EVERSOURCE
Project Authorization Form

Operations Project Authorization Form

Date Prepared: January 6, 2021	**Project Title:** [redacted] Reliability Improv.
Company/ies: Eversource CT	**Project ID Number:** CD01665
Organization: Distribution Electric	**Class(es) of Plant:** Distribution
Project Initiator: [redacted]	**Project Category:** Line
Project Manager: [redacted]	**Project Type:** LT-Rehab-Reconductor
Project Sponsor: [redacted]	**Project Purpose:** Improve Reliability
Estimated in service date: December 31, 2021	**If Transmission Project: PTF?** N/A
Eng. /Constr. Resources Budgeted?	**Capital Investment Part of Original Operating Plan?**
Authorization Type: Preliminary	**O&M Expenses Part of the Original Operating Plan?**
Total Request: $202,408	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

This project was established to address the [redacted].

[redacted] was last trimmed in December of 2020. The Lewis tree crew worker planner had a meeting on [redacted] in Fall of 2020 where only 6 concerned customers attended the meeting (even with the help of town tree warden) Lewis tree crew planner was unable to obtain full ETT spec from the residents and trimming was performed under modifications in the form of light trims with customer's present and was agreed to trim to SMT spec and 32 trees were removed from the total of 2.4 miles of lateral section extending from the beginning of [redacted]

[redacted]

This project purposes on replacing the 0.7 miles of #631 composite wire with 1/0 TW, replacing cross arm construction to ridge pin construction and older poles with newer 40 ft class 2 poles.

Project Costs Summary

Note: Dollar values are in thousands

	Prior Authorized	2021	20__	20__+	Totals
Capital Additions - Direct	$0	$122,074	$0	$0	$122,074
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$5,110	$0	$0	$5,110
Total - Direct Spending	$0	$127,184	$0	$0	$127,184
Capital Additions - Indirect	$0	$69,098	$0	$0	$69,098
Subtotal Request	$0	$196,282	$0	$0	$196,282
AFUDC	$0	$3,150	$0	$0	$3,150
Total Capital Request	$0	$199,432	$0	$0	$199,432
O&M	$0	$2,976	$0	$0	$2,976
Total Request	$0	$202,408	$0	$0	$202,408

Financial Evaluation

Note: Dollar values are in thousands

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$2,913	$0	$0	$2,913
Overtime Labor	$1,975	$0	$0	$1,975
Outside Services	$111,645	$0	$0	$111,645
Materials	$10,757	$0	$0	$10,757
Other, including contingency amounts (describe)	($107)	$0	$0	($107)
Total Direct Costs	**$127,184**	**$0**	**$0**	**$127,184**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$69,098	$0	$0	$69,098
Capitalized interest or AFUDC, if any	$3,103	$0	$0	$3,103
Total Indirect Costs	**$72,201**	**$0**	**$0**	**$72,201**
Total Capital Costs	**$199,385**	**$0**	**$0**	**$199,385**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$199,385**	**$0**	**$0**	**$199,385**
Total O&M Project Costs	**$3,023**	**$0**	**$0**	**$3,023**
Total Project Cost	**$ 202,408**	**$ -**	**$ -**	**$ 202,408**

Technical Justification:

Project Need Statement

This project was established to address the [redacted]

Therefore, this project purposes on replacing the 0.7 miles of #631 composite wire with 1/0 TW, replacing cross arm construction to ridge pin construction and older poles with newer 40 ft class 2 poles.

Project Objectives

Improve System Reliability & Resiliency for streets with multiple outage history.

Project Scope

In order to meet the above objective, this project proposes the following:

[redacted]

Major Material:

1. 3,500 ft. 1/0 Tree Wire
2. 3,500 ft. Neutral Wire
3. 8 Eversource Company Owned Poles
4. 6 Dual 8.32kV and 23kV Transformer various sizes

Background / Justification

1. Outage History

Outage History Customer at Treasure Hill Road South Kent CT 31C1 Circuit

Date	Duration (min)	Cause	Weather	STORM	Remarks	Device Name
12/25/2020	2152	TREE-Tree/Limb Outside Trim Zone/Unknown	HIGH WINDS	Y	Made repairs to primary primary still denergized upstream part of bigger outage upstream where 8 sections of primary down with roads fully blocked	[redacted]
8/27/2020	1633	TREE-Tree/Limb Outside Trim Zone/Unknown	NORM		Tree across road and on primary pinning primary and neutral to cause a breaker lockout	
8/4/2020	10386	TREE-Tree/Limb Outside Trim Zone/Unknown	NORM	Y	ISIAIS STORM multiple events on the circuit	
4/15/2020	39	TREE-Tree/Limb Outside Trim Zone/Unknown	HIGH WINDS	Y	Removed large tree and refused 100k at A9876	
2/25/2020	122	TREE-Tree/Limb Outside Trim Zone/Unknown	NORM		Tree down on primary removed tree to restore customers	
8/8/2019	28	TREE-Tree/Limb Outside Trim Zone/Unknown	THUNDER STORM		Tree down on primary near pole: 1570 on Cherniske Rd	
8/3/2019	31	TREE-Tree/Limb Outside Trim Zone/Unknown	RAIN		Between P:1418-1422 made repairs to primary and neutral tree related	
1/1/2019		TREE-Tree/Limb Outside Trim Zone/Unknown	NORM		Broken Pole: 9889. Oil Spill/ report completed 40' Class 2, 25kVA needed, chk svc to house 33	
11/28/2018	198	TREE-Tree/Limb Outside Trim Zone/Unknown	NORM		Removed large tree and repaired two sections of primary and neutral pole:1414	
10/27/2018	428	TREE-Tree/Limb Outside Trim Zone/Unknown	NORM		Pole:2876 broken and leaking 25kVA Xfrmr	
10/12/2018	351	TREE-Tree/Limb Outside Trim Zone/Unknown	HIGH WINDS	Y	Primary Down	
8/3/2018	221	TREE-Tree/Limb Outside Trim Zone/Unknown	NORM		Primary down near pole:1416 part of bigger outage	
7/26/2018	574	TREE-Tree/Limb Outside Trim Zone/Unknown	RAIN		Cut tree off lines, rehung primary and secondary from pole:A9873 to A9872	
3/2/2018	1075	TREE-Tree/Limb Outside Trim Zone/Unknown	HIGH WINDS	Y	Primary Down near Pole:1421 part of bigger outage	
11/19/2017	199	TREE-Tree/Limb Outside Trim Zone/Unknown	NORM		Tree down wire down near pole: A9901	
10/29/2017	2142	TREE-Tree/Limb Outside Trim Zone/Unknown	HIGH WINDS	Y	Fuse open at P:A9901, 2 spans primary down between pole: 7988 & 2874	
6/8/2017	186	Vehicle Accident	NORM		Closed cutout at pole; A9901 made temp repairs to cracked pole A9903	
1/24/2017	199	TREE-Tree/Limb Outside Trim Zone/Unknown	NORM		Tree down between pole: 3284 & 3286	

2. Total Customer Minutes 1,138,585
3. Total Customer Interruptions 2,015
4. Cust. Interruptions Saved 251
5. Cost Per Cust. Intr. Saved 807.63
6. Customer Minutes Saved 127,454
7. Cost Per Cust. Min. Saved 1.59

Business Process and / or Technical Improvements:

Replacing the existing oil filled recloser with a new vacuum interrupting recloser at the new location would serve to move this device to a flatter, less hazardous location, as well as removing an oil filled device so close to a river, eliminating a potential environmental disaster.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Approval	January 2020
Construction Approval	April 2021
Start Construction	June 2021
End of Construction	December 2021

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2021	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	2021	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
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.
Internal engineering 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.
Storm delays	2021	Low	If storm activity delays work, we may be forced to use external resources.
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

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

Map

CD01665 Existing Map.pdf

CD01665 After Map.pdf

P&C One-Line

CD01665 One-Line.pdf

Outage History

CD01665 Outage History.pdf

Field Findings

CD01665 Field Findings.pdf

Lewis Tree Work Planner Tree Removal Permission

CD01665 Tree Removal Permission'

AIMS Need Statement

CD01665_project_needs_statement.pdf