EVERSOURCE

Operations Supplement Request Form

Approved on October 12, 2023 EPAC

Link to Meeting Minutes

Project Title: [redacted] – Replace SWGR SF6 Breakers	**Project Number: CS00360**
Date Prepared: 09/08/2023	**Company: Eversource CT**
Organization: Electric System Operations	**Class(es) of Plant: D SS**
Project Initiator: [redacted]	**Project Category: Stations - Circuit Breakers**
Managing Organization: Transmission / Major Projects	**Schedule ID#: NA**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Capital Investment part of original Op Plan: Yes**
Project Manager's Director: [redacted]	**Estimated in service date: November 2021 (Completed)**
Current Authorized Amount: $616K	**Emergency Related Request? No**
Supplement Request: $182K	**Supplement Type: Supplement**
Total Capital Request: $798K	**ISO-NE Approval Required (check all that apply):** ☐ **PAC** ☐ **TCA**

[1] Background

This request is for supplemental funding in the amount of $182K for a total request of $798K. This project is currently authorized for $616K, which was approved in Power Plan on February 13, 2020. The project was placed in service in November 2021.

The scope of this project included the [redacted]

[2] Supplement Justification Overview

There are three (4) primary drivers for the cost overruns for this project:

- Higher than estimated cost of materials. The estimated cost of material was $157K. Actuals for the material cost was $163K an additional $6K.
- Additional labor hours and overtime hours to complete the work. This includes hours for measurement and fitment, hours due to more mobilization and demobilization because of the customers work restrictions to only three days of the week and additional hours to support replacement of the incorrect operating coils schedule delays due to weather.
- Unaccounted for additional contractor services such as rental generator and longer use time for project trailer rentals and forklift rentals which totaled more than $93K.

During the final engineering and design for the project, several items were identified and needed to be added that were not included in the original design, including agastat relays, correct replacement trip coils and material modifications for breaker fitment.

The major cost overrun was due to the vendor supplying the [redacted]

During construction, [redacted]. This was additional scope and not accounted for in the original estimate.

The project work was carried out during the pandemic which required restrictions to normal work hours at the site which were not accounted for during the initial engineering and scope. In addition, the work limitations outlined by the [redacted] main customer required only working three (3) days per week (Tuesday to Thursday only) which was unknown to Engineering and Design in the design phase. Overtime hours to complete each feeder breaker and required additional mobilization and demobilization each week.

The project switching was done by outside resources which was not accounted for in the original estimate. Additional scheduling delays were caused by the internal support resource addressing emergent calls at other sites. This caused further down time for Eversource Field Engineering and Substation crews which increased labor costs. The original in-service date was extended from June 2020 to November 2021 due to above delays and tribal restrictions that included weekly work restrictions, and no access to the reservation during the pandemic.

EVERSOURCE

[3] SUPPLEMENT JUSTIFICATION DETAIL

The reasons for the project authorization supplement of $182K are summarized below.

1. **Engineering / Design: (-$39K)** – The reduction to the Engineering and Design costs was due to the detailed design being given to the circuit breaker manufacturer. These costs are in included in the increased construction and testing costs outlined below.

2. **Materials (by Eversource): $7K** – This increased cost was due to the original Eversource cost estimate being less than required. As shown above the breakers alone cost $7K more than the material estimate.

3. **Construction: $50K** – The increase in construction costs was due to charges from the breaker vendor for design activities. In addition, there was an increase in the labor charges due to project delays caused by trip coil voltage rating corrections.

4. **Testing / Commissioning: $45K** – The increase in testing and commissioning charges was due to the requirement to test the breakers twice due to incorrect coils. The increase was also due to the unforeseen added labor charges due to project delays from weather, switching and customer limitations.

5. **Indirects/Overhead: $150K** – Indirect costs are based on the direct costs and the project schedule. The original estimate was based on lower costs for labor and materials as per the original schedule.

6. **AFUDC: ($12K)** – The reduction in the AFUDC costs were due to overestimating the costs in the original estimate.

7. **Contingency: ($17K)** – Contingency charges are not charged in the actual costs but are in the original estimate.

Total Supplement Request: $182K

Please find a copy of the prior authorization document attached as reference.

[4] Supplement Cost Summary

The table below summarizes the line-item categories from the original project estimates and the updated project estimates.

Note: Dollar values are in thousands:

Line item Category	Prior Authorized	New Total Request	Variance (Supplemental Request)
1. ROW / Easements / Land Acquisition			
2. Environmental Approvals / Permits			
3. Outreach			
4. Siting Approvals / Permits			
5. Engineering / Design	$51	$12	($39)
6. Materials (Eversource purchased)	$157	$163	$7
7. Construction (incl materials by contractors)	$134	$184	$50
8. Testing / Commissioning	$46	$91	$45
9. Project Mgmt Team	$4	$4	$0
10. Removals	$5	$5	$0
11. Other			
12. Risks			
SUBTOTAL DIRECTS W/ RISKS	**$396**	**$459**	**$62**
13. Indirects/Overhead	169	$318	$150
14. AFUDC	$34	$21	($12)
PROJECT TOTAL – BASELINE BUDGET	**$598**	**$798**	**$199**
15. Contingency	$17	$0	($17)
TOTAL CAPITAL REQUEST	**$616**	**$798**	**$182**
16. Reimbursables/Customer Contribution			
PROJECT TOTAL (LESS REIMBURSABLES)	**$616**	**$798**	**$182**

Total Supplement Request by Year

(NOTE: This table should show only the supplement request)

Note: Dollar values are in thousands:

Line-item Category	2021	2024	2025	2026	Total
1. ROW / Easements / Land Acquisition					
2. Environmental Approvals / Permits					
3. Outreach					
4. Siting Approvals / Permits					
5. Engineering / Design					
6. Materials (Eversource purchased)	$7				$7
7. Construction (incl matl's by contractors)	$50				$50
8. Testing / Commissioning	$45				$45
9. Project Mgmt Team	$				
10. Removals	$0				
11. Other					
12. Risks					
SUBTOTAL DIRECTS W/ RISKS	**$102**				**$102**
13. Indirects/Overhead	$150				$150
14. AFUDC					
PROJECT TOTAL – BASELINE BUDGET	**$199**				**$199**
15. Contingency					
TOTAL CAPITAL REQUEST	**$182**				**$182**
16. Reimbursables/Customer Contribution					
PROJECT TOTAL (LESS REIMBURSABLES)	**$182**				**$182**
O&M					
TOTAL REQUEST	**$182**				**$182**