

To: ISO New England Inc. (ISO-NE)
Planning Advisory Committee (PAC)

From: Dave Burnham
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Subject: ISO-NE Review of Proposed Lines 325, 331, and 334 Full and Partial Rebuilds (Medway, MA to Walpole, MA)

Over the past year, the New England States, the Transmission Owners, and other stakeholders have requested that ISO-NE develop a new function to review Transmission Owner-proposed asset condition projects with the goal of improving transparency and stakeholder confidence in such projects. The ISO agreed to take on the role of Asset Condition Reviewer, subject to certain conditions, beginning in 2027, and to review selected asset condition projects on an interim basis prior to the establishment of the permanent role.

Eversource's proposal to rebuild Line 325 and associated portions of Lines 331 and 344 between West Medway and West Walpole substations in Massachusetts was one of the projects selected for ISO-NE's interim review. As described in our February 25, 2026, presentation to the PAC, Line 325 and a short portion of Line 331 currently use a custom-made conductor – expanded-core ACSR – that cannot be quickly repaired in the event of a failure and for which replacement conductor is not available.¹ As a result, a conductor failure on these lines would result in an outage of up to one week duration or longer. Line 344 could also be affected because it shares structures with Lines 325 and 331. After the PAC presentation, Eversource responded to two rounds of data requests from ISO-NE and its consultant regarding the proposed project. After the July 28 PAC meeting, Eversource and ISO-NE received follow-up questions from the New Hampshire Office of Consumer Advocate (OCA). Responses to the questions directed to Eversource are attached to this letter.

These lines are particularly critical to the New England transmission system, and outages could cause substantial congestion during peak load periods.² The expanded-core ACSR conductor is approximately 58 years old, and is approaching the age at which industry studies have shown the risk of failure begins to increase.³ Given the importance of these lines – in particular, the market

¹ See https://www.iso-ne.com/static-assets/documents/100032/a02.1_pac_line_325_331_presentation.pdf.

² As shown on Slide 6 of the February 25 PAC Presentation, we estimated that congestion could range from \$128 M to \$391 M during peak periods depending on the nature of the outage.

³ For example, CEATI Report 3221-3222 "Transmission Line Conductor Health Indexing and Estimation of Remaining Life" (dated May 2011) suggests probability of failure increases after 60 years of age and increases more dramatically as an ACSR conductor approaches 80 years of age.

impacts and potential reliability risks if the lines were to be out of service during peak load periods – Eversource proposes to replace the conductor *proactively* (i.e., before experiencing a failure).

As Eversource has previously described, our options to assess the condition of the conductor are limited. Conductor strength is best analyzed via destructive testing, which involves placing the line out of service, removing a conductor sample, installing a section of replacement conductor, and sending the sample to an offsite laboratory where it is tested to the point of failure. In this instance, Eversource does not have any spare expanded-core ACSR conductor available to replace samples removed for testing, and other currently manufactured conductor types cannot be spliced with expanded-core ACSR.

ISO-NE's review appears to support our concerns about the repairability and replaceability of the expanded-core ACSR conductor. We appreciate ISO-NE's agreement with these concerns.

However, ISO-NE's review also suggests that we currently lack evidence of an urgent need to replace the conductor. We are troubled by what appears to be ISO-NE's position that an asset condition project should proceed only when a Transmission Owner can present specific, concrete evidence of deterioration of the equipment.

Industry best practice is to proactively plan for the replacement of critical transmission facilities at the end of their expected service lives, particularly when the internal condition, degradation mechanisms, or the remaining useful life of a facility cannot be reliably determined through inspection, testing, or routine maintenance activities. The inability to observe or measure deterioration should not be interpreted as evidence that a piece of equipment or a facility remains in acceptable condition or that its service life can safely be extended. Rather, the lack of reliable condition information creates additional uncertainty regarding the facility's probability of failure and remaining useful life.

Accordingly, requiring evidence of physical deterioration or impending failure before replacing a facility that cannot be effectively inspected establishes a threshold that a utility cannot meet without experiencing the very failure the replacement program is intended to prevent. A prudent asset management strategy therefore recognizes the distinction between absence of evidence of deterioration and evidence of satisfactory condition. When asset condition cannot be reliably assessed, manufacturer service-life recommendations, asset age, operating history, known failure mechanisms, system criticality, the consequences of failures, and the time needed to respond to failures provide an appropriate basis for replacement decisions.

Considering all of these factors protects system reliability, enables orderly capital planning, support outage coordination, and avoids unnecessarily exposing customers and the transmission system to the consequences of preventable in-service failures. This is particularly important for asset condition replacement projects that can take five or ten years to construct.

While we are concerned that ISO-NE's review has not given appropriate weight to these factors, we will not yet proceed with the proposed rebuild. Instead, we will continue to investigate the condition of the conductor and assess additional options for testing while the conductor remains in-service. We continue to anticipate that a full rebuild will eventually be required, either due to deterioration, age, or other factors, and appreciate that ISO-NE's review confirmed that a full rebuild is a reasonable solution when the conductor replacement is required.⁴

In closing, Eversource would like to thank ISO-NE for its independent review of this project. We look forward to working with ISO-NE to obtain FERC approval of the proposed changes to the Open Access Transmission Tariff and Transmission Operating Agreement necessary to support the permanent Asset Condition Reviewer function, and to the implementation of this function in 2027.

⁴ As described in the February 25 PAC presentation and subsequent responses to stakeholder questions, replacing the conductor on these lines will either require some number of structure replacements or a full rebuild, depending on the choice of new conductor. This is described in more detail in Eversource's responses to stakeholder feedback are at https://www.iso-ne.com/static-assets/documents/100034/eversource_response_to_ma_ago_lines_325_331_344.pdf (MA AGO feedback) and https://www.iso-ne.com/static-assets/documents/100034/eversource_response_to_me_opa_me_puc_and_nh_oqa.pdf (Maine OPA, Maine PUC, and NH OCA feedback)

Eversource Responses to New Hampshire OCA August 12, 2026, Lines 325, 331, and 334 Full and Partial Rebuilds (Medway, MA to Walpole, MA)

Question 3-3: The [Independent Asset Condition Reviewer] report contains numerous recommendations for O&M as well as recommendations for future and ongoing evaluation. Does Eversource intend to implement any of the O&M recommendations on these lines? If so, which ones and when? Also, given the general nature of many of the recommendations, does Eversource intend to implement any of the recommendations for projects other than the one covered by the IACR report? If so, which ones and when?

Response: Please see the response to Questions 2-3.3 and 2-3.4 attached to Eversource's communication to the PAC regarding the ISO's review of the proposed Lines 1670/1771 Rebuild Project.