

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

In the Matter of the Application of Union)
Electric Company d/b/a Ameren Missouri)
for Approval of a Subscription-Based)
Renewable Energy Program)

Case No. EA-2022-0245

The Office of the Public Counsel's Brief

Respectfully submitted,

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COMES NOW the Office of the Public Counsel (“OPC”) and for its Brief states:

Introduction

While captioned as a request for approval of a subscription-based renewable energy program, in this case Union Electric Company d/b/a Ameren Missouri is seeking a certificate of convenience and necessity for its “Boomtown Solar Project,” a 150 megawatt (AC nameplate) solar generation facility to be built and sited in White County, Illinois, with the intent of Ameren Missouri recovering its investment and net costs for that facility from its Missouri retail customers, and approval of an associated tariff-based program it has titled, “*Renewable Solutions Program*.”¹ According to Ameren Missouri’s proposed tariff language, participation in the *Renewable Solutions Program* would be limited to Ameren Missouri’s Large General Service, Small Primary Service, Large Primary Service, and qualifying Residential or Small General Service customers who, for a specific new renewable generating asset for a fifteen-year period, would pay a fixed monthly charge based on a chosen amount of that asset’s generating capacity and monthly would receive bill credits based on energy production attributed to the chosen amount of generating capacity. Each customer may not chose an amount of an asset’s generating capacity that is anticipated to or does produce more energy than that customer’s annual metered energy usage.²

As the Office of Public Counsel explains in this brief, because Ameren Missouri is undervaluing firm energy—energy from generating resources that are capable of providing energy on demand at all times—Ameren Missouri is proposing to overexpose its customers to the risks of extreme MISO energy market prices by acquiring the wrong generating plant at the wrong time,

¹ Ameren Missouri’s application filed in this case, Case No. EA-2022-0145, on July 14, 2022.

² Tariff filing no. YE-2023-0010 filed on July 14, 2022; Ex. 11, Ameren Missouri witness Steven M. Wills direct testimony, pp. 6-7.

and Ameren Missouri's proposed *Renewable Solutions Program* does not change those excessive customer risks.

Argument

Certificate of Convenience and Necessity

A. Does the evidence establish that the 150 megawatt ("MW") solar generation facility to be constructed in White County, Illinois (the "Boomtown Solar Project" or "Project") for which Ameren Missouri is seeking a certificate of convenience and necessity ("CCN") necessary or convenient for the public service?

Public Counsel's Position: No. The Boomtown Solar Project is not an improvement that justifies what it will cost Ameren Missouri's retail customers as a whole.

1. Should the Commission find that the Project satisfies the first *Tartan* Factor of need?

Public Counsel's Position: No. Ameren Missouri's retail customers need firm, reliably dispatchable generating capacity to serve them. If a subset of Ameren Missouri's retail customers who desire electricity from renewable generating resources bear *all* of the risks of operational (including infirm dispatchability) and adverse economic impacts of Ameren Missouri's Boomtown Solar Project on its retail customers and completely insulate Ameren Missouri's other retail customers from those impacts, then the factor of need might be satisfied.

2. Should the Commission find that the Project satisfies the second *Tartan* Factor of economic feasibility?

Public Counsel's Position: No. The evidence does not show that the Boomtown Solar Project will generate more revenues (energy and capacity market revenues) and avoid more costs than the costs Ameren Missouri's retail customers will incur (capital, reliability, power quality, and operations and maintenance) if Ameren Missouri builds it.

3. Should the Commission find that the Project satisfies the third *Tartan* Factor of ability to finance?

Public Counsel's Position: Only if the evidence supports that finding.

4. Should the Commission find that the Project satisfies the fourth *Tartan* Factor of qualified to construct?

Public Counsel's Position: Only if the evidence supports that finding.

5. Should the Commission find that the Project is in the public interest and satisfies the fifth *Tartan* Factor?

Public Counsel's Position: No. Ameren Missouri's retail customers need firm, reliably dispatchable generating capacity to serve them. Further, the evidence does not show that the Boomtown Solar Project will generate more revenues (energy and capacity market revenues) and avoid more costs than the costs Ameren Missouri's retail customers will incur (capital, reliability, power quality, and operations and maintenance) if Ameren Missouri builds it.

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

Public Counsel’s Position: Implementation of each of the following:

- Proper utility-scale solar conservation habitat practices;
- Appropriate storm water run-off management plans;
- That solar panel selections were not sourced from Chinese forced Uyghur labor camps; and
- Plans over end-of-life solar panel waste management considerations.

The standard for issuing certificates of convenience and necessity are found in the statutory words, “necessary or convenient for the public service” found in §393.170, RSMo. In *Re Tartan Energy*, GA-94-127, 3 Mo.P.S.C.3d 173, 177 (1994), the Commission repeated the five buckets into which it had categorized earlier decisions when it reviewed them in *Re Intercon Gas, Inc.*, 30 Mo P.S.C. (N.S.) 554 (1991). Those buckets are:

- Whether there is a need for the facilities and service;
- Whether the applicant is qualified to own, operate, control and manage the facilities and provide the service;
- Whether the applicant has the financial ability for the undertaking;
- Whether the proposal is economically feasible; and
- Whether the facilities and service promote the public interest.

On review of the Commission’s Intercon Gas decision, the Missouri Western District 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.” § 393.170.3. The term “necessity” does not mean “essential” or “absolutely indispensable,” but that an additional service would be an improvement justifying its cost. *State ex rel. Beaufort Transfer Co. v. Clark*, 504 S.W.2d at 219. Additionally, what is necessary and convenient encompasses regulation of monopoly for destructive competition, prevention of undesirable competition, and prevention of duplication of service. *State ex rel. Public Water Supply Dist. No. 8*

v. Public Serv. Comm'n, 600 S.W.2d 147, 154 (Mo.App.1980). The safety and adequacy of facilities are proper criteria in evaluating necessity and convenience as are the relative experience and reliability of competing suppliers. *State ex rel. Ozark Elec. Coop. v. Public Serv. Comm'n*, 527 S.W.2d 390, 394 (Mo.App.1975). 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. *Id.* at 392.³

Here the ultimate question for issuing a certificate is whether the cost to the public of Ameren Missouri owning, operating, and maintaining the Boomtown Solar Project is outweighed by the benefits of that project to the public.

The public is concerned with rising costs during this period of inflation and increasing credit card debt load, including the costs of essentials like electricity. Not only is Ameren Missouri proposing to acquire a solar facility that it has not shown will generate enough revenues to offset what its customers will pay for it, Ameren Missouri intends to increase its customers' exposure to MISO energy markets prices by reducing the firm energy resources—generating resources that are capable of providing energy on demand at all times⁴—in its generating portfolio with solar resources that are not firm energy resources.

Before it retired its Meramec generating facility in late 2022, Ameren Missouri had well over 10 gigawatts (GW) of nameplate generating capacity available to supply the energy its customers needed. Of that 10 GW over 9 GW were firm energy resources.⁵ Ameren Missouri's load plus MISO capacity reserve requirement in 2021 was about 8.8 GW.⁶ Essentially, Ameren Missouri satisfied its MISO capacity requirement with firm energy resources. With the retirement

³ *State ex rel. Intercon Gas, Inc. v. Public Service Commission*, 848 S.W.2d 593, 597-98 (Mo. App. 1993).

⁴ Described as firm, reliably dispatchable generating capacity in OPC's position statement.

⁵ Ex. 3, Attachment 1, p. 3 of 33, Ameren Missouri witness Matt Michels direct testimony, Schedule MMD-1, p. 3 of 33, Figure 9.2 Net Capacity Position – No New Supply-Side Resources (Baseline).

⁶ *Id.*

of its Meramec generating facility Ameren Missouri lost about 827 megawatts (MW) of firm energy resources.⁷ When it retires its Rush Island generating facility—anticipated mid-2025—Ameren Missouri will lose an additional about 1.178 GW of firm energy resources.⁸ Notably, Ameren Missouri’s Callaway nuclear generating facility is comprised of one firm energy resource unit of about 1.2 GW, its Labadie generating facility is comprised of four firm energy resource units totaling of about 593 MW each, and its Sioux generating facility is comprised of two firm energy resource units of about 550 MW each.⁹ With the retirement of its Meramec generating facility Ameren Missouri essentially has just enough firm energy resources to match its MISO load plus reserve requirement. If any of its other firm energy resources are unavailable¹⁰ when Ameren Missouri needs the energy from them to satisfy its customers’ demand for energy, then its customers will be exposed to the MISO’s market prices, even if it would have cost less for Ameren Missouri to have generated the energy they demanded. Ameren Missouri is shifting from relying on firm energy resources it owns to supply the energy its customers demand during extreme weather events to relying on acquiring that energy in the MISO markets—a risky proposition given that electrical energy sold into the MISO markets is shifting more and more from energy generated by resources capable of supplying that energy on demand to resources that cannot.¹¹ This means that Ameren Missouri prudently should not rely on the MISO markets to supplant its planned reduction in its firm energy resources.

⁷ Ex. 3, Ameren Missouri witness Matt Michels direct testimony, p. 5, Figure 1; Ex. 3, Attachment 1, p. 3 of 33, Ameren Missouri witness Matt Michels direct testimony, Sch. MMD-1, p. 3 of 33, Figure 9.2 Net Capacity Position – No New Supply-Side Resources (Baseline).

⁸ *Id.*

⁹ From 2021 EIA data at [Form EIA-860 detailed data with previous form data \(EIA-860A/860B\)](#) accessed 2/22/2023; Ex. 3, Ameren Missouri witness Matt Michels direct testimony, p. 5, Figure 1.

¹⁰ Ameren Missouri’s Callaway nuclear generator was unavailable during Storm Uri. Ex. 2, Ameren Missouri witness Ajay K. Arora surrebuttal testimony, pp. 12-13, and fn. 17.

¹¹ Ex. 201, OPC witness Dr. Geoff Marke surrebuttal testimony, Sch. GM-1.

Even more concerning for Ameren Missouri's customers is the risk that Ameren Missouri's generating resources will not be able to generate enough energy to match its customers' demand for energy during extreme weather, weather which both increases customers' demand for energy and strains the capability of energy resources to satisfy that demand. The February 2021 (Storm Uri), February 2022 (Storm Landon), and December 2022 (Storm Elliott) are examples of such weather events. NERC, MISO, and FERC recognize that replacing firm energy resources with generating resources that are incapable of providing energy on demand at all times is exacerbating the likelihood of energy scarcity in the MISO and other RTO/ISO markets during extreme weather events in the future, as early as this summer of 2023.¹² The MISO interconnection queue is full of requests to interconnect generating resources that are incapable of providing energy on demand at all times,¹³ and MISO market participants are planning to continue to retire tens of GWs of firm energy resources.¹⁴ Both the NERC and MISO are clear that in the MISO footprint, despite the addition of renewable generation, because of the past and impending retirement of firm energy resources, the on-demand capability of generating facilities in the MISO footprint is fading rapidly. That decline will exacerbate extreme MISO energy price spikes during extreme weather.

The result of energy scarcity during extreme weather events was forcefully highlighted by the persistently high regional energy market prices, including those in the SPP and MISO markets, during the February 2021 (Storm Uri), February 2022 (Storm Landon), and December 2022 (Storm

¹² FERC Order Approving Extreme Cold Weather Reliability Standards EOP-011-3 and EOP-012-1 and Directing Modification of Reliability Standard EOP-012-1 re North American Electric Reliability Corporation under RD23-1 dated February 16, 2023, FERC eLibrary accession number 20230216-3062 in FERC docket no. RD23-1-000, accessible from <https://elibrary.ferc.gov/eLibrary/search>; *Petition of the North American Electric Reliability Corporation for Approval of Proposed Reliability Standards EOP-011-3 and EOP-012 and Request for Expedited Action*, filed October 28, 2022, FERC eLibrary accession number 20221028-5393 in FERC docket no. RD23-1-000, accessible from <https://elibrary.ferc.gov/eLibrary/search>.

¹³ Ex. 201, OPC witness Dr. Geoff Marke surrebuttal testimony, Sch. GM-1, p. 9.

¹⁴ *Id.*, p. 10.

Elliott) North American storms. Ameren Missouri did not, will not, ultimately bear the brunt of those market prices, nor will Liberty or Evergy Missouri West. Instead, that burden falls on their Missouri customers. This is because each of these utilities have, will, or are, either passing the high market prices they paid on to their customers through their fuel adjustment clause (“FAC”) charges,¹⁵ or through securitization charges.¹⁶

Solar generating resources are of limited value during extreme winter weather events since they are poor energy resources at night, during early mornings, and during overcast days. Ameren Missouri’s customers who rely on electricity for space heating have little choice but to use electricity during those extreme weather events, and they do not experience an immediate or near-term financial impact from doing so. That impact is softened by being spread out over months (FAC) or years (securitization).

As to the argument that solar facilities are becoming more difficult to come by, the sun shines virtually everywhere in the Midwest and landowners, including farmers, are open to new revenue streams. Further, the MISO interconnection queue is rife with interconnection requests for solar facilities, and Ameren Missouri encountered no difficulty getting responses to its request for proposals for build transfer agreement wind and solar facilities that it issued in August of 2020 from which it selected the Boomtown Solar Project.¹⁷

¹⁵ E.g., Case No. ER-2023-0031 for Ameren Missouri Storm Uri fuel and purchased power costs of about \$60 million.

¹⁶ Case No. EO-2022-0040 for Liberty Missouri Storm Uri costs of about \$200 million, Case No. EF-2022-0155 for Evergy Missouri West Storm Uri costs of nearly \$300 million.

¹⁷ Ex. 10, Ameren Missouri witness Scott Wibbenmeyer direct testimony, p. 11; Ex. 2, Ameren Missouri witness Ajay K. Arora surrebuttal testimony, p. 25.

Ameren Missouri's customers are not better off and it is not in the public interest for Ameren Missouri to replace the firm energy resources it is losing with energy resources that cannot be relied on to generate electrical energy on demand and concomitantly increase their exposure to being billed for extreme MISO market prices during extreme weather events.

The Commission should not issue Ameren Missouri a certificate of convenience and necessity for the Boomtown Solar Project.

Renewable Solutions Program

C. Is this an appropriate proceeding for the Commission to review Ameren Missouri's Renewable Solutions Program?

Public Counsel's Position: No. Proper pricing of this service based on Ameren Missouri's 2021 class cost-of-service data is questionable. Ameren Missouri's pending general rate is a superior venue for evaluating the adequacy of class cost-of-service data for evaluating Ameren Missouri's Renewable Solutions Program.

1. If so, should the Commission approve the Renewable Solutions Program proposed by Ameren Missouri in accordance with its authority to approve utility programs and tariffs?

Public Counsel's Position: No, it does not include an appropriate 50/50 risk sharing between Ameren Missouri and its retail customers.

D. If the Commission approves the Renewable Solutions Program proposed by Ameren Missouri, what, if any, conditions should the Commission impose on such approval?

Public Counsel’s Position: Any approval 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.

Rather than this certificate of convenience and necessity case, the Commission should evaluate Ameren Missouri’s proposed *Renewable Solutions Program* in a proceeding where current class cost-of-service data can be used to evaluate the rate impacts on Ameren Missouri’s customers of the proposed program.¹⁸ Ameren Missouri’s pending general rate case, Case No. ER-2022-0337 would have been a good proceeding for doing that.¹⁹

Because solar generating resources are not firm energy resources and what Ameren Missouri needs is new firm generating resources, Ameren Missouri’s customers should not bear any more than 50% of the risk that revenues, tax credits or other economic benefits created by Ameren Missouri’s Boomtown Solar Project do not offset the cost of that project.²⁰

Should the Commission decide to grant Ameren Missouri a certificate of convenience and necessity for the Boomtown Solar Project, it should include the following condition on that certificate to mitigate the risk of that project on Ameren Missouri’s customers: Ameren Missouri’s customers shall not bear collectively through Ameren Missouri’s general rates and fuel adjustment clause charges more than 50% of the amount by which Ameren Missouri’s cost for the Boomtown

¹⁸ Ex. 200, OPC witness Dr. Geoff Marke rebuttal testimony, pp. 8-9.

¹⁹ Ex. 200, OPC witness Dr. Geoff Marke rebuttal testimony, p. 9.

²⁰ *Id.*

Solar Project exceeds all of the economic benefits of the revenues and tax credits created by the project.²¹

CONCLUSION

For the reasons stated above, this Commission should deny both Ameren Missouri's request for a certificate of convenience and necessity for its "Boomtown Solar Project," and its request to approve its Renewable Solutions Program; further, should the Commission decide to issue Ameren Missouri a certificate of convenience and necessity for its "Boomtown Solar Project," the Commission should include as a condition to that certificate that Ameren Missouri's customers shall not bear collectively through Ameren Missouri's general rates and fuel adjustment clause charges more than 50% of the amount by which Ameren Missouri's cost for the Boomtown Solar Project exceeds all of the economic benefits of the revenues and tax credits created by the project, and still deny Ameren Missouri's request to approve its Renewable Solutions Program.

Respectfully,

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²¹ Ex. 200, OPC witness Dr. Geoff Marke rebuttal testimony, p. 9; Ex. 201, OPC witness Dr. Geoff Marke surrebuttal testimony, p. 19.

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile or electronically mailed to all counsel of record this 3rd day of March 2023.

/s/ Nathan Williams