56 Prospect Street
Hartford, CT 06103

Steven J. Allen
Eversource, ISO-NE Coordination
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October 19, 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-38 Greggs Substation Rebuild Project

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:

Contact Name:	Steven J. Allen
Company Name:	Eversource Energy Service Company
Address 1:	56 Prospect Street
Address 2:	
City, State, Zip	Hartford, CT 06103
Contact Phone #	860-728-4536
Email Address	steven.allen@eversource.com

Application #: ES-22-TCA-38

Date: Oct-22

RSP Project ID # or Asset Condition ID #: TBD

Is Project related to CIP-14: Yes [ ] No [X]

2. Project Description:

In Service Date: Mar-24

a. **High Level Project Details:**

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

Project Location (State only): **State:** **NH** **County:** **Hillsborough**

b. Summary of PTF-related work for Project:

This project will build a new 115kV air insulated breaker and a half scheme substation adjacent to the existing Greggs Substation in Goffstown, NH, as well as decommission the existing Greggs substation. The new substation will have four (4) bays, seven (7) line terminals, and include an additional disconnect switch to easily disconnect from the bus and addresses all future expansion needs. The project will include corresponding protection and control scheme upgrades.

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 [X] No [ ] PPA Number: TBD

4. Has a transmission Proposed Plan Application been approved? Yes [ ] No [X] N/A [ ] Approval Date: TBD
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 [X]
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 Greggs substation suffers from a substantial number of asset condition issues in the control house and substation yard to include:

- Foundation deterioration
- Rusting of steel members
- Ground system deterioration
- 115-kV center break disconnect switches and drive pipe flexing
- Capacity issues in the control house, overloading of cable trays and asbestos contamination

Cost of Project:

7. Total Project Cost ($M) **equals PTF + Non-PTF + all other Project Costs**:	**$72.193**
8. Total Proposed PTF Costs	
a. Total Proposed PTF Cost of this Project ($M):	$72.193
b. Requested Pool-Supported PTF Costs associated with this Project ($M):	**$72.193**
c. Breakdown of Requested Pool-Supported PTF Cost associated with this Project ($M): (Consistent with Table 1 and Appendix D of this Procedure)	
Material	$12.439
Labor	$41.074
ROW	$0.000
Engineering/Permitting/Indirects	$14.224
Escalation	$0.000
AFUDC (or equivalent)	$2.279
Contingency	$2.177
d. Generator Supported PTF Costs* ($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: ____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 [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:

- Replace or repair all known asset condition items - does not meet current ISO PP9 requirements and guidelines for Major Substation Design, a new 58' x 38' control enclosure must be built to accommodate all new protection and control equipment. This option will increase the duration and number of outages required as well as difficulty securing outages will extend construciton duration and greatly impact cost.
- Convert existing substation to breaker-and-a-half scheme within existing fence line using gas-insulated substation (GIS) technology - does not meet PP9 guidelines to use air-insulated bus design where possible, requires a new control building, increased duration and number of outages required, and GIS maintenance is more costly and complicated as compared to air-insulated subsations.

Preferred: Build a new breaker-and-a-half air-insulated substation on adjacent land address all project drivers and increases overal system reliability at the lowest cost, meets current ISO PP9 requirements and guidelines for Major Substation Design, and allows room for future expansion and less costly ongoing maintenance.

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 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: Greggs Substation Rebuild Project **Date:** Oct-22

1. Project Scope Summary

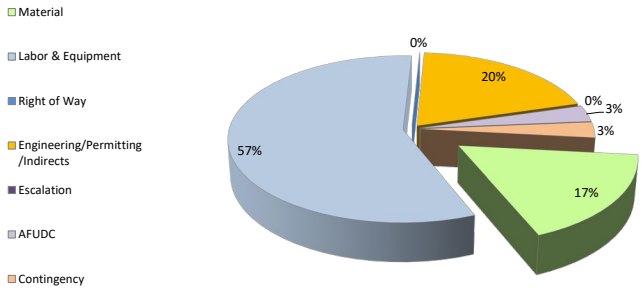
This project will build a new 115kV air insulated breaker and a half scheme substation adjacent to the existing Greggs Substation in Goffstown, NH, as well as decommission the existing Greggs substation. The new substation will have four (4) bays, seven (7) line terminals, and include an additional disconnect switch to easily disconnect from the bus and addresses all future expansion needs. The project will include corresponding protection and control scheme upgrades.

2. Project Cost Summary

($M)

2.1. Project Cost Summary

Cost Category	PTF	Non-PTF	Total
Material	$ 12.439	$ -	$ 12.439
Labor & Equipment	$ 41.074	$ -	$ 41.074
Right of Way	$ -	$ -	$ -
Engineering/Permitting /Indirects	$ 14.224	$ -	$ 14.224
Escalation	$ -	$ -	$ -
AFUDC	$ 2.279	$ -	$ 2.279
Contingency	$ 2.177	$ -	$ 2.177
Total Project Cost	**$ 72.193**	**$ -**	**$ 72.193**



2.2 Detailed Cost Summary By Project Element

	Material	Labor & Equipment	Right of Way	Engineering/ Permitting/ Indirects	Escalation	AFUDC	Contingency	Total	PTF Amount
Greggs Substation Rebuild Project	$ 12.439	$ 41.074	$ -	$ 14.224	$ -	$ 2.279	$ 2.177	$ 72.193	$ 72.193
Total	**$ 12.439**	**$ 41.074**	**$ -**	**$ 14.224**	**-**	**$ 2.279**	**$ 2.177**	**$ 72.193**	**$ 72.193**

3. Project Milestone Schedule

Description			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	11/17/2021	10/31/2022																				
Engineering																						
Engineering and Design	9/1/2021	3/31/2022																				
Material																						
Material	4/1/2021	4/11/2022																				
Construction																						
Construction	10/19/2022	3/31/2024																				
			Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4
			2021				2022				2023				2024				2025			

Greggs Substation Rebuild Project
Correlation Table

TCA Item	RSP: Project ID #	Study: Reliability Issues Requiring Action	PPA Application: PPA No.	PPA Application: Preferred Solution Description	PAC/RC Meeting: Presentation Reference	TCA Application ($Ms): PTF Estimate	TCA Application ($Ms): Non-PTF Estimate
ES-22-TCA-38	**TBD**	n/a	TBD	Build a new air-insulated breaker-and-a-half scheme substation on Eversource-owned land adjacent to existing substation to include 4 bays, seven line terminals and an additional disconnect switch, to include corresponding protection and control scheme upgrades.	Per PAC Presentation 10/19/2022	$ 72.193	
				SUBTOTAL		$ 72.193	$ -