EVERSOURCE

Project Approval Form

Project Title: [redacted] Reconductor Lateral – Phase 1	Project Number: CD01785
Date Prepared: 09/06/2023	Company: Eversource CT
Organization: Distribution Engineering	Project Category: RELIABILITY IMPROVE SPEC PROJ
Project Initiator: [redacted]	Project Type: Specific
Initiating Organization: Distribution	Capital Investment part of original Op Plan: Yes
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: 6/30/23	
Total Capital Request: $155.7K	Authorization Type: Full Funding

1. Executive Summary

A tree branch fell on the single-phase primary conductor on Monday July 19, 2021, causing the [redacted] During the patrol, the lineman identified broken strands on #4 ACSR 3 strand primary in various locations. It is recommended to replace this conductor based on its condition.

[redacted]

8/31/23 – Full Funding request. The Partial Funding estimate is $117.9K, approved on 4/21/22. Full Funding estimate is $155.7K, a difference of $37.8K, or a 32% increase. There was no scope change. Labor costs are higher than what was in the original estimate. The current approved estimate was prepared using legacy unit costs, which are approximately 30% lower than the estimates used today to account for an increase in material and labor costs. Project completed July 2023.

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2023	Year 2024	Year 2025	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	25.8	0.0	0.0	25.8
Outside Services	28.6	0.0	0.0	28.6
Materials	3.7	0.0	0.0	3.7
Removals	15.0	0.0	0.0	15.0
Risk and Contingency	10.9	0.0	0.0	10.9
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**84.0**	**0.0**	**0.0**	**84.0**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	71.8	0.0	0.0	71.8
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal – Indirect Costs	**71.8**	**0.0**	**0.0**	**71.8**
Total Gross Capital Costs	**155.7**	**0.0**	**0.0**	**155.7**
Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Total Net Capital Project Costs	**155.7**	**0.0**	**0.0**	**155.7**

Explain unique payment provisions, if applicable:

Detailed estimate – see Attachment "A".

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted]

b. Project Need

[redacted]

c. Project Scope

[redacted]

4. Alternatives Considered

Project Option Comparison

	Options	
[redacted]		
Authorization Type	Partial	Full
Capital Cost	$292K	$155.7K
Expense Cost	$7.1K	$17.3K
Total Cost	$299.1K	$173K
Total Cost / CM Saved	$12.02	$4.90
Total Cost / CI Saved	$6,877	$964
Preferred option		X

[redacted]

[redacted]

5. Project Schedule

Milestone/Phase Name	Estimated Date
Partial Approval	4/21/22
100% Detailed Engineering Completion	12/1/22
Fully Funded	8/31/23
Construction Start	1/1/23
In Service Date	6/30/23

6. Regulatory Decision

7. Codes and Standards

8. Risk and Contingencies

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	Medium	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	Medium	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	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.

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	*YES*
D. System and Station One-Lines	*N/A*

Attachment "A"

Specific Project Proposal - Project #: CD01785

Col Ledyard Hwy Reconductor - Phase 1

Design Alternative CD01785-03

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$91,068
Contingency Amount:	$21,856
Estimate:	$112,924
Reimbursement:	$0
Net Amount:	**$112,924**

Description: Reconductor #4 ACSR bare

Item Description	CU	Amount
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18	$10,000.00
OH WIRE OH-Reconductor w/175 Mil Tree Wire-1ph (any gauge)	16-OH25	$55,200.00
OH WIRE OH - Neutral	16-OH31	$14,720.00
OH WIRE OH - Remove circuit wire (1 phase)	16-OH37	$5,520.00
POLE OH - POLE - 1ph (Telephone custodian) 4 poles, plus one new, 50% with reconductoring	16-OH11	$5,628.00

[redacted]

Specific Project Proposal - Project #: CD01785

Col Ledyard Hwy Reconductor - Phase 1

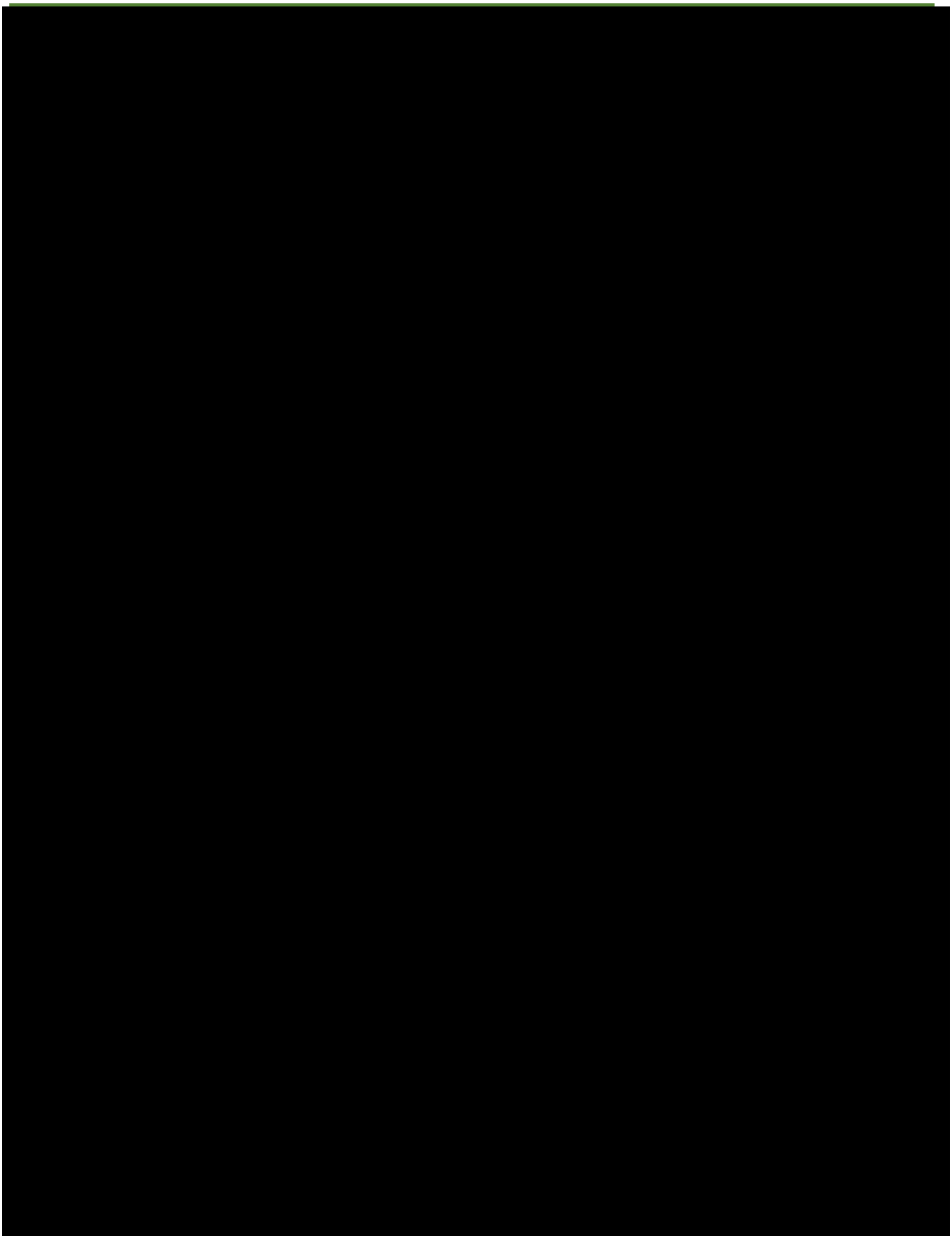
Design Alternative CD01785-04

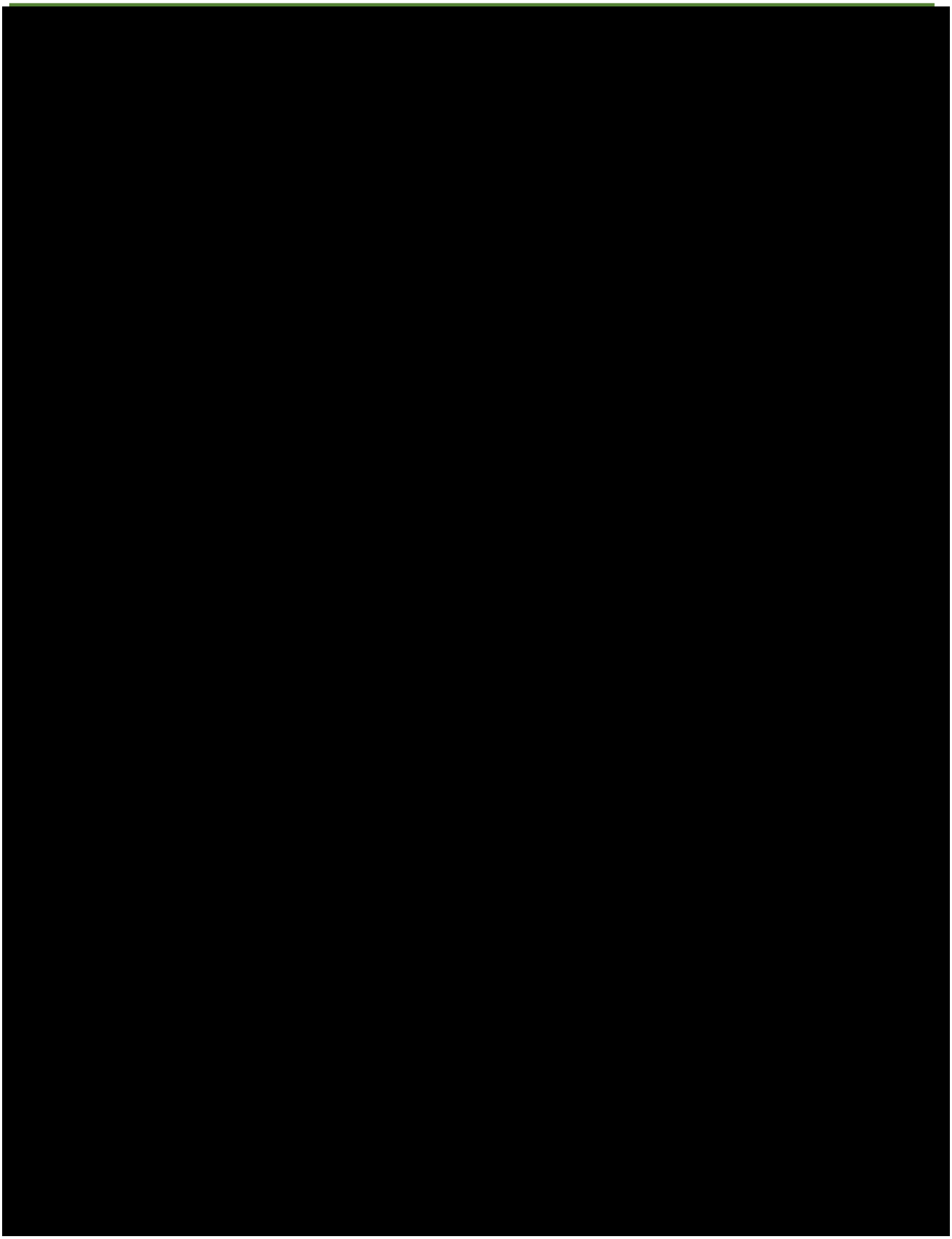
Estimate

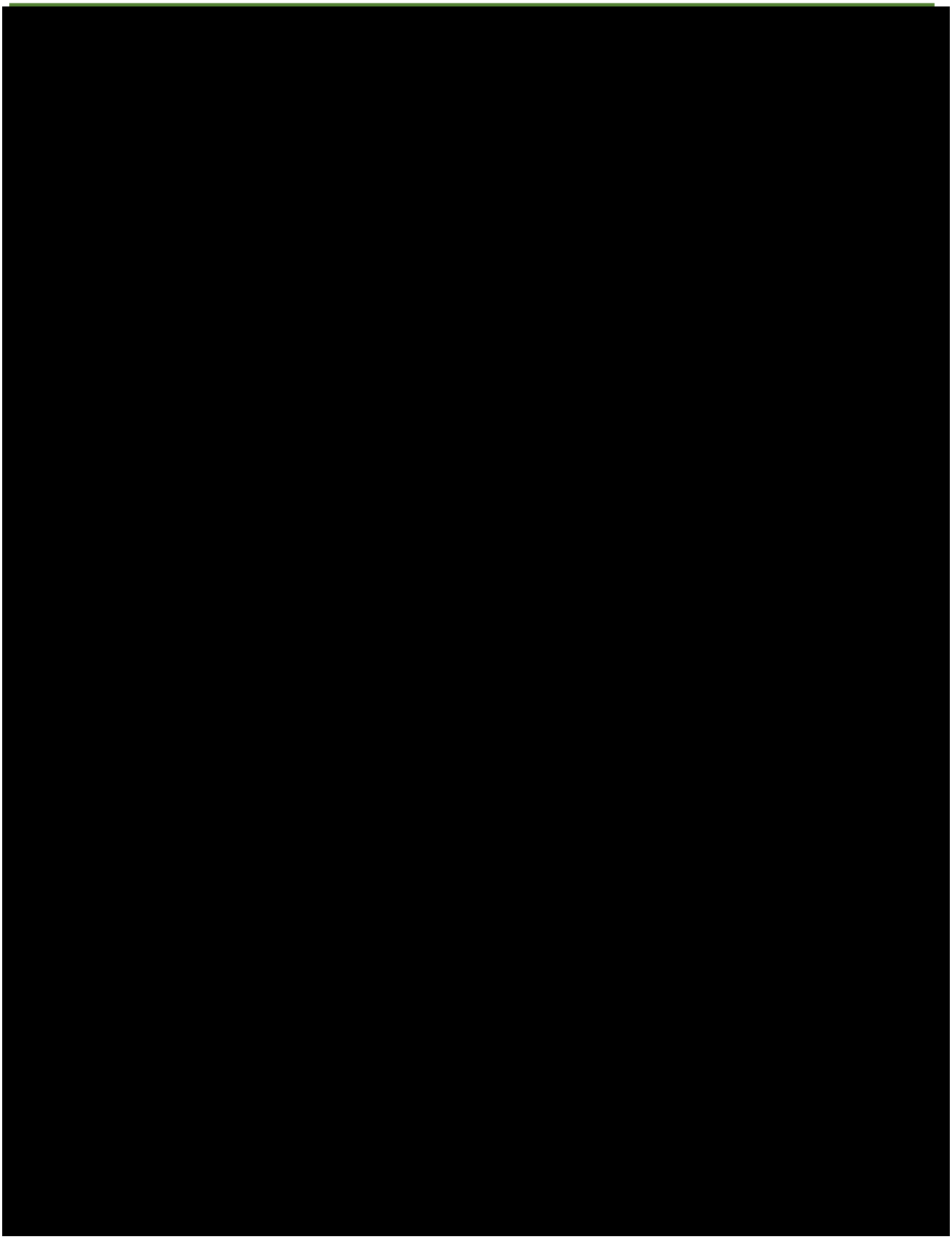
	Preliminary Estimate Summary
Revision Number:	0
Contingency:	20.00%
SubTotal:	$4,114
Contingency Amount:	$823
Estimate:	$4,936
Reimbursement:	$0
Net Amount:	$4,936

Description: Install additional fusing

Item Description	CU	[redacted]	Amount
SECTIONALIZE OH - Cutouts or Arresters - 1ph	16-OH19		$4,113.60







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Project Authorization Form

Project Title: [redacted] Reconductor Lateral – Phase 1	**Project Number:CD01785**
Date Prepared: 0/23/2021	**Company:** Eversource CT
Organization: Electric Field Operations	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** RELIABILITY IMPROVE SPEC PROJ
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** No
Estimated in service date: 06/30/23	**Emergency Related Request?** No
Eng./Constr. Resources Budgeted? Yes	**Facility Type** (check all that apply): ☐ PTF ☐ non-PTF ☒ Distribution
Total Gross Capital Request: $118K	**Authorization Type:** Partial Funding

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary

A tree branch fell on the single-phase primary conductor on Monday July 19, 2021, causing the [redacted] During the patrol, the lineman identified broken strands on #4 ACSR 3 strand primary in various locations. It is recommended to replace this conductor based on its condition.

[redacted]

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Project Authorization Form

Project Costs Summary
Note: Dollar values are in thousands

	Prior Authorized	2023	2024	2025	Totals
Capital Additions - Direct	$0	$64	$0	$0	$64
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage %	$0	$7	$0	$0	$7
Total - Direct Spending	$0	$70	$0	$0	$70
Capital Additions - Indirect	$0	$41	$0	$0	$41
Subtotal Request	$0	$112	$0	$0	$112
AFUDC	$0	$2	$0	$0	$2
Total Capital Request	$0	$114	$0	$0	$114
O&M	$0	$4	$0	$0	$4
Total Request	$0	$118	$0	$0	$118

Financial Evaluation
Note: Dollar values are in thousands

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$4	$0	$0	$4
Overtime Labor	$1	$0	$0	$1
Outside Services	$45	$0	$0	$45
Materials	$14	$0	$0	$14
Other, including contingency amounts (describe)	$6	$0	$0	$6
Total Direct Costs	**$70**	**$0**	**$0**	**$70**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$41	$0	$0	$41
Capitalized interest or AFUDC, if any	$2	$0	$0	$2
Total Indirect Costs	**$44**	**$0**	**$0**	**$44**
Total Capital Costs	**$114**	**$0**	**$0**	**$114**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$114**	**$0**	**$0**	**$114**
Total O&M Project Costs	**$4**	**$0**	**$0**	**$4**
Total Project Cost	**$ 118**	**$ -**	**$ -**	**$ 118**

Note: Explain unique payment provisions, if applicable

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Technical Justification:

Project Need Statement

[redacted]

Project Objectives

[redacted]

Project Scope

[redacted]

Major Material:

1/0 ACSR Tree Wire – 2,300 feet
1/0 neutral/triplex – 2,300 feet
Frontier poles – 5

Background / Justification

[redacted]

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Business Process and / or Technical Improvements:

Reliability Improvements

Alternatives Considered with Cost Estimates

[redacted]

- Options:
  Alternative 3 & 4 – $112,924 + $4,936 = $117,860.
  Alternative 2 & 3 & 4 – $185,385 + $112,924 + $4,936 = $303,245.
  Alternative 1 & 2 & 3 & 4 – $113,763 + $185,385 + $112,924 + $4,936 = $417,008 (Preferred).

Note: This project was approved at CPAC for Alternative 3 & 4, budgeted for 2023. Alternative 1 & 2 will be completed under CD01792, budgeted for 2023.

[redacted]

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Project Option Comparison

	Option			
[redacted]				
Authorization Type	Partial	Partial	Full	Full
Capital Cost	$111K	$181K	$155.7K	Included in 3
Expense Cost	$2.7K	$4.4K	$17.3K	Included in 3
Total Cost	$113.7K	$185.4K	$173K	Included in 3
Total Cost / CM Saved	$4.57	$7.45	$4.54	$0.36
Total Cost / CI Saved	$2,615	$4,262	$964	$0
Preferred option	**	**	X	X

X Note: Options 3 & 4 were approved at CTPAC 4/21/22.
**Note: Options 1 & 2 were approved at CTPAC to do under a separate project, see CD01792.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Approval	7/29/21
Detailed Design	12/1/22
Construction Start Date	01/01/23
Construction End Date	06/30/23

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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.	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
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Storm delays	2023	Low	If storm activity delays work, we may be forced to use external resources.

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System abnormal configuration	2023	Low	Schedule work to minimize system abnormal time. Most of this work will require system to be abnormal for any extended period of time.

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

