EVERSOURCE

Supplement Authorization Form

Project Title: [redacted] 5kV Elimination	**Project Number:** CD01024
Date Prepared: 05/27/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** S/S ELIMINATION-LINE WORK
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: $3,443.9K	**Approved In-Service Date:** 12/31/2020
Supplement Request: $2,628.9K	**Estimated In-Service Date:** 12/31/2024
Total Capital Request: $6,072.8K	**Authorization Type:** Supplement Request
	Reason: Cost Overage

1. Project Background

Supplemental funding is being requested for this project. The total capital request is $6,072.8K which is $2,628.9K (76%) more than the current authorized amount of $3,443.9K.

[redacted]

Location Information:

Division: Western
District: Norwalk
City: Norwalk

2. Supplement Justification Overview

Projects initially fully funded prior to 1/1/22 are governed by the pre-2022 APS1 policy which is based solely on direct cost approval vs direct actual spend. This project was approved in PowerPlan with 100% of the project's total estimated costs reflected as directs, thereby overstating the direct cost portion of the project approval. As a result, the project was identified to be in APS1 compliance when in reality the direct costs exceeded the APS1 direct approved threshold. During detailed review of historical projects, it was discovered that this project was not in compliance with APS1 and therefore required a supplement based on the pre-2022 APS-01 requirements.

This projects variance of $2,628.9K is due to work on this project that was missed during the initial estimate and additional work that was encountered while the project was under construction.

3. Supplement Justification Detail

The overage on this project stems from multiple factors – some of the main factors are as follows.

[redacted]

- [redacted] – 7,500'
- [redacted] – 8,592'
- [redacted] – 8,850'
- [redacted] – 4,897'

[redacted]

[redacted]

[redacted]

4. Supplement Cost Summary (Project Total)

Line-item Category	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	203.8	381.0	-177.1	203.8
Outside Services	2,422.1	923.1	1,449.0	2,422.1
Materials	488.0	745.1	-257.0	488.0
Removals	320.4	0.0	320.4	320.4
Risk and Contingency	0.0	0.0	119.1	119.1
Other	6.9	53.1	-46.2	6.9
SUBTOTAL DIRECTS W/ RISKS	**3,441.2**	**2,102.2**	**1,458.1**	**3,560.3**
Indirect / Overhead (including benefits)	2,474.0	1,294.4	1,179.5	2,474.0
AFUDC	38.5	47.2	-8.7	38.5
Subtotal – Indirect Costs	**2,512.5**	**1,341.7**	**1,170.8**	**2512.5**
TOTAL CAPITAL REQUEST	**5,953.7**	**3,443.9**	**2,628.9**	**6,072.8**
Reimbursables/Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
PROJECT TOTAL (LESS REIMBURSABLES)	**5,953.7**	**3,443.9**	**2,268.9**	**6,072.8**

New Total Request by Year (if applicable)

Line item Category	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Actual	2023 Actual	2024 Actual	2025 Actual	Total
Internal Labor and Construction Equipment	7.0	1.5	38.4	16.8	74.2	29.9	36.7	0.0	204.5
Outside Services	82.6	18.3	456.4	199.4	881.2	355.8	436.6	0.0	2,430.4
Materials	16.6	3.7	92.0	40.2	177.5	71.7	88.0	0.0	489.7
Removals	10.5	2.3	58.2	25.4	112.3	45.3	55.6	0.0	309.7
Risk and Contingency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	119.1	119.1
Other	0.2	0.1	1.3	0.6	2.5	1.0	1.2	0.0	6.9
SUBTOTAL DIRECTS W/ RISKS	**117.0**	**25.9**	**646.3**	**282.3**	**1,247.7**	**503.8**	**618.2**	**119.1**	**3,560.3**
Indirect / Overhead (including benefits)	85.4	14.0	366.6	269.2	869.6	344.2	577.7	-52.6	2,474.0
AFUDC	1.5	5.0	20.2	2.3	9.5	0.0	0.0	0.0	38.5
Subtotal – Indirect Costs	**86.9**	**19.0**	**386.8**	**271.5**	**879.1**	**344.2**	**577.7**	**-52.6**	**2,512.5**
TOTAL CAPITAL REQUEST	**203.9**	**44.9**	1,0331.1	**553.7**	**2,126.8**	**848.0**	**1,195.9**	**66.5**	**6,072.8**
Reimbursables/Customer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**

Contribution									
PROJECT TOTAL (LESS REIMBURSABLES)	203.9	44.9	1,033.1	553.7	2,126.8	848.0	1,195.9	66.5	6,072.8

5. Lessons Learned

N/A

Full Funding PAF:

Operations Project Authorization Form

Date Prepared: 03//19/19	**Project Title: [redacted] 5kV Elimination**
Company/ies: Eversource CT	**Project ID Number: CD01024**
Organization: Electric	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: Line**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: S/S Elimination**
Estimated in service date: 12/31/2020	**If Transmission Project: PTF? N**
Eng. /Constr. Resources Budgeted? Yes	**Capital Investment Part of Original Operating Plan? Y**
Authorization Type: Full Funding	**O&M Expenses Part of the Original Operating Plan?Y**
Total Request: $3,515k ($783K 2019 Civil Work only)	

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary

[redacted]

[redacted]

This request is for $3,515k that includes final estimates for the 2019 civil work totaling $782,770 which is 130.7% vs the preliminary estimate. There is no change of scope to the project, the difference in cost is due to higher contractor labor. The previous request for this project was $3,458.5k and has increased to $3,515k. Segment 11 was removed from this project and will be completed under CD01222 the 9S13 smart switch project. This change was made so that P&C only has to generate settings once for the area. Also, the two risers in segment 7 and 8 were moved to segment 3 which increased segment 7 and 8 by $17k each.

Project Costs Summary

	Prior Authorized*	Additional Request	2018	2019	2020+	Totals
Capital Additions Direct	$ -	$ -	$281,299	$458,988	$1,320,809	$2,061,096
Less Customer Contribution	$ -	$ -	$0	$0	$0	$0
Removals Net of Salvage	$ -	$ -	$5,610	$9,153	$26,340	$41,103
Total - Direct Spending	$ -	$ -	$286,909	$468,141	$1,347,149	$2,102,200
Capital Additions - Indirect	$ -	$ -	$176,667	$288,262	$829,519	$1,294,448
Subtotal Request	$ -	$ -	$463,576	$756,404	$2,176,668	$3,396,648
AFUDC	$	$ -	$6,579	$10,734	$30,889	$48,202
Total Capital Request	$ 3,389,346	$55,504	$470,154	$767,138	$2,207,558	$3,444,850
O&M	$ 69,170	$ 1,027	$9,581	$15,632	$44,984	$70,197
Total Request	**$ 3,458,516**	**$ 56,531**	$479,735	$782,770	$2,252,542	$3,515,047

ACT Spreadsheet Segment 3

Supplement Authorization Form

		Total Project [A]	Segment 1	Segment 3 (2018)	Segment 3 (2019)	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Moved to CD01222 Segment 11
CURRENT ENG ESTIMATE	=	**$3,353,772**	**$1,053,920**	**$375,000**	**$598,900**	**$747,761**	**$67,087**	**$310,030**	**$61,473**	**$46,271**	**$93,330**
Eversource Direct Eng/Supv	=	$49,962		$18,190	$31,772	$0	$0	$0	$0	$0	$0
Eversource Labor	=	$82,795		$27,811	$54,984	$0	$0	$0	$0	$0	$0
Eversource Labor Overtime	=	$0		$0	$0	$0	$0	$0	$0	$0	$0
Per Diem [B]	=	$0		$0	$0	$0	$0	$0	$0	$0	$0
Eversource Equipment	=	$11,536		$4,080	$7,456	$0	$0	$0	$0	$0	$0
Material	=	$91,909		$50,495	$41,414	$0	$0	$0	$0	$0	$0
Contractor Labor	=	$468,165		$168,490	$299,675	$0	$0	$0	$0	$0	$0
Tree Trimming	=	$0		$0	$0	$0	$0	$0	$0	$0	$0
Traffic Control	=	$44,775		$29,157	$15,618	$0	$0	$0	$0	$0	$0
Contractor Additional [C]	=	$28,114		$24,993	$3,121	$0	$0	$0	$0	$0	$0
Contractor Other [D]	=	$0		$0	$0	$0	$0	$0	$0	$0	$0
Other Costs	=	$1,500		$0	$1,500	$0	$0	$0	$0	$0	$0
E&S	=	$345,819		$106,923	$238,896	$0	$0	$0	$0	$0	$0
MDEC	=	$32,020		$6,398	$25,622	$0	$0	$0	$0	$0	$0
AS&E	=	$5,557		$4,657	$900	$0	$0	$0	$0	$0	$0
AFUDC	=	$12,271		$5,072	$7,199	$0	$0	$0	$0	$0	$0
Sub-Total	=	$1,174,423		$446,266	$728,157	$0	$0	$0	$0	$0	$0
Contingency [E]	=	$88,082		$33,470	$54,612	$0	$0	$0	$0	$0	$0
TOTAL PROJECT COST	=	**$1,262,505**		**$479,735**	**$782,770**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Reimbursable Costs	=	$0		$0	$0	$0	$0	$0	$0	$0	$0
CL&P PROJECT BUDGET	=	$3,515,047	**$1,053,920**	**$479,735**	**$782,770**	**$747,761**	**$67,087**	**$310,030**	**$44,473**	**$29,271**	**$0**
ACT / ENG (%)		**37.6%**		**127.9%**	**130.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Financial Evaluation

Note: Dollar values are in thousands

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$44,927	$73,306	$210,950	$329,184
Overtime Labor	$7,067	$11,531	$33,183	$51,781
Outside Services	$125,980	$205,558	$591,524	$923,062
Materials	$101,686	$165,919	$477,457	$745,062
Other, including contingency amounts (describe)	$7,249	$11,827	$34,035	$53,111
Total Direct Costs	**$286,909**	**$468,141**	**$1,347,149**	**$2,102,200**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$176,667	$288,262	$829,519	$1,294,448
Capitalized interest or AFUDC, if any	$6,445	$10,517	$30,264	$47,226
Total Indirect Costs	**$183,112**	**$298,779**	**$859,783**	**$1,341,674**
Total Capital Costs	**$470,021**	**$766,920**	**$2,206,932**	**$3,443,874**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$470,021**	**$766,920**	**$2,206,932**	**$3,443,874**
Total O&M Project Costs	**$9,714**	**$15,850**	**$45,610**	**$71,173**
Total Project Cost	**$ 479,735**	**$ 782,770**	**$2,252,542**	**$3,515,047**

Segment 1,4,5,6,7, and 8 in 2020. Segment 11 moved to CD01222.

Technical Justification:

Project Need Statement

[redacted]

[redacted]

Below are pictures of the deterioration:


20151105_101348.jpg


20151105_101426.jpg


20151105_101522.jpg


20151105_101531.jpg

Project Objectives

This project was designed to eliminate and convert the 5KV system and under the following design criteria:

[redacted]

Project Scope

[redacted]

[redacted]

[redacted]

[redacted]

Background / Justification

[redacted]

Business Process and / or Technical Improvements:

[redacted]

Alternatives Considered with Cost Estimates

Option 2 – Convert [redacted] Network to 13.8kV 3F-Net

2019 ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
2	Convert 13.8kV 3F-Net	Prelim	0	48 %	$2,591,113	$2,591,113
1	5kV Cable Removal	Prelim	0	28 %	$1,053,920	$1,053,920
				2019 Total:	$3,645,033	$3,645,033
				Total Project:	$3,645,033	$3,645,033

[redacted]

Option 3 – Replace [redacted]-5KV Switchgear and Platform

High level estimate of $5 million.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
ENG Approval	12/14/17
ACT Approval	09/01/18
Construction Start	01/01/19
Construction Completion	12/31/19

Regulatory Approvals

None.

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Expected Value Cost Exposure ($M)	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2019	LOW	MEDIUM	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	HIGH	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.	2019	LOW	LOW	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2019	LOW	Project Delays	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.

References

PN-CD00672

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

