EVERSOURCE ENERGY

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August 13, 2025

Denis Bergeron
Maine Public Utilities Commission
26 Katherine Drive
Hallowell, ME 04347

Dear Mr. Bergeron,

Please find Eversource's response to the questions from the Maine Public Utilities Commission regarding the New Hampshire Asset Condition Structure Replacements – Lines 373, 385, 391 presentation Eversource made to the ISO-NE Planning Advisory Committee (PAC) on June 16, 2025.

If you have any follow up questions, please feel free to reach out.

Sincerely,

David Burnham

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Eversource Energy
New Hampshire Asset Condition Structure Replacements – Lines 373, 385, 391
Data Request: ME PUC
Question: 1
Date Received: July 14, 2025

Request From: Maine Public Utilities Commission

Question: In Chris' presentation, he mentioned that the new H frame steel towers proposed for the rebuild would be able to accommodate the weight of 1590 kcmil ACSS 54/19 Falcon conductors (Eversource Standard). At slide 16, he displayed that all three of the current 850 ACSR conductors were overdutied at 1663 MVA in the 2050 winter peak transmission study. I would like to ask two follow up questions to fill in my notes please.

The first is that Chris discussed the MVA rating of the current 850 ACSR conductors to the Eversource standard 1590 ACSS conductors, but I cannot find that in the presentation and do not want to misquote. Could you please furnish Eversource's rating used?

Second, in reviewing the presentation and my notes I was confused by slide 16. What I don't understand is why the three conductors, all with the same rating would show different percentages of overduty at the same 1663 MVA. Could you please explain that?

Response

1) The existing LTE rating of Lines 373, 385, and 391 using 850-kcmil ACSR conductors is 1663 MVA (winter) and 1358 MVA (summer). The LTE conductor rating with bundled 1590 ACSS Falcon would be 3594 MVA (winter) and 3357 MVA (summer). The overall line rating may be lower due to substation equipment limits. Eversource did not further investigate these limitations as part of this project.

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2) The overloads shown on slide 16 are presented as a percentage overload relative to the 1663 MVA winter rating. The loadings identified across Lines 373, 385, and 391 are different on each line because Line 373 and Line 385 connect to Deerfield substation which has connections to Line 307 and several 115 kV lines, while Line 391 runs directly from Scobie Pond substation to Buxton substation and does not connect at Deerfield substation. More specifically:

   The most severe overloads documented outside of Winter Peaking 57 GW scenario were in the 51 GW Winter Peaking scenario

   - Line 373, 169.1% at 2813 MVA of flow compared to an existing winter LTE Rating of 1663 MVA
   - Line 385, 122.1% at 2031 MVA of flow compared to an existing winter LTE Rating of 1663 MVA
   - Line 391, 189.8% at 3156 MVA of flow compared to an existing winter LTE Rating of 1663 MVA

   In researching the answer to this question, we identified a transposition error on our slide 16. We inadvertently swapped the percent overload on Lines 385 and 391 in the June 16, 2025 PAC presentation. A redlined correction of the PAC presentation has been posted along with this response. The correct % overloads along with the actual MVA loadings and the existing LTE ratings are above.