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MISSOURI PUBLIC SERVICE COMMISSION

File No. EA-2026-0183

SURREBUTTAL TESTIMONY

OF

SCOTT WIBBENMEYER

ON

BEHALF OF

UNION ELECTRIC COMPANY

D/B/A AMEREN MISSOURI

**St. Louis, Missouri
September, 2026**

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SURREBUTTAL TESTIMONY

OF

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FILE NO. EA-2026-0183

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Scott Wibbenmeyer. My business address is One Ameren Plaza, 1901 Chouteau Ave., St. Louis, Missouri.

Q. By whom and in what capacity are you employed?

A. I am employed by Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri," or "Company") as Senior Director, Renewable Business Development and Acquisitions.

Q. Are you the same Scott Wibbenmeyer that submitted Direct Testimony in this case?

A. Yes, I am.

II. PURPOSE OF TESTIMONY

Q. To what testimony or issues are you responding?

A. I am responding to issues raised in Staff's Rebuttal Report concerning the Projects, including Staff's additional recommended conditions, and to questions as well as incorrect statements raised in the Rebuttal Testimonies of Office of the Public Counsel ("OPC") witnesses Geoff Marke, Ph.D. and Jordan Seaver.

1 Missouri customers, provided domestic-content-qualified panels are reasonably available
2 at the time of procurement and are not constrained by market supply limitations.

3 **Q. Despite the efforts outlined above, does the Company agree to this**
4 **condition without modification?**

5 A. Generally, yes. The Company will provide the documentation upon which
6 it relied on seeking qualification for the domestic content bonus, with one important
7 clarification. While the Company is actively pursuing the domestic content bonus, it cannot
8 guarantee that all applicable requirements will ultimately be satisfied. Federal guidance
9 and eligibility requirements may change over time, and certain factors necessary to achieve
10 the bonus are outside of the Company's direct control. In addition, the availability of
11 domestic-content-qualified solar panels and other equipment remains subject to market
12 conditions, supply constraints, and industry demand, which can limit procurement options
13 despite the Company's commercially reasonable efforts. Accordingly, the Company cannot
14 agree to provide documentation that "ensures" compliance with the domestic content
15 requirements. However, the Company is agreeable to providing documentation related to
16 its tracking, monitoring, and evaluation of those requirements. It should also be noted that,
17 although the Company is pursuing the domestic content bonus, the economics supporting
18 the CCNs did not assume receipt of the bonus because the Company cannot control all
19 factors necessary to obtain it.

20 **Q. Staff recommends Ameren Missouri file within this docket or separate**
21 **docket Payment in Lieu of Taxes, or the executed Chapter 100 ("PILOT") agreement**
22 **with Stoddard County in relation to the Ringer Solar Project once finalized. Is the**
23 **Company agreeable to this condition?**

1 A. Yes, but with certain clarifications. While the developer of the Ringer Solar
2 Project is pursuing a PILOT agreement with Stoddard County, the Company does not hold
3 control over whether that agreement is ultimately executed or not. If the PILOT agreement
4 does not get executed, then the Company would be unable to satisfy the requirement as
5 written. The Company will file the agreement, but only if it is actually executed with
6 Stoddard County.

7 **IV. RESPONSE TO OPC WITNESS MARKE**

8 **Q. In his Rebuttal Testimony, Dr. Marke recommends that Ameren**
9 **Missouri investigate the feasibility of introducing solar grazing (agrivoltaics) as an**
10 **operation and maintenance ("O&M") feature at each of the solar Projects' sites. Have**
11 **agrivoltaics been brought up in previous solar certificate of convenience and necessity**
12 **("CCN") proceedings?**

13 A. Yes. In File No. EA-2023-0286 in which the Company sought CCNs for the
14 Split Rail Solar, Cass County Solar, Vandalia Solar, and Bowling Green Solar facilities,
15 the Company agreed and the Commission approved the following:

16 The Company agrees to conduct a feasibility analysis on using
17 grazing animals to control vegetation in and around solar farms as a means
18 to reduce future O&M expense, increase goodwill, and improve market
19 attractiveness for potential participants in Ameren Missouri's solar
20 subscription offerings. The Company agrees to meet with OPC and Staff
21 twice in 2024 on this issue. The first meeting will include a discussion on
22 the scope of the analysis and the second will discuss the results and any
23 actions moving forward. Ameren Missouri agrees to file the results of the
24 analysis and expected actions (if any) by the end of calendar year 2024 in
25 this docket.¹
26

¹ File No. EA-2023-0286, *Order Granting Certificate of Convenience and Necessity*, eff. June 22, 2024, in attached *Stipulation and Agreement*, at para. 5(p), filed June 12, 2024.

1 Also, in the Reform Solar CCN case, File No. EA-2025-0239, the Company agreed
2 in the Commission-approved Stipulation and Agreement to "include in its solicitation of
3 bids for vegetation management services related to the Reform Solar Project that include
4 Agrivoltaics (i.e. grazing) solutions."²

5 **Q. Did the Company follow through with these requirements?**

6 A. Yes, of course. The Company has already conducted a feasibility study like
7 Dr. Marke references in his testimony and submitted it in EFIS as required, which
8 concluded agrivoltaics vegetation management cost-effectiveness depends on many
9 considerations.³ Ameren Missouri continues to evaluate agrivoltaics and their cost-
10 effectiveness. In fact, in a recent bid event for vegetation management services at Split Rail
11 Solar, Vandalia Solar, and Bowling Green Solar, the Company invited two grazing
12 companies to bid along with other traditional vegetation management companies. At the
13 conclusion of the bid event, Ameren Missouri ultimately did not select either of the grazing
14 companies primarily due to pricing and the ability of the companies to adequately manage
15 such a large vegetation area. The grazing companies were not able to adequately display
16 their history or ability in managing projects of this size, but most importantly, such grazing
17 options were not the most cost effective means of controlling vegetation and would have
18 imposed higher costs on our customers who must pay rates reflecting the operations and
19 maintenance costs we incur at these sites.

² File No. EA-2025-0239, *Order Approving Stipulation and Agreement*, eff. May 23, 2026, in attached *Non-Unanimous Stipulation and Agreement*, at para. 6(l), filed May 13, 2026.

³ File No. EA-2023-0286, *Notice of Filings Its Feasibility Analysis* (Public and Confidential), filed December 23, 2024.

1 **Q. Is Ameren Missouri willing to explore solar grazing companies for**
2 **future vegetation management services at the Solar Projects in this case?**

3 A. Yes. Ameren Missouri sees significant opportunities in combining
4 agriculture with solar development and will continue to evaluate a variety of safe, effective,
5 and cost-efficient vegetation management options to determine the most appropriate
6 solution for each Solar Project. Solar grazing is one potential option among several, and
7 the Company expects to continue seeking competitive bids from qualified grazing
8 companies as part of its overall vegetation management evaluation process.

9 **Q. Does the Company agree with Dr. Marke's recommendation to engage**
10 **the Missouri Department of Conservation regarding site selection and agrivoltaics**
11 **feasibility, which will include at least one meeting with relevant specialists from the**
12 **Department of Conservation, OPC, and Staff?**

13 A. Given that the Company has already conducted a feasibility study on this
14 topic and has agreed to explore solar grazing companies for future vegetation management
15 services, it is unclear what, if any, value there would be in having further discussions as
16 proposed by Dr. Marke.

17 **Q. Dr. Marke also recommended the Company commit to sharing land-**
18 **use and conservation impact data with the non-profit Renewable Energy Wildlife**
19 **Institute's ("REWI") SolSource Database for the duration of its operations. Does the**
20 **Company agree to this?**

21 A. No, not yet. Undoubtedly, I agree with Dr. Marke's assertion that we all
22 should be "good stewards of our land and resources,"⁴ however, there is still much

⁴ File No. EA-2026-0183, Geoff Marke, Ph.D., Rebuttal Testimony, p. 28, l. 6.

1 information lacking related to the SolSource Database especially with regard to how
2 information is protected and shared amongst participants, what other information is readily
3 available, but most importantly whether the SolSource database is going to be maintained
4 at all or whether it will receive continued funding from the federal government. Once the
5 Company learns more about this database and becomes comfortable with its parameters,
6 then afterwards we could explore participation but not before.

7 **Q. Dr. Marke addressed comments made at local public hearings ("LPH")**
8 **accusing Ameren Missouri of paying well above the market rate for property. Is there**
9 **any merit to these claims?**

10 A. No. The Company does not establish a single purchase price for all
11 properties. Rather, land acquisition discussions are conducted individually with each
12 landowner, recognizing that every property and landowner situation is unique. The
13 resulting agreements are negotiated at arms length and reflect mutually agreed-upon prices.
14 By definition, when a willing seller (the landowner) and a willing buyer (the Company)
15 negotiate at arms length and agree upon a price, that price paid *is* the market price for the
16 land in question and for the use to which it will be put. To be clear, the Company acquires
17 land for the BESS Projects through voluntary transactions with willing sellers and it does
18 not in any way seek to compel participation through eminent domain. This approach
19 promotes fair outcomes for landowners while allowing the Company to secure suitable
20 project sites in a cost-effective manner for the benefit of customers. The developers of the
21 Solar Projects acquired land for the Solar Projects through voluntary transactions with
22 willing sellers as well.

1 **Q. Dr. Marke highlighted concerns regarding road impacts due to heavy**
2 **truck loads transporting project construction materials. How does the Company**
3 **respond?**

4 A. While the concern is understandable, I don't think there is much merit to it.
5 While materials such as transformers, battery skids, etc., would have substantial weight,
6 the impact of transporting the load is not materially different than other significant loads –
7 such as with heavy machinery, including tractors, combines, semi-trucks, and other
8 equipment, or other types of industrial or manufacturing facilities located in rural areas.
9 Beyond that, any truck loads taken to the respective project site would adhere to Missouri's
10 transportation standards and obtain necessary permits to carry additional load. However,
11 most importantly, the Projects will be installed in accordance with best industry practices,
12 meaning road surveys are completed prior to the start of the projects as well upon
13 completion. Should any damage or wear be found, then the roads will be repaired by
14 Ameren Missouri to meet or exceed the original pre-construction condition.

15 **V. RESPONSE TO OPC WITNESS SEAVER**

16 **Q. Mr. Seaver asserted that the generation added to the Castle Bluff site**
17 **should be natural gas generating units instead of BESS since natural gas is the**
18 **generation type that is already approved for that site. How do you respond?**

19 A. While that is not an unreasonable assertion, Mr. Seaver overlooks the many
20 factors that must be considered when siting and developing a combustion turbine project
21 beyond simply utilizing available interconnection rights. These factors include standard
22 combustion turbine generator ("CTG") unit sizes available in the market, available natural
23 gas supply, operational requirements, permitting considerations, air emissions, water use,

1 and overall project economics. The Castle Bluff CTG Project was sized and configured to
2 maximize the efficient use of the existing Meramec interconnection while meeting the
3 Company's reliability and capacity needs.

4 After the CTG configuration was optimized at the capacity of the already-approved
5 Castle Bluff CTG facility, approximately 95 MW of transmission capacity and
6 interconnection rights remained available. Rather than leaving that valuable infrastructure
7 unused, the Company determined that installing a BESS at the site was an efficient and
8 cost-effective way to utilize the remaining capacity while providing additional dispatchable
9 capacity for customers. The Castle Bluff BESS Project also leverages an existing
10 brownfield site already owned by the Company, utilizes existing transmission
11 infrastructure, avoids the need for additional land acquisition, and because it is located at
12 a former fossil generating site is expected to qualify for the 10% Energy Community
13 Investment Tax Credit. In addition, unlike a natural gas facility, the BESS does not require
14 natural gas supply, does not consume water during operation, and does not produce air
15 emissions.

16 Accordingly, the Castle Bluff BESS Project represents a practical and efficient use
17 of otherwise unused interconnection capacity at an existing industrial site while providing
18 additional capacity and reliability benefits for Ameren Missouri customers.

19 **Q. Mr. Seaver recommends siting the Castle Bluff BESS Project at the**
20 **Ringer Solar Project to address the solar facility's lower accredited capacity. Does the**
21 **Company disagree with that recommendation?**

22 A. Yes. Mr. Seaver's recommendation appears to assume that the Castle Bluff
23 BESS would provide greater value if it were moved to the Ringer Solar Project because

1 Ringer has a lower accredited capacity. That assumption is not correct. A BESS in the
2 Midcontinent Independent System Operator ("MISO") region can provide high capacity
3 value on a stand-alone basis, regardless of whether it is physically located at an existing
4 solar facility. Therefore, moving 95 megawatts of BESS capacity from Castle Bluff to
5 Ringer would not create additional capacity value simply because the battery would be co-
6 located with solar. More importantly, focusing only on co-location overlooks the broader
7 siting considerations that determine where a BESS can provide the greatest overall
8 customer benefit.

9 The Company recognizes that co-locating a BESS with a solar facility can, in many
10 cases, provide certain benefits, including the potential to share interconnection facilities,
11 reduce costs, shorten the time required to complete a project, and maximize land utilization.
12 However, those general benefits do not make the Ringer Solar Project a superior location
13 for this BESS compared to the Castle Bluff site. The Castle Bluff BESS Project utilizes
14 existing transmission infrastructure and independent interconnection rights, allowing it to
15 charge, discharge, and provide capacity to customers without being dependent on a co-
16 located solar facility. It also makes use of the remaining interconnection capacity from the
17 Meramec Energy Center that could not reasonably be used by the new natural gas plant
18 presently under construction. If the Castle Bluff BESS Project does not use that
19 interconnection capacity, the capacity and its associated value would be forfeited. In
20 addition, as discussed earlier, the Castle Bluff BESS Project is expected to qualify for
21 additional tax credits, including the Energy Community Investment Tax Credit, which
22 helps keep customer rates lower. Those tax credits would not be available to a Ringer BESS
23 Project. With that said, locating a BESS at the Ringer Solar Project may remain a viable

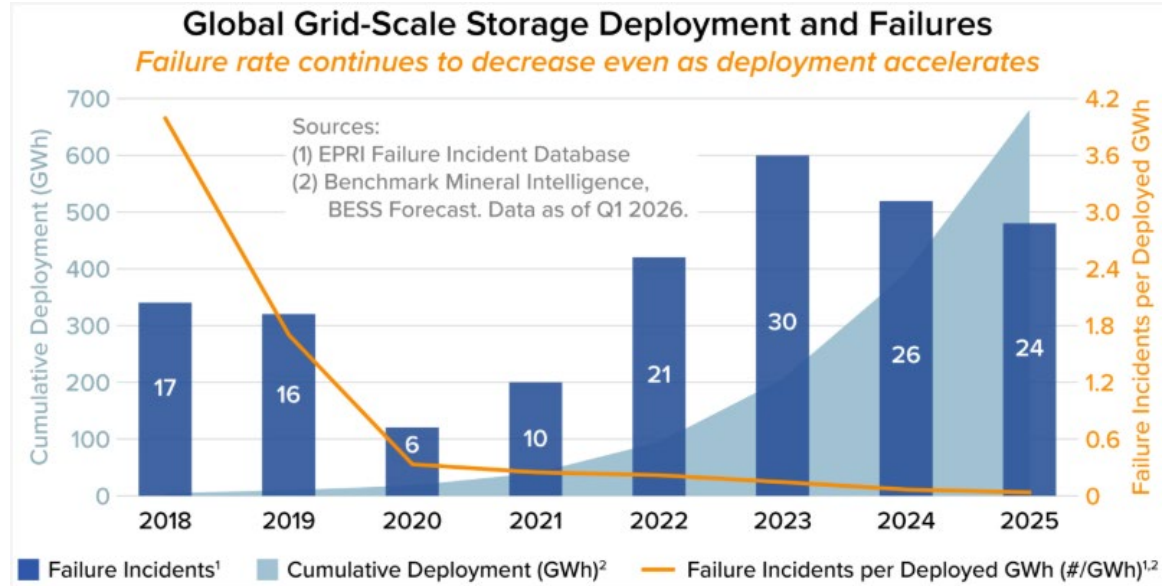
1 option in the future. However, that option makes more sense after stand-alone BESS
2 projects that can use existing interconnection capacity and better tax-credit opportunities,
3 such as Castle Bluff, are completed. A BESS does not need to be physically co-located
4 with a solar facility to provide energy, capacity, or reliability benefits because it can
5 independently charge and discharge through its connection to the MISO transmission
6 system. Accordingly, while the Company will continue to evaluate future co-location
7 opportunities, the potential benefits of co-location do not presently outweigh the
8 advantages of the Castle Bluff BESS Project and would not result in greater customer
9 benefits in this instance.

10 **VI. FIRE SAFETY, HAZARD MITIGATION, AND ENVIRONMENTAL**
11 **IMPACTS**

12 **Q. During the LPH held in this case, questions arose around BESS safety.**
13 **When properly designed, installed, and maintained, are BESS installations safe?**

14 **A.** Yes. It's important to understand that BESS failures are rare, and the rate at
15 which failures occur continues to decline. As you can see in Figure 1 below provided by
16 the Electric Power Research Institute, the number of failure incidents per deployed
17 gigawatt-hour ("GWh") of BESS capacity has declined year-over-year. Moreover, since
18 2023, the number of failure incidents has declined even with more BESS being deployed.
19 This trend is no surprise as the BESS industry is one of the most studied industries as it
20 relates to safety. The industry continues to evolve, making constant enhancements in the
21 design of BESS systems and allowing them to operate with enhanced safety precautions,
22 including some of the most stringent fire testing and certifications of any industry.

FIGURE 1: Global Grid-Scale Storage Deployment Failures⁵



Q. You mentioned enhancements in the design of BESS. To what enhancements do you refer?

A. BESS deployments have largely moved from a Nickel Manganese Cobalt chemistry to a Lithium Iron Phosphate ("LFP") solution. The LFP chemical process does not release oxygen upon breakdown greatly reducing the risk of a thermal runaway fire. Additionally, the systems are designed such that cell modules are fully enclosed helping mitigate any potential fire spread. Each cell is individually monitored – tracking not just temperature but current, voltage, state of charge, and other performance characteristics so that if a cell moves away from homeostasis, the battery management system can immediately responds and isolate the cells of concern.⁶ If a cell moves away from homeostasis, both the supplier and the Company will be alerted so that the cell can be investigated. Each module also has additional sensors monitoring the module's operations

⁵ <https://energystorage.epri.com/hub/public/en/failure-incident-database.html>

⁶ One can think of a battery "cell" as the smallest functional unit of a battery. Battery cells are stacked together to form larger units, called "modules."

1 and allowing isolation of the module from the overall system. Battery modules and support
2 equipment are housed in specially designed outdoor rated battery enclosure skids. As I
3 explained in my Direct Testimony, the Castle Bluff BESS Project will consist of
4 approximately 92 battery enclosure skids; the Huck Finn BESS Project will consist of
5 approximately 192 battery enclosure skids; and the Millcreek BESS Project will consist of
6 approximately 240 battery enclosure skids.

7 **Q. Do the BESS Projects proposed by the Company comply with**
8 **recognized safety standards, and what testing supports their safe installation and**
9 **operation?**

10 A. Yes. Ameren Missouri requires the proposed BESS equipment and project
11 designs to comply with applicable nationally recognized safety standards and fire codes.
12 These requirements evaluate safety at multiple levels, beginning with individual battery
13 cells and components and extending through the modules, skids, and overall battery
14 system, power-conversion equipment, integrated energy storage system, and site-specific
15 installation.

16 The principal standards applicable to the proposed BESS include (latest versions):

- 17 • Underwriters Laboratories ("UL") 1642, Standard for Lithium Batteries,
18 which addresses safety testing of individual lithium battery cells.
- 19 • UL 1973, Batteries for Use in Stationary, Vehicle Auxiliary Power, and
20 Light Electric Rail Applications, which applies to battery systems used in
21 stationary energy storage applications. Ameren Missouri's BESS safety
22 specifications require the procured battery equipment to be listed to UL
23 1973.

- 1 • UL 1741, Standard for Inverters, Converters, Controllers, and
2 Interconnection System Equipment for Use with Distributed Energy
3 Resources, which applies to the power-conversion and interconnection
4 equipment used to transfer electricity between the batteries and the electric
5 grid.
 - 6 • UL 9540, Standard for Energy Storage Systems and Equipment, which
7 evaluates the energy storage system as an integrated assembly rather than
8 evaluating only its individual components. The standard addresses how the
9 batteries, power-conversion system, controls, protective systems, and
10 related subsystems function together to assure safe operation.
 - 11 • UL 9540A, Test Method for Evaluating Thermal Runaway Fire Propagation
12 in Battery Energy Storage Systems, which provides test data regarding how
13 a BESS behaves when thermal runaway is deliberately initiated. Testing is
14 performed at the cell, module, and unit levels, with the unit-level test
15 evaluating the full battery skid or enclosure. The testing evaluates matters
16 such as heat release, flammable gas generation, fire propagation, and the
17 potential effects on adjacent equipment. Unlike a paper-only engineering
18 review, UL 9540A involves physical testing under intentionally induced
19 failure conditions.
- 20 Ameren Missouri's BESS safety specifications require UL 9540A testing at the
21 cell, module, and unit levels. The testing proceeds through those levels to evaluate whether
22 a thermal runaway event can propagate from a cell to a module, through a battery unit, or
23 potentially to adjacent equipment. Based on the hazard-analysis information for the Tesla

1 Megapack 2 XL, which is similar to the equipment proposed for these projects, UL 9540A
2 testing was performed at the cell, module, and unit levels. During the unit-level test,
3 thermal runaway was *intentionally initiated* within the tested unit. **

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17 In addition to equipment-level listing and testing, Ameren Missouri requires the
18 completed installation to be designed in accordance with the applicable provisions of the
19 National Fire Protection Association ("NFPA") standard 855, the Standard for the
20 Installation of Stationary Energy Storage Systems, and the applicable International Fire
21 Code requirements. These installation-level requirements address such matters as
22 equipment layout and separation, fire and gas detection, ventilation, explosion or

⁷ See Report referenced in the Company's response to DR MPSC 0103 in this case and provided in response to DR MPSC 0024 in File No. EA-2025-0238.

1 deflagration protection, emergency response planning, commissioning, and review by the
2 applicable Authority Having Jurisdiction. The 2024 International Fire Code states that
3 energy storage systems regulated by Section 1207 must comply with the applicable
4 provisions of its energy-systems chapter and NFPA 855.

5 Ameren Missouri also requires a project-specific Hazard Mitigation Analysis that
6 addresses both the selected battery equipment and the overall project installation. The
7 Company's specifications require that analysis to be performed by a firm independent of
8 the engineering, procurement, and construction contractor and the fire-alarm system
9 engineer of record. The analysis includes consideration of applicable codes and standards,
10 the explosion-control system, identified failure modes, and the protective measures
11 incorporated into the particular project design. Such analysis will be completed as part of
12 the design process and prior to the delivery of the BESS equipment to site, for each of the
13 proposed BESS Projects.

14 These safety requirements are applied as Ameren Missouri project requirements,
15 regardless of whether the jurisdiction in which a BESS Project is located, has adopted less
16 restrictive requirements. Accordingly, the Company does not rely solely on the minimum
17 requirements of a particular local ordinance. It requires recognized equipment standards,
18 physical fire-propagation testing, engineering review, a project-specific Hazard Mitigation
19 Analysis, and compliance with the applicable NFPA 855 and International Fire Code
20 provisions. Together, these requirements provide multiple layers of protection intended to
21 detect abnormal conditions, isolate affected equipment, limit propagation, protect
22 neighboring equipment and property, and support an informed emergency response.

1 **Q. What if the BESS system did catch fire, what measures is the Company**
2 **putting in place to prevent fire propagation/spread?**

3 A. First, it is important to recognize that preventing fire propagation is a
4 fundamental design requirement of the BESS equipment selected by the Company. The
5 battery systems must comply with UL 9540A testing requirements, which evaluate thermal
6 runaway and fire propagation under severe failure scenarios. As explained above, available
7 testing and hazard mitigation analyses for similar systems demonstrate that thermal
8 runaway can be contained within the affected unit and that propagation to adjacent units is
9 not expected when the systems are installed in accordance with applicable design
10 requirements. Additional destructive testing has also been performed to evaluate more
11 severe failure scenarios and the potential for propagation between units.

12 Second, Ameren Missouri is not relying solely on equipment testing nor minimum
13 code requirements. The Company has voluntarily adopted additional safety measures that
14 exceed manufacturer recommendations and industry standards to provide an additional
15 margin of protection for surrounding communities. The BESS Projects are being designed
16 with conservative setbacks from neighboring properties and occupied structures. For
17 example, the Company has committed to a 500-foot setback between BESS equipment and
18 habitable structures on non-participating properties. In practice, the separation is even
19 greater at several project locations. The Millcreek BESS site is approximately 1,500 feet
20 from the nearest occupied building, while the Huck Finn BESS site is also located in a
21 remote area and adjacent to existing gas generation facilities. The Castle Bluff BESS
22 project is situated within the large footprint of the former Meramec Energy Center, creating
23 a substantial buffer between the BESS equipment and surrounding structures.

1 Third, Ameren Missouri has significantly increased the spacing between battery
2 containers beyond the manufacturer's recommended minimums. Ameren Missouri is
3 requiring approximately 16 feet of separation between containers in both side-to-side and
4 front-to-front orientations, as well as a 25-foot buffer between feeder groups. These
5 enhanced separation distances were intentionally selected to provide additional protection
6 against propagation and to further limit the size and extent of a potential event.

7 Fourth, the Company requires a site-specific Hazard Mitigation Analysis for each
8 project that evaluates the actual equipment, site layout, separation distances, and protective
9 systems for the installation. These analyses are performed in accordance with NFPA 855
10 and applicable fire code requirements and are reviewed as part of the project design and
11 construction process.

12 Fifth, the Company develops project-specific emergency response plans,
13 coordinates with local first responders, and offers safety training to local first responders
14 prior to commencing operation of the BESS project.

15 As a result, the Company's approach does not depend on any single layer of
16 prevention or mitigation. Instead, community safety is promoted through multiple
17 independent safeguards, including tested battery technology, fire-propagation-resistant
18 equipment design, conservative project siting, enhanced setbacks from neighboring
19 properties, expanded spacing between battery units, site-specific hazard analyses, and
20 emergency response planning. Taken together, these measures provide a level of protection
21 that goes well beyond the minimum requirements necessary to construct and operate a
22 BESS facility and are intended to ensure that any potential event remains localized and

1 does not pose a threat to local first responders, Ameren Missouri coworkers, and the
2 surrounding community.

3 **Q. What has the Company done to prepare local fire departments in case**
4 **of an emergency at the Millcreek BESS Project site?**

5 A. The Company has met with, and continues to engage with, local fire
6 departments, emergency management personnel, and first responders regarding all the
7 BESS Projects proposed in this case. To date, the Company has met with representatives
8 of the Northwest Fire Protection District — the lead fire district for the Millcreek BESS
9 Project — to review general BESS equipment and begin coordinating emergency response
10 planning. Additional meetings are scheduled with the Eolia Fire Protection District and
11 with Lincoln County Fire Rescue and Emergency Management personnel to further review
12 Millcreek BEES Project-specific safety measures and emergency response procedures.

13 Ameren Missouri's approach is not limited to compliance with applicable codes and
14 standards. The Company works directly with local emergency responders throughout the
15 design and construction process to ensure they are familiar with the facility, understand the
16 installed safety systems, and have access to project-specific emergency response
17 information before the facility enters operation. The Company's plans to provide safety
18 documentation, facility tours, responder training, and ongoing coordination with local
19 agencies. In addition, Ameren Missouri has committed to supplying reasonable project-
20 specific equipment identified by local responders as part of the emergency planning
21 process. Emergency response planning is developed in conjunction with local responders
22 and incorporates industry best practices, site-specific hazard analyses, and the safety
23 features of the installed equipment.

1 Current industry guidance for a battery fire event generally emphasizes a defensive
2 approach by securing the area, protecting exposures, and preventing propagation rather
3 than requiring an offensive approach of directly engaging the battery equipment. As a
4 result, the response strategy is designed to reduce risk to emergency personnel while
5 allowing the facility's engineered safety systems, separation distances, and containment
6 features to perform as intended. Through extensive equipment testing, site-specific hazard
7 mitigation analyses, coordination with local responders, training, emergency planning, and
8 additional safety commitments beyond minimum code requirements, Ameren Missouri has
9 taken a comprehensive and layered approach to safety for first responders, Ameren
10 Missouri coworkers, and the surrounding community.

11 **Q. What is the Company doing to make sure there is proper water supply**
12 **available should the fire department need it for a defensive fire response?**

13 A. The Company will maintain an approximately 30,000-gallon water storage
14 tank on-site to support emergency response activities at the Millcreek BESS Project. For
15 the other BESS sites, the Company will either provide similar on-site water storage tanks
16 or utilize water from existing Ameren Missouri natural gas energy centers located adjacent
17 to those sites. This dedicated water supply reduces the need for local fire departments to
18 transport water to the facility and provides an immediately available source of water for
19 defensive firefighting operations. In the unlikely event of a battery fire, the water supply
20 can be used to cool adjacent equipment and surrounding exposures, helping to prevent fire
21 propagation and maintain the event within the affected area. This additional measure is part
22 of the Company's layered safety approach designed to support first responders and Ameren
23 Missouri coworkers and enhance protection of the surrounding community.

1 **Q. Are the BESS sites designed to prevent environmental impacts like**
2 **water run-off?**

3 A. Yes. The site design includes stormwater management and containment
4 measures intended to protect nearby properties, waterways and the surrounding
5 environment by keeping water and runoff managed on Company property. Each BESS site
6 is being designed to meet or exceed applicable local requirements and provide added
7 safeguards to further promote safe operations, even under emergency conditions. Some
8 design features to manage potential runoff from the site during an emergency include
9 containment barriers designed within or around the battery and transformer equipment.
10 Furthermore, the entire site will include multiple detention basins designed to collect, test
11 and manage runoff, so water remains controlled on-site during both normal operations and
12 emergency event conditions.

13 **Q. Have environmental studies have been conducted for the BESS**
14 **Projects?**

15 A. Yes. As the Company explained in the *Notice of Public Filing of*
16 *Environmental Studies for the Millcreek BESS Project and Information Regarding Battery*
17 *Energy Storage System Fire Safety in Advance of Additional Local Public. Hearing*
18 *Scheduled for August 26, 2026* filed on August 21, 2026 ("*Informational Notice*"), Ameren
19 Missouri used experienced consultants to complete environmental reviews of the BESS
20 Projects. For the Millcreek BESS Project, the Company conducted a Phase I Environmental
21 Site Assessment, a Waters Delineation Report, and a Flood Study. These reviews help
22 ensure the project is being designed responsibly, with appropriate consideration for land,

1 water, wildlife, and long-term site conditions. Overall, the findings from these reviews did
2 not identify significant environmental barriers to development.

3 Regarding potential endangered bats at the Millcreek BESS Project site
4 (encountering endangered bats from Spring to Fall is common across much of Missouri),
5 Ameren Missouri has coordinated with the U.S. Fish and Wildlife Service (“USFWS”)
6 regarding potential endangered species in the area. Based on those USFWS consultations,
7 the only necessary steps related to endangered species at the project are to manage tree
8 clearing necessary to construct the entrance road to the facility at times when endangered
9 bats are not present. Ameren Missouri will follow the appropriate protocols to avoid
10 impacting endangered bats.

11 **Q. Noise was also brought up at the LPH as a potential concern. Do the**
12 **BESS emit noise?**

13 A. The BESS Projects are not expected to create significant noise impacts for
14 the surrounding community. The primary source of operational noise from a type of system
15 to be installed is the rooftop cooling fans that are used as part of the thermal management
16 system. According to the battery manufacturer's specifications, the maximum noise level
17 for an individual unit is approximately 69 to 71 dB(A) when measured just 33 feet from
18 the unit under maximum thermal operating conditions. The manufacturer further notes that
19 these maximum noise levels generally occur only under specific operating conditions and
20 that, for the majority of the time, actual noise levels are substantially lower.

21 Importantly, the battery equipment will be located hundreds to thousands of feet
22 from the nearest residences and other occupied structures. Because sound levels diminish
23 substantially with distance, these significant setback distances provide meaningful

1 attenuation before any operational noise reaches neighboring properties. Additionally, the
2 Millcreek BESS Project is located adjacent to U.S. Highway 61, a heavily traveled
3 transportation corridor that already contributes to the existing ambient sound environment.
4 As a result, the minimal operational noise from the Millcreek BESS Project is expected to
5 be far less than the existing background noise levels and have little, if any, noticeable effect
6 on the surrounding community.

7 **Q. Does this conclude your Surrebuttal Testimony?**

8 A. Yes, it does.

In the Matter of the Application of Union Electric)
Company d/b/a Ameren Missouri for Permission and)
Approval and Certificates of Public Convenience and)
Necessity Authorizing it to Construct Renewable) File No.: EA-2026-0183
Generation Facility and Battery Energy Storage)
Systems.)

[illegible]

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



Scott Wibbenmeyer

Sworn to me this 4th day of September 2026.