EVERSOURCE
Project Authorization Form

Operations Project Authorization Form

Approved at September 26, 2018 EPAC
Link to Meeting Minutes

Date Prepared: 8/30/2018	**Project Title:** [redacted]
Company/ies: Eversource CT	**Project ID Number: CS00332**
Organization: Engineering	**Class(es) of Plant: Distribution Substation**
Project Initiator: [redacted]	**Project Category: Security Enhancements**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Security Enhancements**
Estimated in service date: June 2019	**If Transmission Project: PTF?**
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? N/A**
Total Request: $2,273,000	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

[redacted]

[redacted]

[redacted]

This $2,273,000 project authorization is for the security [redacted]

"Confidential Critical Energy Infrastructure Information (CEII) and or Physical Security Information (PSI). Subject to Protective Order and/or Non-Disclosure Agreement. Do not copy of Provide to Unauthorized Persons."

Project Costs Summary

Note: Dollar values are in thousands

	Prior Authorized	2018	2019	2020+	Totals
Capital Additions - Direct	$0	$58	$1,191	$0	$1,249
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$0	$45	$0	$45
Total - Direct Spending	$0	$58	$1,236	$0	$1,294
Capital Additions - Indirect	$0	$90	$859	$0	$949
Subtotal Request	$0	$148	$2,095	$0	$2,243
AFUDC	$0	$2	$28	$0	$30
Total Capital Request	$0	$150	$2,123	$0	$2,273
O&M	$0	$0	$0	$0	$0
Total Request	$0	$150	$2,123	$0	$2,273

Financial Evaluation

Note: Dollar values are in thousands

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$26	$29	$0	$55
Overtime Labor	$0	$0	$0	$0
Outside Services	$30	$729	$0	$759
Materials	$0	$372	$0	$372
Other – Vehicles, Expenses, and Contingency	$2	$106	$0	$108
Total Direct Costs	**$58**	**$1,236**	**$0**	**$1,294**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$90	$859	$0	$949
Capitalized interest or AFUDC, if any	$2	$28	$0	$30
Total Indirect Costs	**$92**	**$887**	**$0**	**$979**

Total Capital Costs	**$150**	**$2,123**	**$0**	**$1,273**
Less Total Customer Contribution	$0	$0	$0	$0
Total Capital Project Costs	**$150**	**$2,123**	**$0**	**$1,273**
Total O&M Project Costs	$0	$0	$0	$0

Note: Other costs include $8,000 of expenses and vehicle cost, as well as the below contingency.

Contingency Risk Assessment

Note: Dollar values are in thousands

Description	Contingency Amount
Severe Weather Delays	$100
Total	**$100**

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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:

What functional area(s) will these future costs be funded in? N/A
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:

What functional area(s) will these benefits be reflected in? N/A
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:

Are there other environmental cleanup costs associated with this project? If yes, please provide details:

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Technical Justification:

Project Need Statement

[redacted]

Project Objectives

[redacted]

Background / Justification

[redacted]

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Business Process and / or Technical Improvements:

[redacted]

Alternatives Considered with Cost Estimates

[redacted]

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Commence Gate Upgrades	January 2019
Complete Gate Upgrades	June 2019

Regulatory Approvals

Sub-Petition Approval – June 28, 2017; State of Connecticut Siting Council Petition No. 1157

Risks and Risk Mitigation Plans

- Severe weather delays could impact contractor efficiency. Contingency funds have been allocated to mitigate the contractor costs.

References

[redacted]

Project Checklist – Transmission and Substation

INSTRUCTIONS:
It is the responsibility of the initiator to contact the area disciplines to determine if the project considerations contained in this list are applicable to their project. They should fill out the checklist and determine a transition plan for the purpose of project execution.

Checklist for Studies and Processes of a Transmission & Substation Capital Project				
Project Name: [redacted]				**PAF No: CS00332**
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?				No
Are Operations & Maintenance procedures/training required?				Yes
STANDARDS				
Does the project include standard equipment and designs?				No
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

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Checklist for Studies and Processes of a Transmission & Substation Capital Project	
Project Name: [redacted]	**PAF No: CS00332**
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?	Yes
PERMITTING	
Is there any permitting required?	Yes
SITING & CONSTRUCTION SERVICES (OUTREACH)	
What is the level of outreach expected?	Low
INITIATOR	
Has a field constructability review been completed?	Yes
INVESTMENT RECOVERY	
Does the project require development of an Investment Recovery plan?	Yes
COST ESTIMATING	
How was the cost estimate prepared?	Estimate was prepared by the Eversource Estimating Team
Who prepared the estimate?	[redacted]
Was the estimate reviewed by Eversource Estimating?	Yes

Cost Estimate Backup Details

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ESTIMATE SUMMARY

Project Title: CIP14[redacted]
Project Mgr/Lead: [redacted]
Project Number: 404646

Estimate By: [redacted]
Date of Estimate: 08/30/2018
ISD: 12/31/2019
Estimate #C-18-337

ESTIMATE SUMMARY

Estimate Type: Planning

	TOTAL	% of Total	Prior	2018	2019	2020	2021	2022	2023
CONSTRUCTION	$642,519	28.3%			$642,519				
ENGINEERING/DESIGN	$28,784	1.3%		$14,392	$14,392				
LAND									
MATERIAL	$359,800	15.8%			$359,800				
PROJECT MGR & SUPPORT	$86,986	3.8%		$43,493	$43,493				
REMOVAL	$43,250	1.9%			$43,250				
TEST									
CONTINGENCY	$100,000	4.4%			$100,000				
ESCALATION	$36,103	1.6%			$36,103				
INDIRECTS	$945,593	41.6%		$90,147	$855,446				
AFUDC	$29,865	1.3%		$1,722	$28,143				
Total Cost	**$2,273,000**	100.0%		**$149,754**	**$2,123,146**				

	-25%	-	25%
Planning Range	**$1,704,750**	-	**$2,841,250**

COMMENTS:

Project Scope:

[redacted]

Assumptions

[redacted]

- Construction to be outsourced.
- This estimate is based on PAF description only, actual quantities may vary during detailed engineering.
- Material estimates based on previous work, vendor RFP response, and RS Means.
- Labor estimates based on previous work, vendor RFP response, J. Bifulco S/S labor units, R.S. Means, and NECA labor units.

Risks

- Severe Weather Delays. Reserve $100,000.

PAF (dollars in thousands)

	Prior Authorized	2018	2019	2020	2021	2022	2023	Totals
Capital Additions - Direct	$ -	$ 58	$ 1,191	$ -	$ -	$ -	$ -	$ 1,249
Less Customer Contribution	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Removals net of Salvage ____%	$ -	$ -	$ 45	$ -	$ -	$ -	$ -	$ 45
Total - Direct Spending	$ -	$ 58	$ 1,236	$ -	$ -	$ -	$ -	$ 1,294
Capital Additions - Indirect	$ -	$ 90	$ 859	$ -	$ -	$ -	$ -	$ 949
Subtotal Request	$ -	$ 148	$ 2,095	$ -	$ -	$ -	$ -	$ 2,243
AFUDC	$ -	$ 2	$ 28	$ -	$ -	$ -	$ -	$ 30
Total Capital Request	$ -	$ 150	$ 2,123	$ -	$ -	$ -	$ -	$ 2,273
O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Request	$ -	$ 150	$ 2,123	$ -	$ -	$ -	$ -	$ 2,273

Prior Authorized

Direct Capital Costs	Prior Actuals	2018 Year 1	2019 Year 2	2020 Year 3	2021 Year 4	2022 Year 4	2023 Year 4	Total
Straight Time Labor	$ -	$ 26	$ 29	$ -	$ -	$ -	$ -	$ 55
Overtime Labor	$ -	$ -						$ -
Outside Services	$ -	$ 30	$ 729	$ -	$ -	$ -	$ -	$ 759
Materials	$ -	$ -	$ 372	$ -	$ -	$ -	$ -	$ 372
Other – Vehicles, expenses, Contingency	$ -	$ 2	$ 106	$ -	$ -	$ -	$ -	$ 108
Total	$ -	$ 58	$ 1,236	$ -	$ -	$ -	$ -	$ 1,294

Indirect Capital Costs		Year 1	Year 2	Year 3	Year 4	Year 4	Year 4	Total
Indirects/Overheads (including benefits)	$ -	$ 90	$ 859	$ -	$ -	$ -	$ -	$ 949
Capitalized interest or AFUDC, if any	$ -	$ 2	$ 28	$ -	$ -	$ -	$ -	$ 30
Total	$ -	$ 92	$ 887	$ -	$ -	$ -	$ -	$ 979

Total Capital Costs	$ -	$ 150	$ 2,123	$ -	$ -	$ -	$ -	$ 2,273
Less Total Customer Contribution	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capital Project Costs	$ -	$ 150	$ 2,123	$ -	$ -	$ -	$ -	$ 2,273
Total O&M Project Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Supplement (dollars in thousands)

	Prior Authorized	Supplement Request	Total
Capital Additions - Direct	$ -	$ -	$ -
Less Customer Contribution	-	-	-
Removals net of Salvage ____%	-	-	-
Total Direct Spending	$ -	$ -	$ -
Capital Additions - Indirect	-	-	-
AFUDC	-	-	-
Total Capital Request	$ -	$ -	$ -
O&M	-	-	-
Total Request	**$ -**	**$ -**	**$ -**

Total Supplement Request by year view:

	Year 20__	Year 20__	Year 20__+	Total
Capital Additions - Direct	$ -	$ -	$ -	$ -
Less Customer Contribution	-	-	-	-
Removals net of Salvage ____%	-	-	-	-
Total Direct Spending	$ -	$ -	$ -	$ -
Capital Additions - Indirect	-	-	-	-
AFUDC	-	-	-	-
Total Capital Request	$ -	$ -	$ -	$ -
O&M	-	-	-	-
Total Request	**$ -**	**$ -**	**$ -**	**$ -**

Project Number: 404646

Project Title: CIP14 Residual Gate Corrections at Southington Station

Escalated Line Item Dollars

			Prior		2018		1 2019		2 2020		3 2021		4 2022		5 2023		TOTAL	
			MDYS	DOLLARS	MDYS	DOLLARS	MDYS	DOLLARS	MDYS	DOLLARS	MDYS	DOLLARS	MDYS	DOLLARS	MDYS	DOLLARS	MDYS	DOLLARS
CSTXX-CONSTRUCTION	**R**																	
Electrical Construction	LT							$385										$385
General Construction	LT																	
Transmission Automation	LT						5	$2,144									5	$2,144
Construction Reps	LT																	
Support Switch/Tag	LT																	
LT Total							5	$2,529									5	$2,529
Employee Expenses	AE	**5%**						$127										$127
Construction Purchased Material	AM	**1%**						$5,345										$5,345
Construction Vendor	AQ							$534,107										$534,107
Sales tax on Constr. Vendor																		
Vehicles	AV	**20%**						$506										$506
BHI Construction Rep	AQ						77	$119,181									77	$119,181
Rents and Leases	BR																	
CSTXX Subtotal								$661,795										$661,795
Escalation inc above						$ -		$ -		$ -		$ -		$ -		$ -		$ -
Contingency	P1							$103,000										$103,000
CSTXX Total							82	$764,795									82	$764,795
ENRXX-TG ENGINEERING/DESIGN																		
Project Services/Drafting	LT				5	$2,082	10	$4,289									15	$6,371
Transmission Engineering/Design	LT																	
Civil Engineering/Design	LT				10	$4,164	5	$2,144									15	$6,308
Substation Engineering/Design	LT				15	$6,247	15	$6,434									30	$12,681
Distribution SS Engineering/Design	LT																	
Protection & Controls Engineering	LT																	
Survey Engineering	LT																	
Telecom Engineering	LT				2	$833	2	$858									4	$1,691
LT Total					32	$13,326	32	$13,725									64	$27,051
Employee Expenses	AE	**5%**				$666		$686										$1,352
Contractor Engineering **inc sales tax**	AQ																	
Vehicles	AV	**3%**				$400		$412										$812
ENRXX Subtotal						$14,392		$14,823										$29,215
Escalation inc above																		
Contingency	P1																	
ENRXX Total					32	$14,392	32	$14,823									64	$29,215
LNDXX-TG LAND																		
Real Estate	LT																	
Employee Expenses	AE	**5%**																
Purchase Land	AM																	
Vehicles	AV	**3%**																
Fees and Payments	BF																	
LNDXX Subtotal																		
Escalation inc above																		
Contingency	P1																	
LNDXX Total																		
MATXX-TG MATERIAL																		
See attached	AM							$366,886										$366,886
	AM																	
	AM																	
Freight																		
Sales Tax																		
Stores Expense Allocation (ZC)		**1%**						$3,708										$3,708
MATXX Subtotal								$370,594										$370,594
Escalation inc above																		
Contingency	P1																	
MATXX Total								$370,594										$370,594
PSMXX-PROJECT MANAGER & SUPPORT																		
Project Planning	LT																	
Project Management	LT				30	$12,493	30	$12,868									60	$25,361
Contracts/Purchasing	LT																	
Legal	LT																	
Transmission Planning	LT																	
Environmental	LT																	
LT Total					30	$12,493	30	$12,868									60	$25,361
Employee Expenses	AE	**5%**				$625		$644										$1,269
Legal Vendor	AQ																	
Project Support Vendor **Inc Sales Tax**	AQ					$30,000		$30,900										$60,900
Vehicles	AV	**3%**				$375		$386										$761
Include allowance for Property tax large proj.	BR																	
Fees and Payments	BF																	
PSMXX Subtotal						$43,493		$44,798										$88,291
Escalation inc above																		
Contingency	P1																	
PSMXX Total					30	$43,493	30	$44,798									60	$88,291
REMXX-TG REMOVAL																		
Engineering/Design	LT																	
General Construction	LT																	
LT Total																		
Employee Expenses	AE	**15%**																
Outside Services Inc Sales Tax	AO																	
Contractor Labor **Inc sales Tax**	AQ							$44,548										$44,548
Vehicles	AV	**20%**																
Rents and Leases	BR																	
REMXX Subtotal								$44,548										$44,548
Escalation inc above																		
Contingency	P1																	
REMXX Total								$44,548										$44,548
TSTXX-TG TEST																		
Test Labor-In House	LT																	
Employee Expense	AE	**10%**																
Contractor Test & Commissioning Labor	AQ																	
Vehicles	AV	**10%**																
TSTXX Subtotal																		
Escalation inc above																		
Contingency	P1																	
TSTXX Total																		
TOTAL PROJECT DIRECT COST						**$57,885**		**$1,239,557**										**$1,297,442**
INDIRECTS																		
Non-Productive Time Allocation (ZB)	58	**15%**				$3,963		$4,470										$8,433
Payroll Benefits Allocation (ZE)	59	**40%**				$12,014		$13,552										$25,566
Gen SVC CO OVRHD ALLOC (ZF)	60																	
E&S Allocations (ZI) (25%<20M<3%)	61	**90%**				$64,616		$698,293										$762,909
AS&E Allocations (ZJ)	62	**1%**				$692		$9,780										$10,472
Lobby Stock Basis		**20%**						$74,119										$74,119
MDEC Basis		**5%**				$2,090		$47,592										$49,682
Vehicles OH Basis		**26%**				$6,772		$7,640										$14,412
AFUDC (ZK)	63	**2%**				$1,722		$28,143										$29,865
Indirects Subtotal						$91,869		$883,589										$975,458
TOTAL PROJECT COST						**$149,754**		**$2,123,146**										**$2,272,900**