EVERSOURCE

Operations Project Authorization Form

Approved on August 31, 2022 EPAC

Link to Meeting Minutes

Project Title: [redacted] - Replace [redacted] 15kV Busduct	**Project Number: CS00615**
Date Prepared: 08/25/2022	**Company: Eversource CT**
Organization: Asset Management	**Class(es) of Plant: D SS**
Project Initiator: [redacted]	**Project Category: Stations - General**
Managing Organization: Transmission / Major Projects	**Schedule ID#: N/A**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Capital Investment part of original Op Plan: Yes**
Actual in service date: October 28, 2021	**Emergency Related Request? Yes**
Eng./Constr. Resources Budgeted? Yes	**Facility Type (check all that apply):** ☐ **PTF** ☐ **non-PTF** ☒ **Distribution** ☐ **N/A (General Plant)**
Total Capital Request: $782K	**Authorization Type: Full Funding**

[1] Executive Summary

This project is seeking full funding approval of $782K for a completed project at the [redacted] CT to [redacted] transformer. [redacted] be taken out of service.

[redacted] nder annual work order (WO) number 80100635. This Project Authorization Form (PAF) provides the documentation necessary to transfer the capital charges to project number CS00615, as the direct capital charges exceeded the $100K annual work order limit imposed by APS-01. The project was placed in service October 28, 2021.

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[2] PROJECT COSTS SUMMARY

Note: Dollar values are in thousands

Line item Category	Prior Authorized	Actuals to Date	2022 to Go	2023	2024	Total
1. ROW / Easements / Land Acquisition						
2. Environmental Approvals / Permits						
3. Outreach						
4. Siting Approvals / Permits						
5. Engineering / Design		$66				$66
6. Materials (Eversource purchased)		$0				$0
7. Construction (incl matl's by contractors)		$408				$408
8. Testing / Commissioning		$0				$0
9. Project Mgmt Team		$0				$0
10. Removals*		($3)				($3)
11. Other		$0				$0
12. Risks		$0				$0
SUBTOTAL DIRECTS W/ RISKS	**$0**	**$470**				**$470**
13. Indirects/Overhead		$284				$284
14. AFUDC		$28				$28
PROJECT TOTAL – BASELINE BUDGET	**$0**	**$782**				**$782**
15. Contingency		$0				$0
TOTAL CAPITAL REQUEST	**$0**	**$782**				**$782**
16. Reimbursables/Customer Contribution		$0				$0
PROJECT TOTAL (LESS REIMBURSABLES)	**$0**	**$782**				**$782**
O&M		**$0**				**$0**
TOTAL REQUEST	**$0**	**$782**				**$782**

See Attachment A for Actuals and WBS breakout values.

* *Removals include value of salvaged copper from the replaced duct bus.*

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[3] TECHNICAL JUSTIFICATION

Project Need, Objective and Justification

Project Need Statement

The [redacted] n an emergent basis (WO 80100635) [redacted]

Project Objectives

[redacted] o maintain distribution system reliability.

Project Scope

The scope of this emergent project was to replace damaged and failed equipment that was charged to annual WO 80100635. After an assessment was made of the damage in July 2021, a vendor was selected to design, supply, install and test the replaced busduct. The project scope included the following:

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- Testing and commissioning of the equipment to place in service.
- Restoration of the system to normal operating configuration.

[redacted]

See Attachments B1 and B2 for Nomenclature diagrams and Attachment C for busduct location.

Background

[redacted]

[4] ALTERNATIVES CONSIDERED

The failed equipment had to be replaced to maintain system reliability. This project has been completed.

[5] Project Schedule

Milestone	Scheduled Completion Date
IFC Engineering Completion	Completed September 2021
Construction Start	Completed October 2021
Testing/Commissioning	Completed October 28, 2021
Project In-Service Date (ISD) - Actual	Completed October 28, 2021

[6] Regulatory Approvals

N/A – The project has been completed.

[7] Risk and Risk Mitigation Plans

Contingency: The project has been completed and there was no contingency included.

Risk Mitigation:

Risk	Mitigation
1. N/A	
2.	
3.	
4.	
5.	

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[8] REFERENCES

References
1. Vendor Quote: Powel Quote 246390-R6-QOT EVERSOURCE EXEPEDITED DELIVERY 7/20/2021
2. Work Order 80100635 [redacted] Replace 1G-1X Bus Duct Approved July 23, 2021

[9] ATTACHMENTS (One-Line Diagrams, Images, etc.)

Attachment	Included in Submittal?
A. Actuals 80100635	YES
B1. 23504-91001p002 Nom Diagram	YES
B2. 23504-91001p003 Nom Diagram	YES
C. 23504-33001p001 115kV General Arrangement	YES
D. P6 Schedule	N/A
E. Constructability Review	N/A

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Project Authorization Form

Project Checklist - Transmission & Substation Capital Project	
Project Name: [redacted] - Replace [redacted] 15kV Busduct	**Project Number: CS00615**

Facility Type:
☐BPS ☐BES ☐PTF ☐PTF non-regional ☐non-PTF ☐CIP ☒Distribution ☐General Plant

PLANNING	
Is a NX-9 required?	No
Is an ISO-NE PAC presentation required?	No
ISO-NE Presentation Date (if completed):	N/A
Cost in ISO-NE Presentation ($M) (if completed):	N/A
Is a PPA required?	No
ISO-NE Approval Date (if completed):	N/A
Is a TCA Application Required?	No
TCA Submittal Date (if submitted):	N/A
Cost in TCA Submittal ($M) (if submitted):	N/A
Enter ISO-NE RSP / Asset Condition ID, if assigned:	N/A

PLANNING/PROTECTION & CONTROLS	
Are RAS/SPS/UVLs affected?	No

OPERATIONS			
Outage Required?	☒ Primary Equipment (Power Transfer)	☐ Secondary Equipment (P&C only)	☐ Outage Not Required
Do SCLL Conditions Exist?	No		
Has an outage schedule been approved?	Yes		
Are Operations & Maintenance procedures/training required?	No		

STANDARDS	
Does the project include standard equipment and designs?	Yes

SUBSTATION ENGINEERING	
Does this impact Revenue Metering	No
Is preliminary short circuit/ breaker duty analysis required?	No
Are there any changes to the baseline audible noise?	No
Is there an impact to the existing ground grid?	No
Is a Transient Over Voltage (TOV) analysis required?	No

Project Checklist - Transmission & Substation Capital Project	
Project Name: [redacted] - Replace [redacted] 15kV Busduct	**Project Number: CS00615**
P&C ENGINEERING	
OP-22 - Are PMUs and DDR required?	No
If BPS, is an NPCC Directory #4 presentation required?	No
Are ISO-NE OP-24 Appendix B updates necessary?	No
TRANSMISSION LINE ENGINEERING	
Are there any changes that affect the baseline EMF?	No
Are there any changes that affect the baseline EMI?	No
SITING	
Is a Siting filing required? *(If yes, list in regulatory approvals section)*	No
PERMITTING	
Is there any permitting required? *(If yes, list in regulatory approvals section)*	No
PROJECT SERVICES (OUTREACH) and ROW WORK COORDINATION	
What is the level of outreach expected?	None
Is any part of this project in an Environmental Justice Community?	No
Has ROW Coordination reviewed this project?	No
Is this project coordinating with other existing scheduled work?	No
INITIATOR	
Has a field constructability review been completed?	No
INVESTMENT RECOVERY	
Does the project require development of an Investment Recovery plan?	No
COST ESTIMATING	
What team/firm prepared the cost estimate?	Other (specify below)
Name of the person who prepared the estimate:	Actuals
Was the estimate reviewed by Eversource Estimating?	No

	Project Number:	Project Title:	Project Title:	Prior Authorized		WBS	0			
	Date of Actuals	Prior Authorized		PAF (dollars in thousands)						
	Line item Category	Prior Authorized	Actuals to Date	2021 to Go	2022	2023	2024	2025	2026	Total
1	1. ROW / Easements / Land purchases		$0							$0
2	2. Environmental Approvals / Permits		$0							$0
3	3. Outreach		$0							$0
4	4. Siting Approvals / Permits		$0							$0
5	5. Engineering / Design		$66							$66
6	6. Materials (Eversource purchased)		$0							$0
7	7. Construction (incl matl's by contractors)		$408							$408
8	8. Testing / Commissioning		$0							$0
9	9. PMT Project Mgmt Team		$0							$0
10	10. Removals		-$3							-$3
11	11. Other		$0							$0
12	12. Risks		$0							$0
	Project Directs Total w/Risks	**$0**	**$470**							**$470**
13	13. Indirects/Overhead		$284							$284
14	14. AFUDC		$28							$28
	Project Total - Baseline Budget	**$0**	**$782**							**$782**
15	15. Contingency		$0							$0
0	#N/A									
	Project Total - Funding Approval Level	**$0**	**$782**							**$782**
16	16. Reimbursables/Customer Contribution		$0							$0
	#N/A									
	Project Total (less reimbursables)	**$0**	**$782**							**$782**
	Total O&M		**$0**							**$0**
	TOTAL REQUEST	**$0**	**$782**							**$782**

WBS	BrkOut		WBS1	WBS2	
1.00		**ROW / Easements / Land Acquisition**	**$0.00**		
1.01	**1**	Eversource Personnel		$0.00	
1.02	**3**	ROW / Easements / Land Services + Personnel		$0.00	
1.03	**6**	ROW / Easements / Land Acquisition		$0.00	
-					
2.00		**Environmental Approvals / Permits**	**$0.00**	$0.00	
2.01	**1**	Eversource Personnel		$0.00	
2.02	**3**	Environmental Services + Personnel		$0.00	
2.03	**3**	Mitigations		$0.00	
2.04	**3**	Fees		$0.00	
-					
3.00		**Outreach**	**$0.00**	$0.00	
3.01	**1**	Eversource Personnel		$0.00	
3.02	**3**	Outreach Services + Personnel		$0.00	
-					
4.00		**Siting Approvals / Permits**	**$0.00**	$0.00	
4.01	**1**	Eversource Personnel		$0.00	
4.02	**3**	Siting Services + Personnel		$0.00	
4.03	**3**	Siting Mitigation		$0.00	
4.04	**3**	Payments		$0.00	
-					
5.00		**Engineering / Design**	**$66,128.72**	$0.00	
5.01	**1**	Eversource Personnel		$1,146.72	
5.02	**3**	Engineering / Design		$64,982.00	
-					
6.00		**Materials (by Eversource)**	**$0.00**	$0.00	
6.01	**1**	Eversource Personnel		$0.00	
6.02	**1**	Procurement / Logistics Services + Personnel		$0.00	
6.03	**4**	Equipment / Materials		$0.00	
-					
7.00		**Construction**	**$407,547.81**	$0.00	
7.01	**1**	Eversource Personnel - General		$9,841.15	
7.02	**1**	Eversource Personnel - Overhead Line Work		$0.00	
7.03	**1**	Eversource Personnel Underground Line Work		$0.00	
7.04	**1**	Eversource Personnel - Substation Electrical Work		$0.00	
7.05	**1**	Eversource Personnel - Civil Work		$0.00	
7.06	**3**	Contract Construction Reps		$0.00	
7.07	**3**	Line Construction - Matting / Access Roads		$0.00	
7.08	**3**	Line Construction - Civil / Drilling / Trenching / Foundations		$0.00	
7.09	**3**	Line Construction - Overhead Tower Construction / Wire Stringing		$0.00	
7.10	**3**	Line Construction - Underground Cable Installation / Splicing		$0.00	
7.11	**3**	S/S Construction - Civil / Site Prep / Excavation / Foundation		$0.00	
7.12	**3**	S/S Construction - Electrical		$0.00	
7.13	**3**	Misc. Construction		$397,706.66	
-					
8.00		**Testing / Commissioning**	**$0.00**	$0.00	
8.01	**1**	Eversource Personnel		$0.00	
8.02	**3**	Testing / Commissioning + Personnel		$0.00	
-					
9.00		**Project Management Team**	**$0.00**	$0.00	
9.01	**1**	Eversource Personnel		$0.00	
9.02	**3**	Contract Personnel		$0.00	
-					
-					
10.00		**Removals**	**($3,356.94)**	$0.00	
10.01	**5**	Eversource Personnel		$1,085.02	
10.02	**5**	Contract Personnel		$0.00	
10.03	**5**	Material Salvage, Investment Recovery Tracking		($4,441.96)	
-					
11.00		**Other**	**$0.00**	$0.00	
11.01	**6**	Journal Entry Adjustments		$0.00	
11.02	**6**	UVL		$0.00	
11.03	**6**	Property Tax		$0.00	
-					
12.00	**6**	Risks	$0.00	$0.00	
-					
13.00		**Overhead**	**$283,905.81**	$0.00	
13.01	**7**	ZAS=Admin & Eng OH		$7,495.07	
13.02	**7**	ZEB, ZEL,ZES=> Alloc-E&S OH Subst,Alloc -E+S OH Lines,Engin and Super OH		$238,720.24	
13.03	**7**	ZGS =Gen Svc Co Benefit Loader		$868.77	
13.04	**7**	ZNP=Non Productive Time Loader		$1,566.82	
13.05	**7**	ZPB=Payroll Benefit Loader		$4,699.48	
13.06	**7**	ZVE=Vehicle Costs Clearing		$1,665.85	
13.07	**7**	ZMI=Misc Dist Exp Captialized OH		$28,889.58	
13.08	**7**	ZSC=Service Company Allocations		$0.00	
13.09	**7**	ZST=Stores Loader		$0.00	
-					
14.00	**8**	**AFUDC**	$27,876.08	$27,876.08	
-					
15.00	**7**	**Contingency**	$0.00	$0.00	
-					
16.00	**5**	**Reimbursables**	$0.00	$0.00	
		Total	**$782,101.48**	**$782,101.48**	





[redacted]