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Operations Project Authorization Form

Project Title: [redacted] **Remediation**	**Project Number: CD01701**
Date Prepared: 12/15/2022	**Company:** Eversource CT
Organization: Electric Field Operations	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** RIGHT OF WAY LINES
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** Yes
Estimated in service date: 12/31/2024	**Emergency Related Request?** No
Eng./Constr. Resources Budgeted? Yes	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution
Total Gross Capital Request: $5,399K	**Authorization Type:** Initial Funding

Executive Summary

Eversource has completed drone patrols of all distribution Right of Ways (ROW) and has categorized all findings into five priority levels: P1, P2, P3, P4, and P5. [redacted] had the following list of priority poles: 7 P1, 54 P2, 6 P3, and 2 P4 poles. Of those poles, 4 of the P1 poles, 5 of the P2 poles, and 1 each of the P3 and P4 poles have already been repaired. The remaining poles will be addressed by this proposal. Those poles in ROW 039 to the west of pole 3470-S will be addressed in 2023: 3 P1, 37 P2, and 5 P3 poles. The poles that are to the east of Packard St will be addressed in 2024: 12 P2, and 1 P4.

Given the amount of work required in [redacted] several options were discussed for a long-term solution. These included repairing only the problem poles, rebuilding in place, and/or rerouting [redacted] out of the eastern portion of [redacted] The design selected was to rebuild the entire ROW in place.

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Project Costs Summary

Note: Dollar values are in thousands

Capital Costs	Year 2023	Year 2024	Year 2025+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	$90	$77	$0	$167
Outside Services	$782	$674	$0	$1,457
Materials	$295	$254	$0	$549
Removals	$608	$524	$0	$1,132
Risk and Contingency	$8	$7	$0	$15
Other	$0	$0	$0	$0
Subtotal – Direct Costs	**$1,783**	**$1,537**	**$0**	**$3,320**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	$1,107	$954	$0	$2,061
Capitalized interest or AFUDC, if any	$10	$8	$0	$18
Subtotal – Indirect Costs	**$1,117**	**$963**	**$0**	**$2,080**
Total Gross Capital Costs	**$2,900**	**$2,499**	**$0**	**$5,399**
Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Net Capital Project Costs	**$2,900**	**$2,499**	**$0**	**$5,399**

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Technical Justification:

Project Need Statement

The project was created to repair priority 1 and 2 poles in [redacted]. 50% of the poles in [redacted] are priority 1 or priority 2 and need repair. Due to the high number of poles, several options were reviewed. The design selected was to rebuild the entire length of [redacted] with steel structures and 556 tree wire.

Project Objectives

The [redacted] will be rebuilt to improve reliability. [redacted]. Additionally, the entire ROW will have tree trimming completed. This will greatly increase reliability and reduce the likelihood of future tree related outage(s) on the [redacted]

Project Scope

The scope of this project is to rebuild [redacted].
The following is the scope of work for each option:

[redacted]

Major Material:
2023:

- Cross arms composite, 243
- Steel Utility Poles, 68
- Wood Utility Pole, 13
- Three phase cutouts, 7
- 556 Al Tw 175 Mil, 17,000 Ft.
- Matting 8"X4'X16', 1100 matts

2024:

- Steel Utility Poles, 41
- Wood Utility Pole, 20
- Three phase cutouts, 3
- Re-hang three phase Recloser, 1
- Cross arms composite, 183
- 556 175 Mil TW 7,000 Ft.
- Matting 8"X4'X16', 1100 matts, 1750 matts

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Background / Justification

Customers currently served by the [redacted]

The [redacted] outage history is shown below. In summary:

[redacted]

[redacted]

Business Process and / or Technical Improvements:

The performance improvements expected for any of the options listed below will improve the reliability of the [redacted]

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Alternatives Considered:

Were alternative solutions considered/applicable? Include any cost/benefit analysis.

Alternatives were considered (please describe below)

There are four options being considered for [redacted]

Estimates below are total project dollars (capital and expense dollars):

[redacted]

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Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01701
ROW 039 Remediation

Project Option Summary

ID	Description	Segments	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)	Prfrd
O1	Reroute Eastern portion of ROW039	1,3,5	$5,160,310	$0	100%	$0.00	$0.00	☐
O2	P1 & P2 Only	4	$3,975,497	$0	100%	$0.00	$0.00	☐
O3	Reconductor 795 TW, and Steel Structures	1,2,5,6	$5,986,724	$0	100%	$0.00	$0.00	☐
O4	Reconductor Enire ROW 039 with 556 TW, and Steel Structres	1,5,6	$5,776,942	$0	100%	$0.00	$0.00	☑

Segments

ID	Title	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)
1	Steel Pole Adder for the Western portion	$303,924			$0.00	$0.00
2	Reconductor in place with 795 TW	$209,782			$0.00	$0.00
3	[redacted] Reroute Eastern Portion	$2,057,694			$0.00	$0.00
4	P1 and P2 poles only	$3,975,497			$0.00	$0.00
5	[redacted] Reconductor Western Portion	$2,798,691			$0.00	$0.00
6	[redacted] Reconductor Eastern Portion	$2,674,327			$0.00	$0.00

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Regulatory Approvals:

Are Regulatory body approvals needed for the project?
Yes

The alternative options that require entering the Eastern portion of [redacted] will need approval from environmental due to wetlands.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Initial Funding Authorization	May 2021
2023 Detail Design	October 2022
2024 Detail Design	October 2023
Construction Begin	April 2023
In Service Date	December 2024

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2023/2024	Medium	Work in the ROW could be delayed due to access and terrain
Internal construction resources not available to perform the work.	2023/2024	High	Plan external resources to complete this project. Use competitive bidding to ensure lowest outside labor cost.
Internal engineering resources not available to perform the work.	2023	Low	Internal resources tentatively planned to support this project, particularly within the areas of construction supervision, equipment settings.
Materials Shortage or long lead times	2023/2024	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2023/2024	Low	Contractors will manage weather delays as necessary.
System abnormal configuration	2023/2024	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.
Wetlands / Environmentally sensitive area	2023/2024	High	Use of mats and specialty equipment, only work during certain times of the year.

References

outage_history.xlsx

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

CD01701_project_needs_statement 202

CD01701_Load_Sheet.xlsx

[redacted]_Oneline_20221215.pdf

[redacted]_Alt_Rt_20221215.pdf