EVERSOURCE

Project Approval Form

Project Title: [redacted] Reliability Improvements	Project Number: CD02401
Date Prepared: 06/07/2024	Company: Eversource CT
Organization: Distribution Engineering	Project Category: TRMSN DISTR RELIABILTY PERFRM
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: 12/31/24	Town: Sprague. [redacted]
Total Capital Request: $1,862.6K	Authorization Type: Full Funding

1. Executive Summary

Project CD02401 is part of a series of Distribution projects that address aging infrastructure and reliability issues on a section of the [redacted]

[redacted]

[redacted]

The partial engineering estimate for this project was approved for $1.3M in Feb 2024. However, a constructability review conducted by field operations concluded that the partial estimate did not include the expansion of the [redacted] which includes a revised increase of labor, additional rock drilling, and tree trimming. Therefore, the full funding request for this project is **$1,862.6K** and reflects a 38.8% increase from the partial request due to the following reasons:

- Additional 2990 man-hours for internal crews from the Danielson AWC. Expansion of the [redacted] the [redacted]
- Additional tree trimming from Pole [redacted] Expansion of the [redacted]
- Additional Rock Drilling by Coleman Drilling to replace 13 decayed Frontier Poles.

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2024	Year 2	Year 3+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	314.7	0.0	0.0	314.7
Outside Services	297.3	0.0	0.0	297.3
Materials	140.2	0.0	0.0	140.2
Removals	99.1	0.0	0.0	99.1
Risk and Contingency	129.9	0.0	0.0	129.9
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**981.2**	**0.0**	**0.0**	**981.2**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	881.4	0.0	0.0	881.4
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal – Indirect Costs	**881.4**	**0.0**	**0.0**	**881.4**
Total Gross Capital Costs	**1,862.6**	**0.0**	**0.0**	**1,862.6**
Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Total Net Capital Project Costs	**1,862.6**	**0.0**	**0.0**	**1,862.6**

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted]

b. Project Need

[redacted]

c. Project Scope

[redacted]

Four Year History	CEMI-7	CEMI-8	CEMI-9	CEMI-10	CEMI-24
Customers Before		21		26	63
Customers After	21	89			

4. Alternatives Considered

Project Option Comparison

	Option	
[redacted]		
Authorization Type	Full	Partial
Capital Cost	$1,862K	$369K
Expense Cost	$745K	$92.1K
Total Cost	$2,607K	$460.7K
Total Cost / MVA added	$95.74	$727.65
Total Cost / CM Saved	$44,027	$177,868
Preferred option	X	

[redacted]

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	1//25/24
100% Detailed Engineering Completion	3/30/24
Fully Funded	4/1/24
Construction Start	5/1/24
In Service Date	12/31/24

6. Regulatory Decisions

N/A

7. Codes and Standards

N/A

8. Risk and Contingencies

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2024	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	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.
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	Medium	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	Medium	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.

9. References

References
1. Trip Saver Instructions 4-10-23
2. DSEM 10.523 Transformer Fusing
3. Project CD02195 WPC 11F13
4. DSEM 06.201 Construction Guidelines
5. DSEM 06.202 Primary Conductor Types

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

Attachment	Included in Submittal?
A1. Partial Funding PAF Form	*YES*
A. Cost Estimate	*YES*

B. Geographic Map	*YES*
C. Outage History	*YES*
D. Need Statement	*YES*
E. One Lines	*YES*

Attachment A – Cost Estimate

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02401
[redacted] Reliability Improvements

Work Classification

Category: Line
Type: REL1
Type Desc: RELIABILITY IMPROVE SPEC PROJ
Work Type:

Ownership / Management

AWC: East Hampton
Statewide: No
Owner: [redacted]
Manager: [redacted]

Project Information

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

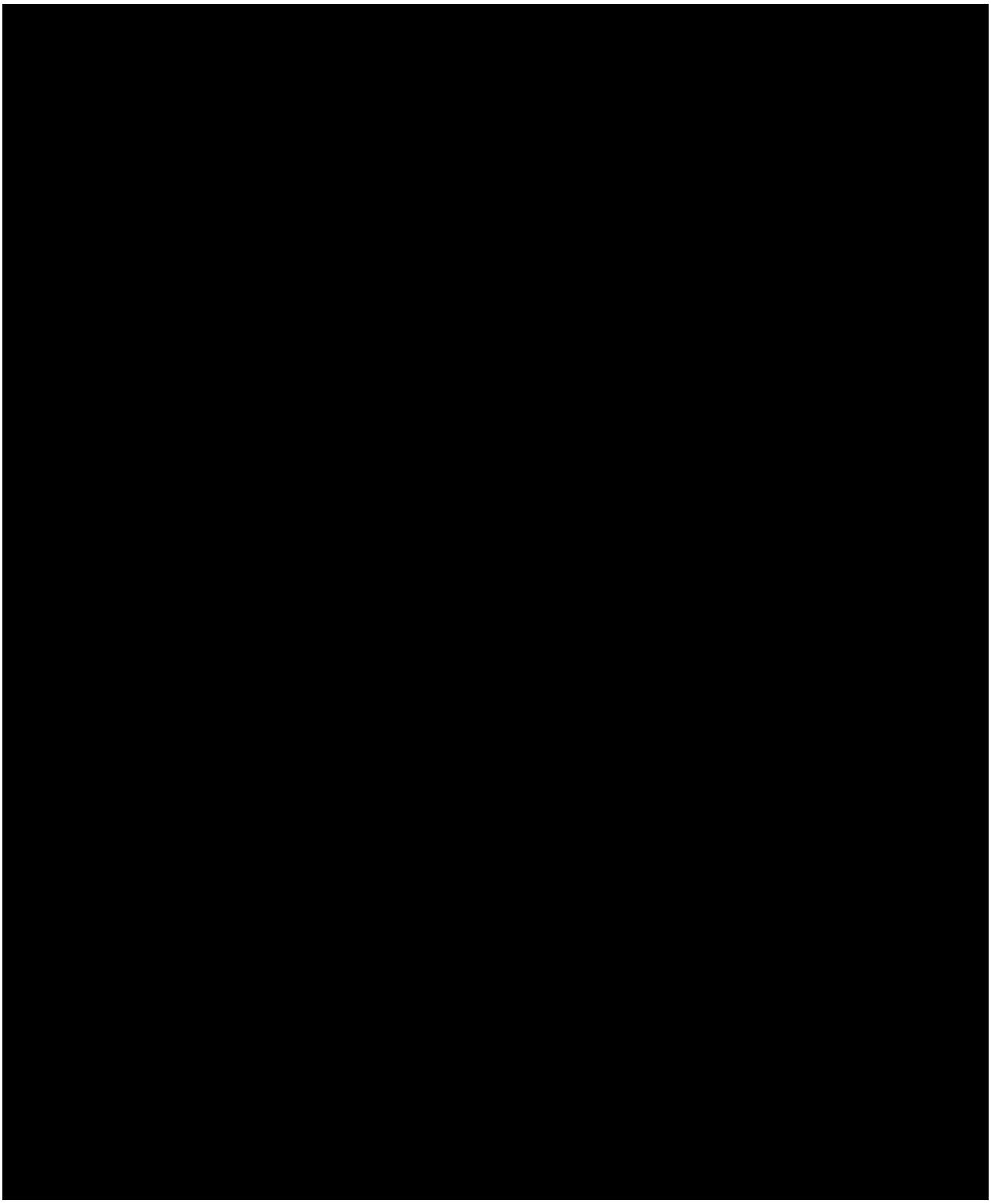
Budget Summary - Preferred Option all options

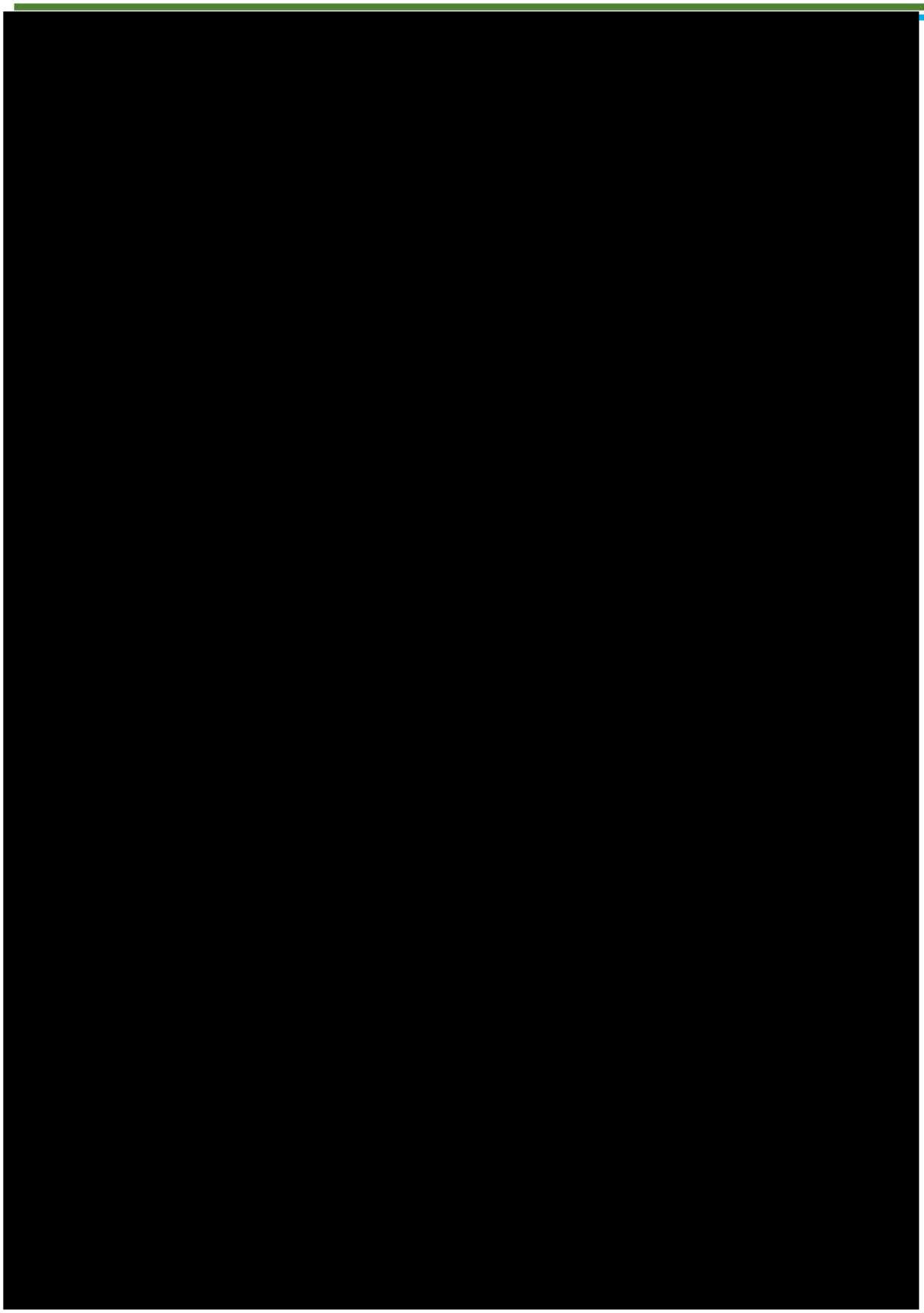
2024

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
4	[redacted] three phase reconductoring	Prelim	0	20%	$382,499	$382,499
3	Tree trimming backbone on [redacted]	Prelim	0	20%	$60,001	$60,001
2	reconductoring [redacted]	Prelim	0	20%	$778,572	$778,572
1	[redacted] Conversion	Prelim	0	20%	$551,038	$551,038
				2024 Total:	$1,772,109	$1,772,109
				Total Project:	$1,772,109	$1,772,109

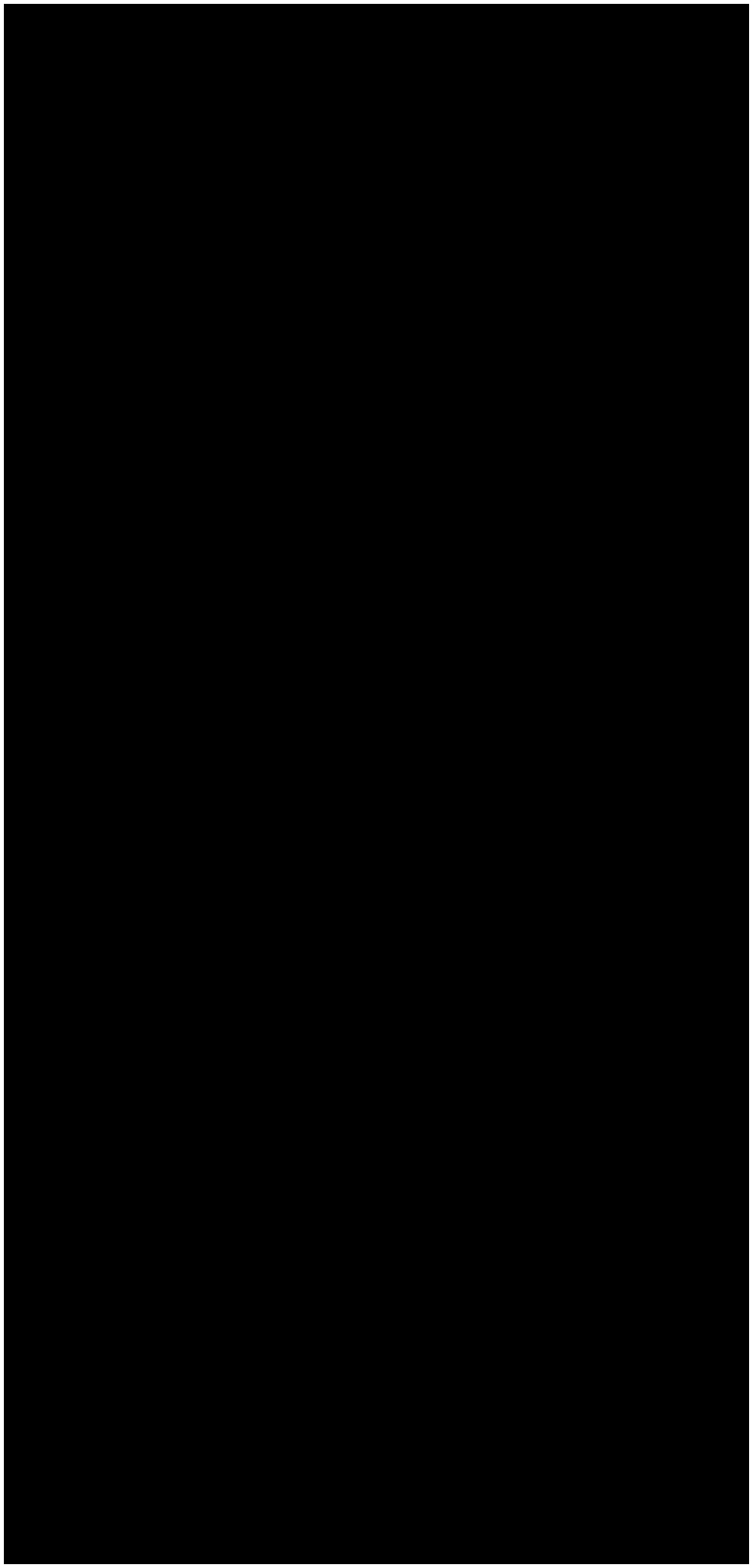
Asset & Investment Management System 2/13/2024 Page 1 of 11

Attachment B – Geographic Map





Attachment C – Outage History





Project Authorization Checklist

Project Initiator: [redacted]

Project #: CD02401

Project Title: [redacted] Reliability Improvements

Funding Type:

☒ Partial PAF ☐ Full PAF

Project Alternatives:

☒ Options considered ☒ Explanation why alternatives were not selected

☐ NWA considered ☒ Explanation why preferred option was selected

Project Requirements (Review all, and check all that apply):

☐ Easement

☒ TD007

☒ Trimming
☒ Estimate Received

☐ ROW trimming
☐ Estimate Received

☐ Environmental Review Initiated

☐ Review with Operations

☒ Pole permits (state roads)

☐ Underground permits

☐ P&C Settings

☒ Material long lead

☐ Synergi load flow

PAF Documents Attached:

☒ One Lines ☒ Geographical Map ☐ Load Projections ☐ Estimates

☐ Other Documents (List):

PAF Review Complete:

☐ Lead Reviewed by: [redacted] Date: 01/20/24

☐ Manager Reviewed by: _____ Date: _____

Attachment E – One Lines





EVERSOURCE

Project Approval Form

Attachment A1 – Partial Funding PAF Form

Project Title: [redacted] **Reliability Improvements**	**Project Number: CD02401**
Date Prepared: 01/20/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** TRMSN DISTR RELIABILTY PERFRM
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: 12/31/24	Circuit: [redacted]
Total Capital Request: $1,341.5K	**Authorization Type:** Partial Funding

1. Executive Summary

[redacted]

This project is in the Eastern Region, Danielson Area Work Center, in the town of Sprague.

[redacted]

[redacted]

[redacted]

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2024	2025	2026	Total
Internal Labor and Construction Equipment	471.4	0.0	0.0	471.4
Outside Services	74.5	0.0	0.0	74.5
Materials	190.7	0.0	0.0	190.7
Removals	167.8	0.0	0.0	167.8
Other	6.5	0.0	0.0	6.5
Risk and Contingency	0.0	0.0	0.0	0.0
Subtotal	**910.9**	**0.0**	**0.0**	**910.9**

Indirect Capital Costs	2024	2025	2026	Total
Indirects/Overheads (including benefits)	403.9	0.0	0.0	403.9
Capitalized interest or AFUDC, if any	26.7	0.0	0.0	26.7
Subtotal	**430.6**	**0.0**	**0.0**	**430.6**
Total Capital Costs (Gross)	**1,341.5**	**0.0**	**0.0**	**1,341.5**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net)	**1,341.5**	**0.0**	**0.0**	**1,341.5**

3. Technical Justification

a. Background

[redacted]

b. Project Need

[redacted]

c. Project Scope

[redacted]

Four Year History	CEMI-7	CEMI-8	CEMI-9	CEMI-10	CEMI-24
Customers Before		21		26	63
Customers After	21	89			

4. Alternatives Considered

Project Option Comparison

Design Criteria	Option

[redacted]

Authorization Type	Partial	Partial
Capital Cost	$1,074K	$369K
Expense Cost	$268K	$92.1K
Total Cost	$1,342K	$460.7K
Total Cost / CM Saved	$95.74	$727.65
Total Cost / CI Saved	$44,027	$177,868
Preferred option	X	

[redacted]

5. Project Schedule

Milestone/Phase Name	Estimated Date
Initial Approval	1//25/24
100% Detailed Engineering Completion	3/30/24
Fully Funded	4/1/24
Construction Start	5/1/24
In Service Date	12/31/24

6. Regulatory Decisions

7. Codes and Standard

8. Risk and Contingencies

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2024	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	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.
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	Medium	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	Medium	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.

9. References

References
1. Trip Saver Instructions 4-10-23
2. DSEM 10.523 Transformer Fusing
3. Project CD02195 WPC [redacted]
4. DSEM 06.201 Construction Guidelines
5. DSEM 06.202 Primary Conductor Types

Attachment A – Cost Estimate

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02401

[redacted] Reliability Improvements

Work Classification

Category: Line
Type: REL1
Type Desc: RELIABILITY IMPROVE SPEC PROJ
Work Type:

Ownership / Management

AWC: East Hampton
Statewide: No
Owner: [redacted]
Manager: [redacted]

Project Information

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

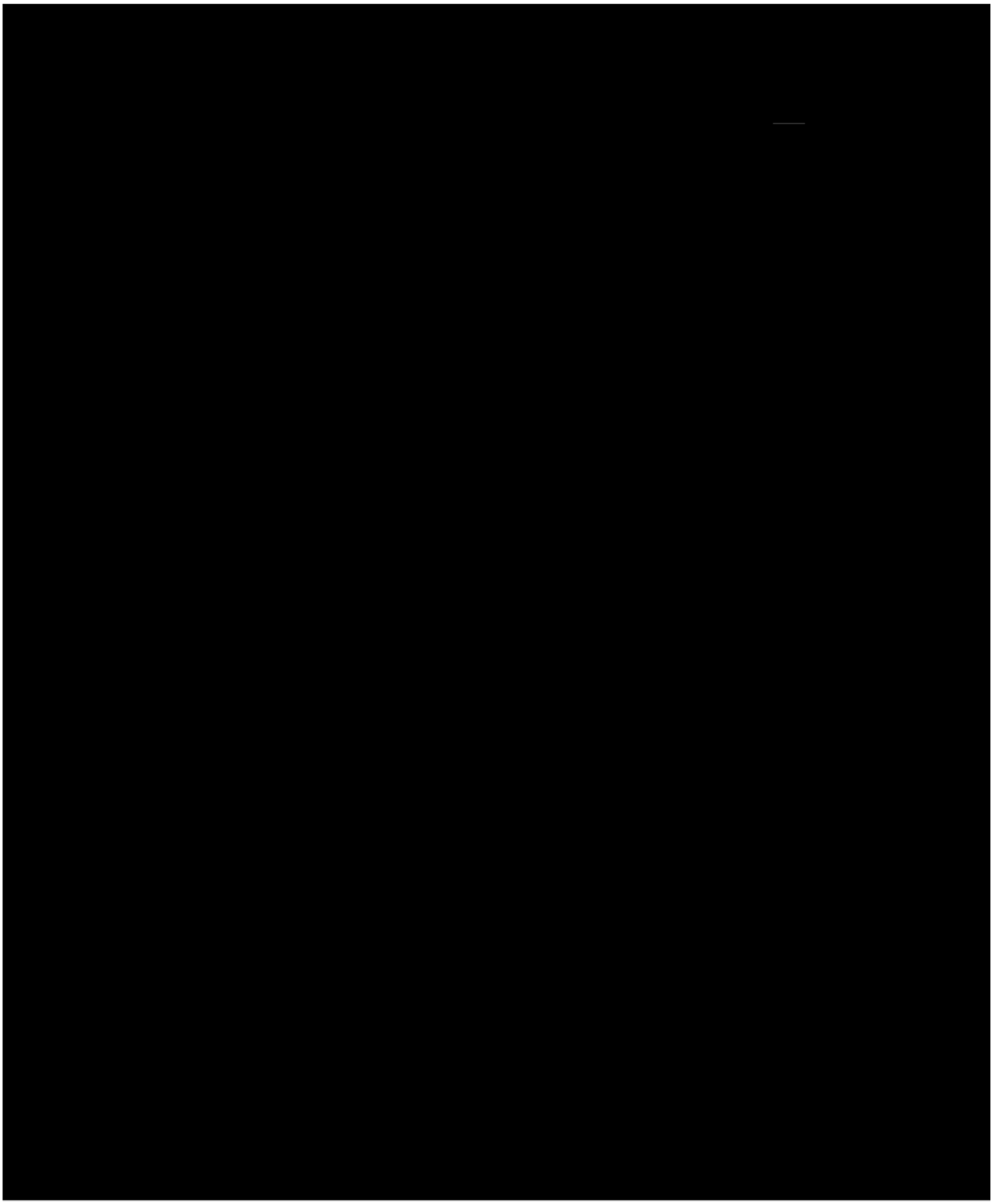
Budget Summary - Preferred Option all options

2024

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
4	[redacted]three phase reconductoring	Prelim	0	20%	$382,499	$382,499
3	Tree trimming backbone on [redacted]	Prelim	0	20%	$60,001	$60,001
2	reconductoring [redacted]	Prelim	0	20%	$778,572	$778,572
1	[redacted]Conversion	Prelim	0	20%	$551,038	$551,038
				2024 Total:	$1,772,109	$1,772,109
				Total Project:	$1,772,109	$1,772,109

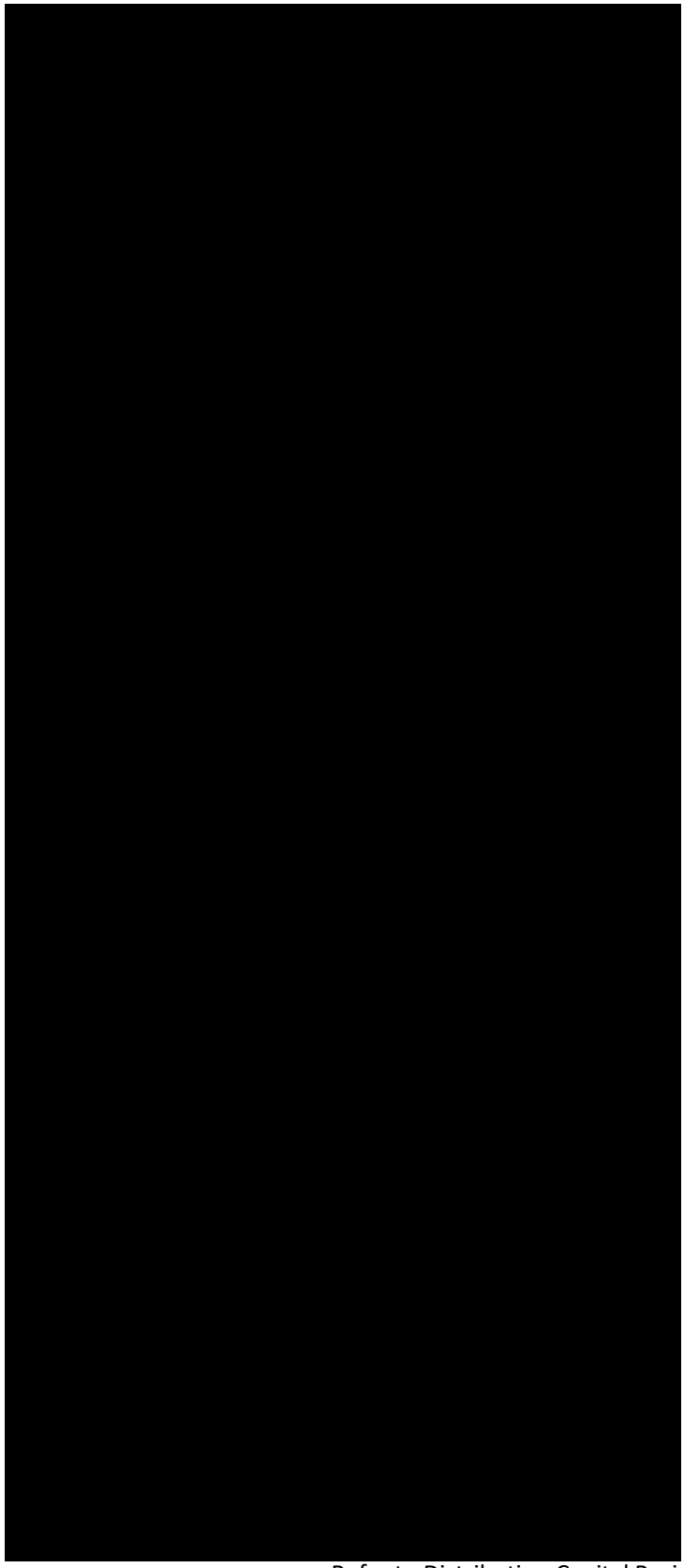
Asset & Investment Management System 2/13/2024 Page 1 of 11

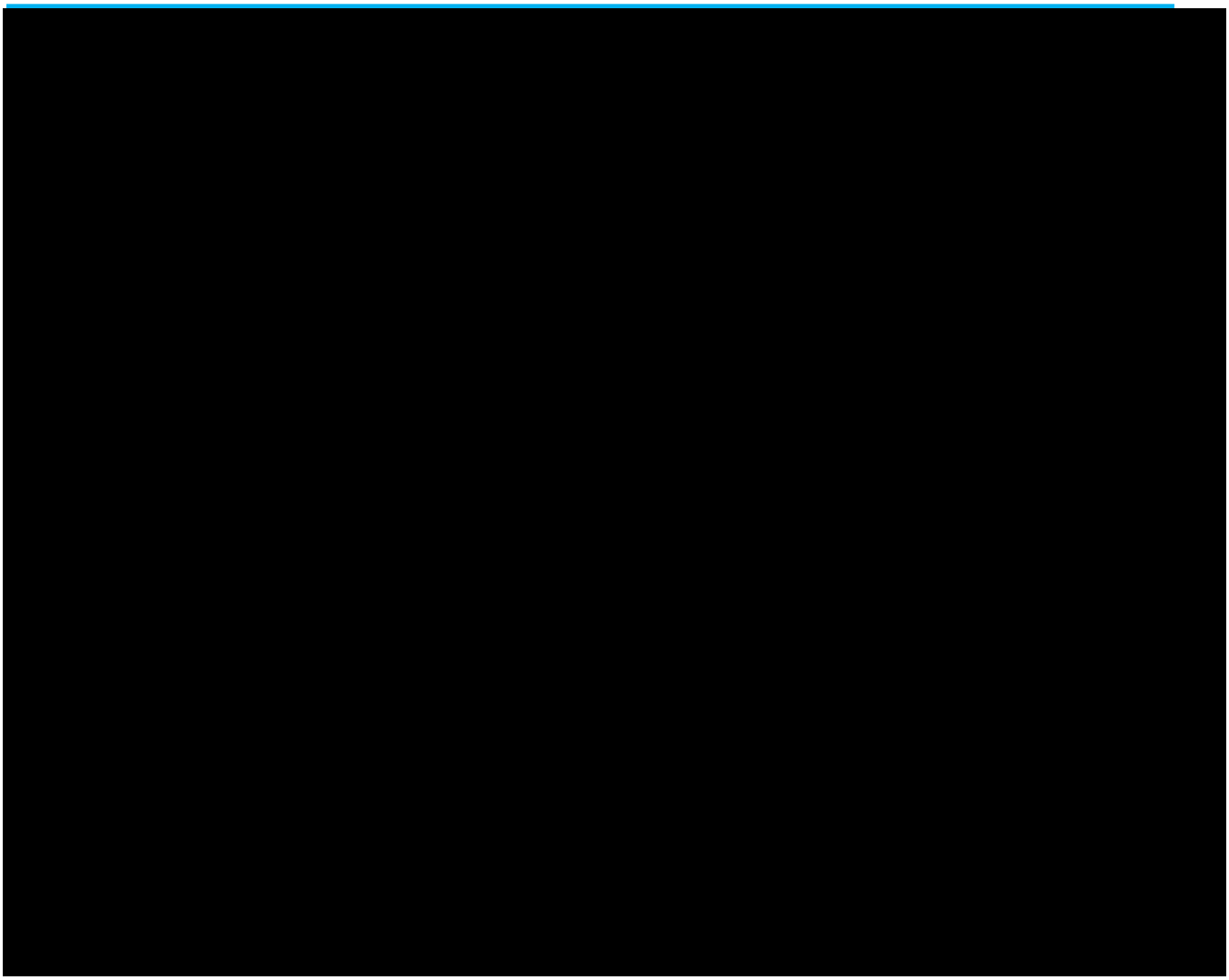
Attachment B – Geographic Map



[redacted]

Attachment C – Outage History





Project Authorization Checklist

Project Initiator: [redacted]

Project #: CD02401

Project Title: [redacted] Reliability Improvements

Funding Type:

☒ Partial PAF ☐ Full PAF

Project Alternatives:

☒ Options considered ☒ Explanation why alternatives were not selected

☐ NWA considered ☒ Explanation why preferred option was selected

Project Requirements (Review all, and check all that apply):

☐ Easement

☒ TD007

☒ Trimming
- ☒ Estimate Received

☐ ROW trimming
- ☐ Estimate Received

☐ Environmental Review Initiated

☐ Review with Operations

☒ Pole permits (state roads)

☐ Underground permits

☐ P&C Settings

☒ Material long lead

☐ Synergi load flow

PAF Documents Attached:

☒ One Lines ☒ Geographical Map ☐ Load Projections ☐ Estimates

☐ Other Documents (List):

PAF Review Complete:

☐ Lead Reviewed by: [redacted] Date: 01/20/24

☐ Manager Reviewed by: _____ Date: _____

Attachment E – One Lines



Project Approval Form

