



# Competitive Transmission Solicitation Enhancements

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*Order 1000 Competitive Transmission Solicitation and Other Planning Process Enhancements*

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# Project Title: Competitive Transmission Solution Enhancements

**Proposed Effective Date:** December 2019

- Based on the results of the [2028 Boston Needs Assessment](#) (which were presented to the Planning Advisory Committee (PAC) in April) the ISO plans to issue its first Request for Proposal (RFP) for a competitively developed transmission solution in December 2019
- In preparation for the upcoming RFP, it is helpful to refine and also clarify some provisions in Attachment K
  - Additional updates and corresponding changes are proposed in Section I of the ISO Tariff
- This is the fourth meeting at the Transmission Committee to discuss these changes, which are anticipated to be filed with FERC in October\*
- At this meeting, the ISO will focus on:
  - Revisions made to the Selected Qualified Transmission Project Sponsor Agreement (SQTPSA) since the July meeting
  - Revisions to Attachment K since the July meeting
  - Revisions to Section I.2.2 definition of “Localized Costs”

\*Note that related changes are being discussed at the Reliability Committee (see [schedule slide](#))

# Problem Statement

- The SQTPSA did not specify that:
  - Project modifications may be required as a result of the I.3.9 process
  - Failure to reach agreement on modifications to the project may be grounds for termination
- The SQTPSA was in need of minor reorganizations, clarifications, and corrections
- Attachment K did not:
  - Consider system performance as an evaluation factor
  - Specify that PTOs must stop work on projects related to the upgrade of existing facilities upon selection of the Preferred Phase/Stage Two Solution
- The definition of Localized Costs is not consistent with the intent of the competitive process and does not reference asset condition projects

# Solution

- The SQTPSA has been modified to specify that:
  - Project modifications may be required as a result of the I.3.9 process
  - Failure to reach agreement on modifications to the project may be grounds for termination
- The SQTPSA has undergone minor reorganizations, clarifications, and corrections
- Attachment K has been modified to:
  - Include system performance as an evaluation factor
  - Specify that PTOs must stop work on projects related to the upgrade of existing facilities upon selection of the Preferred Phase/Stage Two Solution
- The definition of Localized Costs has been modified to establish the preferred Phase/Stage Two solution as the baseline and to include asset condition projects (more detailed discussion is provided later in this presentation)

# Summary of Changes to the SQTPSA since the July TC Meeting

| Tariff Section  | Tariff Change                                                                                                                                                                                                                                                                                                             | Reason for Change                                                                                                         |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| SQTPSA Recitals | <p>WHEREAS, the Selected QTPS has executed the [Transmission Operating Agreement] [Non-Incumbent <b>Developer</b> Transmission Operating Agreement]. <del>Nothing contained herein shall modify PTOs' rights under the TOA to construct and own upgrades to its existing and affected substation or facilities.</del></p> | Language moved to Section 3.0, which is a more appropriate section                                                        |
| SQTPSA 3.0      | <p>Council and the North American Electric Reliability Corporation; (iii) the ISO New England Operating Documents; and (iv) Good Utility Practice. <del>Nothing contained herein shall modify PTOs' rights under the TOA to construct and own upgrades to its existing and affected substation or facilities.</del></p>   | Language from Recitals added                                                                                              |
| SQTPSA 3.3      | <p><del>in writing.</del> Such modifications may include alterations as necessary and directed by ISO-NE <del>such as modifications resulting from the I.3.9 process or</del> to meet the system condition for which the Project was included in the Regional System Plan.</p>                                            | Clarifying that the project modifications may be needed to prevent an adverse impact identified through the I.3.9 process |
| SQTPSA 6.0      | <p>of <del>Reasonable reasonable Effortsefforts.</del> Selected QTPS cannot alleviate and which prevents the</p>                                                                                                                                                                                                          | "Reasonable Efforts" is not a defined term                                                                                |

# Summary of Changes to the SQTPSA since the July TC Meeting

| Tariff Section | Tariff Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Reason for Change                                                                                   |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| SQTPSA 6.0     | Selected QTPS from satisfying its obligations under this Agreement; <del>or (iv) the Parties fail to agree to modifications under Section 3.3.0.</del> ISO-NE may terminate this Agreement by providing written                                                                                                                                                                                                                                                                                  | Added to cover the case where the Parties cannot agree on project modifications under Section 3.3.0 |
| SQTPSA 6.0     | <del>date the Selected QTPS receives such notice, except as otherwise provided in Section 6.2, or if, pursuant to FERC regulations, the termination notice is required to be filed with FERC, the termination shall be effective upon the effective other such date the established by FERC, establishes in the order accepting or approving the notice, for the termination. In either case, the termination will be reported in the ISO's Electronic Electric Quarterly Reports ("EQR").</del> | These concepts were moved to Section 6.2                                                            |
| SQTPSA 6.2     | <del>If, pursuant to FERC regulations, the termination of this agreement is required to be filed with FERC, such termination shall be effective upon the date established by FERC. ISO-NE shall report any termination of this Agreement in its Electric Quarterly Report.</del>                                                                                                                                                                                                                 | Concepts moved from Section 6.0 and language modified for clarity                                   |

# Summary of Changes to Attachment K since the July TC Meeting

| Tariff Section                   | Tariff Change                                                                                                                                                                                                                                                                                                      | Reason for Change                                                                          |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Section 4.2(d), 4.3(h), and 4A.7 | <ul style="list-style-type: none"> <li>• <u>System performance</u></li> </ul>                                                                                                                                                                                                                                      | Added based on discussion at July TC meeting                                               |
| Section 4.3(j)                   | <p><u>Transmission Operating Agreement. Once the ISO has identified the preferred Phase Two Solution, any remaining <del>Qualified Transmission Project Sponsors with a Phase Two Solutions,</del> along with the Backstop Transmission Solution, must stop all <del>Phase Two Solution development.</del></u></p> | Clarifying language to describe that all work must stop on projects that were not selected |
| Section 4A.9                     | <p><u>Transmission Operating Agreement. Once the ISO has identified the preferred Stage Two Solution, any remaining <del>Qualified Transmission Project Sponsors with a Stage Two Solutions</del> must stop all <del>Stage Two Solution</del> development.</u> Where external impacts of</p>                       | Clarifying language to describe that all work must stop on projects that were not selected |

# Proposed Changes to the Definition of “Localized Costs” - Background

- The ISO initially discussed anticipated updates to Planning Procedure 4 (PP4) and Attachment D to PP4 at the [June 18, 2019 RC meeting](#)
- During the drafting of changes to these documents, the ISO identified changes to the definition of “Localized Costs” in Section 1.2.2 of the Tariff that it believes should be made
- These proposed changes are being discussed with the Participating Transmission Owners Administrative Committee (PTO AC)
- The proposed changes are being discussed with the TC, recognizing that they may be altered based on the PTO AC’s review





# Proposed Changes to the Definition of “Localized Costs”

- General cleanup
  - The definition of Localized Costs only refers to RTEP02 Upgrades, Regional Benefit Upgrades (RBU), and Public Policy Transmission Upgrades (PPTU)
    - A RBU must be “listed in the Regional System Plan as either a Reliability Transmission Upgrade or a Market Efficiency Transmission Upgrade identified as needed pursuant to Attachment K of the OATT”.
  - Asset condition projects are not RTEP02 Upgrades, RBUs, or PPTUs
  - To address this shortcoming, the proposed changes incorporate asset condition projects



# Proposed Changes to the Definition of “Localized Costs”, contd.

- Solutions Study Evaluation of Localized Costs
  - In the Solutions Study process, the ISO works with the PTOs to develop transmission solutions where the ISO identifies the regionally preferred solution
  - Through this process, the PTO is aware of the baseline that will be used for the review of incremental costs
  - During the TCA process, the ISO reviews the incremental costs associated with a RBU that exceed the current engineering design and construction practices
    - The project is typically compared to the regionally preferred solution
  - The most well known example is the localization of costs for underground facilities have been built where overhead construction was feasible from an engineering perspective

# Proposed Changes to the Definition of “Localized Costs”, contd.

- The introduction of competition changes the baseline used for the evaluation of project costs
  - QTPSs are not limited in what they include in their project design
    - As an example, they may include underground facilities where overhead facilities are the norm to increase their likelihood of success at siting
  - However, they must balance the inclusion of such additional costs versus the risk that they are no longer competitive with the projects put for by their competitors
- The ISO will select the preferred solution from the submittals
  - Note that the Backstop Transmission Solution is a competitor amongst all of the other submitted projects and held to the same review standards
- Since the ISO has selected the preferred Phase/Stage Two Solution, this should be used as the baseline to evaluate incremental costs
  - If the process for the review of Localized Costs was the same as it is for projects developed through the Solutions Study process, the developer would not know the baseline project cost that will be used and have a significant risk of having costs that cannot be regionalized
- This is the basis for the rest of the proposed changes to the definition of Localized Costs

# Proposed Changes to the Definition of “Localized Costs”, contd.

- Upgrades on a PTO’s existing system where the Selected QTPS is not the PTO for the existing system element
  - Since the ISO will work with the PTO, similar to the process used during a Solutions Study, the Localized Costs review is the same as project resulting from the Solutions Study process



# Working Version of Changes to Section I.2.2

~~Localized Costs~~ are the incremental costs resulting from: ~~(a)~~ a RTEP02 Upgrade, ~~or (b)~~ a Regional Benefit Upgrade ~~developed pursuant to Section 4.2 of Attachment K of the OATT, (c) or a Public Policy Transmission Upgrade~~ reconstructions/replacements of all or part of Pool Transmission Facilities or (d) Regional Benefit Upgrades and Public Policy Transmission Upgrades developed pursuant to Sections 4.3 and 4A (respectively) of Attachment K of the OATT, that ~~exceeds~~ exceed those requirements that the ISO deems reasonable and consistent with Good Utility Practice and the current engineering design and construction practices in the area in which the Transmission Upgrade is built.

In making its determination of whether Localized Costs exist for the Transmission Upgrades identified in (a), (b) and (c) above, the ISO will consider, in accordance with Schedule 12C of the OATT, the reasonableness of the proposed engineering design and construction method with respect to alternate feasible Transmission Upgrades and the relative costs, operation, timing of implementation, efficiency and reliability of the proposed Transmission Upgrade.

In making its determination of whether Localized Costs exist for the Transmission Upgrades identified in (d) above, the ISO will consider incremental costs resulting from changes to the Transmission Upgrade described in the Transmission Cost Allocation application (or any revisions thereto) for regional rate recovery compared to the description of the Transmission Upgrade in Schedule A to the Selected Qualified Transmission Project Sponsor Agreement. Localized Costs for the Transmission Upgrades identified in (d) above that are located on a PTO's existing transmission system, where the Selected Qualified Transmission Project Sponsor is not the PTO for the existing system element(s), will be determined in a manner consistent with the process described for the Transmission Upgrades identified in (a), (b) and (c) above.

In accordance with Schedule 12C of the OATT, The ISO, with advisory input from the Reliability Committee, as appropriate, shall review ~~such Transmission Upgrades~~ the costs associated with the Transmission Upgrades identified in (a), (b), (c) and (d) above, and determine whether there are any Localized Costs resulting from such Transmission Upgrades. If there are any such costs, the ISO shall identify them in the Regional System Plan.

# Conclusion

- Modifications have been made to the SQTPSA to address that:
  - Project modifications may be required as a result of the I.3.9 process
  - Failure to reach agreement on modifications to the project may be grounds for termination
- Attachment K has been modified to:
  - Include system performance as an evaluation factor
  - Specify that PTOs must stop work on projects related to the upgrade of existing facilities upon selection of the Preferred Phase/Stage Two Solution
- Minor revisions have been addressed in the SQTPSA and Attachment K
- The definition of Localized Costs includes proposed upgrades to:
  - Include asset condition projects
  - Establish the baseline for a project selected through the competitive transmission development process
- Plan is to file Tariff changes with FERC in October 2019 with a requested effective date in December 2019
- The following stakeholder schedule supports this outcome

# Stakeholder Schedule for Attachment K

*Proposed Effective Date – Mid-December 2019*

| Stakeholder Committee and Date                                                      | Scheduled Project Milestone                                                                                                                                                                |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Transmission Committee</b><br><a href="#">May 16, 2019</a>                       | Introduction to Attachment K revisions and review of proposed redlines                                                                                                                     |
| <b>Transmission Committee</b><br><a href="#">June 13, 2019</a>                      | Respond to stakeholder questions from previous meeting and continued review of proposed redlines                                                                                           |
| <b>Transmission &amp; Reliability Committee</b><br><a href="#">July 16-17, 2019</a> | <ul style="list-style-type: none"><li>• Respond to stakeholder questions from previous meeting and continued review of proposed redlines</li><li>• Review of proposed amendments</li></ul> |
| <b>Transmission Committee</b><br><b>August 21, 2019</b>                             | <ul style="list-style-type: none"><li>• Respond to stakeholder questions from previous meeting and continued review of proposed redlines</li><li>• Review of proposed amendments</li></ul> |
| <b>Transmission Committee</b><br><b>September 17, 2019</b>                          | Vote on the proposed Attachment K revisions and any proposed amendments                                                                                                                    |
| <b>Participants Committee</b><br><b>October 4, 2019</b>                             | Vote on the proposed Attachment K revisions and any proposed amendments                                                                                                                    |

- If the associated FERC filing is made by mid-October, the proposed effective date of the revisions would be by mid-December
- Reliability Committee will be reviewing Section III.12.6 in parallel
- PTO AC is reviewing a Section I.2.2 definition

# Questions

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# APPENDIX

## *Evaluation Factors*



# Description of Evaluation Factors

- Installed cost
  - Only applicable to projects developed through the Solutions Study process described in Section 4.2 of Attachment K
  - Projects may be evaluated on installed cost because the other considerations accounted for in life-cycle cost would be similar among alternatives
- Life-cycle cost, including all costs associated with right of way acquisition, easements, and associated real estate
  - 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
- Cost cap or cost containment provisions
  - These are provided by the respondent. Evaluation will 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
- 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

# Description of Evaluation Factors (cont.)

- 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
- 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
- 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

# Description of Evaluation Factors (cont.)

- 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?
- 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 PPA approval
- Future expandability
  - This would include open positions in a substation, expansion capabilities, etc.
- Consistency with Good Utility Practice
  - Self-explanatory
- Potential siting/permitting issues or delays
  - Self-explanatory

# Description of Evaluation Factors (cont.)

- Loss savings
  - Conditions to be considered are with all lines in service, using the cases that were used in the Needs Assessment
- Replacement of aging infrastructure
  - Consideration of whether a proposal removes older infrastructure, even if there is not a known asset condition issue
- 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
- 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 related to the BPS classification change that would emerge during the PPA process

# Description of Evaluation Factors (cont.)

- Qualified Transmission Project Sponsor capabilities
  - Only applicable to projects developed through the competitive transmission development processes described in Sections 4.3 and 4A of Attachment K
  - The QTPS's ability to finance, build, operate, and maintain the specific facility(ies) described in the proposal