EVERSOURCE

Project Approval Form

Project Title: [redacted]	**Project Number: CD02504**
Date Prepared: 06/26/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** Emergent Equipment Failures - Line
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** No
Project Manager: [redacted]	**Emergency Related Request?** Yes
Project Sponsor: [redacted]	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 12/31/2025	**NWS Excludable:** ☒ Yes ☐ No
Total Capital Request: $2,715.4K	**Authorization Type:** Full Funding

1. Executive Summary

[redacted]

- Project Location
  - Division: Central
  - District: Tolland AWC
  - City/Town: Enfield, Suffield & Windsor Locks

The partial funding estimate for this project was $3,656.3K capital and was approved at the 9/13/2024 CTPAC. The full funding request is $2,715.4K capital. The difference in cost equates to $940.9K, a decrease of 26% of the cost of the project. There is no change in scope.

The cost difference between the partial and full funding requests were primarily due to one factor. The project estimated a total cost of $996K for ordering and installing 10 sets of 27.6/23 kV autotransformers. The autotransformers were ordered under this project due to the long lead times of 18 to 24 months. However, the installation of the autotransformers will not be completed under this project and therefore the majority of the $996K will be charged to a future project to be coordinated with the conversion of the remaining Windsor Locks 14K 27.6 kV facilities to 23 kV.

2. Project Cost Summary

Note: Dollar values are in thousands.

Financial Evaluation ($000's)

Capital Costs	2025	Total
Internal Labor and Construction Equipment	293.8	293.8
Outside Services	62.3	62.3
Materials	705.3	705.3
Removals	123.7	123.7
Risk and Contingency	189.4	189.4
Other	0.0	0.0
Subtotal	**1,374.6**	**1,374.6**

Indirect Capital Costs	2025	Total
Indirects/Overheads (including benefits)	1,340.8	1,340.8
Capitalized interest or AFUDC, if any	0.0	0.0
Subtotal	**1,340.8**	**1,340.8**
Total Capital Costs (Gross)	**2,715.4**	**2,715.4**

Less Total Customer Contribution	**0.0**	**0.0**

Project Costs (Net of Reimbursement)	**2,715.4**	**2,715.4**

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

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

b. Project Need

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

c. Project Scope

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

[redacted]

Major Material:

- 5 Reclosers
- 6,200 ft of 750 Al aerial cable
- 1,400 ft of 1000 Cu underground cable
- 30 (10 sets) 27.6/23 kV 3000 kVA autotransformers

4. Alternatives Considered

NWS Exclusion Criteria (select all that apply)

☐ Project cost < $250k	☐ New Service
☐ CDOT Relocation	☐ Generator interconnection project
☒ Maintenance, Asset condition or safety related*	

*Maintenance, Asset condition or safety related justification:

[redacted]

Project Option Comparison

	Options	
[redacted]		
Authorization Type	Full	Full
Total Cost	$2,866.7K	$0.0K
Capital Cost	$2,715.4K	$0.0K
Expense Cost	$151.3K	$0.0K
Preferred option	X	

Option Summary

Option 1 ($6.7M total with $2.7M under Project CD02504 & $4.0M under a future project) – [redacted]

Preferred: Option 1 to [redacted]

[redacted] including this one at a total cost of $2.4M and a second one to be presented when the Windsor Locks [redacted] The estimated cost of the second Distribution Line project is $4.3M for a total Distribution Line cost of $6.7M.

The preferred option requires the construction of a [redacted]

Option 2 ($0.0M) – Continue to maintain the Enfield – Windsor Locks 27.6 kV System.

[redacted]

In total, to replace all 6 aged transformers is estimated to cost $28M. There would be no Distribution Line cost with this option.

5. Project Schedule

Milestone/Phase Name	Estimated Date
Partial Approval	September 2024
100% Detailed Engineering Completion	May 2025
Fully Funded	July 2025
Construction Start	August 2025
In Service Date	December 2025

6. Regulatory Decisions

N/A

7. Codes and Standards

N/A

8. Risk and Contingencies

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk / Mitigation
Actual cost higher than estimated due to scope changes.	2025	Medium	Underground work has more risk of overruns
Internal construction resources not available to perform the work.	2025	High	Plan external resources to complete this project. Use competitive bidding to ensure lowest outside labor cost.
Internal engineering resources not available to perform the work.	2025	Medium	Internal resources tentatively planned to support the project.
Materials Shortage or long lead times	2025	High	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
System abnormal configuration	2025	Medium	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.
Wetlands / Environmentally sensitive area	2025	Low	No wetlands in the area where work is to be performed. Use of mats and specialty equipment, only work during certain times of the year.

9. References

N/A

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Geographic Map (Before & After)	*YES*
C. 27.6 kV One-Line (Before & After)	*YES*
D. 23 kV One-Line (Before & After)	*YES*
E. Load Data (Before & After)	*YES*
F. Partial Funding PAF	*YES*
G. Project Authorization Checklist	*YES*

Attachment A: Cost Estimate

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02504 [redacted]

Design Alternative CD02504-04

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$1,861,266
Contingency Amount:	$446,704
Estimate:	$2,307,970
Reimbursement:	$0
Net Amount:	**$2,307,970**
Description	[redacted]

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$9,124.96
SECTIONALIZE OH - Recloser - 3ph	23-OH38			$187,159.44
SECTIONALIZE OH - Recloser Control - setting changes only	23-OH39A			$6,351.28
POLE DB/UG - Riser - 3ph	23-UG146			$56,130.88
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18			$180,000.00
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu 1000 Cu getaway Cable	23-UG114B			$99,840.00
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu 1000 Cu UG cable on Main St	23-UG114B			$74,880.00
OTHER OTHER 30% Contractor adder	23-ALL14			$429,523.00
OH WIRE OH-Install Aerial Cable-existing poles (any gauge)	23-OH36			$741,520.00

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02504 [redacted]

Design Alternative CD02504-04

750 Al aerial cable		[redacted]	
OTHER	23-ALL14		$50,000.00
OTHER Enable [redacted] switchgear position at [redacted]	S/S		
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph Replace 300 amp solids with 900 amp disconnects	23-OH43		$26,736.32

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02504 [redacted]

Design Alternative CD02504-05

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$231,065
Contingency Amount:	$55,456
Estimate:	$286,521
Reimbursement:	$0
Net Amount:	**$286,521**
Description:	12C48 OH work including reclosers

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$4,562.48
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18			$14,000.00
SECTIONALIZE OH - Recloser Control - setting changes only	23-OH39A			$19,053.84
SECTIONALIZE OH - Recloser - 3ph 2 new SR's on Poles 605 and 27008	23-OH38			$124,772.96
OTHER OTHER 30% Contractor adder	23-ALL14			$53,323.00
OTHER OTHER Install taps at pole 604 from spacer cable to 556 TW on Mather St	23-ALL14			$5,000.00
OTHER OTHER oper[redacted]Recloser and lift taps	23-ALL14			$3,000.00
SECTIONALIZE OH - Remove Recloser (any) Remove [redacted]ecloser; keep sectionalizing disconnects	23-OH42			$7,352.80

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02504 [redacted]

Design Alternative CD02504-12

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$803,400
Contingency Amount:	$192,816
Estimate:	$996,216
Reimbursement:	$0
Net Amount:	$996,216
Description:	Order 10 sets of 3-3000 kVA autos

Item Description	CU	$ / Per	Qty	Amount
EQUIPMENT	23-OH48	[redacted]		$803,400.00
OH - Regulators, 3-1ph - on RACK 3-3000 kVA 27.6/23 kV autotransformers on a rack				

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02504 [redacted]

Design Alternative CD02504-13

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$56,319
Contingency Amount:	$13,517
Estimate:	$69,835
Reimbursement:	$0
Net Amount:	$69,835
Description:	[redacted]

Item Description	CU	[redacted]	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17		$4,562.48
SECTIONALIZE OH - Recloser Control - setting changes only	23-OH39A		$19,053.84
OTHER OTHER 30% contractor adder	23-ALL14		$12,997.00
OTHER OTHER Lift taps at poles 34841 and 27363 to permanently deenergize Suffield	23-ALL14		$5,000.00
SECTIONALIZE OH - Remove Recloser (any) Poles 27609 and 19946	23-OH42		$14,705.60

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Attachment B: Geographic Map (Before)





Attachment C: 27.6 kV One-line (Before)



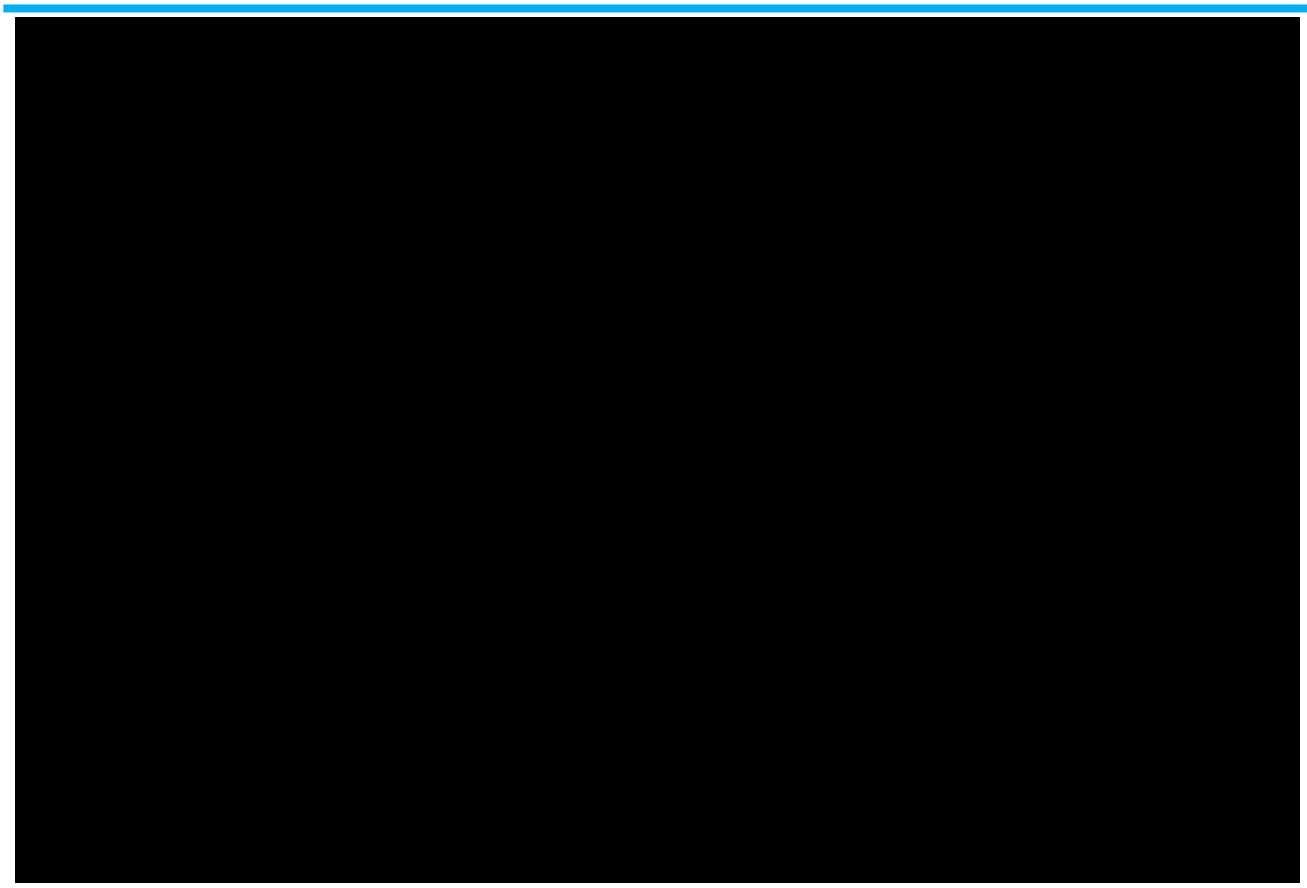
Attachment C: 27.6 kV One-line (After)

[redacted]

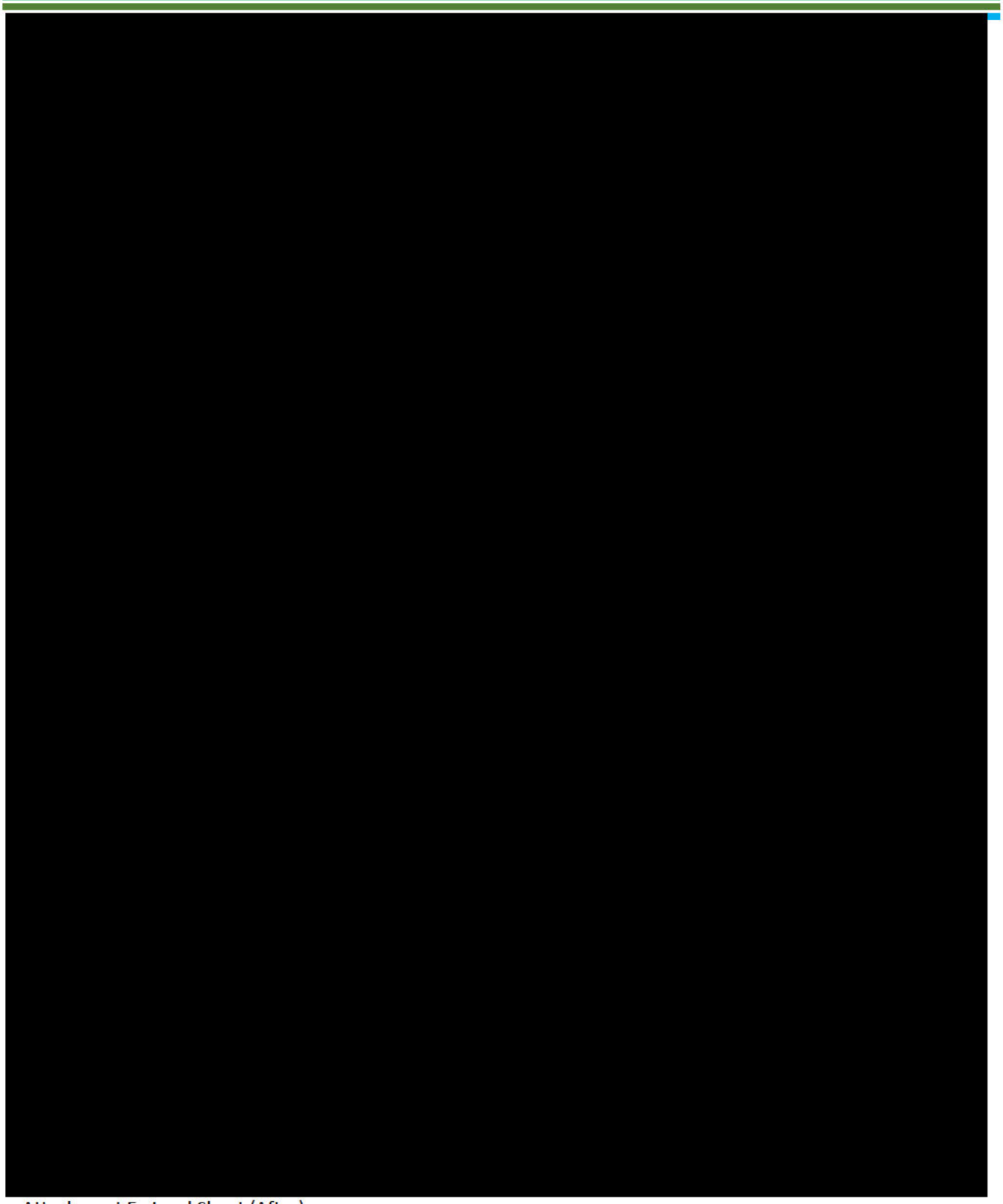
Attachment D: 23 kV One-line (Before)



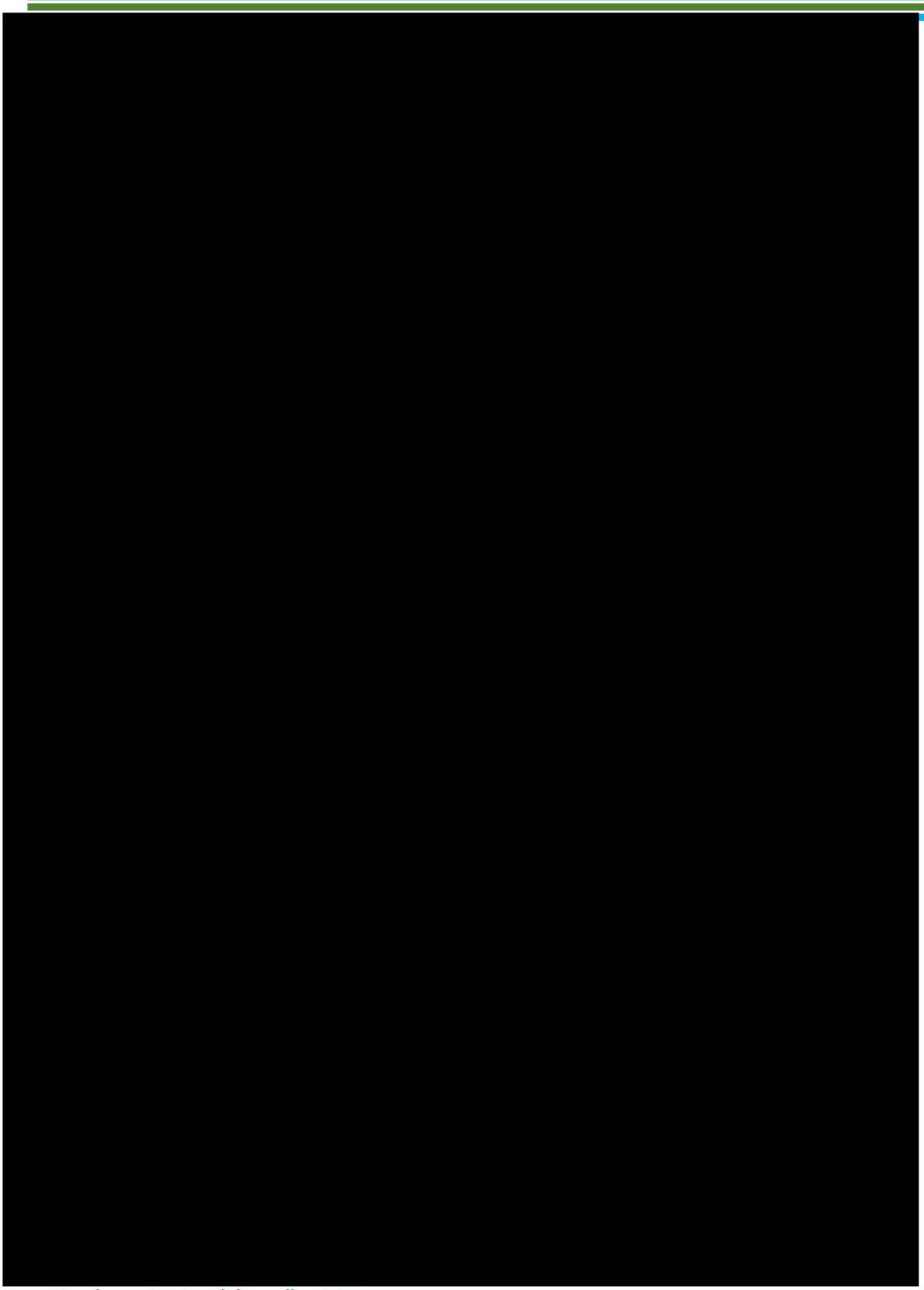
Attachment D: 23 kV One-line (After)



Attachment E: Load Sheet (Before)



Attachment E: Load Sheet (After)



Attachment F: Partial Funding PAF

EVERSOURCE

Project Approval Form

Project Title: [redacted]	Project Number: CD02504
Date Prepared: 08/07/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** S/S ELIMINATION-LINE WORK
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** Yes
Project Manager: [redacted]	**Emergency Related Request?** Yes
Project Sponsor: [redacted]	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 12/31/2025	
Total Capital Request: $3.656K	**Authorization Type: Partial Funding**

11. Executive Summary

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted] Project Location

- Division: Central

- District: Tolland AWC
- City/Town: Enfield, Suffield & Windsor Locks

12. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2025	2026	2027+	Total
Internal Labor and Construction Equipment	306.2	0.0	0.0	306.2
Outside Services	106.7	0.0	0.0	106.7
Materials	1,568.0	0.0	0.0	1,568.0
Removals	325.2	0.0	0.0	325.2
Other	7.4	0.0	0.0	7.4
Risk and Contingency	0.0	0.0	0.0	0.0
Subtotal	**2,313.6**	**0.0**	**0.0**	**2,313.6**

Indirect Capital Costs	2025	2026	2027+	Total
Indirects/Overheads (including benefits)	756.1	0.0	0.0	756.1
Capitalized interest or AFUDC, if any	586.6	0.0	0.0	586.6
Subtotal	**1,342.7**	**0.0**	**0.0**	**1,342.7**
Total Capital Costs (Gross)	**3,656.3**	**0.0**	**0.0**	**3,656.3**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net)	**3,656.3**	**0.0**	**0.0**	**3,656.3**

13. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

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

b. Project Need

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

c. Project Scope

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

[redacted]

Major Material:

- 5 Reclosers
- 6,200 ft of 750 Al aerial cable
- 1,400 ft of 1000 Cu underground cable
- 30 (10 sets) 27.6/23 kV 3000 kVA autotransformers

14. Alternatives Considered

There are 2 options associated with this project:

Option 1 ($6.7M total with $3.7M under Project CD02504 & $3.0M under a future project) – [redacted]

[redacted]The estimated cost of the second Distribution Line project is $3.0M for a total Distribution Line cost of $6.7M.

[redacted].

Option 2 ($0.0M) – [redacted]

In total, to replace all 6 aged transformers is estimated to cost $28M. There would be no Distribution Line cost with this option.

Project Option Comparison

[redacted]

Substation Cost	$12M	$28M
Authorization Type	Partial	Partial
Total Cost	$3.661M	$0.0M
Capital Cost	$3.656M	$0.0M
Expense Cost	$5K	$0.0M
Circuit MVA capacity added/removed	0	0
Circuit Cost / MVA added	0	0
Preferred option	X	

15. Project Schedule

Milestone/Phase Name	Estimated Date
Partial Approval	August 2024
100% Detailed Engineering Completion	October 2024
Fully Funded	December 2024
Construction Start	January 2025
In Service Date	December 2025

16. Regulatory Decisions

N/A

17. Codes and Standards

N/A

18. Risk and Contingencies

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk / Mitigation
Actual cost higher than estimated due to scope changes.	2025	Medium	Underground work has more risk of overruns
Internal construction resources not available to perform the work.	2025	High	Plan external resources to complete this project. Use competitive bidding to ensure lowest outside labor cost.
Internal engineering resources not available to perform the work.	2024	Medium	Internal resources tentatively planned to support the project.
Materials Shortage or long lead times	2025	High	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
System abnormal configuration	2025	Medium	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.
Wetlands / Environmentally sensitive area	2025	Low	No wetlands in the area where work is to be performed. Use of mats and specialty equipment, only work during certain times of the year.

19. References

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Geographic Map (Before & After)	*YES*
C. 27.6 kV One-Line (Before & After)	*YES*
D. 23 kV One-Line (Before & After)	*YES*
E. Load Data (Before & After)	*YES*

Attachment G: Project Authorization Checklist

Project Authorization Checklist

Project Initiator: [redacted]

Project #: CD02504 _____

Project Title: [redacted]

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):

NR = Not Required R=Required C = Complete

NR	R	C		NR	R	C	
☒	☐	☐	Easement	☒	☐	☐	TD007
☒	☐	☐	Trimming Estimate Received	☒	☐	☐	ROW trimming Estimate Received
☒	☐	☐	Environmental Review Initiated	☐	☐	☒	Review with Operations
☒	☒	☐	Permits (state roads)	☒	☒	☐	Underground permits
☐	☒	☐	S &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: _____