



56 Prospect Street  
Hartford, CT 06103

Steven J. Allen  
Eversource, ISO-NE Coordination  
phone: 860-728-4536  
email: steven.allen@eversource.com

June 27, 2022

Ms. Emily Laine  
Chair, NEPOOL Reliability Committee  
ISO New England, Inc.  
One Sullivan Road  
Holyoke, MA 01040-2841

Dear Ms. Laine,

In accordance with Schedule 12C of the ISO New England ("ISO-NE") Transmission, Markets & Services Tariff ("ISO-NE Tariff"), Eversource Energy Service Company ("Eversource") hereby submits the attached Transmission Cost Allocation ("TCA") application(s) reporting cost support information associated with the construction, retirement, or modification to facilities rated 69 kV and above that qualify as regional Pool Transmission Facilities ("PTF") for the following Eversource project:

**ES-22-TCA-20      Webster-Beebe River 115-kV Corridor Asset Condition and OPGW Project – E115 Line (Pemigewasset substation – Huckins Hill substation)**

Eversource is requesting that ISO-NE submit this TCA to the NEPOOL Reliability Committee for review, in accordance with ISO-NE Planning Procedure No. 4 ("PP-4").

If you have any questions, I can be reached via the information listed above.

Sincerely,

*Steven J. Allen*

Steven J. Allen

cc: M. Drzewianowski

**Attachment B**  
**TCA Application Form**

|                   |  |                              |       |                                     |
|-------------------|--|------------------------------|-------|-------------------------------------|
| 1. Applicant:     | Application #:   | ES-22-TCA-20                 | Date: | Jun-22                              |
| Contact Name:     | Steven J. Allen  |                              |       |                                     |
| Company Name:     | Eversource Energy Service Company  |                              |       |                                     |
| Address 1:        | 56 Prospect Street   |                              |       |                                     |
| Address 2:        |  |                              |       |                                     |
| City, State, Zip: | Hartford, CT 06103   | RSP Project ID # or          |       |                                     |
| Contact Phone #:  | 860-728-4536   | Asset Condition ID #         | 280   |                                     |
| Email Address:    | <a href="mailto:steven.allen@eversource.com">steven.allen@eversource.com</a> | Is Project related to CIP-14 |       |                                     |
|                   | Yes  | <input type="checkbox"/>     | No    | <input checked="" type="checkbox"/> |

2. Project Description: In Service Date: Dec-23

a. **High Level Project Details:**

**Project Name** ( If no formal name, then Substation Upgrade, Line Upgrade, etc. are acceptable):

**Webster-Beebe River 115-kV Corridor Asset Condition and OPGW Project - E115 Line**

**Project Location** (State only):

**State:**

**NH**

**County:**

**Belknap, Grafton**

b. Summary of PTF-related work for Project:

This project will replace 176 wooden H-frame structures with self-weathering steel structures, replace approximately 14.88 circuit miles of aging 336 ACSR conductor with new 1272 ACSR conductor and approximately 14.94 miles of two (2) aging 3#6 copperweld static wires with new two (2) new 48F 0.646" Optical Ground Wire (OPGW) on the E115 115-kV Line (Pemigewasset substation - Huckins Hill substation). The structures are being replaced due to issues associated with load from the OPGW installation as well as deficiencies such as rot, splits, cracks, woodpecker damage and deteriorating steel components.

Final project cost details will be known following closeout of all project work orders.

c. Summary of Non-PTF-related work for Project:

|  |     |                                     |    |                          |                              |
|--|-----|-------------------------------------|----|--------------------------|------------------------------|
| 3. Was a transmission Proposed Plan Application required for this work?            | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> | PPA Number: <u>ES-21-T44</u> |
| 4. Has a transmission Proposed Plan Application been approved?                     | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> | N/A <input type="checkbox"/> |
| If yes, attach a copy and reference Proposed Plan Application # and approval date. |     | (Please check only one)             |    |                          |                              |
|  |     | Approval Date: <u>July 15, 2021</u> |    |                          |                              |

**Need For Project:**

5. Need Based On (Check all Categories that apply):

- a. Reliability
- b. Economic
- c. Service to new load
- d. New generator interconnection

Generator Proposed Plan Application Number \_\_\_\_\_

Generator Proposed Plan Application Date \_\_\_\_\_  
(Attach copy of cover letter & Generator Proposed Plan Application)

- e. Public Policy Transmission Upgrade (PPTU)
- f. Market Efficiency Transmission Upgrade (METU)
- g. Asset Condition
- h. Other (specify in line 6)

6. Provide a narrative description of the need for this Project.  
(Include available documentation relative to the need for this Project. )

The existing 3#6 copperweld shield wires and 336 ACSR conductor on the E115 Line are obsolete and susceptible to failure due to thermal rating degradation as well as environmental factors. The technology for parts and repair of this shield wire are obsolete and no longer manufactured and no longer an Eversource standard material. Replacing the conductor, shield wire and structures remediates the potential for structure/equipment failures due to asset condition vulnerabilities. To ensure the continued operability of this line, the identified structures need to be replaced.

**Cost of Project:**

|  |                 |
|--|-----------------|
| 7. Total Project Cost (\$M) equals PTF + Non-PTF + all other Project Costs:  | <u>\$64.147</u> |
| 8. Total Proposed PTF Costs  |                 |
| a. Total Proposed PTF Cost of this Project (\$M):  | <u>\$64.147</u> |
| b. Requested Pool-Supported PTF Costs associated with this Project (\$M):  | <u>\$64.147</u> |
| c. Breakdown of Requested Pool-Supported PTF Cost associated with this Project (\$M):<br>(Consistent with Table 1 and Appendix D of this Procedure)                                  |                 |
| Material   | <u>\$8.025</u>  |
| Labor  | <u>\$31.010</u> |
| ROW  | <u>\$0.000</u>  |
| Engineering/Permitting/Indirects   | <u>\$17.472</u> |
| Escalation   | <u>\$0.000</u>  |
| AFUDC (or equivalent)  | <u>\$2.909</u>  |
| Contingency  | <u>\$4.731</u>  |
| d. Generator Supported PTF Costs* (\$M):   | <u>\$0.000</u>  |
| If the costs in 8.b. plus 8.d. do not equal the total proposed PTF cost (8.a) explain and indicate who is responsible for the remaining costs.                                       |                 |
|  |                 |
| 9. Total Proposed Non-PTF Cost of this Project (\$M):  | <u>\$0.000</u>  |
| 10. Proposed PTF Costs (\$M) introduced as a result of local, state or other regulatory/legislative requirements, including costs identified pursuant to Section 1.6.3 of this PP-4. | <u>\$0.000</u>  |
| a. Description of Proposed PTF Cost introduced as a result of local, state or other regulatory/legislative requirements as defined in question 8 above.                              |                 |
| 11. All other Project Costs not captured in PTF Costs (8) or Non-PTF Costs (9) (\$M) associated with this Project:   | <u>\$0.000</u>  |

12. Total PTF Cost based on: (check one)

Actual Costs

**OR**

Estimated Costs\*

13. Valuation Year(s) of dollar amounts submitted above: 2022

14. If applicable, explain how the cost of common facilities were allocated between PTF and Non-PTF.

15. Does this Project result in a change of existing Non-PTF facilities to PTF?

Yes

No

16. Describe the major transmission alternatives, and their costs consistent with the breakdown provided in item 7 of this Application, that were considered. Provided an explanation why the preferred alternative was selected.  
(Include available documentation relative to the major transmission alternatives analysis and selection.)

**Alternative:**

- Do nothing but for the reasons noted in 6 above is not acceptable
- Replace only high priority structures. This was not considered a viable alternative as it does not address the need to replace obsolete copper materials, would require continuous re-entry into the right-of-way to address future structure replacement needs of remaining structures and is not cost effective.

**Preferred:**

- Rebuild the E115 115-kV Line. This is the preferred alternative. The existing copperweld shield is obsolete and susceptible to failure due to thermal rating degradation of the conductor, as well as degradation due to environmental factors. A rebuild of this line mitigates structure loading and/or clearance concerns with existing conductor and shield wire, is cost effective by taking advantage of access road and construction cost efficiencies available due to the scope of the project and addresses asset condition concerns of structures as a result of age and degradation of structures.

17. Has state and local siting been completed? If yes, explain the siting process and any provisions that were made during siting, provide docket or siting reference numbers.  
If no, then explain when siting is expected to be completed and any provisions that have been agreed to.

No unusual Siting or permitting was required for this project.

\* Pool-Supported PTF costs were determined pursuant to Schedule 11 of Section II of the Tariff.

# PROJECT COST ESTIMATE & SCHEDULE SHEET

Transmission Owner: Public Service Company of New Hampshire

RSP Project #: 280

**Project Name:** Webster-Beebe River 115-kV Corridor Asset Condition and OPGW Project - E115 Line (Pemigewasset substation - Huckins Hill substation)

**Date:** Jun-22

## 1. Project Scope Summary

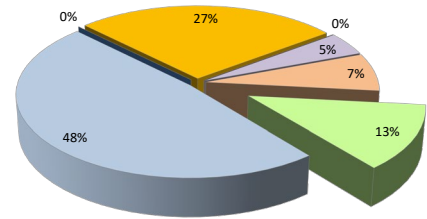
This project will replace 176 wooden structures with self-weathering steel structures, replace approximately 14.88 circuit miles of aging 336 ACSR conductor with new 1272 ACSR conductor and approximately 14.94 miles of two (2) aging 3#6 copperweld static wires with new two (2) new 48F 0.646" Optical Ground Wire (OPGW) on the E115 115-kV Line (Pemigewasset substation - Huckins Hill substation). The structures are being replaced due to issues associated with load from the OPGW installation as well as deficiencies such as rot, splits, cracks, woodpecker damage and deteriorating steel components.

## 2. Project Cost Summary

(\$M)

| 2.1. Project Cost Summary         |                  |             |                  |
|-----------------------------------|------------------|-------------|------------------|
| Cost Category                     | PTF              | Non-PTF     | Total            |
| Material                          | \$ 8.025         | \$ -        | \$ 8.025         |
| Labor & Equipment                 | \$ 31.010        | \$ -        | \$ 31.010        |
| Right of Way                      | \$ -             | \$ -        | \$ -             |
| Engineering/Permitting /Indirects | \$ 17.472        | \$ -        | \$ 17.472        |
| Escalation                        | \$ -             | \$ -        | \$ -             |
| AFUDC                             | \$ 2.909         | \$ -        | \$ 2.909         |
| Contingency                       | \$ 4.731         | \$ -        | \$ 4.731         |
| <b>Total Project Cost</b>         | <b>\$ 64.147</b> | <b>\$ -</b> | <b>\$ 64.147</b> |

- Material
- Labor & Equipment
- Right of Way
- Engineering/Permitting /Indirects
- Escalation
- AFUDC
- Contingency



| 2.2 Detailed Cost Summary By Project Element   |                 |                   |              |                                   |             |                 |                 |                  |                  |
|--|-----------------|-------------------|--------------|-----------------------------------|-------------|-----------------|-----------------|------------------|------------------|
|  | Material        | Labor & Equipment | Right of Way | Engineering/Permitting/ Indirects | Escalation  | AFUDC           | Contingency     | Total            | PTF Amount       |
| Webster-Beebe River 115-kV Corridor Asset Condition and OPGW Project - E115 Line (Pemigewasset substation - Huckins Hill substation) | \$ 8.025        | \$ 31.010         | \$ -         | \$ 17.472                         | \$ -        | \$ 2.909        | \$ 4.731        | \$ 64.147        | \$ 64.147        |
| <b>Total</b>   | <b>\$ 8.025</b> | <b>\$ 31.010</b>  | <b>\$ -</b>  | <b>\$ 17.472</b>                  | <b>\$ -</b> | <b>\$ 2.909</b> | <b>\$ 4.731</b> | <b>\$ 64.147</b> | <b>\$ 64.147</b> |

## 3. Project Milestone Schedule

| Description                    | Start Date |  | 2020       |      | 2021 |      | 2022 |      | 2023 |      | 2024 |      | 2025 |      | 2026 |      |      |      |
|--------------------------------|------------|--|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                                |            |  | Qtr1       | Qtr2 | Qtr3 | Qtr4 | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Qtr1 | Qtr2 | Qtr3 | Qtr4 |
| <b>Siting &amp; Permitting</b> |            |  |            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Approval and Permits           | 12/16/2020 |  | 7/5/2022   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Engineering</b>             |            |  |            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Engineering and Design         | 9/23/2020  |  | 2/24/2022  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Material</b>                |            |  |            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Material                       | 2/28/2022  |  | 10/27/2022 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Construction</b>            |            |  |            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Construction                   | 7/18/2022  |  | 12/31/2023 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|                                |            |  |            |      | 2020 |      | 2021 |      | 2022 |      | 2023 |      | 2024 |      | 2025 |      | 2026 |      |

E115 115-kV Line Webster-Beebe River Asset Condition and OPGW Project Correlation Table  
(Pemigewasset substation - Huckins Hill substation)

| <u>TCA Item</u>     | <u>RSP:</u><br>Project ID # | <u>Study:</u><br>Reliability Issues Requiring<br><u>Action</u> | <u>PPA Application:</u> |  | <u>PAC/RC Meeting:</u><br>Presentation<br>Reference                         | <u>TCA Application (\$Ms):</u> |                         |
|---------------------|-----------------------------|--|-------------------------|--|---|--------------------------------|-------------------------|
|                     |                             |  | <u>PPA No.</u>          | <u>Preferred Solution Description</u>  |   | <u>PTF Estimate</u>            | <u>Non-PTF Estimate</u> |
| <b>ES-22-TCA-20</b> | <b><u>280</u></b>           | n/a  | ES-21-T44,              | Replace 14.88 miles of existing 336 ACSR conductor with new 1272 ACSS conductor, approximately 14.94 miles of two 3#6 copperweld static wire with two 48F 0.646" OPGW and 176 wood structures with steel structures including hardware, insulators and guys. | Per PAC Presentation 12/16/2020<br><br>RC - PPA approval received 7/15/2021 | \$ 64.147                      |                         |
| SUBTOTAL            |                             |  |                         |  |   | \$ 64.147                      | \$ -                    |