EVERSOURCE

Supplement Authorization Form

Project Title: New London MBI Initiative – Pole Integrity	Project Number: CD00847
Date Prepared: 04/14/2026	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** POLE INTEGRITY 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: $ 536.6k	**Approved In-Service Date:** 12/31/2017
Supplement Request: $ -6.6 k	**Estimated In-Service Date:** 12/31/2019
Total Capital Request: $ 530.9k	**Authorization Type:** Supplement Request
	Reason: Cost Overage

1. Project Background

Project CD00847 was established to proactively reduce outages and enable the system to better withstand day-to-day extreme weather conditions. Pole findings identified during circuit patrols were selected for completion under the System resiliency pole integrity program. Poles requiring structural upgrades- including rotten or cracker crossarms, arrestors, pole replacements, pole shifts, crossarm braces, anchors, down grounds, guying, pins and insulators – were included in the program.

A total of 64 pole locations were identified for remediation as part of the MBI initiative within the New London area work center. The goal of the MBI initiative was to address priority patrol findings and upgrade pole locations to system resiliency standards.

Each identified pole location was assessed using the Pole Foreman structural loading tool and evaluated against system resiliency loading criteria of 95 mph winds or 40 mph winds with ¾-inch ice. In addition, any pole greater than 40 years old was designed for replacement. Fuse protection, animal protection, and zap shields were added to transformers on backbone and lateral circuits.

2. Supplement Justification Overview

The total request is coming in less than the full funding amount, however this supplemental is required solely due to the increase in direct costs as required by pre-2022 APS-1 guidelines.

The overage for this project is attributed solely to the direct capital cost portion. As a result, the supplemental request applies only to the direct capital cost.
Specifically, the prior authorization stands at $364.9 directs, and the supplemental request is for $52.2k additional, bringing the total Direct Capital Cost of $417.2K. For further details, please refer to item #4 below to the upper section of the table pertaining exclusively to the Direct Capital Cost.

3. Supplement Justification Detail

This project spanned multiple years and was extended beyond its original timeline. The original scope did not include the additional direct cost.

4. Supplement Cost Summary (Project Total)

Direct Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Internal Labor and Construction Equipment	18.3	0.6	14.1	14.7
Outside Services	357.5	332.3	-44.2	288.1
Materials	35.0	32.0	-3.8	28.2
Removals	0.0	0.0	78.9	78.9
Risk and Contingency	10.4	0.0	10.4	10.4
Other	-3.9	0.0	-3.2	-3.2
Subtotal	**417.2**	**364.9**	**52.2**	**417.2**

Indirect Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Indirects/Overheads (including benefits)	111.3	169.5	-58.2	111.3
Capitalized interest or AFUDC, if any	1.5	2.2	-0.7	1.5
Subtotal	**112.8**	**171.7**	**-58.9**	**112.8**
Total Capital Costs (Gross)	**530.0**	**536.6**	**-6.6**	**530.0**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**530.0**	**536.6**	**-6.6**	**530.0**

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	2017	2018	2019	TOTAL
Internal Labor & Equipment	19.0	-4.2	-0.1	14.7
Outside Services	371.5	-81.6	-1.7	288.1
Materials	36.4	-8.0	-0.2	28.2
Removals	98.6	-21.7	2.0	78.9
Risk and Contingency	0.0	0.0	10.4	10.4
Other	-4.1	0.9	0.0	-3.2
SUBTOTAL Direct Cost	**521.3**	**-114.5**	**10.4**	**417.2**
Indirects / Overheads	173.6	-61.1	-1.2	111.3
AFUDC	1.5	0.0	0.0	1.5
SUBTOTAL Indirect Cost	**175.1**	**-61.1**	**-1.2**	**112.8**
TOTAL Capital Request	**696.4**	**-175.6**	**9.2**	**530.0**
Less Total Customer Contribution	0.0	0.0	0.0	**0.0**
TOTAL Project Cost	**696.4**	**-175.6**	**9.2**	**530.0**

5. Lessons Learned

N/A

Date Prepared: 5/10/17	Project Title: New London MBI Initiative
Company/ies: Eversource CT	Project ID Number: CD00847
Organization: Distribution Design	Class(es) of Plant: Distribution
Project Initiator: [redacted]	Project Category: Pole Integrity Project
Project Owner/Manager: [redacted]	Project Type: *Specific*
Project Sponsor: [redacted]	Project Purpose: System Resiliency PURA Docket 12-07-06RE01
Estimated in service date: 9/30/17	If Transmission Project: NA
Supplement to Existing Authorization?	Capital Investment Part of Original Operating Plan? Yes
Eng./Constr. Resources Budgeted? Yes	O&M Expenses Part of the Original Operating Plan? Yes

Project Authorization

Project authorization must be in accordance with the approval levels included in the Delegation of Authority Policy (DOA).

If Chief Executive Officer or subsidiary board approval is required, document the review by Enterprise Risk Management (ERM) and Financial Planning and Analysis (FP&A)

ERM: _____

FP&A: _____

Executive Summary

During the 2016 circuit patrols, several system upgrades were identified to help the Company improve reliability. This project was developed to not only fix these priority issues found during the 2016 circuit patrols, but also take the opportunity to bring these locations up to Resiliency/Eversource standards. This program will be funded under the System Resiliency Pole integrity initiative and, in accordance with the System Resiliency PURA Docket 12-07-06RE01, these locations were reviewed to ensure proper pole loading, pole top construction and, if needed, these locations will be upgraded to meet the Resiliency/Eversource standards.

CD00847 will address locations within New London AWC. This project was TRC approved at 11/22/16. A revised ENG estimate of $539,139 was presented and approved at TRC on 4/20/17 assuming STORMS contractor resource costs. This revision was presented following survey and pole foreman analysis results that indicated a greater number of pole replacements will be necessary than originally estimated to meet Resiliency standards.

After a competitive bid process, the ACT estimate is $718,811.

Total project request: $718,811

Project Costs Summary

	Prior Authorized*	Additional Request	2017**	2018+	Total
Capital Additions Direct	0	0	$ 275,806	0	$275,806
Less Customer Contribution	0	0	$ -	0	$0
Removals Net of Salvage	0	0	$ 89,130	0	$89,130
Total - Direct Spending	$0	$0	$ 364,936	$0	$364,936
Capital Additions - Indirect	0	0	$ 169,467	0	$169,467
AFUDC	0	0	$ 2,201	0	$2,201
Total Capital Request	$15,249	$521,355	$ 536,604		$536,604
O&M	4,975	177,232	$ 182,207		$182,207
Total Request	$20,224	$698,587	$ 718,811	$0	$718,811
* Current total amount authorized in PowerPlan (10% of original ENG estimate)					
** Total amount needed for authorization in PowerPlan based on ACT					

Financial Evaluation

Direct Capital Costs	2017	2018	2019	Total
Straight Time Labor	624	0	0	624
Overtime Labor	0	0	0	0
Outside Services	332,324	0	0	332,324
Materials	31,988	0	0	31,988
Other, including contingency amounts	0	0	0	0
Total	364,936	0	0	364,936

Indirect Capital Costs	2017	2018	2019	Total
Indirects/Overheads (including benefits)	169,467	0	0	169,467
Capitalized interest or AFUDC, if any	2,201	0	0	2,201
Total	171,668	0	0	171,668

Total Capital Costs	536,604	0	0	536,604
Less Total Customer Contribution	0	0	0	0
Total Capital Project Costs	536,604	0	0	536,604
Total O&M Project Costs	182,207	0	0	182,207
Total Project Cost	718,811	0	0	718,811

Technical Authorization Form

Date Prepared: 4/11/17	Project Title: New London MBI Initiative – Pole Integrity
Company/ies: Eversource CT	Project ID Number: CD00847
Organization: Distribution Design	Class(es) of Plant: Distribution
Project Initiator: [redacted]	Project Category: Pole Integrity
Project Owner/Manager: [redacted]	Project Type: *Specific*
Project Sponsor: [redacted]	Project Purpose: System Resiliency PURA Docket 12-07-06RE01
Estimated in service date: 9/30/2017	If Transmission Project: *NA*
Authorization Type: *Additional Scope*	Authorization Amount: $20,224 approved 11/22/16

Project Need Statement

Following the 2016 circuit patrols, specifically categorized Patrol Findings were selected to be completed under the 2017 System Resiliency Pole Integrity Program. Poles requiring the following structural upgrades were included in the Program: rotten or cracked cross arms, arrestors, pole replacements, pole shifts, cross arm braces, anchors, down grounds, guying, pin and insulators. These issues were chosen out of the list of Patrol Findings to be included in System Resiliency as they require more intensive design and construction to repair.

A total of [redacted] pole locations were identified to be fixed as part of the MBI initiative. These locations included fixes such as: pole replacements, cross arm replacements, damaged cross arm braces, broken or damaged pole guying, broken or bent ridge pins, broken insulators and missing or cut down grounds. This project is one of twelve created, one for each area work center. This project includes the analysis of 64 locations in the New London area. Following survey and detailed design of the locations, the scope of the project includes [redacted] upgrades amongst the other fixes.

Project Objectives

The goal of the MBI initiative is to fix the priority patrol findings that were identified and upgrade these pole locations to the new System Resiliency Standards.

Project Scope

This project includes the analysis of 64 locations in the New London area.

Each identified pole location was assessed using the pole foreman structural loading tool and was evaluated according to the System Resiliency loading criteria (95mph winds or 40mph winds & ¾" ice). In addition to the existing Resiliency standards, any pole greater than 40 years old was designed to be replaced, animal protection and zap shields were added to transformers, and fuses were added to transformers on the backbone and on laterals.

Background / Justification

The MBI initiative projects were developed in an effort to proactively prevent outages to the system, ultimately allowing the system to better withstand day-to-day and extreme weather events.

Business Process and / or Technical Improvements:

This program will proactively target poles and pole-top attachments with identified fixes. A checklist was developed by distribution engineering as a guideline to be used during each pole assessment. The checklist includes structural and electrical guidance such as replacing poles older than 40 years old. These guidelines will ensure that each pole being assessed will be fixed or replaced so that meets System Resiliency guidelines.

Cost Estimate and Assumptions

The initial project estimate of **$202,240** was approved at TRC on 11/22/16. This estimate was created using average costs of approximately $5,000/location for pole replacements and approximately $3,000/location to address all other issues (pole top construction and upgrades). The team also assumed 30% of pole replacements and 70% other issues to determine the cost per project. In AIMS, pole replacement and cross arm replacement unit costs were used with a 33% contingency in order to match the high-level cost estimates.

Design Alternative CD00847-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	33.00 %
SubTotal:	$152,060
Contingency Amount:	$50,180
Estimate:	$202,240
Reimbursement:	$0
Net Amount:	**$202,240**

Description:

Item Description	CU	$ / Per	Qty	Amount
POLE OH - POLE - 3ph (CL&P custodian)	16-OH14	[redacted]	[redacted]	$88,844.00
POLETOP OH - Replace wood xarm with composite xarm - 3ph	16-OH17A			$63,216.00

Following survey and detailed design of the locations, the current project estimate is **$539,139** assuming STORMS contractor resource costs. This cost increase is due to additional [redacted] pole replacements required due to pole age, condition and pole foreman analysis results to meet Resiliency standards.

ACT Snapshot			
		Total Project [A]	Segment 01
CURRENT ENG ESTIMATE	=	**$202,239**	**$202,239**
Eversource Direct Eng/Supv	=	$19,893	$19,893
Eversource Labor	=	$786	$786
Eversource Labor Overtime	=	$0	$0
Per Diem [B]	=	$0	$0
Eversource Equipment	=	$130	$130
Material	=	$40,663	$40,663
Contractor Labor	=	$215,674	$215,674
Tree Trimming	=	$0	$0
Traffic Control	=	$51,024	$51,024
Contractor Additional [C]	=	$0	$0
Contractor Other [D]	=	$49,515	$49,515
Other Costs	=	$0	$0
E&S	=	$76,040	$76,040
MDEC	=	$5,697	$5,697
AS&E	=	$4,086	$4,086
AFUDC	=	$1,267	$1,267
Sub-Total	=	$464,775	$464,775
Contingency [E]	=	$74,364	$74,364
TOTAL PROJECT COST	=	**$539,139**	**$539,139**
Reimbursable Costs	=	$0	$0
CL&P PROJECT BUDGET	=	**$539,139**	
ACT / ENG (%)		**266.6%**	**266.6%**

Alternatives Considered with Cost Estimates

Do nothing: If the identified fixes and improvements are not performed as recommended, then system performance will suffer and customer satisfaction and Company MBI will be negatively impacted.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Detail Design	March 2017
ACT Approval	April 2017
Construction	July 2017
Close-Out	September 2017

Regulatory Approvals

System Resiliency Docket No. 12-07-06RE01

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2017	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	2017	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Storm delays	2017	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2017	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods
Wetlands / Environmentally sensitive area	2017	Low	Use of mats and specialty equipment, only work during certain times of the year