

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 20, 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-47 NH 115-kV Line Laminated Wood Structure Replacement Program Phase II – M164 Line (Bedford substation – Huse Rd. 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

			• •			
1. Applicant:		De 111 Brookers	Application #:	ES-21-TCA-47	Date:	Oct-21
Contact Name: Company Name:		David J. Burnham  Eversource Energy Service Company				
Address 1:						
Address 2:		56 Prospect Street	DCD Droject ID # or			
City, State, Zip		Hartford, CT 06103	<del></del>	TRD		
Contact Phone #		860-728-4506		100	=	
Email Address		david.burnham@eversource.com	Yes No	X		
Project Description:					In Service Date:	<u>Feb-22</u>
•	a.	High Level Project Details:			in service Bute.	<u>FED-22</u>
		Project Name ( If no formal name, then Substation Upgrade, Line U	Jpgrade, etc. are acceptable):			lacement
		Project Location (State only): State	: NH	County:	Hillsborough	
	b.	Summary of PTF-related work for Project:		<b>⊣</b>		
	Fin c.	al project cost details will be known following closeout of all p  Summary of Non-PTF-related work for Project:	roject work orders.			
4. Has a transmission Prop	posed	d Plan Application required for this work?  Plan Application been approved?  rence Proposed Plan Application # and approval date.	In Service Date:  M164 115-kV Line Laminated Wood Stru Program Phase II (Bedford substation - F substation)  Ate:  NH  County:  Hillsborough  Ctures on the M164 115-kV Line with steel pole structures to mitigate deficiencies s nical connections.  I project work orders.	PPA Number: n/a Approval Date:		
Need For Project:						
5. Need Based On (Check	all C	Categories that apply):				
	a.	Reliability	X			
1	b.	Economic	H			
	c.	Service to new load				
	d.	New generator interconnection				
·		Generator Proposed Plan Application Number				
		Generator Proposed Plan Application Date	Page 1			

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	(Attach copy of cover letter & Generator Proposed Plan Application)	
e.	Public Policy Transmission Upgrade (PPTU)	
f.	Market Efficiency Transmission Upgrade (METU)	
g.	Asset Condition 2	X
h.	Other (specify in line 6)	
	iption of the need for this Project. entation relative to the need for this Project.)	
	tures remediates the potential for structure failures due to asset condition vulnerabilities section need to be replaced.	s. To ensure the continued operability of this line segment, the identified

Cost of Project:			
7. Total Project Cost (\$\sum_{\text{\text{\$M}}}\) equals PTF + Non-PTF + all other Project Costs:	\$6.024		
8. Total Proposed PTF Costs			
a. Total Proposed PTF Cost of this Project (\$M):	\$6.024		
b. Requested Pool-Supported PTF Costs associated with this Project (\$M):	\$6.024		
c. Breakdown of Requested Pool-Supported PTF Cost associated with this Project (\$M): (Consistent with Table 1 and Appendix D of this Procedure)			
Material	\$0.470		
Labor	\$3.801		
ROW	\$0.000		
Engineering/Permitting/Indirects	\$1.302		
Escalation	\$0.000		
AFUDC (or equivalent)	\$0.132		
Contingency	\$0.319		
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:			
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 N	_	

6. 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.
<u>Preferred:</u> 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 damage, rot and deterioration). Replacing the structures resolves multiple structural/hardware issues and supports safe and reliable operation of the transmission line.
7. 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.

 $<sup>\</sup>hbox{* Pool-Supported PTF costs were determined pursuant to Schedule 11 of Section II of the Tariff.}$ 

## **PROJECT COST ESTIMATE & SCHEDULE SHEET**

Transmission Owner: Public Service Company of New Hampshire

RSP Project #: TBD

Project Name: M164 115-kV Line Laminated Wood Structure Replacements (Bedford substation - Huse Rd. substation)

Date: Oct-21

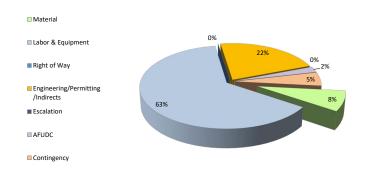
## 1. Project Scope Summary

Replace 27 laminated wood structures (LWS) structures and four (4) round wood structures for a total of 31 structures with steel structures on the M164 115-kV Line (Bedford substation - Huse Rd. substation). The structures are being replaced to mitigate deficiencies such as woodpecker damage, cracks, rot and splitting as the result of visual and aerial inspections as well as evidence from previous asset condition projects revealing additional concerns with the integrity of the laminated wood structures.

#### 2. Project Cost Summary

(\$M)

2.1. Project Cost Summary												
Cost Category	PTF		Non-P1	F	Total							
Material	\$	0.470	\$	-	\$	0.470						
Labor & Equipment	\$	3.801	\$	-	\$	3.801						
Right of Way	\$	-	\$	-	\$	-						
Engineering/Permitting /Indirects	\$	1.302	\$	-	\$	1.302						
Escalation	\$	-	\$	-	\$	-						
AFUDC	\$	0.132	\$	-	\$	0.132						
Contingency	\$	0.319	\$	-	\$	0.319						
Total Project Cost	\$	6.024	\$	-	\$	6.024						



	2.2 Detailed Cost Summary By Project Element														
	Material	Labor & Equipment	Right of Way	Engineering/ Permitting/ Indirects	Escalation	AFUDC	Contingency	Total	PTF Amount						
M164 115-kV Line Laminated Wood Structure															
Replacements (Bedford substation - Huse Rd.	0.470	3.801	0.000	1.302	0.000	0.132	0.319	\$ 6.024	\$ 6.024						
substation)															
Total	\$ 0.470	\$ 3.801	\$ -	\$ 1.302	\$ -	\$ 0.132	\$ 0.319	\$ 6.024	\$ 6.024						

# 3. Project Milestone Schedule

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			Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr.	2 Qtr	3 Qtr	4 Qtr	r1 C	Qtr2 (	Qtr3 C	tr4 Q	tr1 C	tr2 Q	tr3 Qt	ir4 Qt	r1 0	tr2 Qr	tr3 C
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			La	nd																										
				П			П	Ш	П		П	П	П	Ш	П	П	Т	П	П	П	П	П	Т	П	П	Ш	П	П	П	П
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Construction	10/21/2021	02/28/2022				1									П		1	т						$\top$		4	-			
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			Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr	2 Qtr	3 Qtr	4 Qtr	r1 C	Qtr2 (	Qtr3 C	tr4 O	tr1 C	tr2 Q	tr3 Qt	r4 Qt	r1 Q	tr2 Q	tr3 C
				-	16				)17				18	_			019		1		202	_			2021	$\overline{}$	$\top$		2022	

# M164 115-kV Line Laminated Wood Structure Replacement Project Correlation Table (Bedford substation - Huse Rd. substation)

TCA <u>Item</u>	RSP: Project ID #	<u>Study:</u> Reliability Issues Requiring <u>Action</u>	PPA No.	PPA Application: Preferred Solution <u>Description</u>	PAC/RC Meeting: Presentation Reference	TCA Applica PTF Estimate	tion (\$1,000s): Non-PTF <u>Estimate</u>
ES-21-TCA-47	<u>TBD</u>	n/a	n/a	Replace 27 laminated wood and 4 round 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	\$ 6.024 \$ 6.024	