Operations Project Authorization Form

Date Prepared: January 07, 2022	**Project Title: 2022 Pole Integrity**
Company/ies: Eversource CT	**Project ID Number: CD01570**
Organization: Distribution	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: Pole Integrity Program**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: System Resiliency**
Estimated in service date: 12/31/2022	**If Transmission Project: PTF? N/A**
Eng. /Constr. Resources Budgeted? Y	**Capital Investment Part of Original Operating Plan? Y**
Authorization Type: Final Funding	**O&M Expenses Part of the Original Operating Plan? Y**
Total Request: $4,000K	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

Executive Summary

This initiative captures the cost necessary to replace or reinforce wood poles found during the annual pole inspections that cannot remain in service due to loss of strength from decay or insect infestation.

This initiative also captures the replacement of leaning poles that were identified during the pole inspection process and they are prone to failure posing a risk to public safety and system's reliability. Leaning pole locations are created when soil disturbances and pole attachments affect the original pole's orientation as a result of severe weather and or storm damages.

Project cost estimates were generated using historical costs of contractor resources completing past Defective Pole Project work.

The Poles inspection was completed in 2021, but pole replacement or construction will take place in 2022. Attachment 1, which is included in the attachment section shows the list of towns inspected in 2021. Locations identifying normal rejects and leaning poles are available in the SharePoint Reject Pole Inspection Group.

The total project request is $4,000K

Project Costs Summary

	Prior Authorized*	Additional Request	2022**	2022+	Total
Capital Additions Direct	$ -	$ -	$ 1,317,562	0	$1,317,562
Less Customer Contribution	$ -	$ -	$ -	0	$0
Removals Net of Salvage	$ -	$ -	$ 427,988	0	$427,988
Total - Direct Spending	$ -	$ -	$ 1,745,550	$0	$1,745,550
Capital Additions - Indirect	$ -	$ -	$ 1,352,480	0	$1,352,480
AFUDC	$ -	$ -	$ 13,715	0	$13,715
Total Capital Request		$ -	$ 3,111,746	$0	$3,111,746
O&M		$ -	$ 888,254	0	$888,254
Total Request	**$ -**	**$ -**	**$ 4,000,000**	**$0**	**$4,000,000**

* Amount authorized in PowerPlan

** Total amount needed for authorization in PowerPlan based on ACT

Financial Evaluation

Direct Capital Costs	2022	2023	2024	Total
Straight Time Labor	$ 13,729	0	0	$ 13,729
Overtime Labor	$ -	0	0	$ -
Outside Services	$1,474,923	0	0	$1,474,923
Materials	$ 256,899	0	0	$ 256,899
Other, including contingency amounts	$ -	0	0	$ -
Total	$1,745,550	0	0	$1,745,550

Indirect Capital Costs		2023	2024	Total
Indirects/Overheads (including benefits)	$1,352,480	0	0	$1,352,480
Capitalized interest or AFUDC, if any	$ 13,715	0	0	$ 13,715
Total	$1,366,196	0	0	$1,366,196
Total Capital Costs	$3,111,746	0	0	$3,111,746
Less Total Customer Contribution	$ -	0	0	$ -
Total Capital Project Costs	$3,111,746	0	0	$3,111,746
Total O&M Project Costs	$ 888,254	0	0	$ 888,254

Total Project Cost	$4,000,000	0	0	$4,000,000

* to be completed if supplemental authorization is required

Technical Justification:

Project Need Statement
This project includes the replacement or reinforcement of wood poles found during yearly inspections that cannot remain in service due to loss of strength from decay or insect infestation. Poles that require c-truss reinforcement found during the 2022 inspections will also be addressed. Distribution Engineering will decide if a C-Truss is the best solution for replacement.

This project also includes the replacement of poles that present a risk to public safety and reliability. Distribution Engineeing have final determination to decide if a replacement is warranted.

Project Objectives
The Pole Integrity Program accelerates the replacement and reinforcement of aging and defective pole assets including leaning poles.

Project Scope
Pole data collected from 2017-2021 inspection yielded the scope of work for this 2022 project. Approximate counts are below:

Defective Pole Replacements – 461
C-Truss Pole Reinforcements - 25

Scope of Work	Approximate Counts	Capital Cost per pole	Capital Cost Total	Expense Cost per pole	Expense Cost Total	Capital + Expense Total
Defective Pole Replacements	461	$6,544	$3,016K	$1,880	$867K	$3,883K
C-Truss Pole Reinforcements	**25	$1,641	$41K	$0	$0	$41K
			$3,057K		$867K	$3,924K

**Number of C-Truss designs will be updated in March 2022. Distribution Engineering will decide if a C-Truss is the best option instead of a replacement.

Background / Justification
Replacement and reinforcements of defective poles supports safety, reliability and commitments to the customer.

Business Process and / or Technical Improvements:
Historically Eversource used only the minimum NESC wood strength requirements to identify reject poles. The company has since incorporated System Resiliency storm criteria to help identify pole replacements and focuses on older, smaller Class 3, 4, and 5 poles because they are more susceptible to damage from 95 mile-per-hour winds or ¾” of radial ice.

Alternatives Considered with Cost Estimates
Do nothing alternative.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Design	March, 2022
Bid	January, 2022
Award & Construction Start	April, 2022
Construction Completion	December 2022

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.	2022	Low	Included higher number of defective pole replacements in estimate to reduce changes during design.
Construction resources / storm delays	2022	Medium	Use competitive bidding to ensure lowest outside labor cost. Bid early in the year to allow long construction period.
Materials shortage or long lead times	2022	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.

References
None

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

Selected Towns for the 2021 Pole Inspection – 15 years Frequency

AVON	CANTON	KENT	ROXBURY	SOUTHINGTON	WARREN	WILLINGTON	BRIDWATER	BETHANY	ANDOVER	WESTPORT	TOTAL
QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY
1496	1527	2139	1006	7929	915	1825	1118	171	945	8957	28028