EVERSOURCE

Operations Project Authorization Form

Project Title: 2026 TripSaver Central BCA	**Project Number:** CD02834
Date Prepared: 07/23/2026	**Company:** Eversource CT
Organization: Distribution Engineering	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** SMART SWITCHES PROGRAM
Operations Representative: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of 5-year plan?** Yes
Estimated in Service Date: 12/31/2026	**Emergency Related Request?** No
Eng./Constr. Resources Budgeted? Yes	**Facility Type** (check all that apply): ☐ PTF ☐ non-PTF ☒ Distribution
Total Request ($): 726.9K	**NWS Excludable:** ☐ Yes ☒ No
Project Driver: Reliabilty	**Authorization Type:** Full Funding

1. Executive Summary

This project was created to replace fused lateral locations with TripSaver units in order to reduce the number of outages caused by transient type events (tree, animal, lightning, patrolled nothing found). For the Central Division, there are a total of 50 locations.

The partial funding capital request for this project was $632.5K and was approved during the 3/19/2026 CPAC meeting. The full funding capital request for this project is $726.9K. The capital difference of the full funding minus the partial funding is equal to +$94.4K, a 15% increase. No scope change was incurred. There were minor increases in material costs and internal labor.

Division: Central
District(s): Cheshire, Hartford, Tolland AWCs
Town(s): Ashford, Avon, Bloomfield, Bolton, Bristol, Cheshire, Coventry, Cromwell, East Granby, East Hartford, Ellington, Enfield, Granby, Hartford, Manchester, Mansfield, New Britain, Rocky Hill, Simsbury, Somers, Southington, Stafford, Suffield, Tolland, Vernon, West Hartford, Wethersfield, Wolcott

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2026	Year 2027	Year 2028+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	40.5	0.0	0.0	40.5
Outside Services	0.0	0.0	0.0	0.0
Materials	332.8	0.0	0.0	332.8
Removals	10.0	0.0	0.0	10.0
Risk and Contingency	50.7	0.0	0.0	50.7
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**434.0**	**0.0**	**0.0**	**434.0**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	293.0	0.0	0.0	293.0
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal – Indirect Costs	**293.0**	**0.0**	**0.0**	**293.0**
Total Gross Capital Costs	**727.0**	**0.0**	**0.0**	**727.0**
Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Total Net Capital Project Costs	**727.0**	**0.0**	**0.0**	**727.0**

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

A TripSaver is a self–powered, electronically controlled, single–phase, cutout–mounted vacuum, interrupter recloser. The TripSaver is designed to eliminate the sustained interruption that occurs when a lateral fuse cutout operates in response to a transient fault. It also can eliminate momentary circuit interruptions that occur when a substation circuit breaker or source–side line recloser would otherwise trip to prevent a lateral fuse cutout from operating in response to a transient fault. All data used for this project reflects system conditions and record current as of January 2026.

b. Project Need

For this project, 50 fused lateral locations were selected based on a benefit cost analysis (BCA). The BCA utilized historical outage and interruption data to determine which laterals would benefit the most from a TripSaver replacement. Based on the standardized TripSaver improvement indices, 50% of customer interruption and 32% of customer minutes saved were utilized when estimating reliability improvements for this project. This project will reduce customer outages and improve system reliability. All locations were reviewed to determine the appropriate body size, fuse curve, and if each TripSaver coordinated with existing devices. Coordination changes were made as needed and locations were rejected if DSEM 10.431 criteria were not met.

Total Events	Events Saved	Total Customer Mins	Customer Mins Saved	Total Customers Affected	Customer Int Saved
123	62	1,338,124	107,049	6,604	826

Figure 1: Central TripSaver Customer Reliability Indices

c. Project Scope

This project proposes three options with Option 1 as the preferred option. This option looks to replace these fused lateral locations with TripSaver units. The scope of Option 1 is as follows:

AWC	Town(s)	WOs
Cheshire	BRISTOL	2
	CHESHIRE	1
	NEW BRITAIN	4
	SOUTHINGTON	1
	WOLCOTT	1
Hartford	AVON	1
	BLOOMFIELD	1
	BOLTON	1
	CROMWELL	1
	EAST HARTFORD	1
	HARTFORD	1
	MANCHESTER	3
	ROCKY HILL	1
	SIMSBURY	3
	WEST HARTFORD	1
	WETHERSFIELD	1
Tolland	ASHFORD	2
	COVENTRY	2
	EAST GRANBY	1
	ELLINGTON	1
	ENFIELD	1
	GRANBY	1
	MANSFIELD	2
	SOMERS	2
	STAFFORD	3
	SUFFIELD	1
	TOLLAND	5
	VERNON	5

For more details on each location, see the Attachments section.

Major Materials:

- 1ph TripSaver Locations: 44
- 3ph TripSaver Locations: 6

Qty	Size	Body	Stock Code (as of 6/2026)
5	25K	40A	[redacted]
6	40K	40A	
1	40K	100A	
11	65K	40A	
14	65K	100A	
-	80K	40A	
2	80K	100A	
1	80K	200A	
1	100K	40A	
19	100K	100A	
2	100K	200A	
4	140K	100A	
1	140K	200A	
67*			

*Additional TripSavers required for coordination

4. Alternatives Considered

Project Option Comparison

Design Criteria	Option		
	1 – Central TripSavers	2 – NWS	3 – Do Nothing
Required to meet project need			
Optimizes locations with TripSaver	X		
Provides alternative source during outage		X	
Authorization Type	Full	Full	Full
Capital Cost	$726,947	$145,432,000	$0
Expense Cost	$34,413	$6,372,000	$0
Total Cost	$761,360	$151,804,000	$0
Total Cost / CM Saved	$7.11/CM	$1,418.08/CM	$0/CM
Total Cost / CI Saved	$921.74/CI	$183,782.08/CI	$0/CI
Preferred Option	**X**		

*Alternatives scaled to full funding estimate increase

Option Summary:

Preferred:

The preferred option is option 1. This option will install TripSavers in place of the existing fuses on each of the selected laterals. This option is the preferred option because it is the most cost effective option.

NWS:

The NWS requires the installation of batteries at each location to support up to 4 hours of expected load for half the customers. Additionally, each location would require further sectionalization to create the battery recovery zones. This option was not selected as the preferred option because it is not as cost effective compared to Option 1 and does not support future growth in the areas. Future growth would reduce recovery durations and potentially require larger batteries to maintain reliability. NWS estimate was calculated at $2M per MWh based on the two lowest of three contractor bids received in Connecticut.

Do Nothing:

Doing nothing was not selected because it does not improve customer reliability. The locations were selected based on the high number of interruptions. By not addressing the large number of interruptions now, the continued poor reliability could lead to increased customer complaints and criticism.

5. Project Schedule

Milestone/Phase Name	Estimated Date
Partial Approval	March 19, 2026
100% Detailed Engineering Completion	July 7, 2026
Fully Funded	July 23, 2026
Construction Start	August 3, 2026
Project Completion	December 31, 2026

6. Regulatory Decisions

This project complies with any and all applicable regulatory requirements.

7. Codes and Standards

This project was designed in accordance with Eversource's Distribution System Engineering Manual (DSEM) and Overhead & Underground Distribution Standards (DTR).

Codes and Standards
1. DSEM 06.713 – Overhead System Protection & Design Philosophy
2. DSEM 10.431 – TripSaver II General
3. WMS 09.10-234 – Operation Instruction for the S&C TripSaver II

8. Risk and Contingencies

Contingencies: 20% contingency was added for 2026 work. This contingency accounts for any risks that are unknown and do not have mitigation plans.

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2026	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	2026	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2026	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.	2026	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2026	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2026	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2026	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	2026	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.

9. References

References
1.

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

Attachment	Included in Submittal?
A. Project Authorization Checklist	*YES*
B. TripSaver Replacement Locations	*YES*
C. Partial Funding PAF	*YES*

Attachment – A: Project Authorization Checklist

Project Authorization Checklist

Project Initiator: [redacted]

Project #: CD02834

Project Title: 2026 TripSaver Central BCA

Funding Type:

☐ Partial PAF ☒ Full PAF

Project Alternatives:

☐ Options considered ☐ Explanation why alternatives were not selected

☒ NWS 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
☒	☐	☐	P&C Settings	☒	☐	☐	Material long lead
☐	☒	☒	Synergi load flow	☒	☐	☐	Verify if Out-Of-Phase Tie Condition
☒	☐	☐	Add to Step Load Tracker (New Service or Load Transfer)	☒	☐	☐	TD914 Network Procedure Updated
☒	☐	☐	Network Contingency Plan Updated				

PAF Documents Attached:

☐ One Lines ☐ Geographical Map ☐ Load Projections ☒ Estimates

☒ Other Documents (List): TripSaver Review Spreadsheet

PAF Review Complete:

☐ Lead Reviewed by: [redacted] Date: _____

☐ Manager Reviewed by: [redacted] Date: _____

Attachment - B: TripSaver Replacement Locations*



Figure 2: Central TripSaver Replacement Locations

*Locations are subject to change based on field conditions and other variables between now and construction

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Operations Project Authorization Form

Attachment – C: Partial Funding PAF

Project Title: 2026 TripSaver Central BCA	**Project Number: CD02834**
Date Prepared: 03/09/2026	**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: 12/31/2026	**NWS Excludable:** ☐ Yes ☒ No
Total Capital Request: $632.5K	**Authorization Type:** Partial Funding

1. Executive Summary

This Project CD02834 was established to install TripSavers at fused lateral locations in Connecticut to reduce the number of outages caused by transient type events (Tree, Animal, Lightning, Patrolled Nothing Found). For the Central Division, there are a total of 50 locations.

Project Location

- Division: Central
- Districts: Cheshire AWC, Hartford AWC, and Tolland AWC
- Towns: Bristol, Cheshire, New Britain, Southington, Wolcott, Avon, Bloomfield, Bolton, Cromwell, East Hartford, Hartford, Manchester, Rocky Hill, Simsbury, West Hartford, Wethersfield, Ashford, Coventry, East Granby, Ellington, Enfield, Granby, Mansfield, Somers, Stafford, Suffield, Tolland, Vernon

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2026	Year 2027	Year 2028+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	34.5	0.0	0.0	34.5
Outside Services	70.7	0.0	0.0	70.7
Materials	328.4	0.0	0.0	328.4
Removals	37.8	0.0	0.0	37.8
Other	1.6	0.0	0.0	1.6
Risk and Contingency	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**473.0**	**0.0**	**0.0**	**473.0**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	152.0	0.0	0.0	152.0
Capitalized interest or AFUDC, if any	7.5	0.0	0.0	7.5
Subtotal – Indirect Costs	**159.4**	**0.0**	**0.0**	**159.4**
Total Gross Capital Costs	**632.5**	**0.0**	**0.0**	**632.5**
Customer Contribution				
Total Net Capital Project Costs	**632.5**	**0.0**	**0.0**	**632.5**

Explain unique payment provisions, if applicable: N/A

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

A TripSaver is a self–powered, electronically controlled, single–phase, cutout–mounted vacuum, interrupter recloser. The TripSaver is designed to eliminate the sustained interruption that occurs when a lateral fuse cutout operates in response to a transient fault. It also can eliminate momentary circuit interruptions that occur when a substation circuit breaker or source–side line recloser would otherwise trip to prevent a lateral fuse cutout from operating in response to a transient fault.

b. Project Need

For the 2026 Central Division TripSaver project, 50 fused lateral locations were selected based on a benefit cost analysis (BCA). The BCA utilized historical outage and interruption data to determine which laterals would benefit the most from a TripSaver replacement. Based on the standardized TripSaver improvement indices, 50% of customer interruption and 32% of customer minutes saved were utilized when estimating reliability improvements for this project. This project will reduce customer outages and improve system reliability. All locations were reviewed to determine the appropriate body size, fuse curve, and if each TripSaver coordinated with existing devices. Coordination changes were made as necessary and locations were rejected if DESM 10.431 criteria were not met.

Total Events	Events Saved	Total Customer Mins	Customer Mins Saved	Total Customers Effected	Customer Int Saved
123	62	1,338,124	107,049	6,604	826

Figure 1: Central TripSaver Customer Reliability Indices

c. Project Scope

Option 1, is the preferred option. This option looks to replace these fused lateral locations with TripSaver units. The scope of Option 1 is as follows:

AWC	Town(s)	WOs
Cheshire	BRISTOL	2
	CHESHIRE	1
	NEW BRITAIN	4
	SOUTHINGTON	1
	WOLCOTT	1
Hartford	AVON	1
	BLOOMFIELD	1
	BOLTON	1
	CROMWELL	1
	EAST HARTFORD	1
	HARTFORD	1
	MANCHESTER	3
	ROCKY HILL	1
	SIMSBURY	3
	WEST HARTFORD	1
	WETHERSFIELD	1
Tolland	ASHFORD	2
	COVENTRY	2
	EAST GRANBY	1
	ELLINGTON	1
	ENFIELD	1
	GRANBY	1
	MANSFIELD	2
	SOMERS	2
	STAFFORD	3
	SUFFIELD	1
	TOLLAND	5
	VERNON	5

Major Materials:

- 1ph TripSaver Locations: 46 (includes 2 additional locations for coordination)
- 3ph TripSaver Locations: 7 (includes 1 additional location for coordination)

Qty	Size	Body	Stock Code (as of 10/2025)
5	**25K**	**40A**	[redacted]
6	**40K**	**40A**	
1	**40K**	**100A**	
11	**65K**	**40A**	
14	**65K**	**100A**	
-	**80K**	**40A**	
2	**80K**	**100A**	
1	**80K**	**200A**	
1	**100K**	**40A**	
19	**100K**	**100A**	
2	**100K**	**200A**	
4	**140K**	**100A**	
1	**140K**	**200A**	
67	Total TripSavers		

4. Alternatives Considered

Project Option Comparison

Design Criteria	Option		
	1 – TripSavers	2 – NWS	3 – Do Nothing
Required to meet project need			
Optimize locations with TripSavers	X		
Provide alternative source during outage		X	
Authorization Type	Partial	Partial	Partial
Capital Cost	$632.5K	$126,463K	$0
Expense Cost	$27.7K	$5,541K	$0
Total Cost	$660.2K	$132,004K	$0
Total Cost / CM Saved	$6.17/CM	$1,233.12/CM	N/A
Total Cost / CI Saved	$799/CI	$159,811/CI	N/A
Preferred option	X		

Option Summary

Preferred:

The preferred option is option 1. This option will install TripSavers in place of the existing fuses on each of the selected laterals. This option is the preferred option because it is the most cost effective option.

Other(s):

The NWS requires the installation of batteries at each location to support up to 4 hours expected load. Additionally, each location would require further sectionalization to create the battery recovery zones. This option was not selected as the preferred option because it is not as cost efficient compared to Option 1 and does not support future growth in the areas. Future growth would reduce recovery durations and potentially require battery size increases to maintain reliability.

NWA estimate was calculated at $2M per MWh based on the two lowest of three contractor bids received in Connecticut.

The do-nothing option was not selected because it does not improve customer reliability. The locations were selected based on the high number of interruptions. By not addressing the large number of interruptions now, the continued poor reliability could lead to increased customer complaints and criticism.

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	4/2/2026
100% Detailed Engineering Completion	6/31/2026
Fully Funded	7/31/2026
Construction Start	9/31/2026
In Service Date	12/31/2026

6. Regulatory Decisions

7. Codes and Standards

Codes and Standards
4. DSEM 06.713 – Overhead System Protection & Design Philosophy
5. DSEM 10.431 – TripSaver II General
6. WMS 09.10-234 – Operation Instruction for the S&C TripSaver II

8. Risk and Contingencies

Contingencies: 20% contingency was added for 2026 work. This contingency accounts for any risks that are unknown and do not have mitigation plans.

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2026	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	2026	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2026	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.	2026	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2026	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2026	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2026	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	2026	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	2026	Low	Use of mats and specialty equipment, only work during certain times of the year.

9. References

References
1.
2.
3.

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. TripSaver Replacement Locations	*YES*
C. Project Authorization Checklist	*YES*
D. Initial Funding PAF	*YES*

Attachment - A: Cost Estimates

Design Alternative CD02834-01

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	20.00%
SubTotal:	$550,160
Contingency Amount:	$110,032
Estimate:	$660,192
Reimbursement:	$0
Net Amount:	**$660,192**
Description:	

Item Description	CU	$ / Per	Qty	Amount
SECTIONALIZE 1PH Tripsaver	25-OH41A	[redacted]		$382,720.00
SECTIONALIZE 3PH Tripsaver	25-OH41B			$167,440.00

Figure 2: Cost Estimates – Option 1 (preferred)

Attachment - B: TripSaver Replacement Locations*



Figure 3: Central TripSaver Replacement Locations

*Locations are subject to change based on field conditions and other variables between now and construction

Attachment - C: Project Authorization Checklist

Project Authorization Checklist

Project Initiator: [redacted]

Project #: CD02834

Project Title: 2026 TripSaver Central BCA

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
☒	☐	☐	P&C Settings	☒	☐	☐	Material long lead
☐	☒	☒	Synergi load flow	☒	☐	☐	Verify if Out-Of-Phase Tie Condition
☒	☐	☐	Add to Step Load Tracker (New Service or Load Transfer)	☒	☐	☐	TD914 Network Procedure Updated
☒	☐	☐	Network Contingency Plan Updated				

PAF Documents Attached:

☐ One Lines ☐ Geographical Map ☐ Load Projections ☒ Estimates

☒ Other Documents (List): TripSaver Review Spreadsheet

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Operations Project Authorization Form

Attachment - D: Initial Funding PAF

Project Title: 2026 Central BCA Trip Savers	**Project Number: CD02834**
Date Prepared: 03/06/2026	**Company:** Eversource CT
Organization: Distribution Engineering	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** SMART SWITCHES PROGRAM
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of 5-year plan?** Yes
	Emergency Related Request? No
Total Request ($): $30K	**Authorization Type:** Initial Funding

1. Project Need Statement

Project CD02834 was established to install Trip Savers at 51 fused lateral locations in Connecticut to reduce the number of outages caused by transient type events (Tree, Animal, Lightning, Patrolled Nothing Found).

Project Location

A. Division: Central

2. Project Objectives

This project will reduce transient type events. Based on the standardized recloser improvement indices, 50% of customer interruption & 32% customer minutes saved were utilized. This project will reduce customer outages and improve system reliability.

Project Initiator: [redacted]

Engineering Approval: _____