

**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                                 )

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

**SIERRA CLUB’S POST-HEARING BRIEF**

Sierra Club respectfully requests that the Commission approve the Boomtown solar Project. The Commission should find that there is a “need” for the Boomtown Project because it will maintain or improve customer service in multiple ways. The Project will provide requisite energy as Ameren transitions its fleet, and it will immediately upon operation provide a hedge against high and volatile fuel prices. The Boomtown Project will also provide MISO-accredited capacity that will support Ameren’s resource adequacy requirements, especially in summer, but also in winter. Furthermore, the Boomtown Project is needed now because Ameren has no choice but to begin transitioning its legacy generation fleet. Ameren must provide its customers with safe and reliable service at just and reasonable rates. Because Ameren has an energy need, and because renewables are the lowest-cost way to meet that need, the Commission should approve the Boomtown Project.

**I. Under Missouri Law, “Need” Is Not Defined Strictly by Capacity, But Instead Includes Customers’ Need for Economical Energy and Other Services That Maintain or Improve Electric Service.**

Missouri statutes do not lay out specific criteria for the Commission to apply when deciding whether to issue a Certificate of Convenience and Necessity (“CCN”). Instead, the legislature has instructed the Commission to approve a CCN when a project “is necessary or convenient for the public service.” RSMo § 393.170.3. When deciding whether a project is necessary or convenient,

the Commission has traditionally applied the *Tartan* factors, the first of which is that there must be a need for the service. *Application of Ameren Missouri for Approval of Pilot Solar Program*, Report and Order, Case No. EA-2016-0208, 2016 WL 7441690, at \*10 (Mo. P.S.C. 2016). Missouri courts have clarified that the term “necessity” does not mean “essential” or “absolutely indispensable,” but rather that the project would be an improvement justifying its cost. *State ex rel. Intercon Gas v. Pub. Serv. Comm’n*, 848 S.W.2d 593, 597–8 (Mo. Ct. App. W.D. 1993). In addition, the determination of whether a project is necessary or convenient cannot focus solely on a present need but must take the future into account as part of a comprehensive evaluation. *Application of KCP&L-GMO for Approval of Solar Facilities*, 515 S.W.3d 754, 760 (Mo. Ct. App. W.D. 2016) (“ . . . in matters of public convenience and necessity there must be consideration of the future.”) (citing *Ringo v. Pub. Serv. Comm’n*, 234 Mo. App. 549, 132 S.W.2d 1080, 1082 (1939); *State ex rel. Gulf Transport Co. v. Pub. Serv. Comm’n*, 658 S.W.2d 448, 458 (Mo. Ct. App. W.D. 1983)).

While Staff has suggested in testimony that a currently existing firm capacity deficit is the only basis for finding “need” under the *Tartan* factors, Staff has not cited to any Missouri case law supporting such a position.<sup>1</sup> Further, the statements from Missouri courts and this Commission on the *Tartan* factors confirm that upcoming, known needs (i.e., a need to incrementally replace capacity or energy services as aging units are retired) are sufficient to constitute “need” under the *Tartan* factors. It is legally irrelevant to the “need” determination for opponents to focus on one identified need (a need for future winter capacity) and argue that there are better alternatives to

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<sup>1</sup> See Exhibit 105 - Rebuttal Testimony of J. Luebbert on behalf of Missouri PSC Staff, p. 7-11; Ex. 104 Rebuttal Testimony of Shawn Lange on behalf of Missouri PSC Staff, p. 3-11 (assuming that “need” is synonymous with current capacity deficit, with no legal authority for such proposition cited).

meet that need. Such approach lacks the comprehensive analysis required and does not account for future needs for all the components of electric service. A broader, comprehensive inquiry leads to the conclusion that customers have a need for economic energy, and for resources that move Ameren's electricity system towards lower-risk generation.<sup>2</sup>

In sum, under this legal framework, the Commission should find that the Boomtown Project is "needed" under the *Tartan* factors if it finds that the Project would improve or maintain customer service or meet an upcoming specific need, including needs for low-cost energy at stable prices and incremental capacity. As explained below, the Boomtown Project meets that standard as the Boomtown Project is needed to meet both present and future energy demands, provides a valuable hedge against energy price stability, and will provide important capacity value, especially in summer, spring, and fall.

## **II. The Boomtown Project Provides Significant Benefits to Ameren's Electric Customers.**

Missouri law defines "need" under the *Tartan* factors as a comprehensive inquiry into the need for a project, and because Boomtown will help meet customers' need for low-cost, reliable energy, the Commission should hold that the Project satisfies the first *Tartan* factor of need. Most fundamentally, Ameren currently relies on a generation fleet that was largely built in the 1960s-70s and is approaching the end of their useful lives. Ameren has no choice but to replace the energy, capacity, and other services that these generators have historically provided. The Boomtown Project will help Ameren meet its customers' needs as the Company executes a plan to incrementally replace its legacy resources.

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<sup>2</sup> Exhibit No. 500, Surrebuttal Testimony of Sarah Shenstone-Harris, p. 8, lines 7-9.

First, energy is a foundational component of electrical service. Ameren has an increasingly pressing need to add solar and other zero-fuel cost renewable sources to its portfolio in order to replace the energy currently generated by its aging fleet of coal-burning power plants. Any interpretation of “need” under the *Tartan* factors must be founded on the fact that customers need electric energy, in addition to other services such as capacity and electric grid stability. The Commission should find that need is not defined strictly by whether a resource meets the Company’s firm capacity needs, but also by whether it can economically meet the Company’s energy needs and need for a hedge against high fuel prices. As the MISO grid transitions to cleaner energy, Ameren must shift its resource planning to account for energy sufficiency as one important metric. The Boomtown Project serves this need.

Second, Boomtown generation will displace generation from other generators every day that it operates, and will therefore benefit customers by reducing exposure to fuel price risk, and the environment by reducing pollution.<sup>3</sup> Because solar is a zero marginal cost resource, it displaces more expensive fossil fuel generation on the MISO system, which ultimately drives down the cost of market energy used to meet the Company’s energy needs.<sup>4</sup> Boomtown will benefit ratepayers by reducing the risk associated with market exposure and fuel price volatility.<sup>5</sup> In recent years, coal and gas prices have exhibited high volatility, and this volatility has impacted customers’ electric bills.<sup>6</sup> As the Commission knows well, customers prefer stable electricity prices for many reasons. The Boomtown Project will serve customers’ need for stable electricity prices by providing a zero-fuel cost hedge against high gas or coal fuel prices.

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<sup>3</sup> Exhibit No. 500, Surrebuttal Testimony of Sarah Shenstone-Harris, p. 9-11.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.* at p. 11-22.

<sup>6</sup> *Id.*

Third, the Boomtown Project will have significant capacity value. Even if the Commission were to focus its inquiry on a narrow need for accredited capacity to meet MISO reserve margin requirements (a view, as explained above, unsupported by Missouri law), the Boomtown Project would still contribute towards meeting this need. While solar may not be as effective in meeting winter needs as other resources, stand-alone solar does in fact provide some capacity in the winter<sup>7</sup>—and excellent value in the summer,<sup>8</sup> spring, fall—and will provide increasing firm capacity as battery storage technologies continue to improve.<sup>9</sup> Just last year, NERC warned that MISO had insufficient generation resources during summer months,<sup>10</sup> Ameren has traditionally been a summer peaking utility,<sup>11</sup> and the Boomtown Project will indisputably improve the reliability of the grid during summer, which remains a season of risk to the system. Stand-alone solar also provides some capacity in the winter, and when battery storage is added in the future, the firm contribution of solar-battery combination in the winter will increase.

Last, Ameren needs to make progress now on its generation transition. As the Commission knows, the Meramec coal-burning plant retired in 2022, and Rush Island will retire soon in response to a federal court order. Sioux is scheduled to retire around 2030, though the units' unreliability creates a risk that the Sioux units will be knocked out of service sooner than that or will be on longer forced outages and unable to deliver reliable energy.<sup>12</sup> The current projected

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<sup>7</sup> *Id.* at p. 8, lines 18-20.

<sup>8</sup> *Id.* at p. 15-16.

<sup>9</sup> *Id.* at p. 8, lines 18-20.

<sup>10</sup> Evidentiary Hearing Transcript – Volume 1, p. 16-17; Exhibit No. 500, Surrebuttal Testimony of Sarah Shenstone-Harris, p. 16-17 (citing North American Electric Reliability Corporation (“NERC”), 2022 Summer Reliability Assessment, p. 4, (May 2022)).

<sup>11</sup> Exhibit No. 500, Surrebuttal Testimony of Sarah Shenstone-Harris, p. 15, line 17.

<sup>12</sup> *See* Direct Testimony of Tyler Comings on Behalf of Sierra Club, ER-2022-0337, pre-filed on January 10, 2023, p. 15-20.

retirement dates for Labadie's four coal-burning units are in the 2030s and 2040s, but a host of proposed environmental regulations could necessitate retire-or-retrofit decisions for Labadie within the next few years. Major equipment failures at any of these aging coal-burning units could force an earlier retirement. Even if all of Ameren's units make it to their projected end-of-useful lives, Ameren must begin replacing these aging units today. Such a generation transition takes time to plan, receive regulatory approvals, and execute. Electric customers have a need therefore for Ameren to begin transitioning its fleet by bringing the Boomtown Project into service. Staff's narrow interpretation of need does not adequately account for Ameren's need to replace and diversify its generation fleet. The Boomtown Project and its 150 megawatts of capacity and zero-fuel cost energy will help meet these near- and long-term system needs.

### **III. The Boomtown Project Is In The Public Interest.**

The Commission's approval of the Boomtown Project is in the public interest because it will meet Ameren's energy needs economically while also reducing air pollution. Air pollution harms Missouri residents by causing deaths and a range of illnesses, such as asthma and heart disease that harm people and the economy. Because solar is a zero-marginal cost resource, Boomtown generation will displace higher-marginal cost resources from the MISO commitment and dispatch stack every day that it generates electricity.<sup>13</sup> Ameren bids solar into the MISO market with a dispatch cost of zero. Since MISO's dispatch model is a least-cost economic-based algorithm, MISO will dispatch solar PV and all other zero marginal cost resources first.<sup>14</sup> Those megawatt hours added to the grid from solar will necessarily result in the reduction of megawatt hours generated from the most-expensive resources on the system. Those displaced MWh will

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<sup>13</sup> Exhibit No. 500, Surrebuttal Testimony of Sarah Shenstone-Harris, p. 9-10.

<sup>14</sup> *Id.* at p. 10.

generally come from expensive and oil, gas, and coal generators. Displacing these older fossil resources will both avoid fuel costs and reduce pollution.<sup>15</sup>

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In sum, Sierra Club respectfully asks that the Commission approve the Boomtown Project.

Respectfully submitted,

Date: March 3<sup>rd</sup>, 2023

*/s/ Ethan Thompson*

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<sup>15</sup> *Id.* at p. 6.

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that the foregoing Sierra Club's Post-Hearing Brief was electronically filed on this date via the Missouri PSC's electronic filing system. Notice of this filing will be served upon all parties of record who have registered through this electronic filing system.

Date: March 3<sup>rd</sup>, 2023

*/s/ Ethan Thompson*

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Ethan Thompson