EVERSOURCE

Project Approval Form

Project Title: 48C7 Overload Project	Project Number: CD02045
Date Prepared: 08/17/2023	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** OVERLOADS-SPECIFIC PROJECTS
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: 10/31/2023	
Total Capital Request: $596.9 K	**Authorization Type:** Full Funding

1. Executive Summary

This project has been established to address the [redacted]

[redacted] was not needed reducing the high-level engineering cost to $348k. At the time, 2016 labor rates were used in the high-level estimate so including the new 2023 labor rates brings the cost up to $462.84. Detailed design including updated labor estimates were completed and the resulting ACT request is for $597k. Additional labor for switching time and manhole cleaning was included in the detailed design. No additions to needed materials or scope.

Location Information:

Division:	Western
District:	Newtown
City:	Bethel

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2023	Year 2024	Year 2025+	Total
Direct Capital Costs	$163.1	$0	$0	$175
Internal Labor and Construction Equipment	$20	$0	$0	$21
Outside Services	$83	$0	$0	$89
Materials	$19.3	$0	$0	$0
Removals	$42	$0	$0	$42
Risk and Contingency	$0	$0	$0	$0
Other	$327	$0	$0	$327
Subtotal – Direct Costs	$163.1	$0	$0	$175
Indirect Capital Costs				
Indirect/Overheads (including benefits)	$270	$0	$0	$270
Capitalized interest or AFUDC, if any	$0	$0	$0	$0
Subtotal – Indirect Costs	$270	$0	$0	$270
Total Gross Capital Costs	$597	$0	$0	$597
Customer Contribution	$0	$0	$0	$0
Total Net Capital Project Costs	$597	$0	$0	$597

Explain unique payment provisions, if applicable:

[redacted]. This removes $130k from the original approved scope.

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted]

b. Project Need

Option 1: Primary Design (Approved Design)

[redacted]

c. Project Scope

Option 1 of this project includes the following modifications:

[redacted]

[redacted]

4. Alternatives Considered

Option 2: Alternative Proposal

[redacted]

Option 3: Alternative Proposal

[redacted]

Option 1 was chosen over the other options as it addresses the immediate overload at a lower cost per MVA added.

Options 2 & 3 have benefit that will be addressed and prioritized under the smart switch initiative.

Project Option Comparison

	Option		
[redacted]			
Estimate Type	Full	Partial	Partial
Capital Cost	$597 K	$512 K	$786 K
Expense Cost	$18 K	$16 K	$24 K
Total Cost	$615 K	$528 K	$810 K
Total Cost / MVA added	$123.1 K /MVA	$173.0 K /MVA	$162.1 K /MVA
Preferred option	X		

[redacted]

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	February 2023
100% Detailed Engineering Completion	April 2023
Fully Funded	August 2023
Construction Start	May 2023
In Service Date	October 2023

6. Regulatory Decisions

N/A.

7. Codes and Standards

N/A

8. Risk and Contingencies

Contingencies:

- 7.5% added for unexpected material and field conditions.

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation

Actual cost higher than estimated due to scope changes.	2023	Medium	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	High	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.
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.

9. References

References
1.
2.
3.
4.
5.

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
C. Geographic Map (Outage & Underground)	*YES*
D. System and Station One-Lines	*YES*
E. Load Sheets	*YES*
F.	


CD02045 - 48C Circuit One-Lines - r


CD02045 - UG MAP - Rev 2-21-23.pdf


CD02045 - Outage Map - Rev. 3-2-23.pdf


CD02045_project_needs_statement - rev

Attachment A: Cost Summary

Option 1:

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02045 [redacted]

Work Classification

Category: Line
Type: BLG1
Type Desc: OVERLOADS-SPECIFIC PROJECTS
Work Type:

Ownership / Management

AWC: Newtown
Statewide: No
Owner: [redacted]
Manager:

Project Information

Status: Draft
SPS #:
AIS Score:
Associated Projects:
Assignment ID:
Patrol Find ID:

Budget Summary - Preferred Option — Fix 48C8 Circuit (egress & hawleyville)

2024

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
3	Reconductor 1000 AL with Cu - 48C8	Prelim	0	24%	$136,648	$136,648
2	Reconductor 1000 AL with Cu - 48C7	Prelim	0	24%	$129,456	$129,456
9	48C8 - Reconductor Hawleyville Rd.	Prelim	0	24%	$211,693	$211,693
				2024 Total:	$477,797	$477,797
				Total Project:	$477,797	$477,797

Item Description	CU	[redacted]	Amount
UG CABLE UG - Cable Removal - all cables	16-UG117		$18,000.00
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu 48C7 Cu cable reconductoring.	16-UG114B		$86,400.00

Item Description	CU	Amount
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu	16-UG114B	$91,200.00
UG CABLE UG - Cable Removal - all cables	16-UG117	$19,000.00

Item Description	CU	Amount
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil Pole 2413 to pole 1347	16-OH27	$170,720.00

[redacted]

Option 2 Cost Summary:

O2	48C7 & 48C8 Ovrld w/ Loop & Reconductoring	2,3,8,9	$608,927	$0	100%	$2,114.36	$9.65	☐

[redacted]

Item Description	CU	Amount
UG CABLE UG - Cable Removal - all cables	16-UG117	$18,000.00
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu 48C7 Cu cable reconductoring.	16-UG114B	$86,400.00

Item Description	CU	Amount
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu	16-UG114B	$91,200.00
UG CABLE UG - Cable Removal - all cables	16-UG117	$19,000.00

Item Description	CU	Amount
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil Pole 2413 to pole 1347	16-OH27	$170,720.00

[redacted]

[redacted]

[redacted]