

February 11, 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-06      115-kV Structure and Shield Wire Replacements - T198 Line  
(Monadnock substation – Emerald Street 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,

*David J. Burnham*

David J. Burnham

cc: M. Drzewianowski

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

1. Applicant:	Application #:	ES-22-TCA-06	Date:	Feb-22
Contact Name:	David J. Burnham			
Company Name:	Eversource Energy			
Address 1:	56 Prospect Street			
Address 2:				
City, State, Zip:	Hartford, CT 06103	RSP Project ID # or		
Contact Phone #:	860-728-4506	Asset Condition ID #	TBD	
Email Address:	david.burnham@eversource.com	Is Project related to CIP-14		
		Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>

2. Project Description: In Service Date: Dec-22

a. **High Level Project Details:**

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

**115-kV Structure and Shield Wire Replacements - T198 Line  
(Monadnock substation - Emerald Street substation)**

**Project Location** (State only):

**State:**

NH

**County:**

Cheshire

b. Summary of PTF-related work for Project:

Replace 64 wood structures with steel poles on the T198 115-kV Line (Monadnock substation - Emerald Street substation) as the result of foot and aerial patrols, and replace 11.14 miles of copper static wire with two 0.646" 48 Fiber Optical Ground Wire (OPGW). The structures have deficiencies such as: woodpecker damage, rot, cracks and deteriorated mechanical connections or overstraining.

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: n/a
4. Has a transmission Proposed Plan Application been approved?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval Date: n/a
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 structures 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 line section need to be replaced. Installation of OPGW shield wire allows for updated hardware, continued line shielding and increased communication and reliability throughout the system.

**Cost of Project:**

7. Total Project Cost (\$M) equals PTF + Non-PTF + all other Project Costs:	<u>\$19.113</u>
8. Total Proposed PTF Costs	
a. Total Proposed PTF Cost of this Project (\$M):	<u>\$19.113</u>
b. Requested Pool-Supported PTF Costs associated with this Project (\$M):	<u>\$19.113</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>\$2.741</u>
Labor	<u>\$10.240</u>
ROW	<u>\$0.000</u>
Engineering/Permitting/Indirects	<u>\$3.770</u>
Escalation	<u>\$0.000</u>
AFUDC (or equivalent)	<u>\$0.412</u>
Contingency	<u>\$1.950</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 stated in 6 above is not acceptable.

**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 decay, woodpecker damage, rot and deterioration). Replacing the structures and installing OPGW resolves multiple structural/hardware issues and supports safe and reliable operation of the transmission line.

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 required

\* 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 #: TBD

Project Name: 115-kV Structure and Shield Wire Replacements - T198 Line  
(Monadnock substation - Emerald Street substation)

Date: Feb-22

## 1. Project Scope Summary

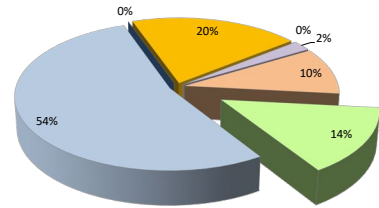
This project will replace 64 wood structures with steel poles on the T198 115-kV Line (Monadnock substation to Emerald St. substation) as the result of foot and aerial patrols, and replace 11.14 miles of two paths of 3#6 copper static wire with two 0.646" 48 Fiber Optical Ground Wire (OPGW). The structures have deficiencies such as: woodpecker damage, rot, cracks and deteriorated mechanical connections or overstressing.

## 2. Project Cost Summary

(\$M)

2.1. Project Cost Summary			
Cost Category	PTF	Non-PTF	Total
Material	\$ 2.741	\$ -	\$ 2.741
Labor & Equipment	\$ 10.240	\$ -	\$ 10.240
Right of Way	\$ -	\$ -	\$ -
Engineering/Permitting /Indirects	\$ 3.770	\$ -	\$ 3.770
Escalation	\$ -	\$ -	\$ -
AFUDC	\$ 0.412	\$ -	\$ 0.412
Contingency	\$ 1.950	\$ -	\$ 1.950
<b>Total Project Cost</b>	<b>\$ 19.113</b>	<b>\$ -</b>	<b>\$ 19.113</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
115-kV Structure and Shield Wire Replacements - T198 Line (Monadnock substation - Emerald Street substation)	\$ 2.741	\$ 10.240	\$ -	\$ 3.770	\$ -	\$ 0.412	\$ 1.950	\$ 19.113	\$ 19.113
<b>Total</b>	<b>\$ 2.741</b>	<b>\$ 10.240</b>	<b>\$ -</b>	<b>\$ 3.770</b>	<b>\$ -</b>	<b>\$ 0.412</b>	<b>\$ 1.950</b>	<b>\$ 19.113</b>	<b>\$ 19.113</b>

## 3. Project Milestone Schedule

Description	Start	Complete	2016				2017				2018				2019				2020				2021				2022			
			Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4
			<b>Siting &amp; Permitting</b>																											
Approval and Permits	9/1/2021	4/1/2022	<div style="display: flex; justify-content: space-between; width: 100%;"> <span>→</span> </div>																											
			<b>Engineering</b>																											
Engineering and Design	2/1/2021	12/10/2021	<div style="display: flex; justify-content: space-between; width: 100%;"> <span>→</span> </div>																											
			<b>Land</b>																											
Material	12/10/2021	2/28/2022	<div style="display: flex; justify-content: space-between; width: 100%;"> <span>→</span> </div>																											
			<b>Construction</b>																											
Construction	2/28/2022	12/31/2022	<div style="display: flex; justify-content: space-between; width: 100%;"> <span>→</span> </div>																											

115-kV Structure and Shield Wire Replacements - T198 Line  
(Monadnock substation - Emerald Street substation)

<u>TCA Item</u>	<u>RSP:</u> Project ID #	<u>Study:</u> Reliability Issues Requiring <u>Action</u>	<u>PPA Application:</u>		<u>PAC/RC Meeting:</u> Presentation Reference	<u>TCA Application (\$1,000s):</u>	
			<u>PPA No.</u>	<u>Preferred Solution Description</u>		<u>PTF Estimate</u>	<u>Non-PTF Estimate</u>
ES-22-TCA-06	TBD	n/a	n/a	Replace 64 wood 115-kV structures with light-duty steel pole structures, including hardware, insulators, and guys. Replace 22.28 miles of copper static wire with 0.646" 48 Fiber Optical Ground Wire (OPGW)	Per PAC Presentation 12/15/2021	\$ 19.113	
				SUBTOTAL		\$ 19.113	\$ -