



Transmission Planning Process Guide

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System Planning
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Section 1

Purpose

ISO New England (the “ISO”), Northeast Power Coordinating Council (“NPCC”) and North American Electric Reliability Corporation (“NERC”) criteria and reliability standards provide the minimum transmission system performance standards, which serve as the foundation for the ISO’s regional transmission planning. All proposed system modifications, including transmission and generation additions or significant load reductions or additions, must be analyzed and designed to ensure system wide coordination and continued system reliability in compliance with these standards.

The purpose of this planning document is to provide additional detail on the existing regional system planning process as described in Attachment K of Section II of the ISO New England Transmission, Markets and Services Tariff (the “Tariff”).

This document is not intended to address every activity that may be associated with the regional system transmission planning process. There are a number of activities that are not the subject of this document but may be briefly touched upon in this document for context and to help provide a thorough explanation of the regional system planning process. These include activities such as the “Local System Planning Process” as described in Section 2.5 of Attachment K which is the responsibility of each Participating Transmission Owner (“PTO”), the Proposed Plan Application (“PPA”) process, and the Transmission Cost Allocation (“TCA”) procedures.

The provisions in this document are intended to be consistent with ISO New England’s Tariff. If, however, the provisions in this planning document conflict with the Tariff in any way, the Tariff takes precedence as the ISO is bound to operate in accordance with the ISO Tariff.

Section 2 Process for Addressing Reliability Needs

2.1 Process for Enrollment

Entities that intend to participate as a transmission provider in the New England transmission planning region in accordance with Section 1.1 of Attachment K to Section II of the Tariff, must enroll with the ISO.

Note that this enrollment is separate and distinct from the terms, conditions and requirements that apply to Transmission Providers, as defined in Section I–General Terms and Conditions of the Tariff. Additionally, such enrollment is not required for an entity to participate as part of the Planning Advisory Committee, which is open to any entity as described in Section 2.3 of Attachment K to Section II of the ISO Tariff. Enrollment as a transmission provider in the New England transmission planning region in accordance with Section 1.1 of Attachment K to Section II of the Tariff does not transfer an entity’s transmission facilities to the ISO New England RTO, or otherwise result in conferring ISO operational dispatch and planning rights and obligations over such facilities. The terms for conferring such authority over an entity’s transmission facilities are contained in a transmission operating agreement.¹

An entity will be enrolled as a transmission provider in the New England transmission planning region in accordance with Section 1.1 of Attachment K to Section II of the ISO New England Open Access Transmission Tariff if:

- the entity is a signatory to a transmission operating agreement. Such entities are automatically enrolled and no further action is necessary. Entities that are signatories to a transmission operating agreement as of May 18, 2015 will be enrolled as of that date. Signatories to a transmission operating agreement following May 18, 2015 will be enrolled as of the date that they become party to the agreement; or
- the entity is a party to a Market Participant Service Agreement (MPSA) coupled with a written notification to the ISO that the entity desires to be a transmission provider in the New England region. The completion and submittal of the enrollment form found in Appendix A shall meet the “written notification” requirement. The entity will be enrolled as of the date that the form was received by ISO upon receipt of this completed form by ISO and ISO verification that the entity is a party to an MPSA.

Entities that are party to an MPSA that desire to enroll shall complete all fields in the form found in Appendix A and email the completed form as an attachment to: NEPlanningApp@iso-ne.com

An email confirming successful enrollment will be sent from ISO to the email address from which the request was submitted and the email address of the Market Participant representative provided within the completed form. The name of the entity will be added to Appendix 2 of Attachment K to Section II of the ISO Tariff during its subsequent update.

Incomplete forms or not being a party to an MPSA will result in the rejection of the submitted enrollment form. An email notification of the rejection of the enrollment form will be sent from ISO to the email address from which the request was submitted and the email address for the Market Participant representative provided within the submitted form.

¹ A transmission operating agreement is an agreement between a transmission owner and the ISO that, among other things, provides the ISO with operating authority over the transmission owner’s commercial transmission facility(ies). A list of current transmission operating agreements can be found on the [ISO TOA page](#).

In the event that an MPSA is terminated, the entity is no longer eligible to be enrolled as a transmission provider, and will be removed from Appendix 2 of Attachment K to Section II of the ISO Tariff during its subsequent update.

Entities that are party to a transmission operating agreement may not disenroll. Entities that are not party to a transmission operating agreement that elect to no longer be enrolled as a transmission provider in the New England transmission planning region in accordance with Section 1.1 of Attachment K must send an email to NEPlanningApp@iso-ne.com and request the entity's removal from Appendix 2 of Attachment K to Section II of the ISO Tariff during its subsequent update.

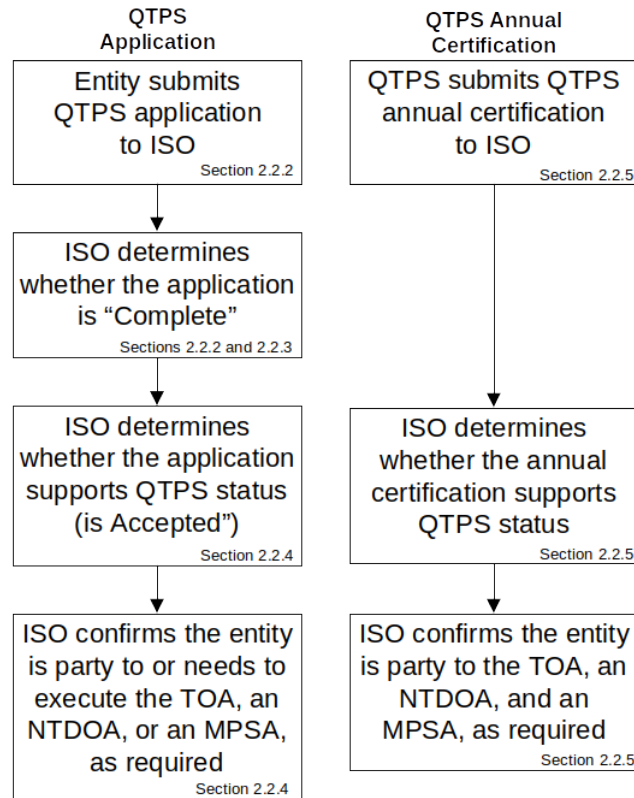
2.2 Process for Becoming a Qualified Transmission Project Sponsor

2.2.1 QTPS Process Overview

Any entity that intends to submit a proposal (Proposal) in response to an ISO identified need for a Reliability Transmission Upgrade (RTU), Market Efficiency Transmission Upgrade (METU), Public Policy Transmission Upgrade (PPTU) or a Backstop Transmission Solution must first be recognized by the ISO as a Qualified Transmission Project Sponsor (QTPS), in accordance with Section 4B of Attachment K to Section II of the Tariff.

- A Participating Transmission Owner (PTO) is recognized as a QTPS once its QTPS application has been deemed accepted by the ISO.
- A non-PTO is recognized as a QTPS once its QTPS application has been deemed accepted by the ISO, and it is party to a Non-Incumbent Transmission Developer Operating Agreement (NTDOA) and an MPSA.

Qualifying as a QTPS can be done at any time but is required to be completed before a Proposal can be considered by the ISO. Additionally, an entity is required to maintain its QTPS status by completing an annual certification process. An overview of the process is shown in the flowchart below.



2.2.2 Requesting QTPS Status

An entity seeking to receive QTPS status (Applicant) shall complete and submit a QTPS Application Form (“Application”) to the ISO (via QTPS@iso-ne.com). The Application and submittal instructions can be found in Appendix B - Qualified Transmission Project Sponsor Application Form to this QTPS process.

The ISO will review the Application and determine whether it contains sufficient information such that ISO can then proceed with the determination of QTPS status (i.e., the Application is determined to be “Complete”). Within thirty (30) calendar days from its receipt, the ISO will notify the entity as to whether the Application is considered “Complete” or “Incomplete”.

If the ISO determines that the Application is Complete, the ISO will initiate its determination of QTPS Status in accordance with Section 4B of Attachment K to Section II of the ISO Tariff, as described in Section 2.2.4 of this QTPS process.

If the ISO determines that the Application is Incomplete, the ISO will include in its notification the identified deficiencies that it expects the Applicant to be addressed within the remedial information that is to be subsequently submitted in accordance with Section 4B of Attachment K to Section II of the ISO Tariff, as described in Section 2.2.3 to this QTPS process.

2.2.3 Submittal and Review of Remedial Information

An Applicant that is notified by the ISO that its Application is incomplete has the opportunity to address the identified deficiencies by submitting remedial information (via QTPS@iso-ne.com) to the ISO within thirty (30) calendar days from the date of the ISO notification indicating the Application is Incomplete. The Applicant may consult with the ISO during this period to help ensure that the remedial information provided will remedy the identified deficiencies.

Remedial information received within the thirty (30) calendar day window will be reviewed by the ISO to determine whether the identified deficiencies have been addressed. If the Applicant fails to cure the deficiency within thirty (30) calendar days, the Application will be deemed to be “Rejected”. The ISO will issue written notification to the Applicant indicating either:

- The Application is now deemed Complete and the ISO will proceed with the determination of QTPS status; or
- The Application is Rejected, with reasons noted.

2.2.4 Determination of QTPS Status

Within ninety (90) calendar days from the date the submitted application is deemed Complete, the ISO will use its best efforts to:

- Proceed with its evaluation of the Complete Application to determine whether the submitted information indicates that the entity meets or does not meet the QTPS qualification criteria in Section 4B of Attachment K;
- Make a determination of whether the Complete Application demonstrates that the Applicant meets the QTPS qualification criteria (i.e., is “Accepted”) or does not demonstrate that the Applicant meets the QTPS qualification criteria (i.e., is “Rejected”);
- Confirm whether an Applicant with an Accepted Application is party to or needs to execute the Transmission Operating Agreement (TOA), an NTDOA or an MPSA, as applicable; and
- Inform the Applicant of the determination, via written communication to the primary contact listed in the Application.

2.2.4.1 Accepted Application

A PTO with an Accepted Application will be notified by the ISO that they are a QTPS.

A non-PTO with an Accepted Application:

- That is party to an NTDOA and an MPSA will be notified by the ISO that they are a QTPS.
- That is not party to an NTDOA and an MPSA will be notified by the ISO that they will be deemed a QTPS only after the Applicant and the ISO have executed an NTDOA and the Applicant is a party to an MPSA.

The ISO notification will, as necessary, provide the Applicant direction on the steps, as required to:

- Be party to an NTDOA² and/or
- Initiate/complete the Membership process³ such that it results in the Applicant becoming party to an MPSA⁴.

Following confirmation that the PTO is party to the TOA or that the non-PTO is party to an NTDOA and an MPSA, the ISO will notify the entity via written communication to the primary contact listed in the Application that it has been deemed a QTPS.

2.2.4.2 Rejected Application

An Applicant with a Complete Application that is determined to be Rejected will be notified via written communication to the primary contact listed in the Application by the ISO of this determination, with reasons noted, and that they are not deemed a QTPS.

An entity may, at any time after a Rejected determination is made, complete and submit a new QTPS Application Form.

2.2.5 Maintain QTPS Status

In order to maintain its QTPS status, the QTPS must submit a QTPS Annual Certification Form (“Certification Form”) that indicates whether the information in its Accepted Application has adversely changed in a material fashion in the intervening year, and maintain its status under the TOA, NTDOA, and MPSA, as appropriate.

The ISO will review the submitted Certification Form and issue a written notification to each QTPS indicating their QTPS status. An entity whose QTPS status is terminated by the ISO under this Section can only reinstate the status by requesting and receiving QTPS status in accordance with Section 4B of Attachment K to Section II of the ISO Tariff, as described in Section 2.2.2 of this document.

2.2.5.1 Submittal of QTPS Annual Certification Form and Certification Window

A QTPS must complete and submit a Certification Form to the ISO (via QTPS@iso-ne.com) from the beginning of the day on January 1st through the end of the day on January 31st (“the Certification Window”) of every year following the year of obtaining its QTPS status.

The QTPS will indicate:

² Nothing prevents a non-PTO from becoming party to an NTDOA prior to the ISO’s determination that the Application is Accepted. An Applicant that is applying for QTPS status following its failure to maintain QTPS status in accordance with Section 2.2.5 and who is already party to an NTDOA will be determined to have met the NTDOA requirement.

³ See: http://www.iso-ne.com/support/reg_info/membership/index.html

⁴ Nothing prevents a non-PTO from initiating the Membership process and becoming party to an MPSA prior to the ISO’s determination that the Complete Application is Accepted. A non-PTO that is applying for QTPS status following its failure to maintain QTPS status in accordance with Section 2.2.5 and who is already party to an MPSA will be determined to have met the MPSA requirement.

- Whether the information included in the Accepted Application has adversely changed in a material fashion (“an adverse material change”⁵) in the intervening year and, if so, provide a description of the changes; and
- Which agreements (i.e., TOA, NTDOA, MPSA) to which they are a party.

The Certification Form and submittal instructions can be found in Appendix C - Qualified Transmission Project Sponsor Annual Certification Form to this QTPS process.

2.2.5.2 Review of Certification Form

The ISO will review Certification Forms received within the Certification Window and confirm or terminate the QTPS status based on the information received and issue a written notification to each QTPS indicating their QTPS status, subject to also meeting the TOA, NTDOA and MPSA requirements shown below.

- A PTO must continue to be party to the TOA in order to maintain its QTPS status; and
- A non-PTO must continue to be party to an NTDOA and an MPSA in order to maintain its QTPS status.

The ISO will monitor for changes to these agreements and will terminate the QTPS status of any QTPS that ceases to be party to the TOA, NTDOA or MPSA, as applicable.

2.2.5.3 Failure to Submit Certification Form

The ISO will issue written notification to any QTPS that was required but failed (either due to omission or a timing failure) to submit a Certification Form within the Certification Window that its QTPS status is terminated

2.2.6 QTPS Listing

[A list of QTPSs can be found in Appendix 3 to Attachment K of the OATT and in the current inventory of QTPSs⁶.](#)

2.3 Overview of Process

Through an open stakeholder process, the ISO develops long range plans for the region’s networked transmission facilities to address future system needs over the ten year planning horizon. Subject to Information Policy including Critical Energy Infrastructure Information (“CEII”) requirements approved by FERC, all planning study efforts are discussed with the Planning Advisory Committee (“PAC”), and opportunities are provided for comments ranging from the draft scope of work through the posting of final reports. Study base cases and contingencies, which are used to simulate the system performance, are made available on the ISO web site to stakeholders subject to CEII requirements.

⁵ An adverse material change is a change to any information included in the QTPS’s Accepted Application that adversely impacts in a material fashion the QTPS’s capability to construct a RTU, METU or PPTU in a timely and competent manner, and operate and maintain such facilities.

⁶ http://www.iso-ne.com/static-assets/documents/2016/03/current_qtps_inventory.docx

The transmission planning study process begins by developing a study scope and identifying all key inputs for conducting a Needs Assessment to determine the adequacy of the power system, as a whole or in part, to maintain the reliability of the facilities while promoting the operation of efficient wholesale electric markets in New England. After the results of a Needs Assessment are made available for stakeholder input, the potential transmission system solutions are evaluated thoroughly to identify the solutions for the region that offer the best combination of electrical performance, cost, future system expandability, and feasibility to meet the needs identified in a Needs Assessment. These study efforts may be in the form of a Solutions Study or a competitive solicitation depending on if the ISO forecasts that a solution is needed to solve reliability criteria violations in three years or less from the completion of a Needs Assessment.

2.4 Process Steps Overview

A Needs Assessment must be developed to assess the reliability performance of the Pool Transmission Facility (“PTF”) system. This assessment may determine that the planned system will not meet reliability criteria during the study period. Where that occurs, possible transmission system upgrades that will address the identified needs may be proposed. Once a preferred solution has identified the solution that offers the best combination of electrical performance, cost, future system expandability, and feasibility to meet a need identified in a Needs Assessment in the required time frame. Additional activities under the proposed-plan process are necessary to ensure that proposed solutions are acceptable. This procedure describes the process for performance of a Needs Assessment in Section 2.6, performance of a Solutions Study in Section 2.7⁸, and the steps necessary to complete the review and approval process for proposed projects or plans. Activities such as treatment of Market Solutions and incorporation of changes in Needs Assessment or Solutions Study assumptions are also discussed.

2.5 Stakeholder Involvement

Stakeholders are expected to actively participate in the Planning Advisory Committee (“PAC”) process by attending meetings, commenting on posted study scopes and reports and otherwise providing useful comments on the process. ISO will consider all comments received from stakeholders during the PAC. Membership requirements for the PAC are described in Section 4.2 of this document. Consistent with the intention of Attachment K, and for the efficiency of the planning process, members of the Reliability Committee (“RC”) are expected to participate in the PAC process to provide comments and input on study scopes, Needs Assessments and the selection of a preferred solution at that time, rather than waiting for the PPA or TCA review.

Stakeholders may provide comments at the Planning Advisory Committee meetings or they may also submit comments in writing at PACMatters@iso-ne.com. Comments submitted to PACMatters will be posted⁷ on ISO-NE’s website, along with ISO-NE’s response to such correspondence.

2.6 Needs Assessment

2.6.1 Process Overview

The ISO coordinates and administers the process for performing Needs Assessments for the PTF System. In addition as described in Section 4.1 of Attachment K, the ISO, in coordination with the PTOs and the PAC, shall conduct Needs Assessments of the adequacy of the PTF system, as a whole or in part, to maintain the reliability of such facilities while promoting the operation of efficient wholesale electric markets in New

⁷ http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/pac/reports/index.html

England. Conversely, PTOs initiate, coordinate and direct the performance of all Needs Assessments for the Non-PTF in the New England transmission system. The remainder of Section 2.6 will address the Needs Assessment process for the PTF in the New England transmission system as administered by ISO.

The process for completing a Needs Assessment includes a review of the study scope, a review of initial results, presentation of final results, and documentation of the study using the ISO standard report format.

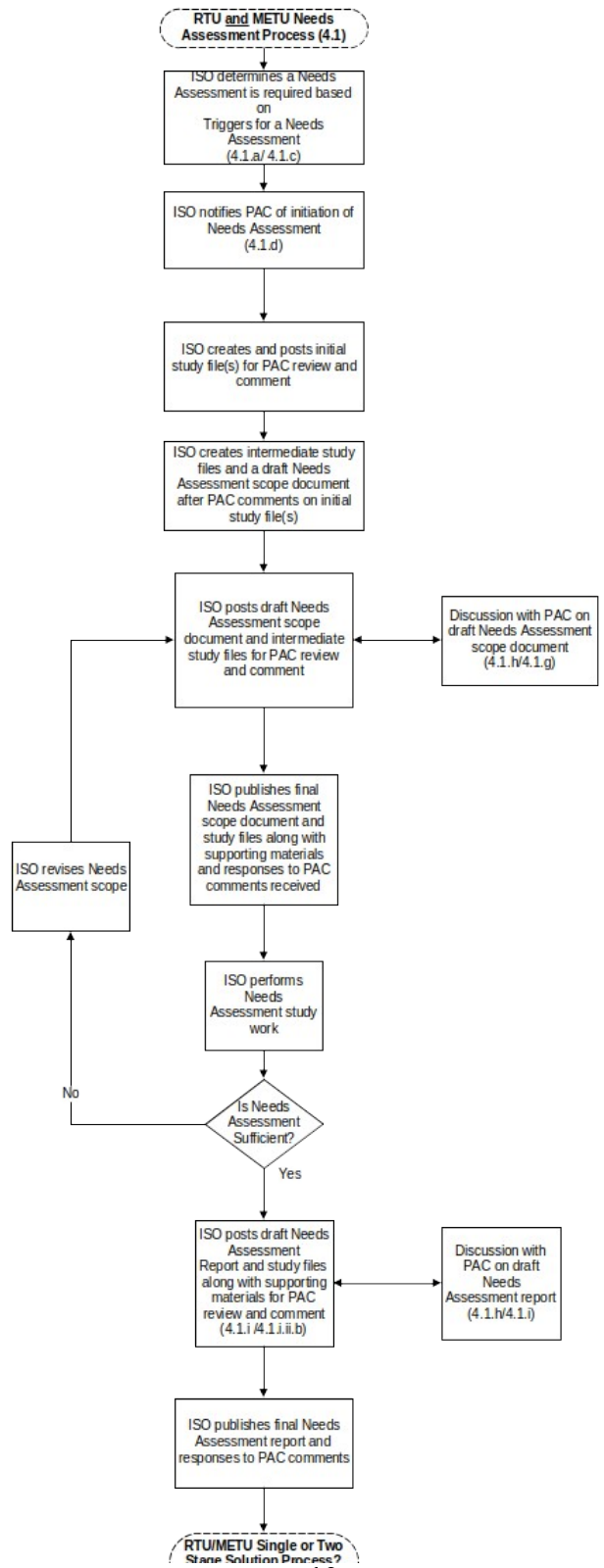
The following sections provide an overview of the process for conducting a Needs Assessment. Studies may address one or more of the types of assessments listed. In general the process described is applicable to all of the study types listed. Where it is necessary, procedures that are specific to particular types of analyses will be noted in the descriptions.

A Needs Assessment may include, but is not limited to the following:

- Conduct analysis to assess compliance with reliability standards, criteria, or guides (including those established by the ISO, NERC, NPCC and the Transmission Owner) consistent with the long term needs of the system
- Assess the adequacy of the transmission system capability, such as transfer capability, to support local, regional and interregional reliability
- Assess the efficient operation of the wholesale electric market. (See Attachment N regarding the identification of market efficiency upgrades)
- Assess sufficiency of the system to integrate new resources and loads on an aggregate or regional basis as needed for the reliable and efficient operation of the system
- Analyze various aspects of system performance. (Including but not limited to, transient network analysis, small signal analysis, electromagnetic transients program (“EMTP”) analysis, or delta P analysis)
- Examine short circuit performance of the system. (e.g. circuit breakers, bus systems, ground grids, and circuit switchers)
- Assess the ability to efficiently operate and maintain the transmission system
- Address requests for an economic study consistent with section 4.1.b of Attachment K
- Address system performance in consideration of a De-List bids consistent with section 4.1.c of Attachment K

At any time during a Needs Assessment, assumptions can change requiring a modification to the scope. The modified scope will be brought back to the PAC for discussion and comments.

The Needs Assessment process is depicted by the following flowchart:



2.6.2 Initiation of a Needs Assessment

For a Needs Assessment on the PTF system the ISO will be the initiator per the triggers listed in 4.1(a) and 4.1(c) of Attachment K. The ISO notifies the PAC in the form of a posted notice of the initiation of a Needs Assessment. The notice shall include a description of the relevant trigger(s) and may include a general description of the objectives, identify the type of study(s) to be performed and include general information about what the study(s) will encompass and a high level overview of the study area.

2.6.3 Study Scope Development and Review (PAC)

To allow for the development of a study scope the ISO will create and post, to its website, initial study files for each load level being assessed for the PAC to review and comment on (review period will vary on complexity of study files). After the ISO receives and reviews the PAC feedback on the initial study files the ISO will create and publish intermediate study files and a draft Needs Assessment scope document and bring the draft scope document to the PAC for discussion and review. The study scope will include a study schedule/timeline and should as a minimum include the following:

- Study objective
- Study Area
- Year(s) to be studied
- Description of the type of analysis and testing that will be included in the study. While these typically include steady-state, stability and short circuit studies, EMTP analysis and other types of analysis are sometimes required
- Study Assumptions (including but not limited to) transfers, load level, contingencies, and market solutions
- Any sensitivity considered such as potential retirements, demand-response performance characteristics, load forecast changes, topology changes included or excluded, etc.
- Reliability standards and criteria
- Description of methodology and performance criteria

As deemed necessary by the ISO, the ISO may also provide the scope to the Market Advisor to the ISO Board of Directors and the ISO Board of Directors. Upon receiving comments from the PAC, the ISO will determine the final study scope and respond to the input received from the PAC. The final Needs Assessment scope document and all study files and supporting documentation will be posted in the related Key Study Area subsection to the System Planning area on the ISO website.⁸

⁸ http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/pac/reports/2012/index.html

2.6.4 Treatment of Market Solutions in Needs Assessment

The Needs Assessment shall reflect proposed market responses. Market responses may included, but are not limited to, resources (such as demand-side projects or distributed generation projects), and Elective Transmission Upgrades.

The Needs Assessment shall incorporate or update information regarding proposed resources that:

- have cleared in a Forward Capacity Auction pursuant to Market Rule 1 of the ISO Tariff,
- have been selected in, and are contractually bound by, a state-sponsored Request For Proposals, or
- have a financially binding obligation pursuant to a contract

The Needs Assessment shall incorporate or update information regarding a proposed Elective Transmission Upgrade if:

- studies corresponding to the Elective Transmission Upgrade are completed (including receipt of approval under Section I.3.9 of the Tariff),
- a commercial operation date has been ascertained, and
- for which the certification has been accepted in accordance with Section III.12 of the Tariff.

In the case where the Elective Transmission Upgrades are proposed in conjunction with the interconnection of a resource, these Elective Transmission Upgrades shall be considered at the same time as the proposed resource is considered in the Needs Assessment provided that:

- the studies corresponding to the Elective Transmission Upgrade are completed (including receipt of approval under Section I.3.9 of the Tariff),
- a commercial operation date has been ascertained,
- and for which the certification has been accepted in accordance with Section III.12 of the Tariff.

2.6.5 Conduct Needs Assessment

The Needs Assessment study is conducted as described within the study scope and the ISO will coordinate with the PAC to support the ISO's performance of a Needs Assessment. If required, the ISO may ask PTO's or members of the PAC with special expertise to provide technical support or to perform studies required to assess one or more potential needs that will be considered in a Needs Assessment. To facilitate this support, the ISO will post on its website all study files and supporting documentation used to perform the Needs Assessment. The ISO may establish requirements that any PTO or member of the PAC must satisfy to access certain information used to perform Needs Assessments due to ISO Information Policy and CEII constraints. The ISO will update, as needed, the models, files, cases, contingencies, assumptions and other information that will be

used to perform the Needs Assessment. These materials will then be posted to the ISO website. It may be necessary to update the Need Assessment study analysis based on changes in assumptions, if changes are made the ISO will post updated relevant information on its webpage and notify the PAC.

2.6.6 Collect and Review Results

The results of the Needs Assessment are compiled, analyzed and documented by the ISO. The information is compiled in a manner that allows for a detailed review of results on the basis of established criteria through concise presentation of the data. Each instance of system performance issues identified as part of the study should be documented and summarized.

The results of the analysis are reviewed, in detail, by the PAC to confirm the validity of the information and to ensure that all contributing factors have been taken into account and that the objectives of the Needs Assessment have been met. The ISO posts the draft Needs Assessment Report and study files along with supporting materials to the ISO website and convenes meetings open to any member of PAC to facilitate input to the Needs Assessment study work and draft report prior to the completion of the Needs Assessment report (subject to ISO Information Policy and CEII constraints).

2.6.7 Publish Needs Assessment Report

Upon completion of the PAC review, a final Needs Assessment Report⁹ along with all study files and supporting documentation is published using the ISO Standard Needs Assessment Report format describing the study that was performed and the results of the analysis. The report should conform to the standard report structure to allow for a consistent review by all stakeholders and to allow a consistent method of identifying reliability needs for the PTF system. This standardization also supports compliance audits performed by NPCC and NERC. The ISO will publish the final Needs Assessment Report on its website¹⁰ in accordance with CEII publishing protocol. Generally the presentations to PAC as described above are deemed sufficient to identify the opportunity for market responses. If formally requested to do so, the ISO will also present the report in appropriate market forums, other than PAC, in order to facilitate market responses.

The objective of the Needs Assessment Report is to document the results of studies that evaluate system performance against criteria and standards and the report is not intended to document likely or proposed solutions to any of the problems identified. Mitigation of identified performance issues to criteria is determined through performance of a Solutions Study or through an open competitive process, as described in sections 4.2 and 4.3 of Attachment K, respectively.

⁹ http://www.iso-ne.com/rules_proceeds/isone_plan/othr_docs/sample_needs_assessment_rev1.doc

¹⁰ Planning Advisory Committee Reports - http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/pac/reports/index.html

2.7 Determination of Solutions Study or Competitive Solutions Process

2.7.1 Process Overview

At the conclusion of a Needs Assessment, where needs have been identified, a decision must be made with regard to developing regulated transmission upgrades (solutions) to resolve the needs. The development of the solution(s) shall be accomplished by either the Solutions Study process or the Competitive Solution process.

Reliability Transmission Upgrades

The initial determining factor of the decision for Reliability Transmission Upgrades is based on the time sensitivity of each need in the Needs Assessment. If a solution is required to solve a need *greater* than three years from the time the Needs Assessment is completed¹¹, then the Competitive Solution process is utilized to develop and select the solution. Note that where a Competitive Solution process is utilized, but the only Phase One Proposal submitted is the Backstop Transmission Solution, the ISO will utilize the Solutions Study process to complete the development of the solution.

If the year of need is three years or less from the completion of the Needs Assessment, then the Solutions Study process is utilized to develop and select the solution. Where the Solutions Study process is utilized for system needs that occur three years or less, the ISO will communicate the following to PAC:

- an explanation of the reliability criteria violations and system conditions that generated the needs,
- time sensitivity of each need,
- an explanation of other transmission or non-transmission options considered to address the identified reliability needs, and
- the circumstances that generated the reliability need, and an explanation of why the reliability need was not identified earlier

The ISO shall present the material above at a PAC meeting and will post the related presentation to the ISO website. The stakeholders will be given thirty days to submit comments on the posted material, and all comments received will be posted to the ISO website. Where appropriate, ISO responses to comments received will also be posted.

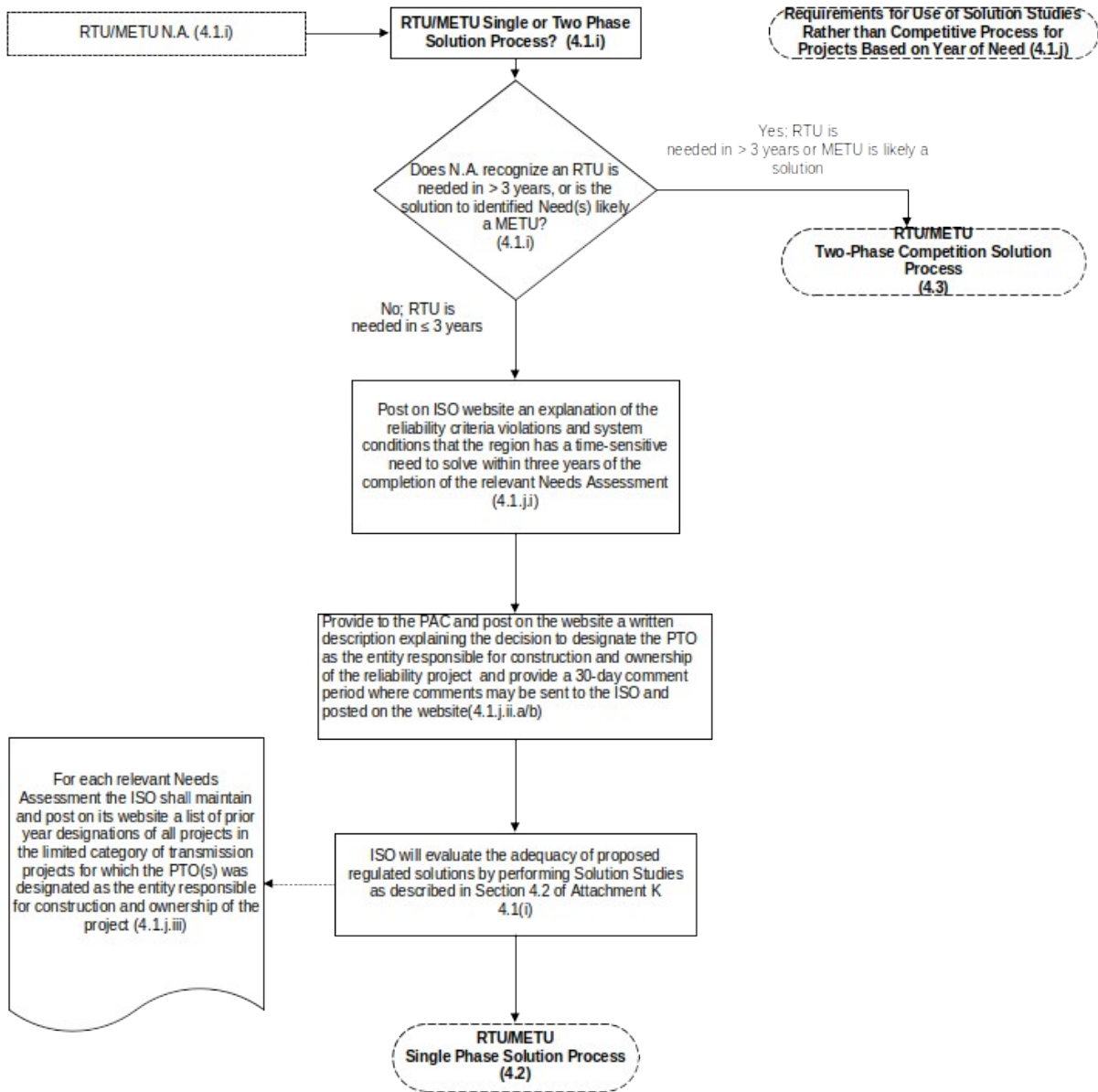
The ISO shall maintain and post on its website a list of prior year projects where the PTO was designated the entity responsible for construction and ownership of the reliability project once the Solutions Study process is completed¹². The list must include the time sensitivity of each need and the actual date the PTO(s) placed the project into service.

Market Efficiency Transmission Upgrades

If a Market Efficiency Transmission Upgrade is likely to be the solution for a need, then the Competitive Solution process shall be followed regardless of the year of need. The Determination of Solutions Study or Competitive Solutions Process is depicted by the following flowchart:

¹¹ A Needs Assessment is considered complete on the day the final Needs Assessment report is posted to the PAC website.

¹² A Solutions Study is considered complete on the day the final Solutions Study report is posted to the PAC website.



2.8 Development of a Regulated Transmission Solutions Study

2.8.1 Solutions Study Process Overview Where Competitive Solution process is not Applicable

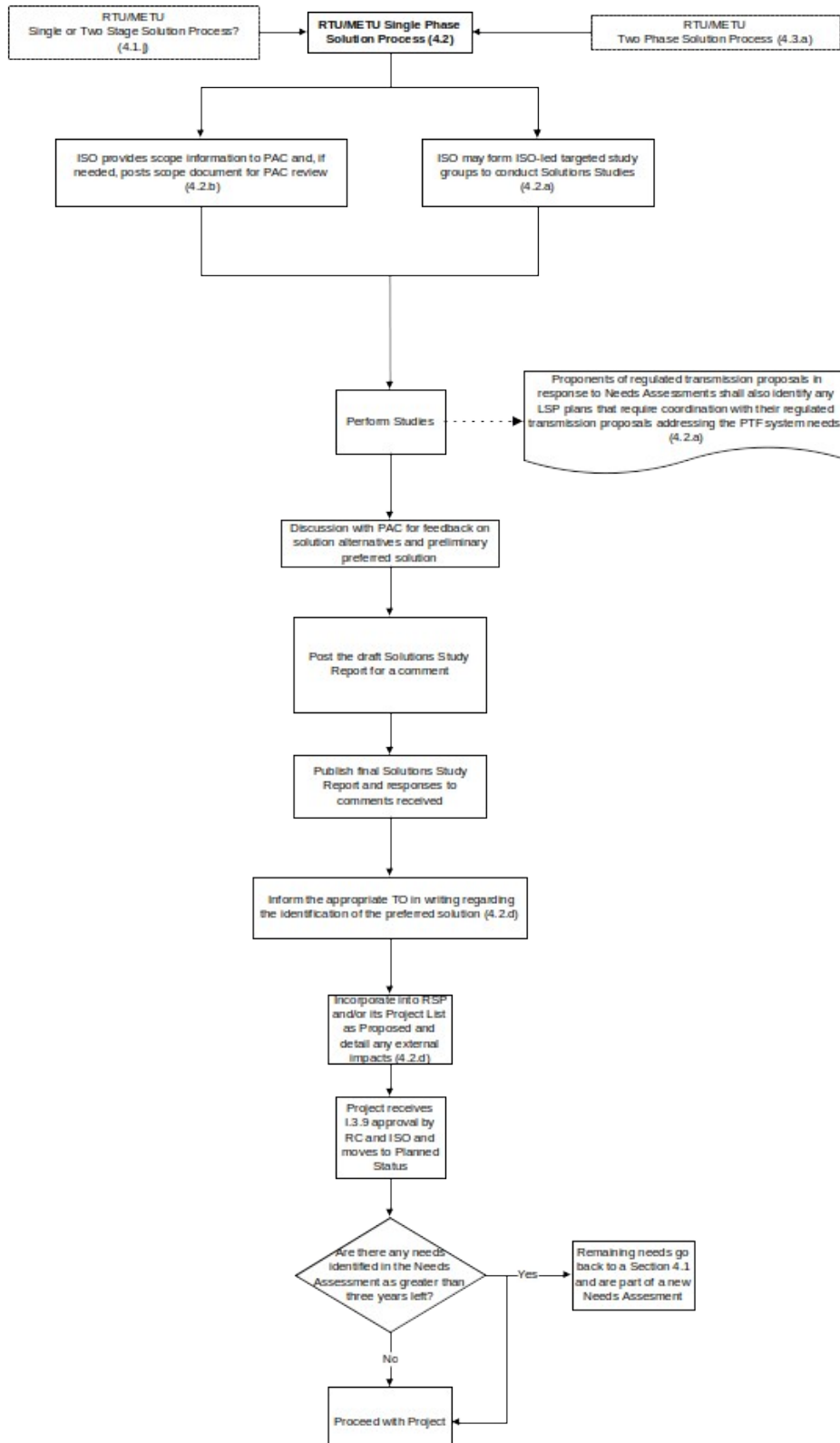
When triggered as described in Section 2.7.1 above, the ISO will lead a solutions development process that will conduct studies to identify the most cost-effective and reliable transmission solution that offers the best combination of electrical performance, cost, future system expandability, and the feasibility to meet the time sensitive needs identified in the Needs Assessment in the required time frame. The process for performing a Solutions Study includes:

- Provision of study scope information to PAC,
- Presentation of preliminary preferred solution to PAC,
- Identification of final preferred solution to PAC, and
- Drafting of a solutions study report using the ISO standard report format

During this process, the ISO may form ISO-led study groups to conduct Solutions Studies. The ISO-led study group is responsible for conducting the solution development and assessment. The results of the ISO-led solutions development process will be discussed with PAC and be reflected in the RSP and /or its Project List.

Market solutions are not assessed in a Solutions Study and instead become an integral assumption in the Needs Assessment. See Section 2.4.8 for an explanation of how and when Market Solutions are considered.

The Solutions Study process is depicted by the following flowchart:



2.8.2 Study Initiation Notification and Scope

After a Needs Assessment is completed and it is determined that a Solutions Study will be required, the ISO will provide notice of the initiation of the Solutions Study to PAC in the form of an e-mail notification or presentation.

The elements of a Solution Study scope should be based on the conditions and assumptions studied in the Needs Assessment. A Solutions Study scope document will not be provided to PAC in cases where the scope is the same as the study conditions and assumptions of the Needs Assessment scope which has already been vetted through the PAC process. In such cases, ISO will notify PAC through email that the Solutions Study scope is consistent with the study conditions and assumptions of the Needs Assessment, and that a scope document is not required. If a Solutions Study scope document is required, ISO will post the scope to the ISO website and provide PAC with a timeline for submitting comments.

If the Backstop Transmission Solution is the only acceptable Phase One Proposal in the Competitive Solution Process it will proceed as a Solutions Study starting with this section.

2.8.3 Development of Regulated Transmission Solution Alternatives

The ISO may form ISO-led targeted study groups to conduct Solutions Studies. Such study groups will include representatives of the proponents of regulated transmission solutions and other interested or affected stakeholders. The ISO will determine the final study group.

The process for development of regulated solutions to address identified time sensitive needs should follow a set of basic development and evaluation procedures. This process is generally as follows:

- Evaluation of possible transmission system improvements that have the potential of solving the needs
- Selection of viable alternatives through more detailed assessments
- Testing of viable alternatives to ensure they are complete and they fully address the identified needs.
- Testing system performance for issues such as short circuit margins, stability performance, thermal loading, voltage control, EMTP analyses, and extreme contingency performance of the alternative solutions as needed
- Examining operational and maintenance related issues on a high level basis to ensure that solution alternatives do not introduce operational or maintenance related concerns
- Evaluating the overall cost (possibly including a net present value analysis) and performance of the proposed set of viable alternatives to determine which among them is the most appropriate and cost-effective solution

Each of these steps is performed in a consistent and structured manner. This may result in an iterative process during which an alternative may be rejected or modified to account for any failure to address the full set of problems identified in the Needs Assessment study. Each of the final viable alternatives should fully address the set of time sensitive needs identified in the Needs Assessment. In order to comprehensively compare each of the alternatives, the set of complete and viable alternatives is evaluated by the project proponent at a more

detailed level for cost, consistent with Appendix A and Attachment D¹³ to ISO Planning Procedure No. 4¹⁴, which outlines accuracy ranges for cost estimates and also provides guidance on contingency and escalation values. In some cases, it may be necessary to also conduct a performance comparison of the alternatives. Factors to be considered in the evaluation of alternatives shall include, but are not limited to, the following:

- Costs of construction including all costs associated with rights of way, easements and associated real estate.
- Assessment of the schedule or in-service date of the project from an engineering and construction standpoint rather than from the standpoint of potential delays in local or state siting.
- Relative reliability and operational impacts of the project as compared to alternatives considered.
- Costs associated with operation and maintenance of the proposed design and alternatives, including consideration of whether the proposed design is consistent with Good Utility Practice.
- Costs of related and long-term congestion impacts, if any, of each proposed PTF and Non-PTF design alternative, including costs related to outages associated with construction.
- The proposed design’s fit into reasonable future expansion plans including the “Regional System Plan” (“RSP”).
- Consistency with current engineering, design and construction practices in the area.
- Long term system improvements.
- Other factors including loss savings, operability, asset condition, etc.

During the solutions alternatives development the proponents of a regulated transmission proposal in response to a Needs Assessment shall also identify any Local System Projects (“LSP”) plans that will require coordination with their regulated transmission proposal addressing the PTF system Need. The LSP projects will not be eligible for PTF cost recovery.

2.8.4 Discussion Regarding Transmission Alternatives Being Considered (PAC)

As the Solutions Study progresses, transmission alternatives will be discussed with PAC once they are developed. PAC will have the opportunity to comment on the alternatives, the set of factors considered in comparing potential solutions, and/or suggest different transmission alternatives to be studied. Where appropriate, ISO responses to comments received will also be posted.

Based on the analyses performed in the Solutions Study, the ISO will determine which regulated transmission solution offers the best combination of electrical performance, costs, future system expandability, and feasibility to meet the time-sensitive need identified in a Needs Assessment in the required time frame. This solution is considered the “preliminary preferred solution.” PAC and other interested stakeholders are given the opportunity to comment on the preliminary preferred transmission solution before the draft Solutions Study Report is issued.

2.8.5 Publish Solutions Study Report

Upon completion of the Solutions Study analysis, the ISO will publish a draft study report, which identifies the preferred solution, using the ISO Standard Solutions Study Report¹⁵ format found on the ISO website. The

¹³ http://www.iso-ne.com/rules_proceeds/isone_plan/pp4_0_attachment_d.pdf

¹⁴ http://www.iso-ne.com/rules_proceeds/isone_plan/pp4_0_r5.pdf

¹⁵ http://www.iso-ne.com/rules_proceeds/isone_plan/othr_docs/sample_standard_solution_study_report_72910.doc

report should conform to the standard report structure to allow for a consistent review by all stakeholders. This allows for a consistent method for identifying reliability solutions for the PTF system and also supports compliance audits performed by NPCC and NERC. The Solutions Study report will be posted on the ISO website in the related Key Study Area sub-section to the System Planning area of the ISO website¹⁶ for a stakeholder comment period. Comments should be submitted to PACmatters@iso-ne.com.

Where appropriate, ISO responses to comments received will also be posted. The ISO will publish the final Solutions Study Report on its website in accordance with CEII publishing protocol when all comments have been addressed.

2.8.6 Determination of the Regionally-Preferred Transmission Solution

After the preferred solution has been identified, the ISO will inform the appropriate Transmission Owners in writing regarding the identification of the preferred solution. Once identified, the preferred solution will be reflected in the RSP and/or its RSP Project List as it is updated from time to time, pursuant to Attachment K and in accordance with Section 3.2 of this document.

Where external impacts of regional projects are identified through coordination by the ISO with neighboring entities, those impacts will be identified in the RSP

The proponent of the preferred solution will need to comply with Proposed Plan Application process set out in Section I.3.9 of the ISO Tariff to ensure that there is no material adverse impact to the system as a result of the transmission plan. This review process is accomplished through the use of engineering task forces. These task forces include the Transmission Task Force (“TTF”) and the Stability Task Force (“STF”). Members of the TTF and STF are required to have CEII clearance to participate on a Task Force. Once the transmission proponent completes the Task Force technical review process, the proponent submits their Proposed Plan Application (“PPA”) to the ISO which places it on the Reliability Committee agenda for an advisory vote. The Tariff Section I.3.9 process (also called the PPA process) applies only for the evaluation of significant adverse impacts on reliability and operating characteristics.

2.8.7 Changes in Study Assumptions

If a change in study assumptions is evaluated by ISO and is found to not impact the time sensitivity of the need(s) or the need(s) itself, the study will continue. If the change in study assumptions impacts the time sensitivity of a need or the need, the study may be stopped and the need will be re-evaluated. If the new study assumptions must be adopted, it is preferred to restart the assessment with updated assumptions. The ISO, will make the final decision on whether a study will continue or will be re-started.

2.8.8 Remaining Needs

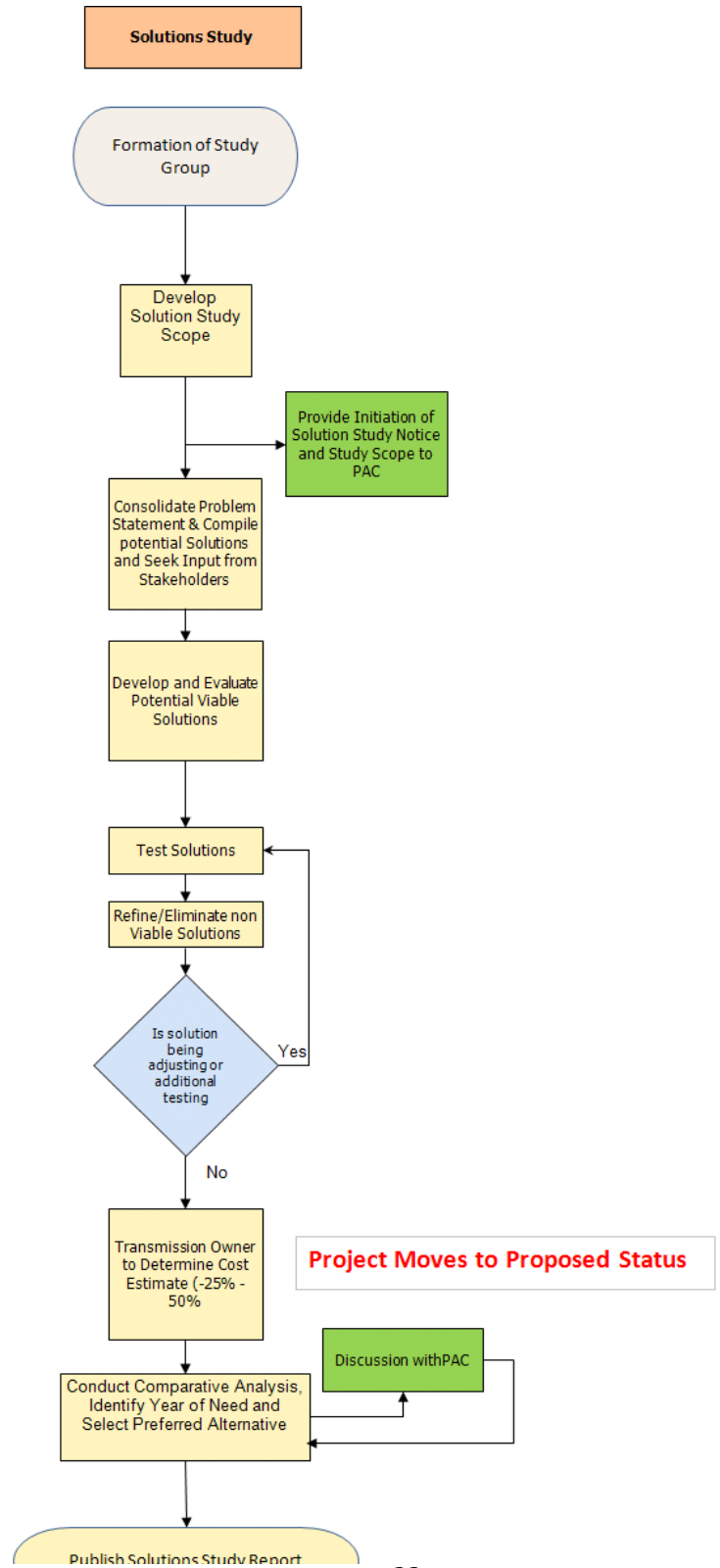
If after the completion of a Solutions Study, needs indentified in the Needs Assessment with a year of need greater than three years from the completion of the Needs Assessment are still unsolved, then a new Needs Assessment will begin to determine the expected year of need for the remaining needs. That process is described in section 2.6 of this document.

¹⁶ <http://www.iso-ne.com/system-planning/key-study-areas>

2.9 Development of a Regulated Transmission Solutions Study

2.9.1 Process Overview

The Solutions Study process is depicted by the following flowchart:



2.9.2 Solutions Study Process Summary

If a Needs Assessment identifies system performance issues, the ISO will lead a solutions development process that will conduct studies to identify the most cost-effective and reliable transmission solution that meets the needs identified in the Needs Assessment. The process for performing a Solutions Study includes a review of the study scope, a review of initial results, presentation of final results, and documentation of the study using the ISO standard report format.

Once a Needs Assessment is completed and the determination is made that a Solutions Study is needed the ISO will notify the PAC that a Solutions Study will commence. The ISO may form an ISO-led study groups to conduct Solutions Studies. Those stakeholders whose systems may be the subject of a Solutions Study or whose equipment may be affected within the study may provide a request to the ISO to participate in the study group. The Solutions Study group is responsible for conducting the solution development and assessment. The results of the ISO-led Solutions Studies will be discussed with the PAC and be reflected in the RSP and /or its Project List.

Market solutions are not assessed in a Solutions Study and instead become an integral assumption in the Needs Assessment. See Section 2.4.8 for an explanation of how and when Market Solutions are considered.

2.9.3 Study Initiation Notification and Scope Review (PAC)

After a Needs Assessment is completed and it is determined that a Solutions Study will be required, the ISO will provide notice of the initiation and the scope of the Solutions Study to the PAC. The ISO shall provide notice in the form of a presentation or e-mail notification to the PAC. The notice may include study objective, analysis period, study schedule, conceptual solutions and other relevant information to the study.

The ISO-led Solution Study group will determine a study scope consistent with the Needs Assessment study scopes, considering the results of both the needs analyses and all stakeholder comments received through the PAC review process. Those entities working with the ISO in the solutions development process may have access to some information restricted due to ISO confidentiality policy or CEH requirements. The process for development of a study scope and explanation of the information to be included in the study scope will be provided.

The study scope should as a minimum include:

- Study objective
- Portion of the New England transmission system that will be included in the study
- Years to be studied
- Load levels to be studied
- Description of the type of analysis and testing that will be included in the study

- Assumptions to be included in the modeling and testing
- Any sensitivity considered such as potential retirements, demand-response performance characteristics, load forecast changes, topology changes included or excluded, etc.
- A study schedule and timeline

If the scope of the proposed Solutions Study differs significantly from that of the scope of the Needs Assessment it will be posted for the PAC review. In most cases, the scope is the same as the Needs Assessment and has already been vetted through the PAC process and therefore will not be brought back for further review.

2.9.4 Development of Regulated Transmission Solution Alternatives

The process for development of regulated solutions to identified problems and system performance relative to standards and criteria of the existing or projected transmission system should follow a set of basic development and evaluation procedures. This process is generally as follows:

- Evaluation of possible transmission system improvements that have the potential of mitigating the concerns
- Selection of viable alternatives through more detailed assessments
- Testing of viable alternatives to ensure they are complete and they fully address the identified concerns, and are consistent with the long-term needs of the system
- Testing system performance for issues such as short circuit margins, stability performance, thermal loading, voltage control, EMTP analyses, and extreme contingency performance of the alternative solutions should be considered
- Examining operational and maintenance related issues on a high level basis to ensure that solution alternatives do not introduce operational or maintenance related concerns
- Evaluating the overall cost (possibly including a net present value analysis) and performance of the proposed set of viable alternatives to determine which among them is the most appropriate and cost-effective solution

Each of these steps is performed in a consistent and structured manner.

After a full set of possible system improvements has been developed, the possible solutions are assessed to determine the viability of their implementation. A set of factors (such as performance, high-level costs and land-acquisition requirements) should be developed that allow for a consistent process for determining which upgrades are viable and which are to be eliminated from further consideration. Attachment D¹⁷ to ISO Planning Procedure No. 4¹⁸ outlines accuracy ranges for estimates and also provides guidance on contingency and escalation values. To allow all possible solutions to be compared equally, estimates should be done in accordance with Attachment D to ISO Planning Procedure No. 4.

¹⁷http://www.iso-ne.com/rules_proceeds/isonc_plan/pp4-0_attachment_d.pdf

¹⁸http://www.iso-ne.com/rules_proceeds/isonc_plan/pp4-0_r5.pdf

Upon completion of the review of alternatives with respect to feasibility, a set of viable alternatives should be established. These alternatives should then be tested against the set of performance measures that the Needs Assessment process used. This may result in an iterative process during which an alternative may be rejected or modified to account for any failure to address the full set of problems identified in the Needs Assessment study. Each of the final viable alternatives should fully address the set of problems identified in the Needs Assessment.

To comprehensively compare each of the alternatives, the set of complete and viable alternatives is evaluated by the study proponent at a more detailed level for cost, consistent with Appendix A and Attachment D to ISO Planning Procedure No. 4. In some cases, it may be necessary to also conduct a performance comparison of the alternatives. Factors to be considered in the evaluation of alternatives that have similar cost and siting characteristics shall include, but are not limited to, the following:

- Costs of construction including all costs associated with rights of way, easements and associated real estate.
- Assessment of the schedule or in-service date of the project from an engineering and construction standpoint rather than from the standpoint of potential delays in local or state siting.
- Relative reliability and operational impacts of the project as compared to alternatives considered.
- Costs associated with operation and maintenance of the proposed design and alternatives, including consideration of whether the proposed design is consistent with Good Utility Practice.
- Costs of related and long-term congestion impacts, if any, of each proposed PTF and Non-PTF design alternative, including costs related to outages associated with construction.
- The proposed design's fit into reasonable future expansion plans including the "Regional System Plan" ("RSP")
- Consistency with current engineering, design and construction practices in the area.
- Long Term System Improvements
- Other Factors including loss savings, operability, asset condition, etc.

2.9.5 Discussion Regarding Transmission Alternatives Being Considered (PAC)

As the Solutions Study progresses, transmission alternatives will be discussed with the PAC as they are being developed. The PAC will have the opportunity to comment on the alternatives, the set of factors considered in comparing potential solutions, and/or suggest different transmission alternatives to be studied and ISO will respond to PAC input. The ISO and the proponent(s) will return to PAC, as needed, to provide updates on the study and to provide information as transmission alternatives are narrowed down.

2.9.6 Interregional Coordination Study

In developing the Regional System Plans, the ISO coordinates study efforts with surrounding RTOs and balancing authority areas and analyzes information and data presented in neighboring plans.¹⁹ This is achieved through a number of interregional agreements and joint studies with neighboring regions and across the entire Eastern Interconnection.²⁰ The ISO is a participating member of the Northeastern ISO/RTO Planning

¹⁹ A *balancing authority area* is a group of generation, transmission, and loads within the metered boundaries of the entity (balancing authority) that maintains the load-resource balance within the area. Balancing authority areas were formerly referred to as control areas. Further information is available in the NERC glossary at http://www.nerc.com/docs/standards/rs/Glossary_12Feb08.pdf.

²⁰ The *Eastern Interconnection* consists of the interconnected transmission and distribution infrastructure that synchronously operates east of the Rocky Mountains, excluding the portion of the system located in the Electric Reliability Council of Texas (ERCOT) and Québec.

Coordination Protocol²¹ which describes the interregional planning process that the ISO engages with NYISO and PJM. Pursuant to the Protocol, the ISO participates in the Joint ISO/RTO Planning Committee. The Inter-Area Planning Stakeholder Advisory Committee (“IPSAC”) is the multi-regional stakeholder body that covers the areas of the ISO, NYISO and PJM. Members of the ISO PAC are automatically members of the IPSAC and are sent notices of IPSAC meetings and materials. The ISO also actively participates in NPCC interregional planning activities.

The ISO will consult with the PAC concerning inter-area needs assessments and the potential responses to any identified inter-area needs. When a Solutions Study is being performed in an area that may impact another region, the ISO-led Study Group will review the plans of that region to determine if there will be an impact to the proposed study area.

2.9.7 Review of Preferred Transmission Solutions (PAC)

Based on the analyses performed in the Solutions Study, the ISO will determine which regulated transmission solution represents the most cost-effective and reliable solution. This most cost-effective solution is the “preferred solution”. The project that is ultimately constructed will be compared to the preferred solution during the TCA process in order to identify localized costs. The results of the Solutions Study are reviewed and discussed with the PAC and will, as appropriate, be reflected in the RSP and/or its RSP Project List as it is updated from time to time pursuant to Attachment K and in accordance with Section 3.3 of this document. The PAC and other interested Stakeholders are given the opportunity to comment on the preferred transmission solution before the Solutions Study Report is published.

2.9.8 Publish Solutions Study Report

Upon completion of review and discussion with the PAC, a study report shall be published using the ISO Standard Solutions Study Report²² format describing the study that was performed and the results of the analysis. The report should conform to the standard report structure to allow for a consistent review by all stakeholders. This allows for a consistent method for identifying reliability solutions for the PTF system. The Solutions Study report will be posted on the ISO website under PAC materials²³ for a 30 day stakeholder review period and shall be updated as appropriate based on comments received from stakeholders. Comments should be submitted to PACmatters@iso-ne.com.

2.9.9 Determination of the Regionally-Preferred Transmission Solution

After the preferred solution has been reviewed by the PAC, the proponent of that solution will need to comply with Proposed Plan Application process set out in Section I.3.9 of the ISO Tariff to ensure that there is no material adverse impact to the system as a result of the transmission plan. This review process is accomplished through the use of engineering task forces. These task forces include the Transmission Task Force (“TTF”) and the Stability Task Force (“STF”). Members of the TTF and STF are required to have CEH clearance to participate on a Task Force. Once the generator or transmission proponent(s) completes the Task Force technical review process the proponent submits their PPA to the ISO which places it on the Reliability

²¹ <http://www.interiso.com/public/document/Northeastern%20ISO-RTO%20Planning%20Protocol.pdf>

²² http://www.iso-ne.com/rules_proceeds/isonone_plan/othr_docs/sample_standard_solution_study_report_72910.doc

²³ http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/pac/reports/index.html

Committee agenda for an advisory vote. The Tariff Section I.3.9 process (also called the PPA process) applies only for the evaluation of significant adverse impacts on reliability and operating characteristics, and is not used for determining cost allocation of preferred alternatives.

2.9.10 Transmission Cost Allocation

The transmission cost allocation process is outlined in Schedule 12 of the ISO Tariff with additional implementing detail set out in ISO Planning Procedure 4. That process can be summarized as follows: PTOs that are intending to build non-Participant funded Pool Transmission Facilities may file a Transmission Cost Allocation (“TCA”) application. The TCA application can be filed before the ISO approves the I.3.9, but the ISO will not be able to make a final determination on the TCA until it approves the PPA.

The TCA application is submitted to the ISO and the RC. The ISO reviews the application for completeness and may request additional data to supplement the information provided. The ISO engages in a review of the project set out in the application as compared to the preferred solution. The RC also reviews the TCA application for any localized costs and makes a recommendation to the ISO on the application. Criteria employed in this review are set out in Schedule 12c to Part II of the ISO Tariff and Planning Procedure No. 4. The ISO makes the final determination on localized costs and submits a TCA determination letter to the applicant and the RC. Additional information requests can be found on the ISO website along with copies of the TCA determination letters.²⁴ For large or complicated applications, the ISO may hold a public meeting to receive additional stakeholder input on the project, and may also post a draft determination and request feedback prior to a final determination being made.

2.10 Changes in Study Assumptions

If the assumptions change during a study, but adequate progress has been made, the study will continue with the original assumptions unless the change in assumptions is expected to affect the year of need by more than 5 years or result in a significant change in the design of the solution. If the new study assumptions must be adopted, it is preferred to restart the assessment with updated assumptions. If restarting the study is not practical because the study is almost complete or because of the urgency of the need for upgrades, the updated assumptions will be addressed in the next study of the affected area. The ISO, as the NERC-registered Planning Authority, will make the final decision on whether a study will continue or will be re-started.

²⁴ http://www.iso-nc.com/trans/pp_tca/isone_app_approvals/tca/index.html

2.11 Competitive Solution Process

2.11.1 Process Overview

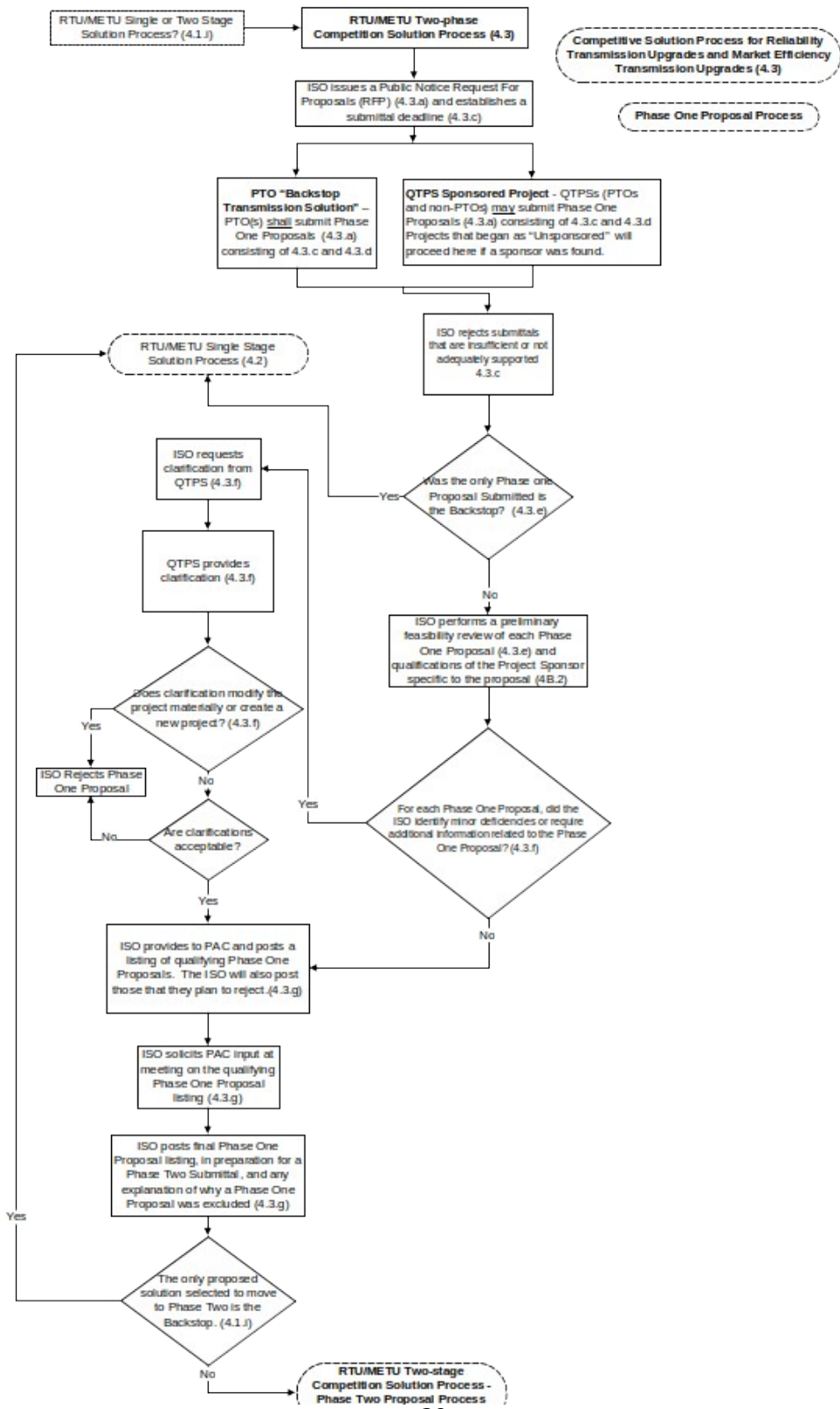
Where triggered as described in Section 2.7.1, above, the ISO will implement a Competitive Solutions process. Those entities that have been designated as Qualified Transmission Project Sponsors may submit proposals for projects address the identified needs consistent with the Public Notice Request for Proposals (“RFP”) that will be issued by the ISO. The general steps for the Compleitive Solution process shall include:

1. ISO issuing a Public Notice, which shall be a Request for Proposals to address the identified transmission system needs.
2. ISO review of all submitted Phase One Proposals and the Backstop Transmission Solution received in response to the RFP.
3. Advancement of Qualifying Phase One proposals as Phase Two Solutions where more detailed information will be provided by the QTPS.
4. ISO review of all submitted Phase Two Solutions and selection of a preliminary Preferred Solution.
5. Opportunity for PAC to comment on the preliminary Preferred Solution.
6. ISO determination of the Preferred Solution and notification to the respective QTPS that its project was selected for development and notification for all other QTPS’s to stop work on their proposals.

Market solutions are not assessed in a Solutions Study and instead become an integral assumption in the Needs Assessment. See Section 2.4.8 for an explanation of how and when Market Solutions are considered.

An RFP may be cancelled by the ISO at any time. Reasons that an RFP might be cancelled include but are not limited to: the reliability needs have been addressed through market responses, system topology changes have changed the needs of the system, adequate responses were not received in response to an RFP.

The Competitive Solutions process is depicted by the following two flowcharts:



RTU/METU Two-phase Competition Solution Process - Phase Two Solution Process (4.3.h)

QTPS are to provide additional information in 12 areas for a listed Phase Two Solution (4.3.h)

ISO rejects submittals that:

- Are a material modification or new project from Phase One submittal, (4.3.f)
- Are insufficient or not adequately supported (4.3.h)

ISO identifies (and develops supporting explanatory materials describing) the Phase Two Solution that offers the best combination of electrical performance, cost, future system expandability and feasibility to meet the need in the required timeframe as the preliminary preferred Phase Two Solution in response to each N.A. (4.3.h)

ISO reports to the PAC and seeks input on the selected preliminary preferred Phase Two Solution (4.3.h)

PAC provides comments to ISO

ISO identifies the preferred Phase Two Solution (with an overview of why the solution is preferred and responds to any PAC comments) by a posting on its website and includes it in as an RTU or METU, as appropriate, in the RSP and/or its Project List and notifies the QTPS of the Phase Two Solution that its project has been selected for development (4.3.j)

Incorporate into RSP and/or its Project List and detail any external impacts in the RSP (4.3.j)

Project is reflected as **Proposed** in the RSP Project List

ISO notifies any non-chosen project, including the Backstop Transmission Solution if not chosen, to stop developing projects

Preferred Phase Two Solution moves through I.3.9 process

Project is reflected as **Planned** in the next RSP Project List update

Monitor milestones

2.11.2 Public Notification

The ISO will issue a public notice RFP associated with a Needs Assessment where a competitive solution process will be utilized pursuant to section 2.7 of this document. The public notice RFP will indicate that a QTPS(s) may submit a Phase One Proposals offering solutions that address the identified needs, and provide further details regarding requirements for competitive project submissions. The public notifications will be published to the ISO webpage under PAC Materials and an email notification will be sent to all members of the PAC. The public notification will include a submittal deadline for all Phase One Proposals.

2.11.3 Un-sponsored Projects

A member of the PAC that is not a QTPS but would like a project to be considered in a competitive solution process must identify a QTPS willing to submit a corresponding Phase One Proposal and Phase Two Solution before the public notice RFP submission deadline. The process for identifying a QTPS willing to submit a Phase One Proposal and Phase Two Solution includes the following steps:

1. The PAC member shall make a request to the ISO for assistance in identifying a sponsor.
2. The ISO shall post on its website and distribute to the PAC a notice that solicits expressions of interest by QTPS's for sponsorship of the conceptual project.
3. All expressions of interest shall include a detailed explanation of why they are the best qualified to construct, own and operate the un-sponsored project.
 - a. If only one QTPS expresses interest, the ISO shall designate it as the project sponsor.
 - b. If more than one QTPS expresses interest, the PAC member shall select the sponsor.
 - c. In either case, the designated sponsor shall thereafter comply with the requirements of this guide, Attachment K and the ISO Tariff with respect to the project.
4. If no QTPS expresses interest, the un-sponsored project may not be submitted.

2.11.4 Phase One Proposal

A QTPS may submit a Phase One Proposal, in response to a public notice RFP that will address the identified needs. The responsible transmission owner or owners shall submit a Phase One Proposal as a Backstop Transmission Solution for any need that would be solved by a project located within or connecting to its/their existing electrical system and which there is obligation to build under Schedule 3.09(a) of the TOA. The Backstop Transmission Solutions sponsor(s). The requirements of a Phase One Proposal are described below in section 2.9.5.

A project sponsor shall identify any LSP projects that will require coordination with their proposals.

As part of a Phase One proposal a project shall not alter a PTO's use and control of existing right of way. The ISO Tariff does not require a PTO relinquish any of its rights of way in order to permit a QTPS to develop, construct or own a project.

2.11.5 Requirements for a Phase One Proposal

With each proposal a QTPS, including the Backstop Transmission Provider(s), must include a \$100,000 study deposit payment per submitted proposal. The deposit will be applied towards the costs incurred by the ISO associated with the study of the Phase One and/or Phase Two proposal.

A Phase One Proposal shall be submitted by the deadline specified in the public notification posting by the ISO and will be no less than 60 days from the posting of the public notice RFP.

The following items must all be met in the submission of a Phase One Proposal or the ISO may reject the proposal for being insufficient or not adequately supported:

- i. A detailed description of the proposed solution, in the manner specified by the ISO, including an identification of the proposed route for the solution and technical details of the project;
- ii. A detailed explanation of how the proposed solution addresses the identified need;
- iii. The proposed schedule, including key high-level milestones, for development, siting, procurement of real estate rights, permitting, construction and completion of the proposed solution;
- iv. Right, title, and interest in rights of way, substations, and other property or facilities, if any that would contribute to the proposed solution or the means and timeframe by which such would be obtained; and
- v. The estimated lifecycle cost of the proposed solution, including a high-level itemization of the components of the cost estimate.

2.11.6 Preliminary ISO Review

The ISO will perform preliminary review on all submissions received to a public notification.

- If the only submission received is that of the Backstop Transmission Solution the process will then proceed under the Solutions Study process described in Section 2.8 of this guide.
- Where there are multiple responses to the public notification, the ISO will perform a preliminary feasibility review for each proposal to see if the proposed solution:
 - o Provides sufficient data and quality to satisfy Section 4.3(c) of Attachment K;
 - o Appears to satisfy the need described in the Needs Assessment;
 - o Is technically practical and indicates possession of or an approach to acquiring the necessary rights of way, property and facility that will make the proposal reasonably feasible in the required timeframe; and
 - o Is not eligible to be constructed only by an existing PTO in accordance with the TOA because the proposed solution is an upgrade to existing PTO facilities or because the costs of the

proposed solution are not eligible for regional cost allocation under the OATT and will be allocated to the local PTO customers.

If a proposal does not adequately meet the above criteria it will be rejected.

If the ISO identifies any minor deficiencies in the Phase One Proposal linked to information provided as part of the Phase One Submittal (Section 2.9.7 above), the ISO will:

- Notify the Phase One Project Sponsor and provide an opportunity for the sponsor to correct the deficiencies in a time frame specified by the ISO.
- Reject a Phase One proposal if:
 - o Clarifications are not are not deemed to be adequate or are not received in the specified timeframe.
 - o The proposal is materially changed or is new.

Phase One Proposals that are deemed to have acceptable clarifications will be included in the list of qualifying Phase One Proposals.

The QTPS application requirements are broad in order to accommodate a pool of possible QTPSs with a wide range of capabilities. The number of QTPSs capable to construct, own and maintain a project may decrease as the scale of a project increases. The ISO will review a QTPS's qualifications to verify that the QTPS is capable to construct, own and maintain the project they are proposing, and will reject associated project proposals due to insufficient qualifications.

2.11.7 List of Qualifying Phase One Proposals

When all proposals are reviewed, the ISO will post to its website²⁵ and provide to PAC a listing of all Phase One Proposals that meet the criteria specified in Section 2.9.5 of this guide. A PAC meeting will be held to solicit stakeholder input on the listing and proposals.

The ISO, with input from the PAC, may exclude projects from the listing and from submitting a Phase Two Proposal based on a determination that a project is not competitive with other projects that have been submitted in terms of:

- Cost,
- Electrical performance,
- Future system expandability, or
- Feasibility

²⁵ Information on Phase One proposals that contains CEII information will be posted appropriately to the ISO's password protected portion of its website.

The ISO will create and post a final listing of Phase One Proposals that can move to propose a Phase Two Solution and will provide information on why it has excluded a proposal from consideration in Phase Two. If the only proposal on the final listing of qualified Phase One Proposals is the Backstop Transmission Solution, the process will then proceed under the Solutions Study process described in Section 2.8 of this guide. The final listing will also include the submission deadline for a Phase Two Solution and that will be no less than 60 days from the posting on the final listing.

2.11.8 Phase Two Solutions: Requirements, Identification of Preferred Solution and Inclusion in the RSP

A QTPS that has a project listed on the final listing of Phase One Proposals, as described in Section 1.1.7 above, is eligible to submit a Phase Two Solution that shall consist of the following:

- (i) updates of the information provided in Phase One Proposals, or a certification that the information remains current and correct;
- (ii) list of required major Federal, State and local permits;
- (iii) description of construction sequencing, a conceptual plan for the anticipated transmission and generation outages necessary to construct the Phase Two Solution and their respective durations, and possible constraints;
- (iv) project schedule, with additional detail compared with Phase One Proposals, as specified by the ISO;
- (v) detailed cost component itemization and life-cycle costs;
- (vi) design standards to be used;
- (vii) description of the authority the sponsor has to acquire necessary rights of way;
- (viii) experience of the sponsor in acquiring rights of way;
- (ix) status of acquisition of right, title, and interest in rights of way, substations, and other property or facilities, if any, that are necessary for the proposed solution;
- (x) detailed explanation of project feasibility and potential constraints and challenges;
- (xi) description of the means by which the sponsor proposes to satisfy state legal or regulatory requirements for siting, constructing, owning and operating transmission projects; and
- (xii) detailed explanation of potential future expandability.

A Phase Two Solution must be submitted by the deadline specified in the posting of the final listing of Phase One Proposals as indicated in section 2.9.7 above.

The ISO will review and study all of the Phase Two Solutions that are received by the submission deadline. During this review the ISO will identify the project that offers the best combination of electrical performance, cost, future system expandability and feasibility to meet the need in the required timeframe as the preliminary preferred Phase Two Solution in response to the need(s) associated with a public notification. The ISO will document and post the reasons why this Phase Two Solution was chosen as the preliminary preferred Phase Two Solution and will seek PAC input during a comment period on the selection.

Once the comment period closes the ISO will:

- Identify and post to its website the preferred Phase Two Solution and a description of why it is the preferred Phase Two Solution.
- Notify the QTPS of the selected Phase Two Solution in writing that its project has been selected for development.
- Notify all non-selected QTPS's in writing to cease development of their solution including the Backstop Transmission Solution
- Reflect the preferred Phase Two Solution in the RSP and /or its Project List as an RTU or METU as appropriate.

Where external impacts of regional projects are identified through coordination by the ISO with neighboring entities, those impacts will be identified in the RSP.

2.11.9 Milestone Schedule and Managing Milestones

Once a QTPS has received notification that its project was selected for development they shall:

- Submit to the ISO a schedule that indicates the dates by which applications for siting and other approvals necessary to develop and construct the project by the required in-service date shall be submitted, within 30 Business Days of its receiving notification.
- Periodically update the schedule above and provided it to the ISO. Periodically is defined as requests by the ISO or when the QTPS is aware of a change in the schedule.

Once a QTPS has received all siting and other approvals for its project they shall:

- Within 30 business days, submit its acceptance of responsibility and provide the ISO a schedule when typical project construction phase will be complete
- Submit monthly updates on the project schedule until the project is placed in service.

Once the project is complete and in service, the ISO will update the RSP and RSP Project List.

If the ISO finds that, after consultation with the non-PTO QTPS, the non-PTO QTPS is failing to pursue approvals or construction in a reasonable fashion, or that the QTPS is unable to proceed with the project due to forces beyond their control the ISO shall:

- Request the applicable PTO(s) implement the Backstop Transmission Solution,
- Prepare a report explaining why it has reassigned the project to the PTO(s)
- Request the non-PTO QTPS to prepare a report explaining why they were unable to complete the project.

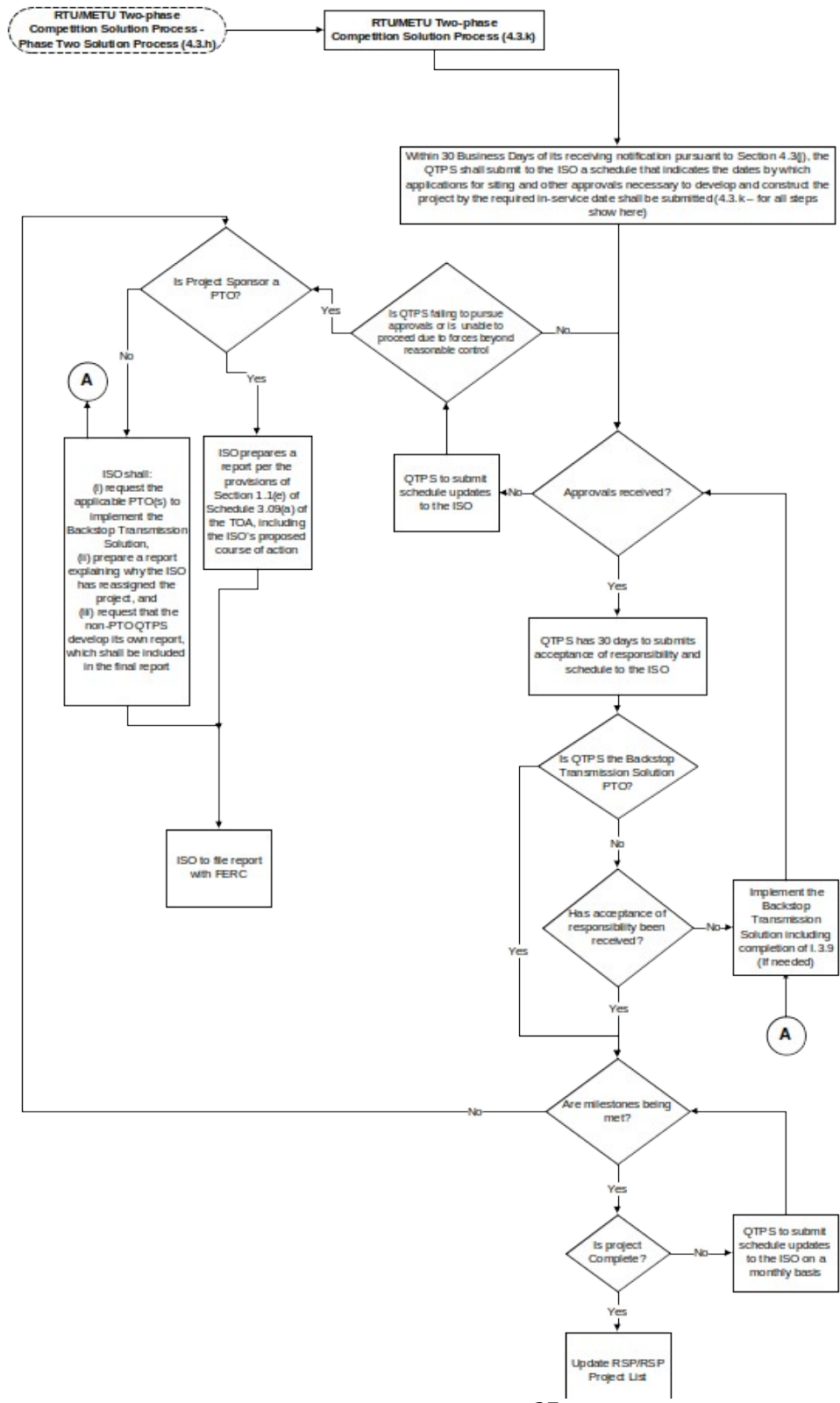
- File the report, including the report from the non-PTO QTPS, with the FERC

If the QTPS that is failing or unable to proceed is a PTO the ISO shall:

- Prepare a report consistent with the provisions of Section 1.1(e) of Schedule 3.09(a) of the TOA including a proposed course of action.
- The ISO will then file the report with the FERC and implement the proposed course of action.

The Milestones process is outlined in the following flowchart:

-



~~Section 3~~ Regional System Plan

3.1 Description of the Regional System Plan

The ISO publishes the Regional System Plan (“RSP”) on a yearly basis. This document is vetted with the PAC and is based on periodic comprehensive assessments of the PTF system-wide needs to maintain the reliability of the New England Transmission System while accounting for market efficiencies, economic, environmental and other considerations. The ISO updates the RSP with the results of ongoing Needs Assessments and Solutions Studies. In addition, the RSP accounts for projected improvements to the PTF that are needed to maintain system reliability and the operation of efficient markets. Further, the RSP must specify the physical characteristics of the physical solutions that can meet the needs defined in the Needs Assessments and include information on market responses that can address them. The RSP also provides sufficient information to allow Market Participants to assess the quantity, general location, operating characteristics and required availability criteria of the type of incremental supply or demand-side resource, or merchant transmission project that would satisfy the identified needs or that may serve to modify, offset or defer proposed regulated transmission projects. The provision of this type of information is evolving and has included approaches such as providing critical load levels at which problems arise and providing preliminary identification of conceptual locations for market resources which can solve problems and serve as potential market inputs.

3.2 RSP Project Listing

The following are the classification of projects that are listed in the RSP Project Listing²⁶. The RSP Project Listing includes information about transmission project costs and changes to them over time. Further detail on estimate ranges can be found in Attachment D to ISO Planning Procedure No. 4:

- A “Concept” project may be suggested by its Proponents and placed on the Project List if a Needs Assessment has been completed. A Concept project does not require a cost estimate to be included as part of the list and may be considered for inclusion as part of the analysis conducted within a Solutions Study. For the project to move to another project classification, it must have a cost estimate consistent with what is shown below.
- A “Proposed” project is placed on the Project List after the Solution Study and the preferred transmission solution have been discussed with PAC and ISO has received that committee’s advisory input. A “Proposed” project has a cost estimate that is -25% to +50%.
- A “Planned” project will only be placed on the Project List if a Needs Assessment & Solutions Study have been completed as described above and the Tariff section I.3.9 approval has been received. The cost estimate for a “Planned” project will increase in accuracy to +/-25% as detailed engineering progresses. A “Planned” project is still subject to a Schedule 12C review for Transmission Cost Allocation.
- An “Under Construction” project is a Transmission Upgrade that has received the approvals required under the Tariff and engineering and construction is underway.
- An “In Service” project is one that has been placed into operation.

²⁶ http://www.iso-ne.com/committees/comm_wkgtps/prtcpnts_comm/pac/projects/index.html

- An Elective Transmission Upgrade (“ETU”) that has a PTF component can be included on the Project List without a Needs Assessment. If an ETU does not have a PTF component then it will not be included on the Project List.

Note: A project may be cancelled if they are deemed no longer needed.

3.3 Inclusion and Update of Projects in the Regional System Project List

The RSP Project List is updated periodically, typically three times per calendar year. Updates are given to the PAC in February/March, May/June and October. The Project List and updates are posted on the ISO website.²⁷ ISO asks the Participating Transmission Owners for updated information on the RSP Project List approximately two months before the posting date. The PTOs are expected to provide the updated information back to the ISO approximately one month prior to the posting date. New projects are added during the periodic updates.

²⁷ http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/pac/projects/index.html

Section 4 Planning Advisory Committee Process

4.1 Role of the PAC

The regional system planning process in New England is open and transparent and reflects advisory input from regional stakeholders, particularly members of the Planning Advisory Committee (PAC), according to the requirements specified in the Tariff and the planning principles described in FERC Order 890. The PAC is open to all parties interested in regional system planning activities in New England.

The Planning Advisory Committee may provide input and feedback to the ISO concerning the regional system planning process, development of the RSP, and updates to the RSP Project list. Specifically, the Planning Advisory Committee serves to review and comment on:

- Development of the RSP
- Assumptions for Studies
- Results of Needs Assessments and Solutions Studies
- Potential market responses to the needs identified by the ISO in a Needs Assessment or the RSP

The PAC, with assistance of and in coordination with the ISO, serves also to identify and prioritize requests for Economic Studies to be performed by the ISO, and provides input and feedback to the ISO concerning the conduct of Economic Studies, including criteria and assumptions for such studies.

Based on input and feedback from PAC to the ISO, the ISO refers to the appropriate NEPOOL technical committees, including but not limited to, the Markets, Reliability and Transmission Committees, issues and concerns identified by the PAC for further investigation and consideration.

4.2 Membership

The PAC is open to any entity, including state regulators or agencies. A regional state committee or similarly situated entity, as specified in Attachment N of the ISO Tariff, may designate a member to the Planning Advisory Committee. NESCOE currently fills this role in New England.

4.3 Meeting Notification, Frequency and Materials

Prior to the beginning of the calendar year, the ISO lists on its calendar²⁸ the proposed meeting dates of the Planning Advisory Committee for each month of the year. Before each meeting the ISO will provide notification of the meeting agenda, location, format and time to the PAC members via e-mail. Meetings are scheduled at a frequency needed to serve the intent of the Attachment K. The ISO posts materials for Planning Advisory Committee meetings on the Planning Advisory Committee section²⁹ on the ISO's website prior to

²⁸ Direct link to ISO monthly calendar <http://www.iso-ne.com/calendar/month.action?date=20111228&cats=&type=&link=yes&filter=off>

²⁹ Direct link to PAC Materials: http://www.iso-ne.com/committees/comm_wkgrps/prtcpnts_comm/pac/mtrls/index.html

meetings. The materials for the Planning Advisory Committee meetings are made available to the PAC members subject to protections required by confidentiality requirements of the ISO New England Information Policy set forth in Attachment D of the ISO Tariff and CEII policy as further described in Section 2.4(d) of Attachment K.

4.4 CEII Information and Materials

Planning materials determined to be CEII will be posted on the ISO’s website. However access to this material requires stakeholders to possess an ISO-issued digital security certificate. To obtain access to planning-related materials determined to be CEII, the entity seeking to obtain such access must contact the ISO’s Market Support Services department at 413-540-4220 or by e-mail, custserv@iso-ne.com. Authorized Market Participants or their representatives, such as consultants, are bound by the ISO New England Information Policy and will be able to access CEII materials through the ISO’s website. State and federal governmental agency employees and their consultants will be able to access such materials through the ISO’s website upon submittal of a signed non-disclosure agreement, which is available on the ISO’s website. Personnel of the Electric Reliability Organization, NPCC, other regional transmission organizations or independent system operators, and transmission owners from neighboring regions will be able to access CEII materials pursuant to governing agreements, rules and protocols. All external requests by other persons for planning-related materials determined to be CEII shall be recorded and tracked by ISO’s Market Support Services staff. Such requestors will be able to obtain access to CEII documents filed with the Commission pursuant to the Commission’s regulations governing access to CEII. To the extent a request seeks access to planning-related material that is not filed with the Commission, such requestor shall comply with the requirements provided in the CEII procedures of the ISO, available on the ISO’s website, prior to receiving access to CEII information. Upon compliance with the ISO’s CEII procedures, the ISO shall grant the request or access to the planning-related CEII document through direct distribution or access to the ISO website. The ISO issues a draft version of the RSP each year that is listed as CEII because there may be CEII material in the document. The final version of the RSP that is released has been reviewed thoroughly and does not contain any CEII material and therefore does not need to be considered CEII.

4.5 TOPAC/Local System Planning

As described in Section 6 and Appendix 1 to attachment K, the PAC periodically provides input and feedback to PTO’s concerning the development of their Local System Plans (“LSP”). It has been common practice to extend the PAC meeting to allow the PTO’s the time to present their LSP’s to any interested member of the PAC. Each PTO will present its respective LSP to the interested members of the PAC for advisory stakeholder input not less than one time per year. Each PTO’s LSP will include transmission system plans for Non-Pool Transmission Facilities (“Non-PTF”) that are not incorporated into the RSP planning process.

Appendix A

Request to enroll as a transmission provider in the New England transmission planning region

An entity will be enrolled as a transmission provider in the New England transmission planning region in accordance with Section 1.1 of Attachment K to Section II of the ISO New England Open Access Transmission Tariff if:

- the entity is a signatory to a transmission operating agreement. Such entities are automatically enrolled and no further action is necessary. Entities that are signatories to a transmission operating agreement as of May 18, 2015 will be enrolled as of that date. Signatories to a transmission operating agreement following May 18, 2015 will be enrolled as of the date that they become party to the agreement; or
- the entity is a party to a Market Participant Service Agreement (MPSA) coupled with a written notification to the ISO that the entity desires to be a transmission provider in the New England region. The completion and submittal of this enrollment form shall meet the “written notification” requirement. The entity will be enrolled as of the date that the form was received by ISO upon receipt of this completed form by ISO and ISO verification that the entity is a party to an MPSA.

Entities that are party to an MPSA that desire to enroll shall complete all fields in this form and email the completed form as an attachment to: NEPlanningApp@iso-ne.com

An email confirming successful enrollment will be sent from ISO to the email address from which the request was submitted and the email address of the Market Participant representative provided within the completed form. The name of the entity will be added to Appendix 2 of Attachment K to Section II of the ISO Tariff during its subsequent update.

Incomplete forms or not being a party to an MPSA will result in the rejection of the submitted enrollment form. An email notification of the rejection of the enrollment form will be sent from ISO to the email address from which the request was submitted and the email address for the Market Participant representative provided within the submitted form.

[Click here to enter Market Participant name requests enrollment as a transmission provider in the New England transmission planning region in accordance with Section 1.1 of Attachment K of the OATT.](#)

MPSA number: [Click here to enter MPSA number](#)

Address 1: [Click here to enter Market Participant's address](#)

Address 2: [Click here to enter Market Participant's address](#)

Address 3: [Click here to enter Market Participant's address](#)

Market Participant Representative Name: [Click here to enter name of Market Participant's representative](#)

Market Participant Representative Title: [Click here to enter title of Market Participant's representative](#)

Tel: [Click here to enter Market Participant representative's phone number](#)

Email: [Click here to enter Market Participant representative's email address](#)

Appendix B

Qualified Transmission Project Sponsor Application Form

Instructions:

- **Questions related to this form and the Guideline are to be directed to:**
 - QTPS@iso-ne.com or Bruce Kay 413-535-4062

- **Include attachments, if needed:** If the Applicant would prefer to utilize a separate document to answer a question under Part II of this Application or provide materials in support of a question, they may include the answer/materials as an attachment. Please mark the attachment so that it is clear as to which question the answer/material relates.

- **Submittal of Form:**
 - Application submittals (including attachments) larger than 5 MBs may not clear the ISO-NE firewall. Applications greater than 5 MBs should be divided into sub-5 MB files and then submitted separately.
 - Submit this Application to the ISO via QTPS@iso-ne.com

Part I – General Information

QTPS Applicant Information

Legal name of Company Applying for QTPS status (“Applicant”)	
Legal type of Applicant	<input type="checkbox"/> Sole Proprietor <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation <input type="checkbox"/> Limited Liability Company <input type="checkbox"/> Municipal-Owned Entity <input type="checkbox"/> Other (describe) _____
State and date where Applicant was organized	
Business Mailing address for Applicant	
Web address for Applicant (if one exists)	
Dun and Bradstreet Number	
Is the Applicant a party to (check all that apply):	<input type="checkbox"/> TOA <input type="checkbox"/> NTDOA

		<input type="checkbox"/> MPSA # _____	
Applicant's NERC Registration (check all that apply)		<input type="checkbox"/> Transmission Owner <input type="checkbox"/> Transmission Operator <input type="checkbox"/> Transmission Planner <input type="checkbox"/> A NERC "Entity Task" other than that noted above (list): _____ <input type="checkbox"/> Not currently registered with NERC	
Company Officer(s)/ Representative(s) of the Applicant who is/ are duly authorized to sign this Application: (Name / Title)			
	Primary Contact	Secondary Contact	
Name			
Title			
Company Name			
Phone			
Fax			
E-mail address			
Mailing Address			

Part II – Supporting Experience/Information

1. Provide evidence that Applicant legally exists. This may be in the form of a corporate charter issued by a state or local jurisdiction, filed articles of incorporation, an executed partnership agreement or similar document.
2. Provide evidence of Applicant's experience with financing or arranging financing for the construction of electric transmission facilities.³⁰
 - a. Include a description of at least the three largest such projects developed in the past ten years.
 - b. Include a description of the capital costs and financial structure of such projects, whether the projects entered into commercial operation, and whether any projects are in default.

³⁰ For purposes of this QTPS application, an electric transmission facility(ies) includes regional and local transmission lines and associated facilities rated 69 kV and above (e.g., transmission lines and associated equipment, substations, capacitor and reactor banks, generator interconnections, STATCOMs, SVCs).

3. Provide the Applicant's current and expected capability to finance or arrange for financing for electric transmission facilities.
 - a. Submit the Applicant's capital procurement plan;
 - b. Submit evidence of Applicant's recent experience procuring capital for the construction of electric transmission facilities or interconnecting to the transmission system;
 - c. Submit Applicant's credit ratings received from S&P, Moody's and any other Nationally Recognized Statistical Rating Organization;
 - d. Provide a statement regarding whether the Applicant is presenting its capability to construct, own and maintain electric transmission facilities on its own or whether it will be supported by a parent or affiliated company;
 - e. If relying on a parent or affiliate company in presenting its capability to construct, own and maintain electric transmission facilities, submit a description of the business relationship to the affiliate company, and the agreements in place between the Applicant and the affiliate company relevant to reliance on the relationship to the affiliate company as part of this Application; and
 - f. Submit a summary of Applicant's history of bankruptcy or dissolution in the last five calendar years.

4. The Applicant shall provide information describing how it would utilize its existing capabilities and competencies or acquire any additional capabilities and competencies needed to plan and construct a electric transmission facility proposed under Attachment K to Section II of the ISO-NE Tariff. This information shall be submitted with this Application as Attachment A and shall include as headings, the specific project implementation tasks listed below in the order presented.

3.1 Describe your capabilities to accomplish the following key tasks in electric transmission facility development and construction, including:

- a. Project management;
- b. Plans for development of project management, engineering, material, and construction standards and practices to be followed for specific types of facilities;
- c. Preliminary and detailed engineering, design, and surveying;
- d. Routing and siting studies, including public outreach;
- e. Plans for retaining and qualifying personnel or contractors;
- f. Material, tools, vehicles and equipment procurement;
- g. Construction;
- h. Commissioning and testing; and
- i. Plans for utilizing infrastructure and resources owned and operated by an affiliate company.

If Applicant will utilize capabilities or competencies from a Parent, Affiliate, or contracted third-parties to meet the project implementation requirements, those capabilities or competencies must be identified in Attachment A as being provided by said Parent, Affiliate, or contracted third-parties.

3.2 Describe your capabilities to accomplish the following key tasks regarding electric transmission facility operation and maintenance.

Provide a detailed business implementation plan describing how it would utilize the existing capabilities and competencies identified in Section II, above, or acquire any additional capabilities

and competencies needed to operate and maintain an electric transmission facility proposed under Attachment K to Section II of the ISO-NE Tariff. The operation and maintenance plan shall be submitted with this Application as Attachment B and shall include as headings, the specific project implementation tasks listed below in the order presented.

- a. Forced Outage Response;³¹
- b. Switching (for electric transmission line circuits & substations);³²
- c. Emergency repair, testing and response times;³³
- d. Preventative and/or predictive maintenance, including vegetation management and equipment testing;³⁴
- e. Maintenance and management of spare parts, spare structures, and/or spare equipment inventories for electric transmission lines and/or substations;³⁵
- f. Real-time operations monitoring and control capabilities;
- g. Major facility replacements or rebuilds required as a result of catastrophic destruction or natural aging through normal wear and tear, including financial strategy to facilitate timely replacements and/or rebuilds;³⁶
- h. Plans for retaining and qualifying personnel or contractors;
- i. Plans for utilizing infrastructure and resources owned and operated by an affiliate company;
- j. Plans for acquiring required tools, equipment, and vehicles;
- k. Plans for development of maintenance standards & practices to be followed for specific types of facilities;
- l. Plans for developing standards governing where personnel, equipment, and spare parts/equipment will be maintained with respect to potential future facilities (e.g., maximum distance between facility & local office, etc.); and
- m. Plans for maintaining adequate capital procurement capabilities to rebuild facilities following major catastrophic outages (including property insurance and risk mitigation strategies).

³¹ Including source and location of resources (e.g., labor, contractors, equipment, base of operations), line patrol policies and procedures, equipment testing and diagnostic policies and procedures, troubleshooting policies and procedures, policies and procedures to interpret fault recording and sequence of events recording data including coordination with other entities, fault removal procedures including emergency clearance and coordination with other entities, emergency repair procedures, and anticipated response times

³² Including preparation, approval, and issuance of switching orders and clearance, field switching procedures, tagging procedures, location of resources (e.g., labor, contractors, and base of operations), and description of procedures to handle emergency switching, planned switching, and switching coordination with other entities

³³ Including planned policies and procedures, source and location of resources (e.g., labor, equipment, base of operations), anticipated contractor agreements, and anticipated response times

³⁴ Including planned policies and procedures, source and location of resources (labor, equipment, base of operations), anticipated contractor agreements, and anticipated response times. Includes program description for transmission lines, substations, and major equipment including type of program (e.g., time-based, condition-based, duty-based, etc.), maintenance intervals (e.g., inspection, patrol, testing, routine maintenance), equipment testing program details (e.g., types of testing performed, test equipment utilized, testing results analysis, corrective action thresholds, etc.), inspection and patrol checklists, and other pertinent information.

³⁵ Including planned policies and procedures, source and location of spare major equipment and spare parts, and proposed sharing agreements with other entities

³⁶ Including planned policies and procedures, source of funding, source and location of resources (e.g., labor, contractors equipment, base of operations), anticipated contractor agreements, and anticipated response times

If the Applicant will utilize capabilities or competencies from a Parent, Affiliate, or contracted third-parties to meet the project implementation requirements, those capabilities or competencies must be identified in Attachment B as being provided by said Parent, Affiliate, or contracted third-parties.

3.3 Provide a description of the Applicant’s safety assurance and risk management plans.

Provide a detailed description of the planned safety assurance and risk management plan including descriptions of planned safety rules, safety policies, safety prevention programs, and safety training. In addition, the plan should address general policies, strategies, and procedures to be employed for risk management to address and mitigate potential risks including, but not limited to, potential litigation from liability claims, catastrophic premature failure or destruction of assets, and legal or regulatory compliance violations. The safety assurance and risk management plan shall be submitted with this Application as Attachment C.

5. Provide a description of the Applicant’s capability or experience in meeting development and completion schedules as it pertains to construction, maintenance, and operation of electric transmission facilities.
6. Provide a description of the Applicant’s business practices that demonstrate consistency with Good Utility Practice and capability to address and timely remedy failure of facilities relative to constructing, maintaining and operating electric transmission facilities.
7. Provide a description (including construction cost details, location, circuit miles, voltage levels and equipment descriptions) of electric transmission facilities that the Applicant has previously constructed, maintained and operated within the past ten years and the status of those facilities, including whether the construction was suspended or terminated and for what reason, whether construction was completed, whether the facility entered into commercial operation, whether the facility failed to perform as it was designed and for what reason. Include any history and evidence demonstrating ability to maintain those facilities, along with a record of past reliability performance.
8. Provide evidence to demonstrate the Applicant’s ability or experience with meeting:
 - a. NERC and/or NPCC reliability standards or compliance requirements, including descriptions of associated violations and/or pending violations; and
 - b. ISO-NE Operating Documents.³⁷

Part III - Signature

The Applicant hereby represents and warrants that all statements and representations made herein, including any supporting documents, are true to the best of the Applicant’s knowledge and belief.

By: _____
(Authorized Representative of the Applicant)

Date:

Name:

Title:

Acknowledgement of Receipt by ISO-NE:

³⁷ ISO New England Operating Documents include the Tariff, ISO New England Planning Procedures and the operating guides, manuals, procedures and protocols developed and utilized by the ISO for operating the ISO bulk power system and the New England Markets.

Date: _____ / Time: _____ of receipt by ISO New England Inc. of the Application.

By: _____

Name:

Title:

Appendix C

Qualified Transmission Project Sponsor Annual Certification Form

Instructions:

- **Questions related to this form and the QTPS process are to be directed to:**
 - QTPS@iso-ne.com , or Bruce Kay at 413-535-4062
- **Include attachments, if needed:**

A QTPS may, as an attachment to this form, include a separate document to explain, or provide additional supporting information, as to why there may have been an adverse material change to the information included in the Accepted Application. Please mark the attachment so that it is clear as to which question the answer/material relates.

- **Submittal of Form:**
 - A QTPS must complete and submit this QTPS Annual Certification Form to the ISO between the beginning of the day on January 1st through the end of the day on January 31st of every year following ISO-NE's approval of the entity's QTPS status.
 - Submit this "QTPS Annual Certification Form" to the ISO via QTPS@iso-ne.com

QTPS Annual Certification Form

Submittal Date: _____

Name of Entity with QTPS Status: _____

The undersigned hereby represents that all statements made herein, including any supporting documents, are true to the best of his/ her knowledge and belief.

Part I – Declaration of Adverse Material Change

Please mark either of the following relevant to the intervening year:

_____ There **have not** been any adverse material changes to the information included in the Accepted Application.

_____ There **has** been an adverse material change(s) to the information included in the Accepted Application.

- If so, please explain.

Part II – Identification of Supporting Agreements

Please mark any of the following that currently apply:

As of January 1st of this year, the entity with QTPS status is party to:

_____ the TOA

_____ an NTDOA

_____ an MPSA (i.e., is a Market Participant)

Part III – Signature

By: _____
Signature of Authorized Representative of QTPS

Name (printed)

Title

Email and Phone

QTPS Name

Dun and Bradstreet Number

Date Signed