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Operations Project Authorization Form

Approved on September 29, 2022 EPAC

Link to Meeting Minutes

Project Title: Replace Failed [redacted] Circuit Breaker	**Project Number: CS00632**
Date Prepared: 09/19/2022	**Company: Eversource CT**
Organization: Asset Management	**Class(es) of Plant: D SS**
Project Initiator: [redacted]	**Project Category: Stations - Circuit Breakers**
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: November 13, 2019	**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: $245K	**Authorization Type: Full Funding**

[1] Executive Summary

This project is seeking approval of full funding of $245K for a completed project at the [redacted], CT to replace the [redacted]

The work was executed and completed in 2019 under annual work order number DSQ92046. This Project Authorization Form (PAF) provides the documentation necessary to transfer the capital charges to project number CS00632, as the direct capital charges exceeded the $100K annual work order limit imposed by APS-01. The project was placed in service November 13, 2019.

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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	$	$5				$5
6. Materials (Eversource purchased)	$	$35				$35
7. Construction (incl matl's by contractors)	$	$94				$94
8. Testing / Commissioning	$	$17				$17
9. Project Mgmt Team	$					
10. Removals	$	$1				$1
11. Other	$					
12. Risks	$					
SUBTOTAL DIRECTS W/ RISKS	**$.1**	**$151**				**$151**
13. Indirects/Overhead	$	$94				$94
14. AFUDC	$					
PROJECT TOTAL – BASELINE BUDGET	**$.1**	**$245**				**$245**
15. Contingency	$					
TOTAL CAPITAL REQUEST	**$.1**	**$245**				**$245**
16. Reimbursables/Customer Contribution	$					
PROJECT TOTAL (LESS REIMBURSABLES)	**$.1**	**$245**				**$245**
O&M	$					
TOTAL REQUEST	**$.1**	**$245**				**$245**

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[3] TECHNICAL JUSTIFICATION

Project Need, Objective and Justification

Project Need Statement

While testing relays at the [redacted], field engineers discovered that the [redacted]. Subsequent investigation determined that the circuit breaker needed to be replaced. The sourced breaker for this emergency replacement required in-field replacement of the current transformers adding additional costs to the project. The [redacted] also required repairs.

Project Objectives

The primary objective was to replace the [redacted]

Justification

While testing relays at the [redacted], field engineers discovered that the [redacted] Subsequent investigation determined that the circuit breaker needed to be replaced. An annual work order was created for this work.

Project Scope

The scope of this specific PAF is to replace damaged and failed equipment that was charged on annual DSQ92046. After an assessment was made of the damage, the following actions were taken:

- [redacted]
- [redacted]
- [redacted]
- Test and commission equipment to place in service.
- All equipment was restored to normal operating configuration.

The project was placed in service on November 13, 2019 with project closeout activities completed in October 2021.

Substation Equipment

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Station	Device Position / Nomenclature	Device Removals *include manufacturer*	Device Additions *include manufacturer*
[redacted]	[redacted]	[redacted]	[redacted]

Background

While testing relays at the [redacted] Subsequent investigation determined that the circuit breaker needed to be replaced. An annual work order was created for this work. There were delays encountered during the replacement of the work which increased the cost of the project beyond the $100K annual limit. The work included the emergency replacement of the sourced breaker's current transformers and repairing the [redacted]

[4] Alternatives Considered

No alternatives considered. This project has been completed.

[5] Project Schedule

Milestone	Scheduled Completion Date
100% Engineering Completion	Completed November, 2019
Construction Start	Completed November, 2019
Testing/Commissioning	Completed November 13, 2019
Project In-Service Date (ISD) - Actual	Completed November 13, 2019

[6] Regulatory Approvals

N/A Project has been completed.

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[7] Risk and Risk Mitigation Plans

Contingency: Project has been completed and there is no contingency associated with this project.

Risk Mitigation: There are no outstanding risks associated with this completed project.

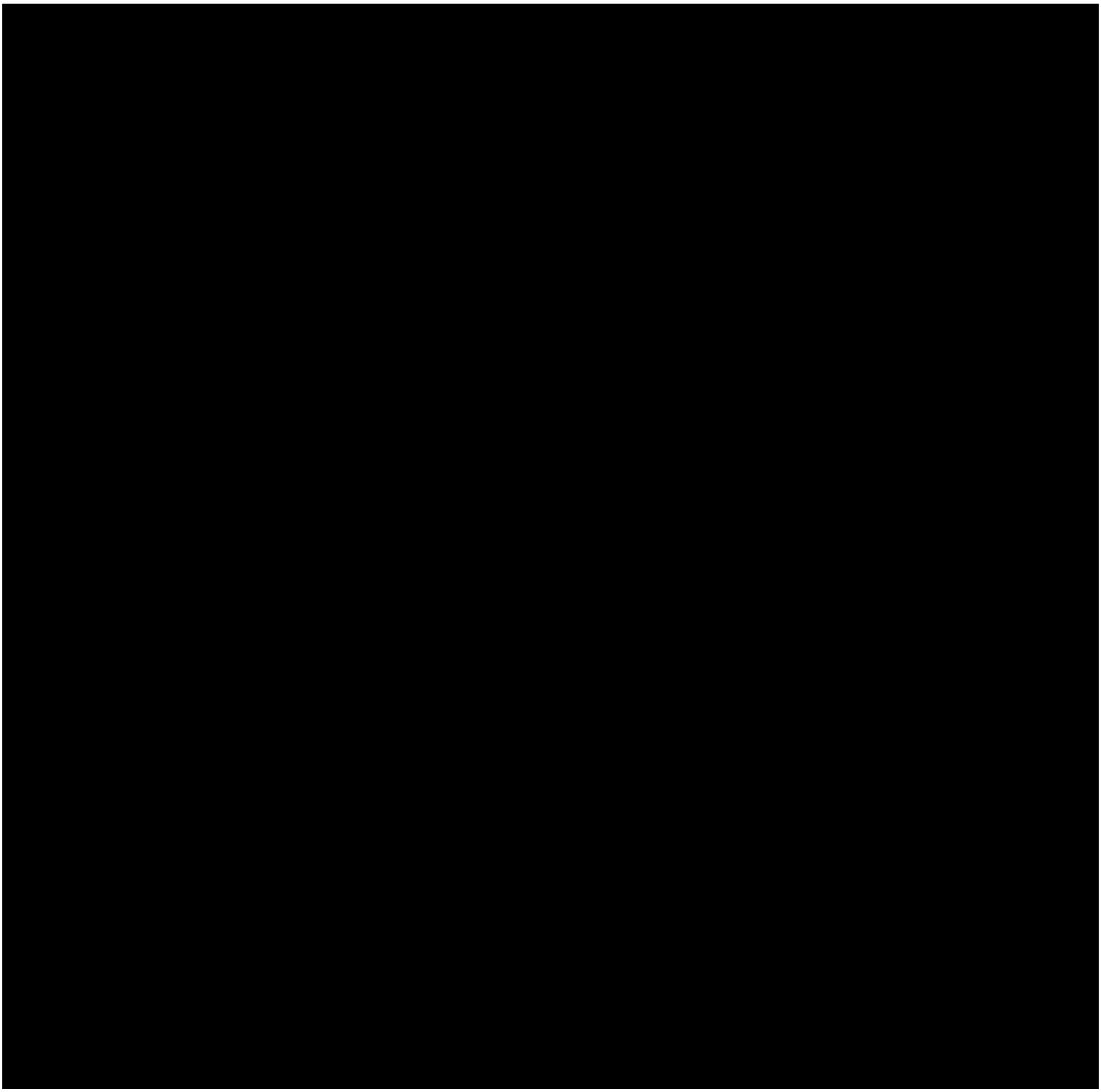
[8] References

References
1. APS-01 Project Authorization Policy.
2. Work Order DSQ92046 Replace Failed [redacted] Circuit Br

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

Attachments
Figure 1. Partial One Line (Before)
Figure 2. Partial Three Line (After)
A. Actual Costs WO DSQ92046

Figure 1 - Partial One Line of [redacted] showing affected CB [redacted] and disconnect switch [redacted]



Project Checklist - Transmission & Substation Capital Project			
Project Name: Replace Failed [redacted] Circuit Breaker		**Project Number: CS00632**	
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?		Yes	
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: Replace Failed [redacted] Circuit Breaker	**Project Number: CS00632**

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

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**	**$4,668.97**	$0.00
5.01	**1**	Eversource Personnel		$3,566.47
5.02	**3**	Engineering / Design		$1,102.50
-				
6.00		**Materials (by Eversource)**	**$34,529.56**	$0.00
6.01	**1**	Eversource Personnel		$0.00
6.02	**1**	Procurement / Logistics Services + Personnel		$0.00
6.03	**4**	Equipment / Materials		$34,529.56
-				
7.00		**Construction**	**$93,919.32**	$0.00
7.01	**1**	Eversource Personnel - General		$85,450.95
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		$8,468.37
-				
8.00		**Testing / Commissioning**	**$16,925.71**	$0.00
8.01	**1**	Eversource Personnel		$16,925.71
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**	**$515.35**	$0.00
10.01	**5**	Eversource Personnel		$612.50
10.02	**5**	Contract Personnel		$0.00
10.03	**5**	Material Salvage, Investment Recovery Tracking		-$97.15
-				
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**	**$94,132.78**	$0.00
13.01	**7**	ZAS=Admin & Eng OH		$4,282.36
13.02	**7**	ZEB, ZEL,ZES=> Alloc-E&S OH Subst,Alloc -E+S OH Lines,Engin and Super OH		$0.00
13.03	**7**	ZGS =Gen Svc Co Benefit Loader		$3,148.63
13.04	**7**	ZNP=Non Productive Time Loader		$14,946.31
13.05	**7**	ZPB=Payroll Benefit Loader		$49,145.22
13.06	**7**	ZVE=Vehicle Costs Clearing		$17,050.13
13.07	**7**	ZMI=Misc Dist Exp Captialized OH		$0.00
13.08	**7**	ZSC=Service Company Allocations		$0.00
13.09	**7**	ZST=Stores Loader		$5,560.13
-				
14.00	**8**	**AFUDC**	$0.00	$0.00
-				
15.00	**7**	**Contingency**	$0.00	$0.00
-				
16.00	**5**	**Reimbursables**	$0.00	$0.00
		Total	**$244,691.69**	**$244,691.69**