

**Transmission Cost Allocation
Application TCA-23-NHT-01 for Localized
Cost Review of the Browns River 345kV
Capacitor Bank Station**

August 15, 2023

TCA - Browns River 345kV Capacitor Bank Station

Introduction

- **On May 27, 2021, ISO-NE selected NHT's proposed 345kV capacitor bank station (since named Browns River 345kV Capacitor Bank Station) to mitigate voltage criteria violations on the 345kV Seabrook Bus identified in the NH 2029 Needs Assessment**
- **The purpose of this meeting is to:**
 - provide an overview of the Project
 - provide an estimated cost of the Project
 - review NHT-23-TCA-01 application and request that the Reliability Committee vote in favor of a recommendation for ISO-NE to approve \$22.9 million as Pool-Supported PTF costs as set forth in NHT's TCA pursuant to Schedule 12C of the ISO-NE OATT

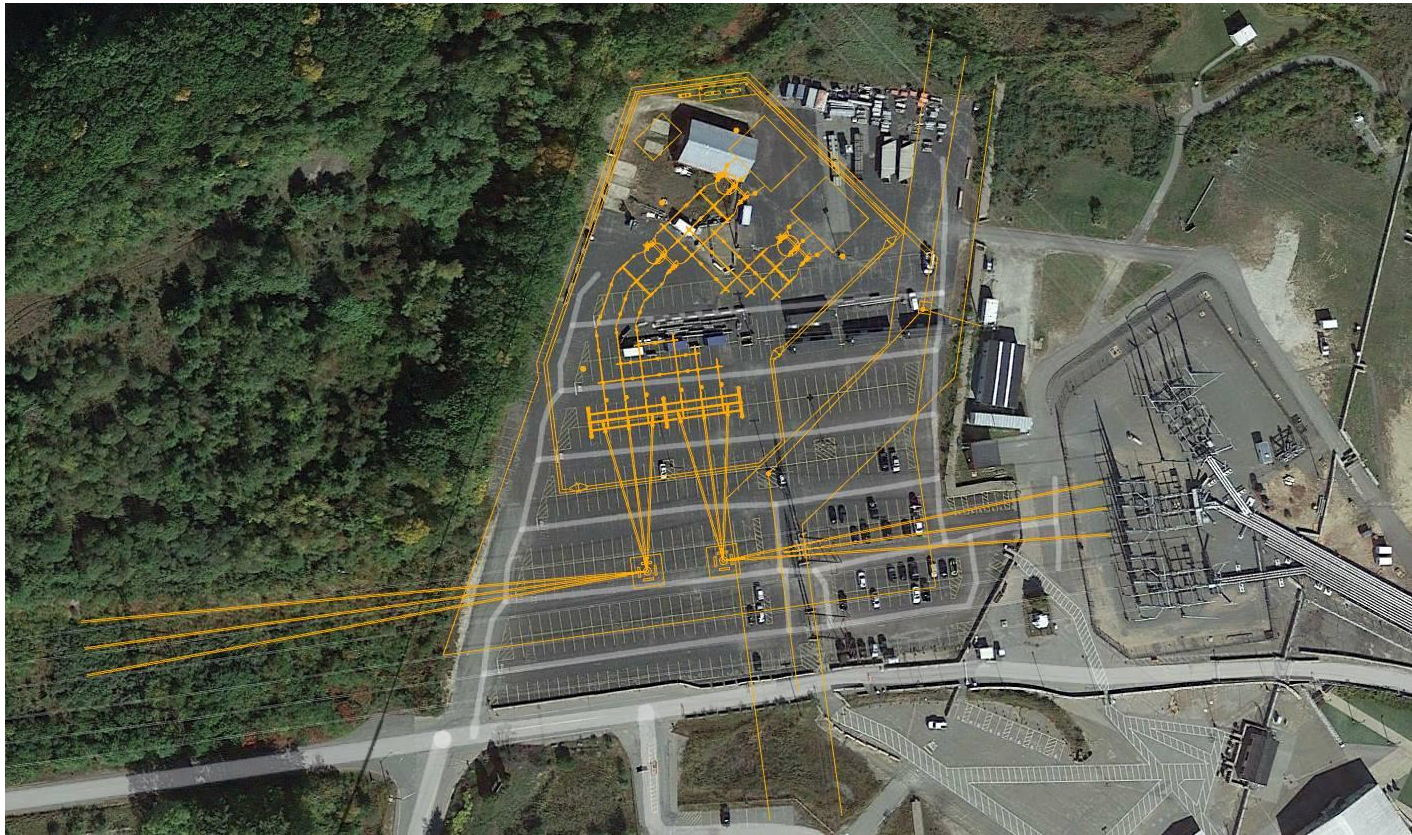
TCA - Browns River 345kV Capacitor Bank Station

Project Overview - Description and Status

- The Project involves construction and installation of a 345kV capacitor bank station consisting of (2) 50 MVAR capacitors
- Post - I.3.9. studies discovered adverse harmonics at the 5th and 10th harmonics, resulting in the addition of C-Type filters being added to the capacitors by installing resistors and reactors to each capacitor
- The Project will be interconnected to Eversources 345kV line 363 close to where the 363 line connects to NHT's existing Seabrook termination yard
- The Project will interconnect by bisecting the 363 line and installing line sectionalizing switches, and (3) 345kV circuit breakers configured to allow independent operation of each capacitor/filter bank
- The (3) 345kV circuit breakers will be capable of local and remote manual operation, as well as automated operation utilizing a voltage sensing scheme
- The Project required relocation of an existing 34.5 kV distribution line owned by Unitil, the cost of which is not included as part of the PTF capitalized cost of the Project in the TCA application

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Project Site / Depiction Location



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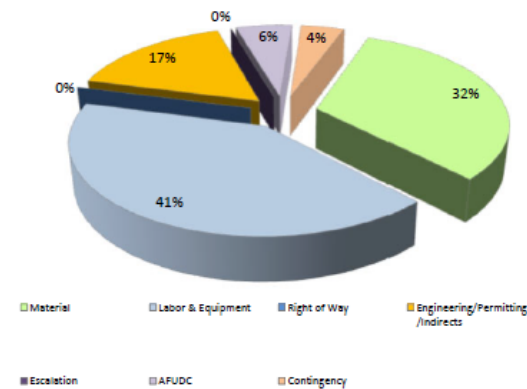
Project Status

- Construction of the Project is underway
- Multiple coordinated outages of the 363 line are scheduled during the late summer and fall 2023 for construction of the interconnection and implementation of the initial system protection
- The Project is expected to be placed in-service by late October 2023
- To coordinate with other work being performed by Eversource at Scobie Pond Substation, a final outage is scheduled for February 2024 to complete the system protection for the Browns River 345kV Capacitor Bank Station

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NHT is requesting a determination that \$22.9 million be designated Pool-Supported PTF costs

2.1. Project Cost Summary			
	PTF	Non-PTF	Total
Material	\$ 7,385,000	\$ -	\$ 7,385,000
Labor & Equipment	\$ 9,442,870		\$ 9,442,870
Right of Way	\$ -	\$ -	\$ -
Engineering/Permitting /Indirects	\$ 3,762,132	\$ -	\$ 3,762,132
Escalation	\$ -	\$ -	\$ -
AFUDC	\$ 1,301,439	\$ -	\$ 1,301,439
Contingency	\$ 1,000,000	\$ -	\$ 1,000,000
Total Project Cost	\$ 22,891,441	\$ -	\$ 22,891,441



2.2 Detailed Cost Summary By Project Element								
	Material	Labor & Equip.	Right of Way	Engineering/Permitting/Indirects	Escalation	AFUDC	Contingency	Total
Circuit Breakers	\$ 868,000	\$ 332,342				\$ 152,923		\$ 1,351,265
Switches	\$ 368,000	\$ 140,458				\$ 64,630		\$ 571,088
Capacitor/filter banks	\$ 3,160,000	\$ 1,212,704				\$ 558,012		\$ 4,930,716
Control House	\$ 1,175,000	\$ 480,169				\$ 204,840		\$ 1,840,009
Steel	\$ 400,000	\$ 153,507				\$ 70,634		\$ 624,141
Backup Generator	\$ 200,000	\$ 76,753				\$ 35,317		\$ 312,070
Lightning Arrestors	\$ 350,000	\$ 134,318				\$ 61,805		\$ 546,123
Miscellaneous	\$ 868,000	\$ 333,110				\$ 153,277	\$ 1,000,000	\$ 2,354,387
Indirects (Development, Engineering, Permitting, Civil Work)		\$ 6,599,509		\$ 3,762,132		\$ -		\$ 10,361,641
Total	\$ 7,385,000	\$ 9,442,870	\$ -	\$ 3,762,132	\$ -	\$ 1,301,439	\$ 1,000,000	\$ 22,891,441

Note: Costs shown above exclude \$251k for relocation of Unitil distribution line

Questions

