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**MISSOURI PUBLIC SERVICE COMMISSION**

**FILE NO. EA-2023-0286**

# DIRECT TESTIMONY

**OF**

**STEVEN M. WILLS**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY**

**D/B/A AMEREN MISSOURI**

**St. Louis, Missouri**
**June, 2023**

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**DIRECT TESTIMONY**

**OF**

**STEVEN M. WILLS**

**FILE NO. EA-2023-0286**

## I. INTRODUCTION

**Q. Please state your name and business address.**

A. Steven M. Wills, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company"), One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

**Q. What is your position with Ameren Missouri?**

A. I am the Director of Regulatory Affairs.

**Q. Please describe your educational background and employment experience.**

A. I received a Bachelor of Music degree from the University of Missouri-Columbia in 1996. I subsequently earned a Master of Music degree from Rice University in 1998, then a Master of Business Administration ("M.B.A.") degree with an emphasis in Economics from St. Louis University in 2002. While pursuing my M.B.A., I interned at Ameren Energy in the Pricing and Analysis Group. Following completion of my M.B.A. in May 2002, I was hired by Laclede Gas Company as a Senior Analyst in its Financial Services Department. In this role, I assisted the Manager of Financial Services in coordinating all financial aspects of rate cases, regulatory filings, rating agency studies, and numerous other projects.

In June 2004, I joined Ameren Services as a Forecasting Specialist. In this role, I developed forecasting models and systems that supported the Ameren operating companies' involvement in the Midwest Independent Transmission System Operator, Inc.'s ("MISO")[1] Day 2 Energy Markets. In November 2005, I moved into the Corporate Analysis Department of Ameren Services, where I was responsible for performing load research activities, electric and gas sales forecasts, and assisting with weather normalization for rate cases. In January 2007, I accepted a role I briefly held with Ameren Energy Marketing Company as an Asset and Trading Optimization Specialist before returning to Ameren Services as a Senior Commercial Transactions Analyst in July 2007. I was subsequently promoted to the position of Manager, Quantitative Analytics, where I was responsible for overseeing load research, forecasting and weather normalization activities, as well as developing prices for structured wholesale transactions.

In April 2015, I accepted a position with Ameren Illinois as its Director, Rates & Analysis. In this role, I was responsible for the group that performed Class Cost of Service, revenue allocation, and rate design activities for Ameren Illinois, as well as maintained and administered that company's tariffs and riders. In December 2016, I accepted a position with the same title at Ameren Missouri. In 2022, I was promoted to the position of Director of Regulatory Affairs for Ameren Missouri, in which I provide oversight and direction of all of the state regulated activities of the Company.

[1] Now known as the Midcontinent Independent System Operator, Inc.

## II. PURPOSE OF TESTIMONY AND CASE OVERVIEW

**Q. What is the purpose of your direct testimony?**

A. The primary purpose of my direct testimony is to address the Solar Projects' satisfaction of the Tartan Factors, with emphasis on the factors of need and public interest.[2] I will also provide an overview of the Company's direct case filing, including the main topics covered by each of the Company's witnesses.

**Q. Please provide an overview of the Company's case.**

A. This case seeks certificates of convenience and necessity ("CCNs") for the Solar Projects summarized in Table 1 below. Two of them are essentially being developed and constructed together by the Company itself, and two of are being developed by third-party renewable energy developers.

**Table 1. Summary of Solar Projects**

| | Split Rail Solar Project | Cass County Solar Project | Vandalia Solar Project | Bowling Green Solar Project |
|---|---|---|---|---|
| Contractual Agreement Date | May 2023 | May 2023 | September 2022 | June 2023 |
| Agreement Type | Build-transfer | Development-transfer | Self-development | Self-development |
| Developer | Invenergy Renewables, LLC | Savion, LLC | Ameren Missouri | Ameren Missouri |
| Facility Size | 300-$MW_{AC}$ | 150-$MW_{AC}$ | 50-$MW_{AC}$ | 50-$MW_{AC}$ |
| Location | Central Missouri | Central Illinois | Northeastern Missouri | Northeastern Missouri |
| Targeted Completion Date | Q2 2026 | Q4 2024 | Q4 2025 | Q1 2026 |
| Project Cost Estimate[3] | ***_____*** | ***_____*** | ***_____*** | ***_____*** |

[2] The projects proposed in this docket are the Split Rail Solar Project, the Cass County Solar Project, the Vandalia Solar Project, and the Bowling Green Solar Project (collectively, the "Solar Projects").
[3] Values shown reflect base case estimated cost, prior to the impact of any tax incentives. Available investment tax credits are expected to reduce the cost of each project by approximately 30-40%.



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In addition to my Direct Testimony, the Company's direct case consists of testimony from the following witnesses:

1. Scott Wibbenmeyer, Sr. Director, Renewable and Technology Business Development, Ameren Missouri. Witness Wibbenmeyer provides details on each of the Solar Projects, including the approach by which they are being developed, key contract terms, costs, and information on the requests for proposals that underlie the Projects' selection and development.
2. Ajay K. Arora, Sr. Vice-President and Chief Renewables Officer, Ameren Missouri. Witness Arora addresses the need for the Projects, including in particular, a discussion of how the Projects promote a reliable and resilient generation fleet, risks associated with not continuing to transition the Company's generation fleet to one with greater reliance on zero marginal cost renewable energy resources, and the importance of implementing good projects as and when they are available, including to take advantage of available tax credits.
3. Matt Michels, Director, Corporate Analysis, Ameren Services Company. Witness Michels also addressed the need for the Solar Projects, including specifically how they fit within the Company's current Preferred Resource Plan ("PRP"), why that plan is expected to save customers more than $1 billion on a net present value of revenue requirement basis, and how the Solar Projects meet the needs of our customers for energy as well as contribute to a more reliable system. Witness Michels also addresses the specific economics of each of the Solar Projects, including alternative tax credit options.

## III. OVERVIEW OF THE NEED FOR THE SOLAR PROJECTS

**Q. You noted that you would emphasize the Tartan Factor of need, which is often important in CCN cases. Before getting into the details of the Tartan Factors as they apply to the Solar Projects, would you please provide an overview of the context for the need for the Solar Projects?**

A. Yes. As the Company discussed in the evidence it presented in the docket EA-2022-0245 ("the Boomtown case"), in which the Commission recently approved a CCN for a 150-megawatt ("MW") solar facility in southern Illinois (the "Boomtown" facility), and as the Commission itself recognized in its *Report and Order*[4] in the Boomtown case, the need for adding additional renewable energy resources like the Solar Projects arises from the critical need to complete an orderly transition from an aging generation fleet that is anchored by coal facilities that have served customers well with reliable energy for decades to a new fleet that includes much greater reliance on renewable energy resources. As noted, this need is further discussed in the direct testimonies of Company witnesses Arora and Michels. New renewable energy resources have no fuel costs and produce no emissions. Under the Company's plans they will be complemented by additional dispatchable gas-fired resources, and the Company's existing nuclear and hydroelectric generation facilities to ensure reliability. This transition from the Company's old fleet to this new fleet with much greater reliance on renewable energy resources is critical for many reasons, including that the Company's coal-fired facilities have in some cases reached, and as a whole are approaching, the end of their useful lives and face significant risks that in turn pose risks to the Company's customers. These risks primarily arise from their age and their intermediate- to

[4] File No. EA-2022-0245, Report and Order, Issued April 12, 2023.

long-term economic outlook given that age and the increasing cost of complying with ever more stringent environmental regulations.

This transition from the "old fleet" to the "new fleet"[5] in a relatively short period of time comes with myriad risks, a compelling need for diligent and careful planning, and requires a sustained and careful staging and implementation of many renewable resource projects to be built or acquired over time so that they can be integrated into the fleet thoughtfully in order to ensure continued reliability of service to customers. Ameren Missouri has taken a prudent approach to how it transitions its fleet by first focusing on adding renewables specifically in compliance with the state's Renewable Energy Standard, while maintaining the existing fleet to provide reliable and affordable service to its customers. However, as noted, the pressures on the existing coal plants continue to build as evidenced by recently adopted and imposed environmental regulations discussed further by witness Michels. The Solar Projects put forward as a part of this application are a logical next step in the continued building out of the "new fleet" after the approval of the Boomtown project and still represent a modest portion of the total long-term need for new renewable energy that will provide clear value to customers in terms of enhancing reliability, executing the generation transition as affordably as possible, and addressing numerous risks. Adding these zero fuel cost resources also helps the Company maintain its longstanding position of having a sufficient buffer of generation to handle extreme or unexpected events, which are happening with greater frequency at a time when it is more important than ever not to over-rely on the MISO market.

[5] Witness Michels elaborates on what the "old and new fleets" are in his Direct Testimony.

## IV. THE TARTAN FACTORS SUPPORT ISSUANCE OF A CCN FOR THE PROJECTS

**Q. What are the "Tartan Factors"?**

A. The so-called "Tartan Factors" were adopted by the Commission as guidelines for evaluation of CCN applications in its decision in *In Re Tartan Energy Co., L.C.*, No. GA-94-127, 1994 WL 762882 (Sept. 16, 1994). The factors are as follows:

- Is there a need for the resource?
- Is the applicant qualified to operate the proposed resource?
- Does the applicant have the financial ability to develop or acquire the resource?
- Is the resource economically feasible; and
- Does granting the CCN for the resource promote the public interest?

### a. Tartan Factor 1: The Solar Projects are Needed

**Q. How does the Missouri Public Service Commission define necessity for purposes of CCN applications such as this case?**

A. First, as a threshold matter, it is instructive to consider what the Commission had to say about this factor in the *Tartan* case itself. In *Tartan*, the Commission made clear that "[t]he term 'necessity' does not mean 'essential' or 'absolutely indispensable,' but that an additional service would be "an improvement justifying its cost." *Tartan* involved a request for an area certificate covering new natural gas service to several communities in southern Missouri, for which new gas distribution infrastructure would need to be built to provide the service. The communities in question were relying on propane or other sources of fuel at the time, and the Commission engaged in a fairly robust discussion of factors that support issuance of a CCN. The Commission determined that need was satisfied in the case and considered the following factors: the

communities' "preference" for natural gas, the positive economic development impacts that granting the CCN would promote, and the potential for lower energy costs for consumers. By doing so, it did not anchor itself to one criterion in deciding whether a need existed but considered the totality of the evidence based on a broad view of the benefits of the project.

**Q. In addition to the factors discussed in *Tartan* with respect to need, are there any other factors that the Commission has considered in determining whether a renewable energy project is needed?**

A. Yes. The Commission's *Report and Order* in the Boomtown case built on a long history of rulings that have articulated several policy considerations that the Commission has relied upon in approving projects related to renewable generation.

In its *Report and Order* in the Boomtown case, the Commission's findings of fact indicated that in its approval of the CCN for the Boomtown facility, the Commission considered a number of factors. These included the contribution the solar resource would make to both summer and winter capacity requirements and to meeting the Company's energy needs, including maintaining a sufficient buffer beyond forecasted load levels consistent with the Company's historical circumstances, risk mitigation associated with over-reliance on the MISO market,[6] which NERC has designated as a high-risk area for potential capacity shortfalls, and the fact that it was a part of the Company's current Preferred Resource Plan. The Commission also recognized that continuing to add renewable energy resources like the Solar Projects as part of that Plan is expected to meet customers' needs at the lowest Net Present Value of Revenue Requirement ("NPVRR"). While the Commission cited these facts that supported the need for Boomtown based on its significant contribution to fulfilling an important role related to what I would characterize as somewhat

[6] This is a risk the Commission specifically recognized in its *Report and Order* in the Boomtown case.

traditional resource planning criteria (e.g., cost-effective energy and capacity), the Commission also went beyond that to acknowledge additional benefits that support the finding of need due to the additional benefits that arise from zero-emission renewable energy resources.

Importantly, the Commission referenced the role that renewables play in supporting robust economic activity in the region, by helping to attract and retain customers that are ultimately large employers in the service territory and whose load contributes to affordability for all customers by providing additional sales over which to spread the Company's fixed costs of providing service. The Commission also made note of the reduction of carbon dioxide emissions associated with the renewable resource, and the fact that such reductions advance the achievement of sustainability goals of the Company and many of its customers. Finally, the Commission also found the Boomtown project reduced exposure to volatile fuel prices and future additional environmental regulations impacting the existing fleet. In total, the need for the Boomtown resource articulated in the Commission's order was clear, compelling, and multi-faceted.

Many of these themes, as I mentioned previously, echoed or expanded on a long line of Commission orders supporting the development of renewable resources in Missouri, including prior case references to renewable benefits such as furthering the state's policy of diversifying Missouri's energy supply using renewable energy,[7] the reliability benefits of a project - specifically whether the project enhances the grid's resiliency or encourages the movement of electricity generated by renewable resources to areas of market demand - and[8] the long-term reduction of energy and capacity costs over the coming decades along with[9] the economic value

[7] *In the Matter of the Application of the Empire Dist. Elec. Co.*, No. EA-2019-0010, 2019 WL 3020973, at *25 (June 19, 2019); *In the Matter of the Application of Union Elec. Co. d/b/a Ameren Missouri for Permission & Approval & A Certificate of Pub. Convenience & Necessity Authorizing It to Offer a Pilot Distributed Solar Program & File Associated Tariff*, No. EA-2016-0208, 2016 WL 7441690, at *11 (Dec. 21, 2016).
[8] *In the Matter of the Application of Grain Belt Express LLC*, No. EA-2023-0017, 2022 WL 4234648, at *21-22 (Sept. 1, 2022).
[9] *Id.* at 21.

of social benefits and reduced emissions provided by projects and the availability of tax benefits that would result in cost savings.[10]

**Q. Do any of those factors weigh in favor of approval for the Solar Projects in this case?**

A. Yes. All of them do. The Solar Projects are the logical next step in the renewable transition that was discussed at length in the Boomtown case. Approval of CCNs for the Solar Projects is supported for the reasons given in the Company's Application and Direct Testimony in this case, as well as based upon the Commission's findings, conclusions, and ultimate decisions reflected in its *Report and Order* in the Boomtown case, which I have attached to my testimony as Schedule SMW-D1.

**Q. Would you please elaborate further on why the Projects satisfy the Tartan Factor of need?**

A. Yes. As I noted earlier, the need for the Solar Projects exists for reasons that are in effect the same as the reasons the Commission determined the Boomtown facility was needed. The Solar Projects will be a next step in the development of the new fleet of generation resources – a fleet that is cleaner and relies much more heavily on renewable generation that is backstopped for reliability purposes with dispatchable technologies, that will serve Ameren Missouri's customers for decades to come as the legacy coal fleet (and certain gas generation) is retired at the end of its useful life.

As detailed further in the testimony of witnesses Arora and Michels, the staged retirement of significant coal-fired generating capacity over the coming years creates both energy and capacity needs for the Company that emerge in the next few years and increase significantly over

[10] *Id.*; *In the Matter of the Application of Ameren Transmission Co. of Illinois*, No. EA-2015-0146, 2016 WL 1730118, at *7 (Apr. 27, 2016).

time. Due to the significant timeline required to develop a renewable resource, and the complexity associated with managing the several renewable projects needed to achieve the total amount of renewable generation reflected in the PRP, the Company needs to take a sustained approach to developing the appropriate mix of capacity and energy resources that will make up the new fleet going forward, with some overlap in time with existing resources to ensure reliability through the transition. This is also important to allow the Company to develop operational experience with the mix of new renewable resources, the continued operation of other existing resources that will remain, and new non-renewable resources that will be added, i.e. with the new fleet going forward. In summary, renewable resources like the Solar Projects are needed because they have a significant role in the development of the appropriate resource mix going forward, along with certain dispatchable resources to help ensure reliability, for several reasons,[11] including:

- As the Commission recognized in the Boomtown case, both near- and longer-term energy and capacity needs can be addressed by solar resources.
- The Company's historical buffer of energy generation, which has provided benefits to customers by helping to maintain reliability, avoiding exposure to extreme market price spikes, and creating excess energy sales that contribute revenues toward the reduction of retail revenue requirements, is rapidly disappearing with the scheduled retirement of coal facilities reaching end of life, and renewable resources are cost-effective sources of energy that can rebuild an appropriate buffer and the benefits that go along with it.
- NERC has identified MISO as a high-risk region for reliability concerns and the addition of energy and capacity resources like the Solar Projects help to

[11] Company witnesses Michels and Arora elaborate on these reasons in greater detail in their Direct Testimonies.

mitigate the risk of over-reliance on the market to ensure adequate capacity supplies exist in the region.

- Adding renewables like the Solar Projects in the relatively near term helps to mitigate the very real risks of additional environmental regulation – including those that recently became law as well as those just proposed last month – causing existing coal (and even gas) fired capacity to retire earlier than expected, or reduce output to manage emissions.
- The Solar Projects will reduce the Company and its customers' exposure to volatile fuel commodity markets.
- Addition of the Solar Projects will result in fewer carbon dioxide and other emissions, resulting in better environmental outcomes than legacy sources of electric production.
- As the Commission recognized in the Boomtown case, the addition of renewables to the Company's energy mix can and does enhance economic development activities and retention of commercial and industrial load in the service territory, and
- The Solar Projects will make meaningful progress toward the achievement of both the Company's and many of its customers', including large customers that are significant employers in the region, sustainability goals.

As it did in the *Tartan* case as well as the more recent Boomtown case, the Commission should consider whether the Solar Projects are needed by evaluating the totality of the benefits of the Solar Projects and answer the question of whether those benefits are an improvement justifying their cost. For the reasons articulated above, as well as throughout the Direct Testimonies of

witnesses Arora and Michels, the answer is a clear and compelling "yes." The Solar Projects are absolutely needed.

**b. Tartan Factor 2: The Company is Qualified to Operate the Projects.**

**Q. How does the Company satisfy Tartan Factor 2?**

A. Just as the Commission recognized in its Boomtown *Report and Order*, the Company's track record and capability to operate generation resources including renewable energy resources speaks for itself. The Company has safely and reliably operated thousands of MW of generation, including generation associated with a wide variety of fuel sources and technologies, for decades. With respect to renewables specifically, the Company currently owns and operates approximately 700 MW of wind generation across two different facilities in northern Missouri and operates more than 8 different solar facilities totaling over 15 MW. The Company has also already been approved by the Commission to acquire 350 MW of additional solar generation at two facilities to be constructed and placed into service prior to any of the Solar Projects at issue in this case, which the Company will also use to gain additional experience operating large-scale solar facilities. The Company is clearly qualified to operate the Solar Projects once acquired/built.

**c. Tartan Factor 3: The Company has the Financial Ability to Develop or Acquire the Projects.**

**Q. Please address Ameren Missouri's financial ability to develop or acquire the resources?**

A. Ameren Missouri has the financial capability to generate and raise the capital needed to develop and acquire the resources in question. As discussed in the direct testimony of Company witness Scott Wibbenmeyer, the upfront capital cost of the four facilities in question is expected to be approximately ***_____***. The Company's existing rate base – financed



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by an appropriate balance of debt and equity - exceeds $11 billion, and its planned capital additions over the coming 5 years (not including new renewable energy resources such as the Projects) exceed $7 billion. The Company has sufficient access to capital markets based on, among other things, its stable credit ratings of Baa1 and BBB+, per Moody's and Standard & Poor's credit rating agencies respectively. I expect there to be little question regarding the Company's financial wherewithal to undertake the Solar Projects that are the subject of this proceeding.

**d. <u>Tartan Factor 4: The Projects are Economically Feasible.</u>**

**Q. Please address the economic feasibility of the Projects.**

A. The Solar Projects, as discussed above, are an improvement justifying their cost, just as the Commission found to be the case for the Boomtown facility. This is because the Projects are needed resources to reliably serve customers' energy and capacity requirements and mitigate certain risks while taking advantage of available tax credits enabled by the federal Inflation Reduction Act ("IRA") adopted by Congress in 2022. The Commission has recognized that when projects are needed, the economic feasibility question largely turns on whether the utility can finance the projects which, as discussed earlier, is not an issue with respect to the Projects. The economic feasibility of the Projects is also supported by other facts.

First, the Company's Integrated Resource Planning process ("IRP") is used to establish the Company's PRP. In selecting the PRP, the primary selection criterion is minimization of the net present value of revenue requirement – essentially this means that the PRP is selected based on assessment of the "least cost" portfolio available to meet customers' energy and capacity needs, consistent with other secondary planning objectives and risk assessments. As discussed in more depth by Company witness Michels in his Direct Testimony, the Company's PRP, which includes the sustained investment in renewables throughout the planning horizon, and which the Solar

Projects in this case are a manifestation of, has a NPVRR that is more than a billion dollars lower than an alternative plan that waited to add new resources until an imminent capacity shortfall emerges. The IRP demonstrates that the Company's generation transition plan is a cost-effective means of providing the energy and capacity resources needed to reliably serve customers over time, supporting the conclusion that the Solar Projects are economically feasible.

The second additional lens through which it is important to view the Solar Projects in order to contemplate economic feasibility of a specific resource is an assessment of the process used to select that specific resource for implementation. While the IRP identifies the cost-effective mix of different types of generation required based on a more generic set of cost assumptions for each technology, specific projects like the Solar Projects should be considered as well. The Request for Proposal ("RFP") processes, as discussed further by Company witness Wibbenmeyer in his Direct Testimony, allowed the Company to ensure competitive market-based pricing of the specific resources the Company proposes to develop and/or acquire on behalf of its customers.

Given the foregoing, economic feasibility is established for the Solar Projects.

**e. <u>Tartan Factor 5: The Projects are in the Public Interest.</u>**

**Q. Finally, turning to the last Tartan factor, does granting the CCNs for the Solar Projects promote the public interest?**

A. Yes. It is often said that the public interest test is generally satisfied if each of the first four Tartan factors are satisfied. Given that each of the first four Tartan Factors strongly support issuance of the CCN, as discussed above, it is a logical extension to conclude that the Solar Projects are in the public interest. But just to put a finer point on the public interest question, I will reiterate the perspective that I shared in the Boomtown case on the public interest here.

Generally, the public interest is served if we are able to effectively balance the three priorities that should be considered the pillars of the generation transition that the Company is undertaking and which is otherwise happening broadly across our industry: reliability, affordability, and sustainability.

These are the areas that will impact the customers and communities, which are key interests the Commission's regulation of public utilities is designed to promote and protect. Consequently, they are the areas that the Company has focused on in developing its transition plan.

**Q. What are some of the important reasons the Solar Projects promote the public interest?**

A. The Commission itself outlined some of those reasons in its *Report and Order* in the Boomtown case. Among the reasons the Commission found the Boomtown project promoted the public interest – reasons equally applicable to the Solar Projects at issue in this case – was that there is simply not an unlimited supply of good renewable energy projects making it important to implement the projects that are available when they are available.[12] In addition, implementing the Solar Projects is consistent with the Company's PRP, which, as the Commission noted, should allow the Company to have sufficient resources every year in the long-term while over time continuing to be a net seller of energy at levels roughly equivalent to what it has been historically. Adding the Projects is important to achieve those outcomes. The Commission's *Report and Order* in the Boomtown case also specifically recognized the hedge against important risks – power prices, carbon prices or other environmental regulations impacting fossil fuel resources, and fuel

[12] The Commission recognized that doing so is important to avoid having to deploy less beneficial resources later due to, among other things, lesser availability of viable tax credits, transmission constraints, or higher financing rates (all addressed by Company witness Michels in his Direct Testimony).

prices – that renewable energy resources provide. That hedge is provided by the Solar Projects as well, as discussed by witnesses Arora and Michels in their Direct Testimonies.

**Q. Are there other benefits of the Solar Projects besides reliability, affordability, and sustainability that also promote the public interest?**

A. Yes. As Company witness Rob Dixon explained in the Boomtown case – and as also discussed by the Commission itself in its Boomtown case *Report and Order*,[13] Ameren Missouri's customers have expressed a keen interest in receiving cleaner energy from their utility and meeting those customers' needs brings benefits to the state in general, and to the Company's existing customers in particular. This was also recognized by the consensus principles in the Critical Consumers Issues Forum ("CCIF") report I discuss below, with its emphasis on the fact that the clean energy goals exist "across all sectors of the economy." The strength of that statement is telling about the expectations that all types of customers are placing on their utilities. It has also been recognized by the Commission itself through a number of the orders I cited previously, including in the recent Boomtown case, among others. Meeting the clearly expressed needs of our customers, when it can be done responsibly in conjunction with providing for the energy and capacity needs of the system to the benefit of all, is squarely in the public interest.

**Q. You mentioned a CCIF report. What is that report and why do you believe it supports the conclusion that the Projects promote the public interest?**

A. The 2022 CCIF was a series of workshops and discussions where utility regulators from the National Association of Regulatory Utility Commissioners ("NARUC"), consumer advocates from the National Association of State Utility Consumer Advocates ("NASUCA"), and electric utility industry participants associated with the Edison Electric Institute ("EEI") engaged

[13] File No. EA-2022-0245, Boomtown case *Report and Order*, pp. 16 – 17, Issued April 12, 2023.

in collaborative discussions related to current events in the industry. The 2022 series was titled: "The Customer-Centered Clean Energy Transition," and the first two "consensus principles" of the report from the forum read:

> a. While the pace is constantly changing given individual drivers and circumstances, the U.S. transition to clean energy is underway at various stages around the country, and it is expected to accelerate given ambitious public, private, and community clean energy goals across all sectors of the economy.
>
> b. Such a transition will require significant investment, ongoing partnership, and a strategy to achieve clean energy objectives and serve customers' current and future energy needs reliably, affordably, cost-effectively, and equitably.[14]

Essentially, the report reflects an example of a case where regulators, consumer advocates, and utilities aligned on a recognition that there are three pillars – reliability, affordability, and sustainability – that are appropriate for navigating the transition to greater reliance by utilities on renewable energy resources. It is clear from the workshops and the report that there is an understanding and explicit acknowledgement by this group, which represents regulators and major regulatory stakeholder groups from all over the nation and the industry, that the generation transition is upon us – it is not speculative – and that the industry is moving and "accelerating" toward a sustainable energy system powered by clean energy, and where reliability and affordability must be guiding principles of that movement. This supports the conclusion that it is clearly in the public interest for the Company to transition its own fleet thoughtfully but steadily to cleaner energy resources in a manner that promotes reliability and affordability.

[14] "The Customer-Centered Clean Energy Transition," p. 3, July 2022 Report. See https://cciforum.com/wp-content/uploads/CCIF-Customer-Centered-Clean-Energy-Transition-Report-July-2022.pdf

**Q. How does the Company balance these pillars of reliability, affordability, and sustainability?**

A. The Company balances these objectives using its IRP process generally and its PRP specifically, which I will summarize here at a high level.

***Reliability*** is inherently built into the IRP at its core. The plans that are evaluated against the planning objectives are all designed to result in enough generation capacity to meet the expected peak loads plus a reserve margin. But in its most recent IRP analysis, recognizing exactly what NERC pointed out in its 2022 Long-Term Reliability Assessment, the Company has undertaken enhanced reliability modeling that considers a probabilistic assessment of our ability to meet our customers' energy needs in all hours of the year. This has become critically important as the Company's generation length has greatly decreased under normal conditions and may not exist at all in a variety of quite possible scenarios, as discussed in Company witnesses Arora's and Michel's Direct Testimonies.

***Affordability*** is a primary focus of the IRP. The Company selects appropriate planning objectives, with the primary criteria focused on minimizing the net present value of revenue requirements – i.e., achieving the most affordable plan that will meet customers' energy needs. Remember, the Company's PRP which calls for adding renewable energy resources starting now and continuing to steadily add them has the lowest net present value of revenue requirement of all of the IRP's alternative resource plans, including the plan that features the addition of capacity only when we are literally short.

***Sustainability*** is achieved by the plan by meeting carbon emissions reduction goals of 60% by 2030, 85% by 2040, and net zero carbon emissions by 2045.

## V. THE PROJECTS POSSIBLE USE FOR THE RECENTLY APPROVED RENEWABLE SOLUTIONS PROGRAM

**Q. Please provide a short description of the Renewable Solutions Program ("RSP") that was recently approved by the Commission as a part of the Boomtown case.**

A. The RSP is a new renewable energy subscription program that is available to large commercial and industrial customers to help them fulfill their renewable energy or sustainability goals. Under the RSP, interested customers may subscribe to a program resource and receive Renewable Energy Credits ("RECs") created by the resource output that legally signify their claim to the renewable energy that was produced by that resource. In exchange, subscribers pay a Renewable Resource Charge, which is a fixed monthly payment based on the amount of capacity to which the customer is subscribed and receive a Renewable Benefits Credit in proportion to the output of the customer's share of the renewable resource.

This innovative program provides benefits to subscribers and non-subscribers alike. Subscribers have a means of partnering with their utilities to achieve corporate goals that are important to their business strategies, and their net payments into the program are used to offset the revenue requirement of the resource, which ultimately serves to reduce the rate impact of the resource on non-subscribing customers. This is a real win-win scenario since the resource is needed to serve all customers and, as the Commission recognized when it approved the RSP, the RSP "lower[s] the NPVRR associated with [projects used for the RSP] because [their cost] is being subsidized by the RSP subscribers."[15] The non-subscribers get access to a needed resource at lower cost, and subscribers get an attribute of the generation that they highly value.

[15] File No, EA-2022-0245, Report and Order, p. 33, Issued April 12, 2023.

**Q. What is the relevance of the RSP in this proceeding?**

A. The Solar Projects (or some portion of their capacity) have the potential to be utilized for future phases of the RSP, which would further enhance the economic attractiveness of these otherwise needed resources to the benefit of all customers.

**Q. Why are the resources not already subscribed through the RSP, like the Boomtown resource was?**

A. There are a few reasons. First, the process of soliciting participants for subscription is a detailed and somewhat lengthy process. Because the RSP was actively under review by the Commission until the recent order in the Boomtown case, it simply made sense to wait to see if the Commission approved, rejected, or modified the program prior to engaging new customers in that process. The Company subscribed customers to the Boomtown resource in advance of its CCN filing to essentially prove out the concept that we can deliver a specific resource with matching supply and demand at a price that would meaningfully contribute to the affordability of that resource. With the strong evidence of customer demand for the product demonstrated by the first phase associated with Boomtown, it made more sense for phase two and beyond to see the Commission's ruling on the program's filed tariff terms prior to asking new customers to commit to an additional resource on those terms, especially since that ruling by the Commission was imminent during the time leading up to this CCN filing when the enrollment would have had to be taking place.

Second, waiting longer to subscribe customers to a resource allows greater certainty of the Solar Project costs to inform the pricing of the additional program phase. The subscription price, and its relationship to the expected cost of the Boomtown resource, was an issue that got considerable attention both during discovery and the hearing in the Boomtown case. While the

Commission recognized the need to have locked in the price of subscriptions at the time that we did, it also was evident that there was interest in aligning the project cost and the price as closely as is reasonably feasible. While subscribing customers to an additional phase using one or more of the Solar Projects in this case might still have to take place before the final project cost is precisely known, having the enrollment occur closer to the construction and operation of the plant should certainly provide at least more useful information about the cost of the Solar Projects to inform the pricing.

Finally, we continue to monitor our RES compliance needs based on updates to the Company's retail load forecast, as well as on updated production expectations of existing and to-be-built (i.e., the Huck Finn Solar Energy Center) RES compliance resources. It is possible that one or more additional resources could be deployed for RES compliance purposes, which would make them ineligible to use for RSP purposes. Waiting to subscribe resources until closer to the time they would become operational gives the Company flexibility to determine the most beneficial use of each resource closer to that time.

**Q. By not having subscriptions at the time of the CCN application, does that prevent the Solar Projects from being able to be deployed in the RSP?**

A. No. There is no provision of the program that dictates the timing of subscriptions relative to the CCN process for program resources. As a result, it is still both feasible and likely that the RSP can be a source of additional benefits associated with some or all of the Solar Projects. If that does turn out to be the case, the Company will make an additional RSP tariff filing for the future phase(s) and seek the Commission's approval of the Renewable Resource Charge and Renewable Benefits Credit (i.e., the "pricing") of the future phase.

## VI. STRATEGY FOR MAXIMIZING THE VALUE OF AVAILABLE TAX BENEFITS

**Q. Given the availability of both Production Tax Credits ("PTCs") and Investment Tax Credits ("ITCs") that resulted from the Inflation Reduction Act, which form of tax credit will be utilized for each of the Solar Projects?**

A. While at the present time it appears that use of the ITC for each of the Solar Projects will be most beneficial for our customers, the final tax strategy for each of the Solar Projects will be independently determined based on the specific facts applicable to the specific resource in question. The ultimate decision on which form of tax credit to claim will not be made until it is required to be made for purposes of utilizing the credits. That is true because it makes the most sense to make the tax election with the most complete information possible about the details of the Solar Projects, including the total project cost, the applicability of certain "adders" that may be available for particular projects such as whether they are located in an "Energy Community" as defined by the IRA, production expectations, and any other information that may become relevant to the decision (such as clarification of rules for normalization of the ITC that may be forthcoming from the Internal Revenue Service ("IRS")). At the time that the Company is required to elect PTCs or ITCs, it will elect the form of credit that the facts show will be most beneficial to customers based on the best information available at that time, which will almost certainly be more complete than the information that is available today.

**Q. In the Boomtown case, there was much discussion of Tax Equity Partnerships ("TEPs") potentially being necessary to utilize ITCs. Does the Company plan to utilize a TEP for any or all of the Solar Projects?**

A. As of this time, no. However, there is still much to be learned about the IRA and how its provisions will be interpreted by the IRS. The IRA included provisions that make ITCs transferable to third parties as a means for utilities to monetize its benefits. This may obviate the need for TEPs for utilities like the Company to effectively utilize ITCs to reduce the cost of projects for customers. However, if additional IRS guidance suggests that TEPs are necessary or useful in further reducing costs for customers, it is still conceivable that the Company could need to engage one in certain circumstances. If that were to happen, the Company would return to the Commission in the future to request necessary approvals to enter into the agreements and transactions associated with a TEP.

**Q. Are there any other decisions related to the tax strategy that need to be addressed in this proceeding by a Commission order?**

A. No. The election of PTCs and ITCs will be made at the appropriate time to maximize the customer benefits of those tax credits based on the best information available at that time, but will not require specific authorization by the Commission, except to the extent that future circumstances dictate the involvement of a TEP.

## VII. CONCLUSION

**Q. What are the key takeaways about the proposed Solar Projects?**

A. The Solar Projects promote the diversification of resources, enhance reliability, and have economic and economic development benefits, all factors that establish that they are both needed and in the public interest. Those Tartan Factors, as well as the others, strongly support

issuance of a CCN for each of the Solar Projects as essential parts of Ameren Missouri's transition to its new fleet.

**Q. Does that conclude your direct testimony?**

A. Yes.

# BEFORE THE PUBLIC SERVICE COMMISSION
# OF THE STATE OF MISSOURI

| | | |
|---|---|---|
| In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for a Certificate of Convenience and Necessity for a Solar Facility, Approval of a Subscription-Based Renewable Energy Program, and Authorization to Establish Tracking Mechanism | ) ) ) ) ) ) ) | **File No. EA-2022-0245** Tracking No. YE-2023-0010 |

# REPORT AND ORDER

**Issue Date: April 12, 2023**

**Effective Date: April 22, 2023**

**Schedule SMW-D1**

# BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

| | | |
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| In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for a Certificate of Convenience and Necessity for a Solar Facility, Approval of a Subscription-Based Renewable Energy Program, and Authorization to Establish Tracking Mechanism | ) ) ) ) ) ) ) | **File No. EA-2022-0245** Tracking No. YE-2023-0010 |

## PARTIES & APPEARANCES

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**SIERRA CLUB**

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**STAFF OF THE MISSOURI PUBLIC SERVICE COMMISSION**:

**Paul Graham**, Senior Counsel, Public Service Commission, 200 Madison Street, Suite 800, P.O. Box 360, Jefferson City, Missouri 65102.

**REGULATORY LAW JUDGE:** Kenneth J. Seyer

# REPORT AND ORDER

## I. Procedural History

On July 14, 2022, Union Electric Company d/b/a Ameren Missouri ("the Company") filed an application with the Commission seeking an order granting a Certificate of Convenience and Necessity (CCN). The CCN would authorize Ameren Missouri to construct, install, own, operate, maintain, and otherwise control and manage a 150 megawatt (MW) solar generation facility, located in White County, Illinois (referred to as the "Boomtown Solar Project" or "Project") pursuant to a Build Transfer Agreement (BTA) with Boomtown Solar Holdings LLC.

In its application, the Company also asked for approval of a new subscription-based renewable energy program for commercial, industrial, and governmental customers, called the Renewable Solutions Program (RSP). Tariff sheets to implement the RSP, Tracking No. YE-2023-0010, bearing an effective date of May 1, 2023, were filed on July 14, 2022.

Renew Missouri Advocates d/b/a Renew Missouri, Sierra Club, Walmart, Inc., and Missouri Industrial Energy Consumers (MIEC) were granted intervention. The Commission ordered a procedural schedule. A hearing was set and written direct, supplemental direct, rebuttal, and surrebuttal testimony were filed.

The evidentiary hearing in this matter was held February 6-7, 2023. During the evidentiary hearing, the parties presented evidence relating to the following issues identified by the parties:

**1. Does the evidence establish that the Boomtown Solar Project is necessary or convenient for the public service? Should the Commission find that the Project satisfies the five *Tartan* factors?**

**2. If the Commission grants the CCN for the Boomtown Solar Project, what conditions if any, should the Commission impose on the CCN?**

**3. Is this an appropriate proceeding for the Commission to review Ameren Missouri's Renewable Solutions Program (RSP)? If so, should the Commission approve the RSP proposed by Ameren Missouri in accordance with its authority to approve utility programs and tariffs?**

**4. If the Commission approves the Renewable Solutions Program (RSP) proposed by Ameren Missouri, what, if any, conditions should the Commission impose on such approval?**

Initial post-hearing briefs were filed on March 3, 2023, and reply briefs were filed March 17-18, 2023.

The Commission, having considered all the competent and substantial evidence upon the whole record, makes the following findings of fact and conclusions of law.

## II. Findings of Fact

Any finding of fact for which it appears that the Commission has made a determination between conflicting evidence is indicative that the Commission attributed greater weight to that evidence and found the source of that evidence more credible and more persuasive than that of the conflicting evidence.

1. Union Electric Company is a Missouri corporation doing business under the fictitious name of Ameren Missouri, with its principal office and place of business located at One Ameren Plaza, 1901 Chouteau Ave., St. Louis, Missouri 63103.[1] The Company is engaged in providing electric utility services under the jurisdiction of the Commission.[2]

2. Ameren Missouri currently provides electric utility service to approximately 1.2 million customers in Missouri.[3] The Company has approximately 10,800 MW of

[1] File No. EA-2022-0245, *Application,* (filed July 14, 2022) ("Application"), p. 3.
[2] Application, p. 3; Exh. 10, *Wibbenmeyer Direct Testimony*, p. 2.
[3] Exh. 10, *Wibbenmeyer Direct Testimony*, p. 2.

generation capacity in operation, including solar, wind, hydro-electric, fossil, and nuclear technologies.[4]

3. The Office of the Public Counsel (OPC) is a party to this case pursuant to Section 386.710(2), RSMo,[5] and by Commission Rule 20 CSR 4240-2.010(10).

4. Staff is a party in all Commission investigations, contested cases, and other proceedings, unless it files a notice of its intention not to participate in the proceeding within the intervention deadline set by the Commission.[6] Staff participated in this proceeding.

5. Renew Missouri, Sierra Club, Walmart, Inc., and MIEC are parties after being granted intervention.[7]

6. MIEC is a non-profit company that represents the interests of industrial consumers in Missouri utility matters.[8] MIEC supports the granting by the Commission of a CCN for the Project.[9]

7. Sierra Club recommends that the Commission grant a CCN for the Project arguing that the Project economically meets Ameren Missouri's energy needs, reduces the risk of market energy and fossil fuel price volatility, and diversifies the Company's generation fleet.[10]

[4] Exh. 10, *Wibbenmeyer Direct Testimony*, p. 2.
[5] Unless otherwise stated, all statutory citations are to the Revised Statutes of Missouri, as codified in the year 2016.
[6] Commission Rules 20 CSR 4240-2.010(10) and (21) and 2.040(1).
[7] File No. EA-2022-0245, *Order Granting Applications to Intervene* (issued Aug. 30, 2022); *Order Granting Intervention* (issued Nov. 2, 2022).
[8] Exh. 300, *Brubaker Direct Testimony*, p. 1.
[9] Exh. 300, *Brubaker Direct Testimony*, p. 3.
[10] Exh. 500, *Shenstone-Harris Surrebuttal Testimony*, p. 7.

8. Renew Missouri Advocates d/b/a Renew Missouri advocates for energy efficiency and renewable energy policy.[11] Renew Missouri recommends that the Commission grant a CCN for the Project.[12]

9. Walmart, Inc. has 52 stores and related facilities and one distribution center in Missouri that take electric service from Ameren Missouri. Walmart primarily receives service under the 3 (M) Large General Service class.[13] Walmart supports approval of the RSP.[14]

10. The Inflation Reduction Act (IRA) was passed into law August 16, 2022.[15]

**Boomtown Solar Project**

11. In August of 2020, Ameren Missouri issued a request for proposals (RFP) for solar and wind generation projects that could begin producing energy during the period of 2022-2024 and under which the Company could acquire the solar or wind project companies though a BTA.[16] In response to the RFP, 16 bidders submitted 51 project proposals with an aggregate capacity of approximately 9,000 MW.[17] The Boomtown Solar Project resulting from the RFP process would be an addition to Ameren Missouri's generation portfolio.[18]

12. Under a BTA structure, a solar developer builds the project, but the ultimate owner has contractual rights both before and during construction to ensure that the project

[11] Exh. 600, *Owen Surrebuttal Testimony*, p.3.
[12] Exh. 600, *Owen Surrebuttal Testimony*, p.4.
[13] Exh. 400, *Teague Rebuttal Testimony*, p. 2.
[14] Exh. 400, *Teague Rebuttal Testimony*, p. 10.
[15] Inflation Reduction Act of 2022 Pub. L. 117-169 (Aug. 16, 2022).
[16] Exh. 10, *Wibbenmeyer Direct Testimony*, p.11.
[17] Exh. 10, *Wibbenmeyer Direct Testimony*, p.11.
[18] Exh. 10, *Wibbenmeyer Direct Testimony*, p. 3.

is built to the ultimate owner's specifications and will otherwise meet the ultimate owner's needs.[19]

13. Pursuant to a BTA, the Project is being developed by Invenergy Renewables LLC (Invenergy) through a special purpose entity known as Boomtown Solar Energy LLC, a wholly-owned subsidiary of Boomtown Solar Holdings LLC.[20] Invenergy is a well-established renewable generation developer with over 24 gigawatts of wind and solar projects under operation, construction, or contract.[21]

14. The Project is a 150 MW photovoltaic solar-powered electric generating facility located in White County, Illinois anticipated to interconnect into the Midcontinent Independent System Operator, Inc. (MISO).[22]

15. The solar panels installed as part of the facility have a 30-year useful life[23] with a 0.5% degradation of generating capacity per year.[24]

16. After the Project is developed by Invenergy, Ameren Missouri will ultimately acquire it.[25]

17. Staff's position is that Boomtown Solar Energy LLC is qualified to construct and install the Project, and that Ameren Missouri is qualified to own, maintain, and otherwise control and manage the Project.[26] OPC's position is that Ameren Missouri is qualified to build, own, operate, and maintain the Project.[27]

[19] Exh. 10, *Wibbenmeyer Direct Testimony*, p. 5.
[20] Exh. 10, *Wibbenmeyer Direct Testimony*, p. 4; Schedule SW-D1, p. 1.
[21] Exh. 10, *Wibbenmeyer Direct Testimony*, p. 4.
[22] Exh. 10, *Wibbenmeyer Direct Testimony*, Schedule SW-D1, p. 1.
[23] Exh. 12, *Wills Surrebuttal Testimony*, p. 15.
[24] Tr. 174 (Forsberg).
[25] Exh. 10, *Wibbenmeyer Direct Testimony*, p. 4.
[26] Exh. 103, *Hull Rebuttal Testimony*, p. 3.
[27] Exh. 200, *Marke Rebuttal Testimony*, p. 3.

18. Both Staff and OPC agree that Ameren Missouri has the financial ability to construct, operate, and maintain the Project.[28]

**Preferred Resource Plan**

19. Ameren Missouri filed a 2020 Preferred Resource Plan (PRP) in its Triennial Integrated Resource Plan (IRP).[29] On June 22, 2022, the Company filed a change in the PRP (hereafter the "2022 PRP").[30] The 2022 PRP includes the addition of 5,400 MW of wind and solar generation resources (including 700 MW of wind resources added in 2020-2021); the retirement of all coal-fired generation by 2042, including retirement of the Rush Island Energy Center by the end of 2025 and the Sioux Energy Center in 2030; and the addition of 1,200 MW of natural gas-fired combined cycle generation in 2031.[31]

20. Ameren Missouri sells all of the energy that it generates into the MISO grid and then purchases from MISO the energy it needs to meet its load.[32] Historically, the Company has annually generated more electricity than is required to meet its customers' load (at times, in excess of 10 million megawatt hours annually), allowing it to sell the excess generation to MISO and pass those revenues on to its ratepayers in the form of reduced rates.[33] Like Ameren Missouri, MISO has also historically maintained a positive buffer – that is, its members, as a group, have generated electricity beyond what its members' customers have used each year. However, like Ameren Missouri, other MISO

[28] Exh. 107, *Won Rebuttal Testimony*, p. 3-4; Exh. 200, *Marke Rebuttal Testimony*, p. 3.
[29] Exh. 2, Michels Direct Testimony, Sch. MM-D2, p. 1, fn 1 (citing to File No. EO-2021-0021, *In the Matter of Union Electric Company d/b/a Ameren Missouri's 2020 Utility Resource Filing Pursuant to 20 CSR 4240 – Chapter 22).*
[30] Exh. 3, Schedule MM-D2. File No. EO-2022-0362, *Notice of Change in Preferred Resource Plan*, filed June 22, 2022.
[31] Exh. 3, *Michels Direct Testimony*, pp. 4-5.
[32] Exh. 106, *Stahlman Rebuttal Testimony*, p. 2; Tr. 517 (Luebbert).
[33] Exh. 4, *Michels Surrebuttal Testimony*, p. 11.

members are also transitioning from dispatchable fossil-fuel resources to a much greater reliance on renewable resources.[34] Therefore, relying on the MISO market during peak system load periods becomes a riskier proposition than in the past.[35]

21. When it comes to resource adequacy, the North American Reliability Corporation's (NERC's) 2022 Long-Term Reliability Assessment classifies MISO as a "high-risk" area, where "shortfalls may occur at normal peak conditions."[36] The report assesses MISO's anticipated capacity reserves as "alarmingly low," possibly falling below an acceptable level as soon as the summer of 2023.[37] If Ameren Missouri is able to execute its PRP, which includes the Project, it should have sufficient resources every year long-term and the Company would be expected to be a net seller of electric energy at levels roughly equivalent to what it has seen historically.[38]

22. Ameren Missouri has determined that new renewable generation is the most affordable energy resource to replace retiring coal-fired generation plants.[39]

23. The 2022 PRP produces the lowest net present value of revenue requirement (NPVRR) among the alternative resource plans considered by Ameren Missouri across a range of scenarios.[40] The 2022 PRP -- which includes the Project, along with other future renewable energy additions, energy storage systems, and the natural gas-fired combined cycle plant -- is projected by the Company to meet the needs

[34] Exh. 2, *Arora Surrebuttal Testimony*, p. 9.
[35] Exh. 2, *Arora Surrebuttal Testimony*, p. 9; Exh. 4 *Michels Surrebuttal Testimony*, pp. 13-14.
[36] Exh. 2, *Arora Surrebuttal Testimony*, p. 11.
[37] Exh. 2, *Arora Surrebuttal Testimony*, p. 9.
[38] Exh. 3, *Michels Surrebuttal Testimony*, p.11, 15.
[39] Exh.1, *Arora Direct Testimony*, p. 5.
[40] Exh. 2, *Michels Direct Testimony*, Sch. MM-D2, p. 27.

of its customers at an NPVRR that is over $600 million lower than if the Company replaces fossil-fuel generation capacity as each existing fossil-fuel generation plant is retired.[41]

24. The Project will support Ameren Missouri's plan to transition its generation fleet from aging coal-fired generation to clean energy resources, with significantly greater reliance of renewable energy resources.[42]

25. Successful renewable energy projects take five to eight years to reach commercial operation.[43] Among other risks to successfully developing a renewable energy project, Ameren Missouri loses good projects due to constructability issues or competition from large technology firms outside of the Company's service area for the best available renewable projects.[44]

26. The U.S. Environmental Protection Agency has published proposed revisions to the Cross-State Air Pollution Rule that focus on ozone season emissions. If implemented, the rule could potentially limit the generation of Ameren Missouri's coal-fired units during the summer months, absent investment in expensive pollution control equipment. Significant generation from solar resources, such as the Project, during the summer months would provide a large measure of mitigation.[45]

27. Ameren Missouri will have a need for winter capacity in 2026 that it has determined can be met with new solar resources, which are assumed to provide reliable capacity of 11% of rated output during the winter season.[46]

[41] Exh 4, *Michels Surrebuttal Testimony*, p. 27.
[42] Exh.1, *Arora Direct Testimony*, p. 3.
[43] Exh. 1, *Arora Direct Testimony*, p. 14.
[44] Exh. 2, *Arora Surrebuttal Testimony*, pp. 24-25.
[45] Exh. 3, *Michels Direct Testimony*, p. 15.
[46] Exh. 3, *Michels Direct Testimony*, p. 14.

28. Under Ameren Missouri's 2022 PRP, the Company is planning to add the amount of new capacity resources that are necessary to meet its capacity resources in all seasons. The Company's summer generating capacity position will be above what is anticipated to meet load and reserve margin requirements in all years, but those resource additions are necessary to ensure reliability in the winter season. Under the 2022 PRP, the summer capacity position is anticipated to be less than 500 MW of capacity beyond load and reserve margin requirements by 2040. In the meantime, the Company can sell excess capacity into the MISO market and use those revenues to reduce costs to customers.[47]

29. Waiting to add renewable resources could result in Ameren Missouri falling short of meeting energy needs or requiring the rapid deployment of less beneficial resources, particularly if viable renewable energy projects are limited, transmission constraints cause delays or higher costs, or financing rates are higher in the future when transitioning from fossil-fuel generation.[48]

30. Analysis by Ameren Missouri of its peak days for each summer and winter month from 2019 through 2021 showed that, without the coal-fired Meramec Energy Center (retired at the end of 2022) and Rush Island Energy Center (scheduled for retirement by the end of 2025), the Company would have had to purchase more energy than it generated to serve its native load.[49] On four of the 18 peak days, the estimated added costs to purchase the needed energy to serve its native load would have been

[47] Exh. 2, *Arora Surrebuttal Testimony*, p. 14-15; Exh. 3, *Michels Direct Testimony*, p. 17.
[48] Exh. 4, *Michels Surrebuttal Testimony*, p. 39.
[49] Exh. 4, *Michels Surrebuttal Testimony*, p. 40-41.

over $1 million for each of those four days, with one peak day in February of 2021 (during Winter Storm Uri) estimated at over $9 million for that day alone.[50]

31. Legislative changes considered by the U.S. Congress in the last two years could significantly change energy policy and "drive the need for an imminent and significant expansion of renewable energy resources within an uncomfortably short timeframe."[51]

**PISA**

32. The Plant-in-Service Accounting (PISA) mechanism allows investor-owned utilities in Missouri the option of deferring 85% of all depreciation expense and return associated with qualifying electric plant that was recorded to plant-in-service as a regulatory asset on or after the date the utility elects the PISA option. Qualifying plant for the purposes of the PISA deferral are all rate base additions that are not new nuclear, coal, or gas-fired generation or investment for new services.[52]

33. Ameren Missouri intends to utilize PISA for the Project. The Project is not required for Renewable Energy Standard (RES) compliance, so no costs or revenues of the Project will be included in the Renewable Energy Standard Rate Adjustment Mechanism (RESRAM).[53]

**Tax Credit Programs**

34. Using federal investment tax credits (ITCs), 30% of project costs may be claimed as a credit against income.[54]

[50] Exh. 4, *Michels Surrebuttal Testimony*, p. 41.
[51] Exh. 3, *Michels Direct Testimony*, p. 18.
[52] Exh, 101, *Dhority Rebuttal Testimony*, p. 4.
[53] Exh, 101, *Dhority Rebuttal Testimony*, pp. 4-5.
[54] Tr. 167 (Forsberg).

35. The federal production tax credits (PTCs) are a credit against income per kilowatt hour generated.[55]

36. Ameren Missouri originally planned to utilize, and requested approval for, a tax equity partnership to take advantage of ITCs to help finance the Project.[56] However, in a notice filed on November 8, 2022,[57] and revised on November 14, 2023, the Company informed the Commission that it would no longer utilize ITCs and tax equity financing because utilizing PTCs authorized under the federal IRA would be more favorable for its customers.[58]

37. On January 18, 2023, Ameren Missouri filed testimony stating Ameren Missouri's current expectation is that the Project will be located in an "energy community," under the IRA, which would boost the ITC from 30% to 40% and would increase the PTC rates by 10% each year.[59] The testimony also adjusted the expected project cost upward by approximately 30%. These two factors have altered the Company's position to a state of uncertainty as to whether they will ultimately use PTCs, ITCs with a transfer of the tax credits, or ITCs with tax equity financing in connection with the Project.[60] If the Company decides to utilize tax equity financing, it would request authority for such financing in a future, separate proceeding.[61]

**Proposed Conditions**

38. Staff recommends the Commission not grant the CCN, but if the Commission decides to grant the CCN, Staff suggests the following conditions:

[55] Tr. 168 (Forsberg).
[56] Application, pp. 2, 18.
[57] File No. EA-2022-0245, *Notice Regarding Impact of the Inflation Reduction Act on Relief Sought*.
[58] File No. EA-2022-0245, *Revised Notice Regarding Impact of the Inflation Reduction Act on Relief Sought*.
[59] Exh. 9, *Forsberg Surrebuttal Testimony*, pp. 2-3.
[60] Tr. 166 (Forsberg).
[61] Exh. 9, *Forsberg Surrebuttal Testimony*, pp. 2-3.

a. Ameren Missouri shall specifically delineate within each FERC account, with unique general ledger coding and/or record into sub-accounts, all revenues, investments, and expenses associated with the Boomtown Solar Project. The specific delineation of the Project should also include a reasonable allocation of the items related to the Project in which the amount is indirectly attributable to the Project. The unique recording for these items is to be available for Staff's review during future Ameren Missouri general rate cases.

b. Ameren Missouri shall use sound engineering judgment and commercially reasonable efforts to meet the IEEE standard P2800 for the Project and future transmission interconnected solar projects.

c. Ameren Missouri shall accept that the in-service criteria contained in Confidential Attachment SEL-3 and Confidential Attachment SEL-4 to Staff Witness Shawn E. Lange's rebuttal testimony are appropriate for use in a future case to determine whether the Project is in-service.

d. Ameren Missouri shall notify the Commission and provide an updated economic analysis if the upgrade cost exceeds those outlined in the Generator Interconnection Agreement (GIA) by more than 15%.

e. Ameren Missouri shall file with the Commission all as-built drawings for the project no later than 60 days after the site is commercially operational.

f. Ameren Missouri shall file with the Commission the final version of the plans for restoration of safe and adequate service no later than 60 days after the site is commercially operational.

g. Ameren Missouri shall file with the Commission quarterly progress reports on the plans and specifications for the Project, and the first report shall be due on the first day of the first calendar quarter beginning after the CCN is issued.

h. Ratepayers that do not participate in the Renewable Solutions Program shall be held harmless during any rate review period if the costs of the Project exceed the revenues from the facility

39. OPC recommends not granting the CCN, but If the Commission decides to grant the CCN, OPC recommends the following conditions:

a. Proper utility-scale solar conservation habitat practices.

b. Appropriate storm water run-off management plans.

c. Solar panel selections not sourced from Chinese forced Uyghur labor camps.

d. Plans covering end-of-life solar panel waste management considerations.

40. Ameren Missouri agreed that imposition of four of the conditions, with an unopposed modification to a fifth condition, was acceptable to the Company.[62]

**Other Project Benefits**

41. Access to renewable energy generation is increasingly vital to a region's competitive economic development.[63] Offering its larger customers an option to purchase renewable energy is one way for Ameren Missouri to help prevent these customers from leaving, or seeking to expand outside, the Ameren Missouri service territory.[64]

42. Surveys in the latest edition of a prominent economic development trade publication showed that 74% of corporate respondents indicated that access to renewable resources was either very or somewhat important to their company, and 91% of site consultant respondents indicated that access to renewable energy resources was either very or somewhat important to their clients' location decisions.[65] Real business investment decisions are being made based on renewable energy access, and states that can provide access to renewables are succeeding in some of the largest economic development opportunities in the country.[66]

[62] File No. EA-2022-0245, *Ameren Missouri's Statement of Positions*, pp.7-8 (filed Jan. 27, 2023); *Post-Hearing Brief of Union Electric Company, dba Ameren Missouri*, pp. 36-37 (filed Mar. 3, 2023); Exh. 14, *Arora Surrebuttal Correction*.
[63] Exh. 6, *Dixon Surrebuttal Testimony*, p. 12.
[64] Exh. 7, *Forsberg Direct Testimony*, p. 6.
[65] Exh. 6, *Dixon Surrebuttal Testimony*, pp. 12-13.
[66] Exh. 6, *Dixon Surrebuttal Testimony*, p. 14

43. Solar and wind generation are dependent on weather conditions, which vary by geographic location.[67] Although Ameren Missouri anticipates having the majority of its future solar generation in Missouri, the Project would be located in Southern Illinois.[68] If Missouri is cloud covered, but Southern Illinois is sunny, the Boomtown Solar facility would be producing power, aiding the Company's reliability of service via geographical diversity.[69]

44. Solar generation produces no emissions of carbon dioxide.[70] The Project supports Ameren Missouri's goal of net zero carbon emissions by 2045, with reductions in carbon emissions of at least 60% by 2030 and 85% by 2040, compared to 2005 levels.[71] Many of the Company's large customers have similar goals.[72]

45. Renewable generating resources, such as the Project, are insulated from the price volatility risks associated with fossil-fuel generation because they do not require any fuel to operate. Once installed, these resources rely on free solar or wind resources to produce electricity.[73]

46. The large-scale expansion of renewable resources, such as the Project, provides significant risk mitigation to Ameren Missouri's generation portfolio, particularly with respect to the potential for additional environmental regulations, changes in climate policy and carbon dioxide prices, and other factors that may significantly affect the operating costs and benefits of the Company's existing coal-fired resources.[74]

[67] Exh. 1, *Arora Direct Testimony*, p. 13.
[68] Tr. 97 (Arora).
[69] Tr. 97-98 (Arora).
[70] Exh. 3, *Michels Direct Testimony*, p. 3.
[71] Exh. 3, *Michels Direct Testimony*, p. 3.
[72] Exh. 400, *Teague Rebuttal Testimony*, p. 3; Exh. 300, *Brubaker Rebuttal Testimony*, p. 3.
[73] Exh. 2, *Arora Surrebuttal Testimony*, p. 15; Tr. 175 (Forsberg).
[74] Exh. 3, *Michels Direct Testimony*, p. 3.

**Renewable Solutions Program**

47. Ameren Missouri has requested approval of tariff sheets establishing a subscription-based renewable energy program – the Renewable Solutions Program (RSP). The RSP would be a voluntary renewable energy purchasing program for large commercial and industrial customers and government accounts.[75] Phase 1 of the program would be supported by the Boomtown Solar Project.[76]

48. OPC suggests that the Company's pending electric rate case, File No. ER-2022-0337, is a "better venue" for review of the RSP because the cost of service data used to establish the Renewable Benefits Credit is expected to be updated in the pending rate case.[77]

49. After the Project costs increased, the combined Project and RSP are only estimated to provide approximately $6.8 million of net cost on a net present value basis for all Ameren Missouri customers over a 30-year period, derived primarily from the competitive economics of the Project and expected net contributions to the Project costs made by subscribing customers.[78]

50. The RSP is proposed to include multiple phases and multiple resource types. Because there is no specific identified project, the RSP can include wind as well as solar.[79] Each additional phase will have a separate rate schedule that will require Commission approval.[80]

[75] Exh. 11, *Wills Direct Testimony*, p. 2.
[76] Exh. 7, *Forsberg Direct Testimony*, p. 3.
[77] Exh. 200, *Marke Direct Testimony*, p. 9.
[78] Exh. 7, *Forsberg Direct Testimony*, p. 3; Exh. 9, *Forsberg Surrebuttal Testimony*, p. 2 and 4-5; Transcript p. 189-188.
[79] Exh. 7, *Forsberg Direct Testimony*, p. 8.
[80] Rider RSP, Original Sheet No. 83.6.

51. Ameren Missouri has experience with a previously approved renewable energy subscription program (Renewable Choice) designed to give large commercial and industrial customers an option to voluntarily subscribe to receive up to 100% of their annual usage from a new wind resource to be developed for the program. Subscribers would pay a per-kilowatt-hour (kWh) charge for their share of all resource output and would receive a per-kWh credit based on the market revenues realized from injecting that energy into regional wholesale energy markets.[81]

52. The Renewable Choice program has not resulted in any renewable projects or subscribers since its approval. Ameren Missouri identified a couple of design flaws in Renewable Choice, including that the subscription process relied on non-binding customer commitments as the basis for the development of a specific program resource creating uncertainty and a significant risk of unsubscribed capacity being built.[82] The second design flaw of Renewable Choice is that the pricing was derived from the market prices applicable to the energy produced by the program resource. Potential subscribers indicated they preferred program subscriptions not tied directly to market prices.[83]

53. The RSP was designed to fix these previous design flaws. First, the Company started with its Integrated Resource Plan (IRP). The resources to be constructed for the RSP are resources that are needed to execute Ameren Missouri's transition to a greater reliance on renewable energy generation as outlined in its 2022 PRP.[84] Second, the RSP uses firm customer demand under binding contracts.[85]

[81] Exh. 11, *Wills Direct Testimony*, p. 3.
[82] Exh. 11, *Wills Direct Testimony*, p. 4-5.
[83] Exh. 11, *Wills Direct Testimony*, p. 5.
[84] Exh. 11, *Wills Direct Testimony*, p. 4-5.
[85] Exh. 11, *Wills Direct Testimony*, p. 5.

54. Renewable Solutions will be available to customers served under the Company's existing service classifications 3(M) – Large General Service, 4(M) – Small Primary Service, and 11(M) – Large Primary Service, and is designed as a rider that sits on top of the existing base rate structure of those tariffs. Customers that choose to subscribe to the RSP will still be subject to all of the charges associated with those base rate tariffs. The RSP features a charge and a credit that will be added to the bill on top of those existing charges.[86]

55. The charge for the program, called the Renewable Resource Charge, is structured as a monthly capacity charge that is calculated using a rate that is stated as dollars per kilowatt (kW) of program capacity dedicated to the subscribing customer.[87] Because the amount of such capacity is fixed contractually at the time the customer enrolls, this capacity charge essentially becomes a fixed monthly program charge, customized for each subscriber, for the entire term of the customer's subscription.[88]

56. The fixed charge escalates annually at 2.5% over the term of the RSP, but is defined up front for all program years for each phase of the program, creating a predictable price for subscribers and a predictable revenue stream to cover costs of program resources.[89]

57. A monthly Renewable Benefits Credit (RBC) based on the actual amount of renewable energy generated by the subscriber's share of the RSP generation resources'

[86] Exh. 11, *Wills Direct Testimony*, p. 6.
[87] Exh. 11, *Wills Direct Testimony*, p. 6.
[88] Exh. 11, *Wills Direct Testimony*, p. 6-7.
[89] Exh. 11, *Wills Direct Testimony*, p. 6-7 and 16.

capacity for each month is deducted from the customer's bill.[90] Because RSP subscribers are still paying their underlying tariff charges, the RBC prevents them from effectively paying twice towards the costs of different generating resources.[91]

58. The RBC is based on the avoided cost of non-RSP resources.[92] This cost was established using the class cost of service study, from the last rate review, File No. ER-2021-0240.[93] The numbers were then escalated to account for the difference between the performance of the study and the project year in service.[94]

59. The RSP's fixed charge structure eliminates the uncertainty on the total amount subscribers will pay into the program, and thereby creates a higher likelihood that program costs will be covered by subscribers.[95]

60. The net effect on non-subscribers of lower production is largely mitigated by increased subscriber payments to offset the reduction in market energy revenues.[96]

61. The balance of costs and benefits for subscribers created by the RSP structure matches the way customers typically engage with renewable energy.[97]

62. Florida Power & Light Company (FPL) offers a program (SolarTogether) that began in 2020 with an almost identical rate structure to the RSP – with a capacity charge based on the amount of solar capacity needed to meet customers' renewable energy needs, and a benefits credit based on the actual production of the customers'

[90] Exh. 11, *Wills Direct Testimony*, pp. 6-7.
[91] Exh. 11, *Wills Direct Testimony*, p. 8.
[92] Exh. 11, *Wills Direct Testimony,* p. 8.
[93] Exh. 11, *Wills Direct Testimony,* p. 13.
[94] Exh. 11, *Wills Direct Testimony*, p. 16-17.
[95] Exh. 11, *Wills Direct Testimony*, p. 10-11.
[96] Exh. 11, *Wills Direct Testimony*, p. 11.
[97] Exh. 11, *Wills Direct Testimony*, p. 12.

subscribed share of program capacity. FPL's program is fully subscribed for almost 1,500 MW of renewable generation capacity.[98]

63. When deciding whether to locate in Missouri, it will not matter to customers wanting a renewable source of energy that the generation resource is outside the state of Missouri since that resource will be part of Ameren Missouri's generation mix.[99]

64. Ameren Missouri solicited 20 customers for Phase 1 (Boomtown Solar) of the RSP. Among those customers, there was 269 MW of demand, but Phase 1 of the RSP is limited to 150 MW to match the resource (the Project) to be built for that phase.[100]

65. Across all twelve key scenarios tested, the existence of the program lowers the cost and in some cases the risk of the Project, in all cases improving the outcomes for all customers by approximately $11.7-27.8 million NPVRR.[101]

66. Ameren Missouri's business development team is seeing an increasing number of economic development proposals that include a requirement for renewable energy access, across a variety of industry sectors.[102]

67. The Boomtown Solar Project will generate renewable energy that provides Renewable Energy Credits (RECs). RECs represent the legal entitlement to the renewable attribute of generation associated with qualified renewable resources. RECs have an observable market where the implied cost of the RECs under Ameren Missouri's RSP could be compared for reasonableness.[103]

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[98] Exh. 11, *Wills Direct Testimony*, p. 12.
[99] Tr. 156-157; Exh. 7, *Forsberg Direct Testimony*, p. 12.
[100] Exh. 11, *Wills Direct Testimony*, p. 20; and Ex. 7P, *Lindsey Forsberg Direct Testimony*, p. 12.
[101] Exh. 7, *Forsberg Direct Testimony,* p. 18; and Ex. 9P, *Lindsey Forsberg Surrebuttal Testimony*, p. 5, Table 2.
[102] Exh. 7, *Forsberg Direct Testimony,* p. 6.
[103] Exh. 11, *Wills Direct Testimony*, p. 4-5.

68. As part of the RSP, subscribing customers commit to the program for a fifteen-year contract term, and the RECs for the portion of renewable energy that their subscribed kilowatts produce are retired on their behalf.[104]

## III. Conclusions of Law

A. Ameren Missouri is an "electric corporation" and a "public utility," as those terms are defined by Section 386.020, RSMo (Cum. Supp. 2022). As such, the Company is subject to the jurisdiction, supervision, control, and regulation of the Commission, as provided in Chapters 386 and 393, RSMo.

B. Section 393.170.1, RSMo (Cum. Supp. 2022), provides, in part, that "[n]o . . . electrical corporation . . . shall begin construction of a . . . electric plant . . . without first having obtained the permission and approval of the commission."

C. Section 393.170.3, RSMo (Cum. Supp. 2022), provides that:

> [t]he commission shall have the power to grant the permission and approval herein specified whenever it shall after due hearing determine that such construction or such exercise of the right, privilege or franchise is necessary or convenient for the public service. The commission may by its order impose such condition or conditions as it may deem reasonable and necessary. . . .

D. Section 393.170, RSMo (Cum. Supp. 2022), sets the legal standard by which the Commission must determine whether to grant Ameren Missouri the certificate of convenience and necessity it seeks. In interpreting the meaning of that legal standard in a 1993 decision, the Missouri Court of Appeals said:

> The PSC has authority to grant certificates of convenience and necessity when it is determined after due hearing that construction is 'necessary or convenient for the public service' (*citing* section 393.170.3). The term 'necessity' does not mean 'essential' or absolutely indispensable', but that

[104] Exh. 7, *Forsberg Direct Testimony*, p. 8; and Union Electric Company Electric Service MO.P.S.C. Schedule No. 6 ("Rider RSP"), Sheet No. 83.

> an additional service would be an improvement justifying its cost (*citing State ex rel. Beaufort Transfer Co. v. Clark*, 504 S.W. 2nd at 219). . . . Furthermore, it is within the discretion of the Public Service Commission to determine when the evidence indicates the public interest would be served in the award of the certificate. (*Citing State ex rel. Ozark Elec. Coop. v. Public Serv. Comm'n*, 527 S.W.2d 390, 392 (Mo. App. 1975).[105]

E. Commission Rule 20 CSR 4240-20.045 requires an electric corporation to obtain a CCN prior to operating "[a]n electric generating plant that is expected to serve Missouri customers and be included in the rate base used to set their retail rates regardless of whether the item(s) to be constructed or operated is located inside or outside the electric utility's certificated service area or inside or outside Missouri[.]"

F. In evaluating applications for certificates of convenience and necessity, the Commission has frequently considered five factors first described in a Commission decision regarding an application for certificate of convenience and necessity filed by Tartan Energy Company, LC, d/b/a Southern Missouri Gas Company.[106] The *Tartan* factors, as they have become known, are: "(1) there must be a need for the service; (2) the applicant must be qualified to provide the proposed service; (3) the applicant must have the financial ability to provide the service; (4) the applicant's proposal must be economically feasible; and (5) the service must promote the public interest."[107]

G. While the *Tartan* factors are frequently cited in Commission decisions regarding applications for certificates of convenience and necessity, they are merely guidelines for the Commission's decision, and are not part of the legal standard set forth by the controlling statute. Moreover, the *Tartan* decision concerned an application for a

[105] *State ex rel. Intercon Gas, Inc. v Pub. Serv. Comm'n,* 848 S.W.2nd 593, 597-598 (Mo. App. W.D. 1993).
[106] *In the Matter of the Application of Tartan Energy Company, L.C., d/b/a Southern Missouri Gas Company,* 3 Mo. P.S.C. 3d, 173 (1994).
[107] *Tartan Energy*, at 177.

certificate to provide natural gas service to a particular service area. As a result, the described factors are not precisely applicable to Ameren Missouri's application to construct the Boomtown Solar Project. Nevertheless, they provide some guidance and are specifically referenced in the list of issues set forth by the parties for resolution by the Commission.

H. It is the public policy of this state to diversify the energy supply through the support of renewable and alternative energy sources.[108] The Commission has also previously expressed its general support for renewable energy generation because it provides benefits to the public.[109]

I. Subdivision 393.1400.2.(1), RSMo (Cum. Supp. 2022), which is referred to as the Plant in Service Accounting (PISA) statute, states:

> Notwithstanding any other provision of this chapter to the contrary, electrical corporations shall defer to a regulatory asset eighty-five percent of all depreciation expense and return associated with all qualifying electric plant recorded to plant-in-service on the utility's books commencing on or after August 28, 2018, if the electrical corporation has made the election provided for by subsection 5 of this section by that date, or on the date such election is made if the election is made after August 28, 2018. In each general rate proceeding concluded after August 28, 2018, the balance of the regulatory asset as of the rate-base cutoff date shall be included in the electrical corporation's rate base without any offset, reduction, or adjustment based upon consideration of any other factor, other than as provided for in subdivision (2) of this subsection, with the regulatory asset balance arising from deferrals associated with qualifying electric plant placed in service after

[108] Sections 393.1025 and 393.1030 (Renewable Energy Standard); and Section 393.1075 (Missouri Energy Efficiency Investment Act).

[109] *See, In the Matter of the Application of The Empire District Electric Company for Approval of Its Customer Savings Plan*, File No. EO-2018-0092, Report and Order, p. 20 (MoPSC July 11, 2018) (citing to Report and Order, *In the Matter of Union Electric Company d/b/a Ameren Missouri's Voluntary Green Program/Pure Power Program Tariff Filing,* File No. EO-2013-0307, April 24, 2013, pp. 14-15; Report and Order, *In the Matter of the Application of KCP&L Greater Missouri Operations Company for Permission and Approval of a Certificate of Convenience and Necessity Authorizing it to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage Solar Generation Facilities in Western Missouri,* File No. EA-2015-0256, March 2, 2016, pp. 15-16; Report and Order, *In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of Convenience and Necessity Authorizing it to Offer a Pilot Distributed Solar Program and File Associated Tariff,* File No. EA-2016-0208, December 21, 2016, pp. 19-20).

> the rate-base cutoff date to be included in rate base in the next general rate proceeding. The expiration of this section shall not affect the continued inclusion in rate base and the amortization of regulatory asset balances that arose under this section prior to such expiration.

J. Subdivision 393.1400.2.(2), which is referenced in Subdivision 393.1400.2.(1), states:

> The regulatory asset balances arising under this section shall be adjusted to reflect any prudence disallowances ordered by the commission. The provisions of this section shall not be construed to affect existing law respecting the burdens of production and persuasion in general rate proceedings for rate-base additions.

K. The PISA statute does not allow for immediate recovery of depreciation expense and return. Instead, those amounts are to be deferred in a regulatory asset for recovery in rates that will be established in a subsequent general rate case. The PISA statute applies to all depreciation expense and return associated with qualifying electric plant.

L. Subsection 393.1400.5, RSMo, which is also referenced in Subdivision 393.1400.2.(1), RSMo, indicates the PISA statute applies only to an electrical corporation that files notice with the Commission of its intent to be subject to that statute. As the Commission found in Finding of Fact No. 33, Ameren Missouri intends for the Project to be subject to the PISA statute.

M. Per 20 CSR 4240-22.010(2), "[t]he fundamental objective of the resource planning process at electric utilities shall be to provide the public with energy services that are safe, reliable, and efficient, at just and reasonable rates, and in a manner that serves the public interest and is consistent with state energy and environmental policies."

N. Under Subsection 393.140(11), RSMo (2016), the Commission has general authority to review any new tariffed programs and associated charges, such as the Renewable Solutions Program and its associated pricing.

## IV. Decision

Ameren Missouri requests a certificate of convenience or necessity (CCN) to construct, install, own, operate, maintain, and otherwise control a 150 MW solar generation facility, located in White County, Illinois ("Boomtown Solar Project" or "Project"). Traditionally, in determining whether a certificate is "necessary or convenient for the public service," the Commission looks to five criteria referred to as the *Tartan* factors.[110] The *Tartan* factors contemplate: (1) the need for service, (2) the utility's qualifications, (3) the utility's financial ability, (4) the feasibility of the proposal, and (5) promotion of the public interest.

After reviewing all the evidence and arguments of the parties, the Commission determines that the certificate should be granted.

### The Tartan Factors

Need for the Service

Ameren Missouri is in the process of replacing its fossil-fuel generating fleet. The Company has determined that new renewable generation is the most affordable energy resource to replace retiring coal-fired generation plants. Both Staff and OPC object to granting the CCN based on need. Staff presented evidence that the need to replace coal-fired generation will not occur until Rush Island is retired in 2026 and other coal-generating plants are retired in subsequent years. OPC took issue with the

[110] *In re Tartan Energy*, Report and Order, 3 Mo.P.S.C. 3d 173 (issued September 16, 1994).

replacement of dispatchable generating capacity with non-dispatchable renewable resources.

However, Ameren Missouri presented convincing evidence that renewable energy projects take five to eight years to develop and implement, that good projects are hard to come by, and that tax credits for renewable generation that will lower the cost of constructing new generation are available now. Thus, Ameren Missouri cannot wait until a coal-fired generation plant is retired to begin the process of replacing its capacity.

Further, Ameren Missouri presented evidence that the Project will provide needed energy in the summer, when both the Company and MISO need it most, at the lowest cost among available options. In addition, Ameren Missouri projects that new solar resources, including the Project, can meet winter capacity by 2026, when a shortfall is otherwise anticipated. Therefore, the Commission finds that there is a need for Ameren Missouri to build the Boomtown Solar Project.

The Project adds capacity and will generate renewable energy that is needed -- particularly during peak summer demand.

Qualifications and Financial Ability to Provide the Service

The second and third factors need not be considered further, as they are not in dispute. The Commission finds Ameren Missouri has the qualifications and the financial ability for the Project.

Economic Feasibility

OPC's position is that the fourth factor of economic feasibility has not been satisfied because the Project has not been shown to generate more revenues and avoid

more costs than the costs Ameren Missouri's retail customers will incur if the Company builds the Project.[111] However, the test is whether the improvement justifies its cost.

By 2026, the Company will need capacity to meet MISO requirements for capacity due to impending retirements of its coal-fired generation plants. The Project helps meet that capacity need – including peak summer and peak winter periods. Renewable generation is the most affordable energy resource to replace coal-fired generation plants. This project will also produce energy during peak times to serve customers. This means Ameren Missouri should not have to buy energy to meet its peak needs off the market at peak demand when costs are higher. However, the amount of savings are not quantifiable yet. Waiting to add renewable generation resources until coal-fired plants are retired and capacity need is immediate would put Ameren Missouri at risk of being unable to meet its customers' load at peak times. Like Ameren Missouri, MISO is no longer long on capacity, especially in peak summer months. The Company can no longer count on the MISO market as a source of low cost energy to meet its peak load. Delaying development of renewable generation also exposes the Company to the risks of transmission constraints and higher financing rates in the future.

The Project results from a competitive RFP process in which Ameren Missouri used due diligence in selecting a developer. The Company and the developer reached an arms-length agreement on a contract to build and transfer ownership of the Project. Thus, the Project is being acquired at fair market value.

Tax credits are currently available to reduce the cost of the Project that may not be available in the future. In addition, it is anticipated that the Project will generate excess

[111] File No. EA-2022-0245, *Public Counsel's Positions* (filed Jan. 27, 2023).

energy that can be sold into the MISO market, further reducing the Project's cost. The Commission finds the Project economically feasible.

Promotes the Public Interest

Ameren Missouri presented evidence that electric utilities compete for scarce resources when seeking to secure renewable facility siting, permits, and equipment. Project development can take years, and if a project is optioned, the failure to timely execute on that option allows other interested parties to acquire the site, equipment, and permits. The Company also presented evidence that it is not feasible to wait until a projected shortfall is about to occur before adding renewable resources, given the implementation timeline for renewable projects and the limited availability of suitable projects.

The recent retirement and planned retirement of three of Ameren Missouri's four coal-fired generation facilities by 2030 will change the Company from, historically, having a long buffer on both energy and capacity to having a shortfall as soon 2024. Ameren Missouri presented evidence that, if it is able to execute its Preferred Resource Plan, which includes the Project, it should have sufficient resources every year long-term, and the Company would be expected to be a net seller of electric energy at levels roughly equivalent to what it has seen historically.[112]

The evidence presented shows that, by acting to add renewable resources now, Ameren Missouri will avoid possible (1) deployment of less beneficial resources that might occur due to limited availability of viable tax credits, (2) transmission constraints causing delays or higher costs, and (3) higher future financing rates. Adding renewable energy

[112] Exh. 3, *Michels Surrebuttal Testimony*, pp.11, 15.

generation in place of fossil fuel generation provides a hedge against risks associated with power prices, carbon prices, and fuel prices.

The Project has economic development benefits. Demand for clean, reliable, and affordable energy is an increasingly important factor in determining where businesses locate new jobs and investment. Missouri is competing with other states for new jobs and investment from businesses that have large energy demand and a need for renewable energy resources. Customer preferences for renewable energy and corporate sustainability goals by Missouri's large employers for their energy needs should not be dismissed.

The Commission finds that the Project promotes the public interest.

In a nutshell, the Boomtown Solar Project satisfies all five of the Tartan factors and provides an improvement to Ameren Missouri customers that justifies its cost. The Commission will grant the CCN, but with conditions.

Staff and OPC have suggested the Commission attach several conditions to the granting of a CCN for the Project. Ameren Missouri agreed that imposition of four of the conditions, with an unopposed modification to a fifth condition, was acceptable to the Company. With the exception of the conditions set out below, the Commission does not find any other proposed conditions to be reasonable or necessary. The Commission will condition the granting of the CCN on a limited number of conditions, as set forth in the order, below. With these reasonable and necessary conditions, the Commission finds that granting Ameren Missouri a CCN is reasonable and in the public interest.

**The RSP**

The proposed RSP is a utility-operated renewable service program that brings new renewable resources to Ameren Missouri's system supported by binding commitments from customers with firm demand. Commercial and industrial customers have already made a commitment to capacity under the RSP. Additionally, the program is tied to the Boomtown Solar Project.

Under Subsection 393.140(11), RSMo., the Commission has general authority to review any new tariffed programs and associated charges, such as the Renewable Solutions Program and its associated pricing. OPC suggests that this is not an appropriate proceeding for the Commission to review the RSP. OPC does not cite to any authority that requires a separate proceeding, but rather, OPC witness Dr. Marke suggests that the Company's pending electric rate case, File No. ER-2022-0337, is a "better venue" for review of the RSP because the cost of service data used to establish the Renewable Benefits Credit is expected to be updated in the pending case. Because the RSP is interrelated with the CCN and Ameren Missouri's electric rate case is operating on a separate and distinct procedural schedule, the Commission finds the most efficient and effective review of the RSP is during the course of this case.

The program structure is proposed to include multiple phases and multiple resource types. The pricing will be dependent on the phases. Additionally, the credit will annually escalate by 2.5 percent. The testimony from the Company witnesses and the proposed tariff shows that any RECs generated will be retired on behalf of the customer.

The RSP is proposed as an optional rider that is available to customers under 3(M), 4(M), and 11(M) services. The rider has two billing components. The first component is

the Renewable Resource Charge, which is a $/kW charge assessed based on the amount of program capacity contracted by the customer. This charge is designed to reflect the costs associated with the resources for the phase the customer has contracted. The second component is the Renewable Benefits Credit, which is $/kWh credit based on the production from the renewable energy resource.

Ameren Missouri cites two main components driving their renewable program. The first is that they are seeing a number of corporate customers tracking carbon goals and seeking clear, near-term ways to reduce carbon emissions. Offering its larger customers an option to purchase renewable energy is one way for Ameren Missouri to help prevent these customers from leaving, or seeking to expand outside, the Ameren Missouri service territory. Furthermore, the RSP is seen as a step along Ameren Missouri's net zero carbon reduction goal by 2045.

Ameren has proposed multiple programs in the past. The most recent program is Renewable Choice, which is described as following a Power Purchase Agreement model. However, Renewable Choice has not resulted in any projects and remains unsubscribed. This shows that the non-binding nature of Renewable Choice and the variable charges created uncertainty, resulting in an unfavorable environment for executing resource projects.

The evidence also showed that FPL's SolarTogether, which Ameren Missouri explicitly mentions as a model for their program has been fully subscribed demonstrating success with that particular program model.

The Commission finds the RSP will lower the NPVRR associated with the Project because the Project's cost is being subsidized by the RSP subscribers. Additionally, the

RSP will make Missouri more competitive in attracting and retaining businesses or business expansions, which in turn generates jobs, taxes, other economic benefits and allows the Company to spread its fixed costs over more sales, to the benefit of all customers. This competitive advantage is supported regardless of the location of the renewable facility at issue – as evidenced by the robust subscriptions already in hand from subscribing customers who sought even more MW of renewable capacity than the Project makes available.[113]

Tracking Benefits

Both Staff and OPC oppose granting the RSP arguing that the Project's costs will exceed RSP subscriber revenues and the difference will have to be covered by non-subscribers. OPC's position is that any approval of the RSP should be conditioned on including a 50/50 risk sharing between Ameren Missouri and its retail customers of any shortfall in revenues attributable to the Boomtown Solar Project and the cost of that project in Ameren Missouri's revenue requirement and fuel adjustment clause.

Ameren Missouri argues there should be no conditions placed on approval of the RSP. Ameren Missouri's argument is that the RSP reduces the customer revenue requirements added by the Project and reduces the economic risks of the Project. The Company's position is that OPC's suggestion of a 50/50 risk sharing arrangement between customers and the Company for a needed resource is inappropriate.

A key part of the RSP is that the benefits Ameren Missouri has presented will accrue to all customers as a result of subscribers paying a premium in order to claim the renewable attributes of the program resource. Thus, the Commission determines that a

[113] Tr. 156-157; Ex. 7, *Forsberg Direct Testimony*, p. 12.

tracker is needed to ensure that all of those benefits ultimately accrue to all customers. However, the degree to which such benefits manifest cannot be determined without also tracking the costs. Therefore, the Commission will direct Ameren Missouri to track and specifically delineate within each FERC account all revenues, investments and expenses associated with the RSP and the Project. The Commission will also direct that the tracked information accompany or be made available with the filing of its next rate case for Commission consideration.

The Commission also finds it reasonable to make this report and order effective in less than 30 days in consideration of the Company's original request related to the timing of the decision and in consideration of the May 1, 2023, proposed tariff effective date of the RSP and to allow for necessary contracting and construction to begin expeditiously.

**THE COMMISSION ORDERS THAT:**

1. Ameren Missouri is granted a certificate of convenience and necessity (CCN) to construct, install, own, operate, maintain, and otherwise control a 150 MW solar generation facility, located in White County, Illinois (the Project), pursuant to a build transfer agreement (BTA) with Boomtown Solar Holdings LLC, subject to the following conditions:

   a. Ameren Missouri shall use sound engineering judgment and commercially reasonable efforts to meet the IEEE standard P2800 for the Project and future transmission interconnected solar projects.

   b. The in-service criteria contained in Exhibit 104C, Lange Rebuttal Testimony, Confidential Attachment SEL-3 and Confidential Attachment SEL-4 shall be used to determine whether the Project is in-service.

   c. Ameren Missouri shall file with the Commission as-built drawings for the Project within 100 days after the "Final Completion Deadline," as defined in the BTA, provided that if Invenergy is excused under the terms of the BTA from providing certain as-built drawings by that deadline, Ameren Missouri

will file such as-built drawings within ten (10) days after receipt thereof from Invenergy. Ameren Missouri will notify the Staff of the Commission within ten (10) days after the Final Completion Deadline if there are any as-built drawings for which Invenergy was excused from delivering by that deadline.

d. Ameren Missouri shall file with the Commission the final version of the plans for restoration of safe and adequate service no later than 60 days after the site is commercially operational.

e. Ameren Missouri shall file with the Commission quarterly progress reports on the plans and specifications for the Project, and the first report shall be due on the first day of the first calendar quarter beginning after the CCN is issued.

2. Ameren Missouri is authorized to engage in the transactions by which it, through various subsidiaries, will construct and finance the Project, including transactions under the BTA.

3. Ameren Missouri is authorized to create and execute a subscription-based Renewable Solutions Program (RSP) which offers eligible customers an opportunity to subscribe to a voluntary renewable energy purchasing program in which Phase 1 of the program would be supported by the Boomtown Solar Project. Approval of the RSP is subject to the conditions listed in the next paragraph, below. The details of the RSP are contained within the following tariff sheets filed by Ameren Missouri on July 14, 2022, assigned Tracking Number YE-2023-0010, and approved by the Commission to become effective on May 1, 2023:

**Mo. P.S.C. Schedule No. 6**

2nd Revised Sheet No. 83, Cancelling 1st Revised Sheet No. 83
2nd Revised Sheet No. 83.1, Cancelling 1st Revised Sheet No. 83.1
2nd Revised Sheet No. 83.2, Cancelling 1st Revised Sheet No. 83.2
2nd Revised Sheet No. 83.3, Cancelling 1st Revised Sheet No. 83.3
Original Sheet No. 83.4
Original Sheet No. 83.5
Original Sheet No. 83.6

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.

5. Ameren Missouri is authorized to do and perform, or cause to be done and performed all such acts and things, as well as make, execute, and deliver any and all documents as may be necessary, advisable, and proper to the end that the intent and purposes of the approved transaction may be fully effectuated.

6. This report and order shall become effective on April 22, 2023.

**BY THE COMMISSION**

Nancy Dippell
Secretary

Rupp, Chm., Coleman, Holsman, and
Kolkmeyer CC., concur and certify compliance
with the provisions of Section 536.080, RSMo (2016).

Seyer, Regulatory Law Judge

**STATE OF MISSOURI**

**OFFICE OF THE PUBLIC SERVICE COMMISSION**

**I have compared the preceding copy with the original on file in this office and I do hereby certify the same to be a true copy therefrom and the whole thereof.**

**WITNESS my hand and seal of the Public Service Commission, at Jefferson City, Missouri, this 12th day of April, 2023.**

**Nancy Dippell**
**Secretary**

MOPSC
Digitally signed by MOPSC
Date: 2023.04.12 16:08:35 -05'00'

***MISSOURI PUBLIC SERVICE COMMISSION***

***April 12, 2023***

**File/Case No. EA-2022-0245**

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***Enclosed find a certified copy of an Order or Notice issued in the above-referenced matter(s).***

***Sincerely,***

Nancy Dippell

***Nancy Dippell***
***Secretary***

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Recipients listed above with a valid e-mail address will receive electronic service. Recipients without a valid e-mail address will receive paper service.

**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 a Certificate of Convenience and Necessity for Solar Facilities | ) ) ) | EA-2023-0286 |

**AFFIDAVIT OF STEVEN M. WILLS**

**STATE OF MISSOURI )**
**) ss**
**CITY OF ST. LOUIS )**

Steven M. Wills, being first duly sworn on his oath, states:

My name is Steven M. Wills, and hereby declare on oath that I am of sound mind and lawful age; that I have prepared the foregoing *Direct Testimony*; and further, under the penalty of perjury, that the same is true and correct to the best of my knowledge and belief.

*\s\ Steven M. Wills*
Steven M. Wills

Sworn to me this 16th day of June, 2023.