



Asset Condition Process Guide Appendix Additions and Updates


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Overview

- As part of the ongoing process to improve asset condition project transparency, the TOs are making several changes to the existing PAC Presentation Guidelines, as well as adding new Appendices to the Asset Condition Process Guide (“The Guide”)
- This presentation introduces several Appendix additions to the Guide in response to stakeholder feedback:
 - Appendix C: Consistent Structure Grading Categories for PAC Presentations
 - Appendix D: Stakeholder Presentation Process
 - Appendix E: PAC Presentation Guidelines
- Most of the updates discussed today were introduced as part of the Aug 2024 PAC presentation on stakeholder feedback and responses to the draft Asset Condition Process Guide

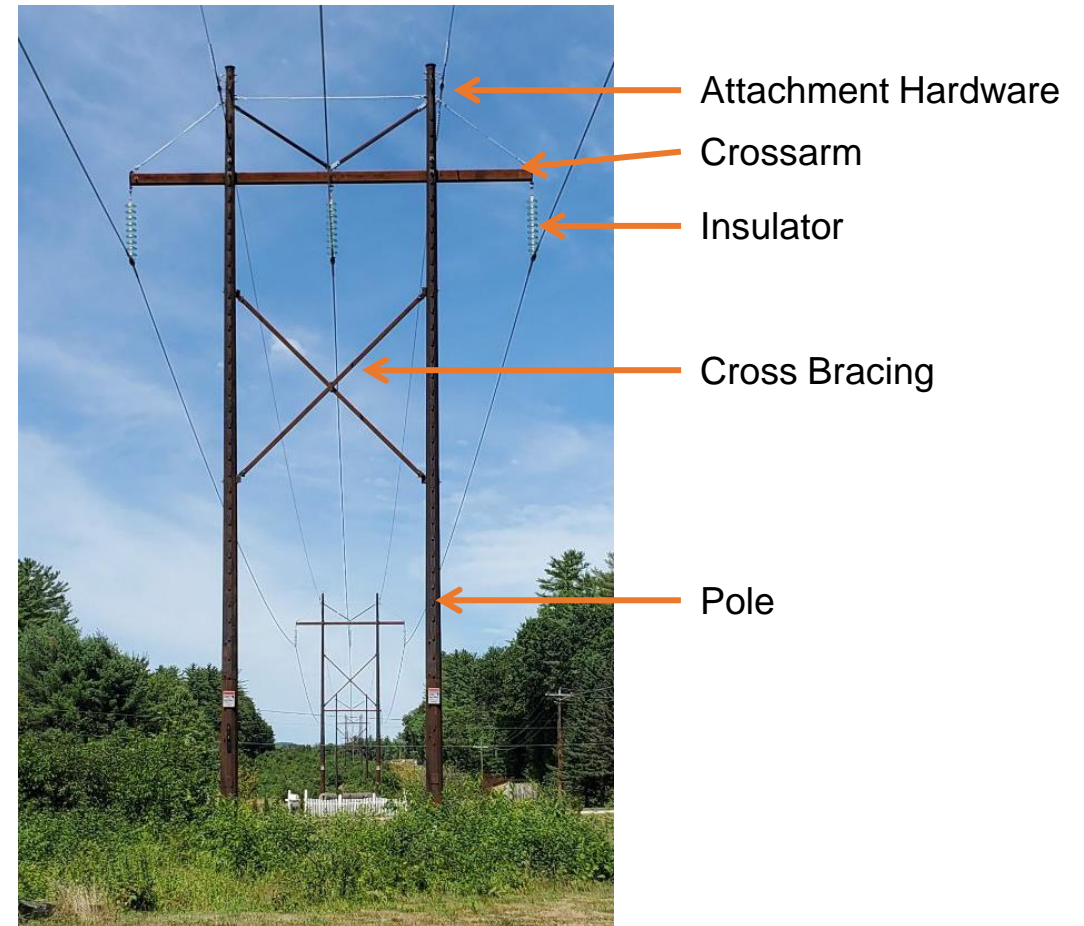


**Appendix C:
Consistent Structure Grading Categories for
PAC Presentations**

Background – Line Structure Inspections

- TOs periodically inspect their transmission facilities, including overhead transmission lines
 - More information on transmission line inspections is included in Section 1.1.1 of the draft [Asset Condition Process Guide](#)
- All overhead line inspections include evaluation of structures and their components

Typical transmission structure components (H-frame design)



Not shown: guy wires, foundations, etc.

Background - Transmission Line Structure Grades

- Based on inspection results, TOs assign grades to each transmission line structure
 - Each TO has a unique approach to transmission line structure grading, but recommended actions are largely consistent
- Structures receiving grades indicating moderate to severe deterioration are replaced
- Replacement approach depends on grade and level of deterioration
 - Emergency replacements for severely deteriorated structures are typically performed within days
 - Planned replacements may take 1 to 3 years due to project planning, procurement, permitting, etc.

Appendix C – Consistent Structure Grading Categories for PAC Presentations

- In response to stakeholder feedback, TOs have developed a consistent system for presenting “grades” of overhead transmission line structures to the PAC
- A table summarizing new consistent structure grading, as well as correlation with existing TO-specific grading, will be included as a new Guide appendix
- The TOs have developed four consistent categories of structure grades and recommended actions taken for structures in each category
- Going forward, TOs will use these categories when presenting projects to the PAC, rather than company-specific grading systems
- TOs are evaluating whether similar information can be developed and provided for other transmission line and substation components

Appendix C Table

Category	Recommended Action ¹	Eversource	New England Power Company (d/b/a National Grid)		Avangrid	VELCO	Versant Power	Rhode Island Energy
		Wood & Steel	Wood	Steel	Wood & Steel	Wood	Wood	Wood & Steel
A	No replacement required due to deterioration	A	4	1, 2	Good	A	N/A ²	3
B	Consider replacement in conjunction with other structure replacements	B	3	3, 4	Fair ³	B	L (Low) ⁴	2
C	Initiate planned structure replacement project or Replace as part of upcoming structure replacement project	C	2	5	Reject (Priority 3 or Priority 2) ⁵	C	M (Medium), H (High) ⁶	1
D	Replace immediately (emergency replacement) ⁷	D	1	6	Danger (Priority 1)	D	C	N/A ⁸

[1] Structure replacements may also be required due to other issues, such as structure loading and clearances

[2] Structures with no identified issues are not assigned a grade by Versant Power

[3] Avangrid increases inspection frequency for structures rated Fair

[4] Versant Power seeks to replace structures rated L (Low Priority) within 3 years

[5] Avangrid classifies structures graded "Reject" into Priority 3 and Priority 2. Avangrid seeks to replace Priority 3 structures within 3 years and Priority 2 structures within 1 year

[6] Versant Power seeks to replace structures rated M (Medium Priority) within 1 year and structures rated H (High Priority) within 6 months

[7] Emergency replacements of individual structures typically cost less than \$5 million and would not require a PAC presentation

[8] Emergency replacement structures are not assigned a grade by RIE but are still replaced immediately, similar to other TOs

Example of Anticipated Usage in PAC Presentations

Line XYZ: Structure Category	Recommended Action	Structure Count
A	No replacement required due to deterioration	51
B	Consider replacement in conjunction with other structure replacements	20
C	Initiate planned structure replacement project or Replace as part of upcoming structure replacement project	13
D	Replace immediately (emergency replacement)	0
Total		84



Appendix D: Stakeholder Presentation Process
Appendix E: PAC Presentation Content Guidelines

Background

- The TOs released Version 1 of the [Guidelines for Creation of Asset Condition Project Presentations](#) (PAC Presentation Guidelines) on November 13, 2023
- The previously developed Guidelines will be incorporated into the Asset Condition Process Guide as two new, separate appendices:
 - Appendix D, “Stakeholder Presentation Process”
 - Appendix E, “PAC Presentation Content Guidelines”
- After the Asset Condition Process Guide is updated, the standalone PAC Presentation Guidelines document will be retired

Appendix D – Stakeholder Presentation Process

- This was previously the first half of the PAC Presentation Guidelines and contains recommended timing for PAC presentations, stakeholder comment procedures, etc.
- Appendix D content is unchanged as compared to the existing Guidelines document
 - No significant changes to the timing of PAC presentations are planned at this time
- The TOs are continuing to evaluate improvements to the stakeholder review process and may propose additional changes in the future

Appendix E – PAC Presentation Guidelines

- This was previously the second half of the Guidelines document and consists primarily of a list of recommended presentation content
- The TOs are also developing standard templates for PAC presentations and will present a draft template for asset condition projects on overhead transmission lines at the October 2024 PAC meeting
- The new Appendix E also includes redline updates in response to stakeholder feedback
 - Most of the redline changes discussed on the next few slides were introduced as part of the Aug 2024 PAC presentation

Appendix E Updates – Project Background

III. Project Background

a. All Projects

~~i. Overview of presenting PTO, including relevant statistics (service area, total circuit miles of transmission, etc.)~~

vi. Information on whether a particular facility was associated with need(s) identified in any recent ISO-NE studies, such as Longer-Term Transmission Studies, reliability studies, and interconnection studies

- An overview of the TO is no longer recommended, with a goal of keeping these presentations as focused as possible
- As part of the project background, the presentation will discuss any overlap between the proposed project and needs identified in recent ISO-NE studies
 - This change responds to several stakeholders' requests for information on correlation of asset condition needs with regional planning study efforts

Appendix E Updates – Project Needs

- c. Asset condition health grades, if applicable to the specific project and PTO
 - i. Asset condition grades can be summarized, if needed. For example, transmission line structure grades may be summarized in tabular format as shown in Appendix C to the Asset Condition Process Guide

- Asset condition grades will be described, if available
- This includes transmission structure grades/recommended actions as summarized in the new Appendix C

Appendix E Updates – Project Needs (Cont'd)

d. Relevant industry/regional standards that the asset(s) do not currently meet, if applicable. **The PTO should describe the specific regulations, standards, etc. that have affected decision making.** Examples of relevant standards include:

...

~~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. **Descriptions of any PTO-specific standards, criteria, or guidelines that have affected decision-making for the project.**

- Information on specific industry-accepted regulations, standards and criteria applicable to this project will be included
- Where applicable, internal TO standards affecting this project will also be described
- Discussion of the project in its entirety will be included in the Solution Alternatives section, making the discussion of “additional” work is not appropriate in this section of the presentation

Appendix E Updates – Solution Alternatives

VI. Solution Alternatives

~~For projects with substantial changes, discuss alternatives considered during project development. For each alternative, include:~~

~~a. Base Alternative~~

- ~~i. Project scope~~
- ~~ii. Benefits and drawbacks/shortcomings~~
- ~~iii. PTF cost estimate, including major cost drivers~~

~~b. Other alternative solutions. For each alternative, include:~~

- “Base Alternative” was first discussed in Aug 2024 PAC presentation
 - This represents the minimum up-front cost solution that will address all primary asset condition needs
- PAC presentations will now include a “Base Alternative” as well as other alternatives (if appropriate)
 - Various references to alternatives throughout the document have been modified to incorporate the Base Alternative terminology

Appendix E Updates – Assessment of Solution Alternatives

VII. Assessment of solution alternatives

- a. Include evaluation factors relevant to the project to allow comparison of solution alternatives. These factors should be based on those shown in Table 4-1 of the Asset Condition Process Guide, adapted to the project as needed.
- b. Assess benefits/advantages of Base Alternative versus other alternatives, if included
- c. Include assessment of the extent to which the proposed asset condition project would address any need or concern associated with this asset in any recent ISO-NE Reliability Studies, Interconnection Studies, or Longer-Term Transmission Studies

- Assessment of alternatives is moved to its own section and evaluation criteria recommendations are cross-referenced to the main Guide

Appendix E Updates – Preferred Solution

VIII. Preferred Solution – PTF Scope of Work Details

a. All Projects

~~Benefits/advantages of Preferred Solution vs Solution Alternatives, if included~~

- i. Order of magnitude or Conceptual PTF cost estimate (-50%/+200% or -25%/+50%, respectively)
- ii. Target start of construction date (by quarter)
- iii. Proposed in-service date (by quarter)

- The Preferred Solution section has been updated to reflect:
 - Creation of a new section on Assessment of Solution Alternatives (including benefits/advantages of preferred solution)
 - Elimination of the Summary section, which was largely duplicative of the Preferred Solution Scope of Work

Summary

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- In response to stakeholder feedback, TOs have developed several new appendices to the Asset Condition Process Guide, including some based on existing process enhancements
 - Gradual transition of information to Guide appendices is intended to increase readability, stakeholder comprehension, and overall cohesion of various enhancements to asset condition project reporting
- Draft appendices have been provided with monthly PAC meeting materials for stakeholder review and comment
- Additional Guide updates will be discussed in detail at a future PAC meeting

Questions

