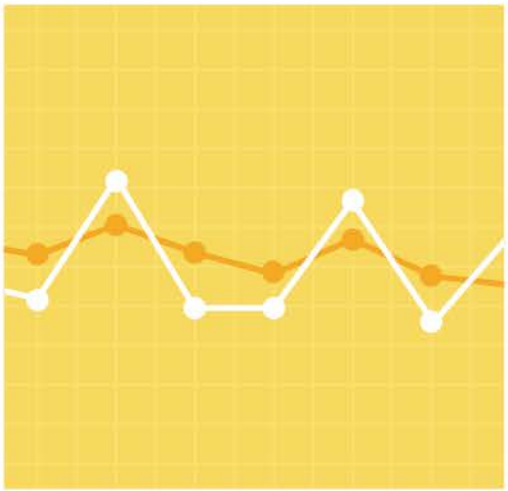
Request for Proposal Reliability Transmission Upgrade

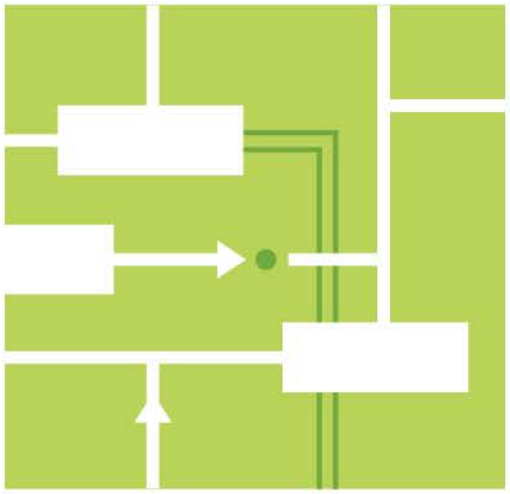
Part 1- Appendix A

Evaluation Factors

Boston 2028 RFP

December 20, 2019





This Appendix provides additional information on the evaluation factors that the ISO will use in its evaluation of Phase Two Solutions for the Boston 2028 Request for Proposal (RFP). The ISO does not have specific weighting factors for each evaluation factor specified in the Tariff. This allows the ISO to tailor the importance of each of the evaluation factors to the specific RFP. For the Boston 2028 RFP, the evaluation factors are compiled together into three groups and each group is listed in order of importance (Group 1 has the highest importance). However, the evaluation factors within each group will be considered of similar importance. The ISO will consider those evaluation factors necessary to select the preferred Phase Two Solution; consideration of all evaluation factors, especially those in groups of lower importance, may not be necessary to make this determination.

Below each evaluation factor, the ISO has provided clarifying information. This information is consistent with the information previously provided to the NEPOOL Transmission Committee[1], except where details specific to the Boston 2028 RFP have been added.

Group 1 – Highest Priority

- Life-cycle cost, including all costs associated with right of way acquisition, easements, and associated real estate
    - Note that the Life-Cycle Cost Workbook was developed to be able to accept information for up to a 60-year life, but Qualified Transmission Project Sponsor (QTPS) Respondents shall only provide data for the expected life of each component
- Any cost cap or cost containment provisions
    - These are provided by the QTPS Respondents. Evaluation may consider a number of different scenarios to understand the exposure to cost increases
- In-service date of the project or portion(s) thereof
    - Self-explanatory
- Potential siting/permitting issues or delays
    - Self-explanatory
- System performance
    - Consideration of the electrical performance of the system. Performance may include items such as:
        - Voltage margin
        - Percentage of equipment rating
        - Angular swings of generators
        - Short circuit levels
        - Potential significant adverse impacts on other facilities
- Impact on NPCC Bulk Power System (BPS) Classification
    - Consideration of whether the project will cause additional stations to be classified as BPS and also if the project will cause stations to no longer be classified as BPS. This will help the ISO understand the risk of additional cost

[1] Competitive Transmission Solution Enhancements presentation, September 17, 2019 Transmission Committee meeting, https://www.iso-ne.com/static-assets/documents/2019/09/a03_tc_2019_17-presentation.pdf.

related to the BPS classification change that would emerge during the PPA process and potential for additional criteria violations based on NPCC Directory 1 being applied to the newly identified BPS facilities.

Group 2 – Second highest priority

- Operational impacts
  - Consideration of required operator intervention necessary as system conditions change, possibly through a load cycle or due to different generation dispatches. This factor may also consider any concerns related to limitations on system maintenance
- Interface impacts
  - Consideration of the increase in transfer capability across an interface(s)
  - Evaluation may also consider other metrics such as the impact on production cost
  - Note: Proposals that cause decreases in transfer capability are not acceptable since they would not receive Proposed Plan Application (PPA) approval
- Future expandability
  - This would consider the number of open positions in a substation, expansion capabilities, etc.
- Replacement of aging infrastructure
  - Consideration of whether a proposal removes older infrastructure, even if there is not a known asset condition issue on that infrastructure
- Qualified Transmission Project Sponsor capabilities
  - The QTPS's ability to finance, build, operate, and maintain the specific facility(ies) described in the proposal
- Generation and transmission facility outages required during construction
  - The outages to be taken into consideration are transmission and generation outages
  - Evaluation will consider the impact on system operability during the required outages
  - Evaluation may also consider other metrics such as the impact on production cost
- Incremental cost for potential resource retirements
  - Consideration of incremental transmission needed to address potential resource retirements. The RFP may specify some retirements of specific interest; however, others may be considered depending on the proposal. As an example, when evaluating an HVDC line, what if a resource on the sending end retires?
  - Potential resource retirements will consider the following as independent considerations rather than being considered simultaneously:
    - Kendall generation (Kendall Jet, Kendall CT, and Kendall Steam), or
    - Canal 1 and 2

Group 3 – Third highest priority

- Consistency with Good Utility Practice
  - Self-explanatory
- Extreme contingency (EC) performance
  - Consideration of ECs listed in NERC TPL-001 and NPCC Directory 1. Typically, the evaluation will be related to loss of right-of-way (including line crossings), loss of substation, and three phase stuck breakers. This evaluation factor will not only consider existing ECs, but any new ECs that are created by the proposed project
- Environmental impact
  - Self-explanatory
- Design standards
  - Consideration of the design standards being used. Is the proposed project being built using more robust design standards? Some examples are ice-loading, wind speeds and elevation above flood levels
- Loss savings
  - Conditions to be considered are with all lines in service, using the cases that were used in the Needs Assessment
- Project constructability
  - This item has been retained in the event that aspects related to the ability to construct the project do not fall within other categories