EVERSOURCE
Project Authorization Form

Operations Project Authorization Form

Date Prepared: 12/20/21	**Project Title: [redacted] 2020 TDRP**
Company: Eversource CT	**Project ID Number: CD01668**
Organization: Distribution Electric	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category:** Line
Project Manager: [redacted]	**Project Type: TDRP**
Project Sponsor: [redacted]	**Project Purpose: Reliability**
Estimated in service date: 12/31/2022	**If Transmission Project: PTF? N/A**
Eng. /Constr. Resources Budgeted?	**Capital Investment Part of Original Operating Plan?**
Authorization Type: Full Funding	**O&M Expenses Part of the Original Operating Plan?**
Total Request: $ 681,809	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

The [redacted] was ranked number 7 of the 2020 Transmission and Distribution Reliability Program (TDRP) list. CD01668 was created to address the [redacted]

- This project will address [redacted]
- [redacted]
- [redacted]

Project Costs Summary

Note: Dollar values are in thousands

	Prior Authorized	2022	2023	2024	Totals
Capital Additions - Direct	$0	$381	$0	$0	$381
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$35	$0	$0	$35
Total - Direct Spending	$0	$416	$0	$0	$416
Capital Additions - Indirect	$0	$241	$0	$0	$241
Subtotal Request	$0	$657	$0	$0	$657
AFUDC	$0	$5	$0	$0	$5
Total Capital Request	$0	$662	$0	$0	$662
O&M	$0	$19	$0	$0	$19
Total Request	$0	$681	$0	$0	$681

Financial Evaluation

Note: Dollar values are in thousands

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$49	$0	$0	$49
Overtime Labor	$5	$0	$0	$5
Outside Services	$214	$0	$0	$214
Materials	$142	$0	$0	$142
Other, including contingency amounts (describe)	$5	$0	$0	$5
Total Direct Costs	**$416**	**$0**	**$0**	**$416**
Indirect Capital Costs	**Year 1**	**Year 2**	**Year 3+**	**Total**
Indirects/Overheads (including benefits)	**$241**	**$0**	**$0**	**$241**
Capitalized interest or AFUDC, if any	**$5**	**$0**	**$0**	**$5**
Total Indirect Costs	**$246**	**$0**	**$0**	**$246**
Total Capital Costs	**$662**	**$0**	**$0**	**$662**
Total Capital Project Costs	**$662**	**$0**	**$0**	**$662**
Total O&M Project Costs	**$19**	**$0**	**$0**	**$19**
Total Project Cost	**$ 681**	**$ -**	**$ -**	**$ 681**

Project Need Statement

The work in this project will help Eversource Energy meet its reliability goals of SAIDI, CAIDI, SAIFI by improving the electrical system with cover wire, sectionalizing switches, and updating poles.

Project Objectives

The recommendations in this project will improve the reliability of the [redacted] by hardening the electrical distribution system with new poles and covered wire.

Project Scope

[redacted]

Major Material:

2,200 feet of 3 phase 1/0 tree wire;
9,500 feet of 1/0 single phase tree wire.
60 poles.
1 Reclosers
11 Transformers

Background / Justification

Transmission-Distribution Reliability Performance (TDRP) projects address reliability issues associated with the top Worst 100 circuits in Connecticut. Eversource-CT is required to report the status of actions taken to improve performance for each circuit topping the "Worst 100" list. Updates are required each year for the four years following a circuit's appearance on the list.

A summary of the devices addressed under this project are listed below:

Row Labels	Sum of Customer Minu	Sum of Customer Affected Co	Count of Dev	% cust	% CMI
[redacted]	20576511	[redacted]	5	57%	53%
	778793		6	2%	2%
	295356		6	1%	2%
	218900		8	1%	1%
	681910		6	2%	1%
				63%	59%

Business Process and / or Technical Improvements:

The reliability improvements on the [redacted] will help bring the circuit off the TDRP list for future years. The areas that were determined to be problematic have been addressed with electrical and structural improvements under this project.

Alternatives Considered with Cost Estimates

1. [redacted] 2.8 million dollars.
2. [redacted] 1 million dollars.
3. [redacted]
4. [redacted]
5. [redacted]

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Approval	3/30/2021
Detailed Design	2/1/2022
Settings Requested	2/28/2022
Construction Start Date	6/1/2022
Construction End Date	12/30/2022

Cost Estimate Backup Detail

Budget Summary - Preferred Option — Approved Segments

2022

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
2	Tie Recloser with [redacted]	Prelim	0	24%	$76,117	$76,117
4	Fuse [redacted] Marl Reconductor/C	Prelim	0	24%	$98,803	$98,803
5	Fuse [redacted] Reconductor	Prelim	0	24%	$237,790	$237,790
6	Fuse [redacted] Marl Reconductor c	Prelim	0	24%	$118,906	$118,906
9	[redacted] Recond/ convert [redacted] Marl	Prelim	0	24%	$160,192	$160,192
				2022 Total:	**$691,809**	**$691,809**
				Total Project:	**$691,809**	**$691,809**

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2022	Low	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	2022	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2022	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.	2022	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2022	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2022	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2022	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.

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

[redacted]

Viso Segments ,3,6,7.pdf

Segment 9.pdf

[redacted]

CMS Sheet.xlsx

[redacted]

[redacted]

Visio Segments 4,5,8.pdf