Operations Project Authorization Form

Date Prepared: August 31, 2018	**Project Title: Convert Portion of [redacted]**
Company/ies: Eversource CT	**Project ID Number: 103739**
Organization: Distribution	**Class(es) of Plant: Underground Distribution**
Project Initiator: [redacted]	**Project Category: Secondary Cable Replacement**
Project Manager: [redacted]	**Project Type: *Specific***
Project Sponsor: [redacted]	**Project Purpose: Eliminate Type B Secondary Network**
Estimated in service date: 12/31/2020	**If Transmission Project: PTF?**
Eng. /Constr. Resources Budgeted? Yes	**Capital Investment Part of Original Operating Plan? Y**
Authorization Type: Partial ACT $1,171,338 Seg 9	**O&M Expenses Part of the Original Operating Plan? Y**
Total Request: $2,185.2k	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

[redacted]

This request is for partial ACT for $1,171,338 for the civil portion of this project. The large variance of 261.9% for segment 9 is due to recrabbing and relocating secondaries in four locations that cost an extra $574k. The recrabbing was needed to be able to complete the civil work. Also we need to install a new vault roof for V95 that costs $90k and was not included in the originial estimate.

The total cost of this project is $2,185.2k which includes the ACT cost of segment 9 for $1,171.3k.

Project Costs Summary

	Prior Authorized*	Additional Request	2018**	2019+	Total
Capital Additions Direct	$ -	$ -	$ 771,208	0	$771,208
Less Customer Contribution	$ -	$ -	$ -	0	$0
Removals Net of Salvage	$ -	$ -	$ 164	0	$164
Total - Direct Spending	$ -	$ -	$ 771,372	$0	$771,372
Capital Additions - Indirect	$ -	$ -	$ 380,820	0	$380,820
AFUDC	$ -	$ -	$ 10,102	0	$10,102
Total Capital Request	$ 141,036	$ 1,957,699	$ 1,162,294	$936,441	$2,098,735
O&M	$ 4,964	$ 81,571	$ 9,044	77,491	$86,535
Total Request	**$ 146,000**	**$ 2,039,270**	**$ 1,171,338**	**$1,013,932**	**$2,185,270**

* Amount authorized in PowerPlan

** Total amount needed for authorization in PowerPlan based on ACT

		Total Project [A]	Segment 2	Segment 3	Segment 5	Segment 6	Segment 09
CURRENT ENG ESTIMATE	=	**$1,461,173**	**$206,269**	**$224,396**	**$196,809**	**$386,458**	**$447,241**
Eversource Direct Eng/Supv	=	$42,482					$42,482
Eversource Labor	=	$75,192					$75,192
Eversource Labor Overtime	=	$0					$0
Per Diem [B]	=	$0					$0
Eversource Equipment	=	$2,628					$2,628
Material	=	$251,600					$251,600
Contractor Labor	=	$382,658					$382,658
Tree Trimming	=	$0					$0
Traffic Control	=	$66,642					$66,642
Contractor Additional [C]	=	$11,454					$11,454
Contractor Other [D]	=	$0					$0
Other Costs	=	$0					$0
E&S	=	$222,306					$222,306
MDEC	=	$13,302					$13,302
AS&E	=	$11,251					$11,251
AFUDC	=	$10,102					$10,102
Sub-Total	=	$1,089,617					$1,089,617
Contingency [E]	=	$81,721					$81,721
TOTAL PROJECT COST	=	**$2,185,270**	**$206,269**	**$224,396**	**$196,809**	**$386,458**	**$1,171,338**
Reimbursable Costs	=	$0					$0
CL&P PROJECT BUDGET	=	**$2,185,270**					**$1,171,338**
ACT / ENG (%)		**149.6%**					**261.9%**

Financial Evaluation

Note: Dollar values are in thousands

Direct Capital Costs	2018	2019	2020	Total
Straight Time Labor	$ 78,628	0	0	$ 78,628
Overtime Labor		0	0	
Outside Services	$ 490,233	0	0	$ 490,233
Materials	$ 202,511	0	0	$ 202,511
Other, including contingency amounts	$ -	0	0	$ -
Total	$ 771,372	0	0	$ 771,372

Indirect Capital Costs	2018	2019	2020	Total
Indirects/Overheads (including benefits)	$ 380,820	0	0	$ 380,820
Capitalized interest or AFUDC, if any	$ 10,102	0	0	$ 10,102
Total	$ 390,922	0	0	$ 390,922

Total Capital Costs	$ 1,162,294	0	0	$ 1,162,294
Less Total Customer Contribution	$ -	0	0	$ -
Total Capital Project Costs	$ 1,162,294	177,474	836,458	$ 2,176,226
Total O&M Project Costs	$ 9,044	0	0	$ 9,044
Total Project Cost	$ 1,171,338	177,474	836,458	$ 2,185,270

* to be completed if supplemental authorization is required

Note: Explain unique payment provisions, if applicable

Technical Justification:

Project Need Statement

[redacted] This project is being established as a result of a state mandate to address underground secondary type B construction.

Project Objectives

[redacted]

Project Scope

This project proposes to [redacted]. This will require the following:

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

[redacted]

[redacted]

[redacted]. The original proposal for this project included installing a mid-point recloser, to break up this large zone into two smaller zones. However, this segment was not approved.

Background / Justification

[redacted]. A PURA docket 06-10-21 was issues to address type B networks following the cable fault on 10/6/2006 in the Waterbury underground secondary network system.

Business Process and / or Technical Improvements:

[redacted]

Cost Estimate and Assumptions

Budget Summary - Preferred Option — Inst 3 UTC's & 3 risers as approved 3/9/2011

2018

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
2	Extend 3ph - Inst UG Cable on Maple St	Prelim	0	48 %	$206,269	$206,269
3	Extend and Install 3ph OH Cable on Berke	Prelim	0	48 %	$224,396	$224,396
5	Install Riser on Chapel St to new UCT	Prelim	0	48 %	$196,809	$196,809
6	Remove network xfmrs and cable	Prelim	0	48 %	$386,458	$386,458
9	Civil Work Only for new UCT's	Prelim	0	44 %	$447,241	$447,241
				2018 Total:	**$1,461,174**	**$1,461,174**
				Total Project:	**$1,461,174**	**$1,461,174**

Alternatives Considered with Cost Estimates

[redacted]. The additional cost for this option is about $0.6M, for a total cost of $2.0M. This option was presented at the 3/9/2011 OCRC, but was not approved.

[redacted]. The cost of this option has been estimated to be $2.6M. This option was not chosen due to the additional cost compared to the preferred option.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Detail Engineering	March 2017
Approval for Construction	April 2017
Civil Work Construction Completion	December 2017

Regulatory Approvals

Docket 06-10-21

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Expected Value Cost Exposure	Risk Mitigation

			($M)	
Actual cost higher than estimated due to scope changes.	2017	20%	$984k x 44% = $433k	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.	2017	20%	Contractor Labor costs could increase total by an additional 70% ≥ $410K	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.	2017	20%	$50k	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	201X	10%	Project Delays	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.

References

PN- CD01024

CD01024 and 103739 Project Load ! | CD01024 Norwalk 9S 5kV Elimination Pr | 103739_project_needs_statement.pdf

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

