 2012)

The New Energy Markets: Technologies, Differentials and Dependencies (June 16, 2011)

Mid-American Regulatory Conference Annual Meeting (June 5–8, 2011)

Renewable Energy Finance Forum (Sept. 29–Oct 3, 2010)

Utility Basics (Oct. 14–19, 2007)

Testimony and Staff Memoranda

Company	**Case No.**
Union Electric Company d/b/a Ameren Missouri In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and Certificates of Public Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities	EA-2025-0239
Evergy Metro, Inc. d/b/a Evergy Missouri Metro Evergy Missouri West, Inc. d/b/a Evergy Missouri West In the Matter of the Application of Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West for Approval of New or Modified Tariffs to Permit Customers to Opt-Out of Time of Use Rates	ET-2026-0074
Union Electric Company d/b/a Ameren Missouri In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and Certificates of Public Convenience and Necessity Authorizing it to Construct a New Generation Facility and Battery Energy Storage System	EA-2025-0238
Union Electric Company d/b/a Ameren 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	ET-2025-0184
Evergy Metro, Inc. d/b/a Evergy Missouri Metro Evergy Missouri West, Inc. d/b/a Evergy Missouri West In the Matter of the Application of Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West for Approval of New and Modified Tariffs for Service to Large Load Customers	EO-2025-0154
The Empire District Electric Company d/b/a Liberty In the Matter of the Petition of The Empire District Electric Company d/b/a Liberty for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in Its Missouri Service Area	ER-2024-0261
Evergy Metro, Inc. d/b/a Evergy Missouri Metro In the Matter of the Tariff Filings of Evergy Metro, Inc. d/b/a Evergy Missouri Metro.	ET-2025-0286
Evergy Missouri West, Inc. d/b/a Evergy Missouri West In the Matter of the Application of Evergy Missouri West, Inc. d/b/a Evergy Missouri West for Permission and Approval of Certificates of Public Convenience and Necessity Authorizing It to Construct, Install, Own, Operate, Manage, Maintain and Control Two Solar Generation Facilities.	EA-2024-0292
Union Electric Company d/b/a Ameren Missouri In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Adjust its Revenues for Electric Service.	ER-2024-0319

Evergy Missouri West, Inc. d/b/a Evergy Missouri West ER-2024-0189 In the Matter of Evergy Missouri West, Inc. dba Evergy Missouri West's Request for Authority to Implement a General Rate Increase for Electric Service.
Evergy Metro, Inc. d/b/a Evergy Missouri Metro ET-2024-0182 Evergy Missouri West, Inc. d/b/a Evergy Missouri West In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's and Evergy Missouri West, Inc. d/b/a Evergy Missouri West's Solar Subscription Rider Tariff Filings
Evergy Metro, Inc. d/b/a Evergy Missouri Metro EC-2024-0092 Evergy Missouri West, Inc. d/b/a Evergy Missouri West The Staff of the Missouri Public Service Commission, Complainant, v Evergy Metro, Inc. d/b/a Evergy Missouri Metro's and Evergy Missouri West, Inc. d/b/a Evergy Missouri West
Evergy Metro, Inc. d/b/a Evergy Missouri Metro ET-2024-0061 Evergy Missouri West, Inc. d/b/a Evergy Missouri West In the Matter of the Joint Application of Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West for Approval of Tariff Revisions to TOU Program
Union Electric Company d/b/a Ameren Missouri EF-2024-0021 In the Matter of the Petition of Union Electric Company d/b/a Ameren Missouri for a Financing Order Authorizing the Issue of Securitized Utility Tariff Bonds for Energy Transition Costs related to Rush Island Energy Center
Evergy Metro, Inc. d/b/a Evergy Missouri Metro E0-2024-0002 Evergy Missouri West, Inc. d/b/a Evergy Missouri West In the Matter of Requests for Customer Account Data Production from Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West
Evergy Metro, Inc. d/b/a Evergy Missouri Metro EO-2023-0423 Evergy Missouri West, Inc. d/b/a Evergy Missouri West EO-2023-0424 In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's Request to Revise Its Solar Subscription Rider
Evergy Metro, Inc. d/b/a Evergy Missouri Metro EO-2023-0369 Evergy Missouri West, Inc. d/b/a Evergy Missouri West EO-2023-0370 In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's Notice of Intent to File an Application for Authority to Establish a Demand-Side Programs Investment Mechanism
Union Electric Company d/b/a Ameren Missouri ER-2023-0136 In the Matter of Union Electric Company d/b/a Ameren Missouri's 4th Filing to Implement Regulatory Changes in Furtherance of Energy Efficiency as Allowed by MEEIA
Union Electric Company d/b/a Ameren Missouri EA-2023-0286 In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Certificates of Convenience and Necessity for Solar Facilities

Union Electric Company d/b/a Ameren Missouri In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Adjust its Revenues for Electric Service	ER-2022-0337
NextEra Energy Transmission Southwest, LLC In the Matter of the Application of NextEra Energy Transmission Southwest, LLC for a Certificate of Public Convenience and Necessity to Construct, Install, Own, Operate, Maintain, and Otherwise Control and Manage a 345 kV Transmission Line and associated facilities in Barton and Jasper Counties, Missouri	EA-2022-0234
Spire Missouri, Inc. In the Matter of Spire Missouri Inc.'s d/b/a Spire Request for Authority to Implement a General Rate Increase for Natural Gas Service Provided in the Company's Missouri Service Areas	GR-2022-0179
Evergy Missouri West, Inc. dba Evergy Missouri West In the Matter of Evergy Missouri West, Inc. dba Evergy Missouri West for a Financing Order Authorizing the Financing of Extraordinary Storm Costs Through an Issuance of Securitized Utility Tariff Bonds	EF-2022-0155
Evergy Metro, Inc. dba Evergy Missouri Metro Evergy Missouri West, Inc. dba Evergy Missouri West In the Matter of Evergy Metro, Inc. dba Evergy Missouri Metro's Request for Authority to Implement a General Rate Increase for Electric Service. In the Matter of Evergy Missouri West, Inc. dba Evergy Missouri West's Request for Authority to Implement a General Rate Increase for Electric Service.	ER-2022-0129 ER-2022-0130
The Empire District Electric Company d/b/a Liberty In the Matter of the Petition of The Empire District Electric Company d/b/a Liberty to Obtain a Financing Order that Authorizes the Issuance of Securitized Utility Tariff Bonds for Energy Transition Costs Related to the Asbury Plant	EO-2022-0193
The Empire District Electric Company d/b/a Liberty In the Matter of the Petition of The Empire District Electric Company d/b/a Liberty to Obtain a Financing Order that Authorizes the Issuance of Securitized Utility Tariff Bonds for Qualified Extraordinary Costs	EO-2022-0040
Ameren Transmission Company of Illinois In the Matter of the Application of Ameren Transmission Company of Illinois for a Certificate of Convenience and Necessity Under Section 393.170 RSMo Relating to Transmission Investments in Southeast Missouri	EA-2022-0099
The Empire District Electric Company d/b/a Liberty In the Matter of the Request of The Empire District Electric Company d/b/a Liberty for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in its Missouri Service Area	ER-2021-0312

Union Electric Company d/b/a Ameren Missouri In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Adjust its Revenues for Electric Service	ER-2021-0240
Ameren Transmission Company of Illinois In the Matter of the Application of Ameren Transmission Company of Illinois for a Certificate of Public Convenience and Necessity to Construct, Install, Own, Operate, Maintain, and Otherwise Control and Manage a 138 kV Transmission Line and associated facilities in Perry and Cape Girardeau Counties, Missouri	EA-2021-0087
Evergy Affiliates In the Matter of the Application of Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West for Approval of a Transportation Electrification Portfolio	ET-2021-0151
Spire Missouri, Inc. In the Matter of Spire Missouri Inc.'s d/b/a Spire Request for Authority to Implement a General Rate Increase for Natural Gas Service Provided in the Company's Missouri Service Areas	GR-2021-0108
Union Electric Company d/b/a Ameren Missouri In the Matter of the Request of Union Electric Company d/b/a Ameren for Approval of its Surge Protection Program	ET-2021-0082
Union Electric Company d/b/a Ameren Missouri In the Matter of the Request of Union Electric Company d/b/a Ameren Missouri to Implement the Delivery Charge Adjustment for the 1st Accumulation Period beginning September 1, 2019 and ending August 31, 2020	GT-2021-0055
The Empire District Electric Company In the Matter of The Empire District Electric Company's Tariffs Approval of a Transportation Electrification Portfolio for Electric Customers in its Missouri Service Area	ET-2020-0390
The Empire District Electric Company In the Matter of The Empire District Electric Company's Tariffs to Increase Its Revenues for Electric Service	ER-2019-0374
Union Electric Company d/b/a Ameren Missouri In the Matter of of Union Electric Company d/b/a Ameren Missouri's Tariffs to Decrease Its Revenues for Electric Service	ER-2019-0335
KCP&L Greater Missouri Operations Company In the Matter of KCP&L Greater Missouri Operations Company Request for Authority to Implement Rate Adjustments Required by 4 CSR 240-20.090(8) And the Company's Approved Fuel and Purchased Power Cost Recovery Mechanism	ER-2019-0413
Union Electric Company d/b/a Ameren Missouri In the Matter of of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase Its Revenues for Natural Gas Service	GR-2019-0077

Union Electric Company d/b/a Ameren Missouri In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri Revised Tariff Sheets	ET-2019-0149
The Empire District Electric Company In the Matter of The Empire District Electric Company's Revised Economic Development Rider Tariff Sheets	ET-2019-0029
The Empire District Electric Company In the Matter of a Proceeding Under Section 393.137 (SB 564) to Adjust the Electric Rates of The Empire District Electric Company	ER-2018-0366
Union Electric Company d/b/a Ameren Missouri In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of Public Convenience and Necessity Authorizing it to Construct a Wind Generation Facility	EA-2018-0202
Kansas City Power & Light Company KCP&L Greater Missouri Operations Company In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service	ER-2018-0145 ER-2018-0146
Union Electric Company d/b/a Ameren Missouri In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of Efficient Electrification Program	ET-2018-0132
Union Electric Company d/b/a Ameren Missouri In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of 2017 Green Tariff	ET-2018-0063
Laclede Gas Company Laclede Gas Company d/b/a Missouri Gas Energy In the Matter of Laclede Gas Company's Request to Increase Its Revenue for Gas Service, In the Matter of Laclede Gas Company d/b/a Missouri Gas Energy's Request to Increase Its Revenue for Gas Service.	GR-2017-0215 GR-2017-0216
Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Demand Side Investment Rider Rate Adjustment And True-Up Required by 4 CSR 240-3.163(8)	ER-2017-0316
Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Demand Side Investment Rider Rate Adjustment And True-Up Required by 4 CSR 240-3.163(8)	ER-2017-0167
KCP&L Great Missouri Operations Company In the Matter of KCP&L Greater Missouri Operations Company's Annual RESRAM Tariff Filing	ET-2017-0097

Grain Belt Express Clean Line, LLC In the Matter of the Application of Grain Belt Express Clean Line LLC for a Certificate of Convenience and Necessity Authorizing It to Construct, Own, Operate, Control, Manage, and Maintain a High Voltage, Direct Current Transmission Line and an Associated Converter Station Providing an Interconnection on the Maywood - Montgomery 345 kV Transmission Line	EA-2016-0358
Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Demand Side Investment Rider Rate Adjustment And True-Up Required by 4 CSR 240-3.163(8)	ER-2016-0325
Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service	ER-2016-0285
Union Electric Company d/b/a Ameren Missouri In the Matter of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of Public Convenience and Necessity Authorizing it to Offer a Pilot Subscriber Solar Program and File Associated Tariff	EA-2016-0207
Union Electric Company d/b/a Ameren Missouri In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariff to Increase Its Revenues for Electric Service	ER-2016-0179
KCP&L Great Missouri Operations Company In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement a General Rate Increase for Electric Service	ER-2016-0156
Empire District Electric Company In the Matter of The Empire District Electric Company's Request for Authority to Implement a General Rate Increase for Electric Service	ER-2016-0023
Ameren Transmission Company of Illinois In the Matter of the Application of Ameren Transmission Company of Illinois for Other Relief or, in the Alternative, a Certificate of Public Convenience and Necessity Authorizing it to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage a 345,000-volt Electric Transmission Line from Palmyra, Missouri to the Iowa Border and an Associated Substation Near Kirksville, Missouri	EA-2015-0146
Ameren Transmission Company of Illinois In the Matter of the Application of Ameren Transmission Company of Illinois for Other Relief or, in the Alternative, a Certificate of Public Convenience and Necessity Authorizing it to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage a 345,000-volt Electric Transmission Line in Marion County, Missouri and an Associated Switching Station Near Palmyra, Missouri	EA-2015-0145
Union Electric Company d/b/a Ameren Missouri In the Matter of Union Electric Company d/b/a Ameren Missouri's 2nd Filing to Implement Regulatory Changes in Furtherance of Energy Efficiency as Allowed by MEEIA	EO-2015-0055

Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service	ER-2014-0370
Empire District Electric Company In the Matter of The Empire District Electric Company for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area	ER-2014-0351
Union Electric Company d/b/a Ameren Missouri City of O'Fallon, Missouri, and City of Ballwin, Missouri, Complainants v. Union Electric Company d/b/a Ameren Missouri, Respondent	EC-2014-0316
Union Electric Company d/b/a Ameren Missouri In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariff to Increase Its Revenues for Electric Service	ER-2014-0258
Union Electric Company d/b/a Ameren Missouri Noranda Aluminum, Inc., et al., Complainants, v. Union Electric Company d/b/a Ameren Missouri, Respondent	EC-2014-0224
Grain Belt Express Clean Line, LLC In the Matter of the Application of Grain Belt Express Clean Line LLC for a Certificate of Convenience and Necessity Authorizing It to Construct, Own, Operate, Control, Manage, and Maintain a High Voltage, Direct Current Transmission Line and an Associated Converter Station Providing an Interconnection on the Maywood - Montgomery 345 kV Transmission Line	EA-2014-0207
KCP&L Great Missouri Operations Company In the Matter of KCP&L Greater Missouri Operations Company's Application for Authority to Establish a Renewable Energy Standard Rate Adjustment Mechanism	EO-2014-0151
Kansas City Power & Light Company In the Matter of Kansas City Power & Light Company's Filing for Approval of Demand-Side Programs and for Authority to Establish A Demand-Side Programs Investment Mechanism	EO-2014-0095
Veolia Energy Kansas City, Inc. In the Matter of Veolia Energy Kansas City, Inc. for Authority to File Tariffs to Increase Rates	HR-2014-0066

CREDENTIALS AND CASE PARTICIPATION OF SHAWN E. LANGE, PE

PRESENT POSITION:

I am a Professional Engineer in the Engineering Analysis Department, Industry Analysis Division, of the Missouri Public Service Commission.

EDUCATIONAL BACKGROUND AND WORK EXPERIENCE:

In December 2002, I received a Bachelor of Science Degree in Mechanical Engineering from the University of Missouri, at Rolla now known as the Missouri University of Science and Technology. I joined the Commission Staff in January 2005. I am a registered Professional Engineer in the State of Missouri and my license number is 2018000230.

TESTIMONY FILED:

Case Number	Utility	Testimony	Issue
ER-2005-0436	Aquila Inc.	Direct	Weather Normalization
		Rebuttal	Weather Normalization
		Surrebuttal	Weather Normalization
ER-2006-0314	Kansas City Power & Light Company	Direct	Weather Normalization
		Rebuttal	Weather Normalization
ER-2006-0315	Empire District Electric Company	Direct	Weather Normalization
		Surrebuttal	Weather Normalization
ER-2007-0002	Union Electric Company d/b/a AmerenUE	Direct	Weather Normalization
ER-2007-0004	Aquila Inc.	Direct	Weather Normalization
ER-2007-0291	Kansas City Power & Light Company	Staff Report	Weather Normalization
		Rebuttal	Weather Normalization
ER-2008-0093	Empire District Electric Company	Staff Report	Weather Normalization
ER-2008-0318	Union Electric Company d/b/a AmerenUE	Staff Report	Weather Normalization

Case Number	Utility	Testimony	Issue
ER-2009-0089	Kansas City Power & Light Company	Staff Report	Net System Input
ER-2009-0090	KCP&L Greater Missouri Operations Company	Staff Report	Net System Input
ER-2010-0036	Union Electric Company d/b/a AmerenUE	Staff Report	Net System Input
ER-2010-0130	Empire District Electric Company	Staff Report	Variable Fuel Costs
		Surrebuttal	Variable Fuel Costs
ER-2010-0355	Kansas City Power & Light Company	Staff Report	Variable Fuel Costs
ER-2010-0356	KCP&L Greater Missouri Operations Company	Staff Report	Engineering Review-Sibley 3 SCR
ER-2011-0004	Empire District Electric Company	Staff Report	Variable Fuel Costs
ER-2011-0028	Union Electric Company d/b/a Ameren Missouri	Staff Report	Net System Input
ER-2012-0166	Union Electric Company d/b/a Ameren Missouri	Staff Report	Weather Normalization
		Surrebuttal	Weather Normalization Maryland Heights In-Service
ER-2012-0174	Kansas City Power & Light Company	Staff Report	Weather Normalization Net System Input Variable Fuel Costs
		Surrebuttal	Weather Normalization
ER-2012-0175	KCP&L Greater Missouri Operations Company	Staff Report	Weather Normalization Net System Input
		Surrebuttal	Weather Normalization
ER-2012-0345	Empire District Electric Company	Rebuttal	Interim Rates
		Staff Report	Weather Normalization
EC-2014-0223	Noranda Aluminum v. Ameren Missouri	Rebuttal	Weather Normalization
EA-2014-0207	Grain Belt Express CCN	Rebuttal	Certificates of Convenience/Feasibility Analysis
		Surrebuttal	

Case Number	Utility	Testimony	Issue
ER-2014-0258	Union Electric Company d/b/a Ameren Missouri	Staff Report	Net System Input Variable Fuel Costs
ER-2014-0351	Empire District Electric Company	Staff Report	Net System Input Variable Fuel Costs
ER-2014-0370	Kansas City Power & Light Company	Staff Report	Net System Input Variable Fuel Costs
		True-up Direct	Variable Fuel Costs La Cygne In-service
EA-2015-0146	ATXI CCN	Rebuttal	Certificates of Convenience/Feasibility Analysis
		Surrebuttal	
ER-2016-0023	Empire District Electric Company	Staff Report	Net System Input Variable Fuel Costs
		Surrebuttal	Variable Fuel Costs
ER-2016-0179	Union Electric Company d/b/a Ameren Missouri	Staff Report	Variable Fuel Costs
EA-2016-0385	Grain Belt Express CCN	Rebuttal	Certificates of Convenience/Feasibility Analysis
		Surrebuttal	
ER-2018-0145	Kansas City Power & Light Company	Staff Report	Variable Fuel Costs Market Prices
		Rebuttal	Variable Fuel Costs Market Prices
		True-up Direct	Variable Fuel Costs Market Prices
EA-2018-0327	ATXI CCN	Rebuttal	Certificates of Convenience/Feasibility Analysis
EA-2019-0021	Union Electric Company d/b/a Ameren Missouri	Staff Report	Certificates of Convenience/Feasibility Analysis
EA-2019-0010	Empire District Electric Company	Staff Report	Certificates of Convenience/Feasibility Analysis
EC-2020-0408	MLA v. Grain Belt Complaint	Staff Recommendation	Formal Complaint
EA-2021-0167	ATXI CCN	Staff Recommendation	Certificates of Convenience/Feasibility Analysis

Case Number	Utility	Testimony	Issue
EA-2021-0087	ATXI CCN	Staff Report	Certificates of Convenience/Feasibility Analysis
ER-2021-0240	Union Electric Company d/b/a Ameren Missouri	Staff Report	Variable Fuel Costs Atchison wind farm Construction Audit and in-service review
		Rebuttal	Atchison in-service and Variable Fuel Costs
		True-up Direct	Variable Fuel Costs
ER-2021-0312	Empire District Electric Company	Staff Report	Transmission and Distribution Investment
EA-2022-0043	Evergy Metro and Evergy West Hawthorn Solar CCN	Staff Report	Certificates of Convenience/Feasibility Analysis
EA-2022-0099	ATXI CCN	Staff Direct Testimony	Certificates of Convenience/Feasibility Analysis
EA-2022-0244	Union Electric Company d/b/a Ameren Missouri	Staff Report	Certificates of Convenience/Feasibility Analysis
EA-2022-0245	Union Electric Company d/b/a Ameren Missouri	Staff Rebuttal Testimony	Certificates of Convenience/Feasibility Analysis
ER-2022-0337	Union Electric Company d/b/a Ameren Missouri	Direct Testimony	Variable fuel Costs
		Rebuttal Testimony	Variable fuel Costs
		Surrebuttal/True-up Direct	Variable fuel Costs
		True-up Rebuttal	Variable fuel Costs
EA-2022-0328	Evergy Missouri West	Staff Rebuttal Testimony	Certificates of Convenience/Feasibility Analysis
EA-2023-0017	GrainBelt Express	Staff Rebuttal Testimony	Certificates of Convenience/Feasibility Analysis

Case Number	Utility	Testimony	Issue
EA-2023-0226	Union Electric Company d/b/a Ameren Missouri	Staff Memo	Certificates of Convenience/Feasibility Analysis
ET-2023-0249	Union Electric Company d/b/a Ameren Missouri	Staff Memo	Cogeneration and Net Metering rate
EA-2024-0286	Union Electric Company d/b/a Ameren Missouri	Rebuttal Testimony	Certificates of Convenience/Feasibility Analysis
EF-2024-0021	Union Electric Company d/b/a Ameren Missouri	Rebuttal	Financing Order Authorizing the Issue of Securitized Utility Tariff Bonds
ER-2024-0189	Evergy Missouri West	Rebuttal	Variable Fuel Cost
EA-2024-0237	Union Electric Company d/b/a Ameren Missouri	Staff Memo/Report	Certificates of Convenience/Feasibility Analysis
ER-2024-0319	Union Electric Company d/b/a Ameren Missouri	Staff Direct	Variable Fuel Costs
		Staff True-up Direct	Variable Fuel Cost
EA-2024-0302	ATXI	Staff Memo/Report	Certificates of Convenience/Feasibility Analysis
EA-2024-0292	Evergy Missouri West	Staff Memo/Report	Certificates of Convenience/Feasibility Analysis
EA-2025-0075	Evergy Missouri West	Staff Memo/Report	Certificates of Convenience/Feasibility Analysis
EA-2025-0028	Union Electric Company d/b/a Ameren Missouri	Staff Memo/Report	Certificates of Convenience/Feasibility Analysis

Case Number	Utility	Testimony	Issue
ER-2024-0261	Empire District Electric Company	Direct Testimony Surrebuttal/True-up Direct	Variable Fuel Cost Variable Fuel Cost
EA-2025-0238	Union Electric Company d/b/a Ameren Missouri	Staff Memo/Report	Certificates of Convenience/Feasibility Analysis

CREDENTIALS AND CASE PARTICIPATION OF HARI K. POUDEL, PhD

Current Position

Currently, I am employed as an economist in the Tariff/Rate Department of the Industry Analysis Division at the Missouri Public Service Commission ("Commission"). The Department of Tariff and Rate Design take part in and offers advice on matters filed with the Commission, such as rate, complaint, application, territorial agreements, sale, and merger. The Department also handles rate design, weather variables, and weather normalization tasks and offers technical assistance. I am primarily responsible for using quantitative economic techniques and statistical analysis to address energy-related challenges that influence utility ratemaking. I am also responsible for the class cost of service study and rate design. Therefore, the economist performs core functions like determining a utility's legitimate revenue requirement, designing rate structures for different customer classes, and reviewing economic modeling.

Educational Credentials and Work Experience

I received a Doctor of Philosophy in Public Policy from the University of Missouri, Columbia, Missouri in May 2020. I also received a graduate certificate in Public Utility Regulation & Economics from the New Mexico State University in May 2025. In 2008, I received a Master's in Agricultural Economics degree from Hohenheim University in Germany.

I've been employed with the Missouri Public Service Commission since October 25, 2021, in the Tariff/Rate Department of the Industry Analysis Division as a Regulatory Economist. Prior to joining the Commission, I was a Research/Data Analyst for the Missouri Department of Health

and Senior Services. I analyzed public health data that directly affects Missourians in my capacity as an analyst.

Testimonies/Memorandum

SN	Case Number	Company Name	Issue
1.	GR-2021-0320	Liberty Utilities	Tariff Compliance
2.	GR-2022-0235	Spire Missouri, Inc.	Weather Normalization Adjustment Rider (WNAR)
3.	ER-2022-0146	Ameren Missouri	Rider Energy Efficient Investment Charge (EEIC)
4.	GT-2022-0233	Liberty Utilities	Weather Normalization Adjustment Rider (WNAR)
5.	ER-2022-0129 & ER-2022-0130	Evergy Metro, Inc. & Evergy Missouri West, Inc.	General Rate Case
6.	ER-2022-0337	Ameren Missouri	365-Day Adjustment, Weather Variables, Weather Normalization, Hourly Load Requirement Energy Efficiency Adjustment
7.	GO-2023-0002	Spire	Weather Normalization Adjustment Rider (WNAR)
8.	GT-2023-0088	Liberty Utilities	Weather Normalization Adjustment Rider (WNAR)
9.	GT-2023-0274	Liberty Utilities	Weather Normalization Adjustment Rider (WNAR)
10.	EA-2023-0286	Ameren Missouri	Economic Feasibility
11.	GT-2024-0054	Liberty Utilities (Midstates Natural Gas)	Weather Normalization Adjustment Rider (WNAR)
12.	GT-2024-0055	The Empire District Gas Company	Weather Normalization Adjustment Rider (WNAR)
13.	GR-2024-0107	Ameren Missouri	Weather Normalization Adjustment Rider (WNAR)
14.	EO-2023-0136	Ameren Missouri	Throughput Disincentive, Marginal Rate Analysis, Rebound Effect, Rate Case Annualization
15.	EO-2023-0369 & EO-2023-0370	Evergy Metro, Inc. & Evergy Missouri West, Inc.	MEEIA (Throughput Disincentive, Rebound Effect, Rate Case Annualization)
16.	EA-2023-0286	Ameren Missouri	Economic Feasibility

17.	ER-2024-0189	Evergy Missouri West, Inc.	MEEIA, Net Margin Rate, Economic Development Riders, PISA Compliance
18.	GR-2024-0106	Liberty Utilities	Weather Normalization, 365 Days-Adjustment
19.	ER-2024-0319	Ameren Missouri	Energy Efficiency Adjustment, Marginal Rate Analysis, Rebound Effect, Economic Development Riders
20.	ER-2024-0319	Ameren Missouri	Rate Design
21.	EA-2024-0292	Evergy Missouri West, Inc.	Economic Feasibility
22.	ER-2024-0261	Empire	Energy Efficiency Adjustment, Lighting Revenue
23.	ER-2024-0261	Empire	Rate Design Class Cost of Service
24.	EA-2025-0238	Ameren Missouri	Economic Feasibility

CREDENTIALS AND CASE PARTICIPATION OF JUSTIN TEVIE

Present Position:

I am an Economics Analyst in the Tariff/Rate Design Department, Industry Analysis Division, of the Missouri Public Service Commission.

Educational Background and Work Experience:

In 2013, I obtained a graduate degree in Economics from the University of New Mexico. In 2019, I joined the Missouri Department of Mental Health as a Research Analyst assisting with data analysis and federal reporting. Prior to that, I was a Forecast Analyst at Department of Social and Health Services in the State of Washington assisting with forensic caseload forecasting and reporting.

Case No.	Company	Testimony	Issue
ER-2022-0337	Ameren Missouri	Direct	Locational Market prices
		Rebuttal	
		True-up	
EO-2023-0136	Ameren Missouri	Direct	Savings shapes, program evaluation, EM & V, Principal-Agent problem, and employment
		Rebuttal	
		Surrebuttal	
ER-2023-0184	Evergy Missouri West	Staff Recommendation	MEEIA Cycle 3
ER-2023-0411	Evergy Missouri West	Staff Recommendation	MEEIA Cycle 3
EA-2023-0131	Empire	CCN	Economic feasibility
ER-2024-0186	Evergy Missouri West	Staff Recommendation	MEEIA Cycle 3

ER-2024-0184	Evergy Missouri Metro	Staff Recommendation	MEEIA Cycle 3
ER-2023-0369	Evergy Missouri West	Direct	MEEIA Cycle 4 Savings shapes, program evaluation, EM & V, Principal-Agent problem
		Rebuttal	
ER-2023-0370	Evergy Missouri Metro	Direct	MEEIA Cycle 4 Savings shapes, program evaluation, EM & V, Principal-Agent problem
		Rebuttal	
ER-2024-0189	Evergy Missouri West	Direct	Special Incremental Load/NUCOR Locational Market Prices
		Rebuttal	
		Surrebuttal/True up	
		True-up rebuttal	
GR-2024-0106	Liberty MidStates Utilities	Direct	Transport Revenues
		Rebuttal	
		Surrebuttal	
ER-2024-0319	Ameren Missouri	Direct Testimony	Locational Market Prices
EA-2024-0292	Evergy Missouri West	Solar CCN	Economic Feasibility and resource adequacy.
EA-2025-0075	Evergy Missouri West	Natural Gas CCN	Economic Feasibility, interconnection costs and resource adequacy.

Credentials and Background of

Seoung Joun Won, PhD

I am currently employed as a Regulatory Compliance Manager in the Financial Analysis Department of the Financial and Business Analysis Division of the Missouri Public Service Commission. I have been employed at the Missouri Public Service Commission since May 2010.

I received my Bachelor of Arts, Master of Arts, and Doctor of Philosophy in Mathematics from Yonsei University and my Bachelor of Business Administration in Financial Accounting from Seoul Digital University in Seoul, South Korea, and earned my Doctor of Philosophy in Economics from the University of Missouri - Columbia. Also, I passed several certificate examinations for Finance Specialist in South Korea such as Accounting Management, Financial Risk Manager, Enterprise Resource Planning Accounting Consultant, Derivatives Investment Advisor, Securities Investment Advisor, and Financial Planner.

Prior to joining the Commission, I taught both undergraduate and graduate level mathematics at the Korean Air Force Academy and Yonsei University for 13 years. I served as the director of the Education and Technology Research Center in NeoEdu for 5 years. Before starting my current position at the Missouri Public Service Commission, I had served as a regulatory economist in Tariff/Rate Design Department.

My current duties at the Commission include financial analysis of rate of return and cost of equity, valuation analysis on merger and acquisition, due diligence review and supporting economic and statistical analysis.

List of Previous Testimony Filed

Seoung Joun Won, PhD

Case Number	Company	Issue
EA-2025-0238	Union Electric Co., d/b/a Ameren Missouri	Financial Capability
EA-2025-0222	Ameren Transmission Company of Illinois	Financial Capability
WA-2025-0298	Missouri-American Water Company	Financial Capability
EA-2025-0087	Ameren Transmission Company of Illinois	Financial Capability
EA-2025-0075	Evergy Metro Inc., d/b/a Evergy Missouri Metro; Evergy Missouri West, Inc. d/b/a Evergy Missouri West	Financial Capability
GR-2025-0107	Spire Missouri, Inc. d/b/a Spire	Rate of Return, Capital Structure
EA-2024-0292	Evergy Missouri West, Inc. d/b/a Evergy Missouri West	Financial Capability
EA-2025-0028	Union Electric Co., d/b/a Ameren Missouri	Financial Capability
GA-2025-0181	Spire Missouri, Inc. d/b/a Spire	Financial Capability
GR-2024-0369	Union Electric Co., d/b/a Ameren Missouri	Rate of Return, Capital Structure
EA-2024-0302	Ameren Transmission Company of Illinois	Financial Capability
ER-2024-0319	Union Electric Co., d/b/a Ameren Missouri	Rate of Return, Capital Structure
GA-2024-0361	Spire Missouri, Inc. d/b/a Spire	Financial Capability
WM-2025-0017	Missouri-American Water Company	Merger and Acquisition
EA-2024-0237	Union Electric Co., d/b/a Ameren Missouri	Financial Capability
GF-2025-0053	Spire Missouri, Inc. d/b/a Spire	Financing Authority

Case Number	Company	Issue
EF-2025-0047	Union Electric Co., d/b/a Ameren Missouri	Financing Authority
ER-2024-0212	Union Electric Co., d/b/a Ameren Missouri	Financial Capability
WF-2024-0353	Missouri-American Water Company	Financing Authority
WA-2024-0325	Missouri-American Water Company	Financial Capability
ER-2024-0189	Evergy Missouri West, Inc. d/b/a Evergy Missouri West	Rate of Return, Capital Structure
GA-2024-0257	Spire Missouri, Inc. d/b/a Spire	Financial Capability
EO-2023-0448	Union Electric Co., d/b/a Ameren Missouri	Nuclear Decommissioning
GA-2024-0243	Spire Missouri, Inc. d/b/a Spire	Financial Capability
EA-2024-0147	Ameren Transmission Company of Illinois	Financial Capability
EA-2023-0131	Empire District Electric Company, d/b/a Liberty	Financial Capability
EF-2024-0192	Evergy Metro, Inc. d/b/a Evergy Missouri Metro	Financing Authority
WF-2024-0135	Liberty Utilities (Missouri Water) LLC d/b/a Liberty	Financing Authority
EF-2024-0099	Union Electric Co., d/b/a Ameren Missouri	Financing Authority
GA-2024-0100	Spire Missouri, Inc. d/b/a Spire	Financial Capability
EA-2023-0286	Union Electric Co., d/b/a Ameren Missouri	Financial Capability
GA-2023-0441	Spire Missouri, Inc. d/b/a Spire	Financial Capability

Case Number	Company	Issue
EF-2023-0425	Evergy Metro Inc., d/b/a Evergy Missouri Metro	Financing Authority
SA-2023-0435	Missouri-American Water Company	Financial Capability
WA-2023-0434	Missouri-American Water Company	Financial Capability
GA-2023-0389	Spire Missouri, Inc. d/b/a Spire	Financial Capability
GA-2023-0374	Spire Missouri, Inc. d/b/a Spire	Financial Capability
GF-2023-0280	Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty	Financing Authority
WA-2023-0345	Missouri-American Water Company	Financial Capability
EA-2023-0226	Union Electric Co., d/b/a Ameren Missouri	Financial Capability
EA-2023-0017	Grain Belt Express LLC	Financial Capability
GA-2023-0038	Spire Missouri, Inc. d/b/a Spire	Financial Capability
EF-2022-0151	Union Electric Co., d/b/a Ameren Missouri	Financing Authority
EA-2022-0328	Evergy Missouri West, Inc. d/b/a Evergy Missouri West	Financial Capability
ER-2022-0337	Union Electric Co., d/b/a Ameren Missouri	Rate of Return, Capital Structure
EA-2022-0245	Union Electric Co., d/b/a Ameren Missouri	Financial Capability
EA-2022-0244	Union Electric Co., d/b/a Ameren Missouri	Financial Capability
EA-2022-0234	NextEra Energy Transmission Southwest, LLC	Financial Capability
GR-2022-0179	Spire Missouri, Inc., d/b/a Spire	Rate of Return, Capital Structure

Case Number	Company	Issue
GF-2022- 0169	Spire Missouri, Inc.	Financing Authority
EF-2022-0164	Union Electric Co., d/b/a Ameren Missouri	Financing Authority
WF-2022-0161	Missouri-American Water Company	Financing Authority
ER-2022-0130	Evergy Missouri West, Inc., d/b/a Evergy Missouri West	Rate of Return, Capital Structure
ER-2022-0129	Evergy Metro Inc., d/b/a Evergy Missouri Metro	Rate of Return, Capital Structure
EF-2022- 0103	Evergy Missouri West, Inc.	Financing Authority
WF-2022-0066	Missouri American Water Company	Financing Authority
WF-2021-0427	Raytown Water Company	Financing Authority
GR-2021-0320	Empire District Gas Company	Rate of Return, Capital Structure
ER-2021-0312	Empire District Electric Company	Rate of Return, Capital Structure
GR-2021-0241	Union Electric Co., d/b/a Ameren Missouri	Rate of Return, Capital Structure
ER-2021-0240	Union Electric Co., d/b/a Ameren Missouri	Rate of Return, Capital Structure
GR-2021-0108	Spire Missouri, Inc.	Rate of Return, Capital Structure
EA-2021-0087	Ameren Transmission Company of Illinois	Financial Capability
EA-2020-0371	Union Electric Co., d/b/a Ameren Missouri	Financial Capability
SR-2020-0345	Missouri American Water Company	Rate of Return, Capital Structure
WR-2020-0344	Missouri American Water Company	Rate of Return, Capital Structure

Case Number	Company	Issue
EF-2020-0301	Evergy Missouri Metro	Financing Authority
WR-2020-0264	Raytown Water Company	Rate of Return, Capital Structure
WR-2020-0053	Confluence Rivers Utility Operating Company, Inc.	Rate of Return, Capital Structure
HM-2020-0039	Veolia Energy Kansas City, Inc. AIP Project Franklin Bidco	Merger and Acquisition
EO-2019-0133	KCP&L Greater Missouri Operations Company, Evergy Metro	Business Process Efficiency
EO-2019-0132	Kansas City Power & Light Company, Evergy Metro	Business Process Efficiency
GR-2019-0077	Union Electric Co., d/b/a Ameren Missouri	Weather & Normalization, Net System Input
GO-2019-0059	Spire West, Spire Missouri, Inc.	Weather Variables
GO-2019-0058	Spire East., Spire Missouri, Inc.	Weather Variables
ER-2018-0146	KCP&L Greater Missouri Operations Co.	Weather & Normalization, Net System Input
ER-2018-0145	Kansas City Power & Light Co.	Weather & Normalization, Net System Input
GR-2018-0013	Liberty Utilities (Midstates Natural Gas) Corp.	Weather Variables
GR-2017-0216	Missouri Gas Energy (Laclede), Spire Missouri, Inc.	Weather Variables
GR-2017-0215	Laclede Gas Co., Spire Missouri, Inc.	Weather Variables
ER-2016-0285	Kansas City Power & Light Co.	Weather & Normalization, Net System Input

Case Number	Company	Issue
ER-2016-0179	Union Electric Co., d/b/a Ameren Missouri	Weather & Normalization, Net System Input
ER-2016-0156	KCP&L Greater Missouri Operations Co.	Weather & Normalization, Net System Input
ER-2016-0023	Empire District Electric Company	Weather & Normalization, Net System Input
ER-2014-0370	Kansas City Power & Light Co	Weather & Normalization, Net System Input
ER-2014-0351	Empire District Electric Company	Weather & Normalization, Net System Input
ER-2014-0258	Union Electric Co., d/b/a Ameren Missouri	Weather & Normalization, Net System Input
EC-2014-0223	Noranda Aluminum, Inc., et al, Complaint v. Union Electric Co., d/b/a Ameren Missouri	Weather Variables
GR-2014-0152	Liberty Utilities (Midstates Natural Gas) Corp.	Weather Variables
GR-2014-0086	Summit Natural Gas of Missouri, Inc.	Weather Variables
HR-2014-0066	Veolia Energy Kansas City, Inc.	Weather Variables, Revenue
GR-2013-0171	Laclede Gas Co.	Weather Variables
ER-2012-0345	Empire District Electric Company	Weather Variables, Revenue
ER-2012-0175	KCP&L Greater Missouri Operations Co.	Weather Variables
ER-2012-0174	Kansas City Power & Light Co.	Weather Variables
ER-2012-0166	Union Electric Co., d/b/a Ameren Missouri	Weather Variables, Revenue

Case Number	Company	Issue
HR-2011-0241	Veolia Energy Kansas City, Inc.	Weather Variables
ER-2011-0028	Union Electric Co., d/b/a Ameren Missouri	Weather Variables, Revenue
ER-2011-0004	Empire District Electric Company	Weather Variables, Revenue
GR-2010-0363	Union Electric Co., d/b/a Ameren Missouri	Weather Variables
ER-2010-0356	KCP&L Greater Missouri Operations Co.	Weather Variables
ER-2010-0355	Kansas City Power & Light Co.	Weather Variables, Revenue

Work Related Publication

Won, Seoung Joun, X. Henry Wang, and Henry E. Warren. "Climate normals and weather normalization for utility regulation." *Energy Economics* (2016).

Part III – Administrative, Procedural, and Miscellaneous

Beginning of Construction Requirements for Purposes of the Termination of Clean Electricity Production Credits and Clean Electricity Investment Credits for Applicable Wind and Solar Facilities

Notice 2025-42

SECTION 1. PURPOSE

This notice provides guidance, consistent with Executive Order 14315 of July 7, 2025, *Ending Market Distorting Subsidies for Unreliable, Foreign-Controlled Energy Sources*, 90 F.R. 30821 (Executive Order 14315), regarding when construction of an applicable wind facility or applicable solar facility (each as defined in section 2.02 of this notice) has begun for purposes of determining whether such facility is subject to credit termination provisions added to §§ 45Y and 48E of the Internal Revenue Code (Code)[1] by §§ 70512 and 70513 of Public Law 119-21, 139 Stat. 72 (July 4, 2025), commonly known as the One, Big, Beautiful Bill Act (OBBBA). Section 70512(a) and (l)(4) of the OBBBA terminates the clean electricity production credit determined under § 45Y (§ 45Y credit), and § 70513(a) and (g)(5) of the OBBBA terminates the clean electricity investment credit determined under § 48E (§ 48E credit), in the case of an applicable wind facility or applicable solar facility that is placed in service after December 31, 2027

[1] Unless otherwise specified, all "section" or "§" references are to sections of the Code or the Income Tax Regulations (26 CFR part 1).

(credit termination date). The credit termination date applies to applicable wind and solar facilities the construction of which begins after July 4, 2026 (beginning of construction deadline), the date that is 12 months after the date of enactment of the OBBBA.

SECTION 2. BACKGROUND

.01 Overview of pre-OBBBA §§ 45Y and 48E.

Sections 45Y and 48E were added to the Code by §§ 13701(a) and 13702(a), respectively, of Public Law 117-169, 136 Stat. 1818, 1982 (August 16, 2022), commonly known as the Inflation Reduction Act of 2022. The § 45Y credit is determined with respect to electricity produced by a taxpayer at a "qualified facility" and either sold by the taxpayer to an unrelated party during the taxable year or, if the facility is equipped with a metering device which is owned or operated by an unrelated person, sold, consumed, or stored by the taxpayer during the taxable year. The § 48E credit is determined with respect to a taxpayer's "qualified investment" in a qualified facility. A taxpayer's qualified investment in a qualified facility is determined with respect to the taxpayer's basis in "qualified property" placed in service by the taxpayer that is part of the qualified facility as well as expenditures paid or incurred for certain qualified interconnection property.

Sections 45Y(b)(1)(A) and 48E(b)(3)(A) define a "qualified facility" for purposes of §§ 45Y and 48E, respectively, as a facility which is used for the generation of electricity, which is placed in service after December 31, 2024, and for which the greenhouse gas emissions rate (for § 45Y) or anticipated greenhouse gas emissions rate (for § 48E) is not greater than zero. The Department of the Treasury (Treasury Department) and the

Internal Revenue Service (IRS) published final regulations under §§ 45Y and 48E on January 15, 2025 (90 FR 4006). Sections 1.45Y-2 and 1.48E-2 clarify the definition of a "qualified facility" for purposes of §§ 45Y and 48E, respectively.

Section 45Y(b)(2)(C)(i) requires that the Secretary of the Treasury or the Secretary's delegate annually publish a table that sets forth the greenhouse gas emissions rates for types or categories of facilities, which a taxpayer must use for purposes of § 45Y. The Treasury Department and the IRS published the initial annual table required by § 45Y(b)(2)(C)(i) in Revenue Procedure 2025-14, 2025-7 I.R.B. 770. That table lists both wind facilities and solar facilities as having a greenhouse gas emissions rate of not greater than zero.

As noted in section 2.02 of Notice 2022-61, 87 FR 73580, 2022-52 I.R.B. 560, the IRS has issued several notices, collectively referred to in this notice as the "IRS Notices,"[2] which provide that taxpayers may establish the beginning of construction using the "Physical Work Test" or the "Five Percent Safe Harbor," and may satisfy either the "Continuity Requirement" or the "Continuity Safe Harbor," with respect to the credits determined under §§ 45, 45Q, and 48.

Section 5 of Notice 2022-61 provides guidance, in part, to determine when construction begins for purposes of the credit determined under §§ 45Y and 48E. Section 5 of Notice 2022-61 states that principles similar to those under Notice 2013-29 regarding the Physical Work Test and Five Percent Safe Harbor apply, and taxpayers

[2] *See* Notice 2013-29, 2013-20 I.R.B. 1085; *clarified by* Notice 2013-60, 2013-44 I.R.B. 431; *clarified and modified by* Notice 2014-46, 2014-36 I.R.B. 520; *updated by* Notice 2015-25, 2015-13 I.R.B. 814; *clarified and modified by* Notice 2016-31, 2016-23 I.R.B. 1025; *updated, clarified, and modified by* Notice 2017-04, 2017-4 I.R.B. 541; Notice 2018-59, 2018-28 I.R.B. 196; *modified by* Notice 2019-43, 2019-31 I.R.B. 487; *modified by* Notice 2020-41, 2020-25 I.R.B. 954*; clarified and modified by* Notice 2021-5, 2021-3 I.R.B. 479; *clarified and modified by* Notice 2021-41, 2021-29 I.R.B. 17; Notice 2020-12, 2020-11 I.R.B. 495.

satisfying either test will be considered to have begun construction. Section 5 of Notice 2022-61 additionally provides, in part, that principles similar to those provided in the IRS Notices regarding the Continuity Requirement and the Continuity Safe Harbor apply for purposes of §§ 45Y and 48E, and that taxpayers may rely on the Continuity Safe Harbor provided the facility is placed in service no more than four calendar years after the calendar year during which construction began.

.02 Overview of OBBBA Changes to §§ 45Y and 48E.

Sections 70512(a) and 70513(a) of the OBBBA added new §§ 45Y(d)(4) and 48E(e)(4), respectively, to the Code. These new Code provisions terminate the § 45Y credit and the § 48E credit, respectively, for applicable wind and solar facilities placed in service after December 31, 2027. For purposes of this notice, the term "applicable wind facility" means an applicable facility as provided in §§ 45Y(d)(4)(B)(i) and 48E(e)(4)(B)(i) (except as provided in § 48E(e)(4)(C) relating to energy storage technology) and "applicable solar facility" means an applicable facility as provided in §§ 45Y(d)(4)(B)(ii) and 48E(e)(4)(B)(ii) (except as provided in § 48E(e)(4)(C)). Sections 70512(l)(4) and 70513(g)(5) of the OBBBA provide that the amendments made by §§ 70512(a) and 70513(a) of the OBBBA, respectively, apply to facilities the construction of which begins after the date which is 12 months after the date of enactment of the OBBBA (that is, July 4, 2026).

.03 Executive Order 14315.

Section 3(a) of Executive Order 14315 directs the Secretary of the Treasury, within 45 days following enactment of the OBBBA, to take action he deems necessary and appropriate to strictly enforce the termination provisions with respect to the § 45Y

credit and the § 48E credit for wind and solar facilities. Such action includes issuing new and revised guidance for applicable wind and solar facilities to ensure that policies concerning "beginning of construction" are not circumvented, including guidance to prevent the artificial acceleration or manipulation of eligibility and to restrict the use of broad safe harbors unless a substantial portion of an applicable wind or solar facility has been built.[3]

The Treasury Department and the IRS have determined that the guidance contained in this notice is necessary and appropriate to properly enforce the credit termination date for applicable wind and solar facilities. Congress provided a beginning of construction deadline after which the new credit termination date for applicable wind and solar facilities applies. This notice provides beginning of construction guidance to prevent taxpayers from circumventing the statutory credit termination date, prevent the artificial manipulation of eligibility for the § 45Y credit and § 48E credit for applicable wind and solar facilities, and ensure that a substantial portion of any applicable wind or solar facility not subject to the credit termination date is built by the beginning of construction deadline. Accordingly, except as provided in section 6 of this notice, the Five Percent Safe Harbor provided under the IRS notices is not available for purposes

[3] In addition, § 3(b) of Executive Order 14315 directs the Secretary of the Treasury, within 45 days following enactment of the OBBBA, to take prompt action as the Secretary of the Treasury deems appropriate and consistent with applicable law to implement the enhanced "Foreign Entity of Concern" restrictions in the OBBBA (also known as "Prohibited Foreign Entities"). Section 70512 of the OBBBA added those new restrictions regarding certain foreign entities in order to qualify for the § 45Y credit and the § 48E credit, among others, and included separate beginning of construction rules for those new provisions. See § 7701(a)(51) and (52) of the Code. The guidance in this notice is not intended to address the beginning of construction rules for the purposes of those foreign entity restrictions. The Treasury Department and the IRS are currently drafting additional guidance as is necessary and appropriate to implement those restrictions, as enacted by the OBBBA.

of determining whether an applicable wind or solar facility has met the beginning of construction deadline and, thus, is not subject to the credit termination date.

SECTION 3. METHOD FOR ESTABLISHING BEGINNING OF CONSTRUCTION

.01 In general. For purposes of the beginning of construction deadline in §§ 70512(l)(4) and 70513(g)(5) of the OBBBA, a taxpayer may establish that construction has begun before July 5, 2026, by satisfying the Physical Work Test as described in section 3.02 of this notice. Except as provided in section 6 of this notice, the Physical Work Test described in section 3.02 of this notice is the sole method that a taxpayer may use for these purposes. The Physical Work Test also requires that a taxpayer maintain a continuous program of construction (Continuity Requirement). Section 4 of this notice discusses the Continuity Requirement and section 4.04 of this notice provides a safe harbor for satisfying this requirement (Continuity Safe Harbor).

.02 Physical Work Test. Construction of an applicable wind or solar facility begins when physical work of a significant nature begins. Work performed by the taxpayer and work performed for the taxpayer by other persons under a binding written contract that is entered into prior to the manufacture, construction, or production of the applicable wind or solar facility for use by the taxpayer in the taxpayer's trade or business (or for the taxpayer's production of income) is taken into account in determining whether construction has begun. See section 5.01 of this notice. Whether physical work of a significant nature has begun with respect to an applicable wind or solar facility before July 5, 2026, will depend on the relevant facts and circumstances.

.03 Physical work of a significant nature. The Physical Work Test requires that physical work of a significant nature be performed. This test focuses on the nature of

the work performed, not the amount or the cost. Provided that physical work performed is of a significant nature, there is no fixed minimum amount of work or monetary or percentage threshold required to satisfy the Physical Work Test. Both off-site and on-site work (performed either by the taxpayer or by another person under a binding written contract) may be taken into account for purposes of demonstrating that physical work of a significant nature has begun.

(1) Off-site physical work of a significant nature. Generally, off-site physical work of a significant nature may include the manufacture of components, mounting equipment, support structures such as racks and rails, inverters, and transformers and other power conditioning equipment.

(2) On-site physical work of a significant nature. The following non-exclusive list of examples is intended to illustrate what constitutes on-site physical work of a significant nature for applicable wind and solar facilities:

(a) Applicable wind facility. On-site physical work of a significant nature begins with the beginning of the excavation for the foundation, the setting of anchor bolts into the ground, or the pouring of the concrete pads of the foundation. If the applicable wind facility's wind turbines and tower units are to be assembled on-site from components manufactured off-site by a person other than the taxpayer and delivered to the site, physical work of a significant nature begins when the manufacture of the components begins at the off-site location, but only if: (i) the manufacturer's work is done pursuant to a binding written contract (as described in section 5.01(1) of this notice); and (ii) these components are not held in the manufacturer's inventory (as described in section 3.05 of this notice). If a manufacturer produces components for multiple applicable facilities,

a reasonable method must be used to associate individual components with particular applicable facilities.

(b) Applicable solar facility. On-site physical work of a significant nature may include the installation of racks or other structures to affix photovoltaic (PV) panels, collectors, or solar cells to a site.

.04 Preliminary activities. Physical work of a significant nature does not include preliminary activities, even if the cost of those preliminary activities is properly included in the depreciable basis of the applicable wind or solar facility. Generally, preliminary activities for applicable wind or solar facilities include, but are not limited to:

(a) planning or designing;

(b) securing financing;

(c) exploring;

(d) researching;

(e) conducting mapping and modeling to assess a resource;

(f) obtaining permits and licenses;

(g) conducting geophysical, gravity, magnetic, seismic and resistivity surveys;

(h) conducting environmental and engineering studies;

(i) clearing a site;

(j) conducting test drilling to determine soil condition (including to test the strength of a foundation);

(k) excavating to change the contour of the land (as distinguished from excavation for a foundation); and

(l) removing existing foundations, turbines, and towers, solar panels, or any components that will no longer be part of the applicable wind or solar facility (including those on or attached to building structures).

.05 Inventory. Physical work of a significant nature does not include work (performed either by the taxpayer or by another person under a binding written contract) to produce a component/part of an applicable wind or solar facility that is either in existing inventory or is normally held in inventory by one selling the component/part to the taxpayer.

SECTION 4. CONTINUITY REQUIREMENT

.01 Continuous program of construction. A taxpayer will satisfy the Continuity Requirement of this section 4 only if the taxpayer maintains a continuous program of construction with respect to an applicable wind or solar facility. A continuous program of construction involves continuing physical work of a significant nature (as described in section 3.03 of this notice). Unless the Continuity Safe Harbor provided in section 4.04 of this notice applies, whether a taxpayer maintains a continuous program of construction to satisfy the Continuity Requirement will be determined by the relevant facts and circumstances.

.02 Excusable disruptions to continuous program of construction. Certain disruptions in a taxpayer's continuous construction to advance towards completion of an applicable wind or solar facility that are beyond the taxpayer's control will not be considered as indicating that a taxpayer has failed to satisfy the Continuity Requirement.

The following is a non-exclusive list of construction disruptions that will not be considered as indicating that a taxpayer has failed to satisfy the Continuity Requirement:

(a) delays due to severe weather conditions;

(b) delays due to natural disasters;

(c) delays in obtaining permits or licenses from federal, state, local, or Indian tribal governments, including, but not limited to, delays in obtaining permits or licenses from the Federal Energy Regulatory Commission (FERC), the Environmental Protection Agency (EPA), the Bureau of Land Management (BLM), and the Federal Aviation Agency (FAA);

(d) delays at the written request of a federal, state, local, or Indian tribal government regarding matters of public safety, security, or similar concerns;

(e) interconnection-related delays, such as those relating to the completion of construction on a new transmission or distribution line or necessary transmission or distribution upgrades to resolve grid congestion issues that may be associated with an applicable wind or solar facility's planned interconnection;

(f) delays in the manufacture of custom components;

(g) delays due to labor stoppages;

(h) delays due to the inability to obtain specialized equipment of limited availability;

(i) delays due to the presence of endangered species;

(j) financing delays; and

(k) delays due to supply shortages.

.03 Timing of excusable disruption determination. In the case of a single project comprised of multiple facilities (as described in section 5.02(2) of this notice), whether an excusable disruption has occurred for purposes of the Continuity Requirement must be determined in the calendar year during which the last of multiple facilities is placed in service. In the case of a single applicable wind or solar facility, whether an excusable disruption has occurred for purposes of the Continuity Requirement must be determined in the calendar year during which the applicable wind or solar facility is placed in service.

.04 Continuity safe harbor: deemed satisfaction of continuity requirement. Except as provided in this section 4.04, if a taxpayer places an applicable wind or solar facility in service by the end of a calendar year that is no more than four calendar years after the calendar year during which construction of the applicable wind or solar facility began (Continuity Safe Harbor Deadline), the applicable wind or solar facility will be considered to satisfy the Continuity Requirement (Continuity Safe Harbor). The excusable disruption rules in section 4.02 of this notice do not apply for purposes of applying the Continuity Safe Harbor. If an applicable wind or solar facility is not placed in service before the end of the fourth calendar year after the calendar year during which construction of the applicable wind or solar facility began, whether the applicable wind or solar facility satisfies the Continuity Requirement under the Physical Work Test will be determined by the relevant facts and circumstances.

For example, if construction begins on an applicable wind or solar facility on August 20, 2025, and the applicable wind or solar facility is placed in service by December 31, 2029, the applicable wind or solar facility will be considered to satisfy the

Continuity Safe Harbor. If the applicable wind or solar facility is not placed in service before January 1, 2030, whether the Continuity Requirement was satisfied will be determined by the relevant facts and circumstances.

SECTION 5. OTHER RULES

.01 Construction by contract. For property that is manufactured, constructed, or produced for the taxpayer by another person under a binding written contract (as described in section 5.01(1) of this notice), the work performed under the contract is taken into account in determining when physical work of a significant nature begins, provided the contract is entered into prior to the work taking place.

(1) Binding written contract. A contract is binding only if it is enforceable under local law against the taxpayer or a predecessor and does not limit damages to a specified amount (for example, by use of a liquidated damages provision). For this purpose, a contractual provision that limits damages to an amount equal to at least five percent of the total contract price will not be treated as limiting damages to a specified amount. For additional guidance regarding the definition of a binding contract, see § 1.168(k)-1(b)(4)(ii)(A)-(D).

(2) Master contract. If a taxpayer enters into a binding written contract for a specific number of components to be manufactured, constructed, or produced for the taxpayer by another person (a “master contract”), and then through a new binding written contract (a “project contract”) the taxpayer assigns its rights to certain components to an affiliated special purpose vehicle that will own the applicable wind or solar facility for which such property is to be used, work performed with respect to the

master contract may be taken into account in determining when physical work of a significant nature begins with respect to the applicable wind or solar facility.

.02 Qualified facility – (1) In general. Physical work of a significant nature with respect to an applicable wind or solar facility must be performed with respect to property included in a qualified facility, as defined in § 1.45Y-2(b) or § 1.48E-2(d), as applicable.

(2) Single project. Solely for purposes of determining whether construction of an applicable wind or solar facility has begun for purposes of this notice, multiple facilities that are operated as part of a single project (along with any property, such as a computer control system, that serves some or all such facilities) will be treated as a single applicable wind or solar facility. Whether multiple facilities are operated as part of a single project will depend on the relevant facts and circumstances. Factors indicating that multiple facilities are operated as part of a single project include, but are not limited to:

(a) The facilities are owned by a single legal entity;

(b) The facilities are constructed on contiguous pieces of land;

(c) The facilities are described in a common power purchase agreement or agreements;

(d) The facilities have a common intertie;

(e) The facilities share a common substation;

(f) The facilities are described in one or more common environmental or other regulatory permits;

(g) The facilities were constructed pursuant to a single master construction contract; and

(h) The construction of the facilities was financed pursuant to the same loan agreement.

(3) Timing of single project determination. The determination of whether multiple facilities are operated as part of a single project and are therefore treated as a single applicable wind or solar facility for purposes of this notice must be made in the calendar year during which the last of the multiple facilities is placed in service.

.03 Property integral to the applicable wind or solar facility. Only physical work of a significant nature on tangible personal property and other tangible property used as an integral part of the activity performed by the applicable wind or solar facility will be considered for purposes of determining whether a taxpayer has begun construction of an applicable wind or solar facility. This includes property integral to the production of electricity, but does not include property used for electrical transmission. See §§ 1.45Y-2(b)(3) and 1.48E-2(d)(3) for additional descriptions of property integral to a qualified facility.

.04 Application of 80/20 rule to retrofitted applicable wind or solar facilities – (1) In general. A retrofitted applicable wind or solar facility may qualify as originally placed in service even though it contains some used components of property, provided the fair market value of the used components of property is not more than 20 percent of the applicable wind or solar facility's total value (the cost of the new components of property plus the value of the used components of property) (80/20 Rule). See §§ 1.45Y-4(d) and 1.48E-4(c). In the case of a single project comprised of multiple facilities (as described in section 5.02(2) of this notice), the 80/20 Rule is applied to each facility comprising the single project. For purposes of the 80/20 Rule, the cost of a new

applicable wind or solar facility includes all properly capitalized costs of the new applicable wind or solar facility.

(2) Beginning of construction. In situations where the 80/20 Rule applies, the Physical Work Test applies only with respect to the work performed on, or amounts paid or incurred for, new components of property used to retrofit an existing applicable wind or solar facility. The total cost of the applicable wind or solar facility does not include the cost of land (including lease payments) or any property that is not part of the applicable wind or solar facility, as described in section 5.03 of this notice.

.05 Transfer of an applicable wind or solar facility – (1) In general. A taxpayer may claim either the § 45Y credit with respect to electricity produced by such taxpayer at an applicable wind or solar facility or the § 48E credit with respect to the taxpayer's qualified investment with respect to an applicable wind or solar facility. Neither § 45Y nor § 48E requires the taxpayer to own the applicable wind or solar facility at the time construction began on the applicable wind or solar facility. Accordingly, except as provided in section 5.05(3) of this notice, a fully or partially developed applicable wind or solar facility may be transferred without losing its qualification under the Physical Work Test for purposes of the § 45Y credit or the § 48E credit.

(2) Relocation of equipment by a taxpayer. A taxpayer may begin construction of an applicable wind or solar facility with the intent to develop the applicable wind or solar facility at a certain site, and thereafter transfer components of property of the applicable wind or solar facility to a different site, complete its development, and place it in service. The work performed or the amounts paid or incurred prior to the site transfer by such a

taxpayer may be taken into account for purposes of determining when the applicable wind or solar facility satisfies the Physical Work Test.

(3) Transfers of equipment between unrelated parties. In the case of a transfer consisting solely of tangible personal property (including contractual rights to such property under a binding written contract) to a transferee not related (within the meaning of §§ 197(f)(9)(C) and 1.197-2(h)(6)) to the transferor, any work performed or amounts paid or incurred by the transferor with respect to such transferred property will not be taken into account with respect to the transferee for purposes of the Physical Work Test.

For example, a developer, X, intends to develop and operate Facility A at a location to be determined. In 2025, X pays or incurs $60,000 to have tangible personal property integral to Facility A manufactured off-site pursuant to a binding written contract. Thereafter, X incurs no further development costs and engages in no further development activity with respect to Facility A. In January 2026, X sells the tangible personal property to another developer, Y, a party unrelated to X. Y is developing and intends to operate Facility B, located on a parcel of land owned by Y. Y incorporates the tangible personal property acquired from X into Facility B. In October 2026, Y places Facility B in service on the parcel of land. The total cost of Facility B is $1,000,000. Work performed for X in 2025 on the tangible personal property cannot be taken into account by Y for purposes of satisfying the Physical Work Test with respect to Facility B, because X and Y are not related persons (within the meaning of §§ 197(f)(9)(C) and 1.197-2(h)(6)) as described in section 5.05(3) of this notice. However, if without regard to the tangible personal property acquired from X, Y has otherwise satisfied the Physical

Work Test with respect to Facility B in 2025, Y will be considered to have begun construction in 2025.

SECTION 6. FIVE PERCENT SAFE HARBOR FOR LOW OUTPUT SOLAR FACILITIES

.01 In general. In the case of a low output solar facility (as defined in section 6.02 of this notice), a taxpayer may establish that construction has begun before July 5, 2026, by satisfying either the Physical Work Test described in section 3.02 of this notice, or by applying principles similar to those provided in section 5 of Notice 2013-29 regarding the Five Percent Safe Harbor (as described in section 2.02(2)(ii) of Notice 2022-61).

.02 Low output solar facility.

(1) Definition. A low output solar facility is an applicable solar facility that has maximum net output of not greater than 1.5 megawatt (MW) (as measured in alternating current) (1.5-Megawatt Maximum). For purposes of the 1.5-Megawatt Maximum, output is measured at the level of the qualified facility.

(2) Property included in an applicable solar facility. An applicable solar facility includes a unit of a qualified solar facility, which, in turn, includes all functionally interdependent components of property owned by the taxpayer that are operated together and that can operate apart from other property to produce electricity. Components of property are functionally interdependent if the placing in service of each of the components is dependent upon the placing in service of each of the other components to produce electricity. A qualified solar facility also includes property owned by the taxpayer that is an integral part of the qualified solar facility. A component of

property owned by the taxpayer is an integral part of the qualified facility if it is used directly in the intended function of the facility and is essential to the completeness of such function. See §§ 1.45Y-2(b)(3) and 1.48E-2(d)(3) for additional descriptions of property integral to a qualified facility.

.03 Measurement of output.

(1) In general. The maximum net output of an applicable solar facility is measured only by nameplate generating capacity (in alternating current) of the unit of qualified facility (as described in §§ 1.45Y-2(b)(2) and 1.48E-2(d)(2)), which does not include the nameplate capacity of any component that is an integral part (as described in §§ 1.45Y-2(b)(3) and 1.48E-2(d)(3)) of the applicable solar facility, at the time the applicable solar facility is placed in service. The nameplate generating capacity of the applicable solar facility is measured independently from any other applicable solar facility that shares an integral part with the applicable solar facility. Notwithstanding this rule, the nameplate generating capacity of two or more applicable solar facilities having integrated operations are measured in the aggregate for purposes of the 1.5-Megawatt Maximum.

(2) Nameplate capacity. For purposes of section 6.02(1) of this notice, the determination of whether a qualified facility has a maximum net output of not greater than 1.5 MW (as measured in alternating current) is based on the nameplate capacity. The nameplate capacity for purposes of the 1.5-Megawatt Maximum is the maximum electrical generating output in megawatts that the unit of qualified facility is capable of producing on a steady state basis and during continuous operation under standard conditions, as measured by the manufacturer and consistent with the definition of

nameplate capacity provided in 40 CFR 96.202. If applicable, taxpayers should use the International Standard Organization (ISO) conditions to measure the maximum electrical generating output of a unit of qualified facility. For applicable solar facilities that generate electricity in direct current, a taxpayer determines whether an applicable solar facility has a maximum net output of not greater than 1.5 MW (in alternating current) by using the lesser of:

(a) The sum of the nameplate generating capacities within the applicable solar facility in direct current, which is deemed the nameplate generating capacity of the unit of applicable solar facility in alternating current; or

(b) The nameplate capacity of the first component of the applicable solar facility that inverts the direct current electricity into alternating current.

(3) Integrated operations. For the purposes of the 1.5-Megawatt Maximum, an applicable solar facility is treated as having integrated operations with one or more other applicable solar facilities of the same technology type if the facilities are:

(a) Owned by the same or related taxpayers;

(b) Placed in service in the same taxable year; and

(c) Transmit electricity generated by the facilities through the same point of interconnection or, if the facilities are not grid-connected or are delivering electricity directly to an end user behind a utility meter, are able to support the same end user.

(4) Related taxpayers. For purposes of section 6.03(3) of this notice, the term "related taxpayers" means members of a group of trades or businesses that are under common control (as defined in § 1.52-1(b)). Related taxpayers are treated as one taxpayer in determining whether an applicable facility has integrated operations.

SECTION 7. EFFECTIVE DATE

This notice is effective for applicable wind and solar facilities the construction of which did not begin (as determined under section 5 of Notice 2022-61) prior to September 2, 2025.

SECTION 8. EFFECT ON OTHER DOCUMENTS

Except as provided in sections 6 and 7 of this notice, this notice modifies Notice 2022-61 to provide that section 5 of such notice is not applicable for determining whether construction of an applicable wind or solar facility began prior to the beginning of construction deadline in §§ 70512(l)(4) and 70513(g)(5) of the OBBBA.

SECTION 9. DRAFTING INFORMATION

The principal author of this notice is the Office of Associate Chief Counsel (Energy, Credits, and Excise Tax); however, other personnel from the Treasury Department and the IRS participated in its development. For further information regarding this notice contact (202) 317-6853 (not a toll-free call).

SCHEDULE 2

PAGES 21-42

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Reform Solar Project - Summary of Application Requirements for EA-2025-0239

On March 3, 2025, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri") submitted a Notice of Case Filing, and on August 29, 2025, Ameren Missouri applied for a Certificate of Convenience and Necessity ("CCN") in accordance with 393.170.1 RSMo, 20 CSR 4240-2.060, and 20 CSR 4240-20.045 to the Missouri Public Service Commission ("Commission"). The CCN application requests permission for Ameren Missouri to "construct, install, own, operate, maintain, and otherwise control and manage a 250-megawatt $_{AC}$ ("MW")[1] solar generation facility to be constructed in Callaway County, Missouri (the "Reform Solar Project"), including a new 345 kV switching station (the "Odyssey Switching Station") to which the Reform Solar Project will connect to the existing 345 kV transmission system".

Section 393.170.1, RSMo

Section 393.170.1 requires that for construction of an electrical plant by an electrical corporation, permission and approval by the Commission must be obtained prior to the commencement of construction.

- Ameren Missouri will meet this requirement through the CCN application and review process.

20 CSR 4240-2.060

20 CSR 4240-2.060(1)(A) requires the legal name of each applicant, a brief description of the legal organization of each applicant, whether a Missouri corporation, foreign corporation, partnership, proprietorship, or other business organization, the street and mailing address of the principal office or place of business of each applicant and each applicant's electronic mail address, fax number and telephone number, if any.

- The section titled I. Applicant, paragraph 1 on pages 2 - 3 of the CCN Application contains the required information.
- Ameren Missouri has met this requirement.

20 CSR 4240-2.060(1)(B) requires that if any applicant is a Missouri corporation, they must submit a Certificate of Good Standing from the secretary of state.

- The section titled I. Applicant, paragraph 1 on page 3 of the CCN Application contains the required information.[2]
- Ameren Missouri has met this requirement.

20 CSR 4240-2.060(1)(C) requires that if any applicant is a foreign corporation, they must submit a certificate from the secretary of state that it is authorized to do business in Missouri.

[1] CCN Application, page 1, footnote 1 ("All references to generating capacity (MW) are to mega-watts-AC unless otherwise noted.").
[2] A Certificate of Corporate Good Standing is attached as Application Schedule B.

- This requirement does not apply.

20 CSR 4240-2.060(1)(D) requires that if any applicant is a partnership, a copy of the partnership agreement must be submitted.

- This requirement does not apply.

20 CSR 4240-2.060(1)(E) requires that if any applicant does business under a fictitious name, they must file a copy of the registration of the fictitious name with the secretary of state.

- The section titled I. Applicant, paragraph 1, on page 3 of the CCN Application states "The Company's Fictitious Name Registration as filed with the Missouri Secretary of State's Office is attached hereto as Application Schedule A."
- Ameren Missouri has met this requirement.

20 CSR 4240-2.060(1)(F) requires that if any applicant is a political subdivision, a specific reference to the statutory provision and a specific reference to any other authority, if any, under which it operates must be provided.

- This requirement does not apply.

20 CSR 4240-2.060(1)(G) states that if any applicant has submitted the applicable information as detailed in subsections (1)(B)-(F) of this rule in a previous application, the same information may be incorporated by reference to the case number in which the information was furnished, so long as such applicable information is current and correct.

- Applicable information was submitted in a previous application which was properly referenced.[3]
- Ameren Missouri has met this requirement.

20 CSR 4240-2.060(1)(H) requires a brief statement of the character of the business performed by each applicant.

- The section titled I. Applicant, paragraph 1, pages 2 – 3 of the CCN Application contains the required information.
- Ameren Missouri has met this requirement.

20 CSR 4240-2.060(1)(I) requires the name, title, address, and telephone number of the person to whom correspondence, communication, and orders and decision of the Commission are to be sent, if other than to the applicant's legal counsel.

- The section titled I. Applicant, paragraph 2, on page 3 of the CCN Application contains the required information.
- Ameren Missouri has met this requirement.

[3] See CCN Application, I. Applicant which references File No. EA-87-105.

20 CSR 2.060(1)(J) requires a list of all association members if any applicant is an association other than an incorporated association or other entity created by statute.

- This requirement does not apply.

20 CSR 4240-2.060(1)(K) requires a statement indicating whether the applicant has any pending or final unsatisfied judgements or decisions against it from any state or federal agency or court which involve customer service or rates, which action, judgement or decision has occurred within three (3) years of the date of the application.

- The section titled I. Applicant, paragraph 3 on page 3 of the CCN Application contains the required information.
- Ameren Missouri has met this requirement.

20 CSR 4240-2.060(1)(L) requires a statement that there is no annual report or regulatory assessment fees that are overdue.

- The section titled I. Applicant, paragraph 4 on page 3 of the CCN Application, contains the required information.
- Ameren Missouri has met this requirement.

20 CSR 4240-2.060(1)(M) requires that all applications shall be subscribed and verified by affidavit under oath by one (1) of the following methods: if an individual, by that individual; if a partnership, by an authorized member of the partnership; if a corporation, by an authorized officer of the corporation; if a municipality or political subdivision, by an authorized officer of the municipality or political subdivision; or by the attorney for the applicant if the application includes or is accompanied by a verified statement that the attorney is authorized.

- Verification provided by Mr. Ajay K. Arora, SVP, Chief Development Officer for Union Electric Company d/b/a Ameren Missouri by electronic signature on page 19 of the CCN application stating ""[t]he undersigned, being first duly sworn and upon his oath, hereby states that the foregoing *Application* is true and correct to the best of his knowledge, information, and belief" and "[t]his request is substantially consistent with the preferred resource plan required by 20 CSR 4240-Chapter 22."
- Ameren Missouri has or will file a substitute verification to meet this requirement.

20 CSR 4240-20.045

20 CSR 4240-20.045(3)(A) requires that the application shall include facts showing that granting the application is necessary or convenient for the public service.

- Ameren Missouri has addressed this requirement in its Application in Section C. titled <u>The Reform Solar Project is Necessary or Convenient for the Public Service ("Tartan Factors")</u>, on pages 6 – 13 of the CCN Application.
- Ameren Missouri has met this requirement.

20 CSR 4240-20.045(3)(B) requires that if an asset to be operated or constructed is outside Missouri, the application shall include plans for allocating costs, other than regional transmission organization / independent system operator cost sharing, to the applicable jurisdiction.

- This requirement does not apply.

20 CSR 4240-20.045(3)(C) requires that if any of the items required under this rule are unavailable at the time the application is filed, the unavailable items may be filed prior to the granting of authority by the Commission, or the Commission may grant the certificate subject to the condition that the unavailable items be filed before authority under the certificate is exercised.

- Ameren Missouri has asked for a variance to 20 CSR 4240-20.045(3)(C) and 20 CSR 4240-20.045(6)(J).
- If the Commission grants the variance request, Ameren Missouri will meet this requirement.

20 CSR 4240-20.045(6)(A) requires a description of the proposed route or site of construction.

- Page 13, paragraph a. of the CCN Application addresses this rule, by stating that the entirety of the "the Reform Solar Project site" will be "located on land Ameren Missouri owns adjacent to the Callaway Nuclear Energy Center Site in Callaway County, Missouri", and, "is depicted in and described in detail in Schedule C to this Application".
- Ameren Missouri has met this requirement.

20 CSR 4240-20.045(6)(B) requires a list of all electric, gas, and telephone conduit, wires, cables, and lines of regulated and nonregulated utilities, railroad tracks, and each underground facility, as defined in section 319.015, RSMo, which the proposed construction will cross.

- Page 13, paragraph b. of the CCN Application addresses this rule, and states that any items owned by a third-party and crossed within the Project site are identified in Schedule D to the Application.
- Ameren Missouri has met this requirement.

20 CSR 4240-20.045(6)(C) requires a description of the plans, specifications, and estimated costs for the complete scope of the construction project that also clearly identifies what will be the operational features of the asset once it is fully operational and used for service.

- Page 14, paragraphs (1) – (4) provide details addressing with this rule.
- Ameren Missouri has met this requirement.

20 CSR 4240-20.045(6)(D) requires the projected beginning of construction date and the anticipated fully operational and used for service date of the asset.

- Page 14, paragraph d. of the CCN Application states the projected beginning of construction date will fall in Q2, 2026, and that the Reform Solar Project is expected to be placed in-service by Q4, 2028.
- Ameren Missouri has met this requirement.

20 CSR 4240-20.045(6)(E) requires a description of any common plant to be included in the construction project.

- Page 14, paragraph e. of the CCN Application states that "The Reform Solar Project has no common plant to be included in the construction project".
- Ameren Missouri has met this requirement.

20 CSR 4240-20.045(6)(F) requires plans for financing the construction of the asset.

- Page 14, paragraph f. of the CCN Application states that the financing plans Ameren Missouri has for the Reform Solar Project are discussed in the Direct Testimony of Company Witness Mitchell Lansford.
- Ameren Missouri has met this requirement.

20 CSR 4240-045(6)(G) requires a description of how the proposed asset relates to the electric utility's adopted preferred plan under 4 CSR 240-22.

- Page 14, paragraph g. of the CCN Application states that the Reform Solar Project was contemplated in Ameren Missouri's 2025 Preferred Resource Plan, which is explained in the Direct Testimony of Company Witness Matt Michels.
- Ameren Missouri has addressed this requirement.

20 CSR 4240-045(6)(H) requires an overview of the electric utility's plan for this project regarding competitive bidding, although competitive bidding is not required, for the design, engineering, procurement, construction management, and construction of the asset.

- Page 15, paragraph h. of the CCN Application references Company Witness Scott Wibbenmeyer's Direct Testimony as the location for all the details required by this rule.
- Ameren Missouri has met this requirement.

20 CSR 4240-045(6)(I) requires an overview of plans for operating and maintaining an asset.

- Page 15, paragraph i., of the CCN Application describes how the requirements of this rule will be accomplished. Essentially, the Reform Solar Project will be operated and maintained like how all of their other existing generation and switching stations are run, which also includes their existing renewable generation infrastructure and all associated interconnections. The paragraph further states that the Direct Testimony of Company Witness Leslie M. Tindall provides additional details with respect to switching station operation.
- Ameren Missouri has met this requirement.

20 CSR 4240-20.045(6)(J) requires an overview of plans for safe and adequate service after significant, unplanned/forced outages of an asset.

- Ameren Missouri has requested a variance from the provisions of this rule and asks that the Company be allowed to submit an overview of its plans for restoration of safe and adequate service after significant, unplanned or forced outages ninety days prior to the facility being placed in-service.

- If the Commission grants the variance request, Ameren Missouri will meet this requirement under the requested terms of their request.
- Staff does not oppose the variance request.

20 CSR 4240-20.045(6)(K) requires an affidavit or other verified certification of compliance with the following notice requirements to landowners directly affected by electric transmission line routes or transmission substation locations proposed by the application. The proof of compliance shall include a list of all directly affected landowners to whom notice was sent.

- Page 16, paragraph k. of the CCN Application states that Ameren Missouri owns all the land where the proposed project is to be constructed.
- This requirement does not apply.

Staff Witness: Donald Fontana, P.E.