Operations Project Authorization Form

Approved at March 04, 2020 EPAC

Link to Meeting Minutes

Date Prepared: March 18, 2020	**Project Title: [redacted] Bus Rehab**
Company/ies: Eversource CT	**Project ID Number: CS00168**
Organization: Strategy and Performance	**Class(es) of Plant: Distribution Substation**
Project Initiator: [redacted]	**Project Budget Category: Stations – Switches**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Add DSCADA control**
Estimated in service date: 6/17/2019	**If Transmission Project, PTF/Non-PTF: N/A**
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: No**
Total Request: $1,514K	

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary

This project is seeking full funding of $1,514K to improve the condition of equipment at the [redacted] The original scope was to [redacted]

Upon completion of engineering, the Issued For Construction (IFC) drawings added additional scope to [redacted]. The additional scope significantly increased the project costs which includes an [redacted].

A Specific Project Proposal document was originally approved for $176,839 in PowerPlan on 1/28/2016. Then the project was previously approved for $183K in PowerPlan on 9/22/2017. The project was placed in service on 6/17/2019.

Project Costs Summary
Note: Dollar values are in thousands

	2016	2017	2018	2019	Totals
Capital Additions - Direct	$ 4	$ 43	$ 212	$ 368	$ 627
Less Customer Contribution	$ -	$ -	$ -	$ -	$ -
Removals net of Salvage ____%	$ -	$ -	$ 2	$ 4	$ 6
Total - Direct Spending	$ 4	$ 43	$ 214	$ 372	$ 633
Capital Additions - Indirect	$ 5	$ 24	$ 343	$ 455	$ 827
Subtotal Request	$ -	$ -	$ -	$ -	$ -
AFUDC	$ -	$ 2	$ 23	$ 29	$ 54
Total Capital Request	$ 9	$ 69	$ 580	$ 856	$ 1,514
O&M	$ -	$ -	$ -	$ -	$ -
Total Request	$ 9	$ 69	$ 580	$ 856	$ 1,514

Financial Evaluation
Note: Dollar values are in thousands

Direct Capital Costs	Prior Years	2018	2019	Totals
Straight Time Labor	$ 16	$ 165	$ 299	$ 481
Overtime Labor	$ -	$ -	$ -	$ -
Outside Services	$ -	$ 4	$ 1	$ 5
Materials	$ 30	$ 37	$ 70	$ 137
Other, including contingency amounts (describe)	$ -	$ -	$ 3	$ 10
Total Direct Costs	**$ 43**	**$ 214**	**$ 373**	**$ 633**
Indirect Capital Costs	Prior Years	2018	2019	Totals
Indirects/Overheads (including benefits)	$ 29	$ 342	$ 455	$ 827
Capitalized interest or AFUDC, if any	$ 2	$ 22	$ 29	$ 54
Total Indirect Costs	**$ 31**	**$ 364**	**$ 484**	**$ 881**
Total Capital Costs	**$ 77**	**$ 578**	**$ 857**	**$ 1,514**
Less Total Customer Contribution	$ -	$ -	$ -	$ -
Total Capital Project Costs	**$ 77**	**$ 578**	**$ 857**	**$ 1,514**
Total O&M Project Costs	$ -	$ -	$ -	$ -

Note: Explain unique payment provisions, if applicable: The $10K listed in the other costs is for rental equipment costs

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__	Year 20__	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? None

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__	Year 20__	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: None

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? If yes, please provide details: None

Technical Justification:

Project Need Statement

[redacted]

Project Objectives

[redacted]

Project Scope

[redacted]

Background / Justification

The project cost increase was driven by the large scope increase. The scope increase was caused by two (2) factors. [redacted].

[redacted]

[redacted]

Business Process and / or Technical Improvements:

[redacted]

Alternatives Considered with Cost Estimates

[redacted]

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Drawings issued for construction	Feb 2019
Material Ordered	Sep 2017
Begin Construction	Jan 2018
Complete Construction	June 2019

Regulatory Approvals

None required

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Abnormal System Configuration	2018-2019	Medium Impact	Prebuild as much as possible prior to taking outages. Work will be scheduled to minimize system abnormal time
SCLL	2018-2019	Medium Impact	All SCLL conditions will be resolved prior to construction start. Field coordination will be performed as part of outage requests

References

None

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

- Figure 1: [redacted]
- Figure 2: [redacted] Nomenclature Diagram



Figure 1: [redacted] *4*



Figure 2: [redacted] Nomenclature Diagram

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] **Bus Rehab**					**Project ID Number: CS00168**	
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?					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?					Yes	
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	
Are ISO-NE OP-24 Appendix B updates necessary?					No	

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Checklist for Studies and Processes of a Transmission & Substation Capital Project	
Project Name: [redacted] Bus Rehab	**Project ID Number: CS00168**
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?	Estimate was prepared by Eversource Engineering
Who prepared the estimate?	[redacted]
Was the estimate reviewed by Eversource Estimating?	No

Actuals Backup Details

See attached costs

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Row Labels	Sum of amount
AE	**39002.75**
Employee Expense Other	12.57
Meals	1370
Mileage	37620.18
AM	**137874.29**
Material Salvage	-1906.84
Materials- Purchased	14232.6
Materials- Stores	69643.21
Stores over 25K	55905.32
AQ	**5255.08**
Contractor Labor	3874.58
Engineering Design Services	1192.5
Other Outside Services- Other	188
BR	**8923.23**
Rent Expense-External	8923.23
LT	**419716.14**
Labor Overtime Non-Exempt	77396.05
Labor Premium and Special Non-Exempt	6760.88
Labor Straight Time Exempt	21728.35
Labor Straight Time Non-Exempt	313830.86
LTE	**22150.5**
Labor Overtime Non-Exempt	2274.06
Labor Premium and Special Non-Exempt	16.1
Labor Straight Time Exempt	6624.65
Labor Straight Time Non-Exempt	13235.69
ZB	**59171.09**
Non Productive Time Loader- Acct Use Only	59171.09
ZBE	**3970.28**
Non Productive Time Loader- Acct Use Only	3970.28
ZC	**23679.94**
Stores Loader- Acct Use Only	23679.94
Stores Loader Cap	0
ZE	**211193.22**
Payroll Benefit Loader- Acct Use Only	211193.22
ZF	**18033.68**
Gen Ser Co Benefit Loader- Acct Use Only	18033.68
ZI	**393581.15**
Alloc- E+S OH Subst- Acct Use Only	226703.34
Engin and Super OH- Acct Use Only	166877.81
ZJ	**7458.71**
Admin and Eng OH- Acct Use Only	7458.71
ZK	**54175.45**
AFUDC Debt	17222.73
AFUDC Equity	36952.72
ZM	**33835.45**
Misc Dist Exp Capitalized OH-Acct Use Only	33835.45
ZV	**76294.77**
Vehicle Costs Clearing- Acct Use Only	76294.77
Grand Total	**1514315.73**

Superseded Project Approvals and Cost Estimates

Project Authorization Form

Date Prepared: 09/07/2017	Project Title: [redacted] Bus Rehab
Company/ies: Eversource CT	Project ID Number: CS00168
Organization: Strategy & Performance	Class(es) of Plant: Distribution
Project Initiator: [redacted]	Project Category: Bus Rehab
Project Owner/Manager: [redacted]	Project Type: Specific
Project Sponsor: [redacted]	Project Purpose: Bus Rehab
Estimated in service date: 12/31/2018	If Transmission Project: NA
Supplement to Existing Authorization? Full Funding	Capital Investment Part of Original Operating Plan? Yes
Eng./Constr. Resources Budgeted? Yes	O&M Expenses Part of the Original Operating Plan? N/A

Executive Summary

[redacted]. This project will be broken into two (2) Segments;
Segment 1
[redacted]

Project Costs Summary

Note: Dollar values are in thousands

	Prior Authorized*	2017	2018	2019+	Total
Capital Additions Direct	102	105	0	0	$105
Less Customer Contribution	0	0	0	0	$0
Removals Net of Salvage 1%	1	1	0	0	$1
Total - Direct Spending	$103	$106	$0	$0	$106
Capital Additions - Indirect	73	76	0	0	$76
Subtotal Request	$176	$182	$0	$0	$182
AFUDC	1	1	0	0	$1
Total Request	$177	$183	$0	$0	$183

** to be completed if supplemental authorization is required*

Financial Evaluation

Direct Capital Costs	2017	2018	2019+	Total
Straight Time Labor	52	0	0	$52
Overtime Labor	0	0	0	$0
Outside Services	0	0	0	$0
Materials	50	0	0	$50
Other, including contingency amounts	4	0	0	$4
Total	$106	$0	$0	$106

Indirect Capital Costs	2017	2018	2019+	Total
Indirects/Overheads (including benefits)	76	0	0	$76
Capitalized interest or AFUDC, if any	1	0	0	$1
Total	$77	$0	$0	$77

Total Capital Costs	$183	$0	$0	$183

Less Total Customer Contribution	0	0	0	$0

Total Capital Project Costs	$183	$0	$0	$183

Total O&M Project Costs	$0	$0	$0	$0

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CS00168

[redacted] - Bus Rehab

Work Classification

Category: Substation
Type: REL7
Type Desc: GENERAL MODERNIZATION
Work Type: Obsolescence

Ownership / Management

AWC: Tolland
Statewide: No
Owner: [redacted]
Manager: [redacted]

Project Information

Status: Prelim Design Approved
SPS #:
AIS Score:
Associated Projects:
Assignment ID:
Patrol Find ID:

Budget Summary - Preferred Option

Prefered if the dollars are not available for segment 2

2017

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	[redacted] - Bus Rehab	Prelim	1	0 %	$177,000	$177,000
				2017 Total:	**$177,000**	**$177,000**
				Total Project:	**$177,000**	**$177,000**

Specific Project Proposal - Project #: CS00168

[redacted] - Bus Rehab

Project Option Summary

ID	Description	Segments	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)	Prfrd
O1	Prefered if the dollars are not available for segment 2	1	$177,000	$0	100 %	$0.00	$0.00	☑

Segments

ID	Title	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)
1	[redacted] Bus Rehab	$177,000			$0.00	$0.00
2	[redacted] Bus Rehab part 2	$581,127			$0.00	$0.00

Background / Scope

Issue:

[redacted]

This project will be broken into two (2) Segments;

The first to upgrade the station service the other to upgrade MOD's.

Segment 1

[redacted]

Segment 2

[redacted]

Project Description:

The project has two segments. The first segment consists of upgrading the station services. [redacted]

[redacted]

Segment 1

This will consist of replacing the following equipment;

[redacted]

DME - $181.3k (revised to $177k due to loader change)

Segment 2,

This segment was part of Segment 1 until budgets forced this portion of the project to be delayed

or included if funds come available.

[redacted]

DME - $581.1k

Other Considerations:

Revision / ACT Comments:

If we don't do this project, what will happen?

Environmental

Water Pollution: No Change Soil Contamination: No Change Natural Habitats: No Change

Alternatives considered based on Environmental Impact or Description of Aspects Oil Spill Risks Considered? ☐

Safety Concerns With This Project? ☐

Explain:

External Stakeholders

Customer Impact / Involvement

Cust. Impacted: Approx. Pole Count (NU):

Crit. Cust. Impacted: Approx. Pole Count (Other):

Adjoining Property Owner Consent Required: ☐ Town Hearing Required: ☐

Other Utility Pole Custodian Area: ☐ Easement Required: ☐

State Highway Permit Required: ☐

Relocation / New Service

New Srvc. Contact: Requestor Type:

Customer Type: State Highway Project #:

Request Number: Route #:

Specific Project Proposal - Project #: CS00168
[redacted] - Bus Rehab

Design Alternative CS00168-01

General Information

Segment: 1 - [redacted] - Bus Rehab
Status: Prelim Design Submitted
Segment Type: S/S - BUS REHAB
Town: TOLLAND
Budget Year: 2017
Work Type: Other
Trimming Required: ☐
In Service Date: 12/29/2017
Description: Segment 1 [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Design Alternative CS00168-01

Estimate

	Preliminary Estimate Summary
Revision Number:	1
Contingency:	0.00 %
SubTotal:	$177,000
Contingency Amount:	$0
Estimate:	$177,000
Reimbursement:	$0
Net Amount:	**$177,000**
Description:	Preferred Bus Rehab of the station service equipment

Item Description	CU	$ / Per	Qty	Amount
OTHER	15-ALL14	[redacted]	[redacted]	$177,000.00
OTHER				

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Specific Project Proposal - Project #: CS00168

[redacted] - Bus Rehab

Design Alternative CS00168-02

General Information

Segment: 2 - [redacted] - Bus Rehab part 2 Status: Prelim Design Submitted

Segment Type: S/S - BUS REHAB Town: TOLLAND Budget Year: 2017

Work Type: Other Trimming Required: ☐ In Service Date: 12/29/2017

Description: Segment 2,
This segment was part of Segment 1 until budgets forced this portion of the project to be delayed or included if funds come available.

[redacted]

[redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Specific Project Proposal - Project #: CS00168

[redacted] - Bus Rehab

Design Alternative CS00168-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	0.00 %
SubTotal:	$581,127
Contingency Amount:	$0
Estimate:	$581,127
Reimbursement:	$0
Net Amount:	**$581,127**
Description:	Segment 2 is alternate that is to go with the preferred if 2017 dollars are available.

Item Description	CU	$ / Per	Qty	Amount
OTHER	15-ALL14	[redacted]	[redacted]	$581,127.00
OTHER				

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes