CONFIDENTIAL DESIGNATIONS

The Empire District Electric Company d/b/a Liberty

EA-2025-0299

RE: Confidential Portions of Shaen T. Rooney's Surrebuttal Testimony

The information provided is designated "Confidential" in accordance with Commission Rule 20 CSR 4240-2.135(2)(A)3-6, as the testimony: contains market specific information related to services offered in competition with others and/or related to goods or services used for providing services to customers; strategies employed, to be employed, or under consideration in contract negotiations; and documentation related to work produced by internal or external consultants and attorneys. The confidentiality shall be maintained consistent with that Rule and/or Section 386.480 RSMo., as the case may be.

Exhibit No.: _____
Issue(s): Site and Equipment Selection
Witness: Shaen T. Rooney
Type of Exhibit: Surrebuttal Testimony
Sponsoring Party: The Empire District Electric Company d/b/a Liberty
Case No.: EA-2025-0299
Date Testimony Prepared: May 2026

Before the Public Service Commission
of the State of Missouri

Surrebuttal Testimony

of

Shaen T. Rooney

on behalf of

The Empire District Electric Company d/b/a Liberty

May 27, 2026

DENOTES CONFIDENTIAL
20 CSR 4240-2.135(2)(A)3, 5, 6

PUBLIC VERSION

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THE EMPIRE DISTRICT ELECTRIC COMPANY D/B/A LIBERTY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. EA-2025-0299

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Shaen T. Rooney. My business address is 602 South Joplin Avenue, Joplin, Missouri.

Q. Are you the same Shaen T. Rooney who provided direst and supplemental direct testimony in this matter on behalf of The Empire District Electric Company d/b/a Liberty ("Liberty" or the "Company)?

A. Yes.

Q. What is the purpose of your surrebuttal testimony in this proceeding?

A. The purpose of my testimony is to respond to certain issues raised in rebuttal testimony filed by the Office of Public Counsel ("OPC") and Missouri Public Commission Staff ("Staff"). These issues include the status of air permitting, the procurement of the combustion turbine, the development of project cost estimates, contractual risk mitigation and exit provisions, and conditions proposed to approval of the Company's CCN request.

II. AIR PERMITTING STATUS

Q. Has OPC raised concerns regarding the status and timing of air permitting for the project?

A. Yes. Public Counsel witness Jill Wade raises concerns that timing of the PSD permit could affect the construction schedule if not managed appropriately.

Q. What is the permit requirement?

A. The Company will be required to obtain a Prevention of Significant Deterioration ("PSD") air construction permit prior to commencement of construction. This was a known project requirement from the beginning, and obtaining the permit was contemplated and included within the Company's project development schedule.

Q. What is the process and duration of that process for the PSD permit?

A. Ms. Wade details thoroughly in her rebuttal testimony from page 2, line 10 – page 3, line 2. The process includes a required preapplication meeting, submission of the application package and fee, completeness review, technical review, draft permit, public notice, response to comments and final issuance. Ms. Wade further testified that once the application is deemed complete, the review period is set by statute at 184 calendar days, although that review may pause if the agency is awaiting applicant information. Ms. Wade stated that in her experience, a reasonable timeframe for permit issuance is between six months and one year. This testimony on the process from Ms. Wade is consistent with my knowledge and understanding of the process.

Q. Does Ms. Wade address when construction must begin after the permit is issued?

A. Yes. On page 3, lines 10-13 of her rebuttal testimony, Ms. Wade testified that for the permit to remain effective, the Company must commence construction within eighteen months of receiving the permit and, once construction has begun, may not suspend work for more than eighteen months without an extension.

Q. Does Ms. Wade address the effect of permitting delay?

A. Yes. On page 3, lines 14-16 of her rebuttal testimony, Ms. Wade testified that delay in obtaining the permit could delay construction, increase costs, and ultimately delay startup of the facility.

Q. Does Ms. Wade's testimony establish that permitting cannot be completed in time for the project?

A. It does not. It establishes that permitting is a real project requirement that must be managed. It does not establish that the Company is unable to complete permitting within the project development schedule.

Q. How is permitting incorporated into the project development schedule?

A. The project is being developed through a coordinated set of parallel workstreams, including engineering, procurement, and permitting. Permitting is not the initial step in that sequence but rather proceeds in coordination with those activities based on the availability of project-specific design inputs.

Q. Why does permitting follow that sequence?

A. The PSD permit application depends on detailed project information, including the selected turbine configuration, site layout, and emissions characteristics. Those inputs are developed through engineering and procurement activities. As a result, permitting is initiated once those inputs are sufficiently defined, rather than at the earlier stage of project development.

Q. Does the project schedule include sufficient time to complete permitting before construction begins?

A. Yes. There is a defined interval between completion of key engineering milestones and the planned start of continuous construction in October 2028. That interval provides sufficient time for permitting to be completed without affecting construction activities.

Q. Is the PSD permit on the critical path for the project?

A. No. Permitting is conducted in parallel with other development activities and is not the initial gating activity for the project.

Q. What is the Company's position regarding permitting and schedule risk?

A. Permitting is a managed element of the project development process that proceeds in coordination with engineering and procurement. The schedule aligns permitting completion with the planned start of continuous construction in October 2028 and provides sufficient duration to satisfy all applicable requirements. As such, permitting does not present a risk to the project schedule.

III. PROCUREMENT APPROACH AND TECHNOLOGY SELECTION

Q. Have OPC and Staff raised concerns regarding procurement of major equipment for the project?

A. Yes.

Q. Is there any basis for those concerns?

A. While the Company understands the concerns that have been raised about the escalation of market prices for the equipment necessary for this project, it is an industry-wide phenomenon and not unique to this project. As described in my Supplemental Direct Testimony, the Company pivoted to an approach that would both meet the non-negotiable project schedule to bring the necessary capacity online in the required time frame and provide a source of the necessary equipment while managing execution risk through performance protections in the proposed term sheet. OPC witness Robinett acknowledges that it was prudent for the Company to utilize the ERAS process to add this resource, which is the primary driver of the timing pressures of the project.

Q. Have OPC and Staff specifically raised concerns regarding the selection of an F-class turbine rather than a J-class turbine?

A. Yes.

Q. What was the Company's basis for selecting an F-class turbine rather than a J-class turbine?

A. The Company's selection of the F-class turbine is based on the combination of total project cost, timing of capacity need, and interconnection considerations. The selection was not based on cost per kilowatt alone.

Q. Can you explain the cost considerations in more detail?

A. Yes. As stated in my response to Staff data request 0069, while the J-class turbine is estimated to have a lower cost per kilowatt, it is associated with a significantly larger nameplate capacity – approximately 75% greater than the F-class unit. Because of that difference in size, the total project cost associated with the J-class configuration is materially higher – approximately 60% higher than the F-class configuration.

Q. How did the Company evaluate that increased capacity?

A. The Company evaluated that capacity in the context of its 2025 IRP Preferred Plan. That evaluation indicates that a portion of the capacity associated with a J-class turbine would be installed several years in advance of the identified system need.

Q. Why is that relevant?

A. Installing capacity ahead of need results in customers bearing the costs of that capacity before the system requires it. The Company determined that such an outcome would not align with affordability considerations given current firm load levels.

Q. How does the Company respond to the significance OPC places on selection of the J-class turbine based on it having the lowest cost per kilowatt?

A. The Company does not evaluate resource selection based on cost per kilowatt in isolation. Cost per kilowatt is one data point, but it does not capture the total economic or system impacts of a resource decision.

Q. Why is cost per kilowatt insufficient as a primary decision metric?

A. Cost per kilowatt does not account for differences in unit size, total capital investment, or whether the capacity being installed corresponds to an identified need. In this case, focusing solely on cost per kilowatt would ignore the higher total project cost associated with the larger unit and the timing mismatch between installed capacity and system requirements.

Q. How does unit size affect the comparison between the F-class and J-class turbines?

A. The larger size of the J-class turbine results in a higher overall capital investment despite the lower cost per kilowatt. That increased investment is driven by installing substantially more capacity than is needed in the near term.

Q. What is the impact of installing excess capacity?

A. The impact is that customers would incur higher near-term costs for capacity that may not provide incremental value during that period.

Q. Does a lower cost per kilowatt comparison reflect that impact?

A. No – a cost per kilowatt comparison does not capture timing, total cost, or rate impacts associated with excess capacity.

Q. Did the Company perform any other analysis that factored into selection of the F-class rather than the J-class turbine?

A. Yes, the Company also evaluated the potential impacts of interconnecting different generation capacities at various points of interconnection, including at the Company's State Line substation.

Q. What did that evaluation show?

A. The Company's site-specific analysis indicates that generation output above approximately 308 megawatts at the State Line substation would likely trigger the need for transmission network upgrades.

Q. How does that generation output compare to the output of a J-class turbine?

A. It is less than the expected output of a J-class turbine. The output of the J-class turbine evaluated in the Company's analysis is approximately 412 megawatts, which exceeds the threshold of 308 megawatts and increases the likelihood that transmission network upgrades would be required.

Q. What are the implications of that?

A. If transmission network upgrades were required, the project would have increased transmission capital costs, increased schedule risk, and potential operational limitations until upgrades are completed.

Q. Are the increases in price and procurement lead time limited to F-class turbines?

A. No. Available information indicates that extended lead times and price increases apply broadly across the gas turbine market and are not unique to F-class units. For example, industry sources report that lead times for large gas turbines – across technologies – have extended to approximately five years or more due to widespread supply chain constraints. These conditions are driven by common limitations in manufacturing capacity and component availability that affect all heavy-duty combustion turbines regardless of class.

Q. Would the selection of a J-class turbine have mitigated those market conditions?

A. No, it would not. Because the underlying drivers of price escalation and extended lead times are common across turbine technologies, selection of a J-class turbine would not have avoided or reduced those procurement constraints. Industry information confirms

that multiple turbine classes are subject to the same supply chain limitations and extended delivery timelines.

Q. In summary, what was the Company's basis for selecting the F-class turbine?

A. The F-class turbine was selected because it aligns with the timing of identified capacity needs, avoids the higher near-term costs associated with installing excess capacity in advance of need, and can be interconnected without introducing additional transmission upgrade risks identified for the larger J-class configuration. For further discussion on why the Company selected the F-class turbine versus the larger J-class turbine, please refer to Mr. Aaron J. Doll's surrebuttal testimony.

IV. PROJECT COST DEVELOPMENT

Q. Have OPC and Staff addressed changes in the Company's project cost estimates?

A. Yes, both OPC and Staff have raised questions regarding the evolution of the Company's cost estimates between earlier planning assumptions and the estimates reflected in my Supplemental Direct Testimony.

Q. Have the Company's cost estimates for the project changed over time?

A. Yes. The Company's current estimate reflects updated information relative to earlier planning-level estimates.

Q. Can you explain how those cost estimates were developed?

A. Yes. The cost estimates reflected in my Supplemental Direct Testimony are based upon updated project-specific inputs, including market conditions and refinement of project scope elements as the Project has progressed through development.

Q. What are the primary factors contributing to the updated cost estimate?

A. As reflected in my Supplemental Direct Testimony, the updated estimate incorporated additional project cost components that are not fully captured in early screening-level

estimates, including owner's costs, overheads, and Allowance for Funds Used During Construction ("AFUDC"). The updated estimate also includes contingency to account for uncertainty associated with project development, specifically potential permitting outcomes.

Q. How should the inclusion of contingency be understood?

A. Contingency is included to reflect uncertainty inherent in project development at this stage. It does not establish that those costs will be incurred. Rather, it reflects a reasonable planning assumption to ensure that potential outcomes are appropriately considered.

Q. Does the updated cost estimate reflect a change in project scope?

A. No. The updated cost estimate reflects the refined assumptions and more complete information. It does not reflect a fundamental change in the scope of the project.

Q. How should earlier cost estimates be understood in comparison to the current estimate?

A. Earlier estimates were based on planning-level assumptions developed for screening and evaluation purposes. As the project has progressed and more detailed information has become available, the estimates have been updated to reflect those inputs. That progression is consistent with standard project development practice and thus is not unusual or an indication of imprudence.

Q. Do OPC or Staff identify any specific component of the updated estimate as unsupported?

A. The concerns raised generally relate to the fact of change rather than identification of a specific unsupported cost element.

Q. What is the Company's position regarding cost development?

A. The Company's cost estimate reflects updated market conditions and more complete project-specific information. The inclusion of contingency reflects uncertainty, not necessarily cost, and the overall estimate does not represent a change in project scope.

V. CONTRACTUAL STRUCTURE AND RISK MITIGATION

Q. Have OPC witnesses raised concerns regarding the contractual structure and risk allocation for the project?

A. Yes.

Q. Can you describe the contractual structure?

A. **[redacted]**

Q. How should that structure be understood?

A. That structure reflects the procurement approach available under current market conditions, including supply constraints and timing requirements associated with the project. It provides a mechanism to secure equipment and advance development activities in a manner consistent with project schedule requirements.

Q. Does the agreement include provisions to mitigate risk?

A. **[redacted]** This confidential term sheet was provided to the parties for review.

Q. What are those mitigation provisions?

A. **[redacted]**

- [redacted]

- [redacted]
- [redacted]

[redacted]**

Q. Have final EPC contract terms been executed?

A. **[redacted]**

Q. **[redacted]

A. **[redacted]

[redacted]**

Q. Have OPC or Staff identified specific contractual risks that are not addressed?

A. The concerns raised are general in nature. The current contractual structure includes provisions designed to address cost, schedule, and performance risks to the extent appropriate at this stage of development.

VI. PROPOSED CONDITIONS

Q. Have Staff and OPC proposed a series of conditions associated with approval of the Company's CCN request?

A. Yes, those parties proposed a number of conditions relating to project reporting, procurement transparency, construction monitoring, cost controls, permitting, and future planning obligations.

Q. Does the Company have suggested changes/modifications to the proposed conditions?

A. Yes, the Company has developed a set of clarified, and, where appropriate, revised conditions. These conditions are intended to:

- align reporting obligations with the project's development phase and scheduling;
- clarify the scope and frequency of reporting;

- clarify the in-service criteria as outlined in Schedule 7.2; and
- maintain necessary and commercially reasonable flexibility during procurement and contracting.

Q. Does the Company object to the concept of reporting or oversight conditions?

A. No. The Company acknowledges that reporting and oversight conditions are appropriate for a project of this size and complexity and intends to provide regular updates regarding procurement, construction progress, project costs, permitting, and related matters.

Q. What changes/modifications does the Company propose related to reporting or oversight conditions?

A. The Company generally agrees with the reporting obligations but requests that the frequency be on a quarterly basis versus monthly basis. Quarterly reporting aligns with previous CCN docket reporting requirements and would be a better use of limited resources while still fulfilling the objectives of the proposed conditions. Additionally, the Company proposes the reporting conditions include start and end dates to provide certainty and avoid misunderstandings.

Q. What clarification would the Company suggest to the in-service criteria outlined in Staff's Schedule 7.2?

A. The Company would clarify that for Item 6 within Schedule 7.2 the unit shall demonstrate a controlled transition from full load to minimum load followed by an orderly shut-down.

Q. How would the Company suggest the condition be framed pertaining to the recommendations from Dr. Geoff Marke related to securing specific exit provisions within the final Engineering, Procurement Contract ("EPC")?

A. The Company would propose the condition to be that the Company will negotiate to include customary termination provisions in the final EPC contract, including termination for convenience and termination for cause consistent with standard industry practice.

VII. CONCLUSION

Q. Do the issues raised by the parties in their rebuttal testimony alter the Company's position regarding the project?

A. No. The issues raised in the parties' rebuttal testimony does not alter the Company's position as reflected in its Direct and Supplemental Direct Testimony. This project is necessary to meet an identified capacity shortfall, and as Staff testimony indicates, "...the project is needed to support Empire's resource adequacy obligations...Empire is qualified to construct and operate the project, has the financial ability to undertake it, and...the project is likely economically feasible..." Staff Testimony, p. 1.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

VERIFICATION

I, Shaen T. Rooney, under penalty of perjury, on this 27th day of May, 2026, declare that the foregoing is true and correct to the best of my knowledge and belief.

/s/ Shaen T. Rooney