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Operations Project Authorization Form

Project Title: RECOMMENDATION FOR I-95	Project Number: CD02162
Date Prepared: 05/11/2023	**Company**: Eversource CT
Organization: Electric Field Operations	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** Distribution Line Reliability
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** No
Estimated in service date: 9/30/23	**Emergency Related Request?** Yes
Eng./Constr. Resources Budgeted? Yes	**Facility Type** (check all that apply): ☐ PTF ☐ non-PTF ☒ Distribution
Total Gross Capital Request: $1,127K	**Authorization Type:** Full Funding

Executive Summary

The purpose of this project is to [redacted] On December 14, 2022, a vehicle struck pole 91 on Ferry Rd, Old Saybrook. [redacted]

[redacted]. The total capital cost for this project is estimated at $663K.

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This project was approved for Initial Funding on 1/12/23 for $663K. This PAF is being presented for Full Funding approval in the amount of 1,127K, total capital costs, which is 170% over the Initial Funding approval amount.

The discrepancies can be attributed to the following:

1. The Initial Funding estimate is based on 2016 engineering estimating units, which are 30% lower than the estimating units currently in use. The estimating units being used today would have shown the Initial Funding as $903K capital dollars, which would make the Final Funding amount 125% over.

2. The Initial Funding estimate included $156K for excavation for the manholes and ductbank, but due to this being a state highway, the state requires the entire lane between the curb-line and center-line excavated and repaved (not just a narrow trench). The excavating contractor's estimate is $375K, which is $219K higher than the engineering estimate, or 240% higher. Adding this $219K to the $903K (shown in #1 above) would have made the Initial Funding estimate $1,122K. Using this as the new Initial Funding estimate, the Full Funding estimate is only $5K over.

Project Costs Summary

Note: Dollar values are in thousands

Capital Costs	2023	2024	2025	Total
Internal Labor and Construction Equipment	105.7	0.0	0.0	105.7
Outside Services	286.9	0.0	0.0	286.9
Materials	69.2	0.0	0.0	69.2
Removals	117.8	0.0	0.0	117.8
Risk and Contingency	78.6	0.0	0.0	78.6
Other	0.0	0.0	0.0	0.0
Subtotal	**658.2**	**0.0**	**0.0**	**658.2**
Indirect Capital Costs	**Year 1**	**Year 2**	**Year 3+**	**Total**
Indirects/Overheads (including benefits)	468.5	0.0	0.0	468.5
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal	**468.5**	**0.0**	**0.0**	**468.5**
Total Capital Costs (Gross)	**1,126.7**	**0.0**	**0.0**	**1,126.7**

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Technical Justification:

Project Need, Objective and Justification:

[redacted]

Project Scope:

- [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]

Major Material:

1,900’ of 556 TW
500’ of 500 kcmil Cu UG cable
500’ conduit
6 Eversource Poles
5 Frontier Poles
2 Primary Risers
2 Manholes

Background:

[redacted]

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Alternatives Considered:

Were alternative solutions considered/applicable? Include any cost/benefit analysis.
Add the Other 2 alternatives.

Alternatives were considered (please describe below)

For this project there are two alternatives that were also discussed.

1) [redacted]. The total cost for this alternative is approximately $50,200.

2) [redacted].

Project Option Comparison

[redacted]			
Estimate Type	Initial	Initial	Full
Total Cost	$50K	$595K	$1,147K
Capital Cost	$49K	$582K	$1,126.7K
Expense Cost	$1K	$13K	$20.3K
Cost / CM Saved	$/CM	$20.2	$17.64
Cost / CI Saved	$/CI	$2,026	$1,778
Preferred option			x

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Regulatory Approvals:

Are Regulatory body approvals needed for the project?
No

If yes, provide detailed regulatory approvals

Project Schedule

Milestone/Phase Name	Estimated Date
100% Engineering Completion	02/15/2023
Construction Start	03/01/2023
Testing/Commissioning	05/01/2023
In Service Date	05/01/2023

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2023	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	2023	Medium	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2023	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2023	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2023	Medium	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2023	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.

Technological risks involving integration of new technology	2023	Low	Before use of new technology ensure support of standards and manufacturer. Schedule project to accommodate for extra time or ensure new technology is not on the critical path.
Wetlands / Environmentally sensitive area	2023	Low	Use of mats and specialty equipment, only work during certain times of the year.

References

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

[redacted]I-95 Crossing Pole Accident 12-14·

CD02162 Map.pdf

CD02162_project_needs_statement.pdf

CD02162 [redacted] Load she1

CD02162 [redacted] Oneline.v