EVERSOURCE
Project Authorization Form

Operations Project Authorization Form

Approved at August 1, 2018 EPAC

[Link to Meeting Minutes]

Date Prepared: 7/10/2018	**Project Title: [redacted] – Network Monitoring System**
Company/ies: Eversource CT	**Project ID Number: CS00237**
Organization: Distribution Design	**Class(es) of Plant: Distribution Substation**
Project Initiator: [redacted]	**Project Category: Network Automation**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Underground Network Automation**
Estimated in service date: 12/31/2018	**If Transmission Project: PTF? N/A**
Eng. /Constr. Resources Budgeted? No	**Capital Investment Part of Original Operating Plan? Yes**
Authorization Type: Full Funding	**O&M Expenses Part of the Original Operating Plan? No**
Total Request: $279,311	

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary

This project is the [redacted] This project in conjunction with CD00834 and CD00945 [redacted]

[redacted]

[redacted]

This project was approved on 11/17/2016 for $31,000 for engineering with an estimate of $312,366.

Following detailed design, **the total project request is** $279,311**.**

Project Costs Summary

	Prior Authorized	2018	2019	Totals
Capital Additions - Direct	$19	$168	$0	$168
Less Customer Contribution	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$3	$0	$3
Total - Direct Spending	$19	$171	$0	$171
Capital Additions - Indirect	$12	$105	$0	$105
Subtotal Request	$31	$276	$0	$276
AFUDC	$0	$3	$0	$3
Total Capital Request	$31	$279	$0	$279
O&M			$0	
Total Request	$31	$279	$0	$279

Financial Evaluation

Direct Capital Costs	2018	2019	2020+	Total
Straight Time Labor	$74	$	$	$74
Overtime Labor	$0	$	$	$0
Outside Services	$45	$	$	$45
Materials	$52	$	$	$52
Other, including contingency amounts (describe)	$0	$	$	$0
Total Direct Costs	$171	$	$	$171

Indirect Capital Costs	2018	2019	2020+	Total
Indirects/Overheads (including benefits)	$105	$	$	$105
Capitalized interest or AFUDC, if any	$3	$	$	$3
Total Indirect Costs	$108	$	$	$108

Total Capital Costs	$279	$	$	$279
Less Total Customer Contribution	$0	$	$	$0
Total Capital Project Costs	$279	$	$	$279
Total O&M Project Costs	$0	$	$	$0

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: No

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

Technical Justification:

Project Need Statement

[redacted] (see Attachment #1).

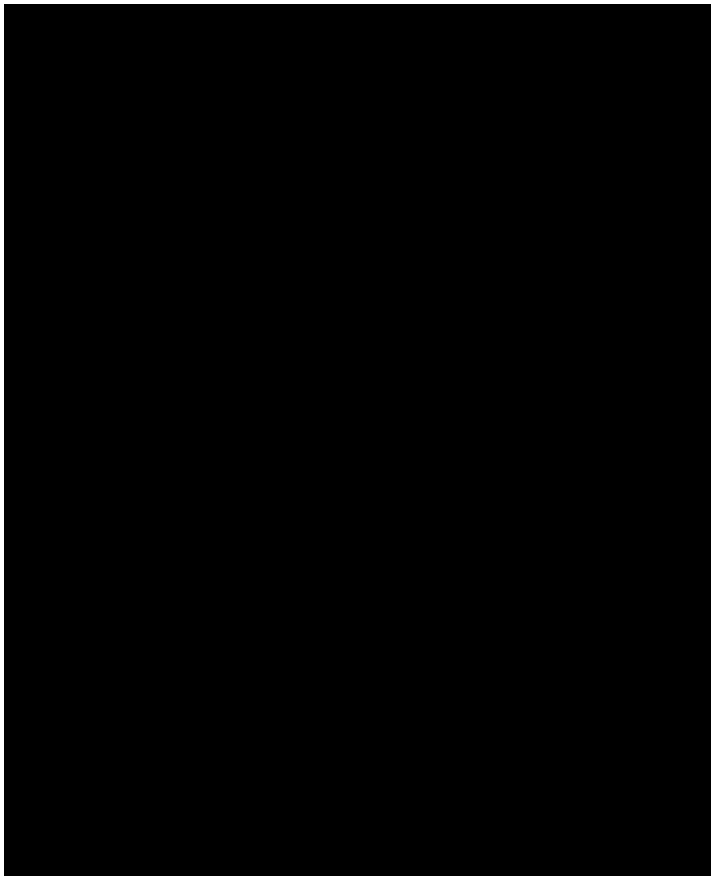
Project Objectives

[redacted]

Project Scope

[redacted]





[redacted]

Background / Justification

[redacted]

Business Process and / or Technical Improvements:

[redacted]

Alternatives Considered with Cost Estimates

[redacted] is estimated to be $10,000 more than the [redacted], see estimate below.

[redacted]	
Switching	21,072
pump + clean manholes (24)	24,000
3 phase riser + trenching	55,000
traffic	20,000
protector relay wiring	15,500
relay cabinet (2)	100,000
test/commissioning	10,000
Fiber Contractor	200,000
2C/#18 w/inner duct 3,800'	38,000
total	483,572
w/ 25% contingency	**$604,465**

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Substation work	Fall 2018
ISD	12/31/2018

Regulatory Approvals

N/A

Risks and Risk Mitigation Plans



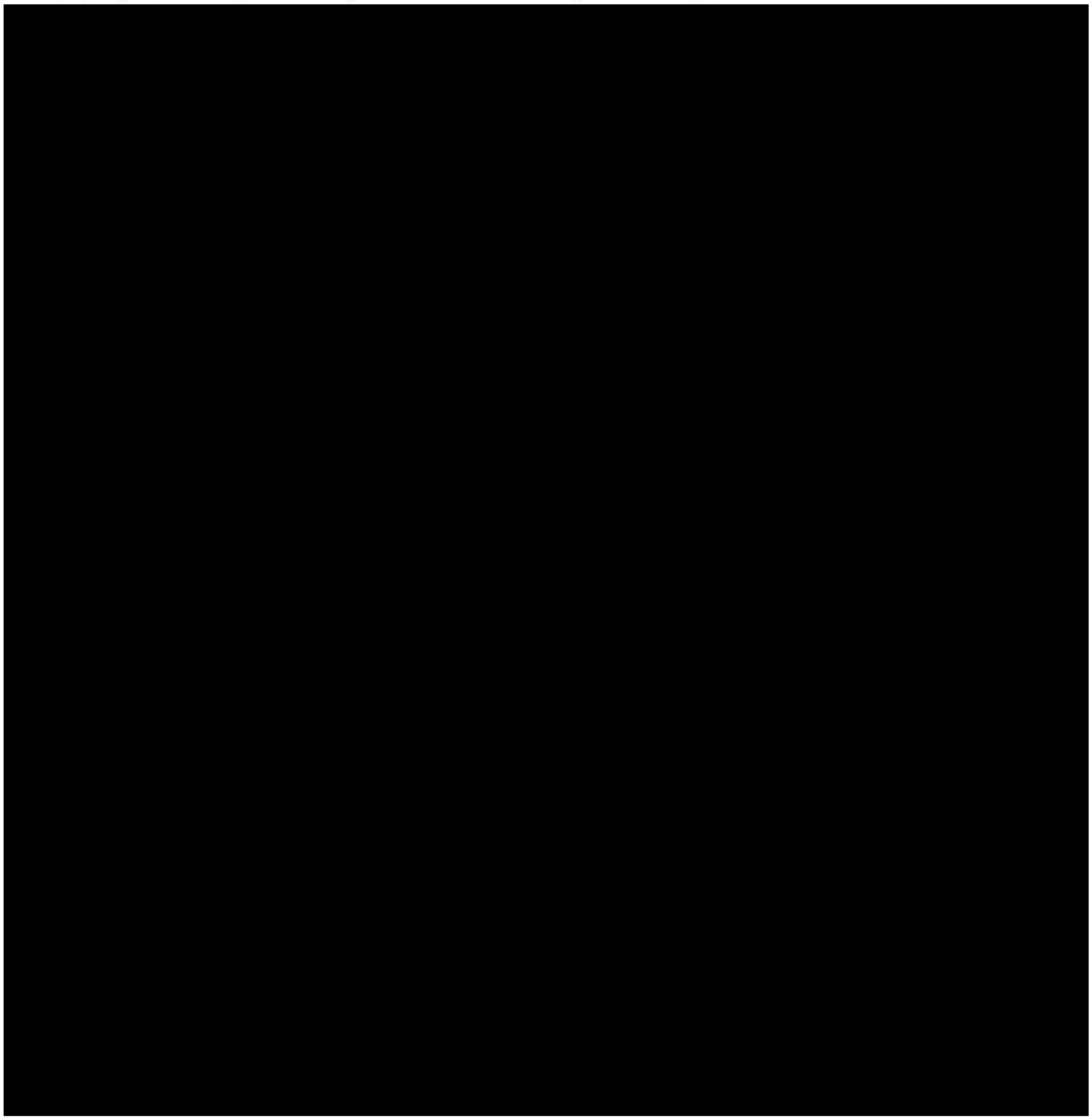
References

Digital Grid Project Scope Cost EST 2-041

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

Attachment #1:

[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] – Network Monitoring System			**PAF No:CS00237**
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?	**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] – Network Monitoring System	PAF No:CS00237

TRANSMISSION LINE ENGINEERING	
Are there any changes that affect the baseline EMF?	No
Are there any changes that affect the baseline EMI?	No
Is there an impact to the existing ground grid?	No
SITING	
Is a Siting application or petition required?	No
PERMITTING	
Is there any permitting required?	No
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?	[redacted]
Was the estimate reviewed by Eversource Estimating?	No

Cost Estimate Backup Details

RESOURCES	Prior Yrs	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	TOTAL
DIRECT	Actual	Actual	Actual	Actual	Fcst	Fcst	Fcst	Fcst	Fcst	Fcst	Fcst	Fcst	Fcst	2018	Project
LT - CT_L01:Labor EESCO	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	**10.5**	**10.5**
LT - CT_LO1:Labor EECT - Civil, Elect, Test	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	12.7	12.7	12.7	12.7	**63.5**	**63.5**
L01-LT - Total Labor	**0.0**	**0.0**	**0.3**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**14.7**	**14.7**	**14.7**	**14.7**	**14.7**	**73.9**	**73.9**
AE - CT_EE0:Employee Expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	**0.0**
AM - CT_M12:Materials-Stores M11 Purchases	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.0	0.0	0.0	0.0	**52.0**	**52.0**
AO - CT_OS1:OS Svc-Contr Env	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	**0.0**
AQ - CT_OS0:OS Svc-Contr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0	0.0	0.0	**45.0**	**45.0**
AV - CT_V00:Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	**0.0**
P1 - CT_A01:Other Misc Acct, Contingency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	**0.0**
KR - CT_C01:Contributions, Fees & Payments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	**0.0**
BR - CT_J00:Rents + Leases	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**	**0.0**
Subtotal Direct - Excluding Labor	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**52.0**	**45.0**	**0.0**	**0.0**	**97.0**	**97.0**
Total Direct - Including Labor	**0.0**	**0.0**	**0.3**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**14.7**	**66.7**	**59.7**	**14.7**	**14.7**	**170.9**	**170.9**
INDIRECT															
CT_ZNP:Non-Productive EESCO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	**1.6**	**1.6**
CT_ZNP:Non-Productive EECT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	**9.7**	**9.7**
CT_Z91:Alloc-Mat loaders (Excludes >25K)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	**8.3**	**8.3**
CT_Z93:Alloc-PR load Payroll Benefits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	6.8	6.8	6.8	6.8	**34.2**	**34.2**
CT_Z94:Alloc-GSCOH EESCO	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.4**	**0.4**
CT_Z96:Alloc- E+S	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	4.3	4.3	12.4	4.3	4.3	**29.7**	**29.7**
CT_Z92:Alloc-Misc Costs Cap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.7	0.6	0.6	**4.1**	**4.1**
CT_Z90:Alloc- AS+E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	0.7	0.3	0.3	**2.4**	**2.4**
CT_Z98:Alloc - Veh Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	**14.7**	**14.7**
	0.0	**0.0**	**0.4**	**0.3**	**0.0**	**0.0**	**0.0**	**0.0**	**17.2**	**26.1**	**26.9**	**17.2**	**17.2**	**105.2**	**105.2**
Subtotal X-AFUDC	**0.0**	**0.0**	**0.7**	**0.5**	**0.0**	**0.0**	**0.0**	**0.0**	**31.9**	**92.8**	**86.6**	**31.9**	**31.9**	**276.2**	**276.2**
CT_Z95:Alloc-AFUDC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.7	0.9	1.1	**3.2**	**3.2**
Total Project Prior To Date-->Month	**0.0**	**0.0**	**0.7**	**0.5**	**0.0**	**0.0**	**0.0**	**0.0**	**31.9**	**93.1**	**87.3**	**32.8**	**32.9**	**279.3**	**279.3**
Total Project - Cumulative To Date	**0.0**	**0.0**	**0.7**	**1.2**	**1.2**	**1.2**	**1.2**	**1.2**	**33.1**	**126.3**	**213.5**	**246.4**	**279.3**	**279.3**	