EVERSOURCE

Project Approval Form

Project Title: [redacted] Express Feeder	Project Number: CD01536
Date Prepared: 10/26/2023	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** OVERLOADS-SPECIFIC PROJECTS
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** No
Project Manager: [redacted]	**Emergency Related Request?** No
Project Sponsor: [redacted]	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 12/31/2024	
Total Capital Request: $8,406.8K	**Authorization Type:** Full Funding

Full Funding Request:

This project was established to install a new circuit [redacted].

Approved Partial Funding Authorization: $9,680K at the 9/30/2021 CPAC meeting.

- Requesting Full Funding authorization: $8,407K or 87% of the Partial Funding authorization.
- Project Location:
- Division: Western
- District: Falls Village AWC
- Town: Canaan

The variance is due to the following:

There was no change in scope in this project. The Full Funding actuals are about 13% lower than the estimate produced in the Partial Funding estimate. This variance accounts for a decrease in cost for this project of about $1.27M. This decrease in cost is attributed to a decrease in contingency costs. The legacy estimating units used to produce the Partial Funding estimate are lower than the estimates used today, which were updated to reflect increased labor & material costs.

1 Executive Summary

This project proposes a [redacted]

- Supply [redacted]

This pooled transformer concept allows better utilization of substation bulk transformer capacity and it prevents the need to interrupt load for the failure of the power transformer until a mobile transformer can be brought in and connected.

[redacted] The total preliminary funding request is for $9.68 million, which assumes 100% pole replacement and 30% contractor labor.

[redacted]

The cost of this project is $1.5 million, but there is also other work that is included which is independent of this project. The total cost is summarized in the table below:

Revision 1:

This revision was necessary for financial considerations making it a multi-year project for the period 2022 – 2024.

Total Cost for 4L07 Aerial Cable Option

PN	Cost ($k)	Scope
CD01536	$ 9,680.00	5 miles of aerial cable, 100% pole replacement, 2 regulators
CD01379	$ 1,950.00	2.5 miles of aerial cable only
CS00389	$ 1,500.00	Dependent (CD01536) 5L-1X3-2 breaker install, 5L05 feeder position. Independent (CD01536) Replace disconnect switches and 4 oil filled reclosers.
Total Cost =	$13,130.00	

2 Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2021 Actual	Year 2022 Actual	Year 2023 Estimate	Year 2024 Estimate	Total
Direct Capital Costs					
Internal Labor and Construction Equipment	$70.9	$56.9	$106.6	$45.4	$279.8
Outside Services	$768.0	$616.2	$1,155.3	$492.3	$3,031.8
Materials	$374.1	$300.1	$562.7	$239.8	$1,476.7
Removals	$76.3	$61.2	$134.7	$61.7	$333.9
Risk and Contingency	$0.0	$0.0	$318.3	$204.0	$522.3
Other	$3.4	$2.7	$5.1	$2.2	$13.3
Subtotal – Direct Costs	$1,292.5	$1,037.1	$2,282.8	$1,045.3	$5,657.8
Indirect Capital Costs					
Indirect/Overheads (including benefits)	$539.7	$382.6	$1,218.9	$532.9	$2,674.1
Capitalized interest or AFUDC, if any	$12.5	$62.5	$0.0	$0.0	$74.9
Subtotal – Indirect Costs	$552.2	$445.1	$1,218.9	$532.9	$2,749.1
Total Gross Capital Costs	**$1,844.7**	**$1,482.2**	**$3,501.7**	**$1,578.2**	**$8,406.8**
Customer Contribution	$0.0	$0.0	$0.0	$0.0	$0.0
Total Net Capital Project Costs	**$1,844.7**	**$1,482.2**	**$3,501.7**	**$1,578.2**	**$8,406.8**

3 Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted]

[redacted]

[redacted]

[redacted]:

694 Line hot spot 2013.PDF

NorthCanaanGenerationCost.pdf

In December 2019 there was a need to take out the 694 line again to reconductor fiber on the towers. Due to the load being lower in the winter, generation was not needed but 2 sets of 333KVA regulators were installed so that the field ties could pick up the 1st zones without low voltage.

[redacted]:

[redacted].

[redacted]

[redacted].

b. Project Need

The main objective of this project is to improve reliability at [redacted] by establishing:

[redacted]

This pooled transformer concept allows better utilization of substation bulk transformer capacity and it prevents the need to interrupt load for the failure of the power transformer until a mobile transformer can be brought in and connected.

[redacted]

Voltage Study.pdf

c. Project Scope

[redacted]

Major Material:

187 – 45/2 Poles
26,778- 750Al AC (Does NOT include 13,600 that will be completed under CD01379)
26,778 - 556 AAC Tree Wire
2– 15 kV NOVA Reclosers
2 – 416KVA 3ph Regulators

Business Process and / or Technical Improvements:

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

4 Alternatives Considered

[redacted]

[redacted]

[redacted]

- **TOTAL COST - $79 million ($4 million / transformer and $75 million for BESS)**

Project Option Comparison				
Design Criteria	[redacted]			
Authorization Type	Full	N/A	Partial	Partial
Capital Cost	$8.15M	$0M	$66.0M	$76.6M
Expense Cost	$0.25M	$0M	$2.0M	$2.40M
Total Cost	$8.40M	$0M	$68.0M	$79.0M
Total Cost / MVA added	$700,566/MVA	$0/MVA	$5,666,666/MVA	$6,583,333/MVA
Total Cost / CM Saved	$31.85/CM	$0/CM	$257.58/CM	$299.25/CM
Total Cost / CI Saved	$934.0K/CI	$0/CI	$7,556K/CI	$8,778K/CI
Preferred option	X			

3 Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	6/1/2020
100% Detailed Engineering Completion	6/1/2021
Partial Funded	10/31/2023

Milestone/Phase Name	Estimated Date
Environmental Permits	12/31/2021
DOT Permits	12/31/2021
Settings Requested	12/31/2021
Construction Start	2/1/2022
In Service Date	6/1/2024

4 Regulatory Decisions

Possible need for railroad permit close to [redacted]. in the center of town where we will cross on the existing pole line.

5 Codes and Standards

6 Risk and Contingencies

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2022	Medium	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Customer Permission / Siting Council / Municipal approvals	2021	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2022	High	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.

Internal engineering resources not available to perform the work.	2021	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2022	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2022	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2022	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.
Technological risks involving integration of new technology	202X	High/Medium/Low	Before use of new technology ensure support of standards and manufacturer. Schedule project to accommodate for extra time or ensure new technology is not on the critical path.
Wetlands / Environmentally sensitive area	2022	High	Use of mats and specialty equipment, only work during certain times of the year.

6 References

References	
1.	 CD01536 - SYS PLAN 010 - Bulk Distributi
2.	
3.	
4.	

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. P6 Schedule	*NO*
C. Geographic Map	*YES*
D. System and Station One-Lines	*YES*
E. Load Sheet	*YES*
F. Load Projections	*YES*

B. Cost Estimate:

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536
[redacted] Express Feeder

Work Classification

Category: Line
Type: BLG5
Type Desc: SUBSTATION OVERLOADS-SPEC PROJ
Work Type:

Ownership / Management

AWC: Falls Village
Statewide: No
Owner [redacted]
Manager

Project Information

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

Budget Summary - Preferred Option

Cost for Project CD01536

2022

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
3	[redacted] AC P73 Belden - [redacted]	Prelim	2	28%	$7,040,000	$7,040,000
				2022 Total:	**$7,040,000**	**$7,040,000**

2024

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	4[redacted]AC 5L-5L02-70S	Prelim	1	24%	$1,366,830	$1,366,830
				2024 Total:	**$1,366,830**	**$1,366,830**
				Total Project:	**$8,406,830**	**$8,406,830**

Asset & Investment Management System 10/26/2023 Page 1 of 11

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Project Option Summary

ID	Description	Segments	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)	Prfrd
O1	Total [redacted] AC Cost	1,2,3	$10,328,366	$0	100%	$0.00	$0.00	☐
O2	Cost for Project CD01536	1,3	$8,406,830	$0	100%	$0.00	$0.00	☑

Segments

ID	Title	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)
1	[redacted]AC 5L-5L02-70S	$1,366,830			$0.00	$0.00
2	[redacted]AC - CD01379	$1,921,536			$0.00	$0.00
3	[redacted]AC P73 Belden - 4L	$7,040,000			$0.00	$0.00

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536
[redacted] Express Feeder

Background / Scope

Issue:

[redacted]

Project Description:

Other Considerations:

Revision / ACT Comments:

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536
[redacted] Express Feeder

Full Funding Request:

[redacted]

Approved Partial Funding Authorization: $9,680K at the 9/30/2021 CPAC meeting.

- Requesting Full Funding authorization: $8,407K or 87% of the Partial Funding authorization.
- Project Location:
- Division: Western
- District: Falls Village AWC
- Town: Canaan

The variance is due to the following:

There was no change in scope in this project. The Full Funding actuals are about 13% lower than the estimate produced in the Partial Funding estimate. This variance accounts for a decrease in cost for this project of about $1.27M. This decrease in cost is attributed to a decrease in contingency costs.

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

[redacted]

Environmental

Water Pollution: No Change Soil Contamination: No Change Natural Habitats: No Change
Alternatives considered based on Environmental Impact or Description of Aspects Oil Spill Risks Considered? ☐
Safety Concerns With This Project? ☐
Explain:

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

External Stakeholders

Customer Impact / Involvement

Cust. Impacted:	Approx. Pole Count (NU):
Crit. Cust. Impacted:	Approx. Pole Count (Other):
Adjoining Property Owner Consent Required: ☐	Town Hearing Required: ☐
Other Utility Pole Custodian Area: ☐	Easement Required: ☐
State Highway Permit Required: ☐	

Relocation / New Service

New Srvc. Contact:	Requestor Type:
Customer Type:	State Highway Project #:
Request Number:	Route #:

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Design Alternative CD01536-01

General Information

Segment: 1 [redacted]AC 5L-5L02-70S Status: Prelim Design Submitted

Segment Type: OTHER Town: NORTH CANAAN Budget Year: 2024

Work Type: BB-Reconductoring Trimming Required: ☐ In Service Date: 12/31/2024

Description: [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536

Falls Village 4L07-5L Express Feeder

Design Alternative CD01536-01

Estimate

Preliminary Estimate Summary

Revision Number:	1
Contingency:	24.00%
SubTotal:	$1,102,282
Contingency Amount:	$264,548
Estimate:	$1,366,830
Reimbursement:	$0
Net Amount:	**$1,366,830**
Description:	

Item Description	CU	$ / Per	Qty	Amount
ACT	23-ALL12	[redacted]		$1,102,282.00
ACT Estimate for Contractor Crews				

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]	E MAIN ST LIME KILN RD	NORTH CANAAN	[redacted]		[redacted]	

Reliability Projection

Title:

Outage Start Date: 1/1/2007 Outage End Date: 4/13/2020 Years History: 13.29

[redacted]

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Design Alternative CD01536-02

General Information

Segment: 2 - [redacted] CD01379 Status: Draft

Segment Type: OTHER Town: NORTH CANAAN Budget Year: 2022

Work Type: BB-Reconductoring Trimming Required: ☐ In Service Date: 6/1/2022

Description: Cost to CD01379 to install [redacted] AC in same location as ROW relocation project.

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536

[redacted]xpress Feeder

Design Alternative CD01536-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	28.00%
SubTotal:	$1,501,200
Contingency Amount:	$420,336
Estimate:	$1,921,536
Reimbursement:	$0
Net Amount:	**$1,921,536**
Description:	

Item Description	CU	$ / Per	Qty	Amount
OH WIRE OH-Install Aerial Cable-existing poles (any gauge)	16-OH36	[redacted]		$1,251,200.00
OTHER OTHER contractor labor 20%	16-ALL14			$250,000.00

Associated / Impacted Devices

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

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536
[redacted] Express Feeder

Design Alternative CD01536-03

General Information

Segment: 3 - [redacted] Status: Prelim Design Submitted

Segment Type: OTHER Town: CANAAN Budget Year: 2022

Work Type: BB-Reconductoring Trimming Required: ☐ In Service Date: 6/1/2022

Description: [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Design Alternative CD01536-03

Estimate

Preliminary Estimate Summary

Revision Number:	2
Contingency:	28.00%
SubTotal:	$5,500,000
Contingency Amount:	$1,540,000
Estimate:	$7,040,000
Reimbursement:	$0
Net Amount:	**$7,040,000**
Description:	

Item Description	CU	$ / Per	Qty	Amount
ACT	23-ALL12	[redacted]		$5,500,000.00
ACT Estimate for Contractor Crews				

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]	[redacted]	CANAAN	[redacted]		[redacted]	

Reliability Projection

Title:

Outage Start Date: 1/1/2007 Outage End Date: 4/16/2020 Years History: 13.30

[redacted]

Operations Project Authorization Form

Date Prepared: 9/30/2021	**Project Title: [redacted] Express Feeder**
Company: Eversource CT	**Project ID Number: CD01536**
Organization: Distribution Electric	**Class of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: Line**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Substation Overload**
Estimated in service date: 06/01/2022	**If Transmission Project: PTF? N/A**
Eng. /Constr. Resources Budgeted? Yes	**Capital Investment Part of Original Operating Plan?**
Authorization Type: Initial Funding	**O&M Expenses Part of the Original Operating Plan?**
Total Request: $9,680K	

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary:

[redacted]

This pooled transformer concept allows better utilization of substation bulk transformer capacity and it prevents the need to interrupt load for the failure of the power transformer until a mobile transformer can be brought in and connected.

[redacted] The total preliminary funding request is for $9.68 million, which assumes 100% pole replacement and 30% contractor labor.

The preferred option for this project has associated work with two other projects: CD01379 5L02 ROW Relocation and CS00389 [redacted]. The 5L02 ROW relocation project (CD01379) overlaps with this projects route for 2.5 miles. To reduce cost the work on the same route can be coordinated so that the 2.5 miles of aerial will be installed under CD01379 which will add $1.95 million to the cost of that project. The second project

associated with CD01536 is the work needed at [redacted] The installation of the [redacted] is dependent of this project's preferred option. The cost of this project is $1.5 million, but there is also other work that is included which is independent of this project. The total cost is summarized in the table below:

Revision 1:

This revision was necessary for financial considerations making it a multi-year project for the period 2022 – 2024.

Total Cost for [redacted] Aerial Cable Option

PN	Cost ($k)	Scope
CD01536	$ 9,680.00	5 miles of aerial cable, 100% pole replacement, 2 regulators
CD01379	$ 1,950.00	2.5 miles of aerial cable only
CS00389	$ 1,500.00	Dependent (CD01536) [redacted] position. Independent (CD01536) Replace disconnect switches and 4 oil filled reclosers.
Total Cost =	$13,130.00	

Project Costs Summary:

	Prior Authorized	2021	2022	2023	2024	Totals
Capital Additions - Direct	$0	$856,785	$2,070,228	$2,070,228	$788,658	$5,785,899
Less Customer Contribution	$0	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$23,976	$138,232	$138,232	$52,660	$353,100
Total - Direct Spending	$0	$880,761	$2,208,461	$2,208,461	$841,318	$6,139,001
Capital Additions - Indirect	$0	$404,063	$1,091,864	$1,091,864	$415,948	$3,003,739
Subtotal Request	$0	$1,284,824	$3,300,325	$3,300,325	$1,257,267	$9,142,741
AFUDC	$0	$73,476	$85,688	$85,688	$32,643	$277,495
Total Capital Request	$0	$1,358,300	$3,386,013	$3,386,013	$1,289,910	$9,420,236
O&M	$0	$1,796	$108,547	$108,547	$41,351	$260,241

Total Request	$0	$1,360,096	$3,494,561	$3,494,561	$1,331,261	$9,680,479

Financial Evaluations:

Direct Capital Costs	2021	2022	2023	2024	Total
Straight Time Labor	$203,937	$113,213	$113,213	$43,129	$473,492
Overtime Labor	$11,882	$23,467	$23,467	$8,940	$67,756
Outside Services	$278,850	$1,331,454	$1,331,454	$507,221	$3,448,979
Materials	$342,232	$731,328	$731,328	$278,601	$2,083,489
Other, including contingency amounts (describe)	$43,860	$8,998	$8,998	$3,428	$65,284
Total Direct Costs	**$880,761**	**$2,208,461**	**$2,208,461**	**$841,318**	$6,139,001

Indirect Capital Costs	2021	2022	2023	2024	Total
Indirects/Overheads (including benefits)	$404,063	$1,091,864	$1,091,864	$415,948	$3,003,739
Capitalized interest or AFUDC, if any	$73,373	$82,960	$82,960	$31,604	$270,897
Total Indirect Costs	**$477,436**	**$1,174,824**	**$1,174,824**	**$447,552**	$3,274,636
Total Capital Costs	**$1,358,198**	**$3,383,285**	**$3,383,285**	**$1,288,870**	**$9,413,638**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$1,358,198**	**$3,383,285**	**$3,383,285**	**$1,288,870**	**$9,413,638**

Total O&M Project Costs	**$1,899**	**$111,276**	**$111,276**	**$42,391**	**$266,842**

Total Project Cost	**$1,360,096**	**$3,494,561**	**$3,494,561**	**$1,331,261**	**$9,680,479**

Project Objectives

The main objective of this project is to improve reliability at [redacted] by establishing:

[redacted]

This pooled transformer concept allows better utilization of substation bulk transformer capacity and it prevents the need to interrupt load for the failure of the power transformer until a mobile transformer can be brought in and connected.

NEW FEEDER OPERATION

[redacted]

Voltage Study.pdf

Project Scope

[redacted]

Major Material:

187 – 45/2 Poles
26,778- 750Al AC (Does NOT include 13,600 that will be completed under CD01379)
26,778 - 556 AAC Tree Wire
2– 15 kV NOVA Reclosers
2 – 416KVA 3ph Regulators

Background / Justification:

[redacted]**:**

[redacted]

In December 2019 there was a need to take out the 694 line again to reconductor fiber on the towers. Due to the load being lower in the winter, generation was not needed but 2 sets of 333KVA regulators were installed so that the field ties could pick up the 1st zones without low voltage.

[redacted]:

[redacted]

Business Process and / or Technical Improvements:

[redacted]

12. Replaces 187 poles.

Alternative Considered with Cost Estimates:

[redacted]

LOSS OF Falls Village 9A-5X (2020)

[redacted]

- **TOTAL COST - $68 million ($4 million / transformer and $10 million / transmission mile)**

[redacted]

- **TOTAL COST - $79 million ($4 million / transformer and $75 million for BESS)**

Project Schedule:

Milestone/Phase Name	Estimated Completion Date
Preliminary Approval	6/1/2020
Detailed Design	6/1/2021
Environmental Permits	12/31/2021
DOT Permits	12/31/2021
Settings Requested	12/31/2021
Construction Start Date	2/01/2022
Construction End Date	06/01/2022

Regulatory Approvals:

Possible need for railroad permit close to [redacted]. in the center of town where we will cross on the existing pole line.

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2022	Medium	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Customer Permission / Siting Council / Municipal approvals	2021	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction resources not available to perform the work.	2022	High	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.

Internal engineering resources not available to perform the work.	2021	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Storm delays	2022	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2022	Low	Schedule work to minimize system abnormal time. Most of this work will require system to be abnormal for any extended period of time.

Attachments:

Oneline Map.pdf
Geographical Map.pdf
CD01536 Load Projections.pdf
Load Summary.pdf
SYS PLAN 010 - Bulk Distribution Substatio
CD01536_project_needs_statement.pdf

A. Cost Estimate

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536
[redacted] Express Feeder

Work Classification

Category: Line
Type: BLG5
Type Desc: SUBSTATION OVERLOADS-SPEC PROJ
Work Type:

Ownership / Management

AWC: Falls Village
Statewide: No
Owner
Manager

Project Information

Status: Draft
SPS #:
AIS Score:
Associated Projects:
Assignment ID:
Patrol Find ID:

Budget Summary - Preferred Option

Cost for Project CD01536

2021

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	[redacted]C 5L-5L02-70S	Prelim	0	24%	$1,360,014	$1,360,014
				2021 Total:	$1,360,014	$1,360,014

2022

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
3	[redacted]C P73 Belden [redacted]	Prelim	0	28%	$8,320,383	$8,320,383
				2022 Total:	$8,320,383	$8,320,383
				Total Project:	$9,680,397	$9,680,397

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Project Option Summary

ID	Description	Segments	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)	Prfrd
O1	Total [redacted] C Cost	1,2,3	$11,601,933	$0	100%	$0.00	$0.00	☐
O2	Cost for Project CD01536	1,3	$9,680,397	$0	100%	$0.00	$0.00	☑

Segments

ID	Title	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)
1	[redacted] AC 5L-5L02-70S	$1,360,014			$0.00	$0.00
2	[redacted] AC - CD01379	$1,921,536			$0.00	$0.00
3	[redacted] AC P73 Belden [redacted]	$8,320,383			$0.00	$0.00

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536
[redacted] Express Feeder

Background / Scope

Issue:

[redacted]

Project Description:

Other Considerations:

Revision / ACT Comments:

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

[redacted]

Environmental

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

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

Safety Concerns With This Project? ☐

Explain:

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

External Stakeholders

Customer Impact / Involvement

Cust. Impacted:	Approx. Pole Count (NU):
Crit. Cust. Impacted:	Approx. Pole Count (Other):
Adjoining Property Owner Consent Required: ☐	Town Hearing Required: ☐
Other Utility Pole Custodian Area: ☐	Easement Required: ☐
State Highway Permit Required: ☐	

Relocation / New Service

New Srvc. Contact:	Requestor Type:
Customer Type:	State Highway Project #:
Request Number:	Route #:

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01536 [redacted] Express Feeder

Design Alternative CD01536-01

General Information

Segment: 1 - [redacted]AC 5L-5L02-70S
Status: Prelim Design Submitted
Segment Type: OTHER
Town: NORTH CANAAN
Budget Year: 2021
Work Type: BB-Reconductoring
Trimming Required: ☐
In Service Date: 12/31/2021
Description: [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

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Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Design Alternative CD01536-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$1,096,786
Contingency Amount:	$263,229
Estimate:	$1,360,014
Reimbursement:	$0
Net Amount:	**$1,360,014**
Description:	

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17	[redacted]		$7,019.20
POLE OH - JUNCTION POLE - 3ph (CL&P custodian)	16-OH14A			$23,380.80
SECTIONALIZE OH - Cutouts or Arresters - 1ph	16-OH19			$4,113.60
SECTIONALIZE OH - Cutouts or Arresters - 3ph	16-OH20			$2,315.20
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil	16-OH27			$261,977.60
OH WIRE OH-Install Aerial Cable-existing poles (any gauge)	16-OH36			$310,592.00
OH WIRE OH - Remove circuit wire (3 phase)	16-OH37A			$10,803.20
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph	16-OH43			$30,849.60
XF OH - OH XF - 1ph	16-OH45			$12,657.60

Asset & Investment Management System 5/8/2020 Page 6 of 14

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Design Alternative — CD01536-01

EQUIPMENT OH - Capacitor, any kVAR, any voltage	16-OH52	[redacted]	$20,694.40
POLE DB/UG - Riser - 3ph	16-UG146		$10,794.40
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 18 days and $2k/day busy road	16-ALL18		$36,000.00
POLE OH - POLE - 3ph (CL&P custodian) 25 poles total - 50% included in reconductor. This estimate is the other 50%.	16-OH14		$60,788.00
OTHER OTHER 30% Contractor Labor	16-ALL14	[redacted]	$243,000.00
EQUIPMENT OH - Regulators, 3-1ph - on RACK [redacted] Regulators	16-OH48		$61,800.00

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]	E MAIN ST LIME KILN RD	NORTH CANAAN	[redacted]		1162	

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Design Alternative CD01536-01

Reliability Projection

Title:

Outage Start Date: 1/1/2007 Outage End Date: 4/13/2020 Years History: 13.29

[redacted]

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Design Alternative CD01536-02

General Information

Segment: 2 - 4L07 AC - CD01379 Status: Draft

Segment Type: OTHER Town: NORTH CANAAN Budget Year: 2022

Work Type: BB-Reconductoring Trimming Required: ☐ In Service Date: 6/1/2022

Description: [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536 [redacted] Express Feeder

Design Alternative CD01536-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	28.00%
SubTotal:	$1,501,200
Contingency Amount:	$420,336
Estimate:	$1,921,536
Reimbursement:	$0
Net Amount:	**$1,921,536**
Description:	

Item Description	CU	$ / Per	Qty	Amount
OH WIRE OH-Install Aerial Cable-existing poles (any gauge)	16-OH36	[redacted]		$1,251,200.00
OTHER OTHER contractor labor 20%	16-ALL14			$250,000.00

Associated / Impacted Devices

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

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01536

[redacted]xpress Feeder

Design Alternative CD01536-03

General Information

Segment: 3[redacted] Status: Prelim Design Submitted

Segment Type: OTHER Town: CANAAN Budget Year: 2022

Work Type: BB-Reconductoring Trimming Required: ☐ In Service Date: 6/1/2022

Description: [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Design Alternative CD01536-03

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	28.00%
SubTotal:	$6,500,299
Contingency Amount:	$1,820,084
Estimate:	$8,320,383
Reimbursement:	$0
Net Amount:	**$8,320,383**
Description:	

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	16-ALL17	[redacted]		$35,096.00
POLE OH - JUNCTION POLE - 3ph (CL&P custodian)	16-OH14A			$35,071.20
SECTIONALIZE OH - Cutouts or Arresters - 1ph	16-OH19			$4,113.60
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil	16-OH27			1,815,995.20
OH WIRE OH-Install Aerial Cable-existing poles (any gauge)	16-OH36			2,152,984.00
OH WIRE OH - Remove circuit wire (3 phase)	16-OH37A			$74,886.40
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph	16-OH43			$51,416.00
XF OH - OH XF - 1ph	16-OH45			$69,616.80
XF OH - OH XF's - bank of 3-1ph	16-OH46			$5,019.20

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Design Alternative CD01536-03

POLE DB/UG - Riser - 3ph	16-UG146	[redacted]	$10,794.40
OTHER OTHER $1,441,000 30% contractor labor	16-ALL14		$441,000.00
EQUIPMENT OH - Regulators, 3-1ph - on RACK 1 - 4L07 and 1 - 4L08	16-OH48		$123,600.00
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 110 total days and $2k/day for busy road	16-ALL18		$220,000.00
POLE OH - POLE - 3ph (CL&P custodian) 155 total poles, this est includes 50%, the other 50% in the reconductor est	16-OH14		$364,728.00
OTHER OTHER 30% for contractor labor	16-ALL14	[redacted]	$999,999.00
SECTIONALIZE OH - Recloser - 3ph	16-OH38		$95,979.20

[redacted]

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]	WATER ST DUBLIN RD	CANAAN	[redacted]		[redacted]	

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01536

[redacted] Express Feeder

Design Alternative CD01536-03

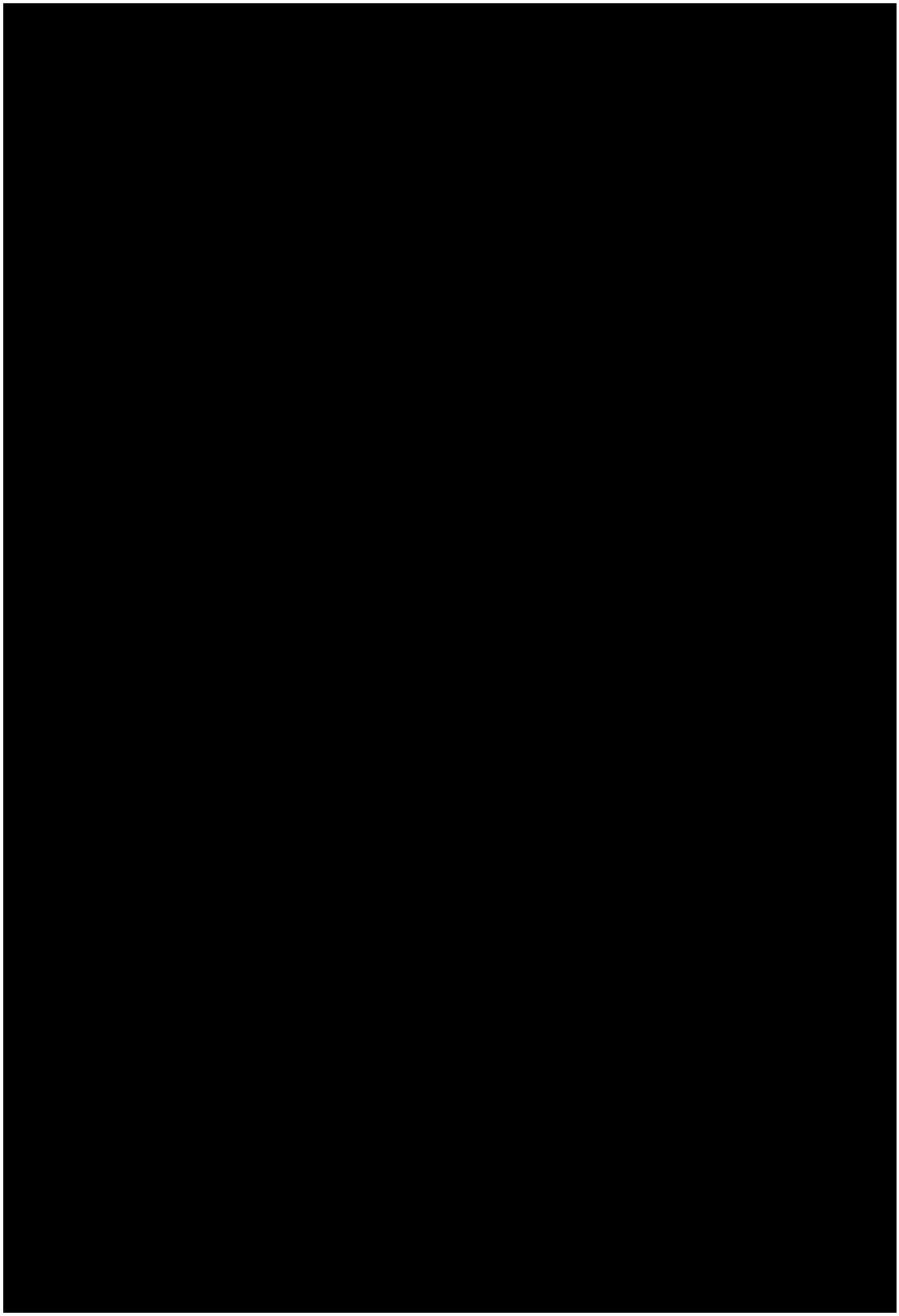
Reliability Projection

Title:

Outage Start Date: 1/1/2007 Outage End Date: 4/16/2020 Years History: 13.30

[redacted]

B. Site Plan:



C. One Line Diagram: Before Change



D. One Line Diagram: After Change



E. Load Sheet



F. Load Projections

