EVERSOURCE
Project Authorization Form

Operations Project Authorization Form

Date Prepared: 08/24/2018	**Project Title: [redacted]-Relay &Trm blk replacement**
Company/ies: Eversource CT	**Project ID Number: CS00299**
Organization: Asset Management	**Class(es) of Plant: Distribution Substation**
Project Initiator: [redacted]	**Project Category: General Modernization**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Replacement of failing and obsolete equipment**
Estimated in service date: Completed	**If Transmission Project: PTF? N/A**
Eng. /Constr. Resources Budgeted? Y	**Capital Investment Part of Original Operating Plan? Y**
Authorization Type: Full Funding	**O&M Expenses Part of the Original Operating Plan? N**
Total Request: $227,639	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

This project is seeking full funding of $227,639 to cover the capital replacement of failed equipment at Newington 4A substation. Annual project DSEQ8056 was created to address the emergent condition at [redacted]. This project addressed the [redacted]. Final spending on this project was 08/2017

Project Costs Summary

	Prior Authorized	2012	2014	2015+	Totals
Capital Additions - Direct	$75,000	$8,642	$41,544	$85,050	$135,236
Less Customer Contribution	$	$0	$0	$0	
Removals net of Salvage ____%	$	$0	$0	$0	
Total - Direct Spending	$75,000	$8,642	$41,544	$85,050	$135,236
Capital Additions - Indirect	$0	$12,276	$25,333	$54,794	$92,403
Subtotal Request	$75,000	$20,918	$66,877	$139,844	$227,639
AFUDC	$0	$0	$0	$0	
Total Capital Request	$	$20,918	$66,877	$139,844	$227,639
O&M	$		$0	$0	
Total Request	$	$20,918	$66,877	$139,844	$227,639

Financial Evaluation

Direct Capital Costs	2012	2014	2015+	Total
Straight Time Labor	$6,159	$13,667	$23,663	$43,489
Overtime Labor	$525	$0	$1,586	$2,111
Outside Services	$1,198	$0	$0	$1,198
Materials	$0	$17,058	$42,244	$59,302
Other, including contingency amounts (describe)	$5	$9,145	($3,808)	$5,343
Total Direct Costs	**$7,887**	**$39,870**	**$63,685**	**$111,443**

Indirect Capital Costs	2012	2014	2015+	Total
Indirects/Overheads (including benefits)	$12,276	$25,333	$54,793	$92,402
Capitalized interest or AFUDC, if any	$755	$1,675	$21,364	$23,794
Total Indirect Costs	**$13,031**	**$27,008**	**$76,157**	**$116,196**

Total Capital Costs	**$20,918**	**$66,878**	**$139,842**	**$227,639**
Less Total Customer Contribution	$0	$0	$0	$0
Total Capital Project Costs	**$20,918**	**$66,878**	**$139,842**	**$227,639**
Total O&M Project Costs	$	$	$	$

Note: Explain unique payment provisions, if applicable

Future Financial Impacts:

Provide below the estimated future costs that will result from the project:
Note: Dollar values are in thousands:

Future Costs	Year 20__	Year 20__	Year20__	Year 20__ +	Total Future Project Costs
Capital	$ -	$ -	$ -	$ -	$ -
O&M	-	-	-	-	-
Other	-	-	-	-	-
TOTAL	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Describe the estimated future Capital, O&M and/or Other costs noted above: **N/A**

What functional area(s) will these future costs be funded in?_____
A representative from the respective functional area is required to be included as a project approver.

If this is other than a Reliability Project, please complete the section below;

Provide below the estimated financial benefits that will result from the project:
Note: Dollar values are in thousands:

Future Benefits	Year 20__	Year 20__	Year20__	Year 20__+	Total Future Project Benefits
Capital	$ -	$ -	$ -	$ -	$ -
O&M	-	-	-	-	-
Other	-	-	-	-	-
TOTAL	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

Describe the estimated future Capital, O&M and/or Other benefits noted above: **N/A**

What functional area(s) will these benefits be reflected in?_____
A representative from the respective functional area is required to be included as a project approver.

Asset Retirement Obligation (ARO) and/ or Environmental Cleanup Costs (Environmental Liabilities):

Is there an ARO associated with this project? If yes, please provide details: **This project has no AROs associated with it.**

Are there other environmental cleanup costs associated with this project? If yes, please provide details: **No associated environmental clean up costs.**

Technical Justification:

Project Need Statement

[redacted]

Project Objectives

[redacted]

Project Scope

The replacement of the;

- [redacted]
- [redacted]

.

Background / Justification

The failing relays were obsolete and recalibration could not be performed.

Business Process and / or Technical Improvements:

This project consisted of replacement of obsolete equipment and the correction of a difficient protection scheme.

Alternatives Considered with Cost Estimates

There were no alternatives considered prior to the fault as this was an emergent replacement project to restore normal service.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Project was completed	2017

Regulatory Approvals

N/A

Risks and Risk Mitigation Plans

Project was completed

References

N/A

Reconciliation of Cost Increase

Annual work order DSEQ8056 was estimated at $75,000

The final project cost came to $227,639 with the last recorded spend in 05/2017

		Original estimate		Actuals
Materials		No Data		$59,302
Labor		No Data		$45,600
Removals		No Data		$0
Direct totals		No Data		$135,235

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

Project Checklist – Transmission and Substation

Checklist for Studies and Processes of a Transmission & Substation Capital Project						
Project Name: [redacted] Relay &Trm blk replacement					**PAF No: CS00299**	
Facility Type: ☐ BPS	☒ BES	☐ PTF	☐ non-PTF	☐ CIP	☒ Distribution	
PLANNING						
Is a NX-9 required?					No	
Is an ISO-NE PAC presentation required?					No	
Is a PPA required?					No	
Is a TCA Application Required?					No	
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	
P&C ENGINEERING						
OP-22 - Are PMUs and DDR required?					No	
If BPS, is an NPCC Directory #4 presentation required?					No	

Checklist for Studies and Processes of a Transmission & Substation Capital Project	
Project Name: [redacted] Relay &Trm blk replacement	**PAF No: CS00299**

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?	No
PERMITTING	
Is there any permitting required?	No
SITING & CONSTRUCTION SERVICES (OUTREACH)	
What is the level of outreach expected?	None
INITIATOR	
Has a field constructability review been completed?	Yes
INVESTMENT RECOVERY	
Does the project require development of an Investment Recovery plan?	No
COST ESTIMATING	
How was the cost estimate prepared?	Other (specify below)
Who prepared the estimate?	Engineering
Was the estimate reviewed by Eversource Estimating?	No

Cost Estimate Backup Details

accounting	DSEQ8056											
month_nun	(All)											
Sum of amount				Column Labels								
Row Labels	CE Type	cost_ele	cost element description	106010	107010	163020	186950	45701X	92000X	92102X	93020X	Grand Total
Direct	Contracto	S16	Engineering Design Services		1197.4						2E-14	1197.4
	Contractors Total				1197.4						2E-14	1197.4
	Labor	L11	Labor Straight Time Exempt		11661		0	6E-14	0			11661
		L12	Labor Straight Time Non-Exempt		31828		1E-12		0			31828
		L21	Labor Overtime Exempt		525				0			525
		L22	Labor Overtime Non-Exempt		1416.3		-7E-14					1416.3
		L31	Labor Non Productive Exempt		0			-1E-14	1E-14			0
		L32	Labor Non Productive Non-Exempt		0			2E-15	-2E-15			0
		L33	Labor Non Productive Non Regular		0			-7E-18	3E-18			-3E-18
		L42	Labor Premium and Special Non-Exempt		170.2		-1E-14					170.2
	Labor Total				45600		1E-12	4E-14	1E-14			45600
	Materials	M11	Materials- Purchased		11416		1E-13					11416
		M12	Materials- Stores		47885		0					47885
	Materials Total				59302		1E-13					59302
	Misc Oth	A21	Miscellaneous Journal Entries Other		-6320							-6320
		A66	AFUDC Debt		8625.1							8625.1
		A67	AFUDC Equity		15168							15168
		A85	Miscellaneous Accounting Adjustments	227638.54	-2E+05							0
		E11	Employee Expense Other		5.2					0		5.2
		E13	Meals		100		0					100
		E14	Mileage		17.25		0					17.25
		J17	Rent Expense-External		2499.1		6E-14					2499.1
	Misc Other Total			227638.54	-2E+05		6E-14			0		20095
	Vehicle	V42	Vehicles-Class 2L-Large Vehicles		3893.4		-1E-13					3893.4
		V43	Vehicles-Class 2S-Small Vehicles		772.47		0					772.47
		V49	Vehicles-Class 4A		89.37		0					89.37
		V50	Vehicles-Class 4B		4286.4		0					4286.4
		V70	Other Vehicle Expense		0							0
	Vehicle Total				9041.6		-1E-13					9041.6
Direct Total				227638.54	-92403		1E-12	4E-14	1E-14	0	2E-14	135236
Indirect	Indirect	ZAS	Admin and Eng OH- Acct Use Only		3231.5							3231.5
		ZES	Engin and Super OH- Acct Use Only		26202							26202
		ZGS	Gen Ser Co Benefit Loader- Acct Use Only		6692.7				0	0		0 6692.7
		ZLO	Lobby Stock Loader-Acct Use Only		6320.3							6320.3
		ZMI	Misc Dist Exp Capitalized OH-Acct Use Only		4662							4662
		ZNP	Non Productive Time Loader- Acct Use Only		8748.9		0	0			-7E-15	8748.9
		ZPB	Payroll Benefit Loader- Acct Use Only		22033							22033
		ZSC	Service Company Allocations- Acct Use Only					-6E-13	6E-14		6E-14	-5E-13
		ZST	Stores Loader- Acct Use Only		14420	0						14420
		ZVE	Vehicle Costs Clearing- Acct Use Only		92.71							92.71
	Indirect Total				92403	0	0	-6E-13	6E-14		5E-14	92403
Indirect Total					92403	0	0	-6E-13	6E-14		5E-14	92403
Grand Total				227638.54	-2E-11	0	1E-12	-6E-13	7E-14	0	7E-14	227639