Operations Project Authorization Form

Project Title: [redacted] Hartford – Automate Service	**Project Number:** CD01537
Date Prepared: 02/15/2023	**Company:** Eversource CT
Organization: Electric Field Operations	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** DISTRIBUTION AUTOMATION-LINES
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** Yes
Estimated in service date: 12/31/2023	**Emergency Related Request?** No
Eng./Constr. Resources Budgeted? Yes	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution
Total Gross Capital Request: $363,400	**Authorization Type:** Full Funding

Executive Summary

[redacted]

In the past five years (2015-2019), [redacted]

This project proposes to automate the service to this location by replacing the manual switches with automatic switches.

The expected benefits upon completion of this project include:

- Improved reliability/customer satisfaction – [redacted]

This project received initial funding at May 7, 2020 CTPAC meeting for $320K
This Full Funding request is for $363.4K, or an increase of 14%.
The primary reason for the estimate increase is material and labor cost increases.
Labor rates in Maximo are 80% of the current contract rates.
Material costs have risen due to inflation and supply chain shortages.

Project Cost Summary

Capital Costs	Year 1	Year 2	Year 3+	Total
Internal Labor and Construction Equipment	43.7	0.0	0.0	43.7
Outside Services	14.4	0.0	0.0	14.4
Materials	144.2	0.0	0.0	144.2
Removals	5.8	0.0	0.0	5.8
Risk and Contingency	25.4	0.0	0.0	25.4
Other	0.3	0.0	0.0	0.3
Subtotal	**233.9**	**0.0**	**0.0**	**233.9**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	115.5	0.0	0.0	115.5
Capitalized interest or AFUDC, if any	14.1	0.0	0.0	14.1
Subtotal	**129.6**	**0.0**	**0.0**	**129.6**
Total Capital Costs (Gross)	**363.4**	**0.0**	**0.0**	**363.4**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**363.4**	**0.0**	**0.0**	**363.4**

Technical Justification:

Project Need Statement

[redacted] (attached below). This particular location was not identified in the original study, but it has similar characteristics to other locations contained in the that study and will be addressed as such.

Project Objective

[redacted]

Project Scope

[redacted]

Major Material

- Automatic switchgear pair (two 2-Way switches / 23 KV)

Background / Justification

[redacted]

Segment 3 and Segment 4 have been completed under this project (as of May 2015).

Segment 1 work has been held-up over the years due to an easement issue involving the property owner. CL&P has requested an expanded easement area to accommodate a separate pad for the new switchgear. The property owner has been reluctant to grant that request.

From 2015 – 2017 there were [redacted] (see attached outage history). More recent discussions between Engineering and Real Estate has led to a different interpretation of the language in the existing easement, with Real Estate saying that the existing Eversource easement rights are more than adequate for us to do what we want to do (see attached easement 063DE152). There is no need to negotiate a new easement with the owner.

Project #CD01537 – [redacted] Hart. – Automate Service was established to incorporate the work originally included in Project #476891-01, [redacted]. Once Project #CD01537 is approved, the charges accumulated under Project #476891-01 over the past many years (approx. $58K) can be transferred to Project #CD01537-01, and Project #476891 can be completed/closed.

[redacted] Switchgear replacements were prioritized (High-Medium-Low) and targeted for replacement based on the priortizations in the report and the availability of capital funding, typically averaging 1 to 3 replacements per year.

Although this location was not identified in the original report, it has similar characteristics to other locations contained in the that report and will be addressed as part of this program.

Business Process and / or Technical Improvements:

[redacted]

Alternatives Considered with Cost Estimates

Since the project design was previously PRELIM and FULL approved, no additional alternatives were considered at this time.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Design Approval (PRELIM)	5/15/20
Detailed Design and Work Order Preparation	7/31/20
Detailed Design Approval (FULL)	8/31/20
Order Long Lead-time Material	9/30/20
Project Construction	12/31/21

Regulatory Approvals

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.	2021	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	Medium	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction resources not available to perform the work.	2021	Low	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	Medium	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	2021	Medium	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.

Project #476891 Documents

476891_project_need s_statement 5-8-15.p

PN476891 PACT SEG 1 CFM [redacted].xls

04.15.15 [redacted] - Electrical Work.pd

References

HARTFORD AREA UG Study 10-28-11.doc

Custs-Fed-by-Fdr [redacted].pdf

Custs-Fed-by-Fdr [redacted].pdf

[redacted] Protection One-line.pdf

[redacted] Protection One-line.pdf

[redacted] Outage History 2015-2019.xlsx

Hartford [redacted] - 063DE152 6-

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

CD01537_project_ne eds_statement 5-8-2(

Detail Map J5-3D-G7.pdf

309B X-Map.vsdx

CD01537 Project Load Summary 4-6-2