EVERSOURCE

Supplement Authorization Form

Project Title: [redacted]	**Project Number: CD01210**
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: $ 1,723k	**Approved In-Service Date:** 12/31/2021
Supplement Request: $ 37.4k	**Estimated In-Service Date:** 12/31/2020
Total Capital Request: $ 1,760.4k	**Authorization Type: Supplement Request**
	Reason: Cost Overage

1. Project Background

Project CD01210 was initiated as part of the 2018 Smart Switch Ranking Program, an initiative designed to identify backbone zones that experience multiple outages affecting more than 500 customers. The project involved the installation of new sectionalizing devices, changing settings on devices and extending 3 phase facilities to establish new ties that reduced the customer zone size. This project addressed the following 2 circuit zones:

[redacted]

2. Supplement Justification Overview

The requested amount of $37.4k is 12% above the authorized direct cost of $1,723k. This project incurred no scope change from full funding to supplemental. Additional outside contractor labor and material costs drove up the overall cost of the project.

3. Supplement Justification Detail

The additional direct cost of $165.2K is mainly due to increase labor, higher material costs and removals needed for this project.

4. Supplement Cost Summary (Project Total)

Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Internal Labor and Construction Equipment	61.8	155.0	-96.4	58.6
Outside Services	619.5	42.0	545.5	587.5
Materials	501.3	135.0	340.4	475.4
Removals	0.0	711.0	-650.2	60.8
Risk and Contingency	34.5	0.0	34.5	34.5
Other	-4.8	4.0	-8.6	-4.6
Subtotal	**1,212.2**	**1,047.0**	**165.2**	**1,212.2**

Indirect Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Indirects/Overheads (including benefits)	523.2	656.0	-132.8	523.2
Capitalized interest or AFUDC, if any	25.0	20.0	5.0	25.0
Subtotal	**548.2**	**676.0**	**-127.8**	**548.2**
Total Capital Costs (Gross)	**1,760.4**	**1,723.0**	**37.4**	**1,760.4**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**1,760.4**	**1,723.0**	**37.4**	**1,760.4**

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.

Capital Costs	2018	2019	2020	2021	TOTAL
Internal Labor & Equipment	0.0	49.5	8.8	0.2	58.6
Outside Services	0.5	496.4	88.1	2.5	587.5
Materials	0.4	401.7	71.3	2.0	475.4
Removals	0.1	49.8	8.8	2.1	60.8
Risk and Contingency	0.0	0.0	0.0	34.5	34.5
Other	0.0	-3.9	-0.7	0.0	-4.6
SUBTOTAL Direct Cost	**1.0**	**993.5**	**176.4**	**41.3**	**1,212.2**
Indirects / Overheads	1.8	405.9	107.6	8.0	523.2
AFUDC	0.0	15.4	9.5	0.0	25.0
SUBTOTAL Indirect Cost	**1.8**	**421.3**	**117.2**	**8.0**	**548.2**
TOTAL Capital Request	**2.8**	**1,414.9**	**293.6**	**49.2**	**1,760.4**
Less Total Customer Contribution	0.0	0.0	0.0	0.0	**0.0**
TOTAL Project Cost	**2.8**	**1,414.9**	**293.6**	**49.2**	**1,760.4**

5. Lessons Learned

N/A

Operations Project Authorization Form

Date Prepared: 11/15/2018	**Project Title:** [redacted]
Companies: Eversource CT	**Project ID Number: CD01210**
Organization: Distribution	**Class(es) of Plant: Overhead**
Project Initiator: [redacted]	**Project Category: Smart Switch Program**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Reliability Improvement**
Estimated in service date: 12/1/2020	**If Transmission Project: PTF? N/A**
Eng. /Constr. Resources Budgeted? N	**Capital Investment Part of Original Operating Plan? N**
Authorization Type: Initial Funding	**O&M Expenses Part of the Original Operating Plan? N**
Total Request: $1,792,169	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

The 2018 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% + 016 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.

[redacted]

This project involves installation of new sectionalizing devices, changing settings on devices and extending 3 phase facilities to establish new ties to reduce the customer zone size.

Project Costs Summary

Note: Dollar values are in thousands

	Prior Authorized	2019	2020	2021+	Totals
Capital Additions - Direct	$0	$794	$229	$0	$1,023
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$19	$5	$0	$24
Total - Direct Spending	$0	$813	$234	$0	$1,047
Capital Additions - Indirect	$0	$509	$147	$0	$656
Subtotal Request	$0	$1,323	$381	$0	$1,703
AFUDC	$0	$16	$5	$0	$20
Total Capital Request	$0	$1,339	$385	$0	$1,724
O&M	$0	$53	$15	$0	$68
Total Request	**$0**	**$1,392**	**$401**	**$0**	**$1,792**

Financial Evaluation

Direct Capital Costs	2019	2020	2021+	Total
Straight Time Labor	$121	$35	$0	$155
Overtime Labor	$33	$9	$0	$42
Outside Services	$105	$30	$0	$135
Materials	$552	$159	$0	$711
Other, including contingency amounts (describe)	$3	$1	$0	$4
Total Direct Costs	**$813**	**$234**	**$0**	**$1,047**

Indirect Capital Costs	2019	2020	2021+	Total
Indirects/Overheads (including benefits)	$509	$147	$0	$656
Capitalized interest or AFUDC, if any	$15	$4	$0	$20
Total Indirect Costs	**$525**	**$151**	**$0**	**$676**
Total Capital Costs	**$1,338**	**$385**	**$0**	**$1,723**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$1,338**	**$385**	**$0**	**$1,723**
Total O&M Project Costs	**$54**	**$15**	**$0**	**$69**
Total Project Cost	**$1,392**	**$401**	**$0**	**$1,792**

Future Financial Impacts:

Provide below the estimated future costs that will result from the project:
Note: Dollar values are in thousands:

Future Costs	Year 20__	Year 20__	Year20__	Year 20__+	Total Future Project Costs
Capital	$ -	$ -	$ -	$ -	$ -
O&M	-	-	-	-	-
Other	-	-	-	-	-
TOTAL	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Describe the estimated future Capital, O&M and/or Other costs noted above:

What functional area(s) will these future costs be funded in?_____
A representative from the respective functional area is required to be included as a project approver.

If this is other than a Reliability Project, please complete the section below;

Provide below the estimated financial benefits that will result from the project:
Note: Dollar values are in thousands:

Future Benefits	Year 20__	Year 20__	Year20__	Year 20__+	Total Future Project Benefits
Capital	$ -	$ -	$ -	$ -	$ -
O&M	-	-	-	-	-
Other	-	-	-	-	-
TOTAL	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Describe the estimated future Capital, O&M and/or Other benefits noted above:

What functional area(s) will these benefits be reflected in?_____
A representative from the respective functional area is required to be included as a project approver.

Asset Retirement Obligation (ARO) and/ or Environmental Cleanup Costs (Environmental Liabilities):

Is there an ARO associated with this project? If yes, please provide details:

Are there other environmental cleanup costs associated with this project? If yes, please provide details:

Technical Justification:

Project Need Statement

This project has been established to address two large customer zones on the [redacted] circuit. The [redacted] customer zone and the [redacted] customer zone. In addition, 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]

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 [redacted] is ranked 5 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

[redacted]

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Initial Funding Authorization	November 2018
Detailed Design	March 2019
Full Fuinding Authorization	April 2019
Construction Completion, Segments 1,4 & 5	December 2019
Construction Completion, Segments 2 & 3	December 2020

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.	2019-2020	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.	2019-2020	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	2019-2020	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2019-2020	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2019-2020	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	2019-2020	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.

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.)

CD01210 Project One-Lines 11-15-18.

CD01210 Project Maps Option 4 Prop

CD01210 Project Maps Alternatives.p

CD01210 Project Load Summary 11-6-

Leap_Zone_Projecti ons_1[redacted]_11-2-201

Leap_Zone_Projecti ons_[redacted]_11-6-201

Project Checklist – Transmission and Substation

INSTRUCTIONS:
It is the responsibility of the initiator to contact the area disciplines to determine if the project considerations contained in this list are applicable to their project. They should fill out the checklist and determine a transition plan for the purpose of project execution.

Checklist for Studies and Processes of a Transmission & Substation Capital Project	
Project Name :	**PAF No:**
Facility Type: ☐ BPS ☐ BES ☐ PTF ☐ non-PTF ☐ CIP ☐ Distribution	
PLANNING	
Is a NX-9 required?	Choose an item
Is an ISO-NE PAC presentation required?	Choose an item
Is a PPA required?	Choose an item
Is a TCA Application Required?	Choose an item
PLANNING/PROTECTION & CONTROLS	
Are RAS/SPS/UVLs affected?	Choose an item
OPERATIONS	
Outage Required?	☐ Primary Equipment (Power Transfer) ☐ Secondary Equipment (P&C only) ☐ Outage Not Required
Do SCLL Conditions Exist?	Choose an item
Has an outage schedule been approved?	Choose an item
Are Operations & Maintenance procedures/training required?	Choose an item
STANDARDS	
Does the project include standard equipment and designs?	Choose an item
SUBSTATION ENGINEERING	
Does this impact Revenue Metering	Choose an item
Is preliminary short circuit/ breaker duty analysis required?	Choose an item
Are there any changes to the baseline audible noise?	Choose an item
Is there an impact to the existing ground grid?	Choose an item
Is a Transient Over Voltage (TOV) analysis required?	Choose an item
P&C ENGINEERING	
OP-22 - Are PMUs and DDR required?	Choose an item
If BPS, is an NPCC Directory #4 presentation required?	Choose an item

Checklist for Studies and Processes of a Transmission & Substation Capital Project	
Project Name :	**PAF No:**
TRANSMISSION LINE ENGINEERING	
Are there any changes that affect the baseline EMF?	Choose an item
Are there any changes that affect the baseline EMI?	Choose an item
Is there an impact to the existing ground grid?	Choose an item
SITING	
Is a Siting filing required?	Choose an item
PERMITTING	
Is there any permitting required?	Choose an item
Siting & Construction Services (Outreach)	
What is the level of outreach expected?	Choose an item
INITIATOR	
Has a field constructability review been completed?	Choose an item

Cost Estimate Backup Details



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