EVERSOURCE
Project Authorization Form

Operations Project Authorization Form

Date Prepared: 2-21-2020	**Project Title:** [redacted]
Company/ies: Eversource CT	**Project ID Number: CD01510**
Organization: Distribution Electric	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: Smart Switch Program**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Improve Reliability to** [redacted] **Zone**
Estimated in service date:12/31/2021	**If Transmission Project: PTF? NA**
Eng. /Constr. Resources Budgeted? Yes	**Capital Investment Part of Original Operating Plan? Yes**
Authorization Type: Preliminary	**O&M Expenses Part of the Original Operating Plan? Yes**
Total Request: $ 209,758	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

This project will address the reliability of a large customer zone on the [redacted]

The [redacted]. This project proposes to add a Smart Switch (SS) and to perform additional tree trimming to address the reliability of this large customer zone. The smart switch will be installed approximately [redacted] each.

Although reconductoring options were proposed within this project additional tree trimming was chosen as a more cost effective alternative.

Project Costs Summary

	Prior Authorized	20__	20__	20__+	Totals
Capital Additions - Direct	$0	$119,754	$0	$0	$119,754
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$2,837	$0	$0	$2,837
Total - Direct Spending	$0	$122,591	$0	$0	$122,591
Capital Additions - Indirect	$0	$76,797	$0	$0	$76,797
Subtotal Request	$0	$199,388	$0	$0	$199,388
AFUDC	$0	$2,392	$0	$0	$2,392
Total Capital Request	$0	$201,779	$0	$0	$201,779
O&M	$0	$7,979	$0	$0	$7,979
Total Request	$0	$209,758	$0	$0	$209,758

Financial Evaluation

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$18,168	$0	$0	$18,168
Overtime Labor	$4,936	$0	$0	$4,936
Outside Services	$15,776	$0	$0	$15,776
Materials	$83,225	$0	$0	$83,225
Other, including contingency amounts (describe)	$486	$0	$0	$486
Total Direct Costs	**$122,591**	**$0**	**$0**	**$122,591**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$76,797	$0	$0	$76,797
Capitalized interest or AFUDC, if any	$2,300	$0	$0	$2,300
Total Indirect Costs	**$79,097**	**$0**	**$0**	**$79,097**
Total Capital Costs	**$201,687**	**$0**	**$0**	**$201,687**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$201,687**	**$0**	**$0**	**$201,687**
Total O&M Project Costs	**$8,071**	**$0**	**$0**	**$8,071**

Total Project Cost	**$ 209,758**	**$ -**	**$ -**	**$ 209,758**

Technical Justification:

Project Need Statement

[redacted]. The largest of the zones is the [redacted]. The Smart Switch program targets customers zones with greater than 500 customers that have experienced multiple backbone interruptions over the last 4 years.

This project will address the reliability to the [redacted] Several options were considered and are discussed in greater detail below in the Alternatives section, but the option chosen for this project was to add a recloser and perform additional tree trimming in this zone. [redacted]

Project Objectives

The objective of this project is to improve the reliability to the [redacted] circuit. This zone was identified in the 2019 Smart Switch ranking exercise.

Project Scope

The preferred option consists of Segment 1 in Project Need Statement.

Segment 1

[redacted]

Background / Justification

The largest customer zone on the [redacted] It has [redacted] customers was chosen as a more cost effective solution.

Business Process and / or Technical Improvements:

This proposal will improve the reliability to the [redacted] by both reducing the number of tree related outages by performing additional tree trimming in the areas where trees are most populated and by reducing the size of the zone if an outage were to occur by creating [redacted].

Alternatives Considered with Cost Estimates:

[redacted]

Project Option Comparison

Design Criteria	Option		
[redacted]			
Cost	$209,758	$1,352,979	$744,342
Cost/MVA added	N/A	N/A	N/A
Cost/CM Saved	35.19	378.67	125.00
Preferred Option	X		

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Approval	02/2020
Detail Design	10/2020
Full Funding	12/2020
Construction	12/2021

Regulatory Approvals

None

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2020	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	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction resources not available to perform the work.	2021	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.	2020	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2021	Low	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	2020	Low	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.
Wetlands / Environmentally sensitive area	2020	Low	Use of mats and specialty equipment, only work during certain times of the year

References

CD01510_project_needs_statement.pdf

CD01510 Load Sheet.xlsx

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

Map of [redacted] Smart Switch.pdf

[redacted] One Line 2-13-2020 Before.pd

[redacted] One Line 2-13-2020 After.pdf