EVERSOURCE

Supplement Authorization Form

Project Title: [redacted] **Smart Switch Program**	**Project Number: CD01017**
Date Prepared: 04/28/2026	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** SMART SWITCHES PROGRAM
Initiating Organization: Distribution	**Project Type:** Specific
Project DDE: [redacted]	**Capital Investment part of 5-year plan?** No
Project Manager: [redacted]	**Emergency Related Request?** No
Project Sponsor: [redacted]	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Current Authorized Amount: $ 287,033	**Approved In-Service Date:** 12/31/2021
Supplement Request: $ 73,771	**Estimated In-Service Date:**12/31/2022
Total Capital Request: $ 360,804	**Authorization Type: Supplement Request**
	Reason: : Cost Overage

1. Project Background

Project CD01017 was established [redacted]

[redacted]

2. Supplement Justification Overview

The requested amount of $73.8k which is 20% above the authorized direct cost of $287k. This project incurred no scope change from full funding to supplemental. Additional labor costs and outside services drove up the overall cost of the project.

3. Supplement Justification Detail

The increased direct cost of $43.3K includes internal labor and outside contractor labor contributed to the overage of this project.

4. Supplement Cost Summary (Project Total)

Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Internal Labor and Construction Equipment	9.1	27.5	-18.9	8.6
Outside Services	52.0	0.0	49.3	49.3
Materials	153.4	150.4	-4.9	145.5
Removals	0.0	0.0	11.1	11.1
Risk and Contingency	7.1	0.0	7.1	7.1
Other	-0.4	0.0	-0.4	-0.4
Subtotal	**221.2**	**177.9**	**43.3**	**221.2**

Indirect Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Indirects/Overheads (including benefits)	137.9	108.0	29.8	137.9
Capitalized interest or AFUDC, if any	1.8	1.1	0.7	1.8
Subtotal	**139.6**	**109.1**	**30.5**	**139.6**
Total Capital Costs (Gross)	**360.8**	**287.0**	**73.8**	**360.8**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**360.8**	**287.0**	**73.8**	**360.8**

New Total Request by Year (if applicable)

Note: If multi-year project, include actuals for current and years past, and then show forecasted spend for upcoming years.

Line item Category	Year 2020	Year 2021	Year 2022	Total
Internal Labor and Construction Equipment	0.1	8.6	0.0	8.6
Outside Services	0.4	49.1	-0.2	49.3
Materials	1.2	144.8	-0.5	145.5
Removals	0.1	10.7	0.3	11.1
Risk and Contingency	0.0	0.0	7.1	7.1
Other	0.0	-0.4	0.0	-0.4
SUBTOTAL DIRECTS W/ RISKS	**1.7**	**212.8**	**6.7**	**221.2**
Indirect / Overhead (including benefits)	3.0	137.9	-3.1	137.9
AFUDC	0.1	1.7	0.0	1.8
Subtotal – Indirect Costs	**3.0**	**139.6**	**-3.1**	**139.6**
TOTAL CAPITAL REQUEST	**4.8**	**352.4**	**3.6**	**360.8**
Reimbursables/Customer Contribution	0.0	0.0	0.0	**0.0**
PROJECT TOTAL (LESS REIMBURSABLES)	**4.8**	**352.4**	**3.6**	**360.8**

5. Lessons Learned

Greater contingencies should be utilized in future for Smart Switch Projects

Operations Project Authorization Form

Date Prepared: February 18, 2021	**Project Title: SSRK74.18-[redacted]->1295-RWO.4**
Company/ies: Eversource CT	**Project ID Number: CD01017**
Organization: Distribution Electric	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: Line**
Project Manager: [redacted]	**Project Type: Smart Switch Program**
Project Sponsor: [redacted]	**Project Purpose: Reliability Improvement**
Estimated in service date: 12/31/2021	**If Transmission Project: PTF? N/A**
Eng. /Constr. Resources Budgeted? Y	**Capital Investment Part of Original Operating Plan? Y**
Authorization Type: Full Funding Authorization	**O&M Expenses Part of the Original Operating Plan? Y**
Total Request: $294k	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

Zone [redacted]

This project was established to install a [redacted]

Project CD01017 received Initial Funding authorization of $263k at the 10/25/2019 CT-PAC Meeting. The detail design has been completed and we are requesting Full Funding authorization of $294k; an increase of $30.7k or 11.6% of the Initial Funding authorization. There is no change in scope. The increased cost is due to a change in the standards which now calls for the installation of 900 Amp in-line switches at each new recloser installation. The added cost for these in-line switches is not included in the per unit cost estimate for recloser installations, since the units were developed prior to the change in standards.

Project Costs Summary

	Prior Authorized*	Additional Request	2021	2022+	Total **
Capital Additions Direct	$0	$0	$ 175,808	$ -	$175,808
Less Customer Contribution	$0	$0	$ -	$ -	$0
Removals Net of Salvage	$0	$0	$ 2,120	$ -	$2,120
Total - Direct Spending	$0	$0	$ 177,928	$ -	$177,928
Capital Additions - Indirect	$0	$0	$ 108,021	$ -	$108,021
AFUDC	$0	$0	$ 1,084	$ -	$1,084
Total Capital Request	$253,480	$33,553	$ 287,033	$ -	$287,033
O&M	$10,000	-$2,833	$ 7,167	$ -	$7,167
Total Request	**$263,480**	**$30,721**	**$ 294,201**	**$ -**	**$294,201**

* Amount currently approved in PowerPlan

** Total authorization needed in PowerPlan based on ACT

Financial Evaluation

Direct Capital Costs	2021	2022	2023+	Total
Straight Time Labor	$ 27,540	$ -	$ -	$ 27,540
Overtime Labor	$ -	$ -	$ -	
Outside Services	$ -	$ -	$ -	$ -
Materials	$ 150,388	$ -	$ -	$ 150,388
Other, including contingency amounts	$ -	$ -	$ -	$ -
Total	$ 177,928	$ -	$ -	$ 177,928

Indirect Capital Costs	2021	2022	2023+	Total
Indirects/Overheads (including benefits)	$ 108,021	$ -	$ -	$ 108,021
Capitalized interest or AFUDC, if any	$ 1,084	$ -	$ -	$ 1,084
Total	$ 109,105	$ -	$ -	$ 109,105

Total Capital Costs	$ 287,033	$ -	$ -	$ 287,033
Less Total Customer Contribution	$ -	$ -	$ -	$ -
Total Capital Project Costs	$ 287,033	$ -	$ -	$ 287,033
Total O&M Project Costs	$ 7,167	$ -	$ -	$ 7,167
Total Project Cost	**$ 294,201**	**$ -**	**$ -**	**$ 294,201**

* to be completed if supplemental authorization is required

Technical Justification:

Project Need Statement

This project was established to address the [redacted]

The [redacted]

Project Objectives

The goal of the Smart Switch Program is to reduce the number of customers exposed to an outage event. The projects break up large customer zones by creating automated loops and adding sectionalizing reclosers in various settings profiles to isolate outages. The target of each project is to decrease customer zones to below 500. A zone that is broken in half with a tie to another source can improve the zone's reliability by 50%. Adding an additional device in a radial zone can improve the zone's reliability by 30%. Projects may include breaking up large customer zones with several devices and multiple ties.

Project Scope

[redacted]

Major Material:

4 – Cooper Nova 15kV reclosers with Form 6 controls

Background / Justification

The Smart Switch Program is a continuation of an initiative that was approved as part of the System Resiliency PURA Docket 12-07-06RE01 which is a multiyear program to improve circuit reliability by adding automatic 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.

The 2019 Smart Switch Ranking Program was created to identify backbone zones that would impact over 500 customers. These zones were then ranked based on the number of customers impacted over the past three years as follows:

2018 outages X 100% + 2017 outages X 66% + 2016 outages X 33%.

Projects must be created to reduce the number of customers impacted in that zone to 500 or less.

When creating projects for the highest ranked zones, also reduce the number of customers impacted to 500 or less for any other backbone zone on the same circuit if it is ranked in the top 100 devices.

The following table shows the outage history from 2015 to 2020 for this zone.



Business Process and / or Technical Improvements:

Projects within the Smart Switch Program will increase the number of SCADA controlled devices on the system. This upgrade allows for better system visibility, faster restoration, outage isolation and reconfiguration of the system during planned and unplanned switching events. Customer zones are reduced to under 500, where possible (ref. DSEM 02.301).

Alternatives Considered with Cost Estimates

[redacted]

Although the cost of option 3 is greater than option 2, it was chosen as the preferred option because [redacted]

Project Option Comparison

Design Criteria	[redacted]		
Cost	$136k	$199k	$294k
Cost / CM Saved	$3.43/CM	$4.51/CM	$6.65/CM
Cost / CI Saved	$530/CI	$697/CI	$1,028/CI
Preferred option			X

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Initial Funding Authorization	Completed
Detailed Design	Completed
Settings Requested	Completed
Full Funding Authorization	February 2021
Construction Start Date	March 2021
Construction End Date	December 2021

Regulatory Approvals

None

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2021	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	2021	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction 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.
Internal engineering resources not available to perform the work.	2021	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Storm delays	2021	Medium	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.

References

DSEM 02.301 – Automatic Sectionalizing Device Guidelines



DSEM02-301.pdf

DSEM 05.301 - Contingency Planning



DSEM05-301.pdf

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

1. **Project Maps**



CD01017_Project Maps_Rev 2 10-1-2C

2. **Project One-Lines**



CD01017_Project One-Lines_Rev2 10-

3. **Project Load Summary**



CD01017_Project Load Summary_10-1

4. **Cost Estimate Backup Details**



ACT - CD01017
[redacted] Smart Switcl