EVERSOURCE

Supplement Authorization Form

Project Title: Stamford MBI Initiative	**Project Number:** CD00850
Date Prepared: 05/04/2026	**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?** 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: $1,158.6K	**Approved In-Service Date:** 9/30/2017
Supplement Request: $523.9K	**Estimated In-Service Date:** 12/31/2020
Total Capital Request: $1,682.5K	**Authorization Type:** Supplement Request
	Reason: Cost Overage

1. Project Background

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 was 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 would be upgraded to meet the Resiliency/Eversource standards.

CD00850 addressed locations within Stamford AWC. This project was TRC approved at 11/22/16. A revised ENG estimate of $1,185,289 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.

2. Supplement Justification Overview

Supplemental funding of $523.9K was requested to complete the project due mainly to added outside labor and material costs increases. The $523.9K is an additional 45% of the previously approved $1,158.6K making the total project cost $1,682.5K.

3. Supplement Justification Detail

Additional $523.9k is mainly due to higher material costs, outside services, and removals needed for this project. This project spanned multiple years and was extended beyond its original timeline.

4. Supplement Cost Summary (Project Total)

Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Internal Labor and Construction Equipment	39.1	0.5	31.0	31.5
Outside Services	959.3	726.3	46.2	772.5
Materials	107.1	76.4	9.9	86.3
Removals	0.0	0.0	214.6	214.6
Risk and Contingency	33.0	0.0	33.0	33.0
Other	-3.7	0.0	-2.9	-2.9
Subtotal	**1,134.9**	**803.1**	**331.7**	**1,134.9**

Indirect Capital Costs	To Date Spend	Prior Authorized	Supplemental Request	Total Request
Indirects/Overheads (including benefits)	524.3	350.0	174.3	524.3
Capitalized interest or AFUDC, if any	23.4	5.5	17.9	23.4
Subtotal	**547.6**	**355.5**	**192.2**	**547.6**
Total Capital Costs (Gross)	**1,682.5**	**1,158.6**	**523.9**	**1,682.5**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**1,682.5**	**1,158.6**	**523.9**	**1,682.5**

New Total Request by Year (if applicable)

Capital Costs	2017	2018	2019	2020	TOTAL
Internal Labor & Equipment	8.5	23.2	0.0	-0.2	31.5
Outside Services	208.8	568.3	0.3	-5.0	772.5
Materials	23.3	63.5	0.0	-0.6	86.3
Removals	55.9	152.2	0.1	6.4	214.6
Risk and Contingency	0.0	0.0	0.0	33.0	33.0
Other	-0.8	-2.2	0.0	0.0	-2.9
SUBTOTAL Direct Cost	**295.8**	**805.0**	**0.4**	**33.6**	**1,134.9**
Indirects / Overheads	139.7	423.6	-34.3	-4.8	524.3
AFUDC	7.1	15.4	0.9	0.0	23.4
SUBTOTAL Indirect Cost	**146.8**	**439.0**	**-33.4**	**-4.8**	**547.6**
TOTAL Capital Request	**442.6**	**1,244.0**	**-32.9**	**28.8**	**1,682.5**
Less Total Customer Contribution	0.0	0.0	0.0	0.0	**0.0**
TOTAL Project Cost	**442.6**	**1,244.0**	**-32.9**	**28.8**	**1,682.5**

5. Lessons Learned

N/A

6. Full Funding PAF

Operations Project Authorization Form

Date Prepared: 5/10/17	Project Title: Stamford MBI Initiative
Company/ies: Eversource CT	Project ID Number: CD00850
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.

CD00850 will address locations within Stamford AWC. This project was TRC approved at 11/22/16. A revised ENG estimate of $1,185,289 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 $1,491,588.

Total project request: $1,491,588

Project Costs Summary

	Prior Authorized*	Additional Request	2017**	2018+	Total
Capital Additions Direct	0	0	$ 656,359	0	$656,359
Less Customer Contribution	0	0	$ -	0	$0
Removals Net of Salvage	0	0	$ 146,774	0	$146,774
Total - Direct Spending	$0	$0	$ 803,133	$0	$803,133
Capital Additions - Indirect	0	0	$ 349,969	0	$349,969
AFUDC	0	0	$ 5,519	0	$5,519
Total Capital Request	$32,609	$1,126,012	$ 1,158,621		$1,158,621
O&M	10,639	322,328	$ 332,967		$332,967
Total Request	$43,248	$1,448,340	$ 1,491,588	$0	$1,491,588
** Current total amount authorized in PowerPlan (10% of ENG estimate)*					
*** Total amount needed for authorization in PowerPlan based on ACT*					

Financial Evaluation

Direct Capital Costs	2017	2018	2019	Total
Straight Time Labor	483	0	0	483
Overtime Labor	0	0	0	0
Outside Services	726,297	0	0	726,297
Materials	76,353	0	0	76,353
Other, including contingency amounts	0	0	0	0
Total	803,133	0	0	803,133

Indirect Capital Costs	2017	2018	2019	Total
Indirects/Overheads (including benefits)	349,969	0	0	349,969
Capitalized interest or AFUDC, if any	5,519	0	0	5,519
Total	355,489	0	0	355,489

Total Capital Costs	1,158,621	0	0	1,158,621
Less Total Customer Contribution	0	0	0	0
Total Capital Project Costs	1,158,621	0	0	1,158,621
Total O&M Project Costs	332,967	0	0	332,967
Total Project Cost	1,491,588	0	0	1,491,588

Technical Authorization Form

Date Prepared: 4/11/17	Project Title: Stamford MBI Initiative – Pole Integrity
Company/ies: Eversource CT	Project ID Number: CD00850
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: $43,248 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 136 locations in the Stamford area. Following survey and detailed design of the locations, the scope of the project includes [redacted] pole replacements, and [redacted] cross arm 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 136 locations in the Stamford 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 **$432,479** 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 CD00850-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	33.00 %
SubTotal:	$325,172
Contingency Amount:	$107,307
Estimate:	$432,479
Reimbursement:	$0
Net Amount:	**$432,479**

Description:

Item Description	CU	$ / Per	Qty	Amount
POLE OH - POLE - 3ph (CL&P custodian)	16-OH14	[redacted]		$191,716.00
POLETOP OH - Replace wood xarm with composite xarm - 3ph	16-OH17A			$133,456.00

Following survey and detailed design of the locations, the current project estimate is **$1,185,289** 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	=	**$432,479**	**$432,479**
Eversource Direct Eng/Supv	=	$45,078	$45,078
Eversource Labor	=	$897	$897
Eversource Labor Overtime	=	$0	$0
Per Diem [B]	=	$0	$0
Eversource Equipment	=	$31	$31
Material	=	$96,672	$96,672
Contractor Labor	=	$489,671	$489,671
Tree Trimming	=	$5,207	$5,207
Traffic Control	=	$145,163	$145,163
Contractor Additional [C]	=	$4,165	$4,165
Contractor Other [D]	=	$43,857	$43,857
Other Costs	=	$0	$0
E&S	=	$165,343	$165,343
MDEC	=	$12,387	$12,387
AS&E	=	$9,486	$9,486
AFUDC	=	$3,845	$3,845
Sub-Total	=	$1,021,800	$1,021,800
Contingency [E]	=	$163,488	$163,488
TOTAL PROJECT COST	=	**$1,185,289**	**$1,185,289**
Reimbursable Costs	=	$0	$0
CL&P PROJECT BUDGET	=	**$1,185,289**	
ACT / ENG (%)		**274.1%**	**274.1%**

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

Milestone/Phase Name	Estimated Completion Date
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