EVERSOURCE

Supplement Authorization Form

Project Title: [redacted] **Smart Switch**	**Project Number: CD01218**
Date Prepared: 04/24/2026	**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?** 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)
Current Authorized Amount: $200K	**Approved In-Service Date: 6/7/2019**
Supplement Request: $51K	**Estimated In-Service Date: 12/31/2019**
Total Capital Request: $251K	**Authorization Type:** Supplement Request
	Reason: Cost Overage

1. Project Background

Project CD01218 was created to reduce the size of a large zone on the [redacted] circuit.
It added three new reclosers and reprogrammed one.

2. Supplement Justification Overview

The requested amount of $37.6K is 30.9% above the authorized direct cost of $121.4K

3. Supplement Justification Detail

The $37.6 increase reflects higher material costs incurred over the course of the project

4. Supplement Cost Summary (Project Total)

Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Internal Labor and Construction Equipment	10.5	18.0	-8.3	9.7
Outside Services	41.0	4.9	32.9	37.8
Materials	102.8	15.6	79.1	94.8
Removals	0.0	82.4	-70.5	12.0
Risk and Contingency	4.9	0.0	4.9	4.9
Other	-0.1	0.5	-0.6	-0.1
Subtotal	**159.1**	**121.4**	**37.6**	**159.1**

Indirect Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Indirects/Overheads (including benefits)	90.7	76.1	14.6	90.7
Capitalized interest or AFUDC, if any	1.4	2.3	-0.9	1.4
Subtotal	**92.0**	**78.4**	**13.7**	**92.0**
Total Capital Costs (Gross)	**251.1**	**199.8**	**51.3**	**251.1**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**251.1**	**199.8**	**51.3**	**251.1**

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 2019	Total
Internal Labor and Construction Equipment	9.7	9.7
Outside Services	37.8	37.8
Materials	94.8	94.8
Removals	12.0	12.0
Risk and Contingency	4.9	4.9
Other	-0.1	-0.1
SUBTOTAL DIRECTS W/ RISKS	**159.1**	**159.1**
Indirect / Overhead (including benefits)	90.7	90.7
AFUDC	1.4	1.4
Subtotal – Indirect Costs	**92.0**	**92.0**
TOTAL CAPITAL REQUEST	**251.1**	**251.1**
Reimbursables/Customer Contribution	$0	$0
PROJECT TOTAL (LESS REIMBURSABLES)	**251.1**	**251.1**

5. Lessons Learned

Operations Project Authorization Form

Date Prepared: 11/16/2018	**Project Title:** [redacted]
Company/ies: Eversource CT	**Project ID Number: CD01218**
Organization: Distribution	**Class(es) of Plant: Overhead Distribution**
Project Initiator: [redacted]	**Project Category: Reliability / Smart Switch Program**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Add new automatic devices to reduce the size of existing automatic zones.**
Estimated in service date: 12/31/2019	**If Transmission Project: NA**
Eng. /Constr. Resources Budgeted? Yes	**Capital Investment Part of Original Operating Plan? Yes**
Authorization Type: Full Funding / ACT	**O&M Expenses Part of the Original Operating Plan? Yes**
Total Request: $254,099	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

In the 2018 Smart Switch Ranking Program, the [redacted] zone is ranked #187. [redacted] since 1/1/2016.

Project CD01218 will install [redacted].

Project CD01218 received Initial Funding Authorization of $207.8K at the 11/28/2018 CT PAC meeting. The detail design has been completed and we are requesting Full Funding Authorization of $254.1K, an increase of $46.3K or 122.3% of the Initial Funding Authorized amount. There is no change in scope. Higher material costs along with contractor costs and associated adders account for the variance.

Project Costs Summary

	Prior Authorized*	Additional Request	2019	2020+	Total **
Capital Additions Direct	$0	$0	$ 165,734	$ -	$165,734
Less Customer Contribution	$0	$0	$ -	$ -	$0
Removals Net of Salvage	$0	$0	$ 3,166	$ -	$3,166
Total - Direct Spending	$0	$0	$ 168,900	$ -	$168,900
Capital Additions - Indirect	$0	$0	$ 77,708	$ -	$77,708
AFUDC	$0	$0	$ 946	$ -	$946
Total Capital Request	$199,802	$47,752	$ 247,554	$ -	$247,554
O&M	$7,995	-$1,450	$ 6,545	$ -	$6,545
Total Request	**$207,797**	**$46,302**	**$ 254,099**	**$ -**	**$254,099**

* Amount currently approval in PowerPlan

** Total authorization needed in PowerPlan based on ACT

Financial Evaluation

Direct Capital Costs	2019	2020	2021	Total
Straight Time Labor	$ 4,059	$ -	$ -	$ 4,059
Overtime Labor	$ -	$ -	$ -	
Outside Services	$ 50,780	$ -	$ -	$ 50,780
Materials	$ 114,061	$ -	$ -	$ 114,061
Other, including contingency amounts	$ -	$ -	$ -	$ -
Total	$ 168,900	$ -	$ -	$ 168,900

Indirect Capital Costs	2018	2019	2020	Total
Indirects/Overheads (including benefits)	$ 77,708	$ -	$ -	$ 77,708
Capitalized interest or AFUDC, if any	$ 946	$ -	$ -	$ 946
Total	$ 78,654	$ -	$ -	$ 78,654
Total Capital Costs	$ 247,554	$ -	$ -	$ 247,554
Less Total Customer Contribution	$ -	$ -	$ -	$ -
Total Capital Project Costs	$ 247,554	$ -	$ -	$ 247,554
Total O&M Project Costs	$ 6,545	$ -	$ -	$ 6,545
Total Project Cost	**$ 254,099**	**$ -**	**$ -**	**$ 254,099**

Technical Justification

Project Need Statement

This project has been established to address the [redacted] zone. The [redacted] customer zone that has experienced 5 outage events since 1/1/2016. Therefore, [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, where possible. 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 CD01218 will [redacted] Furthermore, this project replaces one existing Cooper oil-filed recloser, eliminating the potential environmental hazard associated with oil spills and contamination.

Project Scope

[redacted]

There will be no additional line work or reconductoring required.

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 Southwest Hartford [redacted] zone is ranked #187 on the 2018 Smart Switch prioritization list.

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.

Alternatives Considered With Cost Estimates

One alternative to the proposed option is to install a Smart Switch on pole 1078 instead of the proposed Sectionalizing Recloser. To coordinate the new zones, the existing [redacted]. At $149,000, the cost of this option is approximately 70% of the preferred, however, [redacted] Therefore, this alternative was not selected as the preferred option.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Initial Funding Authorization	November 2018
Detailed Design	March 2019
Full Funding Authorization	April 2019
Construction Begin	May 2019
Construction End	December 2019

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2019	Low	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Internal construction resources not available to perform the work.	2019	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost if necessary.
Internal engineering resources not available to perform the work.	2019	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost if necessary.
Materials shortage or long lead times	2019	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2019	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2019	Medium	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	2019	Low	Before use of new technology ensure support of standards and manufacture. Schedule project to accommodate for extra time or ensure new technology is not on the critical path.

Load Study

Project Load Summary

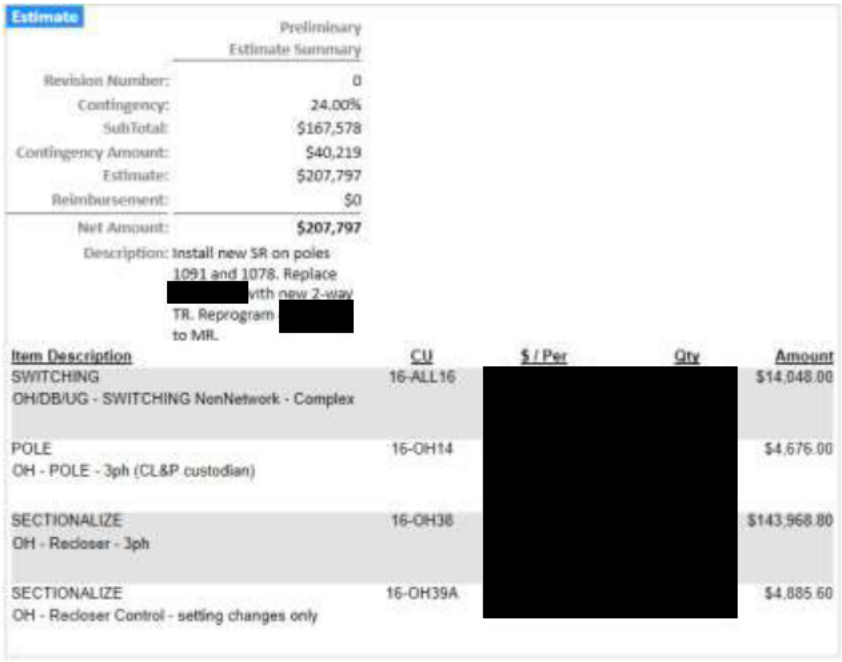
Project Number:	CD01218						
Project Name:	[redacted]						

Current Configuartion							
Circuit	**Load (Amps)**	**Normal**			**Emergency**		
		Rating	**% of Rating**	**Limiting Factor**	**Rating**	**% of Rating**	**Limiting Factor**
[redacted]							

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

Cost Estimate Backup Details

Preferred Option:



Estimate

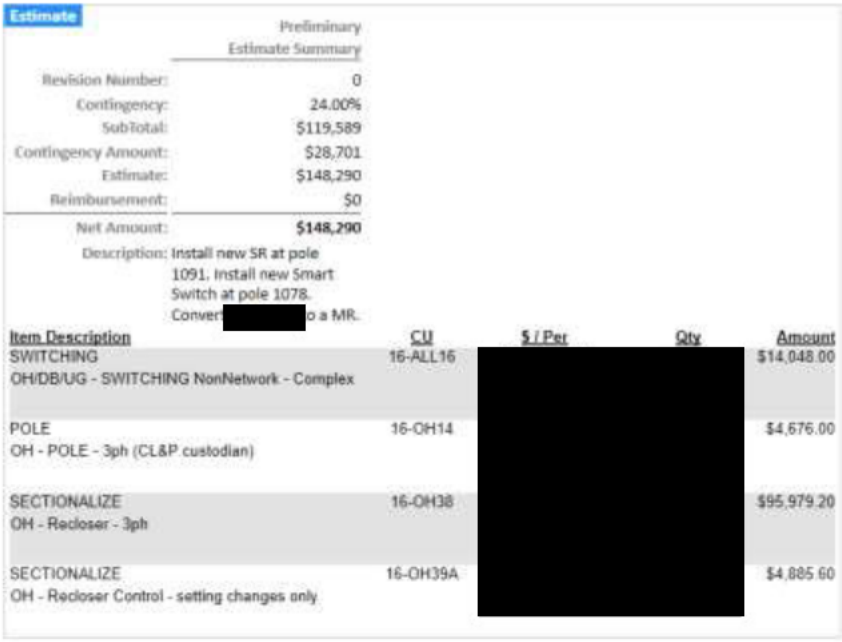
Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$167,578
Contingency Amount:	$40,219
Estimate:	$207,797
Reimbursement:	$0
Net Amount:	**$207,797**

Description: Install new SR on poles 1091 and 1078. Replace [redacted] with new 2-way TR. Reprogram [redacted] to MR.

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Complex	16-ALL16	[redacted]		$14,048.00
POLE OH - POLE - 3ph (CL&P custodian)	16-OH14			$4,676.00
SECTIONALIZE OH - Recloser - 3ph	16-OH38			$143,968.80
SECTIONALIZE OH - Recloser Control - setting changes only	16-OH39A			$4,885.60

Alternate Option:



Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$119,589
Contingency Amount:	$28,701
Estimate:	$148,290
Reimbursement:	$0
Net Amount:	**$148,290**

Description: Install new SR at pole 1091. Install new Smart Switch at pole 1078. Convert [redacted] to a MR.

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Complex	16-ALL16	[redacted]		$14,048.00
POLE OH - POLE - 3ph (CL&P custodian)	16-OH14			$4,676.00
SECTIONALIZE OH - Recloser - 3ph	16-OH38			$95,979.20
SECTIONALIZE OH - Recloser Control - setting changes only	16-OH39A			$4,885.60