EVERSOURCE

Project Approval Form

Project Title: 2025 Eastern-New London CI Rank 1-100 - [redacted]	**Project Number: CD02538**
Date Prepared: 04/24/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** SMART SWITCHES PROGRAM
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: 12/31/25	**NWS Excludable:** ☐ Yes ☒ No
Total Capital Request: $168.2K	**Authorization Type:** Full Funding

1. Executive Summary

CD02538 is being presented for Full Funding at a cost of $168.2K, which is 42% of the Partial Funding estimate. Partial Funding was presented and approved on 8/30/24 for $402.5K. The reasons for this variance are as follows:

1) Contractor adder of 30% was included in the Partial Funding estimate; this work will be performed by local district crews.
2) In-line switches were included in the estimate as a separate line-item, to be installed with the reclosers, but these switches are already included with the cost of the recloser install.
3) The proposed [redacted] Smart Switch, to be installed in the [redacted] zone, is being addressed in CD02385 (500 – 1000 customers) and is therefore not needed to be installed on this project.

The original project was presented as follows:

- The Smart Switch Program addresses distribution circuit zones with greater than 500 customers in Connecticut. Previous projects addressed circuit zones throughout Connecticut with greater than 800 customers – regardless of outage history. Projects are now being created to address circuit zones that have over 500 customers and ranked in the top 100 based on customer interruptions. Additional projects have been created per Area Work Center. The installation of multiple smart switches will reduce the customers affected on a circuit in the event of future outages.
- CD02538 addresses three (3) large customer zones in the Eastern Division New London AWC, with current customer counts above 500. These zones are in the top ranked (1-100) CI zones based on customer count and interruption history. The project calls for the installation of three (3) new reclosers. The zones addressed and the customers in each zone are summarized here:

AWC	ZONE_DVCNAME	CUST IN ZONE
~~NEW LONDON~~	[redacted]	~~596~~
NEW LONDON		515
NEW LONDON		610

2. Project Cost Summary – Full Funding

Note: Dollar values are in thousands.

Capital Costs	Year 2025	Year 2026	Year 2027	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	8.2	0.0	0.0	8.2
Outside Services	1.9	0.0	0.0	1.9
Materials	83.4	0.0	0.0	83.4
Removals	2.5	0.0	0.0	2.5
Risk and Contingency	11.7	0.0	0.0	11.7
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**107.7**	**0.0**	**0.0**	**107.7**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	60.5	0.0	0.0	60.5
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal – Indirect Costs	**60.5**	**0.0**	**0.0**	**60.5**
Total Gross Capital Costs	**168.2**	**0.0**	**0.0**	**168.2**
Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Total Net Capital Project Costs	**168.2**	**0.0**	**0.0**	**168.2**

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

The Smart Switch Program is a continuation of an Eversource initiative of a multi-year program to improve circuit reliability by adding automatic or SCADA sectionalizing devices on overhead distribution circuits. The Smart Switch Program focuses on breaking up customer zones and lowering the average number of customers impacted by a backbone interruption.

b. Project Need

The [redacted] zone serves 596 customers and has experienced seven (7) outages over the past four years. The installation of one [redacted], Preston, will create two new zones of [redacted] customers each. *(No longer being installed on this project because it is being addressed on CD02385.)*

[redacted] in East Lyme. The zone has experienced eight (8) outages in the past four (4) years. Installation of one [redacted]

The [redacted], Mystic. The zone has experienced seven (7) outages over the past four (4) years. [redacted], at the (West) end of the zone. Installation of one (1) new Smart Switch on a new pole, [redacted]

c. Project Scope

The scope for this project is as follows:

New London AWC:

[redacted]

4. Alternatives Considered

One alternative for this project is to "do nothing," but this wasn't selected as it doesn't address the large customer zones that would be affected by a single location outage. Another alternative considers a Non-Wires Solution (NWS), but this also is not a viable alternative because it does nothing to reduce customer zones for a single location outage.

NWS

NWS is not excludable; therefore, it is included in the Project Option Comparison table below.

[redacted]

Design Criteria	Options	
	Install Smart Switches	NWS
Reduces zone size	X	
Need extra real estate, easements, etc		X
Authorization Type	Full	Partial
Capital Cost	$168.2K	$15.7M
Expense Cost	$7.4K	$0.7M
Total Cost	$175.6K	$16.4M
Preferred option	X	

5. Project Schedule

Add any additional milestones that are pertinent to the project

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

6. Regulatory Decisions

N/A

7. Codes and Standards

N/A

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.	2025	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	2025	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2025	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.	2025	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2025	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2025	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2025	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	2025	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	2025	Low	Use of mats and specialty equipment, only work during certain times of the year.

9. References

References
1. N/A
2.

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Load Sheets	*YES*
C. One-Lines	*YES*
D. Geographic Maps	*YES*
E. Partial Funding PAF	*YES*

Attachments A – D are included in Partial Funding PAF, see Attachment E.

Attachment E

Project Title: 2025 Eastern-New London CI Rank 1-100 - 3Z-3R	**Project Number:** CD02538
Date Prepared: 08/30/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** SMART SWITCHES PROGRAM
Project Initiator: M. Waggoner	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** Yes
Project Manager: D. Barrows	**Emergency Related Request?** No
Project Sponsor: Steve Lamontagne	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 12/31/2025	
Total Capital Request: $402.5K	**Authorization Type:** Partial Funding

1. Executive Summary

The Smart Switch Program addresses distribution circuit zones with greater than 500 customers in Connecticut. Previous projects addressed circuit zones throughout Connecticut with greater than 800 customers – regardless of outage history. Projects are now being created to address circuit zones that have over 500 customers and ranked in the top 100 based on customer interruptions. Additional projects have been created per Area Work Center. The installation of multiple smart switches will reduce the customers affected on a circuit in the event of future outages.

CD02538 addresses three (3) large customer zones in the Eastern Division New London AWC, with current customer counts above 500. These zones are in the top ranked (1-100) CI zones based on customer count and interruption history. The project calls for the installation of three (3) new reclosers. The zones addressed and the customers in each zone are summarized here:

AWC	ZONE_DVCNAME	CUST IN ZONE
NEW LONDON	[redacted]	596
NEW LONDON		515
NEW LONDON		610

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2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2025	2026	2027+	Total
Internal Labor and Construction Equipment	21.9	0.0	0.0	21.9
Outside Services	45.0	0.0	0.0	45.0
Materials	209.0	0.0	0.0	209.0
Removals	24.0	0.0	0.0	24.0
Other	1.0	0.0	0.0	1.0
Risk and Contingency	0.0	0.0	0.0	0.0
Subtotal	**301.1**	**0.0**	**0.0**	**301.1**

Indirect Capital Costs	2025	2026	2027+	Total
Indirects/Overheads (including benefits)	96.7	0.0	0.0	96.7
Capitalized interest or AFUDC, if any	4.8	0.0	0.0	4.8
Subtotal	**101.5**	**0.0**	**0.0**	**101.5**
Total Capital Costs (Gross)	**402.5**	**0.0**	**0.0**	**402.5**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net)	**402.5**	**0.0**	**0.0**	**402.5**

Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

The Smart Switch Program is a continuation of an Eversource initiative of a multi-year program to improve circuit reliability by adding automatic or SCADA sectionalizing devices on overhead distribution circuits. The Smart Switch Program focuses on breaking up customer zones and lowering the average number of customers impacted by a backbone interruption.

b. Project Need

[redacted]

c. Project Scope

The scope for this project is as follows:

New London AWC:

[redacted]

- Install a new Smart Switch [redacted], Preston

[redacted]

- Install a new Smart Switch [redacted], East Lyme

[redacted]

- Install a new Smart Switch [redacted], Mystic

3. Alternatives Considered

An alternative for this project was to "do nothing," but this wasn't selected as it doesn't address the large customer zones that would be affected by a single location outage.

4. Project Schedule

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

5. Regulatory Decisions

N/A

6. Codes and Standards

N/A

7. Risk and Contingencies

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2025	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	2025	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2025	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2025	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2025	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2025	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.

8. References

References
1. N/A

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Load Sheets	*YES*
C. One-lines	*YES*
D. Geographic maps	*YES*

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

Attachment A: Cost Summary:

New London AWC:

11B2-70S

Design Alternative CD02538-01

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$112,952
Contingency Amount:	$27,108
Estimate:	$140,060
Reimbursement:	$0
Net Amount:	**$140,060**
Description:	Inst (1) new SS on P# 41 Poquetanuck Rd.

Item Description	CU		Amount
OTHER OTHER 30% Contractor adder	23-ALL14	[redacted]	$26,066.00
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Complex BB Switching for new recloser installation	23-ALL16		$9,131.20
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph Inst in-line switches at new recloser (SS) location	23-OH43	1	$13,368.16
SECTIONALIZE OH - Recloser - 3ph Install new recloser for SS application	23-OH38	6	$62,386.48
TRAFFIC OH/DB/UG - Traffic Control - Police Officer PD Traffic Control (busy road)	23-ALL18		$2,000.00

New London AWC:

11Y3-70S

Design Alternative CD02538-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$112,952
Contingency Amount:	$27,108
Estimate:	$140,060
Reimbursement:	$0
Net Amount:	**$140,060**
Description:	Inst (1) new SS on P# 1433 Boston Post Rd., E. Lyme

Item Description	CU	$ / Per	Qty	Amount
OTHER OTHER 30% Contractor adder	23-ALL14	[redacted]		$26,066.00
SECTIONALIZE OH - Recloser - 3ph Inst (1) new recloser for SS application	23-OH38			$62,386.48
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph Inst in-line switches at new recloser (SS) location	23-OH43			$13,368.16
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Complex OH BB switching for recloser (SS) installation	23-ALL16			$9,131.20
TRAFFIC OH/DB/UG - Traffic Control - Police Officer PD Traffic Control - busy street	23-ALL18			$2,000.00

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New London AWC:

13K2-74S

Design Alternative CD02538-03

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$112,952
Contingency Amount:	$27,108
Estimate:	$140,060
Reimbursement:	$0
Net Amount:	**$140,060**
Description:	Inst (1) new SS on new Pole - Gold Star Hwy, just E. of Colonel Ledyard Hwy intersection

Item Description	CU	[redacted]	Amount
OTHER OTHER 30% Contractor adder	23-ALL14		$26,066.00
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Complex BB Switching for new recloser (SS) installation	23-ALL16		$9,131.20
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph In-line switch inst at new Recloser (SS) location	23-OH43		$13,368.16
SECTIONALIZE OH - Recloser - 3ph Inst (1) new Recloser for SS application	23-OH38		$62,386.48
TRAFFIC OH/DB/UG - Traffic Control - Police Officer PD Traffic Control - busy street	23-ALL18		$2,000.00

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Attachment B: Load Sheets:

Note: Current overloads shown highlighted have all been previously identified, with plans created by Eastern Division team to address, as footnoted.

New London AWC:

[redacted]

[redacted]

[redacted]

New London AWC:

[redacted]

Existing



New London AWC:

[redacted]

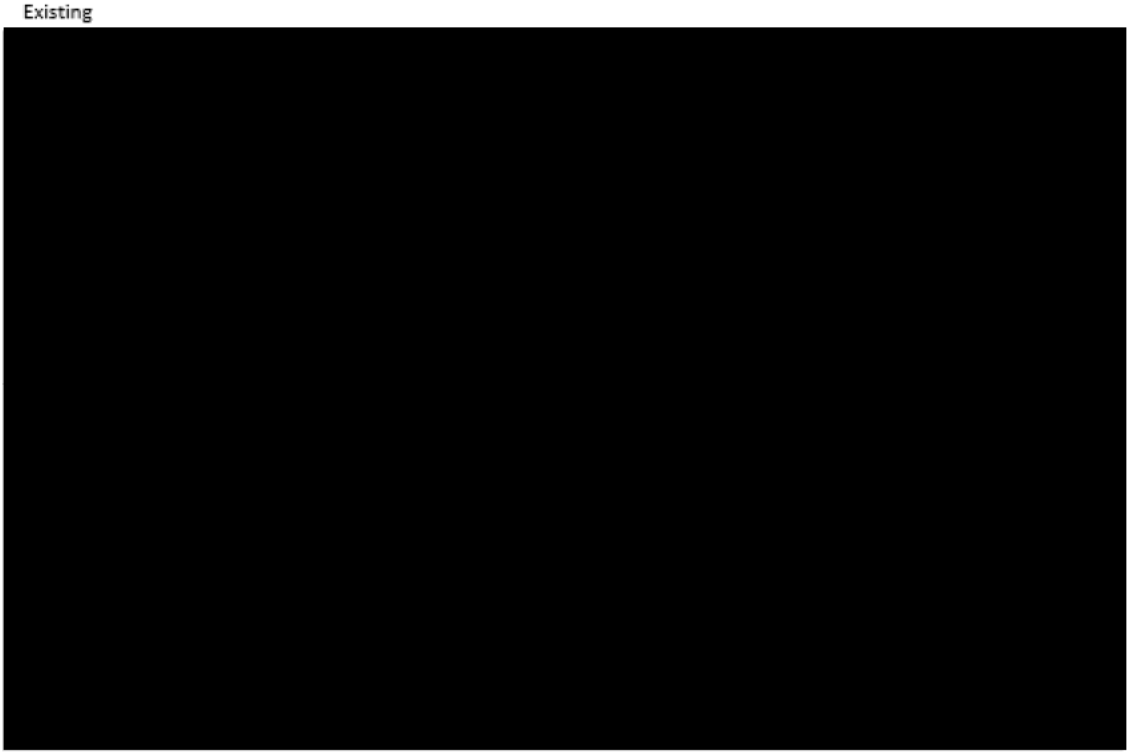
After



New London AWC:

[redacted]

Existing



New London AWC:

[redacted]

After



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Attachment C: One Line Diagrams:

New London AWC:



New London AWC:

[redacted]

New London AWC:



New London AWC:



New London AWC:



New London AWC:



Attachment D: Geographic map:

New London AWC:



New London AWC:



New London AWC:



New London AWC:



New London AWC:



New London AWC:

