EVERSOURCE

Project Approval Form

Project Title: [redacted] **– Backyard Feed**	**Project Number: CD01698**
Date Prepared: 09/14/2023	**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: 12/31/21	
Total Capital Request: $338.8K	**Authorization Type: Full Funding**

1. Executive Summary

On December 13, 2020, Eversource received a letter from the [redacted]. They expressed concerns with the number of outages they have experienced recently, along with concerns regarding Eversource Restoration crews accessing the pole line that runs through their backyards. This backyard pole line does have an easement.

On March 16th, 2021, Eversource held a virtual meeting with Residence Representatives and [redacted]

9/14/23 – Full Funding request. The Partial Funding estimate is $180K, approved on 3/30/21. Full Funding estimate is $338.8K, a difference of $158.8K, or an 88% increase. There was no scope change.

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. Using the estimating units of today, the Partial Funding estimate would be $233.7K, or $105.1K under the Full Funding estimate.

Also, an access way, or 50-foot-wide path, was required to be cleared for accessibility by line trucks to install and remove poles and to run wire and remove old wire, which was not included in the original estimate. This new access way required additional tree trimming and removals, and new low growing trees were planted to restore the area to a more natural environment.

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2022	Year 2023	Year 2024	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	1.5	0.0	0.0	1.5
Outside Services	277.0	0.0	0.0	277.0
Materials	6.6	0.0	0.0	6.6
Removals	0.0	0.0	0.0	0.0
Risk and Contingency	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**285.1**	**0.0**	**0.0**	**285.1**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	53.6	0.0	0.0	53.6
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal – Indirect Costs	**53.6**	**0.0**	**0.0**	**53.6**
Total Gross Capital Costs	**338.8**	**0.0**	**0.0**	**338.8**
Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Total Net Capital Project Costs	**338.8**	**0.0**	**0.0**	**338.8**

Detailed estimate – See Attachment "A"

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

As explained in the executive summary, the residents served from this back-yard right-of-way raised their concerns to the State Senate. Operations and Planning reviewed their concerns and believe the most economical way of improving the reliability is to rebuild the pole line.

b. Project Need

[redacted]

c. Project Scope

[redacted]

4. Alternatives Considered

Project Option Table

Design Criteria	Option [redacted]
Authorization Type	Full
Capital Cost	$338.8K
Expense Cost	$19.2K
Total Cost	$358K
Total Cost / CM Saved	$7.29
Total Cost / CI Saved	$18,687
Preferred option	X

Option 1 – [redacted]

Option 2 – [redacted]

Option 3 – [redacted]

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	3/30/21
100% Detailed Engineering Completion	12/31/21
Fully Funded	9/14/23
Construction Start	3/1/22
In Service Date	12/31/22

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.	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	Low	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	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2022	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2022	Medium	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2022	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	2022	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	2022	Medium	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*

Attachment "A"

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01698 [redacted]

Segment CD01698-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$144,974
Contingency Amount:	$34,794
Estimate:	$179,768
Reimbursement:	$0
Net Amount:	**$179,768**
Description:	[redacted]

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17	[redacted]		$7,019.20
POLE OH - POLE - 1ph (Telephone custodian)	16-OH11			$7,504.00
POLE OH - POLE - 1ph (CL&P custodian)	16-OH13			$23,072.00
OH WIRE OH-Reconductor w/175 Mil Tree Wire-1ph (any gauge)	16-OH25			$38,400.00
OH WIRE OH - Neutral	16-OH31			$8,400.00
OH WIRE OH - Remove circuit wire (1 phase)	16-OH37			$3,840.00
XF OH - OH XF - 1ph	16-OH45			$12,657.60
XF OH - Stepdown - 1ph - on POLE	16-OH49			$6,800.00

Asset & Investment Management System 9/8/2023 Page 5 of 8

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01698
[redacted]

Segment			CD01698-01
EQUIPMENT OH - Conversion - CUTOVER	16-OH58	[redacted]	$4,281.60
TREE OH - Tree Trimming	16-OH61		$35,000.00

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]	[redacted]	464 WESTBROOK	[redacted]		[redacted]	

Reliability Projection

Title:

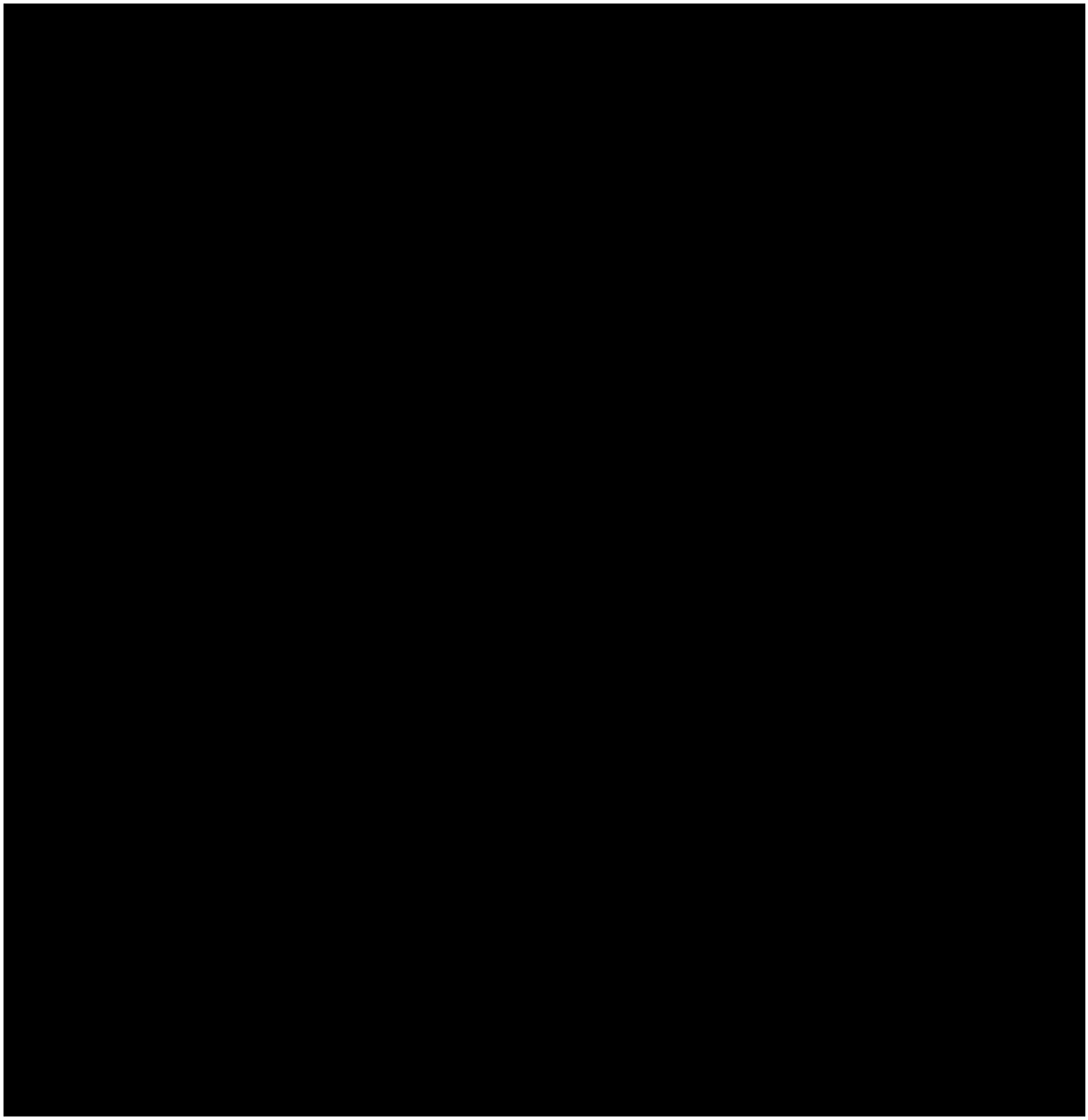
Outage Start Date: 1/1/2017 Outage End Date: 1/1/2021 Years History: 4.00

[redacted]

Attachment "B"

Reconductor and Convert

[redacted]



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Project Authorization Form

Operations Project Authorization Form

Date Prepared: [redacted]	Project Title: [redacted] - Backyard Feed
Company/ies: Eversource CT	Project ID Number: CD01698
Organization: Distribution Electric	Class(es) of Plant: Distribution
Project Initiato[redacted]	Project Category: Line
Project Manage[redacted]	Project Type: Reliability Improvement
Project Sponsor: [redacted]	Project Purpose: Improve Reliability
Estimated in service date: 12-31-2021	If Transmission Project: PTF? N/A
Eng. /Constr. Resources Budgeted?	Capital Investment Part of Original Operating Plan?
Authorization Type: Preliminary	O&M Expenses Part of the Original Operating Plan?
Total Request: $180K	

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary

On December 13, 2020 Eversource received a letter from the [redacted] Westbrook. They expressed their concerns with the number of recent outages they have experienced recently along with Restoration crews accessing the pole line that runs through their backyards. This backyard pole line does have an easement. On March 16th, 2021, Eversource held a virtual meeting with Residence Representatives and [redacted] At the conclusion of this meeting we mutually agreed that Eversource will clear our right-of-way of vegetation, rebuild, reconductor and convert the existing pole line.

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Project Costs Summary
Note: Dollar values are in thousands

	Prior Authorized	2021	20__	20__+	Totals
Capital Additions - Direct	$0	$103	$0	$0	$103
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ___%	$0	$9	$0	$0	$9
Total - Direct Spending	$0	$112	$0	$0	$112
Capital Additions - Indirect	$0	$61	$0	$0	$61
Subtotal Request	$0	$173	$0	$0	$173
AFUDC	$0	$1	$0	$0	$1
Total Capital Request	$0	$175	$0	$0	$175
O&M	$0	$5	$0	$0	$5
Total Request	$0	$180	$0	$0	$180

Financial Evaluation
Note: Dollar values are in thousands

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Project Authorization Form

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$8	$0	$0	$8
Overtime Labor	$1	$0	$0	$1
Outside Services	$77	$0	$0	$77
Materials	$26	$0	$0	$26
Other, including contingency amounts (describe)	$0	$0	$0	$0
Total Direct Costs	**$112**	**$0**	**$0**	**$112**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$61	$0	$0	$61
Capitalized interest or AFUDC, if any	$1	$0	$0	$1
Total Indirect Costs	**$62**	**$0**	**$0**	**$62**
Total Capital Costs	**$174**	**$0**	**$0**	**$174**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$174**	**$0**	**$0**	**$174**
Total O&M Project Costs	**$6**	**$0**	**$0**	**$6**
Total Project Cost	**$ 180**	**$ -**	**$ -**	**$ 180**

Note: Explain unique payment provisions, if applicable

Technical Justification:

Project Need Statement

[redacted]

Project Objectives

[redacted]

Project Scope

[redacted]

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Project Authorization Form

[redacted]

Major Material:

- **1 step-up transformer – 14400/24940Y - -4800/8320Y w/taps (SC#543864)**
- **1600ft of 175mil tree wire**
- **1000 1/0 ACSR neutral wire**

Background / Justification

As explained in the executive summary, the residents served from this back-yard right-of-way raised their concerns to the State Senate. Operations and Planning reviewed their concerns and feel the most economical way of improving these residence reliabilities is to rebuild the old pole line.

Business Process and / or Technical Improvements:
Improve reliability to 17 residents on [redacted] Westbrook.

Alternatives Considered with Cost Estimates

Two options were considered but dismissed:

1. [redacted]
2.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Obtained Preliminary approval	3-25-2021
Permission Residence for Trimming	4-15-2021

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Milestone/Phase Name	Estimated Completion Date
Clear Vegetation	5-1-2021
Install Poles	6-1-2021
Run Wire	7-1-2021
Cut over services	7-15-2021
Convert	8-1-2021
Remove all Infrastructures	8-15-2021
Restore and Damage to ground and install plantings.	9-1-2021

Regulatory Approvals
N/A

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Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2021	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	2021	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction resources not available to perform the work.	2021	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.	2021	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Storm delays	2021	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2021	Low	Schedule work to minimize system abnormal time. Most of this work will require system to be abnormal for any extended period of time.

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Project Authorization Form

References

Letter.pdf
CD01698 PAF Calculator.xlsm
Pics.pdf
CD01698_project_needs_statement.pdf
Detail of Events.pdf

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

map.pdf