



# Overview of Planned Updates to New England Transmission Owner (NETO) Asset Condition Process Guide

Planning Advisory Committee Meeting

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# Key Takeaways

- The transmission owners (TOs) plan to make several changes in response to feedback on the draft Asset Condition Process Guide, including:
  - Inclusion of “Base Alternative” in PAC presentations for all asset condition projects
  - Improving how asset condition needs are described and presented to PAC via standardized templates, including:
    - Use of common structure grading categories and recommended actions
    - Clearer identification of relevant industry standards and criteria
  - Providing additional information about asset condition solutions, including:
    - Identifying overlaps with any ISO-NE studies (including 2050 Transmission Study)
    - Identification and explanation of major cost drivers and cost differences between solutions
    - Identifying Advanced Transmission Technologies considered
- Responses to stakeholder comments have been posted with PAC meeting materials

# Background

# Asset Condition Process Guide Review Process

- Asset Condition Process Guide was developed by the New England Transmission Owners (TOs) to provide stakeholders with additional insights on the TOs' decision-making processes for asset condition projects
  - TOs published draft Asset Condition Process Guide on April 24, with comments and questions requested by June 5

The TOs received 8 sets of comments and questions (approx. 80 questions in total) from:

- New England States Committee on Electricity (NESCOE)
- New England state agencies/officials:
  - Connecticut Office of Consumer Counsel (CT OCC)
  - Massachusetts Attorney General's Office (MA AG)
  - New Hampshire Office of the Consumer Advocate (NH OCA)
  - Rhode Island Division of Public Utilities and Carriers (RI DPUC)
- One transmission equipment vendor:
  - LineVision
- Two individuals:
  - Bruce McKinnon
  - Kris Pastoriza

# Responses to Stakeholder Comments and Questions

- “Response to Stakeholder Comments” document containing responses to over 80 questions and comments has been posted with PAC materials
  - Comments and questions have been organized by commenter and numbered for ease of reference
- TOs will address major themes and key comments today, with a focus on how updates to the Asset Condition Process Guide and related documents will improve the quality and consistency of information presented to the PAC
- TOs are developing several additional appendices to Asset Condition Process Guide to:
  - Provide additional information on asset health indicators, such as structure grades
  - Document and enhance the stakeholder review process for asset condition projects
  - Provide standardized PAC presentation templates
- More details, including specific edits to the Asset Condition Process Guide will be shared with PAC in September and/or October



# **Overview of Planned Changes to Asset Condition Process Guide**

# Asset Condition Needs and Drivers

## Background

- Asset condition projects are developed when an asset condition need/driver is identified
  - For example – visual inspections identify transmission equipment which has deteriorated and presents a risk of failure

## Planned Changes

- PAC presentation templates will include a standard section for describing the needs and drivers of a project
- Needs and drivers will be categorized as “primary” and “secondary”
  - “Primary” needs and drivers must be addressed by any solution alternative under consideration
  - “Secondary” needs and drivers are additional areas of concern that may be addressed by some solution alternatives under consideration
- Additional information on relevant industry standards, codes, and criteria relevant to the project will be provided

## Benefits

- Clearer categorization of needs will better highlight specific asset condition concerns and support comparisons between solution alternatives

# Illustrative Project Needs and Drivers

Structure Concerns	
Classification	<b>Primary driver</b>
Location	Throughout line
Summary of issue:	25 structures requiring replacement have been identified by recent inspections
Relevant Standards:	Common TO structure grades and XYZ Company structure grading system (see Appendix C)
Additional pages:	Yes – see following slides

Insulator Concerns	
Classification	No Issue
Location	N/A
Summary of issue:	N/A
Relevant Standards:	N/A
Additional pages:	N/A

Conductor Concerns	
Classification	<b>Secondary driver</b>
Location	Throughout line
Summary of issue:	Conductor is 62 years old, though inspections have not identified any issues
Relevant Standards:	N/A
Additional pages:	No

Shield Wire Concerns	
Classification	<b>Primary driver</b>
Location	Northern segment
Summary of issue:	Shield wire has history of failure and poor lightning performance
Relevant Standards:	See attached
Additional pages:	Yes – see following slides

SAMPLE



# Structure Grading Table

- The TOs have reviewed the structure grading systems used by each company and developed consistent “categories” and “recommended actions” that will be used by all TOs in future PAC presentations
  - Consistent categories and recommended actions will be documented in an Appendix to the Asset Condition Process Guide
  - Appendix will also include individual company grading systems mapped to the categories

## Illustrative PAC Presentation Table for Hypothetical Project

Category	Recommended Action	Structure Count
A	No replacement required due to deterioration	51
B	Consider replacement in conjunction with other nearby structure replacements	20
C	Replace as part of next planned structure replacement project, <u>or</u> Initiate planned replacement project if none currently scheduled	13
D	Replace immediately (emergency replacement)	0
	Total number of structures	84

# Presentation of Alternatives

## Background

- Selection of preferred solution to an asset condition need usually requires analysis of multiple alternatives, unless a clear minimum-cost solution exists

## Planned Changes

- Development of standard format for presenting analysis of alternatives
- Inclusion of “Base Alternative” in all PAC presentations (minimum up-front cost solution to address primary asset condition needs)
- Identification of major cost drivers for proposed solutions
- Listing of Advanced Transmission Technologies when considered as part of any solution alternative

## Benefits

- More clearly identifies least-cost solution
- Supports evaluation of tradeoffs between solution alternatives

# Review of Recent ISO-NE Studies

## Background

- While TOs do not initiate asset condition projects to address areas of concern identified in ISO-NE studies (such as the 2050 Transmission Study), asset condition project sometimes provide ancillary increases to transmission system capability

## Planned Changes

- TOs will review recent ISO-NE studies (including Longer-Term Transmission Studies, Reliability Studies, and Interconnection studies) when developing asset condition projects
- TOs will provide information to the PAC regarding the degree to which solution alternative addresses needs identified in these studies
- PAC presentations will address such issues as:
  - Was this line overloaded in recent ISO-NE studies?
  - Have modifications or upgrades to this line been identified as potential solutions in recent ISO-NE studies?
  - Have modifications or upgrades within this ROW been identified as potential solutions in recent ISO-NE studies?
- This review will be provided *for information only*

## Benefits

- Clearer indication of impact of ancillary increases to transmission system capacity on potential future needs

# Tentative Update Schedule

Document	Description	PAC Meeting
Responses to Comments on Asset Condition Process Guide	Responses to comments received by June 5	<b>August 21</b>
Forecast of Upcoming Asset Condition Projects	Update to forecast last posted in November 2023	September (posting around end of August)
Asset Condition Process Guide Revisions	Redline edits to draft Asset Condition Process Guide	September or October
Appendix C – Transmission Owner Structure Grading Systems	Common rubric for transmission structure grades	September or October
Appendix D – Stakeholder Review Process for Asset Condition Projects	Expanded from PAC Presentation Guidelines developed in 2023	September or October
Appendix E – PAC Presentation Content Guidelines	Expanded from PAC Presentation Guidelines developed in 2023	September or October
Standardized PAC presentation templates	Common templates to be used by all TOs	<b>August 21 – Discussion</b> First complete draft to be presented to PAC in September or October

## Next Steps

- The TOs are continuing to develop the PAC presentation template and expect to share a complete version at a future PAC meeting, including an example based on a recent project
- The TOs also intend to:
  - Re-publish the Asset Condition Process Guide with revisions based on stakeholder comments
  - Update the PAC Presentation Guidelines, which will become appendices to the Asset Condition Process Guide
  - Add the table of TO structure grading systems to the Asset Condition Process Guide
- TOs intend to request written feedback once additional documents have been published
- The TOs are continuing to evaluate the development of other process enhancements and appreciate the continued active involvement of NESCOE, state officials, and other members of the PAC stakeholder community on this important issue

# Questions



# Appendix: Links to prior presentations and materials

Feb 2023	<ul style="list-style-type: none"> <li>• <a href="#">Initial request</a> from NESCOE to NETOs</li> </ul>
July 2023	<ul style="list-style-type: none"> <li>• <a href="#">Follow up letter</a> from NESCOE to NETOs</li> <li>• <a href="#">RNS rate overview and forecast</a>, with additional asset condition forecast information</li> </ul>
Aug 2023	<ul style="list-style-type: none"> <li>• <a href="#">NETO letter</a> outlining process and schedule</li> <li>• <a href="#">Draft guidelines</a> for asset condition PAC presentations</li> <li>• <a href="#">Cost estimating process</a> presentation</li> </ul>
Sept 2023	<ul style="list-style-type: none"> <li>• <a href="#">PTF Asset Condition Database Proposal</a></li> </ul>
Oct 2023	<ul style="list-style-type: none"> <li>• <a href="#">Asset management process</a> presentation</li> </ul>
Nov 2023	<ul style="list-style-type: none"> <li>• <a href="#">Revised guidelines</a> for asset condition project PAC presentations and <a href="#">responses to stakeholder comments</a></li> <li>• <a href="#">Draft Asset Condition Project Forecast</a>, including <a href="#">estimated dates and costs per project</a></li> </ul>
Dec 2023	<ul style="list-style-type: none"> <li>• <a href="#">NETO Update</a> presented to PAC</li> </ul>
Jan 2024	<ul style="list-style-type: none"> <li>• <a href="#">PTF Asset Condition Database</a></li> </ul>
Apr 2024	<ul style="list-style-type: none"> <li>• Publication of draft <a href="#">Asset Condition Process Guide</a>, followed by <a href="#">presentation</a> in May</li> <li>• Update to <a href="#">Asset Condition Database</a> (link to non-CEII document)</li> <li>• <a href="#">NETO update</a> on process and next steps</li> </ul>