EVERSOURCE
Project Authorization Form

Operations Project Authorization Form

Date Prepared:4/1/2021	**Project Title:** [redacted]
Company/ies: Eversource CT	**Project ID Number: CD01527**
Organization: Distribution Design	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: Line**
Project Manager: [redacted]	**Project Type: Smart Switch Program**
Project Sponsor: [redacted]	**Project Purpose: Install automatic sectionalizing devices to reduce zone sizes**
Estimated in service date: 12/31/2022	**If Transmission Project: PTF? NA**
Eng. / Constr. Resources Budgeted? No	**Capital Investment Part of Original Operating Plan? Yes**
Authorization Type: Preliminary	**O&M Expenses Part of the Original Operating Plan? Yes**
Total Request: $448,840	

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary

The Smart Switch Ranking Program was created to identify large customer zones on the backbone which have experienced multiple outages or exceed 500 customers at risk. Zones are ranked from worst performing to best performing. Based on that ranking, projects are being created to reduce the number of customers affected per zone should an outage happen.

[redacted]. Project CD01527 will address the [redacted]

[redacted]

[redacted]

Project Costs Summary

	Prior Authorized	2022	2023	2024+	Totals
Capital Additions - Direct	$0	$251,714	$0	$0	$251,714
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$10,113	$0	$0	$10,113
Total - Direct Spending	$0	$261,827	$0	$0	$261,827
Capital Additions - Indirect	$0	$162,605	$0	$0	$162,605
Subtotal Request	$0	$424,432	$0	$0	$424,432
AFUDC	$0	$5,091	$0	$0	$5,091
Total Capital Request	$0	$429,523	$0	$0	$429,523
O&M	$0	$19,317	$0	$0	$19,317
Total Request	$0	$448,840	$0	$0	$448,840

Financial Evaluation

Direct Capital Costs	2022	2023	2024+	Total
Straight Time Labor	$33,749	$0	$0	$33,749
Overtime Labor	$7,456	$0	$0	$7,456
Outside Services	$61,879	$0	$0	$61,879
Materials	$156,809	$0	$0	$156,809
Other, including contingency amounts (describe)	$1,934	$0	$0	$1,934
Total Direct Costs	**$261,827**	**$0**	**$0**	**$261,827**

Indirect Capital Costs	2022	2023	2024+	Total
Indirects/Overheads (including benefits)	$162,605	$0	$0	$162,605
Capitalized interest or AFUDC, if any	$4,870	$0	$0	$4,870
Total Indirect Costs	**$167,474**	**$0**	**$0**	**$167,474**
Total Capital Costs	**$429,301**	**$0**	**$0**	**$429,301**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$429,301**	**$0**	**$0**	**$429,301**
Total O&M Project Costs	**$19,539**	**$0**	**$0**	**$19,539**

Total Project Cost	**$ 448,840**	**$ -**	**$ -**	**$ 448,840**

Technical Justification:

Project Need Statement

[redacted]

Project Objectives

The goal of the Smart Switch Program is to reduce the number of customers exposed to an outage event. Project CD01527 proposes to install five reclosers, two MR, one SS, one SR, and one TR.

Project Scope

The preferred option is option 1 which consists of segments 2, 3, and 4

[redacted]

Background / Justification

The justification for this project is our current initiative to reduce the zones that are greater than 500 customers. When a large circuit zone is highly ranked (low number), all other large zones on the circuit are reviewed at the same time and a solution for each zone is brought to CTPAC. CTPAC decides if the lower ranked zones will be funded. If the solution to a lower ranked zone is a couple of reclosers, it would most likely be funded. If the solution to a lower ranked zone involves a $3M line extension, that segment would most likely not be approved.

Business Process and / or Technical Improvements:

The Smart Switch project will increase the number of automated devices on the system. The additional devices allow for faster restoration, faster outage isolation, better system visibility, and better operational flexibility. Customer zones are reduced to 500 or less where possible.

Alternatives Considered with Cost Estimates:



Project Option Comparison

[redacted]			
Cost	$448,840	$162,473	$352,326
Cost/MVA added	N/A	N/A	N/A

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Engineering	04/2021
Detail Design	09/2021
Full Funding	12/2021
Construction	12/2022

Regulatory Approvals
None

References
N/A

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2022	Medium	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	2022	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction resources not available to perform the work.	2022	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.	2022	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2022	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2022	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2022	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	2022	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	2022	Low	Use of mats and specialty equipment, only work during certain times of the year

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



Zones Reliability History:

[redacted];

[redacted]

Cost Estimate Backup Details

Budget Summary - Preferred Option Option1

2022

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
2	[redacted]Large Customer Zone[redacted]	Prelim	0	24%	$191,441	$191,441
3	Address [redacted]arge Customer Zone	Prelim	0	24%	$94,926	$94,926
4	Address [redacted]arge Customer Zone	Prelim	0	24%	$162,473	$162,473
				2022 Total:	**$448,840**	**$448,840**
				Total Project:	**$448,840**	**$448,840**