

56 Prospect Street Hartford, CT 06103

David J. Burnham Eversource ISO Policy and Economic Analysis phone: 860-728-4506 email: david.burnham@eversource.com

October 28, 2021

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-21-TCA-56 Laminated Wood Structure Replacement Program Phase 2 -Line S188 NH 115-kV Line (Watts Brook substation - Mammoth Road 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

		TC	<u>Attachı</u> CA Applic	<u>nent B</u> ation Form			
 Applicant: Contact Name: 	_	David J. Burnham		Application #:	ES-21-TCA-56	Date:	Oct-21
Company Name:		Eversource Energy Service Company					
Address 1:		56 Prospect Street					
Address 2:		· · · ·		RSP Project ID # or			
City, State, Zip		Hartford, CT 06103		Asset Condition ID #	TBD		
Contact Phone #		860-728-4506		Is Project related to CIP-14			
Email Address		david.burnham@eversource.com		Yes No	X		
2. Project Description:						In Service Date:	Jun-22
2. Troject Description.		High I and Designt Details.				in Service Dute.	<u>JUII-22</u>
	a.	High Level Project Details:			· · · · ·		
		Project Name (If no formal name, then Substation Upgrade,	Line Upgrad	le, etc. are acceptable):		tructure Replacement Program «V (Watts Brook substation - M	
		Project Location (State only):	State:	NH	County:	Rockingham	
	b.	Summary of PTF-related work for Project:			county		
	c.	nal project cost details will be known following closeout of Summary of Non-PTF-related work for Project:					
	-	ed Plan Application required for this work? d Plan Application been approved?		Yes No Yes No	X N/A X	PPA Number: <u>n/a</u> Approval Date:	
	-	erence Proposed Plan Application # and approval date.		(Please check only one)	N/A A		
Need For Project:							
5. Need Based On (Check							
	a.	Reliability		X			
	b.	Economic					
	c.	Service to new load					
	d.	New generator interconnection					
		Generator Proposed Plan Application Number					
		Generator Proposed Plan Application Date					
7,2017			Pag ISO-NE				

	(Attach copy of cover letter & Generator Proposed Plan Application)
e.	Public Policy Transmission Upgrade (PPTU)
f.	Market Efficiency Transmission Upgrade (METU)
g.	Asset Condition X
h.	Other (specify in line 6)
	tion of the need for this Project. ntation relative to the need for this Project.)
	ires remediates the potential for structure failures due to asset condition vulnerabilities. To ensure the continued operability of this line segment, the identified ection need to be replaced.

Cost of Project:

7. Total Project Cost (\$ <u>M</u>) equals PTF + Non-PTF + all other Project Costs:	\$7.342
8. Total Proposed PTF Costs	
a. Total Proposed PTF Cost of this Project (\$M):	\$7.342
b. Requested Pool-Supported PTF Costs associated with this Project (\$M):	\$7.342
c. Breakdown of Requested Pool-Supported PTF Cost associated with this Project (\$M): (Consistent with Table 1 and Appendix D of this Procedure)	
Material	\$0.986
Labor	\$4.388
ROW	\$0.000
Engineering/Permitting/Indirects	\$1.861
Escalation	\$0.000
AFUDC (or equivalent)	\$0.107
Contingency	\$0.000
d. Generator Supported PTF Costs* (\$M):	\$0.000
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* X	
13. Valuation Year(s) of dollar amounts submitted above:2021	
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 X

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.

- Replace/Repair only deteriorated components on structures: This alternative does not comprehensively mitigate aged structures/components, does not fall into Eversource's "best-practice" and is not an economical alternative.

Preferred: Field Inspections and evidence from previous asset condition projects have indicated a significant amount of degradation and decreased load carrying capacity of laminated wood 115-kV structures (many of the poles show signs of decay, woodpecker and insect damage, rot and deterioration). Replacing the structures 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 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 #: TBD

Project Name: Laminated Wood Structure Replacement Program Phase II - Line S188 NH 115-kV (Watts Brook substation - Mammoth Road substation

Date: Nov-21

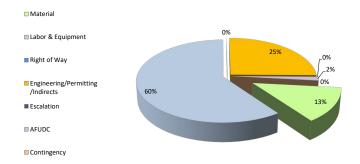
1. Project Scope Summary

This project will replace 32 structures on the S188 115-kV Line (Watts Brook Substation - Mammoth Road Substation) as the result of foot and aerial patrols and the potential integrity issues found during recent laminated wood structure replacement projects. These structures are being replaced due to mitigate deficiencies such as: woodpecker and insect damage, rot, cracks, and deteriorated steel mechanics.

2. Project Cost Summary

(\$M)

2.*	1. Project Cost S	ummary				
Cost Category	PTF		Non-PTF		Total	
Material	\$	0.986	\$	-	\$	0.986
Labor & Equipment	\$	4.388	\$	-	\$	4.388
Right of Way	\$	-	\$	-	\$	-
Engineering/Permitting /Indirects	\$	1.861	\$	-	\$	1.861
Escalation	\$	-	\$	-	\$	-
AFUDC	\$	0.107	\$	-	\$	0.107
Contingency	\$	-	\$	-	\$	-
Total Project Cost	\$	7.342	\$	-	\$	7.342



2.2 Detailed Cost Summary By Project Element														
	Material	Material Labor & Right of Way Engineering/ Equipment Right of Way Permitting/ Indirects Escalation		AFUDC	Contingency	Total	PTF Amount							
Laminated Wood Structure Replacement Program Phase II - Line S188 NH 115-kV (Watts Brook substation - Mammoth Road substation	\$ 0.986	\$ 4.388	\$-	\$ 1.861	\$-	\$ 0.107	\$-	\$ 7.342	\$ 7.342					
Total	\$ 0.986	\$ 4.388	\$-	\$ 1.861	\$-	\$ 0.107	\$-	\$ 7.342	\$ 7.342					

3. Project Milestone Schedule

	1		2016		2017		2018			2019			1	2		2020				20	21			20)22			
			Qtr1			w-4 0+			0#4	0#1			++-4 0				4 0+			0#4	0+1			0+4	0+1			0+4
Description	Start	Complete				mittin		0,003	Qu4	Qui		203 10	u4 C			13 00	4 00	i j Qu2	1000	1004	Qui	Quz	Qual	Qu4	Qui	Quz	Quo	Qu4
-				T									T				T	T	T									
Approval and Permits	8/16/2021	6/1/2022																								→		
			En	gine	ering																							
Engineering and Design	7/19/2021	10/15/2021																						•				
			Lar	nd																								
													Т															
Material	7/1/2021	6/1/2022																T								->		
			Co	nstr	uction	1																						
				П																								
Construction	11/15/2021	6/1/2022																-	-							->		
			Qtr1	Qtr2	Qtr3 C	tr4 Qtr	r1 Qtr2	Qtr3	Qtr4	Qtr1	Qtr2 (Qtr3 Q	tr4 C	tr1 Qt	tr2 Qt	r3 Qtr	r4 Qtr	1 Qtr2	2 Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4
				20'	16		2	017			201	8		÷.	2019			2	020			20	21			20)22	

Laminated Wood Structure Replacement Program - Line S188 NH 115-kV Correlation Table (Watts Brook substation - Mammoth Road substation)

TCA Item	<u>RSP:</u> Project ID #	<u>Study:</u> Reliability Issues Requiring <u>Action</u>	<u>F</u> PPA No.	PPA Application: Preferred Solution <u>Description</u>	PAC/RC Meeting: Presentation <u>Reference</u>	<u>TCA Applic</u> PTF <u>Estimate</u>	<u>ation (\$Ms):</u> Non-PTF <u>Estimate</u>
ES-21-TCA-56	<u>TBD</u>	n/a	n/a	Replace 32 laminated wood 115-kV structures with light- duty steel pole structures, including hardware, insulators, and guys and install lightning arrestors and counter poise.	Per PAC Presentation 10/20/2021	\$ 7.342 \$ 7.342	\$ -