EVERSOURCE

Supplement Authorization Form

Project Title: [redacted] **UG FI Replace**	**Project Number: CD01120**
Date Prepared: 04/30/2026	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** UG CABLE & EQUIPMNT REPLACEMNT
Initiating Organization: Distribution	**Project Type:** Specific
Project DDE: [redacted]	**Capital Investment part of 5-year plan?** Yes
Project Manager: [redacted]	**Emergency Related Request?** No
Project Sponsor: [redacted]	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Current Authorized Amount: $128K	**Approved In-Service Date:** 2020
Supplement Request: $64K	**Estimated In-Service Date:** 12/31/2019
Total Capital Request: $192K	**Authorization Type: Supplement Request**
	Reason: Cost Overage

1. Project Background

Project CD01120 was created to replace faulty fault indicators, create a loop and replace various equipment in a residential development.

2. Supplement Justification Overview

The requested amount of $40.1K is 51% above the authorized direct cost of $78K.

3. Supplement Justification Detail

The $40.1K additional direct spend was mainly due to higher material and removal costs.

4. Supplement Cost Summary (Project Total)

Financial Evaluation ($000's)

Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Internal Labor and Construction Equipment	14.5	15.0	-2.9	12.1
Outside Services	0.8	10.0	-9.3	0.7
Materials	99.0	53.0	29.6	82.6
Removals	0.0	0.0	18.9	18.9
Risk and Contingency	3.8	0.0	3.8	3.8
Other	0.1	0.0	0.1	0.1
Subtotal	**118.1**	**78.0**	**40.1**	**118.1**

Indirect Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Indirects/Overheads (including benefits)	71.2	49.0	22.2	71.2
Capitalized interest or AFUDC, if any	2.8	1.0	1.8	2.8
Subtotal	**74.0**	**50.0**	**24.0**	**74.0**
Total Capital Costs (Gross)	**192.1**	**128.0**	**64.1**	**192.1**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**192.1**	**128.0**	**64.1**	**192.1**

New Total Request by Year (if applicable)

Capital Costs	2019	2020	TOTAL
Internal Labor & Equipment	12.1	0.0	12.1
Outside Services	0.7	0.0	0.7
Materials	82.9	-0.3	82.6
Removals	18.3	0.7	18.9
Risk and Contingency	0.0	3.8	3.8
Other	0.1	0.0	0.1
SUBTOTAL Direct Cost	**114.0**	**4.1**	**118.1**
Indirects / Overheads	70.7	0.5	71.2
AFUDC	2.8	0.0	2.8
SUBTOTAL Indirect Cost	**73.5**	**0.5**	**74.0**
TOTAL Capital Request	**187.5**	**4.5**	**192.1**
Less Total Customer Contribution	0.0	0.0	**0.0**
TOTAL Project Cost	**187.5**	**4.5**	**192.1**

5. Lessons Learned

N/A

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Operations Project Authorization Form

Date Prepared: 3/18/2019	**Project Title:** [redacted]_[redacted]_UG FI Repl
Company/ies: Eversource CT	**Project ID Number:** CD01120
Organization: Distribution Design & Engineering	**Class(es) of Plant:** Distribution
Project Initiator: [redacted]	**Project Category:** Reliability
Project Manager: [redacted]	**Project Type:** UG Cable & Equipment Replacement
Project Sponsor: [redacted]	**Project Purpose:** Improve Eversource's Capability to Isolate Repair UG/DB Cable at [redacted]
Estimated in service date: December 31, 2019	**If Transmission Project: PTF?** N/A
Eng. /Constr. Resources Budgeted? Yes	**Capital Investment Part of Original Operating Plan?** Yes
Authorization Type: Full Funding (ACT)	**O&M Expenses Part of the Original Operating Plan?** Yes
Total Request: $114,958	

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary

[redacted]

A year prior, there were similar issues experienced on Westlake Drive, Middletown. In this case the fault indicators were replaced and sent back the manufacturer for testing. No issues were reported. These are the Universal Fault Indicators, Current Reset type and have been replaced by Standards Engineering with Time Reset type.

Construction has begun on Project CD01014, that will be replacing 1,712 ft. of cable between riser pole 1054 and [redacted] and replacing rusting transformers for an estimated $401K. This is the second time line crews complained about fault indicators improperly working, a STORMS request was generated the first time for $9K, but only partially covers the [redacted] of 513 townhouses managed by three separate associations. This project replaces the remaining fault indicators not covered by project CD01014 and the STORMS Work Request.

On October 4, 2018, the CT PAC approved Initial Funding for Segment #1. Segment #2, Installing UG/DB Fuses, was not approved by CT PAC and will be done outside the scope of this project on a smaller scale / trial basis.

The detail design for Project CD01120 has been completed and we are requesting Full Funding Authorization of $115K, a decrease of $18K or 86.4% of the Initial Funding Authorized amount.

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Project Costs Summary

	Prior Authorized*	Additional Request	2019	2020+	Total **
Capital Additions Direct	$0	$0	$ 44,119	$ -	$44,119
Less Customer Contribution	$0	$0	$ -	$ -	$0
Removals Net of Salvage	$0	$0	$ 18,825	$ -	$18,825
Total - Direct Spending	$0	$0	$ 62,945	$ -	$62,945
Capital Additions - Indirect	$0	$0	$ 51,771	$ -	$51,771
AFUDC	$0	$0	$ 243	$ -	$243
Total Capital Request	$130,532	-$15,574	$ 114,958	$ -	$114,958
O&M	$2,468	-$2,468	$ -	$ -	$0
Total Request	**$133,000**	**-$18,042**	**$ 114,958**	**$ -**	**$114,958**

* Amount currently approval in PowerPlan

** Total authorization needed in PowerPlan based on ACT

Financial Evaluation

Direct Capital Costs	2019	2020	2021	Total
Straight Time Labor	$ 20,462	$ -	$ -	$ 20,462
Overtime Labor	$ -	$ -	$ -	
Outside Services	$ 1,613	$ -	$ -	$ 1,613
Materials	$ 40,870	$ -	$ -	$ 40,870
Other, including contingency amounts	$ -	$ -	$ -	$ -
Total	$ 62,945	$ -	$ -	$ 62,945

Indirect Capital Costs	2018	2019	2020	Total
Indirects/Overheads (including benefits)	$ 51,771	$ -	$ -	$ 51,771
Capitalized interest or AFUDC, if any	$ 243	$ -	$ -	$ 243
Total	$ 52,014	$ -	$ -	$ 52,014
Total Capital Costs	$ 114,958	$ -	$ -	$ 114,958
Less Total Customer Contribution	$ -	$ -	$ -	$ -
Total Capital Project Costs	$ 114,958	$ -	$ -	$ 114,958
Total O&M Project Costs	$ -	$ -	$ -	$ -
Total Project Cost	**$ 114,958**	**$ -**	**$ -**	**$ 114,958**

Technical Justification:

Project Need Statement

The notes in event #3678456 detail the difficulty the RSO crew encountered when attempting to isolate the fault that blew the B phase fuse at pole 1054 on Shunpike Rd., [redacted]

[redacted]

Unlike the first project, there are no customer complaints, but there is an expectation by the customers that the current work is addressing their issues.

Project Objectives

Improve the capability to troubleshoot and isolate faults quickly and efficiently. Replace the underground fault indicators with Universal Fault Indicators that are strictly time resettable.

Project Scope

Segment #1

Title: [redacted]_UG FI Replacement
Cost: $133K
$/CMS: $8.92
$/CIS: $499.96
Outage Summary: (9) Primary Cable, (2) Transformer
Impacted Customers: See Background/Justification Section
Impacted Critical Customers: 0

- Replace 87 Underground Fault Indicators, See map

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Background / Justification

[redacted]

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.3
Refer to Distribution Capital Project Supplement Process
JA-AM-2001-C, Rev.0

Business Process and / or Technical Improvements:

Replacing underground fault indicators with known issues will improve restoration times for future outage events; a benefit to company SAIDI and customer satisfaction.

Alternatives Considered with Cost Estimates

Replace only the Underground/Direct Buried Fault Indicators and fuse single phase side taps for $522K.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
ENG Approval	October 2018
ACT Approval	April 2019
Start of Construction	August 2019
End of Construction	December 2019

Regulatory Approvals

None

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2019	Medium	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Customer Permission / Siting Council / Municipal approvals	2019	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction resources not available to perform the work.	2019	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Internal engineering resources not available to perform the work.	2018	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Storm delays	2019	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2019	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods

References

DTR44.221 – Fault Indicator Guide Solid Dielectric Cables
DTR50.105 – 15 kV or 23 kV Multigrounded – Single Phase-Fiberglass Enclosure with Dead-Front Fuse

Attachments (One-Line Diagrams, Images, etc.)