

8.1 Reliability Criteria Project Evaluation

8.1.1 Initial Review and Screening

Following submittal of project proposals through an open proposal solicitation process, PJM performs a preliminary analytical quality assessment of the project proposals received.

The following factors will be used to perform the initial review and screening of reliability project submissions. The initial review will utilize data and information that is provided by the project sponsors as part of their project proposal:

- Initial Performance Review – PJM will evaluate whether or not the project proposal solves the required reliability criteria drivers that were posted as part of the open solicitation process. Competing projects may be organized into logical groups that share comparable scope and cost. Generally, project proposals will pass the initial reliability performance review if they demonstrate acceptable system performance and do not exhibit or trigger any additional problems for the initial power flow, short circuit or dynamic stability tests, as applicable. If a proposal does not pass the initial performance review, it will not be recommended based on the current submission.
- Initial Planning Level Cost Review – PJM will review the submitted project cost by the project sponsor as well as any cost cap or cost containment mechanisms that are relevant to the project proposal. For the purpose of evaluation, competing projects may be organized into logical groups that address similar criteria violations. Project cost estimates and scope will be evaluated for reasonableness based on projects of similar scope and magnitude.
- Initial Feasibility Review – PJM will review the overall proposed implementation plan and determine if the project, as proposed, can feasibly be constructed. The initial feasibility review may consider physical aspects, permitting, required approvals and overall timing.

Using the information obtained through the initial review, PJM will select project proposals to perform a detailed review.

PJM will regularly retool its analysis based on updated system information to ensure that solutions address the identified violations, do not cause any new violations (such as thermal, reactive, short circuit or stability) and are still needed to address reliability criteria and/or market efficiency criteria. PJM retains the right to select the more efficient or cost effective project to address the violation/constraint/issue.

8.1.2 Detailed Proposal Review

As part of the detailed proposal review, PJM will perform a review of primary considerations focusing on violation mitigation. These primary considerations will include:

- Conformance to Reliability Standards - NERC, RFC, SERC - thermal, voltage and stability

- PJM Reliability Requirements, from the PJM Reliability and Adequacy Agreements – Load Deliverability, Generator Deliverability, Light Load Reliability Criteria, 15 Year Analysis, Short Circuit analysis, Transmission Owner Criteria
- Industry practices and generally acceptable methods

In performing this review, PJM will utilize both the system models that the project sponsors provided and PJM models developed independently. If PJM analysis determines that a proposal does not meet the primary considerations, the proposal will not be recommended based on the current submission.

- Detailed Performance Review – PJM will examine the selected proposals for performance with respect to all performance criteria that proposals are anticipated to impact. PJM will potentially evaluate any applicable criteria that may impact the performance measurement of the project even if it was not explicitly stated as part of the original problem statement. This is in contrast to the initial screening review that only examined the analysis that was performed by the project sponsors.
- Detailed Planning Level Cost Review – PJM will perform a review of the total project cost, including review of cost estimates submitted by the project sponsor and review of cost estimates that may be provided for upgrade work related to the proposed project which would be performed by the affected incumbent Transmission Owner(s). For this review, PJM may validate the total project costs through the use of an independent consultant, internal resources or combination of both as necessary. PJM will also evaluate the benefit of any cost caps or cost containment mechanisms and may engage an independent consultant to assess the potential benefit of any cost caps or cost containment/commitment.
- Detailed Feasibility Review – PJM may perform an in-depth review of the constructability of the project. This review will typically include an evaluation of project scope, complexity and constructability factors that impact the project cost and/or schedule including but not limited to right-of-way acquisition, land acquisition, siting and permitting requirements, project complexity, project coordination complexity, outage coordination and project schedule.

8.1.3 Decisional Process

When multiple proposals pass the primary considerations PJM will determine the relevancy of a set of additional considerations that inform the decision to identify the more efficient or cost effective project to address the issue. After determining which considerations are relevant to a given evaluation, PJM will identify the differentiating factors among the proposals under evaluation.

Considerations that inform decisions:

- Cost, Cost Cap or Cost Containment Mechanism
 - Cost cap commitment proposals are voluntary. Although the submission of cost cap proposals could, in certain circumstances, prove beneficial, cost cap proposals

do not substitute for the need for a given proposal to meet PJM's technical specifications concerning the proposal and its ability to address the need which gave rise to the competitive solicitation.

o PJM's analysis of cost cap commitment proposals will be limited to an analysis of proposals seeking to cap the costs of bringing the proposed project into service including construction costs, siting costs and testing costs.

o In analyzing any proposed cost cap and exclusions to a cost cap, PJM will assess the likelihood and consequence of project execution risk factors listed below and impact of the cost cap commitment.

- Cost Estimate Review
- Grid Resilience/Performance
 - o Transfer Capability – to what degree are the transfer capabilities to/from and within PJM increased or decreased?
 - o Coordination with other entities – does the proposal enhance or diminish reliability in another neighboring system?
 - o Operational Performance – are there other impacts or benefits to operations performance?
 - o Grid Resilience – does the proposal enhance grid resilience through increased redundancy or operational flexibility?
 - o Industry practices and generally acceptable methods
 - o Route Diversity – does the proposal include an additional diverse route that provides enhanced flexibility?
- Reliability Margin
 - o Consideration of the margin the proposal allows before the facility will hit the next limit
 - o Project Longevity - How many years into the future is a solution alternative expected to be effective?
 - o What are the future risk factors? - Additional load, generation deactivation, additional transmission, future NERC standards, generation or merchant interconnection, impacts to the existing projects?
- Project Execution Risk/Schedule/Timing
 - o Environmental impact risks
 - o Project Complexity
 - o Impact to existing facilities
 - o Technology Considerations – Is technology proven?
 - o Schedule - Time to construct and feasibility of the schedule
 - o Siting and Permitting Risks
 - o Right-of-Way (ROW) and land acquisition– Is new ROW/land required?
 - o Physical constraints
 - o Outage Impacts – What outages are needed, how long, and what are impacts to system?
- Sensitivity Analysis

8.1.4 Company Evaluation

- In parallel to the analytical evaluation, PJM will perform a planning level company evaluation to ensure that the proposing entity possesses the ability to design, construct, own, operate and maintain the proposed solution. Considerations reviewed in this evaluation include, but is not limited to:
 - Project Specific Scope
 - Company Experience and Capability
 - Project Execution Plan
 - Project Operations and Maintenance Plan

8.1.5 Project Recommendation

PJM will present to the TEAC the findings from the technical analysis performed and any other constructability or independent evaluations of the proposed alternatives and the recommended solutions. As part of the project recommendation process, PJM will present a preliminary recommendation at a TEAC meeting and then a final recommendation at a subsequent TEAC meeting. Stakeholders will be provided the opportunity to comment and ask questions about all aspects of the proposal review process and recommended projects. Subsequently, PJM will formalize the recommendation of the projects presented to the PJM Board of Managers for ultimate approval.

After PJM Board of Managers approval, there are many follow-up steps to the PJM process. These include, but are not limited to, completing the Designated Entity Agreement and acceptance of construction responsibility. Cost containment language shall be included in the Designated Entity Agreement as a non-standard term and filed with FERC.

–Prudency review shall be exclusively through FERC ratemaking process.

Schedule E Non-Standard Terms and Conditions of the DEA shall contain the proposed cost cap language submitted by the Designated Entity, subject to any language modifications or clarifications that proved necessary as a result of stakeholder input or PJM’s analysis during the evaluation process. If the Designated Entity commits to capping project construction costs or any other aspect related to revenue recovery for the Project, the following additional language shall also be included in the Schedule E - Non-Standard Terms and Conditions of the Designated Entity Agreement:

o Inclusion of the cost cap in the Designated Entity Agreement is not intended to preempt the right of any party to seek modifications to be ordered by the Commission or otherwise challenge the recovery of costs through the FERC ratemaking process.

o If at any time the Designated Entity becomes aware that the cost cap may be exceeded, the Designated Entity shall notify PJM in writing within a reasonable time after the Designated Entity becomes aware of a condition that would result in (i) the cost cap being exceeded or (ii) triggering

any exclusions to the cost cap. PJM, in turn, will communicate such information to stakeholders via notice posted on PJM's website and to FERC by written notice.