Supplement Request Form

Approved at April 15, 2020 EPAC
Link to Meeting Minutes

Date Prepared: 4/06/2020	**Project Title:** [redacted]
Company/Companies: Eversource - CT	**Project ID Number: 201420**
Organization: Strategy & Performance	**Plant Class/(F.P. Type): Distribution Substation**
Project Initiator: [redacted]	**Project Type: Specific**
Project Manager: [redacted]	**Capital Investment Part of Original Operating Plan? Yes**
Project Sponsor: [redacted]	**O&M Expenses Part of the Original Operating Plan? N/A**
Current Authorized Amount: $15,523K	**Estimated in service date(s): 12/31/2020**
Supplement Request: $3,193K	**Other:**
Total Request: $18,716K	

Supplement Justification

Summary

[redacted] This project was approved on 4/26/2015 and has a current approval of $15,523K. The project has a direct cost current spend of $10,075K. This supplement is requesting an additional $3,193K for a new total project cost of $18,716K.

Scope

[redacted] While the original objective of the project has not changed, the original estimate from 2012 was not adequate to fund removal of the existing switchgear. The removal cost for the existing switchgear was added on 10/14/2015 and is the only remaining work to be completed in the Fall of 2020.

The original estimate from 2012 for the [redacted] was not adequate to fund the work required to complete the [redacted] The original estimate did not have enough funds allocated to [redacted] The in service date for work order 01([redacted]) has been extended from 5/31/2015 to 12/11/2015, the in service date for work order 02(Switchgear Installation)has been extended from 12/31/2017 to 10/11/2018 and the in service date for work order 03(switchgear removal) has been extended from 12/31/2018 to 12/31/2020 which has also impacted the budget. which has also impacted the budget.

Justification for Additional Resources

This project is divided into three (3) work orders:

Work Order 20142001 is for [redacted]
Work Order 20142002 is for [redacted]
Work Order 20142003 is for [redacted]

Work Order 20142001 was to replace and [redacted] This work order is posted to continuing property records (CPR) and was completed on 12/11/2015. This work was estimated at $3,591K. This work was completed for $4,862K, an increase of $1,271K.

The differences are as follows:

- Direct charges were estimated at $2,509K. Actual direct charges are $2,430K, a decrease of $79K.
- Indirect charges were estimated at $879K and actual indirect charges are $2,183K; an increase of $1,304K.
- AFUDC charges were estimated at $203K and actual AFUDC charges are $249K; an increase of $46K.

Work order 20142002 was to install the new switchgear and was placed in service in September 2018. This work order had an original estimate of $11,878K and an actual cost of $12,372K, for an increase of $494K.

- Direct charges for installation of the new switchgear were estimated at $7,943K. Actual charges for installation of the new switchgear are $7,144K; a decrease of $799K.
- Indirect charges for installation of the new switchgear were estimated at $3,263K. Indirect charges for installation of the new switchgear are $4,121K; an increase of $858K.
- AFUDC charges for installation of the new switchgear were estimated at $672. AFUDC charges for installation of the new switchgear are $1,107K; an increase of $435K.

Work order 20142003 was for the removal of the existing switchgear, which was not created with the original project work orders in 2012, but was added on 10/14/2015. This work order currently has charges prior to 2020 of $110K and is estimated to have additional charges of $1,372K for 2020 for a total of $1,482K. [redacted] in the fall of 2020.

The table below summarizes the line item costs from both the original project estimate and the updated project estimate.

Supplement Cost Breakdown

Note: Dollar Values are in thousands

Category	Original Estimate ($)	New Estimate ($)	Variance ($)
Engineering & Design	314	276	(38)
In House Labor/expenses	3,428	4,441	1,013
Materials/Rental Equipment	5,040	5,082	42
Outside Services	306	891	585
Contingency	345	(38)	(383)
Total Direct	**9,433**	**10,652**	**1,219**
Indirects	4,965	6,707	1,742
AFUDC	1,125	1,357	232
Total	**15,523**	**18,716**	**3,193**

The total project increase of $3,193K is due to the following reasons:

1. **Engineering & Design - ($38K)**
   Engineering was $38K less than the original estimate due to less engineering resources required than estimated.

2. **Labor/Expenses - $1,013K**
   Labor and expense costs were $1,013K higher than the original estimate due to the additional construction effort required for the transformer replacement and relocation, as well as the labor to remove the old switchgear once the new switchgear was in service and carrying all the feeders.

3. **Materials/Rental Equipment - $42K**
   Material and rental equipment charges were $42K higher than the original estimate due to additional environmental testing required for the site conditions.

4. **Outside Services - $585K**
   Outside services charges were $585K higher than the original estimate due to unexpected environmental clean-up and disposal charges. There were additional crane and rigging charges due to the unique positioning of the new switchgear required. The new switchgear had to be lifted over the existing switchgear and rolled together for assembly since the new switchgear was between the existing switchgear and the supply transformers.

5. **Contingency - ($383K)**
   Contingency is $383K lower than estimated due to contingency funds distributed to other categories of the project.

6. **Indirects - $1,742K**
   Indirect costs are $1,742K higher due to a delayed in service date from 5/31/2014 to 12/11/2015 and increased direct costs.

7. **AFUDC - $232K**
   AFUDC costs were $232K higher due to a delayed in service date from 5/31/2014 to 12/11/2015.

Please see attached original authorization documentation.

Supplement Cost Summary

Note: Dollar values are in thousands:

	Prior Authorized	Supplement Request	Total
Capital Additions - Direct	$9,153	$1,316	$10,469
Less Customer Contribution	$1	$0	$1
Removals Net of Salvage 0.6%	$279	($97)	$182
Total Direct Spending	$9,433	$1,219	$10,652
Capital Additions - Indirect	$4,965	$1,742	$6,707
AFUDC	$1,125	$232	$1,357
Total Capital Request	$15,523	$3,193	$18,716
O&M	$0	$0	$0
Total Request	$15,523	$3,193	$18,716

Total Supplement Request by Year View:

Note: Dollar values are in thousands:

	2015	2016	2017	2018	2019	2020+	Total
Capital Additions Direct	($834)	($162)	$232	$1,423	$84	$573	$1,316
Less Customer Contribution	$0	$0	$0	$0	$0	$0	$0
Removals Net of Salvage 0.6%	($50)	($65)	($9)	$23	$1	$3	($97)
Total Direct Spending	($884)	($227)	$223	$1,446	$85	$576	$1,219
Capital Additions - Indirect	($282)	($723)	($134)	$1,999	$86	$796	$1,742
AFUDC	$23	($293)	($21)	$523	$0	$0	$232
Subtotal Request	($1,143)	($1,243)	$68	$3,968	$171	$1,372	$3,193
O&M	$0	$0	$0	$0	$0	$0	$0
Total Request	($1,143)	($1,243)	$68	$3,968	$171	$1,372	$3,193

Project Cash Flow Form 201420 *ISD:* 12/31/17

Operating Company	CL&P
Budget Year:	2015
Budget Status:	ENG
Latest Approved Project Status	ACT Pend
Project:	Glenbrook 1K 01 Relocate XF - 02 Rplc Swgr
Initiative	SWGRRLAY
Construction Manager:	[redacted]
Engineering Manager:	
MIB Project ID	20142001-2

Direct Labor / Man Days / Rate	**OCRC ENG Approved**	**PRIOR YEARS**	**CURRENT YEAR**	**FUTURE YEARS**	**TOTAL ACT**	**VAR $**	**VAR % Comments**
NUSCO Labor - ENG	$300				$313	$13	
Rate	$428				$461	$32	
Man Days	700				679	(21)	
Labor - (Electrical, Central Maint., Local AWC	$887				$1,425	$538	
Rate	$394				$442	$48	
Man Days	2,250				3,223	973	
Labor - General / Civil	$661				$535	($126)	
Rate	$378				$382	$5	
Man Days	1,750				1,400	(350)	
Labor - Test	$303				$375	$72	
Rate	$396				$776	$380	
Man Days	765				483	(282)	
Direct Labor	**$2,151**				**$2,648**	**$497**	**123.1%**
AE - Employee Expenses		5	7	11	23	23	
AM - Material/Supplies	5,896	937	1,080	3,021	5,037	(859)	
AO - Outside Services		8	13	-	21	21	
AQ - Contractor Labor	5	-	35	150	185	180	
EV - Environmental	250		100		100	(150)	
AV - Vehicles	666	127	383	560	1,070	405	
BF - Fees/Payments		1	-	-	1	1	
BR - Rents/Leases		1	3	-	4	4	
Direct (Excl. Labor & Contingency)	**$6,817**	**$1,078**	**$1,621**	**$3,742**	**$6,440**	**($377)**	**94.5%**
P1 - Contingency	$1,483	-	105	240	345	(1,138)	
Direct (Excl. Labor)	**$8,300**	**$1,078**	**$1,726**	**$3,982**	**$6,785**	**($1,515)**	**81.7%**
ZB - NUSCO Non-Productive	131	18	10	28	56	(75)	
ZB - CL&P Non-Productive	819	26	137	244	407	(412)	
ZC - Stores Exp Allocations	84	177	200	423	800	716	
ZE - CL&P Payroll Benefits	819	70	539	997	1,607	788	
ZF - NUSCO Gen Svcs Ovrhd	131	106	48	135	288	157	
ZI - E&S Allocations	1,984	107	561	903	1,570	(414)	
ZJ - AS&E Allocations	175	9	64	164	237	62	
ZK - AFUDC	876	12	164	949	1,125	250	
Indirect	**$5,019**	**$525**	**$1,722**	**$3,843**	**$6,090**	**$1,071**	**121.3%**
TOTAL PROJECT	**$15,470**				**$15,523**	**$53**	**100.3%**

	DME #1 & #2			
Total Labor	2,151	2,648	497	
AE Employee Expenses	0	23	23	
Environmental	250	100	-150	
AO Vendors	0	21	21	
AQ Vendors	5	185	180	
Land Scaping	0	0	0	
Site Prep	0	0	0	
Site Work	360	115	-245	
Steel & Foundations	10	40	30	
Control & Power Cable	365	365	0	
Disconnect Switches	13	13	0	
Bus & Fittings	28	28	0	
Outdoor Equipment	0	0	0	
Capacitor Banks	0	0	0	
AC DC Panel & Battery	0	0	0	
Relay & Mtering Equipment	1	97	96	
Power & Instrument Transformers	1,305	860	-445	
Circuit Breakers & Switches & Reclosers	0	0	0	
Metaclad Switchgears	3,500	2,885	-615	
Materials (All Other & Taxes)	314	634	320	
Total Materials	**5,896**	**5,037**	**-859**	
Vehicles	666	1,070	405	
Contingency	1,483	345	-1,138	
BF	0	1	1	
BR	0	4	4	
Other Misc Costs	0	0	0	Total Direct Cost Less All Other Identified Items
Other Misc Costs (Rounding)	0	0	0	
Total Direct Costs (Excluding Labor)	**8,300**	**6,785**	**-1,515**	
Loaders	4,143	4,964	821	
AFUDC	876	1,125	250	
Total Costs	**$15,470**	**$15,523**	**$53**	100.3%