EVERSOURCE

Supplement Authorization Form

Project Title: [redacted], Hartford – Automate Service	**Project Number: CD01537**
Date Prepared: 09/30/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** UG Network Automation
Initiating Organization: Distribution	**Project Type:** Specific
Project Initiator: [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: $363.4K	**Approved In-Service Date:** 12/31/2025
Supplement Request: $231.6K	**Estimated In-Service Date: 12/31/2025**
Total Capital Request: $595K	**Authorization Type:** Supplement Request
	Reason: : Cost Overage

1. Project Background

Supplemental funding has been requested for this project. The total capital request is $595K, which is 157% more than the current authorized amount of $231.6K from 2023.

CD01537 proposes to [redacted]

2. Supplement Justification Overview

The supplemental is required due to the cost of coil upgrades to the ISG switch gear and additional loaders added to the original 2023 work orders. Switchgear testing scheduled to start the week of Sept. 29th, with installation beginning later in October 2025.

3. Supplement Justification Detail

Direct Costs: $73.4K

1. **Internal Labor: $50.2K** – Cost to re-test the switchgear following it being updated due to the trip coil issue. Increase to the labor costs since the work orders were written in 2023.
2. **Materials (Eversource purchased): $28.6K** – There is an increased cost of material from when the work orders were written. An additional $10K added for the cost to upgrade the ISG switchgear to resolve the issue with the trip coil.

Indirects/Overhead: $158.2K – This increase is driven by the loader increase since the full funding in 2023.

4. Supplement Cost Summary (Project Total)

Capital Costs	To Date Spend Year(s)	Prior Authorized Year(s)	Variance (Supplemental Request) Year(s)	New Total Request (Add Prior Authorized and Variance) Year(s)
Internal Labor and Construction Equipment	45.6	43.7	46.1	89.8
Outside Services	14.5	14.4	1.4	15.8
Materials	168.5	144.2	28.6	172.8
Removals	5.9	5.8	4.1	9.9
Risk and Contingency	0.0	25.4	-6.8	18.6
Other	0.3	0.3	0.0	0.3
SUBTOTAL DIRECTS W/ RISKS	**234.8**	**233.8**	**73.4**	**307.2**
Indirect / Overhead (including benefits)	119.2	115.5	135.7	251.2
AFUDC	36.6	14.1	22.5	36.6
Subtotal – Indirect Costs	**155.8**	**129.6**	**158.2**	**287.8**
TOTAL CAPITAL REQUEST	**$390.6**	**$363.4**	**$231.6**	**$595.0**
Reimbursables/Customer Contribution	$0	$0	$0	$0
PROJECT TOTAL (LESS REIMBURSABLES)	**$390.6**	**$363.4**	**$231.6**	**$595.0**

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	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Projected Spend
Internal Labor and Construction Equipment	8.6	29.5	1.6	0.0	50.1	89.8
Outside Services	9.0	4.9	0.0	0.0	1.9	15.8
Materials	147.2	1.2	0.0	24.5	0.0	172.8
Removals	1.3	6.6	0.3	0.0	1.8	9.9
Risk and Contingency					18.6	18.6
Other	0.0	0.3	0.0	0.0	0.0	0.3
SUBTOTAL DIRECTS W/ RISKS	**166.1**	**42.4**	**1.8**	**24.5**	**72.4**	**307.2**
Indirect / Overhead (including benefits)	46.3	69.2	2.7	1.0	132.0	251.2
AFUDC	1.9	12.2	5.0	13.9	3.6	36.6
Subtotal – Indirect Costs	**48.2**	**81.4**	**7.7**	**14.9**	**135.6**	**287.8**
TOTAL CAPITAL REQUEST	**214.2**	**123.8**	**9.5**	**39.3**	**208.0**	**595.0**
Reimbursables/Customer Contribution	$0	$0	$0	$0	$0	$0
PROJECT TOTAL (LESS REIMBURSABLES)	**214.2**	**123.8**	**9.5**	**39.3**	**208.0**	**595.0**

5. Lessons Learned

Operations Project Authorization Form

Project Title: [redacted]., Hartford – Automate Service	**Project Number:** CD01537
Date Prepared: 02/15/2023	**Company:** Eversource CT
Organization: Electric Field Operations	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** DISTRIBUTION AUTOMATION-LINES
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** Yes
Estimated in service date: 12/31/2023	**Emergency Related Request?** No
Eng./Constr. Resources Budgeted? Yes	**Facility Type** (check all that apply): ☐ PTF ☐ non-PTF ☒ Distribution
Total Gross Capital Request: $363,400	**Authorization Type:** Full Funding

Executive Summary

The primary electric service at [redacted]

In the past five years (2015-2019), these customers have experienced three feeder outages (2019 - 2; 2018 -1) averaging approximately 150 minutes/outage.

This project proposes to automate the service to this location by replacing the manual switches with automatic switches.

The expected benefits upon completion of this project include:

- Improved reliability/customer satisfaction – automate the existing manual service at [redacted] in Hartford to lessen the impact of future feeder outages

This project received initial funding at May 7, 2020 CTPAC meeting for $320K
This Full Funding request is for $363.4K, or an increase of 14%.
The primary reason for the estimate increase is material and labor cost increases.
Labor rates in Maximo are 80% of the current contract rates.
Material costs have risen due to inflation and supply chain shortages.

Project Cost Summary

Capital Costs	Year 1	Year 2	Year 3+	Total
Internal Labor and Construction Equipment	43.7	0.0	0.0	43.7
Outside Services	14.4	0.0	0.0	14.4
Materials	144.2	0.0	0.0	144.2
Removals	5.8	0.0	0.0	5.8
Risk and Contingency	25.4	0.0	0.0	25.4
Other	0.3	0.0	0.0	0.3
Subtotal	**233.9**	**0.0**	**0.0**	**233.9**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	115.5	0.0	0.0	115.5
Capitalized interest or AFUDC, if any	14.1	0.0	0.0	14.1
Subtotal	**129.6**	**0.0**	**0.0**	**129.6**
Total Capital Costs (Gross)	**363.4**	**0.0**	**0.0**	**363.4**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**363.4**	**0.0**	**0.0**	**363.4**

Technical Justification:

Project Need Statement

There are two manual transfer switches that serve the customers at [redacted]

[redacted] (attached below). This particular location was not identified in the original study, but it has similar characteristics to other locations contained in the that study and will be addressed as such.

Project Objective

This project proposes to [redacted]

Project Scope

The [redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

Major Material

- Automatic switchgear pair (two 2-Way switches / 23 KV)

Background / Justification

Project #476891 – CFM [redacted] was established in 2010 to implement reliability improvements on the [redacted] circuit under the Cyclical Feeder Management (CFM) program. [redacted]

- [redacted]
- [redacted]

- [redacted]

A summary of project approval history over the succeeding years is shown below:

- 12/15/10 PRELIM Seg. 1 & 3
- 4/25/13 Rev PRELIM added Seg. 4 to the project
- 6/11/14 PARTIAL Seg. 3 & 4 - FULL Funding; Seg. 1 - PRELIM Funding
- 4/29/15 PARTIAL Seg. 1 - FULL Funding (PRELIM = $244K; FULL = $262K)

Segment 3 and Segment 4 have been completed under this project (as of May 2015).

Segment 1 work has been held-up over the years due to an easement issue involving the property owner. CL&P has requested an expanded easement area to accommodate a separate pad for the new switchgear. The property owner has been reluctant to grant that request.

From 2015 – 2017 there were [redacted] 2) have caused this project to re-surface (see attached outage history). More recent discussions between Engineering and Real Estate has led to a different interpretation of the language in the existing easement, with Real Estate saying that the existing Eversource easement rights are more than adequate for us to do what we want to do (see attached easement 063DE152). There is no need to negotiate a new easement with the owner.

Project #CD01537 – [redacted]., Hart. – Automate Service was established to incorporate the work originally included in Project #476891-01, [redacted] Once Project #CD01537 is approved, the charges accumulated under Project #476891-01 over the past many years (approx. $58K) can be transferred to Project #CD01537-01, and Project #476891 can be completed/closed.

Following the creation of the Hartford Area UG Study report in 2011, [redacted]

Although this location was not identified in the original report, it has similar characteristics to other locations contained in the that report and will be addressed as part of this program.

Business Process and / or Technical Improvements:

[redacted]

Alternatives Considered with Cost Estimates

Since the project design was previously PRELIM and FULL approved, no additional alternatives were considered at this time.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Design Approval (PRELIM)	5/15/20
Detailed Design and Work Order Preparation	7/31/20
Detailed Design Approval (FULL)	8/31/20
Order Long Lead-time Material	9/30/20
Project Construction	12/31/21

Regulatory Approvals

N/A

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	2020	Medium	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction 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.
Internal engineering resources not	2020	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.

available to perform the work.			
Materials Shortage or long lead times	2021	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2021	Low	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. Install temporary bypasses/equipment if system will be abnormal for extended periods
Technological risks involving integration of new technology	2021	Medium	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.

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

[Project Need Statements]

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01537

[redacted] Hart. - Automate Service

Design Alternative CD01537-01

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$257,771
Contingency Amount:	$61,865
Estimate:	$319,636
Reimbursement:	$0
Net Amount:	**$319,636**

Description: Original ENG estimate

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17	[redacted]		$7,019.20
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18			$3,000.00
DB CABLE DB/UG - 4/0 - 3-1/C (3ph) Al	16-UG113			$8,400.00
SWITCHGEAR DB/UG - Switchgear up to 25kV - Auto Type 5 (pair)	16-UG125			$140,080.00
CONDUIT UG-Ductline-up to 12 duct-Non- Traveled/Non-Paved	16-UG138			$28,320.00
ENCLOSURE DB/UG - Transformer Pad/Handhole	16-UG143			$6,208.80
OTHER OTHER Remove existing manual swgr	16-ALL14			$7,000.00
OTHER OTHER Transfer charges from Project #476891-01 ($57,742.81)	16-ALL14			$57,743.00

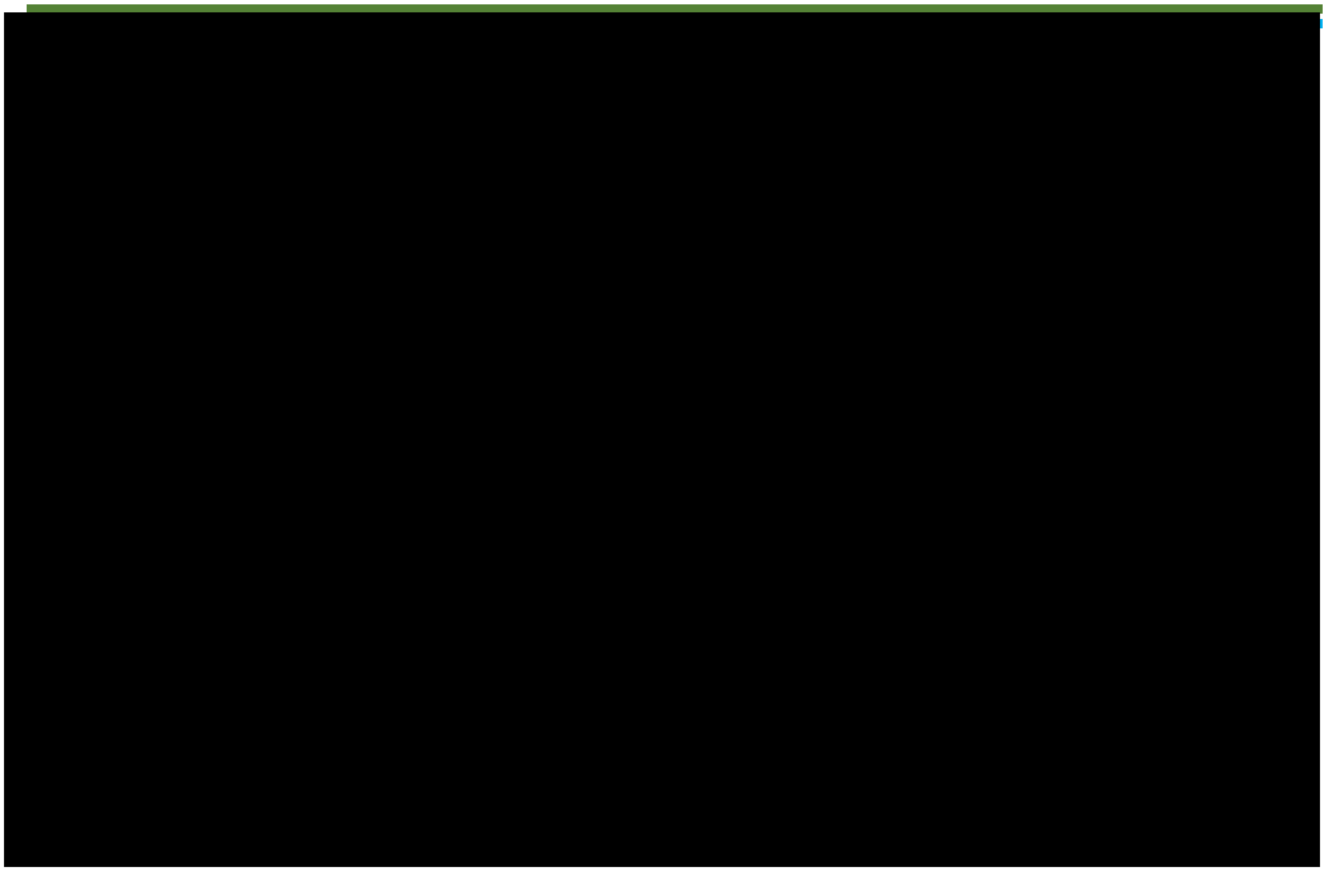
[Load Summaries]

[redacted]]



[redacted]

[Proposed Electrical Work]



[J5-3D-G7 Detail Map]



[309B X-Map]

Supplement Authorization Form



Operations Project Authorization Form

Date Prepared: 5/8/20	**Project Title: [redacted]., Hartford – Automate Service**
Company/ies: Eversource - CT	**Project ID Number: CD01537**
Organization: Distribution Engineering	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: Line**
Project Manager: [redacted]	**Project Type: Switchgear**
Project Sponsor: [redacted]	**Project Purpose: Improve Customer Service**
Estimated in service date: 12/31/21	**If Transmission Project: NA**
Eng. /Constr. Resources Budgeted? No	**Capital Investment Part of Original Operating Plan? No**
Authorization Type: Preliminary Funding	**O&M Expenses Part of the Original Operating Plan? No**
Total Request: $319,636	

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary

The primary electric service at [redacted]

[redacted]

This project proposes to automate the service to this location by replacing the manual switches with automatic switches.

The expected benefits upon completion of this project include:

- Improved reliability/customer satisfaction – [redacted]

The estimated cost of this project is $319,636.

Project Cost Summary

	Prior Authorized	2021	20__	20__+	Totals
Capital Additions - Direct	$ -	$ 188,079	$ -	$ -	$ 188,079
Less Customer Contribution	-	-	-	-	-
Removals net of Salvage ____%	-	20,712	-	-	20,712
Total - Direct Spending	$ -	$ 208,791	$ -	$ -	$ 208,791
Capital Additions - Indirect	-	108,425	-	-	108,425
Subtotal Request	$ -	$ 317,216	$ -	$ -	$ 317,216
AFUDC	-	2,224	-	-	2,224
Total Capital Request	$ -	$ 319,440	$ -	$ -	$ 319,440
O&M	-	196	-	-	196
Total Request	$ -	$ 319,636	$ -	$ -	$ 319,636

Financial Evaluation

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$26,643			
Overtime Labor	9,676			
Outside Services	61,442			
Materials	107,299			
Other, including contingency amounts (describe)	3,731			
Total	$208,791			

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$108,425			
Capitalized interest or AFUDC, if any	2,222			
Total	$110,647			

Total Capital Costs	$319,438			
Less Total Customer Contribution	$0			
Total Capital Project Costs	$319,438			

Total O&M Project Costs	$198			
Total Project Cost	$319,636			

Technical Justification:

Project Need Statement

[redacted] (attached below). This particular location was not identified in the original study, but it has similar characteristics to other locations contained in the that study and will be addressed as such.

Project Objective

[redacted]

Project Scope

[redacted]

Major tasks to accomplish this work are as follows:

- [redacted]

[redacted]

Major Material

- Automatic switchgear pair (two 2-Way switches / 23 KV)

Background / Justification

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Project #476891 Documents

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