Overview of the PJM Order 1000 Project Selection Process

Purpose

The purpose of this document is to outline the process by which projects submitted as part of a proposal window are evaluated and selected for inclusion into the Regional Transmission Expansion Plan (RTEP).

Background

FERC requires entities like PJM to establish open, transparent planning processes in order to ensure a reliable transmission system while ensuring that needed transmission investments are just and reasonable. Through the issuance of Orders 890 and 1000, FERC is requiring that transmission planners develop and implement processes to accomplish the following main objectives:

> (1) Ensure that transmission planning processes at the regional level consider and evaluate, on a non-discriminatory basis, possible transmission alternatives and produce a transmission plan that can meet transmission needs more efficiently and cost-effectively; and

> (2) Ensure that the costs of transmission solutions chosen to meet regional transmission needs are allocated fairly to those who receive benefits from them.[1]

PJM submitted filings in the Order 890 and 1000 dockets which describe how PJM will provide analysis to support the creation of project proposals by developers to address reliability violations identified by PJM. Those detailed requirements are contained in revised OATT language, section 1.5.8, that was submitted, and subsequently approved by FERC, in the Order 1000 docket.

Project Selection Process

The following aspects of the submitted proposals will be assessed against a variety of criteria (see Appendix 1), but the process will generally occur in the following sequence:

Step 1 -- Technical Evaluation

PJM will assess submitted proposals to determine that the proposal, as submitted, will resolve the reliability violation(s) identified in the RTEP proposal window documents and not create any additional reliability violations. In the case of energy efficiency proposals, the proposal will address the market efficiency need without creating a new congestion problem in another location or triggering new reliability violations. Resolving the reliability violation(s) in this context means that the submitted project will result in all transmission facilities being within

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[1] FERC Order No. 1000, dated July 21, 2011, p. 10

acceptable limits for all case scenarios provided in the RTEP proposal window documents and all applicable criteria specified in the PJM manuals, without the need for operational procedures. Reliability criteria include the requirements of the NERC TPL-series standards as well as PJM required tests associated with the Reliability Assurance Agreement (RAA).

The submitted projects will be assessed for conformance to the transmission owner's design and construction requirements standards whether those standards are filed with FERC Form 715 or conform to TSS design guidelines that are developed by the PJM Transmission and Substation Subcommittee and posted on the PJM website and other agreed upon standards to support the integrity of the system. While the developer does not need to conform to the requirements of the incumbent transmission owner, the submitted proposal shall not create a conflict in design, construction, operations, or protection with the system of the connecting transmission owner(s) in the sole judgment of PJM and the connecting transmission owner.

In cases where the submitted project may create a conflict between with the incumbent transmission owner's system, PJM will facilitate a process to reach resolution.

At the conclusion of the analysis, PJM will post redacted summaries of the proposals, so that stakeholders are aware of the scope of proposals submitted. In addition, PJM will post a summary of the analysis results

If there is an easily identifiable, cost effective solution available based on the analysis, then PJM will recommend the solution and proceed to designate the entity to construct. (Step 3)

Step 2 -- Development and Evaluation of Alternatives

If the technical analysis (Step 1) does not result is in a recommended solution, then PJM will develop a range of alternative proposals which may include elements of previously submitted projects that were analyzed in Step 1 above, but may also include additional elements not previously submitted as part of the process. If substantially equal proposals or parts of proposals are submitted by multiple proposers and used by PJM is creating alternative proposals, then the earliest submitted proposal (queue entry date and time) will be credited for use (see Step 3 below). PJM will create independent cost estimates for the proposals and may conduct a constructability review to ensure that the proposed construction activities can be reasonably achieved in sufficient time to solve the identified reliability violation(s). In the course of developing and analyzing the proposals, PJM will seek to balance performance (reliability or market efficiency) with cost (initial cost and O&M costs).

PJM will analyze the various aspects of the PJM-created proposals and vet the analysis at TEAC. The analysis may consider any of the evaluation criteria that are applicable, but at minimum will consider the technical performance, the PJM developed cost estimate and construction schedule. Alternatives evaluated in Step 2 will be reviewed at the TEAC without disclosing the identity of proposing entities elements are used in of the alternatives under consideration.

Step 3 – Selection of Designated Entity

PJM will select a designated entity(ies) based on a number of factors:

- Portion of the overall proposal that is composed of elements submitted by a specific proposing entity
- Project specific experience of the proposers
- Construction, operations and maintenance plan of the proposers
- Cost estimates provided by proposing entities compared to PJM estimated cost for any portions of the overall recommended alternative
- Cost commitment that may be applicable to portions of the overall recommended alternative
- Benefits provided by the proposal in terms of operational flexibility, system resilience, and future expandability

PJM will review the results of its analysis and designation decision with TEAC, without disclosing the identities of the proposing entities.

Appendix 1 – Proposal Evaluation Criteria

- 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

- Market Efficiency – the extent to which the relative benefits of the project meets a Benefit/Cost Ratio Threshold of at least 1.25:1

- Project Longevity - How many years into the future is a solution alternative expected to be effective?

- What are the future risk factors? - Additional load, generation deactivation, additional transmission, future NERC standards, generation or merchant interconnection, impacts to the existing projects

- Transfer Capability – to what degree are the transfer capabilities to/from PJM increased or decreased?

- Coordination with other entities – does the proposal enhance or diminish reliability in another neighboring system?

- Operational Performance – Are there other impacts or benefits to operations performance?

- Route Diversity – does the proposal include an additional diverse route that provides enhanced operational flexibility?

- Grid Resiliency – does the proposal enhance grid resiliency through increased redundancy or operational flexibility?

- Estimated cost and any proposed cost commitment

- Schedule - Time to construct and feasibility of the schedule

- Siting and Permitting Risks

- Right-of-Way and land acquisition– Is new ROW/land required?

- Environmental impact risks

- Operations and Maintenance

- Physical constraints

- Project Complexity

- Impact to existing facilities

- Technology Considerations – Is technology proven?

- Outage Impacts – What outages are needed, how long, and what are impacts to system?

- Industry practices and generally acceptable methods