Operations Project Authorization Form

Date Prepared: 10/22/21	Project Title: [redacted] South Windsor – DB Cable Repl
Company/ies: Eversource CT	Project ID Number: 5T031827P
Organization: Distribution Electric	Class(es) of Plant: Distribution
Project Initiator:	Project Category: Line
Project Manager: [redacted]	Project Type: *Specific DB Cable Replacement*
Project Sponsor: [redacted]	Project Purpose: Replace Yellow Tag Cable
Estimated in service date: 12/31/21	If Transmission Project: N/A
Eng. /Constr. Resources Budgeted? N	Capital Investment Part of Original Operating Plan? N
Authorization Type: Full Funding	O&M Expenses Part of the Original Operating Plan? N
Total Request: $211,339	

Financial Requirements:

Executive Summary

This program funds the rejuvenation or replacement of direct buried (DB) distribution cables in underground residential (URD) and commercial developments that are reaching the end of their useful lives. It has been determined on an industry-wide basis that much of the original XLP and HMP-insulated primary cable installed in the DB system has not achieved its engineered life expectancy. Premature cable failures have degraded the reliability for the Eversource customers served by these cables.

This project was to capture and document the charges to address emergent failures of the direct buried/underground (DB/UG) system. The aim was to replace DB/UG cable that had experienced faults and was deemed unreliable. Workorders were created for each of the locations to capture labor and material for the replacement of the cable.

The project calls to replace a yellow tag DB Cable on [redacted]. The yellow tag was placed on the [redacted] after an outage on 9/14/20. Crews isolated the damaged cable for replacement later and restored power to the customers in this area.

This project calls to replace the [redacted] Since this work exceeds $100K this project was created.

Project Costs Summary

Note: Dollar values are in thousands

	Prior Authorized	20__	20__	20__+	Totals
Capital Additions - Direct	$0	$123,245	$0	$0	$123,245
Removals net of Salvage ____%	$0	$0	$0	$0	$0
Total - Direct Spending	$0	$123,245	$0	$0	$123,245
Capital Additions - Indirect	$0	$87,516	$0	$0	$87,516
Subtotal Request	$0	$210,761	$0	$0	$210,761
AFUDC	$0	$578	$0	$0	$578
Total Capital Request	$0	$211,339	$0	$0	$211,339
O&M	$0	$0	$0	$0	$0
Total Request	$0	$211,339	$0	$0	$211,339

Financial Evaluation

Provide the following financial information (attach additional detail if summarized items are significant or additional information is needed). Note: Dollar values are in thousands

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$0	$0	$0	$0
Overtime Labor	$0	$0	$0	$0
Outside Services	$111,308	$0	$0	$111,308
Materials	$10,778	$0	$0	$10,778
Other, including contingency amounts (describe)	$0	$0	$0	$0
Total Direct Costs	**$122,086**	**$0**	**$0**	**$122,086**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$88,675	$0	$0	$88,675
Capitalized interest or AFUDC, if any	$578	$0	$0	$578
Total Indirect Costs	**$89,253**	**$0**	**$0**	**$89,253**
Total Capital Costs	**$211,339**	**$0**	**$0**	**$211,339**

Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$211,339**	**$0**	**$0**	**$211,339**
Total O&M Project Costs	$0	**$0**	**$0**	**$0**

Total Project Cost	**$ 211,339**	**$ -**	**$ -**	**$ 211,339**

Operations Technical Authorization Form

Technical Justification:

Project Need Statement
Emergent failures in direct buried cable developments required cable replacement to address the reliability issues. [redacted]. Also installed two new polycrete boxes.

Project Objectives
To replace DB cable that has a history of failure to improve reliability and customer experience.

Project Scope
Explain in detail the scope of work:

- **Trenched 950' and installed 4" conduit**
- **Installed 950' of #1 – 3PH primary**
- **Installed 2 new polycrete boxes**
- **Installed generators while work was being performed**

Major Material

950' of #1 3PH AL primary in conduit
2 Polycrete boxes

Background / Justification

[redacted]

Business Process and / or Technical Improvements
Eliminate direct buried XLP/HMP DB cable prone to failure and replace it with EPR in conduit.

Cost Estimate and Assumptions
Emergent work completed because of a cable failure. All costs captured are actual charges accumulated during repair.

Alternatives Considered with Cost Estimates

Project Schedule
Describe the project schedule and milestones. Include estimated start and end dates.

Milestone/Phase Name	Estimated Completion Date
Project Initiation	Emergent work
Project In-Service Date	Completed on *****

Regulatory Approvals

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation

Actual cost higher than estimated due to scope changes.	**2021**	Medium	Create a PAF if the Work Order cost exceeds $100k
Internal construction resources not available to perform the work.	2021	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
System abnormal configuration	2021	Low	Schedule work to minimize system abnormal time. Most of this work will require system to be abnormal for any extended period of time.

References

One-Line Diagrams, Attachments, and Images

[redacted], South Windsor – replace 2 sections of bad 3PH 15KV cable

[redacted]