

Competitive Solutions Process: Order 1000/Boston 2028 Request for Proposal Lessons Learned



*Review of Submitted Lessons Learned
Comments*

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Brent Oberlin

DIRECTOR, TRANSMISSION PLANNING



Purpose

- To review lessons learned comments received on the Order 1000 process and the recently completed Boston 2028 Request for Proposal (RFP)



Background

- On July 17, 2020, the ISO provided a memo* reminding stakeholders that the ISO would begin a lessons learned process in the fourth quarter of 2020
- In October 2020, the ISO held one-on-one discussions with Qualified Transmission Project Sponsors (QTPSs) who submitted Phase One Proposals in response to the Boston 2028 RFP
- The ISO introduced the process to identify areas that did not work well or could to be improved (lessons learned) to improve future RFPs and their execution at the October 21st PAC meeting
- The lessons learned may be used to improve the tariff and documentation used in the RFP process. Documents most likely to be impacted are:
 - Attachment K to the ISO New England Open Access Transmission Tariff**
 - Transmission Planning Process Guide***
 - RFP Parts 1 and 2, and associated materials****
- In addition, the lessons learned may also lead to different or improved ways to use RFP360

*https://www.iso-ne.com/static-assets/documents/2020/07/boston_2028_rfp_lessons_learned_announcement.pdf

**https://www.iso-ne.com/static-assets/documents/regulatory/tariff/sect_2/oatt/sect_ii.pdf

***https://www.iso-ne.com/static-assets/documents/2020/03/transmission_planning_process_guide_3_13_20.pdf

****https://www.iso-ne.com/static-assets/documents/2019/12/boston_2028_rfp_documents.zip

Lessons Learned Comments Received

- Comments were received from 8 submitters
 - Anbaric
 - Avangrid Networks (Avangrid)
 - National Grid
 - New England Energy Connection, LLC (NEEC)
 - New England States Committee on Electricity (NESCOE)
 - Transource New England, LLC (Transource)
 - Bill Schineller (Public)
 - ISO New England
- While the lessons learned comment topics varied some were mentioned in multiple submittals
- All lessons learned comments as received can be seen in the [Appendix](#)
- A matrix of the lessons learned comments received and expansion on the topics are shown on the following slides
- Due to the nature of many of the comments, the ISO has not had sufficient time to provide feedback. Further stakeholder discussions will be needed on most of the comments

Matrix of Comments

Lessons Learned Topic	Anbaric	Avangrid	National Grid	NEEC	NESCOE	Transource	ISO -NE	Public
Installation of elements on PTO system/land ownership	X			X	X	X		
Cure period	X	X		X	X			
Storage			X		X			
Modeling/stability				X		X		
Separate RFP for each need				X				
FAQ sheet				X				
Redacted submissions should be public	X							
Phase Two Solutions recover costs that were done under Phase One Proposals	X							
Interconnect to an element that is in service					X			
Life-cycle costs in Phase One Proposals							X	
Existing language may create confusion							X	
Updating costs in Phase Two Solutions							X	
Maximize use of existing facilities and utilize land owned by utilities*								X
RFP360						X		

*Topic was not provided by the submitter. It was added by the ISO.

LESSONS LEARNED COMMENTS PROVIDED IN MULTIPLE SUBMITTALS

Installation of Elements on PTO System/Land Ownership

- Submitted by Anbaric, NEEC, NESCOE and Transource
- The submitters would like changes made to the Tariff, or the interpretation of the Tariff, to allow a QTPS to require an incumbent PTO to build new facilities as part of its proposal
 - Today the QTPS can only require the incumbent PTO to upgrade existing facilities or build new facilities required for the interconnection of the QTPS proposal



Cure Period

- Submitted by Avangrid, NEEC and NESCOE
- The submitters would like the ability to cure minor deficiencies that would not materially change the project. This would not allow for a fatal flaw to be corrected or the rewrite of the submission



Storage

- Submitted by National Grid and NESCOE
- The submitters would like the ISO to modify its Tariff to allow storage and other non-wires alternatives as a potential response to a Request For Proposal



Modeling and Stability Requirements

- Submitted by Transource and NEEC
- Transource would like the ISO to develop sections of the Transmission Planning Process Guide that are currently listed as “under development” (more specifically, Section 2.7 – Dynamic Compensation Devices)
- NEEC stated that the differences between modeling files provided for Section 5.1 and 5.2 are not clear
 - The ISO notes that Part 2 of the RFP instructions* stated that Section 5.1 is for the provision of steady state and short circuit modeling data, while Section 5.2 is for the provision of stability modeling data
 - The ISO will reach out to the submitter to better understand their concern

*https://www.iso-ne.com/static-assets/documents/2019/12/boston_2028_rfp_documents.zip

OTHER LESSONS LEARNED COMMENTS SUBMITTED

Comments from Anbaric

- Redacted submissions should be public and posted for all stakeholders to review
- Allow for PAC presentations to be provide by the QTPSs on all submitted proposals
- Non-incumbents developers that make it to the Phase Two Solutions process should be able to recover all costs, Phase One Proposal and Phase Two Solution development costs
- Goal of Order No. 1000 for more cost efficient or cost effective should not be defeated by narrowly looking at project capital costs
 - The ISO notes that the ranking of factors to be considered in the evaluation can be adjusted with each RFP. The ISO will take this comment into consideration as part of the ranking provided in future RFPs

Comments from NEEC

- In other processes the RTO/ISO typically compiles a list of questions received and responses in an anonymous FAQ document
 - The ISO notes that all questions that were received by RFP respondents were responded to in RFP360 either as an individual response or a group response depending on the question. However, the ISO will consider improvements to this process
- The ISO should issue separate solicitations (RFP) for each need or allow a QTPS to solve a subset of the needs

Comments from NESCOE

- The ability to interconnect through outage coordination should be considered before projects are eliminated. The existing language in Attachment K does not prohibit outage coordination to meet an in-service date.
 - At the June 17 meeting, the ISO committed to revisiting this issue and ultimately agreed with stakeholders that proposals should not be eliminated on this basis. Therefore, no further changes will be made to address this comment

Comments from ISO New England

- Life-cycle costs should not be required as part of Phase One Proposals
 - Due to the handling of corollary upgrades, inclusion of life-cycle costs as part of the Phase One Proposals places a burden on the QTPS, yet has little value during that stage of the process
- Section 4.3(e) of Attachment K should be revised to eliminate language that creates potential confusion related to the certainty of Phase One Proposals being reviewed by the ISO
- Section 10.4 should be modified to eliminate or restrict the provision of updated costs in Phase Two Solutions

Comments from the Public

- An important lesson learned was that ISO-NE highly values proposals which
 - Maximizes the use of existing transmission facilities in the Boston area;
 - Keeps upgrades entirely on properties already in use by the energy companies, minimizing environmental and community impacts



COMMENTS ON RFP360

Comments from Transource

- The submitters would like more functionality in the software that would help in the creation/submission of the proposal
 - The ISO received comments which would improve RFP360, both through this process and on the one-on-one calls with the QTPSs. The ISO plans to work directly with RFP360 to address those improvements

Next Steps/Schedule

- The ISO expects to provide feedback on the submittals in Q1 2021 and will continue with further discussions at the PAC as needed



Questions



APPENDIX

Lessons Learned Comment



Anbaric

Topic	Comment
Feedback on Process	For Anbaric Development Partners, LLC's feedback on the Phase One Proposal process, please refer to comments submitted by Anbaric to ISO New England on June 17, 2020 http://mystic.anbaric.com/wp-content/uploads/2020/06/Anbaric-response-to-ISO-NE-June-11th-RFP-Findings-1.pdf
Redacted submissions should be public	The ISO-NE RFP process was designed to only allow for limited redaction and to mark any information permitted to be redacted as confidential. This allows for full RFP responses to be posted for all stakeholders to review.
There should be public PAC presentations on all submitted proposals	There should be public PAC presentations on all submitted proposals. This would allow for discussion of proposals by proponents and follow-up questions by interested stakeholders. This process can help identify the least-cost project for consumers, which may not mirror the least capital cost project. For example, in the Boston 2028 RFP, a project with low capital costs was selected but other projects would have also eliminated costs of other transmission or enabled significant system production cost savings.
ISO-NE should allow for adjustments to submissions that are not material project redesigns	The Order 1000 process in New England was designed so that projects cannot be dramatically changed after submission, so that one submission is not simply copied by another entity. This process was over applied in the RFP, where 35 of 36 projects were eliminated on initial review. Changing the location of a piece of equipment from inside to outside a fence, or the size of a given element to account for interconnection degradation, or other minor issues are all the sorts of issues that were never intended to exclude projects from further consideration. Indeed, I.3.9 review will likely identify even more system tweaks to make projects work in later development work. The process should be updated to make it clear that material changes are those to route, key equipment types, and a change in equipment type beyond a given band for reasonable adjustments. Lessons in how some adjustments can be accommodated in the project submission model can be learned from the latitude PJM has applied in their competitive process, which is also project submission-based.

Anbaric, continued

Topic	Comment
<p>ISO-NE should revisit its interpretation of what upgrades can be done to existing facilities</p>	<p>This was raised in Anbaric’s June 17, 2020 comments referenced above. ISO-NE should revisit its interpretation regarding upgrades to existing facilities. It is overly narrow and appears to conflict with the TOA and FPA. Incumbents can of course build upgrades to their existing facilities, and we see this in the New York round one public policy process. But the process should not foreclose incumbents building such upgrades needed for competitive project submissions. A general rethink of how the process is conducted to allow for competition rather than to make competition near impossible would be helpful. If the ISO believes that tariff changes or changes to other laws are necessary, those should be identified and explored.</p>
<p>Phase I cost recovery was designed to apply to successful Phase II projects</p>	<p>The RFP process allows for Phase I costs of the incumbent to be recovered because of the obligation to submit a bid. In the development of compliance filings, the point was raised that projects reaching Phase II should have their initial costs recovered as well to level the development playing field. Those costs are part of the costs of a Phase II project (where development work between Phase I and Phase II will often be a gray area) – and all Phase II project costs were intended to be recovered. While this was discussed in PAC meetings, the Tariff could be clearer on this point.</p>
<p>Goal of Order No. 1000 for more cost efficient or cost effective should not be defeated by narrowly looking at project capital costs</p>	<p>As noted above with regard to transparency, seemingly more expensive projects may actually be less expensive to consumers over time because they displace the need for other transmission, lower the cost of electricity by allowing for the deliverability of more low-cost renewables energy or solving for out of merit dispatch needs due to transmission system limitations. The tariff does not restrict the evaluation criteria such that the ISO is unable to take a broad view to find the best projects in terms of costs to consumers and such an approach is consistent with Order No. 1000. If needed, the ISO should seek declaratory relief from FERC confirming the latitude it possesses in setting out big picture evaluation criteria</p>



Avangrid

Topic	Comment
Deficiency cure	Allow bidders the ability to cure minor deficiencies, that may otherwise be disqualifying, if such revisions do not materially change the project or affect the cost by more than 3% (or another threshold determined by ISO-NE).

National Grid

Topic	Comment
Definition of RTU/Qualification of Phase One Proposals	Allowing Non-wires alternatives, including storage, to compete as a Transmission solution if they can demonstrate meeting the identified need could be beneficial in future RFP's.



New England Energy Connection (NEEC)

Topic	Comment
Separate Solicitations for Each Need	<p>The RFP was a single solicitation to “...comprehensively address the identified needs in the Boston study area...” One insight from the first competitive process is that due to the size of the Boston study area, electrically diverse issues were not necessarily related. The Boston 2028 RFP identified an N-1 need near West Amesbury, an N-1-1 need related to the Northern Boston Cables, and a need for dynamic reactive power. In the future, ISO New England should issue separate solicitations for electrically distinct needs, or allow proposals that only address a subset of the identified needs.</p> <p>For the Boston 2028 RFP, there was a wide variety of solutions presented for each of the three needs. It could be the case that a future RFP also identifies three or even more violations. It is easy to imagine in such a case that the best solution could include different elements from different bidders. For Boston 2028 RFP, it could have been that a better proposal was identified for the dynamic reactive power device, but such proposal was eliminated due to an inferior approach for the N-1 need near West Amesbury. Without separately looking at each area, it would not be known if the best solution is identified for each violation.</p> <p>The requirement for the incumbent utility to propose a backstop solution will ensure all needs can be met with one or more proposals.</p> <p>One drawback to this approach is that a single upgrade could resolve all identified violations. However, this approach does not prohibit a proposal that could resolve all identified violations.</p>

NEEC, continued

Topic	Comment
Cure period	ISO New England did not provide bidders with an opportunity to cure some of the alleged elimination factors. In LS Power's experience in every other RTO/ISO, if there is a perceived deficiency, the RTO/ISO would ask the bidder clarifying questions. ISO New England should provide bidders with an opportunity to respond to potential deficiencies.
Stability requirement not clear	Differences between the modeling files provides for Section 5.1 and 5.2 are not clear.
Anonymous FAQ	In other processes the RTO/ISO typically compiles a list of questions receives and responses in an anonymous FAQ document.

NEEC, Continued

Topic	Comment
Upgrade to PTO element	<p>Some proposals were eliminated due to including an upgrade to be completed by the incumbent utility. This elimination was improper and such proposals are clearly contemplated by Attachment K.</p> <p>Attachment K Section 4.3(a) states “A Qualified Transmission Project Sponsor may propose a comprehensive solution to address the identified needs that includes an upgrade(s) located on or connected to a PTO’s existing transmission system where the Qualified Transmission Project Sponsor is not the PTO for the existing system element(s). ... The Qualified Transmission Project Sponsor is not required to procure agreements with the PTO for implementation of such upgrades as the PTO is required to implement the upgrade(s) in accordance with Schedule 3.09(a) of the Transmission Operating Agreement if the proposed solution is selected through the competitive process.” This provision clearly contemplates that the bidder can include such elements, and does not need an agreement with the incumbent to propose such elements.</p> <p>This interpretation is supported by the filing letter and testimony that accompanied the filing of this provision of Attachment K on Oct. 11, 2019.</p> <p>The Oct 11, 2019 Filing letter (page 6) states, “For example, the Filing Parties propose to revise Section 4.3(a) (Initiating the Competitive Solution Process) to clarify that a Qualified Transmission Project Sponsor (“QTPS”) may propose a comprehensive solution that includes an upgrade on a PTO system where the QTPS is not the PTO for the upgrade on the existing system. The new language in Section 4.3(a) states that, in such a situation, the QTPS is required to provide all information as part of its response to the RFP. The QTPS, however, is not required to procure agreements with the PTO for implementation of the upgrades. Rather, the ISO will direct the PTO to implement the upgrade in accordance with Schedule 3.09(a) of the TOA. A similar change is proposed to Section 4A.6(a) (Information Required for Stage One Proposals) for Public Policy Transmission Upgrades. Similar changes are also proposed to Sections 4.3(j) (Selection of the Preferred Phase Two Solution) and 4A.9(a) (Inclusion of Public Policy Transmission Upgrades in the Regional System Plan and RSP Project List) to allow for an upgrade on a PTO system where the QTPS is not the PTO for the upgrade on the existing system.”</p>

NEEC Continued

Topic	Comment
Upgrade to PTO element	<p>The testimony of Brent Oberlin in the Oct 11, 2019 filing (pages 8-9) states “The revisions to Section 4.3(a) (Initiating the Competitive Solution Process) clarify that a QTPS may propose a solution that includes an upgrade on a PTO’s system where the QTPS is not the PTO for the upgrade on the existing system. The new language in Section 4.3(a) states that, in such a situation, the QTPS is required to provide all available information about the PTO’s system as part of its response to the RFP. Utilizing the information provided by the QTPS regarding the upgrade on the PTO’s system, the ISO will work with the PTO to further refine the necessary upgrade on the PTO’s system. The QTPS is not required to procure agreements with the PTO for implementation of the upgrades. Rather, if the QTPS’s proposal is identified as the Preferred Phase Two Solution, the ISO will direct the PTO to implement the upgrade in accordance with Schedule 3.09(a) of the Transmission Operating Agreement (“TOA”). A similar change is proposed to Section 4A.6(a) (Information Required for Stage One Proposals) of Attachment K for Public Policy Transmission Upgrades. Similar changes are also proposed to Sections 4.3(j) (Selection of the Preferred Phase Two Solution) and 4A.9(a)(Inclusion of Public Policy Transmission Upgrades in the Regional System Plan and RSP Project List) to allow for an upgrade on a PTO’s system where the QTPS is not the PTO for the upgrade on the existing system.</p> <p>Clearly a future process should include the ability for a QTPS to propose an upgrade on the PTO’s system, regardless of the potential use of incumbent land.</p>

NESCOE

Topic	Comment
Storage as Transmission	ISO-NE did not allow submissions that included storage as part of their solution. ISO-NE should work to modify its tariff to allow including storage as a transmission only asset both in competitive solicitations and incumbent solution studies. FERC precedent supports enhancing competition by expanding eligibility to these storage facilities.
Ability to cure a Phase 1 Deficiency	ISO should add a step in its preliminary review of proposals to allow bidders to cure Phase 1 deficiencies. This is not meant as a chance to cure fatal flaws or rewrite a submission, but rather to clear up misunderstandings (e.g., “Are we reading this right?” “This is missing, where is it?”).
Ability to add a new element to the incumbent’s system	Many bids were eliminated because they proposed to add a new element to an incumbent’s system. This reason for elimination needs to be reexamined. If the new element is technically a required part of the solution or is superior to any other solution, this restriction could eliminate all bidders but the incumbent.
Ability to coordinate an interconnection	Projects should not be eliminated because they must interconnect to an element that is in service. All projects will eventually need to interconnect to the system, and many will require some degree of outage to do so. The ability to interconnect through outage coordination should be considered before projects are eliminated. The existing language in Attachment K does not prohibit outage coordination to meet an in-service date.

Transource

Topic	Comment
Land Ownership Provisions	<p>Twenty-two of the 36 proposals submitted in the Boston 2028 RFP were eliminated due to perceived violations of land ownership provisions in their proposals. Of the remaining 14 proposals, 8 of these proposals were submitted by the incumbent transmission owners. As such, only 6 non-incumbent proposals were not eliminated due to the perceived violations of land ownership provisions, which represents 16% of the bids. In the referenced tariff language, particular emphasis was given to the word “existing” coupled with an extremely narrow interpretation of “transmission system” in an effort to explain that non-incumbent developers were prohibited from proposing any transmission projects other than those that only included like-for-like equipment replacements. Given that the developers of the 22 eliminated bids did not reach the same conclusion as the ISO when interpreting this Tariff language, it seems that the language is too ambiguous to make such determination. In contrast to the competitive sponsorship processes undertaken in other regions, including PJM, which has run multiple windows that have received robust responses from market participants, incumbent upgrades are allowed to be submitted as part of comprehensive solutions. If these proposals are selected, elements which qualify for non-incumbent award are awarded to the entity proposing the solution while all incumbent upgrades or equipment on incumbent-owned land are awarded to the incumbent transmission owner. Nothing in the ISO Tariff precludes this application, and the alternative interpretation significantly discourages non-incumbents from participation in the ISO’s competitive processes as it is a rarity that any significant transmission need would be able to be met without equipment changes on incumbent land.</p>

Transource Continued

Topic	Comment
RFP 360 Functionality	<ul style="list-style-type: none"> • Only a single author for responses at a time was challenging. I believe RFP360 is looking at expanding its capabilities to multiple authors. • Uploading/pasting images and documents was very finicky. Sometimes it worked and sometimes it didn't work at all. Other times the upload/paste was successful only to disappear later. • System crashed for a period of time on the last day. • Regarding final proposal submittal, an option to validate all responses at the end rather than validate every question individually would be helpful. • Had trouble editing the name of the proposal after it was created. • Would there be a way to create a repository of ISO-NE answers to QTPS questions in RFP360 rather than piecemeal Q&As together as they come in? At times, it was challenging to track down previous Q&A strings as they moved in and out of the queue at various times. An ability to download all current and previous Q&As would be helpful. • Ability to export final proposal submittal with attachments and images into a readable format such as .pdf would be helpful. Only an export to Excel was successful and that format was challenging to read and synthesize.
Modeling	<p>ISO-NE's <i>Transmission Planning Technical Guide</i> was an excellent resource during the Boston 2028 RFP window. However, a few key sections in this guide are described as "under development". These sections would have been helpful in guiding off-footprint participants on how to model certain devices according to ISO-NE's standards. For example, <i>Section 2.7 Dynamic Compensation Devices</i> is one of those sections that's still under development. Since the Boston 2028 RFP included a request for a dynamic reactive device, a quick guide on how ISO-NE models SVCs, STATCOMs, etc would have been helpful. Specifically, our planning team was unsure if ISO-NE used the FACTS device model in PSSE or used a generator with set MVAR limits. Having these sections developed prior to the next RFP would be appreciated so that solutions can be tested properly.</p> <p>The Boston 2028 RFP needs assessment appendices were extremely helpful, especially Appendix C which detailed ISO-NE's N-1 and N-1-1 testing process in TARA. Please continue to provide similar appendices during the next RFP.</p>

ISO New England

Topic	Comment
Life-cycle costs in Phase One Proposals	The ISO has noted that due to the handling of corollary upgrades, inclusion of life-cycle costs as part of the Phase One Proposals places a burden on the QTPS, yet has little value during that stage of the process.
Existing language may create confusion	The existing language creates potential confusion related to the certainty of Phase One Proposals being reviewed by the ISO. This is in conflict with portions of Section 4.3(e) and 4.3 (c). The use of the word "preliminary" in the title, the use of "preliminary feasibility" in the second paragraph, and the use of "appears to" in Section ii should be eliminated.
Updating costs in Phase Two Solutions	Section 10.4 should be modified to eliminate or restrict the provision of updated costs in Phase Two Solutions. Updated costs can conflict with decisions made under Section 4.3(g) where projects are excluded from consideration in Phase Two when they are not competitive in terms of cost and other factors.

Public

Topic	Comment
Maximize use of existing facilities and utilize land owned by utilities*	<p>An important lesson learned was that ISO-NE highly values proposals which</p> <ul style="list-style-type: none">· Maximizes the use of existing transmission facilities in the Boston area;· Keeps upgrades entirely on properties already in use by the energy companies, minimizing environmental and community impacts; <p>(Excerpted from https://www.businesswire.com/news/home/20200630005351/en/ISO-NEProposes-Advance-Eversource-National-Grid-Ready)</p>

*Topic was not provided by the submitter. It was added by the ISO.