EVERSOURCE

Operations Project Authorization Form

Approved at January 20, 2021 EPAC
Link to Meeting Minutes

Date Prepared: 01/06/2021	**Project Title: [redacted] OCB Replacement & Bus Rehabilitation (PH 2)**
Company: Eversource CT	**Project Number: CS00395**
Organization: Asset Management	**Class(es) of Plant: D SS**
Project Initiator: [redacted]	**Project Category: Stations - Circuit Breakers, Stations - Switches, Stations - Reactors**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Replace obsolete equipment to increase reliability**
Estimated in service date: Q4 2025	**Capital Investment part of original Oper. Plan: Yes**
Eng./Constr. Resources Budgeted? Yes	**O&M Expenses part of original Oper. Plan: N/A**
Authorization Type: Full Funding	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution
Total Request: $14.227M	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

This project is seeking full funding of $14.227M to replace [redacted]. The substation has been identified as requiring complete rehabilitation to replace the aging equipment over the upcoming years.

Eversource CT has a Public Utilities Regulatory Authority (PURA) initiative within docket number 14-05-06 to replace all OCBs at distribution substations to minimize environmental impacts from leaking and to increase the reliability of equipment. Eversource continues to enhance construction practices to ensure limited risk of customer outages. [redacted]

This project is the second of three (3) phases and is scheduled to be closed out by March 2026. The 16 OCBs and associated equipment being replaced under this project phase are shown on the attached Diagram 2.

The table below summarizes the phases associated with the OCB and Bus Rehab work for the South Meadow 1A substation. See attached Diagram 1 for the nomenclature diagram indicating the associated projects.

PHASE	PROJECT	QTY	Bus Rehab	In Service Date	STATUS
1	CS00394 [redacted]	[redacted]	[redacted]	December 2020	In Service, Project closeout in progress
2	CS00395 [redacted]			December 2025	Construction Started
3	CS00245 [redacted]			December 2031 (Estimated)	New scope not started. Actuals to date will be transferred to Phase 1 and Phase 2.
N/A	201438 [redacted]			N/A	Preliminary engineering actuals to date will be transferred to Phase 2; this project will be closed.

The work to r[redacted] started in 2017 under project CS00245 and the work for the [redacted] originally began under project 201438. The decision to divide the work into three (3) projects was based on breaking down the work into three (3) different areas of the substation to coordinate outages. Diagram 1 (attached) shows the area of the substation for each of the project phases.

CS00245 was approved in PowerPlan on June 8, 2017 for $801,565 and 201438 was approved in PowerPlan on July 14, 2017 for $127,300. Prior actual costs from WO #CS002451 OCB $1,534,787 include engineering design costs for phases 1 and 2 and construction costs for the phase 1 project. These costs will be divided between projects CS00394 (Phase I) and CS00395 (Phase 2) based on the number of OCBs being replaced and transferred accordingly. Prior actual costs from WO # 20143801 Bus Rehab $120,161 will be transferred to this project. The costs reflect the December 10, 2020 actual values from PowerPlan. The total combined actuals to date that will be transferred to this project from CS00245 and 201438 is $484K.

The Phase 1 - three (3) OCB replacement project (CS00394) was put in service in December 2020. Engineering and procurement for phase 2 to replace [redacted] is in progress and the IFC drawings from the contractor have been completed. Construction to [redacted].

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Project Costs Summary

Note: Dollar values are in thousands

Line item Category	Prior Authorized	Actuals to Date*	2020 to Go	2021	2022	2023	2024	2025	Total
1. ROW / Easements / Land purchases		$0	$0	$0	$0	$0	$0	$0	$0
2. Environmental Approvals / Permits		$0	$0	$0	$0	$0	$0	$0	$0
3. Outreach		$0	$0	$0	$0	$0	$0	$0	$0
4. Siting Approvals / Permits		$0	$0	$0	$0	$0	$0	$0	$0
5. Engineering / Design		$191	$11	$106	$16	$17	$17	$30	$388
6. Materials (Eversource purchased)		$141	$27	$270	$274	$278	$268	$272	$1,529
7. Construction (incl matl's by contractors)		$39	$23	$250	$258	$266	$261	$269	$1,365
8. Testing / Commissioning				$548	$565	$573	$590	$608	$2,884
9. PMT Project Mgmt Team		$9	$8	$40	$28	$29	$29	$30	$174
10. Removals				$55	$56	$58	$60	$78	$307
11. Other									
12. Risks				$153	$153	$153	$153	$153	$763
Project Directs Total w/Risks	**$0**	**$380**	**$68**	**$1,423**	**$1,349**	**$1,372**	**$1,378**	**$1,439**	**$7,409**
13. Indirects/Overhead		$100	$82	$1,052	$990	$1,014	$1,019	$1,097	$5,353
14. AFUDC		$4		$47	$134	$221	$312	$373	$1,092
Project Total - Baseline Budget	**$0**	**$484**	**$150**	**$2,521**	**$2,474**	**$2,607**	**$2,708**	**$2,910**	**$13,854**
15. Contingency			$4	$76	$74	$74	$72	$73	$372
Project Total - Funding Approval Level	**$0**	**$484**	**$154**	**$2,597**	**$2,548**	**$2,681**	**$2,780**	**$2,982**	**$14,227**
16. Reimbursables/Customer Contribution									
Project Total (less reimbursables)	**$0**	**$484**	**$154**	**$2,597**	**$2,548**	**$2,681**	**$2,780**	**$2,982**	**$14,227**
Total O&M									
TOTAL REQUEST	**$0**	**$484**	**$154**	**$2,597**	**$2,548**	**$2,681**	**$2,780**	**$2,982**	**$14,227**

Note: Explain unique payment provisions, if applicable: *Provide a detailed breakdown of Other costs here.*

**Note: Actuals for WO#s CS00245 and 201438 are taken from PowerPlan 12/10/2020. The total actual costs for these two WO#s is $1,6131K and is for work to date on phases 1 and 2. The $484K shown above are costs allocated to phase 2, with the remaining costs allocated to Phase 1. Indirects and contingency costs may vary from the amounts shown above when costs are transferred. Accounting will make the transfers to WO#s CS003941 and CS003951 to clear out costs in these WO#s before Phase 3 is started at which time, costs will be charged to WO# CS002452.*

Risk Costs

Note: Dollar values are in thousands

Risk Cost Breakdown	
Installation of all new control breaker cables	$375
Replace conduit due to condition	$13
Delays / outages related to breaker energization plans	$375
Risk Total	$763

Breakout Costs

Note: Dollar values are in thousands

Line item Category	Prior Authorized	Actuals to Date	2020 to Go	2021	2022	2023	2024	2025	Total
ST Labor	$0	$70	$33	$263	$258	$265	$261	$274	$1,423
OT Labor									
Outside services - Labor	$0	$169	$7	$670	$596	$605	$623	$649	$3,319
Materials (All materials incl. outside service purchased which is shown in constr. above)	$0	$141	$27	$270	$274	$278	$268	$272	$1,529
Removals	$0	$0		$55	$56	$58	$60	$78	$307
Other	$0	$0	$6	$242	$240	$239	$237	$239	$1,203
Indirects	$0	$100	$82	$1,052	$990	$1,014	$1,019	$1,097	$5,353
AFUDC	$0	$4		$47	$134	$221	$312	$373	$1,092
TOTAL CAPITAL REQUEST - without Reimbursables	**$0**	**$484**	**$154**	**$2,597**	**$2,548**	**$2,681**	**$2,780**	**$2,982**	**$14,227**

*All materials including Eversource purchased and outside service purchased. Note that outside service purchased material included in construction in project cost summary above.

Future Financial Impacts:

Provide below the estimated future costs that will result from the project: N/A
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? N/A
A representative from the respective functional area is required to be included as a project approver.

Provide below the estimated future financial benefits that will result from the project: N/A
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? 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? If yes, please provide details: Yes

Expected environmental cleanup costs have been accounted for within the requested project cost. The cleanup costs include the drainage, removal and disposal of the oil from the existing circuit breakers.

Technical Justification:

Project Need Statement

The [redacted] to be replaced under project CS00245.

[redacted] Eversource CT previously submitted a Public Utilities Regulatory Authority (PURA) initiative within docket number 14-05-06 (initiated 2014) to replace all OCBs at distribution substations to minimize environmental impacts from possible leaking and failed equipment. Breaker [redacted] as part of a past PURA initiative within docket number 14-05-06.

[redacted] This bus rehabilitation work was first started under WO# 201438 but is now included in this project to coordinate the work with the OCB replacements located in the same substation area and to aid in scheduling outages.

[redacted] See Table 1 below for a list of the equipment and ratings.

This project is the second phase of 3 phases to replace a [redacted] See Table 1 for a list of the circuit breakers and equipment to be replaced as part of this phase. [redacted] under project CS00394 - [redacted] OCB Replacement PH 1. Phase 3 will replace the [redacted] under project CS00245 - [redacted] OCB Repl & Bus Rehab (PH 3). See Diagram 1 – for nomenclature diagram indicating the associated projects.

Project Objectives

The project objective is to replace [redacted]

[redacted]. The phase 2 engineering IFC design is complete. The work for the Phase 2 project will be divided in groups of equipment to be installed, tested and placed in service over a five-year time period. Construction will take place during the spring and autumn seasons to avoid peak load periods during winters and summers.

Project Scope

The scope includes the following:

[redacted]

- Provide animal protection covers on the replaced equipment
- Test and commission the new equipment.
- Proper disposal of oil and removed equipment.

Table 1 - Equipment to be replaced/removed

[redacted]

[redacted]

[redacted]

A constructability review was completed on October 23, 2020. See Attachment B for the completed form.

Background / Justification

The equipment replacements are needed to enhance the reliability and availability of th[redacted]

The overall Eversource initiative to eliminate oil filled circuit breakers was presented to PURA within docket number 14-05-06. This initiative was created to decrease Eversource's environmental exposure to oil spills and leaks as well as replace a vital component of aging substation infrastructure. The initiative started by targeting OCBs with polychlorinated biphenyl (PCB) bushings. In 2012, the initiative increased in scope to include all substation OCBs. The initial justification was based on the anticipated risk of potential environmental damage in case of a PCB bushing/breaker catastrophic failure.

During past projects, [redacted] This project is a proactive approach to replacing the identified devices prior to failures that can result in multiple customers being out for lengthy time periods. The proposed switches will conform to Substation standards SUB 018. [redacted]

Business Process and / or Technical Improvements

The equipment improvements to this substation yard will look to minimize future exposure to prolonged customer outages during emergency and routine switching operations and reduced environmental risk. This project will increase system reliability by replacing the obsolete equipment identified above.

The environmental benefit will be realized by replacing aging oil filled equipment, which presents an environmental concern.

Alternatives Considered with Cost Estimates

Alternative 1. [redacted] replaced as part of two other project phases (chosen alternative).

This alternative is to replace [redacted]. The advantage of replacing the OCBs in three (3) phases facilitates equipment procurement and scheduling outages in manageable projects over a ten (10) year or more span. The first phase to replace three [redacted]. See Attachment A for the alternative 1 Cost Estimate. The alternative to [redacted] project, CS00394 presented at the September 30, 2020, EPAC meeting and approved for full funding in PowerPlan on December 4, 2020. The remainder of the OCBs and bus rehabilitation will be completed in the phase 3 project (CS00245).

Alternative 2. [redacted]

Alternative two is to [redacted] at one (1) time. This is still the chosen alternative and final goal for the substation but requires one project to last over a long period of time and would include challenges with the coordination of construction, procurement and scheduling activities.

Alternative 3. [redacted]

Alternative three was considered to [redacted] The cost for this alternative could be as high as $40 to $50K per breaker. This alternative does not address the PURA initiative and was not chosen.

Alternative 4. Do Nothing

An alternative to the identified project scope is to do nothing. [redacted] This does not address the PURA initiative and was not chosen.

Project Schedule

Milestone/Phase Name	Estimated Date
IFC Engineering Completion	Q4 2020 - Completed
Presentation and Approval at EPAC	Q1 2021
Construction Start	Q1 2021
In Service Date Group 1 6 CBs	Q4 2021
In Service Date Group 2 3 CBs	Q4 2022

Milestone/Phase Name	Estimated Date
In Service Date Group 3 3 CBs	Q4 2023
In Service Date Group 4 2 CBs	Q4 2024
In Service Date Group 5 2 CBs	Q4 2025
Testing/Commissioning Completion (All Equipment)	Q4 2025
In Service Date (All Equipment)	Q4 2025
Project Close Out	Q1 2026

For further schedule details and grouping of work, see Attachment C for the P6 schedule.

Regulatory Approvals

N/A

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Existing OCB cables are damaged and will require replacement.	2025	Low Impact	Test (meggar) cables during construction/commissioning and replace failed cables in existing conduit. During the site walk-down, visible cables appeared to be in good condition. Risk allocation is included for replacement cables if required.
Existing Conduits are damaged and will require replacement	2025	Low Impact	During the site walk-down, visible cables appeared to be in good condition. Risk allowance is included in the estimate.
Delays / outages related to breaker energization plans	2025	Low Impact	Risk allowance is included in the estimate.

Contingency

Contingency is included in the estimate to cover possible cost deviations for unknown conditions that may arise during the project.

References

CL&P 2014 Operating Initiatives - Docket No.14-05-06 PURA-03 Dated 06/20/2014

PURA initiative within docket number 14-05-06

Eversource Substation standards SUB 018

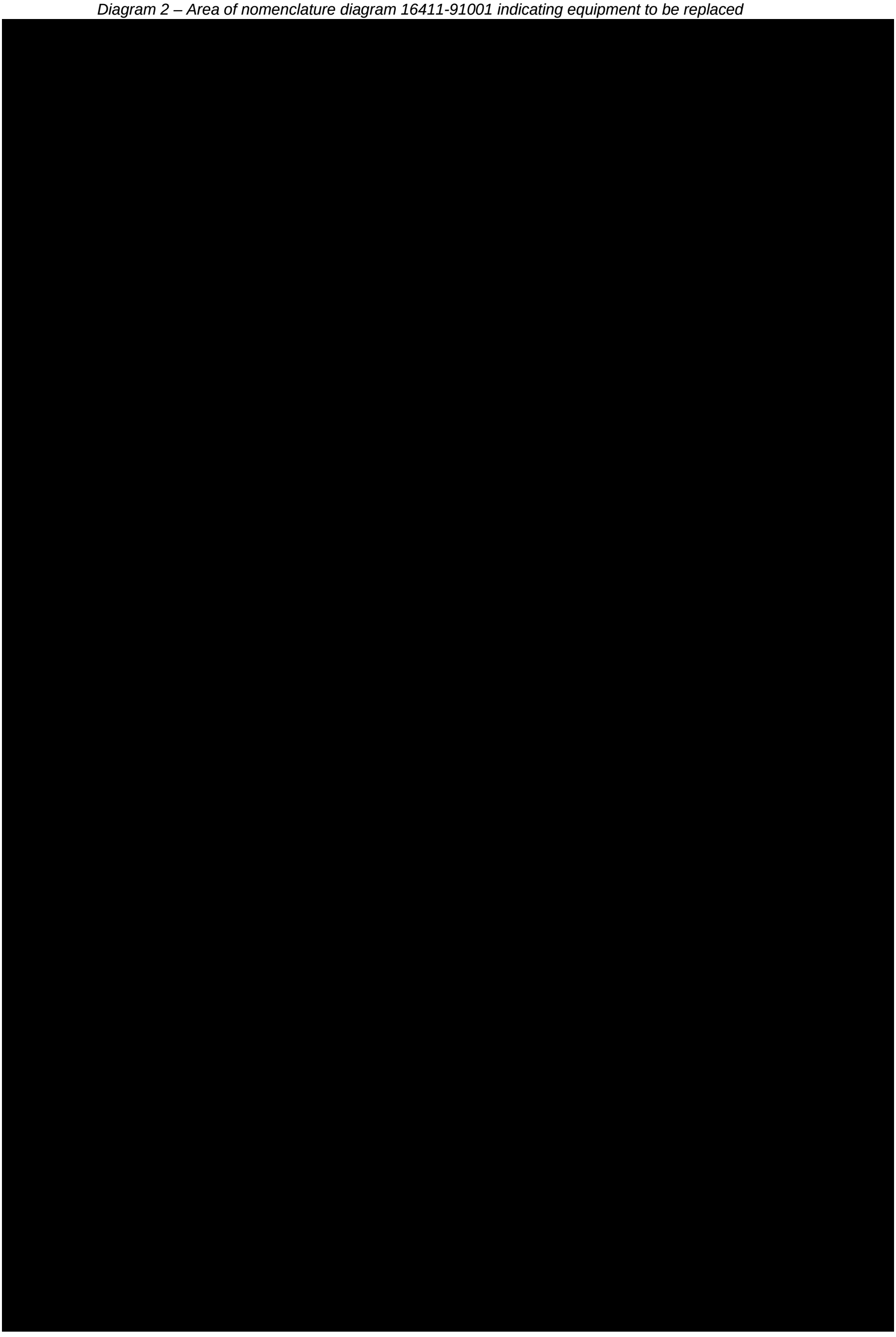
Attachments (One-Line Diagrams, Images, etc.)

- Diagram 1 - Nomenclature diagram indicating associated projects.
- Diagram 2 – Area of nomenclature diagram 16411-91001 indicating equipment to be replaced
- Attachment A - Cost Estimate rev 1GJB.xlsm
- Attachment B - Constructability Review Form 102320.xlsx
- Attachment C - P6 Schedule

Diagram 1 - Nomenclature diagram indicating associated projects



Diagram 2 – Area of nomenclature diagram 16411-91001 indicating equipment to be replaced



Project Checklist - Transmission & Substation Capital Project						
Project Name: [redacted] OCB Replacement & Bus Rehabilitation (PH 2)					**Project Number: CS00395**	
Facility Type: ☐ BPS	☐ BES	☐ PTF	☐ non-PTF	☐ CIP	☒ Distribution	
PLANNING						
Is a NX-9 required?					No	
Is an ISO-NE PAC presentation required?					No	
ISO-NE Presentation Date (if completed):					N/A	
Cost in ISO-NE Presentation ($M) (if completed):					N/A	
Is a PPA required?					No	
Is a TCA Application Required?					No	
TCA Submittal Date (if submitted):					N/A	
Cost in TCA Submittal ($M) (if submitted):					N/A	
Enter ISO-NE RSP / Asset Condition ID, if assigned:					N/A	
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?					Yes	
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	

Project Checklist - Transmission & Substation Capital Project	
Project Name: [redacted] OCB Replacement & Bus Rehabilitation (PH 2)	**Project Number: CS00395**
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
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? *(If yes, list in regulatory approvals section)*	No
PERMITTING	
Is there any permitting required? *(If yes, list in regulatory approvals section)*	No
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?	No
COST ESTIMATING	
What team/firm prepared the cost estimate?	Estimate was prepared by Eversource Engineering
Name of the person who prepared the estimate:	[redacted]
Was the estimate reviewed by Eversource Estimating?	Yes - Full Review [redacted]

Cost Estimate Backup Details

See Attachment A for the detailed cost estimate backup file.

ESTIMATE SUMMARY

Project Title:OCB Replacement and Bus Rehab Phase 2
Project Mgr/Lead:[redacted]
Project Number:CS00395
WO & Task #:CS003951
Est. Revision # 1GJB

Estimate By:[redacted]
Date of Estimate:11/24/20
ISD:12/31/2025
Estimate #

Template Revision # 1

ESTIMATE SUMMARY

Estimate Type: Planning

WBS	Description	TOTAL	% of Total	Priors	2020	2021	2022	2023	2024	2025
1	ROW / Easements / Land purchases									
2	Environmental Approvals / Permits									
3	Outreach									
4	Siting Approvals / Permits									
5	Engineering / Design	$388,000	2.7%	$191,200	$10,800	$106,200	$16,100	$16,600	$17,100	$30,000
6	Materials (Eversource purchased)	$1,529,400	10.8%	$140,500	$26,600	$269,900	$273,900	$278,100	$268,200	$272,200
7	Construction (incl matl's by contractors)	$1,365,100	9.6%	$38,900	$23,000	$250,400	$257,900	$265,700	$260,700	$268,500
8	Testing / Commissioning	$2,883,700	20.3%			$548,500	$564,900	$572,800	$589,900	$607,600
9	PMT Project Mgmt Team	$173,500	1.2%	$9,300	$7,600	$40,400	$27,800	$28,600	$29,500	$30,300
10	Removals	$307,000	2.2%			$54,700	$56,400	$58,000	$59,800	$78,100
11	Other									
12	Risks	$762,500	5.4%			$152,500	$152,500	$152,500	$152,500	$152,500
	Project Directs Total w/Risks	**$7,409,200**	52.1%	**$379,900**	**$68,000**	**$1,422,600**	**$1,349,500**	**$1,372,300**	**$1,377,700**	**$1,439,200**
13	Indirects/Overhead	$5,353,300	37.6%	$99,500	$82,300	$1,051,600	$989,800	$1,014,000	$1,019,000	$1,097,100
14	AFUDC	$1,091,900	7.7%	$4,200		$47,300	$134,400	$220,900	$311,700	$373,400
	Project Total - Baseline Budget	**$13,854,400**	97.4%	**$483,600**	**$150,300**	**$2,521,500**	**$2,473,700**	**$2,607,200**	**$2,708,400**	**$2,909,700**
15	Contingency	$372,400	2.6%		$4,100	$75,900	$74,200	$73,700	$71,800	$72,700
	Project Total - Funding Approval Level	**$14,226,800**	100.0%	**$483,600**	**$154,400**	**$2,597,400**	**$2,547,900**	**$2,680,900**	**$2,780,200**	**$2,982,400**
16	Reimbursables/Customer Contribution									
	Project Total (less reimbursables)	**$14,226,800**		**$483,600**	**$154,400**	**$2,597,400**	**$2,547,900**	**$2,680,900**	**$2,780,200**	**$2,982,400**
	Amount of Escalation included above	$905,700				$63,800	$117,900	$178,200	$236,000	$309,800
6	Total materials - Eversource	$1,529,400		$140,500	$26,600	$269,900	$273,900	$278,100	$268,200	$272,200
	Total materials - Contractor	$23		$23						
	Total materials	$1,529,423		$140,523	$26,600	$269,900	$273,900	$278,100	$268,200	$272,200
	NOTE: Risk / Contingency is 8.7% of Project Total Costs (incl escal/indirects/AFUDC but excl reimb.)									

Estimate Range	**-25%**	-	**25%**
	$10,670,000	-	**$17,784,000**

COMMENTS:

Project Scope:

OCB Replacement and Bus Rehab Obsolescence Projects:

[redacted]

The following OCB Breakers will be replaced:

[redacted]

The following Bus Rehab Replacement:

[redacted]

Phase 2 Feeder Reactor Switches [redacted]

[redacted]

Phase 2 Grounding Switches: [redacted]

Assumptions/Clarifications:
Indirect rates based on: [redacted]. Station work

Engineering to be outsourced with in-house review, construction to utilize internal resources and Test to out source with external resources.
This estimate was developed with the use of existing Breaker control conduits with no digging in existing soil.
This estimate was developed utilizing the existing foundation, no new foundations were included in this estimate.
The OCB replacement Project estimation was predicated on that it will be done concurrently with the Bus Rehab Project and takes advantage of economy of scale.
Prior actuals are from WO # CS002451 OCB $1,534,787 & WO# 20143801 Bus Rehab $120,161 less values to date for Phase 1 (12/10/2020)
Material estimates based on previous work, and vendor quotes.
All new equipment will be installed within the confines of the existing fenced yard.
No additional allowances have been added for aggressive outage recall times.
Estimate includes risk for all new control cables to be installed in the event of failure during megger testing and installed in existing raceways for all (3) three new Breakers that are included in this estimate. This estimate includes addition risk if the Switches and Reactors due to long lead times are not here in time to take advantage of the OCB outages.

RISKS

Installation of all new control breaker cables:	$	375,000
Conduit condition:	$	12,500
Delays / outages related to breaker energization plans:	$	375,000

ESTIMATE SUMMARY

Project Title:OCB Replacement and Bus Rehab Phase 2

Project Mgr/Lead: [redacted]

Project Number:CS00395
WO & Task #:CS003951
Est. Revision # 1GJB

Estimate By: [redacted]

Date of Estimate:11/24/20

ISD:

Estimate #

Template Revision # 1

Project Scope Continued:

OCB Replacement and Bus Rehab Obsolescence Projects:

OCB Replacement:

[redacted] **This estimate includes animal protection.**

The following OCB Breakers will be replaced:

[redacted]

The following Bus Rehab Replacement:

[redacted]

[redacted]

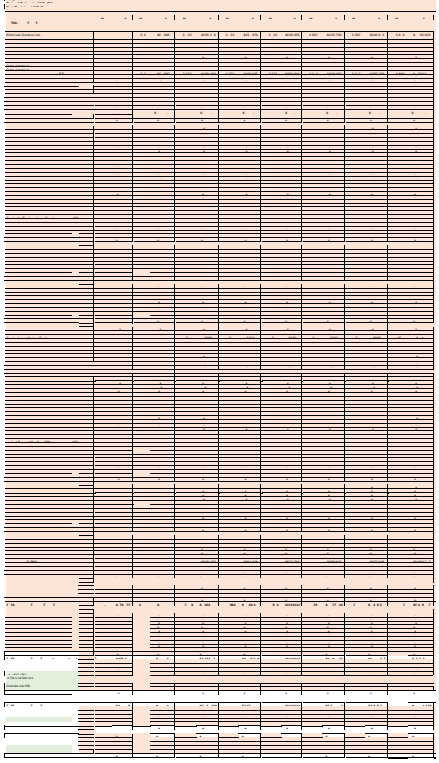
Assumptions:

Engineering to be outsourced with in-house review, construction to utilize internal resources and Test to out source with external resources.
This estimate was developed with the use of existing Breaker control conduits with no digging in existing soil.
This estimate was developed utilizing the existing foundation, no new foundations were included in this estimate.
Prior actuals are from WO # CS002451 OCB $? & WO# 20143801 Bus Rehab $?
The OCB replacement Project estimation was predicated on that it will be done concurrently with the Bus Rehab Project and takes advantage of economy of scale. Material estimates based on previous work, and vendor quotes.
All new equipment will be installed within the confines of the existing fenced yard.
No additional allowances have been added for aggressive outage recall times.
Estimate includes risk for all new control cables to be installed in the event of failure during megger testing and installed in existing raceways for all (3) three new Breakers that are included in this estimate. This estimate includes addition risk if the Switches and Reactors due to long lead times are not here in time to take advantage of the OCB outages.

Project: Ir-OCB Replacement and Bus Rehab Phase 2

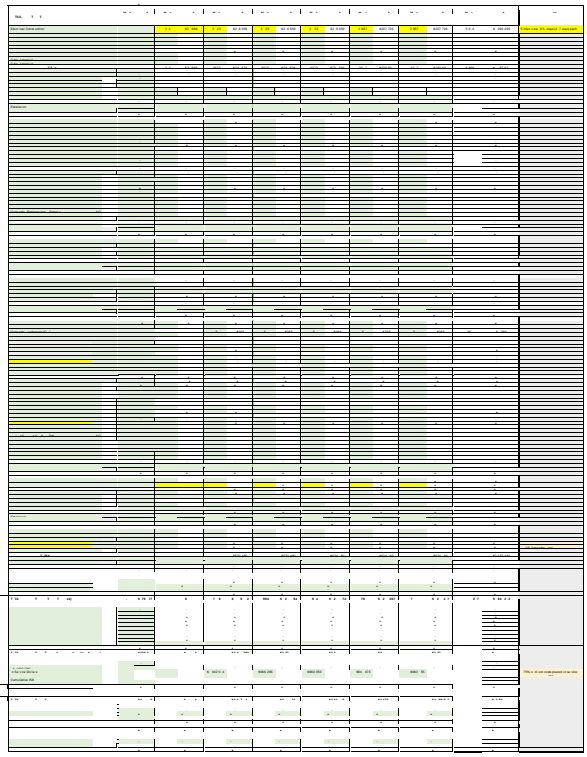
Escalated Line Item Dollars

Project Number C5A0009



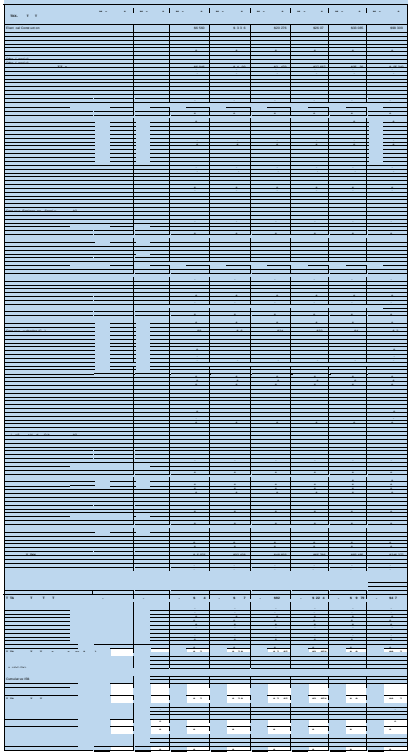
Project: Ir-OCB Replacement and Bus Rehab Phase 2

UNESCALATED LINE ITEM DOLLARS



Project: Ir-OCB Replacement and Bus Rehab Phase 2

Escalation S's



EVERSOURCE

Constructability Review Form: **Substation**

Project Title: [redacted] Replace OCBs	☐	Prior Constructability Review Performed?
	☐	Program Related Site Specific Review?
Project Numbers(s): CS00245	**Project Constructability Phase:**	
Date(s) of Constructability Review: Click to enter a date 10/23/2020	☐ Conceptual Engineering Design ☐ Preliminary Engineering Design ☒ Detailed Engineering Design	

Project Scope Statement:

Replace OCBs at [redacted] breakers total, plus reactors and switches

Department Review/Walkdown Attendees*:

Required [X]	Attended [X]	Department	Name	Required [X]	Attended [X]	Department	Name
☐	☒	Project Management	[redacted]	☐	☒	S/S Engineering	[redacted]
☐	☐	Asset Management		☐	☐	P&C Engineering	
☐	☒	Constr. Management		☐	☐	Civil Engineering	
☐	☒	S/S Technical / LCE		☐	☐	Telecom	
☐	☒	S/S Operations**		☐	☐	Environmental	
☐	☒	Field Engineering		☐	☐	Real Estate	
☐	☐	Line Engineering		☐	☐	T&D ROW	
☐	☐	Vegetation Management		☐	☐	Survey Engineering	
☐	☐	Siting		☐	☐	Cost Estimating	
☐	☐	Safety		☐	☐	Outreach (SCS)	
☐	☐	SCADA		☐	☐	Material Procurement	

*** Sign-off in the table above for the Detailed Engineering Design Constructability Review indicates that all Action Items/Concerns from prior Constructability Reviews have been mitigated/resolved as documented in this form. Not every department is required to attend walkdowns for every project but should be consulted for project impact considerations**

** Internal Eversource Substation Operations must be included in the review even if external construction resources are planned

[Project Manager] certifies that this review was performed to completeness, that all applicable departments were informed of the project and have had opportunity to provide input to this review:

[redacted] 01/06/2021

Name / Signature *Date*

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Constructability Review Form: **Substation**

Documents available for use prior to Constructability Review					
[X]	Document	[X]	Document	[X]	Document
☐	Initial Scope -Birdseye site plan -General Arrangement	☒	Preliminary Drawings -Civil Site Drawing -Electrical Drawing -Section Drawings	☐	Prints in hand for marking up -Panel Front/Read View -Control Enclosure Layout -Floor / Wall Plans
☐	Detailed Scope Document	☐	Proposed Schedule	☐	Construction Sequence/Timeline
☐	Previous Notes / Comments / Observations	☐	Major Material / Equipment List	☐	Replace / Reuse of equipment

Action Items and Resolutions:

Item No.	Const. Review Action Item/Concern	Design Resolution/Mitigation:
1	Not all long lead material has been ordered	Engineering to order material once project is approved
2		
3		
4		
5		

	Key Review Item Description	N/A or No Concern	Review Notes, Concerns, or Additional Info Needed
A	**Engineering & Asset Management**		
1	**Scope of Work** - Is scope adequately developed and sufficiently detailed for intended deliverable? - Any complimentary projects or other adjacent obsolete equipment for inclusion? - Any overlapping projects that could impact work/outages? - Consider Physical Installation, P&C Scope, Civil Scope, Engineering studies, Design standard adherence - Any remote station impacts? - Engineering Estimates for Design and Technical Support? (EE and EOC) Total Project	☐	

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Constructability Review Form: **Substation**

	Key Review Item Description	N/A or No Concern	Review Notes, Concerns, or Additional Info Needed
2	**Materials Identified/Ordered** -Any concerns with BOM/Major Materials? Review BOM lead times and project need dates -Specialty Major Materials: Identify Specialty Equipment & Materials potentials - temporary/replacement - long lead items? -Any Materials needed to facilitate construction access?		Long lead material needs to be ordered. Only enough for the first 3 breakers. The remaining breakers, switches and reactors need to be ordered once project is approved
3	**Control House** - Review Unmapped equipment interferences, Control/Battery Enclosure Layout, HVAC System (if equipment added), space for new or modified equipment, AC / DC station breaker availability and service loading, Panel Space, Expansion, one-line and/or riser type panelboard drawings, other..	☐	N/A
4	**Ratings & Dimensions** for Major Equipment. Any concerns upon field review? Equipment Rating One Line (and/or equipment thermal ratings tables) - Review for any errors in field	☐	New breakers are ordered to fit any location at this substation with specially sized CT's
5	**Wall, Fence, Gate, and Foundation Considerations** -Any permanent / temporary alterations or relocations required? -Pre-Project Sound Measurements Needed? Sound Walls? -Take measurements for Foundation quantities, dimensions and concrete volumes -CIP Review/Ballistic needs. Any Physical Security Requirement Consideration? -Assess condition of existing yard equipment foundations and viability for reuse (if proposed) -Review station expansion areas (if needed) for structures, old foundations, etc. -Any Steel Structural Plan Considerations? -Any impacts to construction plan?	☐	N/A
6	**Below Grade / Enclosure Raceway** - If possible, evaluate existing raceway and review spacing requirements. Review for any subsurface investigation needs or potential below grade obstructions. GPR/test pits needed? Geotechnical Investigation - is soil boring or resistivity investigation needed?	☐	N/A

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Constructability Review Form: **Substation**

	Key Review Item Description	N/A or No Concern	Review Notes, Concerns, or Additional Info Needed
7	**Underground Obstructions** -Drawing review concerns? -Is preconstruction or test excavation needed? -Is reuse of underground control cables / Conduits /replace Non-Shielded Cable feasible (if applicable) -Are spare conduits available? Are they useable? -Review if any areas will need to be plated for increased load bearing for equipment access (i.e. large Xfmr, etc.)	☐	Conduit condition could be an issue due to corrosion
8	**Grounding Plan (Ground Grid)** - Will footprint impact layout or other equipment? Identify locations to improve grounding. Impacts to foundations and ground grid plans. Observations on wetlands or ability to perform tests	☐	N/A
9	Nomenclature / Switching One-Line Diagram -Any obvious deviations from diagrams provided?	☐	N/A
10	BPS Separation Requirements - Is this BPS Substation? Y/N (part of PAF) - Changes to pre-existing BPS standards?	☐	N/A
11	IEC 61850 Substation Automation and Communication Requirements - Any Impacts/Retrofit needed?	☐	N/A
12	Any Upgrades to ES Standards - Is retrofit needed to bring up to ES standards? Can that be done?	☐	N/A
B	**Construction**		
1	**Any safety hazards specific to the facility? i.e. Low Bus, Deterioration, etc.**	☐	N/A
2	**Prior known Site Specific Conditions** -Common or Obvious station Issues -Missing scope items that could impact costs?	☐	N/A
3	**Identify/Consider Required Depts for Construction?** -Who is constructor: Internal vs External Resources -S/S Ops, GO, Test, Field Engineering, etc	☐	Internal resources performing construction

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Constructability Review Form: **Substation**

	Key Review Item Description	N/A or No Concern	Review Notes, Concerns, or Additional Info Needed
	-Specialty Contractors Required? -Required Oversite Needed - Estimated level of CR and LCE support needed		
4	**Site Plan, Access, and Temporary Construction Facilities:** -Confirm maintenance access for proposed new or replaced equipment -Verify clear footprint for yard equipment / Property Plan -General access to site, can areas outside substation be utilized? -Substation Entry Plan (driveway and drive path modifications) - Identification of Unique Requirements, i.e. (access bridges, station service, etc.) -Site Development Plan (grading and drainage) with Cut/Fill -Existing Rock Conditions? Potential Impacts (rock quantity)? -Any police details needed for deliveries, restricted hours, and/or need for extended hour approvals -Any Sanitary Civil Requirements? (Septic tanks, etc) -Review turning radius for delivery trucks (if critical) -Any Substation Access and site/yard access Limitations? -Office Trailer Needs: Facilities, Utilities, Restroom, Container, Dumpster Space -Weather impacts to Site (Snow Placement) -Identify Material Laydown and Security -Where will new vs removed equipment go? -Construction permit for trailers outside substation fence?	☐	No issues
5	Unique Equipment Considerations: Gas insulated substation, Gas insulated line, Gas insulated bus, Pass Breaker, Statcom, Sync Condenser	☐	N/A

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	Key Review Item Description	N/A or No Concern	Review Notes, Concerns, or Additional Info Needed
6	**Outage & Energization Plan and Construction Sequence:** *Review electrical working clearances for equipment during construction, Detailed look at protection zone changes, Locked sequence or random outages, Outage durations minimized.* ***Considerations:*** -Approach Distances – Outage Requirements to maintain electrical clearances throughout proposed installation -Distribution Clearances -Clearance Holder Assignments -Drawings vs Field Conditions -Outage boundaries and interconnections -Phased approach needs for additional mobilizations -Verify outage sequence supports the planned construction sequence and timeline. (Lead Commissioning Engineer "LCE", Substation Operations, and Outage Planner input) -Any design alterations or considerations to Eliminate SCLL Conditions, Reduce Recall Time, Reduce Outage durations, Special Conditions -Additional outage requirements: Railroad Catenaries, Fiber outage, SCADA outage, Relay permissions -Seasonal or weather conditions impacts	☐	Breaker energization plans determined for each breaker as it is placed in service
7	**Equipment Testing & Acceptance** -Grounding plans / Resources? Will we need grounds hung? -Hi-pot testing and where will the equipment be set up?	☐	N/A
8	Need for mobile generator and where connected (if needed)	☐	N/A
9	Need for mobile battery and where connected (if needed)	☐	N/A
10	OT work required or Notable Permit Conditions (special hours)?	☐	OT may be required due to station configuration when placing breakers in service
11	Coordination of boundaries/seams (Identification of point of demarcation for connection to existing equipment and/or for coordination with other municipalities)	☐	N/A

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Constructability Review Form: **Substation**

	Key Review Item Description	N/A or No Concern	Review Notes, Concerns, or Additional Info Needed
C	**Environmental**		
1	Soil Pre-Characterization or Grab Sampling Completed/Planned	☐	
2	**Desktop investigation and EAD Review** -Required Permits -Stormwater Considerations -Dewatering requirements -Wetland and buffer review	☐	N/A
3	Risk or presence of PCB's/Asbestos/Lead/SF6	☐	
4	Transformer Spill Containment Recommended?	☐	N/A
5	Expanding Footprint / New Buildings or future Expansion Plans? (Enviro Impact)	☐	N/A
6	Environmental oversight considerations? (Inspection type/Interval)	☐	
7	Environmental mitigations - Any matting or seasonal needs? Review D&M Plan with CR.	☐	
D	**Siting, S&CS, and T&D Real Estate**		
1	**Any regulatory concerns or approvals needed?** - Consider scope/design alterations to mitigate concerns - Consider Visual screening considerations (feasibility or location) -Zoning Relief and Permits required	☐	N/A
2	**Neighbor/Abutter impacts:** - Any noise, visual impacts, or sensitive abutters - Any changes to lighting or additional lighting needed?	☐	N/A
3	Review for roadway, gate access, trailers, equip height, noise, weekend/night work, or any potential public disturbance related to work	☐	N/A
4	Installation within Eversource Rights - Is Rights and Restrictions Review required?	☐	N/A
5	Expanding Footprint / New Buildings or future Expansion Plans?	☐	N/A
6	Proposed Equipment on same property? - Any Encroachments	☐	N/A

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Constructability Review Form: **Substation**

	Key Review Item Description	N/A or No Concern	Review Notes, Concerns, or Additional Info Needed
F	**Protection & Controls**		
1	Panel Graphic additions and/or Modifications	☐	N/A
2	Space on existing panels for new equipment? (front & rear of panel fronts)	☐	N/A
3	Panel fronts conform to drawings	☐	N/A
4	Access to bring new panels into control enclosure	☐	N/A
5	Nameplate list and location of nameplates	☐	N/A
6	Verifies that relays and meters that will be an interconnected project work are as shown on the drawings.	☐	N/A
7	Temporary protection, relays, control cable needed? How long will they be required?	☐	N/A
8	Will relay setting changes be needed? Any additional outage requirements for changes?		N/A
G	**Telecom Engineering**		
1	Review telecom equipment in existing control enclosure	☐	N/A
2	Review path to get telecom circuits into the station and paths within the control house. Determine whether new underground duct or overhead tray work is needed.	☐	N/A
3	Review current or proposed Telecom equipment power connections and validate with P&C any need for system 1 and system 2 separation.	☐	N/A
4	Review current Telecom fiber diversity and validate with P&C any fiber diversity requirements.	☐	N/A
5	Review and list any remote station impacts/updates	☐	N/A
6	Confirm whether correct interface equipment is available (i.e.) for fiber termination or multiplexor termination	☐	N/A
7	Confirm whether existing communications cabinets are enough to support additional telecommunications equipment installed	☐	N/A

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Constructability Review Form: **Substation**

	Key Review Item Description	N/A or No Concern	Review Notes, Concerns, or Additional Info Needed
8	Review space for any required additional communications cabinets which may be required to support additional telecommunications equipment installed	☐	N/A
9	Review third party Telecommunications at substation and confirm whether additional capacity or Ground Potential Rise protection is required	☐	N/A

Photos

(Ex. Equipment control cabinet, Breakers, MODs, CCVTs, PTs, Transformers)

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
Project: CS00395 CS00395 [redacted] - OCB Replacement Phase 2		1284.0	06-Apr-2020 A	25-Feb-2026		
WBS: CS00395.GEN GENERAL		1284.0	06-Apr-2020 A	25-Feb-2026		
WBS: CS00395.GEN.01 INITIALIZATION AND SCOPE DEVELOPEMENT		697.0	01-Jun-2020 A	14-Nov-2023		
START	SCHEDULE START MILESTONE	0.0	13-Jul-2020 A			PI1200, A3
WBS: CS00395.GEN.01.01 Initial Funding		0.0	13-Jul-2020 A	22-Jul-2020 A		
PI1200	N/R Project Initiator Develop Intitial Funding Request	0.0	13-Jul-2020 A	13-Jul-2020 A	START	PI1000
PI1000	N/R Submit Initial Funding Request	0.0		13-Jul-2020 A	PI1200	PI1300
PI1300	N/R Initial Funding Request Approved	0.0	14-Jul-2020 A	14-Jul-2020 A	PI1000	PI1400, CE
PI1400	Assign Project Manager	0.0	15-Jul-2020 A	21-Jul-2020 A	PI1300	CE1600, P
PI1500	Assign Scheduler	0.0	22-Jul-2020 A	22-Jul-2020 A	PI1400	CE1600
PI1600	Assign Cost Analyst	0.0	22-Jul-2020 A	22-Jul-2020 A	PI1400	CE1600
WBS: CS00395.GEN.01.02 SDC Approval		0.0	01-Jun-2020 A	18-Nov-2020 A		
CE1600	Conduct Project Team Kickoff Meeting	0.0	01-Jun-2020 A	01-Jun-2020 A	PI1400, PI1	CE1700, C
CE1000	ES Engineering Develop Civil Substation Conceptual Engineering Design in Accordance with Deliverables	0.0	05-Jun-2020 A	05-Jun-2020 A	CE1600	CE1710, C
CE1400	N/R (per DB 24-7-20) ES Engineering Develop P&C Conceptual Engineering Design in Accordance with I	0.0	24-Jul-2020 A	24-Jul-2020 A	CE1600	CE1710, C
CE1700	N/R (per SA 13-5-20) Review Conceptual Siting & Permitting (If Required)	0.0	29-Jul-2020 A	29-Jul-2020 A	CE1600, CE	CGE1000
CGE1000	Develop Conceptual Grade Estimate (-25%+50%)	0.0	17-Aug-2020 A	16-Nov-2020 A	CE1700	SSF1000
CE1100	Develop Electrical Substation Concept Eng Design (after Ph1 PAF acceptance)	0.0	17-Aug-2020 A	31-Aug-2020 A	CE1600, PI1	CE1710, C
CE1710	Conduct Conceptual Constructability Walk Down	0.0	23-Oct-2020 A	23-Oct-2020 A	CE1600, CE	CE1700
SSF1000	Develop Solutions Selection Form (SSF)	0.0	09-Nov-2020 A	13-Nov-2020 A	CGE1000	SDC1000
SDC1000	Solution Design Committee(SDC) Approval	0.0	13-Nov-2020 A	18-Nov-2020 A	SSF1000	PAFF2000,
WBS: CS00395.GEN.01.09 Project Initiation		697.0	08-Jul-2020 A	14-Nov-2023		
WBS: CS00395.GEN.01.09.2 EPAC Partial Funding		0.0	17-Aug-2020 A	17-Aug-2020 A		
PF1000	N/R-EPAC Partial Funding Approval-From Initial to Full Funding 5/22/20	0.0	17-Aug-2020 A	17-Aug-2020 A		
WBS: CS00395.GEN.01.09.3 EPAC Full Funding Phase 2		1.0	08-Jul-2020 A	05-Feb-2021		
DE1900	Conduct Detail Constructability Walk Down	0.0	08-Jul-2020 A	08-Jul-2020 A	DSSE-200, I	DE1800
DE1700	N/R Conduct Initial Risk Management & SCLL Review (Project Initiator & PM)	0.0	31-Aug-2020 A	31-Aug-2020 A	DE1800	DE1710
DE1800	N/R Review Detail Siting & Permitting (If Required)	0.0	31-Aug-2020 A	31-Aug-2020 A	DSSE-200, I	DE1700
DE1710	Project Constructability Review Complete	0.0	20-Oct-2020 A	23-Oct-2020 A	DE1700	DE1600
DE1600	Create Planning Grade Estimate (+/-25% Full Funding)	0.0	30-Nov-2020 A	16-Dec-2020 A	DE1710	PAFF2000
PAFF2000	Submit Full Funding PAF for Internal Review	0.0	17-Dec-2020 A	17-Dec-2020 A	SDC1000, D	PAFF2100
PAFF2100	Incorporate Internal Review Comments & Submit Full Funding PAF to EPAC for Review	0.0	04-Jan-2021 A	05-Jan-2021 A	PAFF2000	PAFF2200
PAFF2200	Incorporate EPAC Full Funding PAF Review Comments	0.0	05-Jan-2021 A	06-Jan-2021 A	PAFF2100	FF1000
FF1000	EPAC Full Funding Approval	1.0	05-Feb-2021*	05-Feb-2021	PAFF2200	A3390, DS
WBS: CS00395.GEN.01.09.1 EPAC Full Funding Phase 3		45.0	11-Sep-2023	14-Nov-2023		
DE1910	Conduct Detail Constructability Walk Down	1.0	11-Sep-2023*	11-Sep-2023	FF1000	DE1940
DE1940	Project Constructability Review Complete	3.0	26-Sep-2023	28-Sep-2023	DE1910	DE1950
DE1950	Create Planning Grade Estimate (+/-25% Full Funding)	10.0	29-Sep-2023	13-Oct-2023	DE1940	PAFF2210
PAFF2210	Submit Full Funding PAF for Internal Review	10.0	16-Oct-2023	27-Oct-2023	DE1950	PAFF2220
PAFF2220	Incorporate Internal Review Comments & Submit Full Funding PAF to EPAC for Review	5.0	30-Oct-2023	03-Nov-2023	PAFF2210	PAFF2230
PAFF2230	Incorporate EPAC Full Funding PAF Review Comments	5.0	06-Nov-2023	13-Nov-2023	PAFF2220	FF1010

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
FF1010	EPAC Full Funding Approval	1.0	14-Nov-2023	14-Nov-2023	PAFF2230	TT00
WBS: CS00395.GEN.05 ENGINEERING & DESIGN		39.0	06-Apr-2020 A	15-Mar-2021		
WBS: CS00395.GEN.05.01 Civil Engineering		23.0	05-Jun-2020 A	19-Feb-2021		
DSSE-100	Vendor Submits 30% Civil Design to ES	0.0	05-Jun-2020 A	31-Jul-2020 A	TMP1220	DSSE-119(
DSSE-1190	ES Reviews and Comments 30% Civil Design	0.0	02-Sep-2020 A	11-Sep-2020 A	DSSE-100	A1090, DS
DSSE-110	Vendor Incorporates 30% Comments/Submits 70% IFR Civil to ES w/BOM	0.0	14-Sep-2020 A	14-Oct-2020 A	DSSE-1190	DSSE-1210
DSSE-1210	ES Reviews and Comments 70% Civil Design w/BOM	0.0	19-Oct-2020 A	30-Oct-2020 A	DSSE-110	A3560, DS
DSSE-1200	Vendor Incorporates 70% Comments/Submits 100% Civil Design for IFC to ES	0.0	02-Nov-2020 A	25-Nov-2020 A	DSSE-1210	DSSE-120
DSSE-120	ES Reviews 100% Civil Design (Bus Rehab) IFC	0.0	02-Dec-2020 A	08-Dec-2020 A	DSSE-1200	DSSE-1420
DSSE-1420	Vendor Incorporates 100% Comments/Submits Civil IFC to ES	18.0	09-Dec-2020 A	11-Feb-2021	DSSE-120	DSSE-1430
DSSE-1430	ES Reviews IFC Civil Design Package and IFC	5.0	12-Feb-2021	19-Feb-2021	DSSE-1420	A3430, A33
WBS: CS00395.GEN.05.02 Electrical Engineering		39.0	05-Jun-2020 A	15-Mar-2021		
DSSE-200	Vendor Submits 30% Electrical Design Package to ES	0.0	05-Jun-2020 A	31-Jul-2020 A	TMP1220	DSSE-205,
DSSE-205	ES Reviews and Comments 30% Electrical Design	0.0	02-Sep-2020 A	11-Sep-2020 A	DSSE-200	A1090, DS
DSSE-210	Vendor Incorporates 30% Comments/Submits 70% IFR Electrical Design to ES w/BOM	0.0	14-Sep-2020 A	14-Oct-2020 A	DSSE-205	DSSE-220,
DSSE-230	ES Reviews and Comments 70% Electrical Design w/BOM	0.0	19-Oct-2020 A	30-Oct-2020 A	DSSE-210	DSSE-520,
DSSE-1220	Vendor Incorporates 70% Comments/Submits 100% Electrical IFC Design to ES	0.0	02-Nov-2020 A	01-Dec-2020 A	DSSE-230, /	DSSE-240
DSSE-240	Electrical Engineering - Reviews and Comments Electrical Package 100%	0.0	02-Dec-2020 A	08-Dec-2020 A	DSSE-1220	DSSE-1440
DSSE-1440	Vendor Incorporates 100% Comments/Submits Electrical IFC to ES	18.0	09-Dec-2020 A	11-Feb-2021	DSSE-240	DSSE-145(
DSSE-1450	Electrical Engineering - Electrical Package IFC (Physical & Electrical)	5.0	12-Feb-2021	19-Feb-2021	DSSE-1440	DSSE-990,
DSSE-920	Operating Instructions - SSED Review Draft Convex OI	5.0	09-Mar-2021	15-Mar-2021	DSSE-450	DT1202
DSSE-460	Operating Instructions - SSED Review Draft Distribution OI	5.0	09-Mar-2021	15-Mar-2021	DSSE-450	DT1202
WBS: CS00395.GEN.05.03 Distribution Thermal Ratings NX-9		0.0	05-Jan-2021 A	05-Jan-2021 A		
WBS: CS00395.GEN.05.03.05 Non NX-9 Thermal Ratings		0.0	05-Jan-2021 A	05-Jan-2021 A		
NX9A-EM74	N/R LTRC Files Feeder Capability Sheets	0.0	05-Jan-2021 A	05-Jan-2021 A	NX9A-EM64	CFM
NX9A-EM64	N/R TRC Reviews and Approves Thermal Rating Data	0.0	05-Jan-2021 A	05-Jan-2021 A	NX9A-EM54	NX9A-EM7
NX9A-EM54	N/R LTRC Prepares and Sends Thermal Rating Data for TRC Review	0.0	05-Jan-2021 A	05-Jan-2021 A	NX9A-EM44	NX9A-EM6
NX9A-EM44	N/R P&C Develops and Provides LTRC with P&C Checklist & Thermal Ratings Data	0.0	05-Jan-2021 A	05-Jan-2021 A	A3580	NX9A-EM5
WBS: CS00395.GEN.05.04 P&C Engineering		39.0	05-Jun-2020 A	15-Mar-2021		
DSSE-400	Vendor Submits 30% P&C Design Package to ES	0.0	05-Jun-2020 A	31-Aug-2020 A	TMP1220	DSSE-410
DSSE-410	ES Reviews 30% P&C Design	0.0	02-Sep-2020 A	14-Sep-2020 A	DSSE-400	A1090, A33
A3380	Vendor Incorporates 30% Comments/Submits 70% P&C Package Design to ES	0.0	14-Sep-2020 A	14-Oct-2020 A	DSSE-410	A3580
A3580	ES Reviews 70% P&C Design	0.0	16-Oct-2020 A	26-Oct-2020 A	A3380	DSSE-510,
DSSE-990	N/R P&C INITIATE SCADA Data Sheets	0.0	18-Dec-2020 A	18-Dec-2020 A	DSSE-1450	DSSE-220,
DSSE-220	SDS Complete	2.0	19-Jan-2021	20-Jan-2021	DSSE-990, I	DT0805E
DSSE-450	Operating Instructions - Prepare and Issue Draft Distribution OI to Engineering	20.0	08-Feb-2021	08-Mar-2021	A3580, FF1(	DSSE-470,
DSSE-470	Operating Instructions - P&C Review Draft Distribution OI	5.0	09-Mar-2021	15-Mar-2021	DSSE-450	DT1202
DSSE-930	Operating Instructions - P&C Review Draft Convex OI	5.0	09-Mar-2021	15-Mar-2021	DSSE-450	DT1202
WBS: CS00395.GEN.05.00 Engineering Services Staffing		0.0	06-Apr-2020 A	05-Jun-2020 A		
A3370	Decision Required Regarding Engineering Staffing (ES, COC, BID)	0.0	01-May-2020 A	01-May-2020 A	SDC1000	TMP1140
WBS: CS00395.GEN.05.00.02 EOC - Engineer of Choice Process		0.0	06-Apr-2020 A	05-Jun-2020 A		

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
TMP1140	Engineering of Choice (EOC) - Provide RFP to Single Vendor (Bus Rehab)	0.0	06-Apr-2020 A	08-Apr-2020 A	A3370	TMP1150
TMP1150	Engineering of Choice (EOC) - Vendor Responds with Proposal (Bus Rehab)	0.0	08-Apr-2020 A	22-Apr-2020 A	TMP1140	TMP1200
TMP1180	Engineering of Choice (EOC) - EOC Committee Reviews at Monthly Meeting & Approves (Bus Rehab)	0.0	19-May-2020 A	19-May-2020 A	TMP1200	TMP1220
TMP1200	Engineering of Choice (EOC) - DR# 432937 Prepared by Project Engineer & Project Controls (Bus Rehat	0.0	20-May-2020 A	21-May-2020 A	TMP1150	TMP1180
TMP1220	Engineering of Choice (EOC) - PO # 38392005 Issued for Vendor Design Effort (Bus Rehab)	0.0	22-May-2020 A	05-Jun-2020 A	TMP1180	DSSE-400,
WBS: CS00395.GEN.99 PROJECT CLOSE OUT		48.0	19-Dec-2025	25-Feb-2026		
A4400	PM Prepares Closeout Documentation, Lessons Learned Meeting, etc.	30.0	19-Dec-2025	30-Jan-2026	CFM-P2G3I	FINISH-P2
DSSE-3460	Complete TD-707 Turnover Document / Forward to SOC & Mailing List	5.0	19-Dec-2025	26-Dec-2025	CFM-P2G3I	DSSE-341(
FINISH-P2G23	Project / Work Order Complete (FINAL SCHEDULE TASK/MILESTONE)	0.0		25-Feb-2026	A4400, A43(	
WBS: CS00395.GRP1 Group 1		329.0	13-Jul-2020 A	09-May-2022		
WBS: CS00395.GRP1.12 T-Minus Milestones		226.0	14-Sep-2020 A	01-Sep-2021		
WBS: CS00395.GRP1.12.01 Civil T-Minus Milestones Group 1A		32.0	14-Sep-2020 A	11-Mar-2021		
A1090	T-26.05 - 30% Design / Engineering Completed	0.0		14-Sep-2020 A	DSSE-1190	AT00
A3560	T-18.11 - 70% Design/Engineering Completed	0.0		30-Oct-2020 A	DSSE-1210	AT00
A1100	T-30.01 - Eng. Project Scoping Document Issued (Scope Lockdown)	0.0		16-Nov-2020 A	SDC1000	AT00
AT0814	N/R A-T-08.14 Construction Contracts / PSA In Place	0.0		07-Dec-2020 A	A3420, A34(	AT00
AT00	AT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	08-Feb-2021*		AT0401, AT(	A1130, A11
AT0805C	AT-08.05.Civil IFC - Civil (BG) w/BOM	0.0		19-Feb-2021	DSSE-1430	AT00
AT0203	AT-02.03 CAN COMPLETE (CONSTRUCTION AUTHORIZATION NOTICE)	0.0		19-Feb-2021	A1170	AT00
AT0409	AT-04.09 ALL FIRM DSR APPLICATIONS DUE TO LCC - DCR require	0.0		25-Feb-2021*	A1250, A17:	AT00
AT0401	AT-04.01 ALL MATERIAL RECEIVED,(for 3 OCB all civil materials are in house)	0.0		11-Mar-2021	DSSE-560	AT00
WBS: CS00395.GRP1.12.4 Civil T-Minus Milestones Group 1B		28.0	03-Aug-2021	01-Sep-2021		
MT0401	MT-04.01 ALL MATERIAL RECEIVED,(for 3 OCB all civil materials are in house)	0.0		03-Aug-2021	DSSE-560	MT00
MT0203	MT-02.03 CAN COMPLETE (CONSTRUCTION AUTHORIZATION NOTICE)	0.0		17-Aug-2021		MT00
MT00	MT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	01-Sep-2021*		MT0401, MT	A3620, DS
WBS: CS00395.GRP1.12.3 Electrical T-Milestones for 3 OCB Material in house Group 1A		33.0	18-Dec-2020 A	19-Feb-2021		
BT1201	N/R BT-12.01 SCADA Date (Tab) Sheets/Signal List Sent to LCC	0.0		18-Dec-2020 A	DSSE-990	BT00
BT2404	BT-24.04 DETERMINE / ASSIGN LCE (LEAD COMMISSIONING ENGINEER)	0.0		18-Jan-2021	A2930	BT00
BT0401	BT-04.01 ALL MATERIAL RECEIVED, (3 Breakers, 3 Switchers and 3 Reactors are in house)	0.0		19-Jan-2021	DSSE-1360	BT00
BT00	BT-00 - START OF CONSTRUCTION - Phase 2 Group 1	0.0	08-Feb-2021*		BT0401, BT	CSM
BT0805E	BT-08.05.Elect IFC - Electrical (AG) w/Final BOM	0.0		19-Feb-2021	DSSE-1450	BT00
WBS: CS00395.GRP1.12.02 Electrical T-Milestones for 3 OCB Group 1B		28.0	18-Dec-2020 A	01-Sep-2021		
CT1201	N/R CT-12.01 SCADA Date (Tab) Sheets/Signal List Sent to LCC	0.0		18-Dec-2020 A	DSSE-990	CT00
CT0401	CT-04.01 ALL MATERIAL RECEIVED, (3 Breakers, 3 Switchers and 3 Reactors are in house)	0.0		03-Aug-2021	DSSE-1130	CT00
CT00	CT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	01-Sep-2021*		CT0401, CT	ConRep-S'
WBS: CS00395.GRP1.12.06 P&C T-Minus Milestones Group 1A		57.0	18-Jan-2021	15-Mar-2021		
DT401	DT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		18-Jan-2021	DSSE-1460	DT00
DT0805E	DT-08.05.P&C IFC - P&C w/BOM	0.0		20-Jan-2021	DSSE-220	DT00
DT00	DT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	08-Feb-2021*		DT1202, DT	CFM100
DT1301	DT-13.01 COMMISSIONING PLAN COMPLETE	0.0		12-Mar-2021	A3300, A29	DT00
DT1202	DT-12.02 P/C DESCRIPTION / DRAFT OPERATING INSTRUCTIONS ISSUED	0.0		15-Mar-2021	DSSE-470, I	DT00

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
WBS: CS00395.GRP1.12.5 P&C T-Minus Milestones Group 1B		28.0	03-Aug-2021	01-Sep-2021		
NT0401	NT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		03-Aug-2021	DSSE-1010	NT00
NT00	NT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	01-Sep-2021*		NT0401	CFM100, D
WBS: CS00395.GRP1.07 CONSTRUCTION		221.0	13-Jul-2020 A	22-Dec-2021		
WBS: CS00395.GRP1.07.01 CONSTRUCTION SERVICES SELECTION		0.0	13-Jul-2020 A	17-Jul-2020 A		
A3550	STAFFING DECISION: EVERSOURCE IN HOUSE WILL CONSTRUCT	0.0	13-Jul-2020 A	17-Jul-2020 A	START	A3390, A34
WBS: CS00395.GRP1.07.3 CONSTRUCTION SERVICES - CONTRACTOR OF CHOICE		0.0	04-Dec-2020 A	04-Dec-2020 A		
A3400	N/R CONST.SERVICES - COC - COC Evaluates Spec and Provides Quote	0.0	04-Dec-2020 A	04-Dec-2020 A	A3390	A3410
A3410	N/R CONST.SERVICES - COC - Eversource Reviews Quote from COC	0.0	04-Dec-2020 A	04-Dec-2020 A	A3400	A3420
A3420	N/R CONST.SERVICES - COC - Eversource Awards Contract - PO Issued	0.0	04-Dec-2020 A	04-Dec-2020 A	FF1000, A34	A1170, AT0
A3390	N/R CONST.SERVICES - COC - Eversource Provides Spec / RFQ to COC	0.0	04-Dec-2020 A	04-Dec-2020 A	FF1000, A35	A3400
WBS: CS00395.GRP1.07.03 CONSTRUCTION - CIVIL		0.0	05-Oct-2020 A	05-Oct-2020 A		
A1120	N/R (per SA) Construction - Civil (NO CIVIL IF 1:1 REPLACE AND SAME FOUNDATION; CONDUIT d	0.0	05-Oct-2020 A	05-Oct-2020 A	AT00	A1130, CFI
WBS: CS00395.GRP1.07.04 CONSTRUCTION - ELECTRICAL		87.0	08-Feb-2021	19-May-2021		
A1130	Construction - Electrical	87.0	08-Feb-2021	19-May-2021	A1120, AT00	CFM
WBS: CS00395.GRP1.07.92 CONSTRUCTION - CONST.REP TASKS		86.0	20-Feb-2021	31-May-2021		
A1250	Construction Rep SUBMIT OUTAGE REQUESTS for NON-transformer equipment (4 weeks before outa	5.0	20-Feb-2021	25-Feb-2021	DSSE-1430	AT0409
A1260	Construction Rep Finalize CASCADE Forms (within 14 days following ISD)	10.0	20-May-2021	31-May-2021	CFM	A1030
WBS: CS00395.GRP1.07.94 CONSTRUCTION RESOURCE TRACKING Group 1A		87.0	08-Feb-2021	19-May-2021		
ConRep-S	RESOURCE ONLY ACTIVITY - CONSTRUCTION - CONSTRUCTION REP	87.0	08-Feb-2021	19-May-2021	CSM	CFM
A1070	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH OUT	1.0	08-Feb-2021	08-Feb-2021	TOA-Const	CFM
CONSTelec	RESOURCE ONLY ACTIVITY - CONSTRUCTION - ELECTRICIAN	87.0	08-Feb-2021	19-May-2021	CSM	CFM
A1080	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH IN	1.0	19-May-2021	19-May-2021	TOA-Const	CFM
WBS: CS00395.GRP1.07.2 CONSTRUCTION RESOURCE TRACKING Group 1B		88.0	02-Sep-2021	13-Dec-2021		
ConRep-S10	RESOURCE ONLY ACTIVITY - CONSTRUCTION - CONSTRUCTION REP	88.0	02-Sep-2021	13-Dec-2021	CSM10, CT	CFM100
CONSTelec10	RESOURCE ONLY ACTIVITY - CONSTRUCTION - ELECTRICIAN	0.0	02-Sep-2021	02-Sep-2021	CSM10	CFM100
A3610	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH IN	1.0	13-Dec-2021	13-Dec-2021	TOA-ConsS	CFM100
A3600	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH OUT	1.0	13-Dec-2021	13-Dec-2021	CT00, TOA-	CFM100
WBS: CS00395.GRP1.07.96 CONSTRUCTION OUTAGES Group 1A		87.0	08-Feb-2021	19-May-2021		
TOA-Const	OUTAGE / General Construction Work	87.0	08-Feb-2021	19-May-2021	CSM	A1080, A10
CSM	Construction Start Milestone Stage 1	0.0	08-Feb-2021		AT00, BT00	CONSTele
CFM11	Replace 1A-24T-4 and 1A-31T-4 (A6 bus outage)	5.0	08-Feb-2021	12-Feb-2021	AT00	CFM30
CFM30	Prep week 1A-26T-8, and 1A-34T-8 (A7 bus outage)	4.0	13-Feb-2021	17-Feb-2021	CFM11	CFM21
CFM21	Replace 1A-26T-8, and 1A-34T-8 (A7 bus outage)	5.0	18-Feb-2021	23-Feb-2021	CFM30	CFM40
CFM40	Prep week 1A-24T-2	5.0	24-Feb-2021	01-Mar-2021	CFM21	CFM51
CFM51	Replace 1A-24T-2	13.0	02-Mar-2021	16-Mar-2021	CFM40	CFM80
CFM80	Prep week 1A-25T-2	5.0	17-Mar-2021	22-Mar-2021	CFM51	CFM71
CFM71	Replace 1A-25T-2	13.0	23-Mar-2021	06-Apr-2021	CFM80	CFM60
CFM60	Prep week 1A-23T-2	5.0	07-Apr-2021	12-Apr-2021	CFM71	CFM91
CFM91	Replace 1A-23T-2	13.0	13-Apr-2021	27-Apr-2021	CFM60	CFM
CFM	Construction Finish Milestone Stage 1	0.0		19-May-2021	CONSTelec	A3290, DS

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
WBS: CS00395.GRP1.07.1 CONSTRUCTION OUTAGES Group 1B		88.0	02-Sep-2021	13-Dec-2021		
CSM10	Construction Start Milestone Stage 2	0.0	02-Sep-2021		DSSE-1130	CFM90, Cc
CFM90	Prep week 1A-26T-2, and 1A-26T-4	4.0	02-Sep-2021	06-Sep-2021	CSM10	CFM22
TOA-ConsStage2	OUTAGE / General Construction Work Stage 2	87.0	02-Sep-2021	11-Dec-2021	CSM10	CFM100, A
CFM22	Replace 1A-26T-2, and 1A-26T-4	15.0	07-Sep-2021	23-Sep-2021	CFM90	CFM110
CFM110	Prep week 1A-17T-2, 1A-17T-4 and 1A-17T-8	4.0	24-Sep-2021	28-Sep-2021	CFM22	CFM20
CFM20	Replace 1A-17T-2, 1A-17T-4 and 1A-17T-8	15.0	29-Sep-2021	15-Oct-2021	CFM110	CFM130
CFM130	Prep week 1A-18T-2, 1A-18T-4 and 1A-18T-8	4.0	16-Oct-2021	20-Oct-2021	CFM20	CFM120
CFM120	Replace 1A-18T-2, 1A-18T-4 and 1A-18T-8	15.0	21-Oct-2021	06-Nov-2021	CFM130	CFM100
ISD2021	EQUIPMENT IN SERVICE DATE (2021 Work)	0.0		13-Dec-2021	CFM, CFM1	DSSE-900
CFM100	Construction Finish Milestone Stage 2	0.0		13-Dec-2021	CFM120, A3	ISD2021, D
WBS: CS00395.GRP1.07.98 CONSTRUCTION CLOSEOUT		7.0	14-Dec-2021	22-Dec-2021		
DSSE-900	Prepare Civil Field Mark Ups (Tie after Last Civil Construction Activity)	2.0	14-Dec-2021	15-Dec-2021	A1120, CFM	DSSE-860
DSSE-910	Test Group Prepare Electrical Field Mark UpsLCE Ensures Prints Ready for Pick-up (Tie after ISD)	2.0	21-Dec-2021	22-Dec-2021	A3290, CFM	DSSE-820,
WBS: CS00395.GRP1.06 MATERIAL PROCUREMENT		159.0	23-Nov-2020 A	01-Sep-2021		
WBS: CS00395.GRP1.06.5 MATERIAL FOR REACTOR Group 1		159.0	23-Nov-2020 A	01-Sep-2021		
DSSE-1330	MATERIAL - REACTORS - Prepare & Issue DR #	0.0	23-Nov-2020 A	25-Nov-2020 A	DSSE-230	DSSE-134(
DSSE-1360	MATERIAL - REACTORS - Procurement Issue PO# (3 in house Reactors from 6)	0.0	26-Nov-2020 A	01-Dec-2020 A	DSSE-1330	DSSE-134(
DSSE-1810	MATERIAL - REACTORS - Material Handler Confirm Material Delivery to Site Group 1A	2.0	18-Jan-2021	19-Jan-2021	DSSE-1360	BT0401
DSSE-1340	MATERIAL - REACTORS - Procurement Issue PO# (3 additional Reactors)	10.0	19-Jan-2021*	01-Feb-2021	DSSE-1330	DSSE-1350
DSSE-1350	MATERIAL - REACTORS - Mfg and Delivery Leadtime	30.0	02-Feb-2021	03-Mar-2021	DSSE-1340	DSSE-1320
DSSE-1320	MATERIAL - REACTORS - Material Handler Confirm Material Delivery to Site Group 1B	2.0	31-Aug-2021	01-Sep-2021	DSSE-1350	CSM10
WBS: CS00395.GRP1.06.4 MATERIAL FOR SWITCHES Group 1		157.0	23-Nov-2020 A	31-Aug-2021		
DSSE-1280	MATERIAL - SWITCHES - Prepare & Issue DR #	0.0	23-Nov-2020 A	30-Nov-2020 A	DSSE-230	DSSE-129(
DSSE-1310	MATERIAL - SWITCHES - Procurement Issue PO # (Three in house from 6)	0.0	26-Nov-2020 A	01-Dec-2020 A	DSSE-1280	DSSE-129(
DSSE-1290	MATERIAL - SWITCHES - Procurement Issue PO # (#GOD's)	10.0	19-Jan-2021*	01-Feb-2021	DSSE-1280	DSSE-1300
DSSE-1300	MATERIAL - SWITCHES - Material Vendor Mfg and Delivery Leadtime	30.0	02-Feb-2021	03-Mar-2021	DSSE-1290	DSSE-127(
DSSE-1820	MATERIAL - SWITCHES - Material Handler Confirm Material Delivery to Site Group 1A	2.0	04-Mar-2021	05-Mar-2021	DSSE-1300	CT0401
DSSE-1270	MATERIAL - SWITCHES - Material Handler Confirm Material Delivery to Site Group 1B	2.0	29-Aug-2021	31-Aug-2021	DSSE-1300	CSM10
WBS: CS00395.GRP1.06.1 MATERIAL FOR P&C Group 1		145.0	26-Nov-2020 A	01-Sep-2021		
DSSE-1460	MATERIAL - P&C PO # (Three in house from 6)	0.0	26-Nov-2020 A	01-Dec-2020 A	DSSE-230	DT401
DSSE-510	MATERIAL - P&C - Prepare & Issue DR	5.0	08-Feb-2021	12-Feb-2021	A3580, FF1(	DSSE-980
DSSE-980	MATERIAL - P&C - Procurement Issue PO	10.0	16-Feb-2021	01-Mar-2021	DSSE-510	DSSE-1000
DSSE-1000	MATERIAL - P&C - Material Vendor Delivery Leadtime	60.0	02-Mar-2021	30-Apr-2021	DSSE-980	DSSE-1010
DSSE-1010	MATERIAL - P&C -Material Handler Confirm Material Delivery to Site Group 1A	1.0	01-May-2021	01-May-2021	DSSE-1000	NT0401
DSSE-1830	MATERIAL - P&C -Material Handler Confirm Material Delivery to Site Group 1B	2.0	31-Aug-2021	01-Sep-2021	NT00	CSM10
WBS: CS00395.GRP1.06.2 MATERIAL FOR ELECTRICAL Group 1		145.0	08-Feb-2021	01-Sep-2021		
DSSE-520	MATERIAL - Electrical - Prepare & Issue DR	5.0	08-Feb-2021	12-Feb-2021	DSSE-230, I	DSSE-1020
DSSE-1020	MATERIAL - ELectrical - Procurement Issue PO	10.0	16-Feb-2021	01-Mar-2021	DSSE-520	DSSE-1030
DSSE-1030	MATERIAL - ELectrical - Material Vendor Delivery Leadtime	30.0	02-Mar-2021	31-Mar-2021	DSSE-1020	DSSE-550
DSSE-550	MATERIAL - Electrical - Material Handler Confirm Material Delivery to Site Group 1A	1.0	01-Apr-2021	01-Apr-2021	DSSE-1030	CT0401

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
DSSE-1840	MATERIAL - Electrical - Material Handler Confirm Material Delivery to Site Group 1B	2.0	31-Aug-2021	01-Sep-2021	CT00	CSM10
WBS: CS00395.GRP1.06.3 MATERIAL FOR CIVIL Group 1		159.0	19-Jan-2021	01-Sep-2021		
DSSE-500	MATERIAL - CIVIL - Prepare & Issue DR	5.0	19-Jan-2021	25-Jan-2021	DSSE-1210	DSSE-1040
DSSE-1040	MATERIAL - CIVIL - Procurement Issue PO	10.0	26-Jan-2021	08-Feb-2021	DSSE-500	DSSE-105(
DSSE-1050	MATERIAL - CIVIL - Material Vendor Delivery Leadtime	30.0	09-Feb-2021	10-Mar-2021	DSSE-1040	DSSE-560
DSSE-560	MATERIAL - CIVIL - Material Handler Confirm Material Delivery to Site Group 1A	1.0	11-Mar-2021	11-Mar-2021	DSSE-1050	AT0401, M
DSSE-1850	MATERIAL - CIVIL - Material Handler Confirm Material Delivery to Site Group 1B	2.0	31-Aug-2021	01-Sep-2021	MT00	CSM10
WBS: CS00395.GRP1.06.6 MATERIAL FOR BREAKERS Group 1		145.0	27-Nov-2020 A	01-Sep-2021		
DSSE-1170	MATERIAL - BREAKER - Procurement Issue PO 3 breaker in house from 6	0.0	27-Nov-2020 A	01-Dec-2020 A	DSSE-230	DSSE-115(
DSSE-1150	MATERIAL - BREAKER - Prepare & Issue DR	5.0	08-Feb-2021	12-Feb-2021	FF1000, DS	DSSE-1160
DSSE-1160	MATERIAL - BREAKER - Procurement Issue PO (3 additional Breakers)	10.0	16-Feb-2021	01-Mar-2021	DSSE-1150	DSSE-1140
DSSE-1140	MATERIAL - BREAKER - Material Vendor Delivery Leadtime	100.0	02-Mar-2021	09-Jun-2021	DSSE-1160	DSSE-1130
DSSE-1130	MATERIAL - BREAKER - Material Handler Confirm Material Delivery to Site Group 1A	1.0	10-Jun-2021	10-Jun-2021	DSSE-1140	CT0401, C
DSSE-1860	MATERIAL - BREAKER - Material Handler Confirm Material Delivery to Site Group 1B	2.0	31-Aug-2021	01-Sep-2021	CT00	CSM10
WBS: CS00395.GRP1.09 TEST AND COMMISSION		227.0	13-Jul-2020 A	10-Dec-2021		
WBS: CS00395.GRP1.09.01 TEST - SERVICES STAFFING DECISION		0.0	13-Jul-2020 A	17-Jul-2020 A		
A1010	STAFFING DECISION: EVERSOURCE WILL PROVIDE TESTING RESOURCES	0.0	13-Jul-2020 A	17-Jul-2020 A	START	A3510, A3
WBS: CS00395.GRP1.09.2 TEST SERVICES - BID PROCESS		20.0	12-Nov-2020 A	16-Feb-2021		
A3510	TEST SERVICES - BID - Eversource provide spec / RFP	0.0	12-Nov-2020 A	18-Nov-2020 A	A1010, A35(	A3590
A3590	TEST SERVICES- BID- Bid walk thru ES conduct walk thru	0.0	02-Dec-2020 A	02-Dec-2020 A	A3510	A3520
A3530	TEST SERVICES - BID - Eversource reviews contractor proposals	0.0	15-Dec-2020 A	18-Dec-2020 A	A3520	A3540
A3520	TEST SERVICES - BID - Contractors Evaluate RFP and Provide Proposal	1.0	15-Dec-2020 A	19-Jan-2021	A3590	A3530
A3540	TEST SERVICES - BID - Eversource awards contract - PO Issued	20.0	19-Jan-2021	16-Feb-2021	A3530	A2950
WBS: CS00395.GRP1.09.1 TEST SERVICES - CONTRACTOR OF CHOICE		0.0	04-Aug-2020 A	01-Dec-2020 A		
A3490	N/R (per GB 4-8-20) TEST SERVICES - COC - Eversource Reviews Quote from COC	0.0	04-Aug-2020 A	04-Aug-2020 A	A3480	A3500
A3470	N/R TEST SERVICES - COC - Eversource Provides Spec / RFQ to COC	0.0	16-Nov-2020 A	30-Nov-2020 A	A1010, A35(	A3480
A3500	N/R TEST SERVICES - COC - Eversource Awards Contract - PO Issued	0.0	01-Dec-2020 A	01-Dec-2020 A	A3490, FF1(	A2950
A3480	N/R TEST SERVICES - COC - COC Evaluates Spec and Provides Quote	0.0	01-Dec-2020 A	01-Dec-2020 A	A3470	A3490
WBS: CS00395.GRP1.09.02 LCE PLANNING		38.0	14-Dec-2020 A	12-Mar-2021		
A3360	PM to Request Lead Commissioning Engineer GO/NO-GO {30%or 70% design is often the predecessor}	0.0	14-Dec-2020 A	16-Dec-2020 A	A3580	A2930
A2930	Assign Lead Commissioning Engineer	0.0	17-Dec-2020 A	18-Dec-2020 A	A3360	A2950, A17
A3350	Evaluate Drawings and Plan for Construction Outages	20.0	19-Jan-2021	16-Feb-2021	A2930	A1730, A37
A2950	Develop Test and Commissioning Plan	15.0	17-Feb-2021	09-Mar-2021	A2930, A35	A3300, DT
A3300	LCE Review and Approve Vendor's Test and Commissioning Plan	3.0	10-Mar-2021	12-Mar-2021	A2950	DT1301, A
WBS: CS00395.GRP1.09.03 LCE AUTHORIZATION		21.0	19-Jan-2021	17-Feb-2021		
A2750	Review and approve Outage Sequence Document (Sign-off)	1.0	19-Jan-2021	19-Jan-2021	A2930	A3270
A1730	LCE Review DCR / Applications (Pred=DSCR #,Dwgs and Const Plan, has T18.01 successor	1.0	17-Feb-2021	17-Feb-2021	A2930, A33	AT0409
WBS: CS00395.GRP1.09.04 TEST ACTIVITIES		227.0	18-Jan-2021	10-Dec-2021		
A3260	Mobilize Commissioning Engineer and Testing Vendor Prior to Construction	2.0	18-Jan-2021	19-Jan-2021	A2930	A3280, A32
A3270	LCE Oversight of Testing Contractor (LOE, from start of mobilization up to execution of the test plan)	85.0	20-Jan-2021	19-May-2021	A3300, A27	CFM
A3280	Support Project/Testing & Execute test plan Group 1A	72.0	20-Jan-2021	30-Apr-2021	A3260	CFM

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
A3620	Support Project/Testing & Execute test plan Group 1B	69.0	01-Sep-2021	10-Dec-2021	MT00	CFM100
WBS: CS00395.GRP1.1 GROUP 1 CLOSE OUT		101.0	14-Dec-2021	09-May-2022		
WBS: CS00395.GRP1.1.08 Electrical As-Builts Reactors & Switches		101.0	14-Dec-2021	09-May-2022		
DSSE-1380	Eversource Engineering Verifies Electrical Mark Up As-Built Drawing Package Reactors & Switches	65.0	14-Dec-2021	18-Mar-2022	CFM, CFM1	DSSE-1410
DSSE-1410	Eversource Engineering Updates Electrical As-Built Drawing Package Reactors & Switches	5.0	21-Mar-2022	25-Mar-2022	DSSE-1380	DSSE-1390
DSSE-1390	ES Create Transmittal, Approve Final As-Built Package, and EDC Files and Issue Drawings to Field React	10.0	28-Mar-2022	08-Apr-2022	DSSE-1410	DSSE-137(
DSSE-1370	Complete TD-176 ELECTRICAL Design Prep & Issue As-Built Dwgs Reactors & Switches	20.0	11-Apr-2022	06-May-2022	DSSE-1390	DSSE-1400
DSSE-1400	PM to Document Electrical As-Built Drawings Complete Reactors & Switches	1.0	09-May-2022	09-May-2022	DSSE-1390	FINISH
WBS: CS00395.GRP1.1.01 Civil As-Builts		48.0	21-Dec-2021	02-Mar-2022		
DSSE-860	Eversource Engineering Verifies Civil Mark Up As-Built Drawing Package	10.0	21-Dec-2021	05-Jan-2022	DSSE-1100	DSSE-970
DSSE-970	Eversource Engineering Updates Civil As-Built Drawing Package	10.0	06-Jan-2022	20-Jan-2022	DSSE-860	DSSE-870
DSSE-870	ES Create Transmittal, Approve Final As-Built Package, and EDC Files and Issue Drawings to Field	8.0	21-Jan-2022	01-Feb-2022	DSSE-970	DSSE-112(
DSSE-1120	Complete TD-176 CIVIL Design Prep & Issue As-Built Dwgs	20.0	02-Feb-2022	02-Mar-2022	DSSE-870	FINISH
DSSE-880	PM to Document Civil As-Built Drawings Complete	1.0	02-Feb-2022	02-Feb-2022	DSSE-870	FINISH
WBS: CS00395.GRP1.1.02 Electrical As-Builts-BREAKERS		41.0	23-Dec-2021	23-Feb-2022		
DSSE-820	Eversource Engineering Verifies Electrical Mark Up As-Built Drawing Package BREAKERS	10.0	23-Dec-2021	07-Jan-2022	DSSE-910, I	DSSE-940
DSSE-940	Eversource Engineering Updates Electrical As-Built Drawing Package BREAKERS	3.0	10-Jan-2022	12-Jan-2022	DSSE-820	DSSE-830
DSSE-830	ES Create Transmittal, Approve Final As-Built Package, and EDC Files and Issue Drawings to Field BREA	8.0	13-Jan-2022	25-Jan-2022	DSSE-940, I	DSSE-840,
DSSE-1110	Complete TD-176 ELECTRICAL Design Prep & Issue As-Built Dwgs BREAKERS	20.0	26-Jan-2022	23-Feb-2022	DSSE-830	FINISH
DSSE-840	PM to Document Electrical As-Built Drawings Complete BREAKERS	1.0	26-Jan-2022	26-Jan-2022	DSSE-830	FINISH
WBS: CS00395.GRP1.1.03 P&C As-Builts		5.0	23-Dec-2021	30-Dec-2021		
DSSE-950	P&C Submits SDS As-Builts-BREAKERS	5.0	23-Dec-2021	30-Dec-2021	DSSE-910, I	DSSE-830
WBS: CS00395.GRP1.1.04 Test Closout		5.0	14-Dec-2021	20-Dec-2021		
A3290	LCE Review Test Data and Issue Commissioning Report (tie to As-Built submit Print activity)	5.0	14-Dec-2021	20-Dec-2021	CFM, CFM1	DSSE-910
WBS: CS00395.GRP1.1.05 SITE RESTORATION CLOSEOUT		10.0	14-Dec-2021	28-Dec-2021		
A1110	Restore / Remediate Site	10.0	14-Dec-2021	28-Dec-2021	CFM, CFM1	FINISH
WBS: CS00395.GRP1.1.06 MATERIAL, EQUIPMENT, COST, AND ASSET MANAGEMENT CLOSEOUT		30.0	14-Dec-2021	27-Jan-2022		
A1030	Asset Management Complete Asset Update(s) in CASCADE	30.0	14-Dec-2021	27-Jan-2022	CFM, A1260	FINISH
A1020	Cost Analyst Prepares FINAL Units of Property	30.0	14-Dec-2021	27-Jan-2022	CFM, CFM1	FINISH
WBS: CS00395.GRP1.1.07 PROJECT MANAGEMENT CLOSEOUT		101.0	14-Dec-2021	09-May-2022		
A1040	PM Prepares Closeout Documentation, Lessons Learned Meeting, etc.	30.0	14-Dec-2021	27-Jan-2022	CFM, CFM1	FINISH
DSSE-1100	Complete TD-707 Turnover Document / Forward to SOC & Mailing List	5.0	14-Dec-2021	20-Dec-2021	CFM, CFM1	DSSE-820,
FINISH	Project / Work Order Complete (FINAL SCHEDULE TASK/MILESTONE)	0.0		09-May-2022	A1110, DSS	FINISH-P2
WBS: CS00395.GRP1.02 CONSTRUCTION SERVICES - BID PROCESS		0.0	07-Dec-2020 A	07-Dec-2020 A		
A3430	N/R CONST.SERVICES - BID - Eversource provide Spec / RFP	0.0	07-Dec-2020 A	07-Dec-2020 A	A3550, FF1(	A3440
A3450	N/R CONST.SERVICES - BID - Eversource reviews contractor proposals	0.0	07-Dec-2020 A	07-Dec-2020 A	A3440	A3460
A3460	N/R CONST.SERVICES - BID - Contract is Awarded - PO Issued	0.0	07-Dec-2020 A	07-Dec-2020 A	FF1000, A3	A1170, AT0
A3440	N/R CONST.SERVICES - BID - Contractors Evaluate RFP and Provide Proposal	0.0	07-Dec-2020 A	07-Dec-2020 A	A3430	A3450
WBS: CS00395.GRP1.10 PROJECT MANAGEMENT		88.0	12-Feb-2021	17-Jun-2021		
A1170	Prepare CAN (Construction Authorization Notice) Group 1A	5.0	12-Feb-2021	19-Feb-2021	A3460, A34	AT0203
A3740	Prepare CAN (Construction Authorization Notice) Group 1B	5.0	11-Jun-2021	17-Jun-2021	DSSE-1130	CFM100

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
WBS: CS00395.GRP2 Group 2		526.0	07-Dec-2020 A	22-Feb-2023		
WBS: CS00395.GRP2.4 T-Minus Milestones		591.0	18-Jan-2021	01-Sep-2022		
WBS: CS00395.GRP2.4.01 Civil T-Minus Milestones Group 2A		320.0	17-Feb-2021	04-Jan-2022		
ET0409	E-T-04.09 ALL FIRM TOA APPLICATIONS DUE TO LCC	0.0		17-Feb-2021	A3790	ET00
ET0401	E-T-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		26-Aug-2021	DSSE-1580	ET00
ET0203	E-T-02.03 CAN COMPLETE (CONSTRUCTION AUTHORIZATION NOTICE)	0.0		19-Nov-2021	A3720	ET00
ET00	E-T-00 - START OF CONSTRUCTION - WO#CS00395	0.0	04-Jan-2022*		ET0203, ET	CSM20
WBS: CS00395.GRP2.4.1 Civil T-Minus Milestones Group 2B		121.0	02-May-2022	01-Sep-2022		
RT0203	R-T-02.03 CAN COMPLETE (CONSTRUCTION AUTHORIZATION NOTICE)	0.0		02-May-2022	A3800	RT00
RT0401	R-T-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		29-Aug-2022	DSSE-1650	RT00
RT00	R-T-00 - START OF CONSTRUCTION - WO#CS00395	0.0	01-Sep-2022*		RT0203, RT	CSM30
WBS: CS00395.GRP2.4.02 Electrical T-Milestones Group 2A		351.0	18-Jan-2021	04-Jan-2022		
FT1201	FT-12.01 SCADA Date (Tab) Sheets/Signal List Sent to LCC	0.0		18-Jan-2021	DSSE-990	FT00
FT0401	FT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		04-Nov-2021	DSSE-1620	FT00
FT00	FT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	04-Jan-2022*		FT0401, FT	CSM20, A3
WBS: CS00395.GRP2.4.2 Electrical T-Milestones Group 2B		591.0	18-Jan-2021	01-Sep-2022		
PT1201	PT-12.01 SCADA Date (Tab) Sheets/Signal List Sent to LCC	0.0		18-Jan-2021	DSSE-990	PT00
PT0401	PT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		29-Aug-2022	DSSE-1640	PT00
PT00	PT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	01-Sep-2022*		PT1201, PT	CSM30, A3
WBS: CS00395.GRP2.4.06 P&C T-Minus Milestones Group 2A		124.0	01-Sep-2021	04-Jan-2022		
GT0401	GT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		01-Sep-2021	A3580, DSS	GT00
GT00	GT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	04-Jan-2022*		GT0401	CSM20
WBS: CS00395.GRP2.4.3 P&C T-Minus Milestones Group 2B		30.0	01-Aug-2022	01-Sep-2022		
ST0401	ST-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		01-Aug-2022	A3580, DSS	ST00
ST00	ST-00 - START OF CONSTRUCTION - WO#CS00395	0.0	01-Sep-2022*		ST0401	CSM30
WBS: CS00395.GRP2.1 MATERIAL PROCUREMENT		305.0	14-Jun-2021	29-Aug-2022		
WBS: CS00395.GRP2.1.1 MATERIAL FOR P&C Group 2		285.0	14-Jun-2021	01-Aug-2022		
DSSE-1470	MATERIAL - P&C - Prepare & Issue DR	5.0	14-Jun-2021*	18-Jun-2021	DSSE-230	DSSE-148
DSSE-1670	MATERIAL - P&C Material Ordered	0.0		18-Jun-2021	DSSE-1470	DSSE-1480
DSSE-1480	MATERIAL - P&C - Procurement Issue PO	10.0	21-Jun-2021	02-Jul-2021	DSSE-1470	DSSE-1490
DSSE-1490	MATERIAL - P&C - Material Vendor Delivery Leadtime	60.0	03-Jul-2021	31-Aug-2021	DSSE-1480	DSSE-1500
DSSE-1500	MATERIAL - P&C - Engineering Confirm Material Delivery to Site Group 2A	1.0	01-Sep-2021	01-Sep-2021	DSSE-1490	GT0401, D
DSSE-1630	MATERIAL - P&C - Engineering Confirm Material Delivery to Site Group 2B	0.0		01-Aug-2022*	DSSE-1500	ST0401
WBS: CS00395.GRP2.1.2 MATERIAL FOR ELECTRICAL Group 2		290.0	06-Jul-2021	29-Aug-2022		
DSSE-1510	MATERIAL - Electrical - Prepare & Issue DR	5.0	06-Jul-2021*	12-Jul-2021	DSSE-230	DSSE-152
DSSE-530	Electrical (AG) Material Ordered	0.0		12-Jul-2021	DSSE-1510	DSSE-1520
DSSE-1520	MATERIAL - ELectrical - Procurement Issue PO	10.0	13-Jul-2021	26-Jul-2021	DSSE-1510	DSSE-1530
DSSE-1530	MATERIAL - ELectrical - Material Vendor Delivery Leadtime	30.0	27-Jul-2021	25-Aug-2021	DSSE-1520	DSSE-1540
DSSE-1540	MATERIAL - Electrical - Engineering Confirm Material Delivery to Site Group 2A	1.0	26-Aug-2021	26-Aug-2021	DSSE-1530	DSSE-1640
DSSE-1640	MATERIAL - Electrical - Engineering Confirm Material Delivery to Site Group 2B	0.0		29-Aug-2022*	DSSE-1540	PT0401
WBS: CS00395.GRP2.1.3 MATERIAL FOR CIVIL Group 2		290.0	06-Jul-2021	29-Aug-2022		

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
DSSE-1550	MATERIAL - CIVIL - Prepare & Issue DR	5.0	06-Jul-2021*	12-Jul-2021	DSSE-1210	DSSE-156(
DSSE-540	Civil (BG) Material Ordered	0.0		12-Jul-2021	DSSE-1550	DSSE-1560
DSSE-1560	MATERIAL - CIVIL - Procurement Issue PO	10.0	13-Jul-2021	26-Jul-2021	DSSE-1550	DSSE-1570
DSSE-1570	MATERIAL - CIVIL - Material Vendor Delivery Leadtime	30.0	27-Jul-2021	25-Aug-2021	DSSE-1560	DSSE-1580
DSSE-1580	MATERIAL - CIVIL - Engineering Confirm Material Delivery to Site Group 2A	1.0	26-Aug-2021	26-Aug-2021	DSSE-1570	DSSE-165(
DSSE-1650	MATERIAL - CIVIL - Engineering Confirm Material Delivery to Site Group 2B	0.0		29-Aug-2022*	DSSE-1580	RT0401
WBS: CS00395.GRP2.1.4	MATERIAL FOR BREAKERS Group 2	290.0	06-Jul-2021	29-Aug-2022		
DSSE-1590	MATERIAL - BREAKER - Prepare & Issue DR (breakers)	5.0	06-Jul-2021*	12-Jul-2021	DSSE-1210	DSSE-118(
DSSE-1180	Breaker (AG) Material Ordered	0.0		12-Jul-2021	DSSE-1590	DSSE-1600
DSSE-1600	MATERIAL - BREAKER - Procurement Issue PO	10.0	13-Jul-2021	26-Jul-2021	DSSE-1590	DSSE-1610
DSSE-1610	MATERIAL - BREAKER - Material Vendor Delivery Leadtime	100.0	27-Jul-2021	03-Nov-2021	DSSE-1600	DSSE-1620
DSSE-1620	MATERIAL - BREAKER - Engineering Confirm Material Delivery to Site Group 2A	1.0	04-Nov-2021	04-Nov-2021	DSSE-1610	DSSE-166(
DSSE-1660	MATERIAL - BREAKER - Engineering Confirm Material Delivery to Site Group 2B	0.0		29-Aug-2022*	DSSE-1620	PT0401
WBS: CS00395.GRP2.5	CONSTRUCTION	247.0	07-Dec-2020 A	27-Dec-2022		
WBS: CS00395.GRP2.5.1	CONSTRUCTION - CONST.REP TASKS Group 2A	10.0	19-Apr-2022	02-May-2022		
A3650	Construction Rep Finalize CASCADE Forms (within 14 days following ISD)	10.0	19-Apr-2022	02-May-2022	CFM-P2G2A	A3710
WBS: CS00395.GRP2.5.7	CONSTRUCTION - CONST.REP TASKS Group 2B	10.0	13-Dec-2022	27-Dec-2022		
A3750	Construction Rep Finalize CASCADE Forms (within 14 days following ISD)	10.0	13-Dec-2022	27-Dec-2022	CFM-P2G2B	A3710
WBS: CS00395.GRP2.5.2	CONSTRUCTION RESOURCE TRACKING Group 2A	73.0	04-Jan-2022	18-Apr-2022		
ConRep-S20	RESOURCE ONLY ACTIVITY - CONSTRUCTION - CONSTRUCTION REP	73.0	04-Jan-2022	18-Apr-2022	CSM20	CFM-P2G2
A3670	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH IN	1.0	04-Jan-2022	04-Jan-2022	CSM20	CFM-P2G2
CONSTelec20	RESOURCE ONLY ACTIVITY - CONSTRUCTION - ELECTRICIAN	73.0	04-Jan-2022	18-Apr-2022	CSM20	CFM-P2G2
A3660	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH OUT	1.0	18-Apr-2022	18-Apr-2022	TOA-Const(	CFM-P2G2
WBS: CS00395.GRP2.5.8	CONSTRUCTION RESOURCE TRACKING Group 2B	69.0	01-Sep-2022	12-Dec-2022		
ConRep-S30	RESOURCE ONLY ACTIVITY - CONSTRUCTION - CONSTRUCTION REP	69.0	01-Sep-2022	12-Dec-2022	CSM30	CFM-P2G2
A3760	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH IN	1.0	01-Sep-2022	01-Sep-2022	CSM30	CFM-P2G2
CONSTelec30	RESOURCE ONLY ACTIVITY - CONSTRUCTION - ELECTRICIAN	69.0	01-Sep-2022	12-Dec-2022	CSM30	CFM-P2G2
A3770	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH OUT	1.0	12-Dec-2022	12-Dec-2022	TOA-Const(	CFM-P2G2
WBS: CS00395.GRP2.5.3	CONSTRUCTION - CIVIL	0.0	07-Dec-2020 A	07-Dec-2020 A		
A3630	N/R Construction - Civil (NO CIVIL IF 1:1 REPLACE AND SAME FOUNDATION; CONDUIT done by El	0.0	07-Dec-2020 A	07-Dec-2020 A		
WBS: CS00395.GRP2.5.5	CONSTRUCTION - ELECTRICAL Group 2A	102.0	04-Jan-2022	15-Apr-2022		
A3640	Construction - Electrical	102.0	04-Jan-2022	15-Apr-2022	FT00	CFM-P2G2
WBS: CS00395.GRP2.5.9	CONSTRUCTION - ELECTRICAL Group 2B	101.0	01-Sep-2022	10-Dec-2022		
A3780	Construction - Electrical	101.0	01-Sep-2022	10-Dec-2022	PT00	CFM-P2G2
WBS: CS00395.GRP2.5.4	CONSTRUCTION OUTAGES Group 2A	73.0	04-Jan-2022	18-Apr-2022		
CSM20	Construction Start Milestone	0.0	04-Jan-2022		ET00, FT00	TOA-Const
TOA-ConstG2A	OUTAGE / General Construction Work	87.0	05-Jan-2022	15-Apr-2022	CSM20	CFM-P2G2
CFM10	Replace 1A-11T-2, 1A-11T-4 and 1A-11T-8	15.0	05-Jan-2022	26-Jan-2022	CSM20, TO	CFM140
CFM140	Prep week 1A-12T-2, 1A-12T-4 and 1A-12T-8	5.0	27-Jan-2022	02-Feb-2022	CFM10	CFM150
CFM150	Replace 1A-12T-2, 1A-12T-4 and 1A-12T-8	15.0	03-Feb-2022	24-Feb-2022	CFM140	CFM50
CFM50	Prep week 1A-13T-2, 1A-13T-4 and 1A-13T-8	5.0	25-Feb-2022	03-Mar-2022	CFM150	CFM70

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
CFM70	Replace 1A-13T-2, 1A-13T-4 and 1A-13T-8	15.0	04-Mar-2022	24-Mar-2022	CFM50	CFM-P2G2
CFM-P2G2A	Construction Finish Milestone	0.0		18-Apr-2022	TOA-Const(	ISD2022, A
WBS: CS00395.GRP2.5.10 CONSTRUCTION OUTAGES Group 2B		69.0	01-Sep-2022	12-Dec-2022		
CFM160	Prep week 1A-14T-2, 1A-14T-4 and 1A-14T-8	5.0	01-Sep-2022	08-Sep-2022	CSM30	CFM170
TOA-ConstG2B	OUTAGE / General Construction Work	87.0	01-Sep-2022	10-Dec-2022	CSM30	CFM-P2G2
CSM30	Construction Start Milestone	0.0	01-Sep-2022		RT00, PT00	TOA-Const
CFM170	Replace 1A-14T-2, 1A-14T-4 and 1A-14T-8	15.0	09-Sep-2022	29-Sep-2022	CFM160	CFM180
CFM180	Prep week 1A-15T-2, 1A-15T-4 and 1A-15T-8	5.0	30-Sep-2022	06-Oct-2022	CFM170	CFM190
CFM190	Replace 1A-15T-2, 1A-15T-4 and 1A-15T-8	15.0	07-Oct-2022	28-Oct-2022	CFM180	CFM200
CFM200	Prep week 1A-16T-2, 1A-16T-4 and 1A-16T-8	5.0	31-Oct-2022	04-Nov-2022	CFM190	CFM210
CFM210	Replace 1A-16T-2, 1A-16T-4 and 1A-16T-8	15.0	07-Nov-2022	29-Nov-2022	CFM200	CFM-P2G2
ISD2022	EQUIPMENT IN SERVICE DATE (requires FOOB constraint)	0.0		12-Dec-2022*	CFM-P2G2/	DSSE-189
CFM-P2G2B	Construction Finish Milestone	0.0		12-Dec-2022	CFM210, TC	ISD2022, A
WBS: CS00395.GRP2.5.6 CONSTRUCTION CLOSEOUT Group 2A		171.0	19-Apr-2022	21-Dec-2022		
DSSE-1880	Prepare Civil Field Mark Ups (Tie after Last Civil Construction Activity)	2.0	19-Apr-2022	20-Apr-2022	CFM-P2G2A	DSSE-1740
DSSE-1680	Test Group Prepare Electrical Field Mark UpsLCE Ensures Prints Ready for Pick-up (Tie after ISD)	2.0	20-Dec-2022	21-Dec-2022	CFM-P2G2/	DSSE-169
WBS: CS00395.GRP2.5.11 CONSTRUCTION CLOSEOUT Group 2B		7.0	13-Dec-2022	21-Dec-2022		
DSSE-1890	Prepare Civil Field Mark Ups (Tie after Last Civil Construction Activity)	2.0	13-Dec-2022	14-Dec-2022	CFM-P2G2I	DSSE-1740
DSSE-1870	Test Group Prepare Electrical Field Mark UpsLCE Ensures Prints Ready for Pick-up (Tie after ISD)	2.0	20-Dec-2022	21-Dec-2022	CFM-P2G2I	DSSE-169
WBS: CS00395.GRP2.2 TEST AND COMMISSION		1.0	17-Feb-2021	17-Feb-2021		
WBS: CS00395.GRP2.2.1 LCE AUTHORIZATION Group 2		1.0	17-Feb-2021	17-Feb-2021		
A3790	LCE Review DCR / Applications (Pred=DCR#,Dwgs and Const Plan, has T18.01 successor	1.0	17-Feb-2021	17-Feb-2021	A2930, A33	ET0409, A
WBS: CS00395.GRP2.7 GROUP 2 CLOSE OUT		48.0	13-Dec-2022	22-Feb-2023		
WBS: CS00395.GRP2.7.1 Civil As-Builts		41.0	22-Dec-2022	22-Feb-2023		
DSSE-1690	Eversource Engineering Verifies Civil Mark Up As-Built Drawing Package	10.0	22-Dec-2022	06-Jan-2023	DSSE-1680	DSSE-1700
DSSE-1700	Eversource Engineering Updates Civil As-Built Drawing Package	3.0	09-Jan-2023	11-Jan-2023	DSSE-1690	DSSE-1710
DSSE-1710	ES Create Transmittal, Approve Final As-Built Package, and EDC Files and Issue Drawings to Field	8.0	12-Jan-2023	24-Jan-2023	DSSE-1700	DSSE-173
DSSE-1720	Complete TD-176 CIVIL Design Prep & Issue As-Built Dwgs	20.0	25-Jan-2023	22-Feb-2023	DSSE-1710	FINISH-P2
DSSE-1730	PM to Document Civil As-Built Drawings Complete	1.0	25-Jan-2023	25-Jan-2023	DSSE-1710	FINISH-P2
WBS: CS00395.GRP2.7.3 Electrical As-Builts		41.0	20-Dec-2022	17-Feb-2023		
DSSE-1740	Eversource Engineering Verifies Electrical Mark Up As-Built Drawing Package	10.0	20-Dec-2022	04-Jan-2023	DSSE-1880	DSSE-1750
DSSE-1750	Eversource Engineering Updates Electrical As-Built Drawing Package	3.0	05-Jan-2023	09-Jan-2023	DSSE-1740	DSSE-1760
DSSE-1760	ES Create Transmittal, Approve Final As-Built Package, and EDC Files and Issue Drawings to Field	8.0	10-Jan-2023	20-Jan-2023	DSSE-1750	DSSE-177
DSSE-1770	Complete TD-176 ELECTRICAL Design Prep & Issue As-Built Dwgs	20.0	23-Jan-2023	17-Feb-2023	DSSE-1760	FINISH-P2
DSSE-1780	PM to Document Electrical As-Built Drawings Complete	1.0	23-Jan-2023	23-Jan-2023	DSSE-1760	FINISH-P2
WBS: CS00395.GRP2.7.2 P&C As-Builts		5.0	22-Dec-2022	29-Dec-2022		
DSSE-1790	P&C Submits SDS As-Builts	5.0	22-Dec-2022	29-Dec-2022	DSSE-1680	DSSE-1760
WBS: CS00395.GRP2.7.4 Test Closout		5.0	13-Dec-2022	19-Dec-2022		
A3680	LCE Review Test Data and Issue Commissioning Report (tie to As-Built submit Print activity)	5.0	13-Dec-2022	19-Dec-2022	CFM-P2G2B	DSSE-168
WBS: CS00395.GRP2.7.5 SITE RESTORATION CLOSEOUT		10.0	13-Dec-2022	27-Dec-2022		
A3690	Restore / Remediate Site	10.0	13-Dec-2022	27-Dec-2022	CFM-P2G2B	FINISH-P2

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
WBS: CS00395.GRP2.7.6	MATERIAL, EQUIPMENT, COST, AND ASSET MANAGEMENT CLOSEOUT	40.0	13-Dec-2022	09-Feb-2023		
A3700	Cost Analyst Prepares FINAL Units of Property	30.0	13-Dec-2022	26-Jan-2023	CFM-P2G2B	FINISH-P2
A3710	Asset Management Complete Asset Update(s) in CASCADE	30.0	28-Dec-2022	09-Feb-2023	A3750, A36	FINISH-P2
WBS: CS00395.GRP2.8	OVERHEAD / INDIRECTS	323.0	05-Nov-2021	22-Feb-2023		
A3720	Prepare CAN (Construction Authorization Notice) Group 2A	10.0	05-Nov-2021	19-Nov-2021	DSSE-1620	CSM20, E1
A3800	Prepare CAN (Construction Authorization Notice) Group 2B	10.0	19-Apr-2022	02-May-2022	A3660	CSM30, R1
WBS: CS00395.GRP2.8.2	PROJECT MANAGEMENT	48.0	13-Dec-2022	22-Feb-2023		
A3730	PM Prepares Closeout Documentation, Lessons Learned Meeting, etc.	30.0	13-Dec-2022	26-Jan-2023	CFM-P2G2B	FINISH-P2
DSSE-1800	Complete TD-707 Turnover Document / Forward to SOC & Mailing List	5.0	13-Dec-2022	19-Dec-2022	CFM-P2G2B	DSSE-174
FINISH-P2G2	Project / Work Order Complete (FINAL SCHEDULE TASK/MILESTONE)	0.0		22-Feb-2023	A3730, A36	
WBS: CS00395.GRP3	Group 3	1240.0	07-Dec-2020 A	24-Dec-2025		
WBS: CS00395.GRP3.4	T-Minus Milestones	960.0	18-Jan-2021	05-Sep-2023		
WBS: CS00395.GRP3.4.01	Civil T-Minus Milestones Group 3A	689.0	18-Feb-2021	09-Jan-2023		
HT0409	H-T-04.09 ALL FIRM DCR APPLICATIONS DUE TO LCC	0.0		18-Feb-2021	A4130	HT00
HT0401	H-T-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		29-Aug-2022	DSSE-2390	HT00
HT0203	H-T-02.03 CAN COMPLETE (CONSTRUCTION AUTHORIZATION NOTICE)	0.0		12-Dec-2022	ISD2022	HT00
HT00	H-T-00 - START OF CONSTRUCTION - WO#CS00395	0.0	09-Jan-2023*		HT0203, HT	CSM60, C
WBS: CS00395.GRP3.4.1	Civil T-Minus Milestones Group 3B	16.0	18-Aug-2023	04-Sep-2023		
IT0203	I-T-02.03 CAN COMPLETE (CONSTRUCTION AUTHORIZATION NOTICE)	0.0		18-Aug-2023	A4140	IT00
IT0401	I-T-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		01-Sep-2023	DSSE-2510	IT00
IT00	I-T-00 - START OF CONSTRUCTION - WO#CS00395	0.0	04-Sep-2023*		IT0203, IT04	CSM70, C
WBS: CS00395.GRP3.4.02	Electrical T-Milestones Group 3A	62.0	07-Nov-2022	09-Jan-2023		
JT0401	JT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		07-Nov-2022	DSSE-2440	JT00
JT00	JT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	09-Jan-2023*		JT0401	CSM60, A3
WBS: CS00395.GRP3.4.2	Electrical T-Milestones Group 3B	2.0	01-Sep-2023	04-Sep-2023		
KT0401	KT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		01-Sep-2023	DSSE-2500	KT00
KT00	KT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	04-Sep-2023*		KT0401	CSM70, A4
WBS: CS00395.GRP3.4.06	P&C T-Minus Milestones Group 3A	721.0	18-Jan-2021	09-Jan-2023		
LT121	LT-12.01 SCADA Date (Tab) Sheets/Signal List Sent to LCC	0.0		18-Jan-2021	DSSE-990	LT00
LT0401	LT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		28-Sep-2022	DSSE-2300	LT00
LT00	LT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	09-Jan-2023*		LT0401, LT1	CSM60
WBS: CS00395.GRP3.4.3	P&C T-Minus Milestones Group 3B	960.0	18-Jan-2021	05-Sep-2023		
O1201	OT-12.01 SCADA Date (Tab) Sheets/Signal List Sent to LCC	0.0		18-Jan-2021	DSSE-990	OT00
OT0401	OT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		07-Aug-2023	DSSE-2490	OT00
OT00	OT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	05-Sep-2023*		OT0401, O1	CSM70
WBS: CS00395.GRP3.1	MATERIAL PROCUREMENT	290.0	11-Jul-2022	01-Sep-2023		
WBS: CS00395.GRP3.1.1	MATERIAL FOR P&C Group 3	270.0	11-Jul-2022	07-Aug-2023		
DSSE-2320	MATERIAL - P&C - Prepare & Issue DR	5.0	11-Jul-2022*	15-Jul-2022	A3580, FF1	DSSE-233
DSSE-2530	MATERIAL - P&C Material Ordered	0.0		15-Jul-2022	DSSE-2320	DSSE-2330
DSSE-2330	MATERIAL - P&C - Procurement Issue PO	10.0	18-Jul-2022	29-Jul-2022	DSSE-2320	DSSE-2310
DSSE-2310	MATERIAL - P&C - Material Vendor Delivery Leadtime	60.0	30-Jul-2022	27-Sep-2022	DSSE-2330	DSSE-2300

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
DSSE-2300	MATERIAL - P&C - Engineering Confirm Material Delivery to Site Group 3A	1.0	28-Sep-2022	28-Sep-2022	DSSE-2310	LT0401, DS
DSSE-2490	MATERIAL - P&C - Engineering Confirm Material Delivery to Site Group 3B	0.0		07-Aug-2023*	DSSE-2300	OT0401, A
WBS: CS00395.GRP3.1.2	MATERIAL FOR ELECTRICAL Group 3	290.0	11-Jul-2022	01-Sep-2023		
DSSE-2350	MATERIAL - Electrical - Prepare & Issue DR	5.0	11-Jul-2022*	15-Jul-2022	DSSE-230	DSSE-236
DSSE-2380	Electrical (AG) Material Ordered	0.0		15-Jul-2022	DSSE-2350	DSSE-2360
DSSE-2360	MATERIAL - ELectrical - Procurement Issue PO	10.0	18-Jul-2022	29-Jul-2022	DSSE-2350	DSSE-2370
DSSE-2370	MATERIAL - ELectrical - Material Vendor Delivery Leadtime	30.0	30-Jul-2022	28-Aug-2022	DSSE-2360	DSSE-2340
DSSE-2340	MATERIAL - Electrical - Engineering Confirm Material Delivery to Site Group 3A	1.0	29-Aug-2022	29-Aug-2022	DSSE-2370	DSSE-2500
DSSE-2500	MATERIAL - Electrical - Engineering Confirm Material Delivery to Site Group 3B	0.0		01-Sep-2023*	DSSE-2340	KT0401
WBS: CS00395.GRP3.1.3	MATERIAL FOR CIVIL Group 3	290.0	11-Jul-2022	01-Sep-2023		
DSSE-2400	MATERIAL - CIVIL - Prepare & Issue DR	5.0	11-Jul-2022*	15-Jul-2022	DSSE-1210	DSSE-242
DSSE-2430	Civil (BG) Material Ordered	0.0		15-Jul-2022	DSSE-2400	DSSE-2420
DSSE-2420	MATERIAL - CIVIL - Procurement Issue PO	10.0	18-Jul-2022	29-Jul-2022	DSSE-2400	DSSE-2410
DSSE-2410	MATERIAL - CIVIL - Material Vendor Delivery Leadtime	30.0	30-Jul-2022	28-Aug-2022	DSSE-2420	DSSE-2390
DSSE-2390	MATERIAL - CIVIL - Engineering Confirm Material Delivery to Site Group 3A	1.0	29-Aug-2022	29-Aug-2022	DSSE-2410	DSSE-251
DSSE-2510	MATERIAL - CIVIL - Engineering Confirm Material Delivery to Site Group 3B	0.0		01-Sep-2023*	DSSE-2390	IT0401
WBS: CS00395.GRP3.1.4	MATERIAL FOR BREAKERS Group 3	290.0	11-Jul-2022	01-Sep-2023		
DSSE-2450	MATERIAL - BREAKER - Prepare & Issue DR (breakers)	5.0	11-Jul-2022*	15-Jul-2022	DSSE-230	DSSE-248
DSSE-2480	Breaker (AG) Material Ordered	0.0		15-Jul-2022	DSSE-2450	DSSE-2460
DSSE-2460	MATERIAL - BREAKER - Procurement Issue PO	10.0	18-Jul-2022	29-Jul-2022	DSSE-2450	DSSE-2470
DSSE-2470	MATERIAL - BREAKER - Material Vendor Delivery Leadtime	100.0	30-Jul-2022	06-Nov-2022	DSSE-2460	DSSE-2440
DSSE-2440	MATERIAL - BREAKER - Engineering Confirm Material Delivery to Site Group 3A	1.0	07-Nov-2022	07-Nov-2022	DSSE-2470	DSSE-252
DSSE-2520	MATERIAL - BREAKER - Engineering Confirm Material Delivery to Site Group 3B	0.0		01-Sep-2023*	DSSE-2440	KT0401
WBS: CS00395.GRP3.5	CONSTRUCTION	745.0	07-Dec-2020 A	24-Dec-2025		
WBS: CS00395.GRP3.5.7	CONSTRUCTION - CONST.REP TASKS Group 3	10.0	15-Dec-2023	29-Dec-2023		
A4090	Construction Rep Finalize CASCADE Forms (within 14 days following ISD)	10.0	15-Dec-2023	29-Dec-2023	CFM-P2G3B	A4050
WBS: CS00395.GRP3.5.2	CONSTRUCTION RESOURCE TRACKING Group 3A	73.0	09-Jan-2023	21-Apr-2023		
ConRep-S60	RESOURCE ONLY ACTIVITY - CONSTRUCTION - CONSTRUCTION REP	72.0	09-Jan-2023	20-Apr-2023	HT00	CFM-P2G3
A4010	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH IN	1.0	09-Jan-2023	09-Jan-2023	HT00, ConR	CFM-P2G3
CONSTelec60	RESOURCE ONLY ACTIVITY - CONSTRUCTION - ELECTRICIAN	72.0	09-Jan-2023	20-Apr-2023	JT00	CFM-P2G3
A4020	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH OUT	1.0	21-Apr-2023	21-Apr-2023	JT00, CFM-I	
WBS: CS00395.GRP3.5.8	CONSTRUCTION RESOURCE TRACKING Group 3B	579.0	05-Sep-2023	24-Dec-2025		
ConRep-S70	RESOURCE ONLY ACTIVITY - CONSTRUCTION - CONSTRUCTION REP	579.0	05-Sep-2023	24-Dec-2025	IT00	A4010
A4100	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH IN	1.0	05-Sep-2023	05-Sep-2023	IT00	CONSTele
CONSTelec70	RESOURCE ONLY ACTIVITY - CONSTRUCTION - ELECTRICIAN	70.0	05-Sep-2023	14-Dec-2023	KT00, A4100	A4110
A4110	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH OUT	1.0	15-Dec-2023	15-Dec-2023	KT00, CFM-	ISD2023
WBS: CS00395.GRP3.5.3	CONSTRUCTION - CIVIL	0.0	07-Dec-2020 A	07-Dec-2020 A		
A3980	N/R Construction - Civil (NO CIVIL IF 1:1 REPLACE AND SAME FOUNDATION; CONDUIT done by El	0.0	07-Dec-2020 A	07-Dec-2020 A		
WBS: CS00395.GRP3.5.5	CONSTRUCTION - ELECTRICAL Group 3A	102.0	09-Jan-2023	20-Apr-2023		
A3990	Construction - Electrical	102.0	09-Jan-2023	20-Apr-2023	JT00	CFM-P2G3
WBS: CS00395.GRP3.5.9	CONSTRUCTION - ELECTRICAL Group 3B	101.0	04-Sep-2023	13-Dec-2023		

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
A4120	Construction - Electrical	101.0	04-Sep-2023	13-Dec-2023	KT00	
WBS: CS00395.GRP3.5.4	CONSTRUCTION OUTAGES Group 3A	88.0	09-Jan-2023	20-Apr-2023		
CSM60	Construction Start Milestone	0.0	09-Jan-2023		HT00, JT00,	TOA-Const
TOA-ConstG3	OUTAGE / General Construction Work	87.0	10-Jan-2023	20-Apr-2023	CSM60	CFM-P2G3
CFM-P2G3A	Construction Finish Milestone	0.0		20-Apr-2023	TOA-Const(	DSSE-268(
WBS: CS00395.GRP3.5.10	CONSTRUCTION OUTAGES Group 3B	88.0	05-Sep-2023	15-Dec-2023		
TOA-ConstG3P2	OUTAGE / General Construction Work	87.0	05-Sep-2023	14-Dec-2023	CSM70	CFM-P2G3
CSM70	Construction Start Milestone	0.0	05-Sep-2023		IT00, KT00,	TOA-Const
CFM-P2G3B	Construction Finish Milestone	0.0		14-Dec-2023	TOA-Const(	A4090, DS
ISD2023	EQUIPMENT IN SERVICE DATE (requires FOOB constraint)	0.0		15-Dec-2023	CFM-P2G3(	DSSE-2690
WBS: CS00395.GRP3.5.6	CONSTRUCTION CLOSEOUT Group 3A	171.0	21-Apr-2023	26-Dec-2023		
DSSE-2680	Prepare Civil Field Mark Ups (Tie after Last Civil Construction Activity)	2.0	21-Apr-2023	24-Apr-2023	CFM-P2G3A	DSSE-2610
DSSE-2540	Test Group Prepare Electrical Field Mark UpsLCE Ensures Prints Ready for Pick-up (Tie after ISD)	2.0	22-Dec-2023	26-Dec-2023	CFM-P2G3/	DSSE-256(
WBS: CS00395.GRP3.5.11	CONSTRUCTION CLOSEOUT Group 3B	6.0	18-Dec-2023	26-Dec-2023		
DSSE-2690	Prepare Civil Field Mark Ups (Tie after Last Civil Construction Activity)	2.0	18-Dec-2023	19-Dec-2023	CFM-P2G3(	DSSE-2610
DSSE-2670	Test Group Prepare Electrical Field Mark UpsLCE Ensures Prints Ready for Pick-up (Tie after ISD)	2.0	22-Dec-2023	26-Dec-2023	CFM-P2G3(	DSSE-256(
WBS: CS00395.GRP3.2	TEST AND COMMISSION	1.0	18-Feb-2021	18-Feb-2021		
WBS: CS00395.GRP3.2.1	LCE AUTHORIZATION Group 3	1.0	18-Feb-2021	18-Feb-2021		
A4130	LCE Review DCR / Applications (Pred=DCR#,Dwgs and Const Plan, has T18.01 successor	1.0	18-Feb-2021	18-Feb-2021	A2930, A33(	HT0409
WBS: CS00395.GRP3.7	GROUP 3 CLOSE OUT	48.0	15-Dec-2023	26-Feb-2024		
WBS: CS00395.GRP3.7.1	Civil As-Builts	41.0	27-Dec-2023	26-Feb-2024		
DSSE-2560	Eversource Engineering Verifies Civil Mark Up As-Built Drawing Package	10.0	27-Dec-2023	10-Jan-2024	DSSE-2540	DSSE-2590
DSSE-2590	Eversource Engineering Updates Civil As-Built Drawing Package	3.0	11-Jan-2024	16-Jan-2024	DSSE-2560	DSSE-2570
DSSE-2570	ES Create Transmittal, Approve Final As-Built Package, and EDC Files and Issue Drawings to Field	8.0	17-Jan-2024	26-Jan-2024	DSSE-2590	DSSE-258(
DSSE-2550	Complete TD-176 CIVIL Design Prep & Issue As-Built Dwgs	20.0	29-Jan-2024	26-Feb-2024	DSSE-2570	FINISH-P2
DSSE-2580	PM to Document Civil As-Built Drawings Complete	1.0	29-Jan-2024	29-Jan-2024	DSSE-2570	FINISH-P2
WBS: CS00395.GRP3.7.3	Electrical As-Builts	41.0	22-Dec-2023	22-Feb-2024		
DSSE-2610	Eversource Engineering Verifies Electrical Mark Up As-Built Drawing Package	10.0	22-Dec-2023	08-Jan-2024	DSSE-2680	DSSE-2640
DSSE-2640	Eversource Engineering Updates Electrical As-Built Drawing Package	3.0	09-Jan-2024	11-Jan-2024	DSSE-2610	DSSE-2620
DSSE-2620	ES Create Transmittal, Approve Final As-Built Package, and EDC Files and Issue Drawings to Field	8.0	12-Jan-2024	24-Jan-2024	DSSE-2640	DSSE-260(
DSSE-2600	Complete TD-176 ELECTRICAL Design Prep & Issue As-Built Dwgs	20.0	25-Jan-2024	22-Feb-2024	DSSE-2620	FINISH-P2
DSSE-2630	PM to Document Electrical As-Built Drawings Complete	1.0	25-Jan-2024	25-Jan-2024	DSSE-2620	FINISH-P2
WBS: CS00395.GRP3.7.2	P&C As-Builts	5.0	27-Dec-2023	03-Jan-2024		
DSSE-2650	P&C Submits SDS As-Builts	5.0	27-Dec-2023	03-Jan-2024	DSSE-2540	DSSE-2620
WBS: CS00395.GRP3.7.4	Test Closout	5.0	15-Dec-2023	21-Dec-2023		
A4030	LCE Review Test Data and Issue Commissioning Report (tie to As-Built submit Print activity)	5.0	15-Dec-2023	21-Dec-2023	CFM-P2G3B	DSSE-254(
WBS: CS00395.GRP3.7.5	SITE RESTORATION CLOSEOUT	10.0	15-Dec-2023	29-Dec-2023		
A4040	Restore / Remediate Site	10.0	15-Dec-2023	29-Dec-2023	CFM-P2G3B	FINISH-P2
WBS: CS00395.GRP3.7.6	MATERIAL, EQUIPMENT, COST, AND ASSET MANAGEMENT CLOSEOUT	40.0	15-Dec-2023	13-Feb-2024		
A4060	Cost Analyst Prepares FINAL Units of Property	30.0	15-Dec-2023	30-Jan-2024	CFM-P2G3B	FINISH-P2
A4050	Asset Management Complete Asset Update(s) in CASCADE	30.0	02-Jan-2024	13-Feb-2024	A4090	FINISH-P2

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
WBS: CS00395.GRP3.8 OVERHEAD / INDIRECTS		324.0	08-Nov-2022	26-Feb-2024		
A4070	Prepare CAN (Construction Authorization Notice) Group 3A	10.0	08-Nov-2022	22-Nov-2022	DSSE-2440	CSM60
A4140	Prepare CAN (Construction Authorization Notice) Group 3B	10.0	07-Aug-2023	18-Aug-2023	DSSE-2490	CSM70, IT(
WBS: CS00395.GRP3.8.2 PROJECT MANAGEMENT		48.0	15-Dec-2023	26-Feb-2024		
A4080	PM Prepares Closeout Documentation, Lessons Learned Meeting, etc.	30.0	15-Dec-2023	30-Jan-2024	CFM-P2G3B	FINISH-P2
DSSE-2660	Complete TD-707 Turnover Document / Forward to SOC & Mailing List	5.0	15-Dec-2023	21-Dec-2023	CFM-P2G3B	DSSE-261(
FINISH-P2G3	Project / Work Order Complete (FINAL SCHEDULE TASK/MILESTONE)	0.0		26-Feb-2024	A4080, A40	
WBS: CS00395.GRP4 Group 4		1034.0	07-Dec-2020 A	03-Mar-2025		
WBS: CS00395.GRP4.4 T-Minus Milestones		1330.0	21-Dec-2020 A	09-Sep-2024		
WBS: CS00395.GRP4.4.01 Civil T-Minus Milestones Group 4A		132.0	21-Dec-2020 A	08-Jan-2024		
TT0409	N/R T-T-04.09 ALL FIRM TOA APPLICATIONS DUE TO LCC	0.0		21-Dec-2020 A	A4290	TT00
TT0401	T-T-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		28-Aug-2023	DSSE-2790	TT00
TT0203	T-T-02.03 CAN COMPLETE (CONSTRUCTION AUTHORIZATION NOTICE)	0.0		21-Nov-2023	A4230	TT00
TT00	T-T-00 - START OF CONSTRUCTION - WO#CS00395	0.0	08-Jan-2024*		TT0203, TT(	CSM80
WBS: CS00395.GRP4.4.1 Civil T-Minus Milestones Group 4B		59.0	11-Jul-2024	09-Sep-2024		
UT0203	U-T-02.03 CAN COMPLETE (CONSTRUCTION AUTHORIZATION NOTICE)	0.0		11-Jul-2024	A4300	UT00
UT0401	U-T-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		03-Sep-2024	DSSE-2910	UT00
UT00	U-T-00 - START OF CONSTRUCTION - WO#CS00395	0.0	09-Sep-2024*		UT0203, UT	CSM90
WBS: CS00395.GRP4.4.02 Electrical T-Milestones Group 4A		62.0	06-Nov-2023	08-Jan-2024		
VT0401	VT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		06-Nov-2023	DSSE-2840	VT00
VT00	VT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	08-Jan-2024*		VT0401	CSM80, A4
WBS: CS00395.GRP4.4.2 Electrical T-Milestones Group 4B		6.0	03-Sep-2024	09-Sep-2024		
XT0401	XT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		03-Sep-2024	DSSE-2900	XT00
XT00	XT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	09-Sep-2024*		XT0401	CSM90, A4
WBS: CS00395.GRP4.4.06 P&C T-Minus Milestones Group 4A		1085.0	18-Jan-2021	08-Jan-2024		
ZT1201	ZT-12.01 SCADA Date (Tab) Sheets/Signal List Sent to LCC	0.0		18-Jan-2021	DSSE-990	ZT00
ZT0401	ZT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		27-Sep-2023	DSSE-2700	ZT00
ZT00	ZT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	08-Jan-2024*		ZT0401, ZT	CSM80
WBS: CS00395.GRP4.4.3 P&C T-Minus Milestones Group 4B		1330.0	18-Jan-2021	09-Sep-2024		
YT1210	YT-12.01 SCADA Date (Tab) Sheets/Signal List Sent to LCC	0.0		18-Jan-2021	DSSE-990	YT00
YT0401	YT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		12-Aug-2024	DSSE-2890	YT00
YT00	YT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	09-Sep-2024*		YT0401, YT	CSM90
WBS: CS00395.GRP4.1 MATERIAL PROCUREMENT		290.0	10-Jul-2023	03-Sep-2024		
WBS: CS00395.GRP4.1.1 MATERIAL FOR P&C Group 4		275.0	10-Jul-2023	12-Aug-2024		
DSSE-2720	MATERIAL - P&C - Prepare & Issue DR	5.0	10-Jul-2023*	14-Jul-2023	A3580	DSSE-273(
DSSE-2930	MATERIAL - P&C Material Ordered	0.0		14-Jul-2023	DSSE-2720	DSSE-2730
DSSE-2730	MATERIAL - P&C - Procurement Issue PO	10.0	17-Jul-2023	28-Jul-2023	DSSE-2720	DSSE-2710
DSSE-2710	MATERIAL - P&C - Material Vendor Delivery Leadtime	60.0	29-Jul-2023	26-Sep-2023	DSSE-2730	DSSE-2700
DSSE-2700	MATERIAL - P&C - Engineering Confirm Material Delivery to Site Group 4A	1.0	27-Sep-2023	27-Sep-2023	DSSE-2710	ZT0401, DS
DSSE-2890	MATERIAL - P&C - Engineering Confirm Material Delivery to Site Group 4B	0.0		12-Aug-2024*	DSSE-2700	YT0401
WBS: CS00395.GRP4.1.2 MATERIAL FOR ELECTRICAL Group 4		290.0	10-Jul-2023	03-Sep-2024		

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
DSSE-2750	MATERIAL - Electrical - Prepare & Issue DR	5.0	10-Jul-2023*	14-Jul-2023	DSSE-230	DSSE-276I
DSSE-2780	Electrical (AG) Material Ordered	0.0		14-Jul-2023	DSSE-2750	DSSE-2760
DSSE-2760	MATERIAL - ELectrical - Procurement Issue PO	10.0	17-Jul-2023	28-Jul-2023	DSSE-2750	DSSE-2770
DSSE-2770	MATERIAL - ELectrical - Material Vendor Delivery Leadtime	30.0	29-Jul-2023	27-Aug-2023	DSSE-2760	DSSE-2740
DSSE-2740	MATERIAL - Electrical - Engineering Confirm Material Delivery to Site Group 4A	1.0	28-Aug-2023	28-Aug-2023	DSSE-2770	DSSE-2900
DSSE-2900	MATERIAL - Electrical - Engineering Confirm Material Delivery to Site Group 4B	0.0		03-Sep-2024*	DSSE-2740	XT0401
WBS: CS00395.GRP4.1.3 MATERIAL FOR CIVIL Group 4		290.0	10-Jul-2023	03-Sep-2024		
DSSE-2800	MATERIAL - CIVIL - Prepare & Issue DR	5.0	10-Jul-2023*	14-Jul-2023	DSSE-1210	DSSE-282I
DSSE-2830	Civil (BG) Material Ordered	0.0		14-Jul-2023	DSSE-2800	DSSE-2820
DSSE-2820	MATERIAL - CIVIL - Procurement Issue PO	10.0	17-Jul-2023	28-Jul-2023	DSSE-2800	DSSE-2810
DSSE-2810	MATERIAL - CIVIL - Material Vendor Delivery Leadtime	30.0	29-Jul-2023	27-Aug-2023	DSSE-2820	DSSE-2790
DSSE-2790	MATERIAL - CIVIL - Engineering Confirm Material Delivery to Site Group 4A	1.0	28-Aug-2023	28-Aug-2023	DSSE-2810	DSSE-291I
DSSE-2910	MATERIAL - CIVIL - Engineering Confirm Material Delivery to Site Group 4B	0.0		03-Sep-2024*	DSSE-2790	UT0401
WBS: CS00395.GRP4.1.4 MATERIAL FOR BREAKERS Group 4		290.0	10-Jul-2023	03-Sep-2024		
DSSE-2850	MATERIAL - BREAKER - Prepare & Issue DR (breakers)	5.0	10-Jul-2023*	14-Jul-2023	DSSE-230	DSSE-288I
DSSE-2880	Breaker (AG) Material Ordered	0.0		14-Jul-2023	DSSE-2850	DSSE-2860
DSSE-2860	MATERIAL - BREAKER - Procurement Issue PO	10.0	17-Jul-2023	28-Jul-2023	DSSE-2850	DSSE-2870
DSSE-2870	MATERIAL - BREAKER - Material Vendor Delivery Leadtime	100.0	29-Jul-2023	05-Nov-2023	DSSE-2860	DSSE-2840
DSSE-2840	MATERIAL - BREAKER - Engineering Confirm Material Delivery to Site Group 4A	1.0	06-Nov-2023	06-Nov-2023	DSSE-2870	DSSE-292I
DSSE-2920	MATERIAL - BREAKER - Engineering Confirm Material Delivery to Site Group 4B	0.0		03-Sep-2024*	DSSE-2840	XT0401
WBS: CS00395.GRP4.5 CONSTRUCTION		251.0	07-Dec-2020 A	06-Jan-2025		
WBS: CS00395.GRP4.5.7 CONSTRUCTION - CONST.REP TASKS Group 4		10.0	20-Dec-2024	06-Jan-2025		
A4250	Construction Rep Finalize CASCADE Forms (within 14 days following ISD)	10.0	20-Dec-2024	06-Jan-2025	CFM-P2G3I	A4210
WBS: CS00395.GRP4.5.2 CONSTRUCTION RESOURCE TRACKING Group 4A		73.0	08-Jan-2024	19-Apr-2024		
ConRep-S80	RESOURCE ONLY ACTIVITY - CONSTRUCTION - CONSTRUCTION REP	73.0	08-Jan-2024	19-Apr-2024	CSM80	CFM-P2G3
A4170	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH IN	1.0	08-Jan-2024	08-Jan-2024	CSM80	CFM-P2G3
CONSTelec80	RESOURCE ONLY ACTIVITY - CONSTRUCTION - ELECTRICIAN	73.0	08-Jan-2024	19-Apr-2024	CSM80	CFM-P2G3
A4180	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH OUT	1.0	19-Apr-2024	19-Apr-2024	TOA-Const(	CFM-P2G3
WBS: CS00395.GRP4.5.8 CONSTRUCTION RESOURCE TRACKING Group 4B		71.0	09-Sep-2024	19-Dec-2024		
ConRep-S90	RESOURCE ONLY ACTIVITY - CONSTRUCTION - CONSTRUCTION REP	71.0	09-Sep-2024	19-Dec-2024	CSM90	CFM-P2G3
A4260	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH IN	1.0	09-Sep-2024	09-Sep-2024	CSM90	CFM-P2G3
CONSTelec90	RESOURCE ONLY ACTIVITY - CONSTRUCTION - ELECTRICIAN	71.0	09-Sep-2024	19-Dec-2024	CSM90	CFM-P2G3
A4270	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH OUT	1.0	19-Dec-2024	19-Dec-2024	TOA-Const(	CFM-P2G3
WBS: CS00395.GRP4.5.3 CONSTRUCTION - CIVIL		0.0	07-Dec-2020 A	07-Dec-2020 A		
A4150	N/R Construction - Civil (NO CIVIL IF 1:1 REPLACE AND SAME FOUNDATION; CONDUIT done by El	0.0	07-Dec-2020 A	07-Dec-2020 A		
WBS: CS00395.GRP4.5.5 CONSTRUCTION - ELECTRICAL Group 4A		102.0	08-Jan-2024	18-Apr-2024		
A4160	Construction - Electrical	102.0	08-Jan-2024	18-Apr-2024	VT00	CFM-P2G3
WBS: CS00395.GRP4.5.9 CONSTRUCTION - ELECTRICAL Group 4B		101.0	09-Sep-2024	18-Dec-2024		
A4280	Construction - Electrical	101.0	09-Sep-2024	18-Dec-2024	XT00	CFM-P2G3
WBS: CS00395.GRP4.5.4 CONSTRUCTION OUTAGES Group 4A		89.0	08-Jan-2024	19-Apr-2024		
CSM80	Construction Start Milestone	0.0	08-Jan-2024		TT00, VT00	TOA-Const

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
TOA-ConstG13	OUTAGE / General Construction Work	87.0	09-Jan-2024	18-Apr-2024	CSM80	CFM-P2G3
CFM-P2G3A10	Construction Finish Milestone	0.0		19-Apr-2024	TOA-Const(	ISD2024, D
WBS: CS00395.GRP4.5.10 CONSTRUCTION OUTAGES Group 4B		88.0	09-Sep-2024	19-Dec-2024		
TOA-ConstG3P12	OUTAGE / General Construction Work	87.0	09-Sep-2024	18-Dec-2024	CSM90	CFM-P2G3
CSM90	Construction Start Milestone	0.0	09-Sep-2024		UT00, XT00	TOA-Const
ISD2024	EQUIPMENT IN SERVICE DATE (requires FOOB constraint)	0.0		19-Dec-2024	CFM-P2G3/	DSSE-3090
CFM-P2G3B10	Construction Finish Milestone	0.0		19-Dec-2024	TOA-Const(	ISD2024, A
WBS: CS00395.GRP4.5.6 CONSTRUCTION CLOSEOUT Group 4A		175.0	22-Apr-2024	31-Dec-2024		
DSSE-3080	Prepare Civil Field Mark Ups (Tie after Last Civil Construction Activity)	2.0	22-Apr-2024	23-Apr-2024	CFM-P2G3/	DSSE-3010
DSSE-2940	Test Group Prepare Electrical Field Mark UpsLCE Ensures Prints Ready for Pick-up (Tie after ISD)	2.0	30-Dec-2024	31-Dec-2024	CFM-P2G3/	DSSE-296I
WBS: CS00395.GRP4.5.11 CONSTRUCTION CLOSEOUT Group 4B		7.0	20-Dec-2024	31-Dec-2024		
DSSE-3090	Prepare Civil Field Mark Ups (Tie after Last Civil Construction Activity)	2.0	20-Dec-2024	23-Dec-2024	CFM-P2G3I	DSSE-3010
DSSE-3070	Test Group Prepare Electrical Field Mark UpsLCE Ensures Prints Ready for Pick-up (Tie after ISD)	2.0	30-Dec-2024	31-Dec-2024	CFM-P2G3I	DSSE-296I
WBS: CS00395.GRP4.2 TEST AND COMMISSION		1.0	19-Jan-2021	19-Jan-2021		
WBS: CS00395.GRP4.2.1 LCE AUTHORIZATION Group 4		1.0	19-Jan-2021	19-Jan-2021		
A4290	LCE Review DCR / Applications (Pred=DCR#,Dwgs and Const Plan, has T18.01 successor	1.0	19-Jan-2021	19-Jan-2021		TT0409
WBS: CS00395.GRP4.7 GROUP 4 CLOSE OUT		48.0	20-Dec-2024	03-Mar-2025		
WBS: CS00395.GRP4.7.1 Civil As-Builts		41.0	02-Jan-2025	03-Mar-2025		
DSSE-2960	Eversource Engineering Verifies Civil Mark Up As-Built Drawing Package	10.0	02-Jan-2025	15-Jan-2025	DSSE-2940	DSSE-2990
DSSE-2990	Eversource Engineering Updates Civil As-Built Drawing Package	3.0	16-Jan-2025	21-Jan-2025	DSSE-2960	DSSE-2970
DSSE-2970	ES Create Transmittal, Approve Final As-Built Package, and EDC Files and Issue Drawings to Field	8.0	22-Jan-2025	31-Jan-2025	DSSE-2990	DSSE-298I
DSSE-2950	Complete TD-176 CIVIL Design Prep & Issue As-Built Dwgs	20.0	03-Feb-2025	03-Mar-2025	DSSE-2970	FINISH-P2
DSSE-2980	PM to Document Civil As-Built Drawings Complete	1.0	03-Feb-2025	03-Feb-2025	DSSE-2970	FINISH-P2
WBS: CS00395.GRP4.7.3 Electrical As-Builts		41.0	30-Dec-2024	27-Feb-2025		
DSSE-3010	Eversource Engineering Verifies Electrical Mark Up As-Built Drawing Package	10.0	30-Dec-2024	13-Jan-2025	DSSE-3080	DSSE-3040
DSSE-3040	Eversource Engineering Updates Electrical As-Built Drawing Package	3.0	14-Jan-2025	16-Jan-2025	DSSE-3010	DSSE-3020
DSSE-3020	ES Create Transmittal, Approve Final As-Built Package, and EDC Files and Issue Drawings to Field	8.0	17-Jan-2025	29-Jan-2025	DSSE-3040	DSSE-300I
DSSE-3000	Complete TD-176 ELECTRICAL Design Prep & Issue As-Built Dwgs	20.0	30-Jan-2025	27-Feb-2025	DSSE-3020	FINISH-P2
DSSE-3030	PM to Document Electrical As-Built Drawings Complete	1.0	30-Jan-2025	30-Jan-2025	DSSE-3020	FINISH-P2
WBS: CS00395.GRP4.7.2 P&C As-Builts		5.0	02-Jan-2025	08-Jan-2025		
DSSE-3050	P&C Submits SDS As-Builts	5.0	02-Jan-2025	08-Jan-2025	DSSE-2940	DSSE-3020
WBS: CS00395.GRP4.7.4 Test Closout		5.0	20-Dec-2024	27-Dec-2024		
A4190	LCE Review Test Data and Issue Commissioning Report (tie to As-Built submit Print activity)	5.0	20-Dec-2024	27-Dec-2024	CFM-P2G3I	DSSE-294I
WBS: CS00395.GRP4.7.5 SITE RESTORATION CLOSEOUT		10.0	20-Dec-2024	06-Jan-2025		
A4200	Restore / Remediate Site	10.0	20-Dec-2024	06-Jan-2025	CFM-P2G3I	FINISH-P2
WBS: CS00395.GRP4.7.6 MATERIAL, EQUIPMENT, COST, AND ASSET MANAGEMENT CLOSEOUT		40.0	20-Dec-2024	19-Feb-2025		
A4220	Cost Analyst Prepares FINAL Units of Property	30.0	20-Dec-2024	04-Feb-2025	CFM-P2G3I	FINISH-P2
A4210	Asset Management Complete Asset Update(s) in CASCADE	30.0	07-Jan-2025	19-Feb-2025	A4250	FINISH-P2
WBS: CS00395.GRP4.8 OVERHEAD / INDIRECTS		329.0	07-Nov-2023	03-Mar-2025		
A4230	Prepare CAN (Construction Authorization Notice) Group 4A	10.0	07-Nov-2023	21-Nov-2023	DSSE-2840	TT0203, A4
A4300	Prepare CAN (Construction Authorization Notice) Group 4B	10.0	27-Jun-2024	11-Jul-2024	A4230	UT0203

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
WBS: CS00395.GRP4.8.2 PROJECT MANAGEMENT		48.0	20-Dec-2024	03-Mar-2025		
A4240	PM Prepares Closeout Documentation, Lessons Learned Meeting, etc.	30.0	20-Dec-2024	04-Feb-2025	CFM-P2G3I	FINISH-P2
DSSE-3060	Complete TD-707 Turnover Document / Forward to SOC & Mailing List	5.0	20-Dec-2024	27-Dec-2024	CFM-P2G3I	DSSE-301I
FINISH-P2G13	Project / Work Order Complete (FINAL SCHEDULE TASK/MILESTONE)	0.0		03-Mar-2025	A4240, A42(	
WBS: CS00395.GRP5 Group 5		1284.0	07-Dec-2020 A	25-Feb-2026		
WBS: CS00395.GRP5.4 T-Minus Milestones		1694.0	21-Dec-2020 A	08-Sep-2025		
WBS: CS00395.GRP5.4.01 Civil T-Minus Milestones Group 5A		125.0	21-Dec-2020 A	06-Jan-2025		
TT439	N/R T-T-04.09 ALL FIRM DCR APPLICATIONS DUE TO LCC	0.0		21-Dec-2020 A		TT419
TT409	T-T-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		02-Sep-2024	DSSE-3190	TT419
TT429	T-T-02.03 CAN COMPLETE (CONSTRUCTION AUTHORIZATION NOTICE)	0.0		25-Nov-2024	A4390	TT419
TT419	T-T-00 - START OF CONSTRUCTION - WO#CS00395	0.0	06-Jan-2025*		TT429, TT4:	CSM100
WBS: CS00395.GRP5.4.1 Civil T-Minus Milestones Group 5B		53.0	16-Jul-2025	08-Sep-2025		
UT421	U-T-02.03 CAN COMPLETE (CONSTRUCTION AUTHORIZATION NOTICE)	0.0		16-Jul-2025	A4460	UT411
UT401	U-T-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		02-Sep-2025	DSSE-3310	UT411
UT411	U-T-00 - START OF CONSTRUCTION - WO#CS00395	0.0	08-Sep-2025*		UT421, UT4	CSM110
WBS: CS00395.GRP5.4.02 Electrical T-Milestones Group 5A		55.0	11-Nov-2024	06-Jan-2025		
VT401	VT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		11-Nov-2024	DSSE-3240	VT411
VT411	VT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	06-Jan-2025*		VT401	CSM100, A
WBS: CS00395.GRP5.4.2 Electrical T-Milestones Group 5B		5.0	02-Sep-2025	08-Sep-2025		
WT401	WT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		02-Sep-2025	DSSE-3300	WT00
WT00	WT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	08-Sep-2025*		WT401	CSM110, A
WBS: CS00395.GRP5.4.06 P&C T-Minus Milestones Group 5A		1449.0	18-Jan-2021	06-Jan-2025		
QT1201	QT-12.01 SCADA Date (Tab) Sheets/Signal List Sent to LCC	0.0		18-Jan-2021	DSSE-990	QT00
QT0401	QT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		02-Oct-2024	DSSE-3100	QT00
QT00	QT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	06-Jan-2025*		QT0401, QT	CSM100
WBS: CS00395.GRP5.4.3 P&C T-Minus Milestones Group 5B		1694.0	18-Jan-2021	08-Sep-2025		
YT1220	YT-12.01 SCADA Date (Tab) Sheets/Signal List Sent to LCC	0.0		18-Jan-2021	DSSE-990	YT1240
YT1230	YT-04.01 ALL MATERIAL RECEIVED, STAGED, INVENTORIED, REVIEWED	0.0		02-Sep-2025	DSSE-3290	YT1240
YT1240	YT-00 - START OF CONSTRUCTION - WO#CS00395	0.0	08-Sep-2025*		YT1230, YT	CSM110
WBS: CS00395.GRP5.1 MATERIAL PROCUREMENT		286.0	15-Jul-2024	02-Sep-2025		
WBS: CS00395.GRP5.1.1 MATERIAL FOR P&C Group 5		285.0	15-Jul-2024	02-Sep-2025		
DSSE-3120	MATERIAL - P&C - Prepare & Issue DR	5.0	15-Jul-2024*	19-Jul-2024	A3580	DSSE-313I
DSSE-3330	MATERIAL - P&C Material Ordered	0.0		19-Jul-2024	DSSE-3120	DSSE-3130
DSSE-3130	MATERIAL - P&C - Procurement Issue PO	10.0	22-Jul-2024	02-Aug-2024	DSSE-3120	DSSE-3110
DSSE-3110	MATERIAL - P&C - Material Vendor Delivery Leadtime	60.0	03-Aug-2024	01-Oct-2024	DSSE-3130	DSSE-3100
DSSE-3100	MATERIAL - P&C - Engineering Confirm Material Delivery to Site Group 5A	1.0	02-Oct-2024	02-Oct-2024	DSSE-3110	QT0401, D
DSSE-3290	MATERIAL - P&C - Engineering Confirm Material Delivery to Site Group 5B	0.0		02-Sep-2025*	DSSE-3100	YT1230
WBS: CS00395.GRP5.1.2 MATERIAL FOR ELECTRICAL Group 5		286.0	15-Jul-2024	02-Sep-2025		
DSSE-3150	MATERIAL - Electrical - Prepare & Issue DR	5.0	15-Jul-2024*	19-Jul-2024	DSSE-230	DSSE-316I
DSSE-3180	Electrical (AG) Material Ordered	0.0		19-Jul-2024	DSSE-3150	DSSE-3160
DSSE-3160	MATERIAL - ELectrical - Procurement Issue PO	10.0	22-Jul-2024	02-Aug-2024	DSSE-3150	DSSE-3170

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
DSSE-3170	MATERIAL - ELectrical - Material Vendor Delivery Leadtime	30.0	03-Aug-2024	01-Sep-2024	DSSE-3160	DSSE-3140
DSSE-3140	MATERIAL - Electrical - Engineering Confirm Material Delivery to Site Group 5A	1.0	02-Sep-2024	02-Sep-2024	DSSE-3170	DSSE-3300
DSSE-3300	MATERIAL - Electrical - Engineering Confirm Material Delivery to Site Group 5B	0.0		02-Sep-2025*	DSSE-3140	WT401
WBS: CS00395.GRP5.1.3 MATERIAL FOR CIVIL Group 5		286.0	15-Jul-2024	02-Sep-2025		
DSSE-3200	MATERIAL - CIVIL - Prepare & Issue DR	5.0	15-Jul-2024*	19-Jul-2024	DSSE-1210	DSSE-322I
DSSE-3230	Civil (BG) Material Ordered	0.0		19-Jul-2024	DSSE-3200	DSSE-3220
DSSE-3220	MATERIAL - CIVIL - Procurement Issue PO	10.0	22-Jul-2024	02-Aug-2024	DSSE-3200	DSSE-3210
DSSE-3210	MATERIAL - CIVIL - Material Vendor Delivery Leadtime	30.0	03-Aug-2024	01-Sep-2024	DSSE-3220	DSSE-3190
DSSE-3190	MATERIAL - CIVIL - Engineering Confirm Material Delivery to Site Group 5A	1.0	02-Sep-2024	02-Sep-2024	DSSE-3210	DSSE-331I
DSSE-3310	MATERIAL - CIVIL - Engineering Confirm Material Delivery to Site Group 5B	0.0		02-Sep-2025*	DSSE-3190	UT401
WBS: CS00395.GRP5.1.4 MATERIAL FOR BREAKERS Group 5		286.0	15-Jul-2024	02-Sep-2025		
DSSE-3250	MATERIAL - BREAKER - Prepare & Issue DR (breakers)	5.0	15-Jul-2024*	19-Jul-2024	DSSE-230	DSSE-328I
DSSE-3280	Breaker (AG) Material Ordered	0.0		19-Jul-2024	DSSE-3250	DSSE-3260
DSSE-3260	MATERIAL - BREAKER - Procurement Issue PO	10.0	22-Jul-2024	02-Aug-2024	DSSE-3250	DSSE-3270
DSSE-3270	MATERIAL - BREAKER - Material Vendor Delivery Leadtime	100.0	03-Aug-2024	10-Nov-2024	DSSE-3260	DSSE-3240
DSSE-3240	MATERIAL - BREAKER - Engineering Confirm Material Delivery to Site Group 5A	1.0	11-Nov-2024	11-Nov-2024	DSSE-3270	DSSE-332I
DSSE-3320	MATERIAL - BREAKER - Engineering Confirm Material Delivery to Site Group 5B	0.0		02-Sep-2025*	DSSE-3240	WT401
WBS: CS00395.GRP5.5 CONSTRUCTION		251.0	07-Dec-2020 A	02-Jan-2026		
WBS: CS00395.GRP5.5.7 CONSTRUCTION - CONST.REP TASKS Group 5		10.0	19-Dec-2025	02-Jan-2026		
A4410	Construction Rep Finalize CASCADE Forms (within 14 days following ISD)	10.0	19-Dec-2025	02-Jan-2026	CFM-P2G3I	A4370
WBS: CS00395.GRP5.5.2 CONSTRUCTION RESOURCE TRACKING Group 5A		73.0	06-Jan-2025	18-Apr-2025		
ConRep-S100	RESOURCE ONLY ACTIVITY - CONSTRUCTION - CONSTRUCTION REP	73.0	06-Jan-2025	18-Apr-2025	CSM100	CFM-P2G3
A4330	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH IN	1.0	06-Jan-2025	06-Jan-2025	CSM100	CFM-P2G3
CONSTelec100	RESOURCE ONLY ACTIVITY - CONSTRUCTION - ELECTRICIAN	73.0	06-Jan-2025	18-Apr-2025	CSM100	CFM-P2G3
A4340	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH OUT	1.0	18-Apr-2025	18-Apr-2025	TOA-Const(	CFM-P2G3
WBS: CS00395.GRP5.5.8 CONSTRUCTION RESOURCE TRACKING Group 5B		71.0	08-Sep-2025	18-Dec-2025		
ConRep-S110	RESOURCE ONLY ACTIVITY - CONSTRUCTION - CONSTRUCTION REP	71.0	08-Sep-2025	18-Dec-2025	CSM110	CFM-P2G3
A4420	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH IN	1.0	08-Sep-2025	08-Sep-2025	CSM110	CFM-P2G3
CONSTelec110	RESOURCE ONLY ACTIVITY - CONSTRUCTION - ELECTRICIAN	71.0	08-Sep-2025	18-Dec-2025	CSM110	CFM-P2G3
A4430	RESOURCE ONLY ACTIVITY - CONSTRUCTION - SWITCH OUT	1.0	18-Dec-2025	18-Dec-2025	TOA-Const(	CFM-P2G3
WBS: CS00395.GRP5.5.3 CONSTRUCTION - CIVIL		0.0	07-Dec-2020 A	07-Dec-2020 A		
A4310	N/R Construction - Civil (NO CIVIL IF 1:1 REPLACE AND SAME FOUNDATION; CONDUIT done by El	0.0	07-Dec-2020 A	07-Dec-2020 A		
WBS: CS00395.GRP5.5.5 CONSTRUCTION - ELECTRICAL Group 5A		102.0	06-Jan-2025	17-Apr-2025		
A4320	Construction - Electrical	102.0	06-Jan-2025	17-Apr-2025	VT411	CFM-P2G3
WBS: CS00395.GRP5.5.9 CONSTRUCTION - ELECTRICAL Group 5B		101.0	08-Sep-2025	17-Dec-2025		
A4440	Construction - Electrical	101.0	08-Sep-2025	17-Dec-2025	WT00	CFM-P2G3
WBS: CS00395.GRP5.5.4 CONSTRUCTION OUTAGES Group 5A		89.0	06-Jan-2025	18-Apr-2025		
CSM100	Construction Start Milestone	0.0	06-Jan-2025		TT419, VT4	TOA-Const
TOA-ConstG23	OUTAGE / General Construction Work	87.0	07-Jan-2025	17-Apr-2025	CSM100	CFM-P2G3
CFM-P2G3A20	Construction Finish Milestone	0.0		18-Apr-2025	TOA-Const(	ISD2025, D
WBS: CS00395.GRP5.5.10 CONSTRUCTION OUTAGES Group 5B		88.0	08-Sep-2025	18-Dec-2025		

Activity ID	Activity Name	REM DUR	Start	Finish	Predecessors	Successors
TOA-ConstG3P22	OUTAGE / General Construction Work	87.0	08-Sep-2025	17-Dec-2025	CSM110	CFM-P2G3
CSM110	Construction Start Milestone	0.0	08-Sep-2025		UT411, WT(	TOA-Const
ISD2025	EQUIPMENT IN SERVICE DATE (requires FOOB constraint)	0.0		18-Dec-2025	CFM-P2G3/	DSSE-3490
CFM-P2G3B20	Construction Finish Milestone	0.0		18-Dec-2025	TOA-Const(	ISD2025, A
WBS: CS00395.GRP5.5.6 CONSTRUCTION CLOSEOUT Group 5A		175.0	21-Apr-2025	30-Dec-2025		
DSSE-3480	Prepare Civil Field Mark Ups (Tie after Last Civil Construction Activity)	2.0	21-Apr-2025	22-Apr-2025	CFM-P2G3/	DSSE-3410
DSSE-3340	Test Group Prepare Electrical Field Mark UpsLCE Ensures Prints Ready for Pick-up (Tie after ISD)	2.0	29-Dec-2025	30-Dec-2025	CFM-P2G3/	DSSE-336(
WBS: CS00395.GRP5.5.11 CONSTRUCTION CLOSEOUT Group 5B		7.0	19-Dec-2025	30-Dec-2025		
DSSE-3490	Prepare Civil Field Mark Ups (Tie after Last Civil Construction Activity)	2.0	19-Dec-2025	22-Dec-2025	CFM-P2G3(	DSSE-3410
DSSE-3470	Test Group Prepare Electrical Field Mark UpsLCE Ensures Prints Ready for Pick-up (Tie after ISD)	2.0	29-Dec-2025	30-Dec-2025	CFM-P2G3(	DSSE-336(
WBS: CS00395.GRP5.2 TEST AND COMMISSION		1.0	19-Dec-2025	19-Dec-2025		
WBS: CS00395.GRP5.2.1 LCE AUTHORIZATION Group 5		1.0	19-Dec-2025	19-Dec-2025		
A4450	LCE Review DCR / Applications (Pred=DCR#,Dwgs and Const Plan, has T18.01 successor	1.0	19-Dec-2025	19-Dec-2025	CFM-P2G3(	
WBS: CS00395.GRP5.7 GROUP 5 CLOSE OUT		48.0	19-Dec-2025	25-Feb-2026		
WBS: CS00395.GRP5.7.1 Civil As-Builts		41.0	31-Dec-2025	25-Feb-2026		
DSSE-3360	Eversource Engineering Verifies Civil Mark Up As-Built Drawing Package	10.0	31-Dec-2025	13-Jan-2026	DSSE-3340	DSSE-3390
DSSE-3390	Eversource Engineering Updates Civil As-Built Drawing Package	3.0	14-Jan-2026	16-Jan-2026	DSSE-3360	DSSE-3370
DSSE-3370	ES Create Transmittal, Approve Final As-Built Package, and EDC Files and Issue Drawings to Field	8.0	19-Jan-2026	28-Jan-2026	DSSE-3390	DSSE-338(
DSSE-3350	Complete TD-176 CIVIL Design Prep & Issue As-Built Dwgs	20.0	29-Jan-2026	25-Feb-2026	DSSE-3370	FINISH-P2
DSSE-3380	PM to Document Civil As-Built Drawings Complete	1.0	29-Jan-2026	29-Jan-2026	DSSE-3370	FINISH-P2
WBS: CS00395.GRP5.7.3 Electrical As-Builts		41.0	29-Dec-2025	23-Feb-2026		
DSSE-3410	Eversource Engineering Verifies Electrical Mark Up As-Built Drawing Package	10.0	29-Dec-2025	09-Jan-2026	DSSE-3480	DSSE-3440
DSSE-3440	Eversource Engineering Updates Electrical As-Built Drawing Package	3.0	12-Jan-2026	14-Jan-2026	DSSE-3410	DSSE-3420
DSSE-3420	ES Create Transmittal, Approve Final As-Built Package, and EDC Files and Issue Drawings to Field	8.0	15-Jan-2026	26-Jan-2026	DSSE-3440	DSSE-340(
DSSE-3400	Complete TD-176 ELECTRICAL Design Prep & Issue As-Built Dwgs	20.0	27-Jan-2026	23-Feb-2026	DSSE-3420	FINISH-P2
DSSE-3430	PM to Document Electrical As-Built Drawings Complete	1.0	27-Jan-2026	27-Jan-2026	DSSE-3420	FINISH-P2
WBS: CS00395.GRP5.7.2 P&C As-Builts		5.0	31-Dec-2025	06-Jan-2026		
DSSE-3450	P&C Submits SDS As-Builts	5.0	31-Dec-2025	06-Jan-2026	DSSE-3340	DSSE-3420
WBS: CS00395.GRP5.7.4 Test Closout		5.0	19-Dec-2025	26-Dec-2025		
A4350	LCE Review Test Data and Issue Commissioning Report (tie to As-Built submit Print activity)	5.0	19-Dec-2025	26-Dec-2025	CFM-P2G3(	DSSE-334(
WBS: CS00395.GRP5.7.5 SITE RESTORATION CLOSEOUT		10.0	19-Dec-2025	02-Jan-2026		
A4360	Restore / Remediate Site	10.0	19-Dec-2025	02-Jan-2026	CFM-P2G3(	FINISH-P2
WBS: CS00395.GRP5.7.6 MATERIAL, EQUIPMENT, COST, AND ASSET MANAGEMENT CLOSEOUT		40.0	19-Dec-2025	13-Feb-2026		
A4380	Cost Analyst Prepares FINAL Units of Property	30.0	19-Dec-2025	30-Jan-2026	CFM-P2G3(	FINISH-P2
A4370	Asset Management Complete Asset Update(s) in CASCADE	30.0	05-Jan-2026	13-Feb-2026	A4410	FINISH-P2
WBS: CS00395.GRP5.8 OVERHEAD / INDIRECTS		170.0	12-Nov-2024	16-Jul-2025		
A4390	Prepare CAN (Construction Authorization Notice) Group 5A	10.0	12-Nov-2024	25-Nov-2024	DSSE-3240	TT429, A44
A4460	Prepare CAN (Construction Authorization Notice) Group 5B	10.0	02-Jul-2025	16-Jul-2025	A4390	UT421