

Canal Station BPS and Asset Condition Upgrade Re-Presentation

Planning Advisory Committee Meeting

August 16th, 2023

Agenda

- Location
- Background & Drivers
- Project Updates

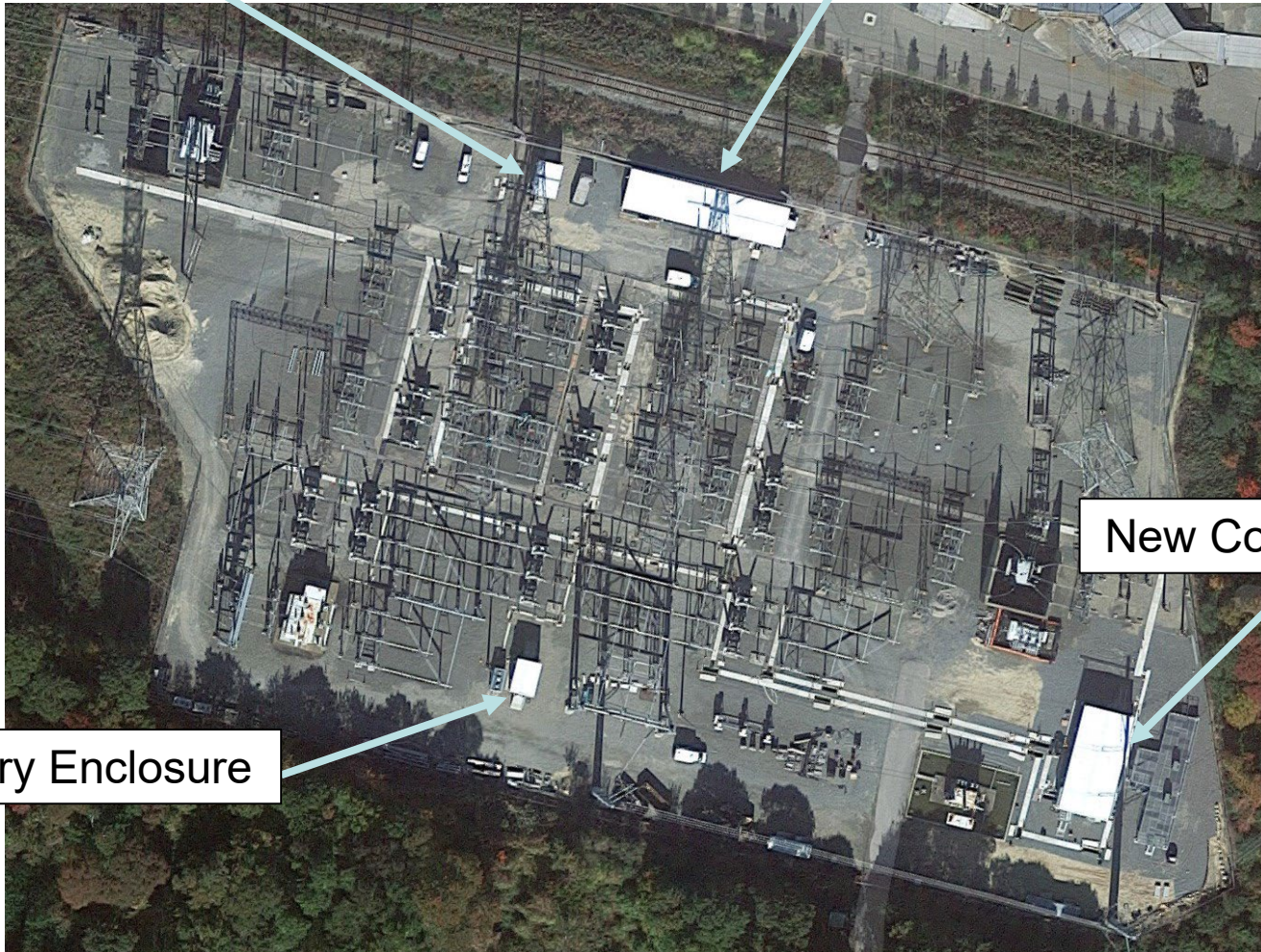
Background and Updated Drivers

- Previously presented to PAC in June 2018, driven by the following:
 1. Obsolete equipment in need of replacement
 2. NPCC Directory 4 upgrades
 3. Vulnerability to flooding due to proximity to Cape Cod Canal
 - Additional details on need and original scope can be found here – [Link](#) (Note: CEII access required)
- Supply chain issues and inflationary pressures have led to increased lead times and costs for materials and labor
- Refined analysis of design identified additional project scope: Outage coordination with the new Bourne Switching Station project (RSP #26) and Canal Generating Station, increasing the number of outages from four (4) to seven (7) and extending project timeline
 - Need to install new interface panels and pull additional control cables to connect the new control house to Canal Generating Station

Updated Substation Layout

New Battery Enclosure

Original Control House



New Control House

New Battery Enclosure

Project Updates

Item	\$M	Explanation
2018 As-Presented PTF Costs (-25%/+50%)	\$14.3	-
Additional Scope	\$10.3	Additional scope added due to complexities in interfacing with the newly expanded adjacent Canal Generating Station. This included additional trenching, cables, and interface panels to safely cut over to the new 115 kV Control House
Additional Engineering	\$2.2	Detailed engineering and design identified additional scope not included in base assumptions.
Extended Project Timeline	\$1.0	Subsequent design development identified the need to coordinate outage schedules with another project (New Bourne Station), increasing the number of outages from four to seven
Inflation – Labor & Materials	\$4.3	Labor cost increases based on contractual labor rates and material cost increases based on supply chain market pricing and extended duration
Contingency on Remaining Work	\$3.0	
Indirects / Overhead	\$6.1	Additional overhead / indirect costs due to direct project cost increases mentioned above
2023 Estimated PTF Cost Increase	\$26.9	-
2023 Estimated Total PTF Cost (-10%/+10%)	\$41.2	-

Project in-service date updated from December 2021 to Q4 2024

Questions

