Operations Project Authorization Form

Project Title: [redacted] Additional ROW Work	**Project Number: CD01993**
Date Prepared: 01/11/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** RIGHT OF WAY LINES
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** No
Project Manager: [redacted]	**Emergency Related Request?** No
Project Sponsor: [redacted]	**Facility Type** (check all that apply): ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 7/31/2024	
Total Capital Request: $852,528	**Authorization Type:** Full Funding

1. Executive Summary

Project CD01993 addresses antiquated pole and plant located in the [redacted]

[redacted]

Prior to the CD01026 project, four ROW outage events occurred in four years. [redacted]

This project CD01993 will update the remaining [redacted]

Division: Western
District: Newtown AWC
City/Town: Seymour

The full funding amount for the project comes out to $852.5k which is 113% of the initial engineering estimate of $752k. There is no change in the scope of work for this project.

2. Project Costs Summary

Note: Dollar values are in thousands

Capital Costs	Year 2024	Year 2025	Year 2026+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	$38.8	$0	$0	$38.8
Outside Services	$304.0	$0	$0	$304.0
Materials	$40.3	$0	$0	$40.3
Removals	$56.9	$0	$0	$56.9
Risk and Contingency	$77.5	$0	$0	$77.5
Other	$0.0	$0	$0	$0.0
Subtotal	**$517.6**	**$0**	**$0**	**$517.6**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	$335.0	$0	$0	$335.0
Capitalized interest or AFUDC, if any	$0.0	$0	$0	$0.0
Subtotal	**$335.0**	**$0**	**$0**	**$335.0**
Total Capital Costs (Gross)	**$852.5**	**0.0**	**0.0**	**$852.5**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Project Costs (Net of Reimbursement)	**$852.5**	**0.0**	**0.0**	**$852.5**

3. Technical Justification

Project Need, Objective and Justification

[redacted]

Project Scope

[redacted]

Background

With prior projects, we've already justified and invested into reconductoring this right of way and so this is the final installment of the initial direction decided; reviving this right of way as opposed to moving the breaker zones to roadways. The remaining area needing rebuild is not hard to access and it is not in a wetland.

The outages in the last four years for the ROW and the large radial taps are shown in the table below.

[redacted]

- [redacted]

4. Alternatives Considered

[redacted]

Options 1 and 3 were not selected because they did not address all the issues found while inspecting the area. Option 2 addresses all said areas.

[redacted]

Authorization Type	Partial (2023 units)	Full	Partial (2023 units)
Capital Cost	$760,264	$852,528	$818,577
Expense Cost	$32,639	$35,465	$35,142
Total Cost	$792,903	$886,629	$853,719
Rating Increase		X	
Preferred option		X	

5. Project Schedule

Milestone/Phase Name	Estimated Date
100% Engineering Completion	9/2022
Construction Start	1/2024
Testing/Commissioning	6/2024
In Service Date	7/2024

6. Regulatory Decisions

N/A

7. Codes and Standards

N/A

8. Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2024	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	2024	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2024	High	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Internal engineering resources not available to perform the work.	2024	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2024	High	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2024	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	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	2024	Low	Use of mats and specialty equipment, only work during certain times of the year.

References

References
CD01026[redacted]ROW Reliability Improvements
CD01697[redacted]Reliability Improvements

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

Attachment	Included in Submittal?
A. Geographic Map	*YES*
B. Partial PAF	*YES*
C.	
D.	
F.	

[redacted]





Operations Project Authorization Form

Project Title: [redacted] **Additional ROW Work**	**Project Number: CD01993**
Date Prepared: 04/15/2022	**Company:** Eversource CT
Organization: Distribution EFO	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category: Smart Switch**
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** No
Estimated in service date: 12/31/2023	**Emergency Related Request?** No
Eng./Constr. Resources Budgeted? Yes	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF X Distribution
Total Gross Capital Request: $752,232.97	**Authorization Type:** Initial Funding

Executive Summary

Project CD01993 addresses antiquated pole and plant located in the [redacted]

[redacted]

[redacted]

This project CD01993 will update the remaining [redacted]

Project Costs Summary

See APS3 and APS8 requirements and consult with Plant Accounting for capital/O&M determination. Use published loaders for benefits, materials, and invoices, maintained by the Director, Budget and Internal Reporting.
Note: Dollar values are in thousands

Capital Costs	Year 2023	Year 2024	Year 2025+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	$31	$0	$0	$31
Outside Services	$256	$0	$0	$256
Materials	$147	$0	$0	$147
Removals	$32	$0	$0	$32
Risk and Contingency	($0)	$0	$0	($0)
Other	$0	$0	$0	$0
Subtotal	**$465**	**$0**	**$0**	**$465**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	$268	$0	$0	$268
Capitalized interest or AFUDC, if any	$19	$0	$0	$19
Subtotal	**$287**	**$0**	**$0**	**$287**
Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$752**	**$0**	**$0**	**$752**

Technical Justification:

Project Need, Objective and Justification

[redacted]

Project Scope

[redacted]

Background

With prior projects, we've already justified and invested into reconductoring this right of way and so this is the final installment of the initial direction decided; reviving this right of way as opposed to moving the breaker zones to roadways. The remaining area needing rebuild is not hard to access and it is not in a wetland.

The outages in the last four years for the ROW and the large radial taps are shown in the table below.

[redacted]

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

Alternatives were considered (please describe below)

The preferred option is proposed as option 2 in the needs statement: Finish the ROW resilience work and reconductor Shelton St. in addition to removing the dead 11N84 to increase reliability and increase the overall circuit zone rating.

Project Option Comparison

	✓		
	[redacted]		
Desc n			

	[redacted]	[redacted],	
Total Cost	$752,232.97	$656,706.73	$609,925.00
Rating Increase	X		

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	9/2022
Construction Start	11/2022
Testing/Commissioning	1/2023
In Service Date	2/2023

Risks and Risk Mitigation Plans

List top risks and mitigation plans associated with this project. Include any contingency related to each risk. (Permitting/siting; environmental; outage constraints; customer/community outreach; material delivery; constructability challenges; excavation; etc.)

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	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2023	High	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.	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	High	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2023	Low	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.
Wetlands / Environmentally sensitive area	2023	Low	Use of mats and specialty equipment, only work during certain times of the year.

References

- [redacted]
- [redacted]

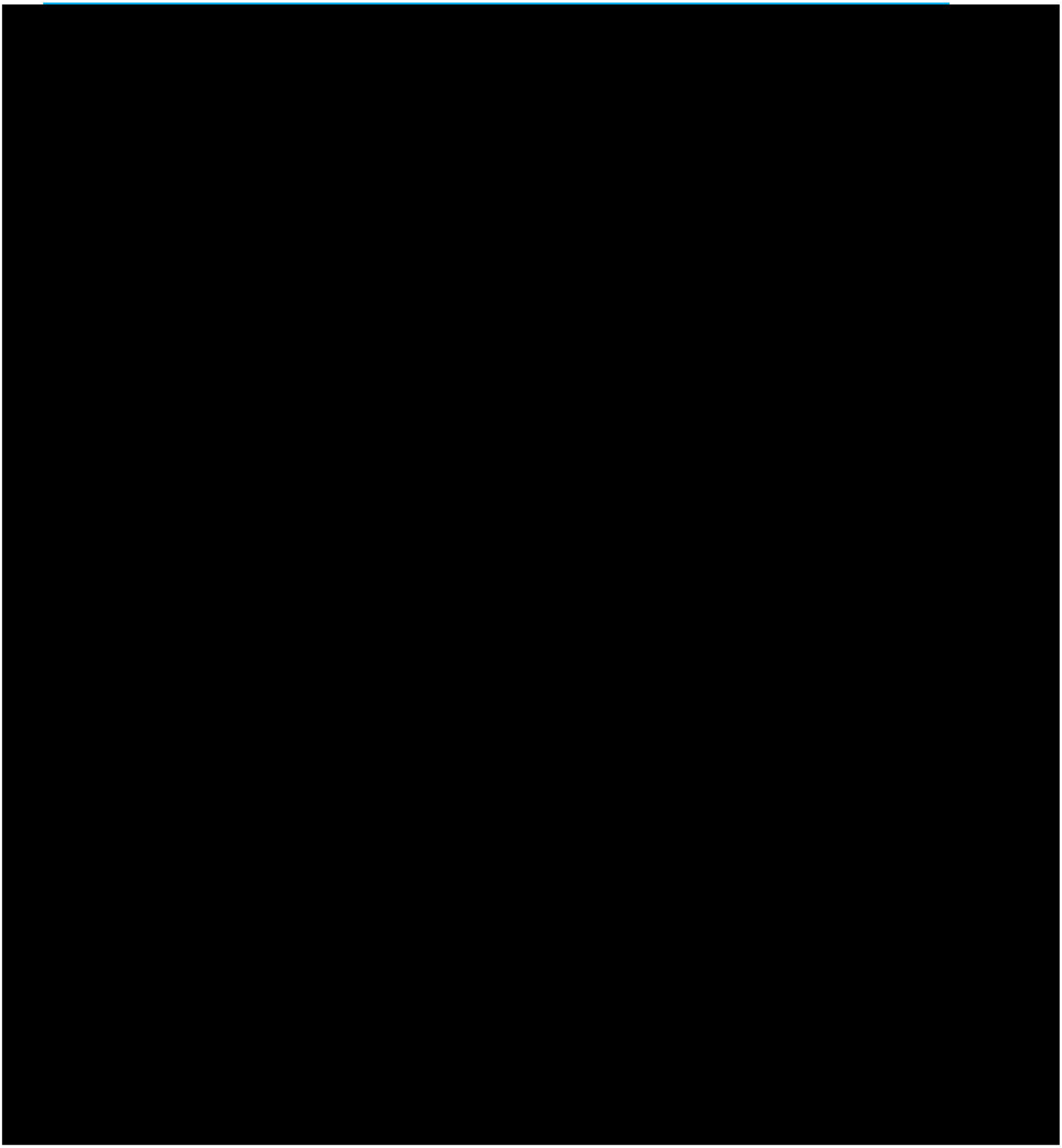
Appendices (One-Line Diagrams, Images, etc.)

Attachments (One Line Diagrams, Images, etc.)

Attachment	Included in Submittal?
A. Geographic Map	*YES*
B. Need Statement	*YES*
C. Load Sheet	*YES*

[redacted]

[redacted]



B. Need Statement:

Budget Summary - Preferred Option — ROW & Shelton St. Reconductoring

2023

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	[redacted] ROW Reconductoring	Draft	0	24%	$609,925	$609,925
2	[redacted]	Draft	0	24%	$157,980	$157,980
				2023 Total:	**$767,905**	**$767,905**
				Total Project:	**$767,905**	**$767,905**

Design Alternative — CD01993-01

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$491,875
Contingency Amount:	$118,050
Estimate:	$609,925
Reimbursement:	$0
Net Amount:	$609,925

Description:

Item Description	CU	Amount
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil 11N83 circuit from pol[redacted]	16-OH27	$134,248.00
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil 11N84 circuit from pole[redacted]	16-OH27	$134,248.00
OTHER OTHER 20% contractor cost	16-ALL14	$81,979.00
OTHER OTHER An additional $4600 per ROW pole multiplied by 9 poles.	16-ALL14	$41,400.00
OTHER OTHER ROW Mowing and Road Maintenance	16-ALL14	$100,000.00

Design Alternative CD01993-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$127,403
Contingency Amount:	$30,577
Estimate:	$157,980
Reimbursement:	$0
Net Amount:	**$157,980**

Description:

Item Description	CU	Amount
OTHER OTHER 20% contractor	16-ALL14	$24,200.00
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil At old [redacted] substation	16-OH27	$7,760.00
TRAFFIC OH/DB/UG - Traffic Control - Flagger Back side road flagging.	16-ALL19	$10,000.00
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil Reconductor [redacted] ith 556 TW	16-OH27	$65,960.00
OH WIRE OH - Remove circuit wire (3 phase) Remove [redacted] circuits	16-OH37A	$5,440.00
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average Remove [redacted]	16-ALL17	$7,019.20
POLETOP OH - Replace wood xarm with composite xarm - 3ph Replace wooden Xarms with composite xarms	16-OH17A	$7,024.00

[redacted]

[redacted]

[redacted]