Guidelines for Creation of Asset Condition Project Presentations

VERSION 1

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Document History

This document will be reviewed and updated (if necessary) on a periodic basis. Revisions to the document will be posted on Transmission Owner Asset Management section of the ISO-NE website.[1]

Rev. 0: Draft – 8/16/23
Rev. 1: Updates based on stakeholder feedback – Effective: 1/1/24

[1] https://www.iso-ne.com/system-planning/transmission-planning/transmission-owner-asset-management

Section 1 - Introduction

Pursuant to ISO-NE Planning Procedure 4 ("PP4"), *"…the Planning Advisory Committee ("PAC") shall review presentations for projects identified in the ISO-NE Asset Condition Project List ("Asset Condition Projects") with estimated Pool Transmission Facility ("PTF") costs greater than or equal to $5 million prior to the submission of the associated TCA and the commencement of Major Construction."* An asset condition project PAC presentation is intended to explain the need for the project, alternative solutions considered during project development, and the rationale for the preferred solution. The presentation will provide transparency into project development, as well as afford stakeholders the opportunity to comment on the development of the project in a public forum.

This document outlines guidelines for asset condition project PAC presentations. These guidelines establish suggested best practices for presentation content, formatting, and timing to provide a more consistent informational resource for stakeholders and are not meant to supersede or replace any ISO-NE Tariff or Planning Procedure requirements for asset condition transmission project reporting.

Section 2 – General Guidelines

I. Presentation Content and Timing

When practical, asset condition projects should utilize the guidance in Table 1 to determine the timing of presentations. Transmission owners may deviate from this suggested timing, but should explain why a deviation was necessary when presenting the project to PAC. In addition to the cost estimate guidelines summarized in this table, presentations should also utilize the content guidelines provided in Section 3 of this document.

		Timing of Presentation	
		At least 6 Months Prior to Start of Major Construction	**At Least 3 Months Prior to Start of Major Construction**
Anticipated Project Cost	**≥$50M**	Initial presentation with: • Order of magnitude (+200%/-50%) cost estimates for all solution alternatives Request for written stakeholder comments within 15 days	Update presentation with: • Summary of initial presentation • Discussion of project changes since last presentation • Responses to any stakeholder feedback received, including feedback that led to project changes Selection of preferred alternative with Conceptual (+50%/-25%) cost estimate
	$5M - $50M	No presentation required	Detailed presentation with: • Order Of Magnitude (+200%/-50%) cost estimates for solution alternatives not selected • Selection of preferred alternative with Conceptual (+50%/-25%) cost estimate • Request for written stakeholder comments within 15 days

Table 1: Suggested PAC Presentation Timing and Content

II. Project Consolidation

When feasible and appropriate, projects with similar needs or projects that are part of a system-wide replacement/upgrade program should be grouped into a single presentation.

III. Update Presentation Requirements

In accordance with Section 6.4 of the Transmission Planning Process Guide,[2] re-presentations are required if an estimated PTF project cost has increased more than 50 percent, and the increase is $5M or greater, than the originally presented estimate. In addition, an updated presentation to the PAC may be requested by ISO-NE when there are significant changes in project scope.

IV. Responses to Stakeholder Comments

Following the stakeholder comment submission periods specified in Table 1 of this Section, the presenting PTO will draft and post written responses to all comments to the Transmission Owner Asset Management section of the ISO-NE website.

V. Other General Guidelines

a. Each slide should be marked with the presenting PTO's company name and logo
b. PTOs should internally review presentations for information the PTO determines should be designated as Critical Energy Infrastructure Information (CEII).[3] Any presentation containing CEII must be marked as such on each slide, including the title slide, and posted for stakeholder review following CEII handling guidelines.
    i. If a presentation must contain CEII, then an additional redacted version of the presentation should be developed and posted publicly on the ISO-NE website.
c. All photos should have explanatory captions or be referenced and explained elsewhere on the same slide.
d. All presentation decks should include slide numbers.

[2] https://www.iso-ne.com/static-assets/documents/2023/09/2023_09_08_pac_transmission_planning_process_guide.pdf
[3] https://www.eversource.com/content/docs/default-source/Tranmission/pto_ac_ceii_guideline.pdf

Section 3 – Presentation Sections

Asset Condition project presentations should include the following sections and information, though some information may be added or omitted depending on the nature of the project:

I. Title Slide

a. Title of presentation
b. Date of PAC meeting
c. Name and affiliation of Presenter

II. Agenda

Agenda/outline of the presentation

III. Project Background

a. All Projects
   i. Overview of presenting PTO, including relevant statistics (service area, total circuit miles of transmission, etc.)
   ii. Project location (state/geographic region)
   iii. Age of asset and original In-Service/Commissioning Date, range of asset life expectancy
   iv. Brief description of any prior major refurbishment/rebuild work and year of completion
   v. Links or references to other relevant presentations and documents, including any prior PAC presentations
   vi. Information on the geography/topology of the area, if relevant to the project scope (e.g., mountainous terrain, road crossings, urban area, etc.)
b. Transmission Line Projects:[4]
   i. Line number/identifier, operating voltage, length (miles), and terminating substations
   ii. Total structure count by structure type (wood, steel, lattice, etc.)
   iii. Existing conductor and shield wire types
c. Substation Projects
   i. Substation voltage levels
   ii. Total number of transmission lines terminating at station and line identifiers
   iii. Equipment-specific information if a specific asset within the station is being targeted for replacement (e.g., manufacturer)
   iv. Substation design (ring/breaker-and-a-half/straight bus)

[4] If there are more than two lines and/or substations that are part of the project scope, include this information in table format.

IV. Maps/Diagrams

a. Regional portion of ISO-NE or PTO-specific geographical transmission map with breakout of local area (with highlighted lines or substations where project work is being done) and a key for the highlighted portion of the geographical map
b. One-line diagram, if necessary[5] (e.g., if there are configuration changes or additions as part of the scope)
c. Aerial views, if necessary (typically only for substation projects)
d. Representative ROW cross sections, if necessary (typically only for line projects)

V. Project Needs

a. How asset condition issues were discovered (e.g., visual inspection, drone inspection, periodic/regular testing, etc.)
b. The asset(s) and asset condition issue(s) targeted as part of this project. Examples include but are not limited to age or material-related issues such as:
   i. Physical deterioration
   ii. Altered/diminished performance
   iii. History of mis-operation
   iv. Equipment that is susceptible to failure
   v. Technological obsolescence, such as information on end of product support
c. Relevant industry/regional standards that the asset(s) do not currently meet, if applicable. Examples of relevant standards include:
   i. Electric Power Research Institute ("EPRI") Guidelines
   ii. NPCC Directory 4
   iii. National Electric Safety Code ("NESC") standards
d. Additional asset condition work included as part of the project and why that work is included (e.g., optimize mobilization, capture siting and permitting efficiencies, minimize environmental impacts, maximize use of outages, etc.)
e. Representative photos illustrating asset condition issues
   i. Caption each photo (for structures, include the transmission line and structure number) with relevant details of asset condition concerns

VI. Solution Alternatives

a. For projects with substantial changes, discuss alternatives considered during project development. For each alternative, include:
   i. Project scope
   ii. Benefits and drawbacks/shortcomings
   iii. PTF cost estimate, if available
b. Provide rationale for selecting preferred alternative
c. If there is no realistic/feasible alternative to the preferred solution, omit this section and instead provide an explanation of why no alternatives were considered.

[5] Inclusion of a detailed electrical one-line diagram may trigger the use of the CEII designation referred to in Section 2 of this document

VII. Preferred Solution – PTF Scope of Work Details

a. All Projects
   i. Benefits/advantages of Preferred Solution vs Solution Alternatives, if included
   ii. Order of magnitude or Conceptual PTF cost estimate (-50%/+200% or -25%/+50%, respectively)
b. Line Projects
   i. Structures
      1. Total number of structures to be replaced
      2. Type of structures to be replaced
      3. Type of structures to be added
      4. Any permanent structure removals
   ii. Length of existing conductor. If replacing or modifying the conductor, include the length and type of existing and planned conductor.
   iii. Length and type of existing and planned shield wire (if replacing or modifying).
   iv. If relevant, table showing the current and preliminary post-project Normal, Long Time Emergency (LTE) and Short Time Emergency (STE) ratings of the line.
c. Substation Projects
   i. Equipment replacements/modifications in yard or control house
   ii. Additional work required such as:
      1. Cable/conduit
      2. Wiring modifications to connect the new equipment

VIII. Preferred Solution – Right-Sizing

[Section reserved for future use if right-sizing process is developed]

IX. Description of any Associated Non-PTF and Distribution Scope of Work

This section should include a brief description and a cost estimate associated with all non-PTF and/or distribution asset upgrade work to be performed within the scope of the project. This section may be omitted if no such work is included.

X. Summary

a. Scope of the preferred solution
   i. Summarize the information included in the "Preferred Solution" section
   ii. Order of magnitude or Conceptual PTF cost estimate (-50%/+200% or -25%/+50%, respectively)
b. Target start of construction date (by quarter)
c. Proposed in-service date (by quarter)

XI. Feedback and Next Steps

a. Identify the PTO's single point of contact ("POC") and email address for the Project.
b. Schedule table including:

i. Due date for feedback/questions where applicable (typically 15 calendar days from the presentation date)
ii. Dates of future PAC meetings related to the Project, if applicable.

XII. Additional Update Presentation Criteria

a. If previous presentations have provided sufficient information to satisfy the rest of the guidelines listed in Section 3 of this document, those items may be omitted for brevity, as long as that information is still correct and links to those previous presentations are provided. The following additional information should be included for all project update presentations:

i. Summary of initial presentation including needs, scope, and cost estimate
ii. Links to all previous project presentations and materials on the ISO-NE website
iii. Discussion of drivers for update presentation
iv. Revised scope
v. Revised conceptual level (-25%/+50%) cost estimate