EVERSOURCE
Project Authorization Form

Operations Project Authorization Form

Date Prepared: 01/15/2021	**Project Title: Rebuild [redacted] ROW**
Company: Eversource CT	**Project ID Number: CD01671**
Organization: Distribution Electric	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: System Resiliency**
Project Manager: [redacted]	**Project Type: Right of Way Lines**
Project Sponsor: [redacted]	**Project Purpose: Replace Poles in ROW**
Estimated in service date: 12/31/2021	**If Transmission Project: PTF? N/A**
Eng. / Constr. Resources Budgeted? Yes	**Capital Investment Part of Original Operating Plan? Yes**
Authorization Type: Full Funding	**O&M Expenses Part of the Original Operating Plan? Yes**
Total Request: $708,636	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

[redacted]

[redacted]

[redacted]

Due to the need to install a gravel access road to get to the danger poles, and the discovery of other structural issues in the ROW, the decision was made to rebuild the entire ROW, totaling 34 poles, under Project CD01671.

The triple circuit H-frames will be eliminated such that each of the circuits on the triple circuit pole line will now be on its own pole line. The double circuit pole line will be replaced like for like.

Project Costs Summary

	Prior Authorized	2019	2020	2021	Totals
Capital Additions - Direct	$0	$256,996	$92,881	$27,227	$377,104
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$60,104	$21,722	$6,368	$88,193
Total - Direct Spending	$0	$317,100	$114,603	$33,594	$465,298
Capital Additions - Indirect	$0	$140,163	$50,656	$14,849	$205,669
Subtotal Request	$0	$457,264	$165,259	$48,444	$670,967
AFUDC	$0	$9,103	$3,290	$964	$13,357
Total Capital Request	$0	$466,367	$168,549	$49,408	$684,324
O&M	$0	$16,569	$5,988	$1,755	$24,312
Total Request	$0	$482,935	$174,537	$51,164	$708,636

Financial Evaluation

Direct Capital Costs	2019	2020	2021	Total
Straight Time Labor	$8,779	$3,173	$930	$12,882
Overtime Labor	$1,833	$662	$194	$2,689
Outside Services	$261,572	$94,534	$27,712	$383,818
Materials	$44,355	$16,030	$4,699	$65,084
Other, including contingency amounts (describe)	$563	$203	$60	$826
Total Direct Costs	**$317,100**	**$114,603**	**$33,594**	**$465,298**

Indirect Capital Costs	2019	2020	2021	Total
Indirects/Overheads (including benefits)	$140,163	$50,656	$14,849	$205,669
Capitalized interest or AFUDC, if any	$8,785	$3,175	$931	$12,890
Total Indirect Costs	**$148,948**	**$53,831**	**$15,780**	**$218,559**
Total Capital Costs	**$466,048**	**$168,434**	**$49,374**	**$683,857**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$466,048**	**$168,434**	**$49,374**	**$683,857**
Total O&M Project Costs	**$16,887**	**$6,103**	**$1,789**	**$24,779**

Total Project Cost	**$ 482,935**	**$ 174,537**	**$ 51,164**	**$ 708,636**

Future Financial Impacts: n/a

Technical Justification:

Project Need Statement

Thirty poles in the [redacted] ROW are in poor condition and will be replaced. [redacted]

Project Objectives

The non-standard H-frame triple circuit pole line will be replaced with single pole construction. The double circuit pole line will be replaced like for like.

Project Scope

Replace H-frames with single pole construction.

Replace double circuit pole line like for like.

Remaining 2021 Work:

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

Major Material:

34 poles.

Background / Justification

Notes from ops supervisor:

This process began as a WO to replace H-Frame 2770-2771. While checking out this job, I discovered that the corner H-Frame (2767/2780/2766) was so severely degraded that the pole top on the middle pole had actually broken in two places, and was laying on top of the x-arm on the H-Frame, only supported by the down guys. I determined at this point that I had no option but to immediately begin civil work to build access to this location to commence replacement. While looking around, I discovered that all the H-Frames were severely degraded (plants growing in x-arms on a couple of them, split pole tops, bolts pulling through the pole). At this point, I decided to replace all of the H-frames. In addition, the double circuit, single pole line's poles are also not in great shape. As the roadway to access the poles splits between the two pole lines, I decided to replace everything that needed to be accessed [redacted]

The getaway riser poles have also been determined to be severely degraded with split pole tops.

The [redacted] getaway riser failed during one of the recent storms and the associate riser pole was replaced in the process. The [redacted] pole was dug around to facilitate replacement and it was determined that the base of the pole was severely rotten.

As the crews began shifting the severely damaged corner H-frame, the entire structure began shifting.

Business Process and / or Technical Improvements:

With the replacement of all poles in [redacted] ROW reliability will be improved. Access to the ROW was delayed in the past and with the completion of the access road in the ROW future response will improve. With the elimination of the H-frames with single pole construction future maintenance will be simplified.

Alternatives Considered with Cost Estimates

None.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Approval	10/01/19
Detailed Design	10/29/19
Settings Requested	n/a
Construction Start Date	11/01/19
Construction End Date	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	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	2021	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction resources not available to perform the work.	2021	Med	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.	2021	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
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. Most of this work will require system to be abnormal for any extended period of time.

References

n/a

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


Project Map.pdf


CD01671_Project_Need_Statement Full


Poles before and after sketch 2-23-21.


[redacted] ROW Rebuild 101275044 - wr 3347


H-frame with broken pole top fro


H-frame with broken pole top.jpg


H-frame with broken pole top bra


H-frame with small tree growing in it.jp


CD01671 ROW042_Pole2775_


CD01671 ROW042 [redacted] Repla


CD01671 ROW042 [redacted] After