



56 Prospect Street
Hartford, CT 06103

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

October 21, 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-39 1783 115-kV Line Asset Condition Replacements and OPGW
Installation Project (East New Britain substation – Newington
substation – Farmington 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-39 | Date: | Oct-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 # | TBD | |
| Email Address | steven.allen@eversource.com | Is Project related to CIP-14 | | |
| | | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | |

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

a. **High Level Project Details:**

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

Project Location (State only):

State:

Connecticut

County:

Hartford

1783 115-kV Line Asset Condition Replacements and OPGW Installation (East New Britain substation - Newington substation - Farmington substation)

b. Summary of PTF-related work for Project:

This project will replace two wood structures with steel structures and replace 7.14 miles of existing shield wire with 0.646" 144 fiber Optical Ground Wire (OPGW) on the 1783 115-kV Line (East New Britain substation - Newington substation - Farmington substation). The structures have deficiencies such as woodpecker damage, holes, cracks and split pole tops. The existing shield wire technology is obsolete and no longer manufactured.

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 type="checkbox"/> | No <input checked="" type="checkbox"/> | PPA Number: <u>N/A</u> |
| 4. Has a transmission Proposed Plan Application been approved? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Approval Date: <u>N/A</u> |
| If yes, attach a copy and reference Proposed Plan Application # and approval date. | | | |
| (Please check only one) | | | |

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.)

Replacing these structure remediates the potential for structure failures due to asset condition vulnerabilities. To ensure the continued operability of this line segment, the identified structures in this section need to be replaced. Installing OPGW improves communication bandwidth, security, and continuity in network reliability.

Cost of Project:

| | |
|---|----------------|
| 7. Total Project Cost (\$M) equals PTF + Non-PTF + all other Project Costs: | <u>\$6.285</u> |
| 8. Total Proposed PTF Costs | |
| a. Total Proposed PTF Cost of this Project (\$M): | <u>\$6.285</u> |
| b. Requested Pool-Supported PTF Costs associated with this Project (\$M): | <u>\$6.285</u> |
| c. Breakdown of Requested Pool-Supported PTF Cost associated with this Project (\$M): (Consistent with Table 1 and Appendix D of this Procedure) | |
| Material | <u>\$0.225</u> |
| Labor | <u>\$2.858</u> |
| ROW | <u>\$0.000</u> |
| Engineering/Permitting/Indirects | <u>\$2.332</u> |
| Escalation | <u>\$0.000</u> |
| AFUDC (or equivalent) | <u>\$0.023</u> |
| Contingency | <u>\$0.847</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): \$0.000

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. \$0.000

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: \$0.000

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 reasons stated in 6 above is not acceptable.
- Replace only deteriorated components. This is not preferred as it does not mitigate aged structures/components, does not align with Eversource's best-practice.

Preferred:

Field inspections have indicated a significant amount of degradation and decreased load carrying capacity of wood 115-kV structures (many of the poles show signs of rot, cracks, splits, and deterioration). Replacing the structures resolves multiple structural/hardware issues and supports a safe and reliable operation of the transmission line. The installation of OPGW will provide high speed communication between substations, reduce dependency on leased services for protection, and improve the reliability of the Transmission system.

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: The Connecticut Light and Power Company

RSP Project #: TBD

Project Name: 1783 115-kV Line Asset Condition Replacements and OPGW Installation (East New Britain substation - Newington substation - Farmington substation)

Date: Oct-22

1. Project Scope Summary

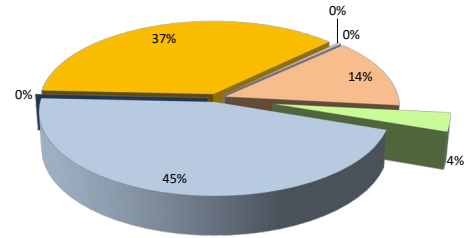
This project will replace two wood structures with steel structures and replace 7.14 miles of existing shield wire with 0.646" 144 fiber Optical Ground Wire (OPGW) on the 1783 115-kV Line (East New Britain substation - Newington substation - Farmington substation). The structures have deficiencies such as woodpecker damage, holes, cracks and split pole tops. The existing shield wire technology is obsolete and no longer manufactured.

2. Project Cost Summary

(\$M)

| 2.1. Project Cost Summary | | | |
|-----------------------------------|-----------------|-------------|-----------------|
| Cost Category | PTF | Non-PTF | Total |
| Material | \$ 0.225 | \$ - | \$ 0.225 |
| Labor & Equipment | \$ 2.858 | \$ - | \$ 2.858 |
| Right of Way | \$ - | \$ - | \$ - |
| Engineering/Permitting /Indirects | \$ 2.332 | \$ - | \$ 2.332 |
| Escalation | \$ - | \$ - | \$ - |
| AFUDC | \$ 0.023 | \$ - | \$ 0.023 |
| Contingency | \$ 0.847 | \$ - | \$ 0.847 |
| Total Project Cost | \$ 6.285 | \$ - | \$ 6.285 |

- 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 |
| 1783 115-kV Line Asset Condition Replacements and OPGW Installation (East New Britain substation - Newington substation - Farmington substation) | \$ 0.225 | \$ 2.858 | \$ - | \$ 2.332 | \$ - | \$ 0.023 | \$ 0.847 | \$ 6.285 | \$ 6.285 |
| Total | \$ 0.225 | \$ 2.858 | \$ - | \$ 2.332 | \$ - | \$ 0.023 | \$ 0.847 | \$ 6.285 | \$ 6.285 |

3. Project Milestone Schedule

| Description | Start | Finish | 2021 | | | | 2022 | | | | 2023 | | | | 2024 | | | | 2025 | | | |
|------------------------|------------|-----------|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Qtr1 | Qtr2 | Qtr3 | Qtr4 | Qtr1 | Qtr2 | Qtr3 | Qtr4 |
| | | | Siting & Permitting | | | | | | | | | | | | | | | | | | | |
| Approval and Permits | 4/29/2022 | 10/3/2022 | → | | | | | | | | | | | | | | | | | | | |
| | | | Engineering | | | | | | | | | | | | | | | | | | | |
| Engineering and Design | 12/12/2021 | 9/26/2022 | → | | | | | | | | | | | | | | | | | | | |
| | | | Material | | | | | | | | | | | | | | | | | | | |
| Material | 3/15/2022 | 1/5/2023 | → | | | | | | | | | | | | | | | | | | | |
| | | | Construction | | | | | | | | | | | | | | | | | | | |
| Construction | 11/1/2022 | 5/31/2023 | → | | | | | | | | | | | | | | | | | | | |

1783 115-kV Line Asset Condition Replacements and OPGW Installation Project
 Correlation Table
 (East New Britain substation - Newington substation - Farmington substation)

| <u>TCA Item</u> | <u>RSP:</u> Project ID # | <u>Study:</u> Reliability Issues Requiring Action | <u>PPA Application:</u> | | <u>PAC/RC Meeting:</u> Presentation Reference | <u>TCA Application (\$Ms):</u> | |
|-----------------|-----------------------------|---|-------------------------|---|---|--------------------------------|-----------------------------|
| | | | <u>PPA No.</u> | <u>Preferred Solution Description</u> | | <u>PTF Estimate</u> | <u>Non-PTF Estimate</u> |
| ES-22-TCA-39 | TBD | n/a | n/a | Replace two wood structures with steel structures, associated insulators, guys and hardware; and install 7.14 miles of Optical Ground Wire (OPGW) in addition to associated Telecom equipment at each substation. | Per PAC Presentation 9/21/2022 | \$ 6.285 | |
| | | | | SUBTOTAL | | \$ 6.285 | \$ - |