EVERSOURCE

Supplement Authorization Form

Project Title: [redacted] **Lateral Reconductor**	**Project Number: CD01950**
Date Prepared: 02/01/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** RELIABILITY IMPROVE SPEC PROJ
Initiating Organization: Distribution	**Project Type:** Specific
Project DDE: [redacted]	**Capital Investment part of 5-year 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)
Current Authorized Amount: $914K	**Approved In-Service Date:** 12/31/23
Supplement Request: $185K	**Estimated In-Service Date: 12/31/23**
Total Capital Request: $1,099K	**Authorization Type:** Supplement Request
	Reason: Cost Overage

1. Project Background

This project address's reliability issues on the [redacted] has experienced 13 outages in the last four years, eleven being tree related, one car vs. pole, and one unknown. [redacted] was last cycle trimmed in 2018 and will be trimmed again this year.

The purpose of this project is to replace [redacted]

Current dollar amount authorized: $914K (Full Funding 8/31/23).
Supplemental request: $185K.
New total request: $1,099K.

Project Scope:

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

Project status is 100% complete, in service as of 9/30/23.

2. Supplement Justification Overview

The following are reasons for the budget being over the authorized amount:

a. Unexpected rock drilling and associated delays contributed to the increase.
b. Schedule change due to operating constraints of the distribution system during heatwave days.
c. Budget increase due to material costs higher than what was estimated.

3. Supplement Justification Detail

The reason for the project authorization supplement of $185K are described below:

a. Scope
    i. $30K increase attributed for additional unexpected rock drilling and associated delays resulting from the rock drilling.
b. Schedule
    i. $11.9K due to multiple delays from cancelled outages and switching operations during a late season heatwave.
c. Budget
    i. $105K increase in material costs in Actuals vs. the Maximo estimate used in the Full Funding request. No extra material was used.

4. Supplement Cost Summary (Project Total)

Line-item Category	To Date Spend Year(s)	Prior Authorized Year(s)	Variance (Supplemental Request) Year(s)	New Total Request (Add Prior Authorized and Variance) Year(s)
Internal Labor and Construction Equipment	$	$0.0	$1.1	$1.1
Outside Services	$	$318.6	$278.3	$596.9
Materials	$	$99.0	$130	$229
Removals	$	$104.9	$(104.9)	$0.0
Risk and Contingency	$	$63.8	$(42.3)	$21.5
Other	$	$0.0	$0.0	$0.0
SUBTOTAL DIRECTS W/RISKS	**$**	**$586.3**	**$262.2**	**$848.5**
Indirect / Overhead (including benefits)	$	$327.8	$(89.4)	$238.4
AFUDC	$	$0.0	$12.1	$12.1
Subtotal – Indirect Costs	**$**	**$327.8**	**$(77.3)**	**$250.5**
TOTAL CAPITAL REQUEST	**$**	**$914.1**	**$184.9**	**$1099.1**
Reimbursables/Customer Contribution	$	$0.0	$0.0	$0.0
PROJECT TOTAL (LESS REIMBURSABLES)	**$**	**$914.1**	**$184.9**	**$1099.1**

5. Lessons Learned

EVERSOURCE

Supplement Authorization Form

Project Title: [redacted] Lateral Reconductor	**Project Number: CD01950**
Date Prepared: 08/31/2023	**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: 12/31/23	
Total Capital Request: $914.1K	**Authorization Type:** Full Funding

1. Executive Summary

[redacted] has experienced 13 outages in the last four years, eleven being tree related, one car vs. pole, and one unknown. [redacted] was last cycle trimmed in 2018 and will be trimmed again this year.

[redacted]

8/31/23 – Full Funding request. The Partial Funding estimate is $1,196.3K, approved on 3/3/22. Full Funding estimate is $914K, a difference of $282.3K, or a 24% decrease. There was no scope change. The project is scheduled to be completed by September 15, 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	0.0	0.0	0.0	0.0
Outside Services	318.6	0.0	0.0	318.6
Materials	99.0	0.0	0.0	99.0
Removals	104.9	0.0	0.0	104.9
Risk and Contingency	63.8	0.0	0.0	63.8
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**586.3**	**0.0**	**0.0**	**586.3**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	327.8	0.0	0.0	327.8
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal – Indirect Costs	**327.8**	**0.0**	**0.0**	**327.8**
Total Gross Capital Costs	**914.1**	**0.0**	**0.0**	**914.1**
Customer Contribution	0.0	0.0	0.0	0.0
Total Net Capital Project Costs	**914.1**	**0.0**	**0.0**	**914.1**

Explain unique payment provisions, if applicable:

See detailed estimate – Attachment "A"

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted]

b. Project Need

[redacted]

c. Project Scope

[redacted]

3

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

4. Alternatives Considered

Project Option Comparison

	Option	
[redacted]		
Authorization Type	Full	Partial
Capital Cost	$914.1K	$399K
Expense Cost	$32K	$9K
Total Cost	$946.1K	$408K
Total Cost / CM Saved	$9.81	$3.29
Total Cost / CI Saved	$8,615	$2,975
Preferred option	X	

[redacted]

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	3/3/22
100% Detailed Engineering Completion	6/30/22
Fully Funded	8/31/23
Construction Start	1/1/23
In Service Date	9/30/23

6. Regulatory Decisions

7. Codes and Standards

8. Risk and Contingencies

Contingencies:

Risk Mitigation:

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	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	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*
B. Geographic Map	*YES*
C. Outage History	*YES*
E. Other	*YES / NO / N/A*
F.	

Attachment "A"

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01950
Durham Rd, Madison Reconductor

Design Alternative CD01950-01

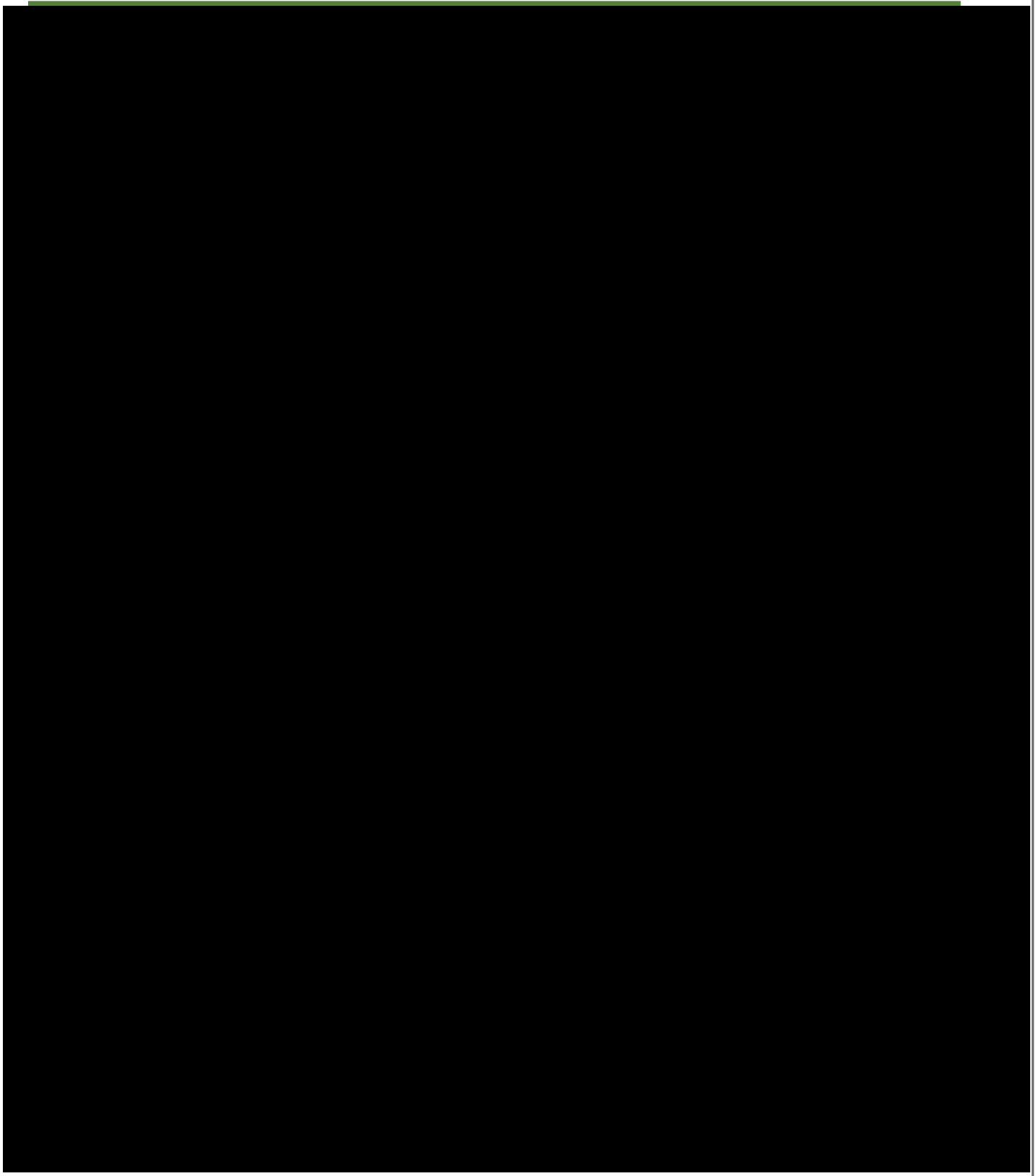
Estimate

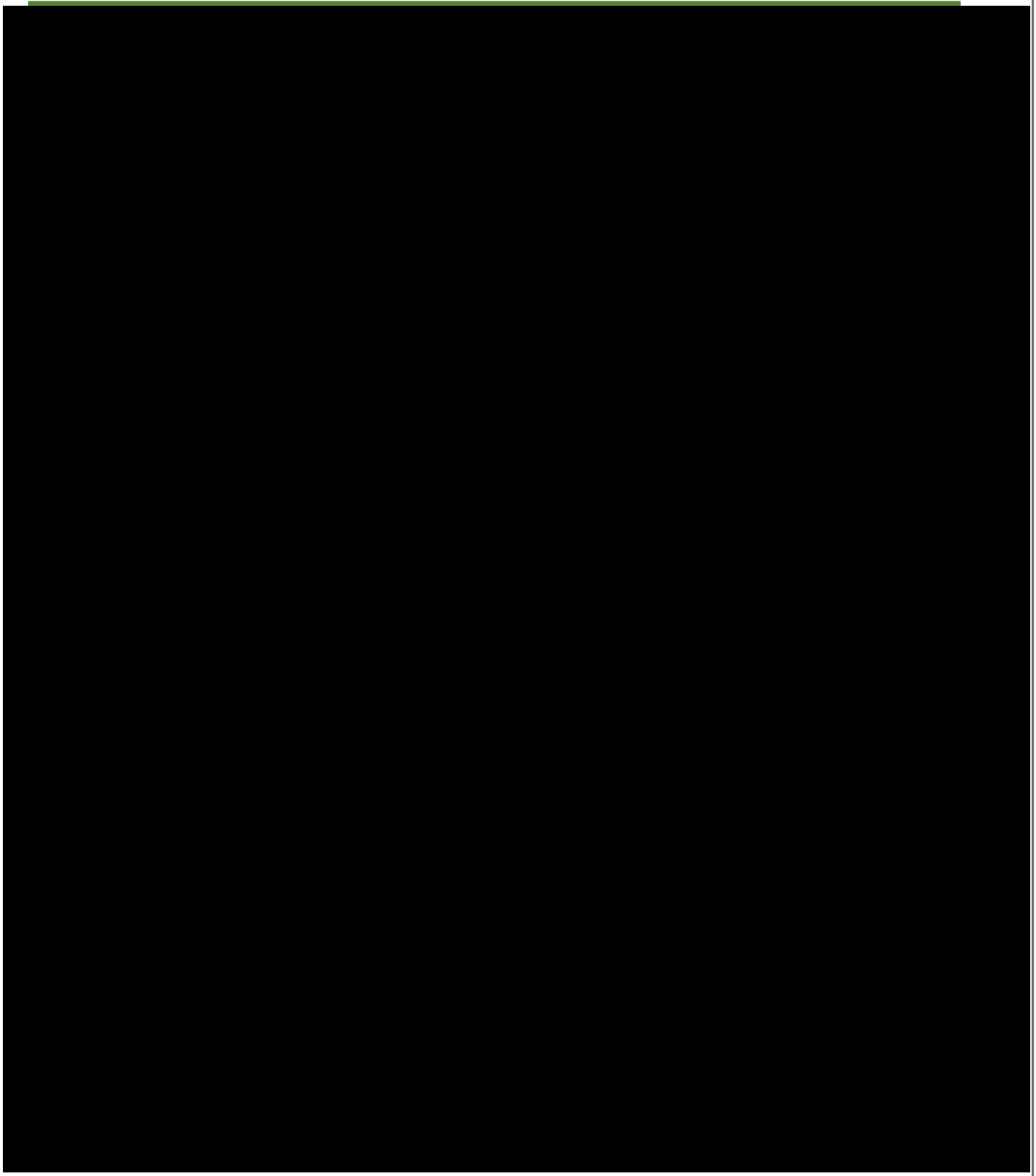
	Preliminary Estimate Summary
Revision Number:	0
Contingency:	20.00%
SubTotal:	$1,018,644
Contingency Amount:	$203,729
Estimate:	$1,222,373
Reimbursement:	$0
Net Amount:	**$1,222,373**

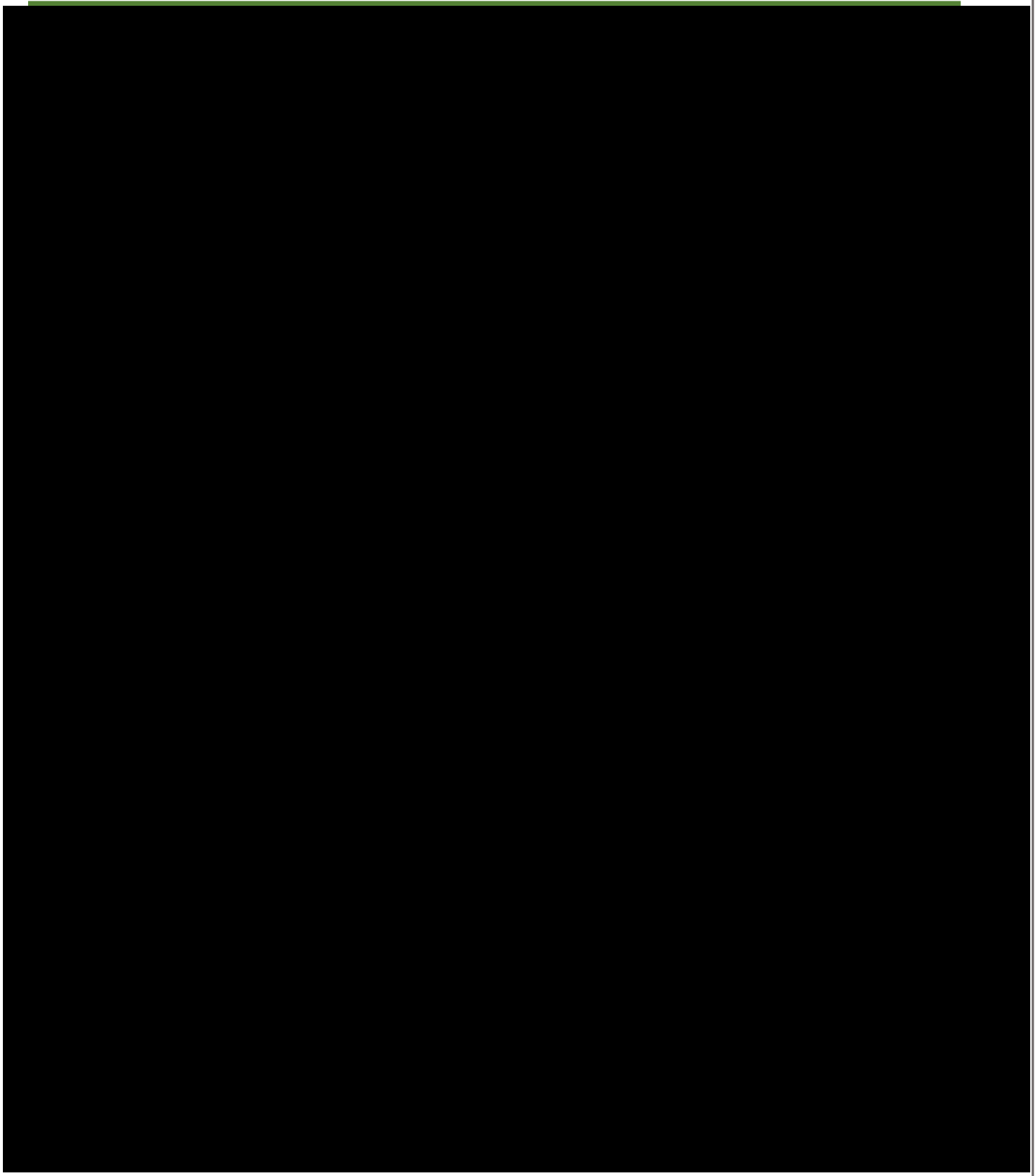
Description:

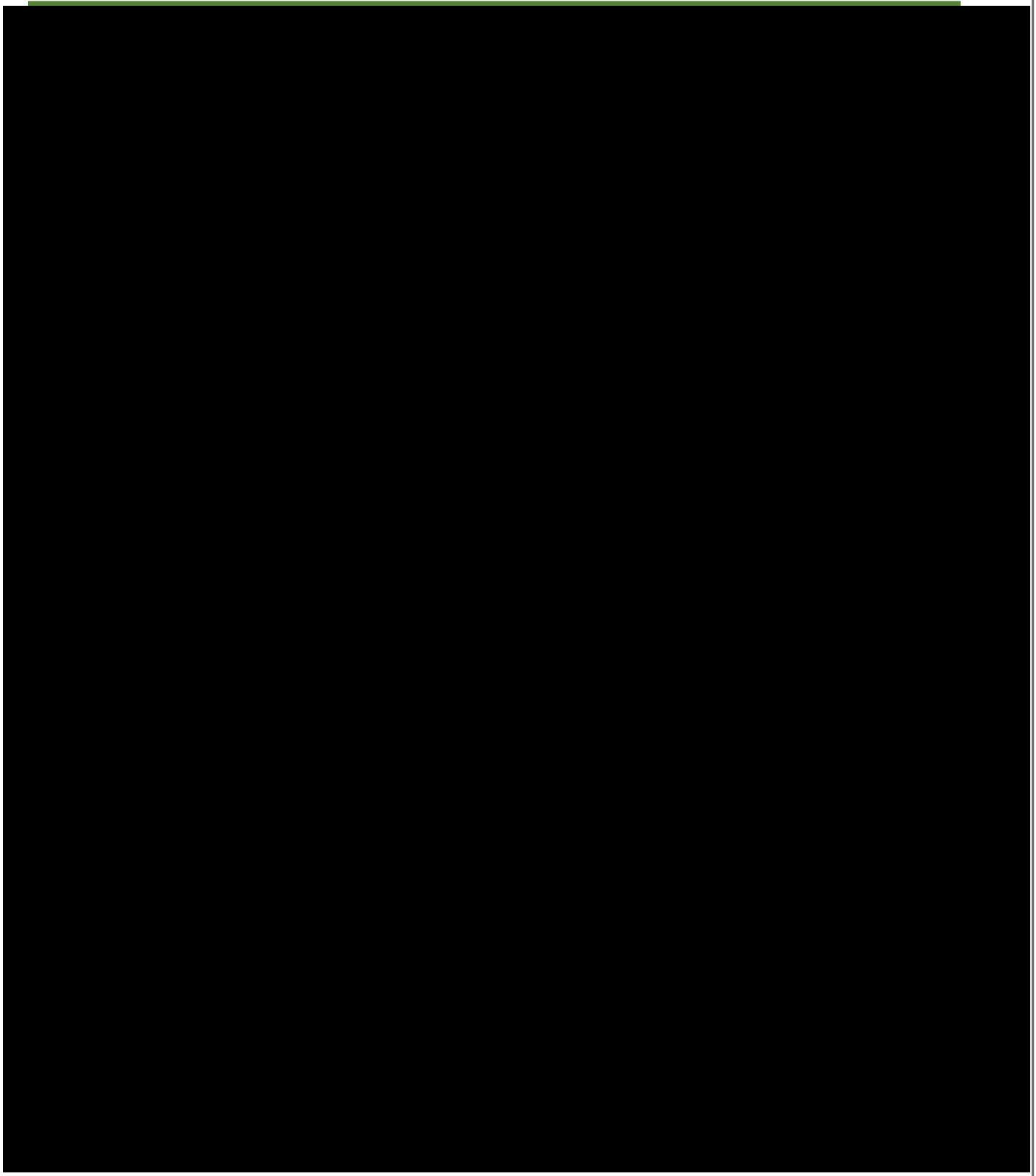
Item Description	CU	Amount
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 5% ot net	16-ALL18	$59,400.00
SECTIONALIZE OH - Cutouts or Arresters - 1ph Fusing 20 xfrms between pole 2252 and pole 2300	16-OH19	$27,424.00
OH WIRE OH - Remove circuit wire (3 phase) Remove 14,000 feet of 2/0 Cu	16-OH37A	$44,800.00
XF OH - OH XF - 1ph Replace 20 Xfmr between poles 2252 and 2300	16-OH45	$42,192.00
POLE OH - POLE - 3ph (CL&P custodian) Replace 23 CL&P poles with 45ft Class 2 poles between poles 225	16-OH14	$107,548.00
OH WIRE OH - Reconductor w/Spacer Cable - 556 kcmil Replace 7,200 ft of 3-phase 2/0 Cu with 556 Spacer Cable	16-OH29	$737,280.00

[redacted]









EVERSOURCE

APS 1 - Project Authorization Policy

Appendix 2
Operations Project Authorization Form

Operations Project Authorization Form

Project Title [redacted] Lateral Reconductor	**Project Number:** CD01950
Date Prepared: 02/28/2022	**Company:** Eversource CT
Organization: EFO	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** Line
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** Yes
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: $1,196K	**Authorization Type:** Partial Funding

Executive Summary

[redacted]
customers. This lateral has experienced 13 outages in the last four years, 11 being tree related, one car vs. pole, and one unknown. [redacted] was last cycle trimmed in 2018 and will be trimmed again this year.

[redacted]

Policy Sponsor: EVP and CFO

Issued 12/31/21
Rev. 6

13

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

EVERSOURCE

APS 1 - Project Authorization Policy

Appendix 2
Operations Project Authorization Form

Project Costs Summary
Note: Dollar values are in thousands

Capital Costs	2023	2024	2025	Total
Internal Labor and Construction Equipment	$45	$0	$0	$45
Outside Services	$426	$0	$0	$426
Materials	$132	$0	$0	$132
Removals	$68	$0	$0	$68
Risk and Contingency	$58	$0	$0	$58
Other	$0	$0	$0	$0
Subtotal	**$729**	**$0**	**$0**	**$729**
Indirect Capital Costs	**2023**	**2024**	**2025**	**Total**
Indirects/Overheads (including benefits)	$443	$0	$0	$443
Capitalized interest or AFUDC, if any	$24	$0	$0	$24
Subtotal	**$467**	**$0**	**$0**	**$467**
Total Capital Costs (Gross)	**$1,196**	**$0**	**$0**	**$1,196**

Technical Justification:

Project Need, Objective, and Justification

[redacted]

Policy Sponsor: EVP and CFO

Issued 12/31/21
Rev. 6

14

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

EVERSOURCE

APS 1 - Project Authorization Policy

Appendix 2
Operations Project Authorization Form

Major Material

7,200 feet of 556 spacer cable.
20 single-phase transformers.
47 Eversource 45 ft class 1 poles.

Background

[redacted]

Policy Sponsor: EVP and CFO

Issued 12/31/21
Rev. 6

15

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

EVERSOURCE

APS 1 - Project Authorization Policy

Appendix 2
Operations Project Authorization Form

Alternatives Considered:
Alternatives were considered (please describe below)

[redacted]

Regulatory Approvals:
No

Project Schedule

Milestone/Phase Name	Estimated Date
100% Engineering Completion	June 2022
Construction Start	August 2022
Testing/Commissioning	October 2022
In Service Date	December 2022

EVERSOURCE

APS 1 - Project Authorization Policy

Appendix 2
Operations Project Authorization Form

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2022	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	2022	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction resources not available to perform the work.	2022	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.	2022	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Storm delays	2022	Medium	If storm activity delays work, we may be forced to use external resources.

References

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



Policy Sponsor: EVP and CFO

Issued 12/31/21
Rev. 6

17

Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

20