EVERSOURCE

Supplement Authorization Form

Project Title: [redacted] – Vault Repairs	**Project Number: CD01203**
Date Prepared: 05/30/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** REDUCE JOB HAZARDS
Initiating Organization: Distribution	**Project Type:** Specific
Project DDE: [redacted]	**Capital Investment part of 5-year 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)
Current Authorized Amount: $208.1K	**Approved In-Service Date:** 12/31/2019
Supplement Request: $255.1K	**Estimated In-Service Date: 12/31/2024**
Total Capital Request ($): $463.2K	**Authorization Type:** Supplement Request
	Reason: Scope Change

1. Project Background

Supplemental funding of $255.1K is being requested for this project. The project is currently authorized for $208.1K (excluding O&M), which brings this total funding request to $463.2K, which is 213% of the full funding estimate. Project CD01203 received partial funding authorization of $440K (excluding O&M) at the 10/17/2018 CPAC meeting, and full funding authorization of $208.1K (excluding O&M) on 3/21/2019.

The original project was presented as follows:

- [redacted] *since October 2016.*
- *The building owner has recently hired a Civil Engineering firm and an Electrical Engineering firm to assist them in making the necessary structural repairs to the vault as well upgrading their secondaries and bus duct within the vault.*
- [redacted]
- *Eversource is currently working with the building owner/contractors to finalize the vault design and specifications, and to establish a construction schedule.*

- *The estimated cost of this project is $449,903.*

2. Supplement Justification Detail

There was a scope change to this project, occurring on the 4 segments identified:



Additionally, this project's full funding estimate was generated in 2019, which is associated with a 30% increase to the total cost relative to units used today. In addition, these above costs do not include the indirect charges. See below table for complete breakdown.

3. Supplement Cost Summary (Project Total)

Capital Costs	Inception-to-date Spend	Prior Authorized	Supplement Request	**Total** (Add Prior and Supplement Request)
Internal Labor & Equipment	34.5	36.5	35.8	72.3
Outside Services	27.7	6.0	2.8	8.8
Materials	58.0	31.1	105.7	136.8
Removals	15.6	20.7	-9.3	11.4
Risk and Contingency	0.0	0.0	42.1	42.1
Other	0.0	0.0	0.0	0.0
SUBTOTAL Direct Cost	**135.7**	**94.2**	**177.2**	**271.4**
Indirects / Overheads	103.9	113.3	78.4	191.8
AFUDC	5.0	0.6	-0.6	0.0
SUBTOTAL Indirect Cost	**108.9**	**113.9**	**77.8**	**191.8**
TOTAL Capital Request	**244.6**	**208.2**	**255.1**	**463.2**
Less Total Customer Contribution	0.0	0.0	0.0	0.0
TOTAL Project Cost	**244.6**	**208.2**	**255.1**	**463.2**

New Total Request by Year (if applicable)

Capital Costs	2018	2019	2020	2021	2022	2023	2024	PROJ. SPEND
Internal Labor & Equipment	4.4	4.1	0.0	0.3	0.9	0.0	62.6	72.3
Outside Services	0.0	23.3	0.0	0.0	-5.3	0.0	-9.2	8.8
Materials	0.0	1.2	0.0	0.0	-0.3	0.0	135.9	136.8
Removals	0.0	4.6	1.4	0.1	2.1	0.0	3.2	11.4
Risk and Contingency							42.1	42.1
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUBTOTAL Direct Cost	**4.4**	**33.2**	**1.4**	**0.4**	**-2.6**	**0.0**	**234.6**	**271.4**
Indirects / Overheads	7.7	29.3	0.6	0.7	0.2	0.0	153.2	191.8
AFUDC	0.0	1.1	0.0	0.2	1.0	0.3	-2.6	0.0
SUBTOTAL Indirect Cost	**7.8**	**30.3**	**0.6**	**0.9**	**1.2**	**0.3**	**150.6**	**191.8**
TOTAL Capital Request	**12.2**	**63.5**	**2.0**	**1.3**	**-1.3**	**0.3**	**385.2**	**463.2**
Less Total Customer Contribution								0.0
TOTAL Project Cost	**12.2**	**63.5**	**2.0**	**1.3**	**-1.3**	**0.3**	**385.2**	**463.2**

4. Lessons Learned

5. Attachments

Attachment	Included in Submittal?
A1. Full Funding PAF	*YES*
A. Partial Funding PAF	*YES*
B. Cost Estimate / Needs Statement	*YES*
C. Geographic Map	*YES*
D. System and Station One-Lines	*YES*
E. Time Line	*YES*
F. Vault Photos	*YES*

A1 – Full Funding PAF:

Operations Project Authorization Form

Date Prepared: 3/20/2019	**Project Title: [redacted] – Vault Repairs**
Company/ies: Eversource - CT	**Project ID Number: CD01203**
Organization: Distribution Engineering	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: Reduce Job Hazards**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Structural Vault Repairs**
Estimated in service date: 12/31/19	**If Transmission Project: NA**
Eng. /Constr. Resources Budgeted? Yes	**Capital Investment Part of Original Operating Plan? Yes**
Authorization Type: Full Funding	**O&M Expenses Part of the Original Operating Plan? Yes**
Total Request: $217,338	

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary

[redacted] since October 2016.

The building owner has recently hired a Civil Engineering firm and an Electrical Engineering firm to assist them in making the necessary structural repairs to the vault as well upgrading their secondaries and bus duct within the vault.

[redacted]

Eversource is currently working with the building owner/contractors to finalize the vault design and specifications, and to establish a construction schedule.

The estimated cost of this project is $449,903.

Project CD01203 received Initial Funding Authorization of $449.9K at the 10/17/2018 CT PAC meeting. The detail design has been completed and we are requesting Full Funding Authorization of $217.3K, a decrease of $232.6K, or 48.3% of the Initial Funding Authorized amount.

Explanation of Variance:

- $21.4K: Overestimated amount of new, three phase, underground cable required. Full Funding estimate calls for 250 feet less cable installs.
- $5.4K: Overestimated amount of underground cable removals. Full Funding estimate calls for 220 feet less cable removals.
- $205.8K: The Initial Funding estimate was based on gross estimating units that account for contract crews performing the work (worst case scenario). Actual construction resource will be local Eversource Underground crews which eliminates the contractor project adders and contractor premium charges normally associated with contractor labor and bid jobs.

Project Costs Summary

	Prior Authorized*	Additional Request	2019	2020+	Total **
Capital Additions Direct	$0	$0	$ 73,570	$ -	$73,570
Less Customer Contribution	$0	$0	$ -	$ -	$0
Removals Net of Salvage	$0	$0	$ 20,659	$ -	$20,659
Total - Direct Spending	$0	$0	$ 94,228	$ -	$94,228
Capital Additions - Indirect	$0	$0	$ 113,348	$ -	$113,348
AFUDC	$0	$0	$ 597	$ -	$597
Total Capital Request	$440,219	-$232,045	$ 208,174	$ -	$208,174
O&M	$9,684	-$520	$ 9,164	$ -	$9,164
Total Request	**$449,903**	**-$232,565**	**$ 217,338**	**$ -**	**$217,338**

* Amount currently approval in PowerPlan

** Total authorization needed in PowerPlan based on ACT

Financial Evaluation

Direct Capital Costs	2019	2020	2021	Total
Straight Time Labor	$ 46,725	$ -	$ -	$ 46,725
Overtime Labor	$ -	$ -	$ -	
Outside Services	$ 7,680	$ -	$ -	$ 7,680
Materials	$ 39,823	$ -	$ -	$ 39,823
Other, including contingency amounts	$ -	$ -	$ -	$ -
Total	$ 94,228	$ -	$ -	$ 94,228

Indirect Capital Costs	2018	2019	2020	Total
Indirects/Overheads (including benefits)	$ 113,348	$ -	$ -	$ 113,348
Capitalized interest or AFUDC, if any	$ 597	$ -	$ -	$ 597
Total	$ 113,946	$ -	$ -	$ 113,946

Total Capital Costs	$ 208,174	$ -	$ -	$ 208,174
Less Total Customer Contribution	$ -	$ -	$ -	$ -
Total Capital Project Costs	$ 208,174	$ -	$ -	$ 208,174
Total O&M Project Costs	$ 9,164	$ -	$ -	$ 9,164
Total Project Cost	**$ 217,338**	**$ -**	**$ -**	**$ 217,338**

Technical Justification:

Project Need Statement

[redacted] since October 2016.

Project Objectives

[redacted]

Project Scope

[redacted]

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

Background / Justification

[redacted] since October 2016.

The building owner has recently hired a Civil Engineering firm and an Electrical Engineering firm to assist them in making the necessary structural repairs to the vault as well upgrading their secondaries and bus duct within the vault.

[redacted]

[redacted] (see attached Vault Photos).

[redacted]

[redacted]

Eversource is currently working with the building owner/contractors to finalize the vault design and specifications, and to establish a construction schedule.

Below is additional information related to this project:

[redacted]

[redacted]

[redacted]

The Building

- Owned by partnership led by [redacted]
- Former office space for insurance company
- Current office space for [redacted] et. al.
- DAS to move to [redacted] when building renovations are completed in late 2019
- [redacted] currently trying to sell building (see attached Hartford Courant article)
- Peak Load: 866 KVA
- Avg. Monthly Load: 706 KVA

Business Process and / or Technical Improvements:

Structural repairs and electrical improvements within the vault will allow for the continued safe operation and maintenance of this network service

Alternatives Considered with Cost Estimates

Do Nothing
Not really an option. [redacted]

Remove/re-install existing network units (i.e. don't replace)
No real savings here since the cost of the new network units is pre-capitalized and not charged to the project. Plus, this option would require the removal/re-installation of 45+ year-old network transformers.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Design Approval (ENG)	10/18/18
Order Long Lead-time Items (Network Units)	10/26/18
Detailed Design and Work Order Preparation	1/31/19
Detailed Design Approval (ACT)	2/28/19
Project Construction	12/31/19

Regulatory Approvals

N/A

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2019	Low	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Internal construction resources not available to perform the work.	2019	Medium	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.	2018	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2019	High	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2019	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2019	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods

A – Partial Funding PAF:

Operations Project Authorization Form

Date Prepared: 10/5/18	**Project Title: [redacted] – Vault Repairs**
Company/ies: Eversource - CT	**Project ID Number: CD01203**
Organization: Distribution Engineering	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: Reduce Job Hazards**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Structural Vault Repairs**
Estimated in service date: 12/31/19	**If Transmission Project: NA**
Eng. /Constr. Resources Budgeted? No	**Capital Investment Part of Original Operating Plan? No**
Authorization Type: Initial Funding	**O&M Expenses Part of the Original Operating Plan? No**
Total Request: $449,903	

Financial Requirements:

Project Authorization
ERM: _____

FP&A: _____

Executive Summary

[redacted] since October 2016.

The building owner has recently hired a Civil Engineering firm and an Electrical Engineering firm to assist them in making the necessary structural repairs to the vault as well upgrading their secondaries and bus duct within the vault.

[redacted]

Eversource is currently working with the building owner/contractors to finalize the vault design and specifications, and to establish a construction schedule.

The estimated cost of this project is $449,903.

Project Costs Summary

	Prior Authorized	2019	20__	20__+	Totals
Capital Additions - Direct	$ -	$ 162,641	$ -	$ -	$ 162,641
Less Customer Contribution	-	-	-	-	-
Removals net of Salvage ____%	-	73,728	-	-	73,728
Total - Direct Spending	$ -	$ 236,369	$ -	$ -	$ 236,369
Capital Additions - Indirect	-	198,982	-	-	198,982
Subtotal Request	$ -	$ 435,351	$ -	$ -	$ 435,351
AFUDC	-	4,868	-	-	4,868
Total Capital Request	$ -	$ 440,219	$ -	$ -	$ 440,219
O&M	-	9,684	-	-	9,684
Total Request	$ -	$ 449,903	$ -	$ -	$ 449,903

Financial Evaluation

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$53,313			
Overtime Labor	5,173			
Outside Services	130,506			
Materials	45,727			
Other, including contingency amounts (describe)	1,651			
Total	$236,370			

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$198,981			
Capitalized interest or AFUDC, if any	4,762			
Total	$203,743			

Total Capital Costs	$440,113			
Less Total Customer Contribution	0			
Total Capital Project Costs	$440,113			
Total O&M Project Costs	$9,790			
Total Project Cost	$449,903			

Technical Justification:

Project Need Statement

[redacted] since October 2016.

Project Objectives

[redacted]

Project Scope

[redacted]

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

Background / Justification

[redacted] since October 2016.

The building owner has recently hired a Civil Engineering firm and an Electrical Engineering firm to assist them in making the necessary structural repairs to the vault as well upgrading their secondaries and bus duct within the vault.

[redacted]

[redacted]

Eversource is currently working with the building owner/contractors to finalize the vault design and specifications, and to establish a construction schedule.

Below is additional information related to this project:

[redacted]

[redacted]

The Building

- Owned by partnership led by [redacted]
- Former office space for insurance company
- Current office space for State of Ct. Dept. of Admin. Svcs.(DAS), et. al.
- DAS to move to [redacted]. when building renovations are completed in late 2019
- [redacted] currently trying to sell building (see attached Hartford Courant article)
- Peak Load: 866 KVA
- Avg. Monthly Load: 706 KVA

Business Process and / or Technical Improvements:

[redacted]

Alternatives Considered with Cost Estimates

Do Nothing
Not really an option. [redacted]

Remove/re-install existing network units (i.e. don't replace)
No real savings here since the cost of the new network units is pre-capitalized and not charged to the project. Plus, this option would require the removal/re-installation of 45+ year-old network transformers.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
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Detailed Design Approval (ACT)	2/28/19
Project Construction	12/31/19

Regulatory Approvals

N/A

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2019	Low	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Internal construction resources not available to perform the work.	2019	Medium	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.	2018	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2019	High	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2019	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2019	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods

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

B – Cost Estimate:

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203

[redacted] Vault Repairs

Work Classification		Ownership / Management	
Category:	Line	AWC:	Hartford
Type:	RBOE	Statewide:	No
Type Desc:	REDUCE JOB HAZARDS	Owner	[redacted]
Work Type:		Manager	[redacted]

Project Information

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

Budget Summary - Preferred Option

Electrical Work to Facilitate Vault Repairs

2019

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	Fdr 109 - Elect Work to Facil Vlt Rep	Prelim	0	24%	$146,240	$146,240
2	Fdr 147A - Elect Work to Facil Vlt Rep	Prelim	0	24%	$140,907	$140,907
3	Fdr 151 - Elect Work to Facil Vlt Rep	Prelim	0	24%	$30,317	$30,317
4	Fdr 143A - Elect Work to Facil Vlt Rep	Prelim	0	24%	$132,440	$132,440
				2019 Total:	**$449,903**	**$449,903**
				Total Project:	**$449,903**	**$449,903**

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203

[redacted] - Vault Repairs

Project Option Summary

ID	Description	Segments	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)	Prfrd
O1	Electrical Work to Facilitate Vault Repairs	1,2,3,4	$449,903	$0	100%	$0.00	$0.00	☑

Segments

ID	Title	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)
1	Fdr 109 - Elect Work to Facil Vlt Rep	$146,240			$0.00	$0.00
2	Fdr 147A - Elect Work to Facil Vlt Rep	$140,907			$0.00	$0.00
3	Fdr 151 - Elect Work to Facil Vlt Rep	$30,317			$0.00	$0.00
4	Fdr 143A - Elect Work to Facil Vlt Rep	$132,440			$0.00	$0.00

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203
[redacted] - Vault Repairs

Background / Scope

Issue:

[redacted]

The building owner has recently hired a Civil Engineering firm and an Electrical Engineering firm to assist them in making the necessary structural repairs to the vault as well upgrading their secondaries and bus duct within the vault.

Project Description:

[redacted]

Eversource is currently working with the building owner/contractors to finalize the vault design and specifications, and to establish a construction schedule.

Other Considerations:

Revision / ACT Comments:

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

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203

[redacted] Vault Repairs

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: Safety measures will be discussed and implemented to facilitate making repairs to an existing electrical vault while maintaining electrical service to the building

External Stakeholders

Customer Impact / Involvement

Cust. Impacted: 2
Crit. Cust. Impacted:
Adjoining Property Owner Consent Required: ☐
Other Utility Pole Custodian Area: ☐
State Highway Permit Required: ☐

Approx. Pole Count (NU):
Approx. Pole Count (Other):
Town Hearing Required: ☐
Easement Required: ☐

Relocation / New Service

New Srvc. Contact:
Customer Type:
Request Number:

Requestor Type:
State Highway Project #:
Route #:

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A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203

[redacted] Vault Repairs

Design Alternative CD01203-01

General Information

Segment: 1 - Fdr 109 - Elect Work to Facil Vlt Rep
Status: Prelim Design Submitted
Segment Type: JOB HAZARD REDUCTION
Town: HARTFORD
Budget Year: 2019
Work Type: Other
Trimming Required: ☐
In Service Date: 12/31/2019
Description [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed
1	[redacted]		
2			
3			
4			

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01203 [redacted] Vault Repairs

Design Alternative CD01203-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$117,935
Contingency Amount:	$28,304
Estimate:	$146,240
Reimbursement:	$0
Net Amount:	**$146,240**

Description: Original ENG estimate

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING Network	16-ALL15	[redacted]		$28,097.60
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18			$8,000.00
UG CABLE DB/UG - 1/0 - 3-1/C (3ph) Cu	16-UG113A			$3,384.00
UG CABLE DB/UG - 350/500 - 3-1/C (3ph) Cu	16-UG114			$17,956.80
UG CABLE UG - Cable Removal - all cables	16-UG117			$7,160.00
UG CABLE UG - Transition Splice	16-UG120			$2,636.80
XF UG - Network XF	16-UG134			$41,200.00
OTHER OTHER LETC (1 loc X $1500/loc)	16-ALL14			$1,500.00
OTHER OTHER Manhole Cleaning [redacted]MH X [redacted]MH)	16-ALL14			$3,000.00

Asset & Investment Management System 10/17/2018 Page 6 of 16

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203

[redacted] - Vault Repairs

Design Alternative CD01203-01

OTHER OTHER Temporary wall installation	16-ALL14	[redacted]	$2,000.00
OTHER OTHER XFMR Removal	16-ALL14		$3,000.00

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]	[redacted]	HARTFORD	[redacted]		0	

Reliability Projection

Title:

Outage Start Date: 01/01/2007 Outage End Date: 10/04/2018 Years History: 11.76

[redacted]

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203 [redacted] - Vault Repairs

Design Alternative CD01203-02

General Information

Segment: 2 - Fdr 147A - Elect Work to Facil Vlt Rep
Status: Prelim Design Submitted
Segment Type: JOB HAZARD REDUCTION
Town: HARTFORD
Budget Year: 2019
Work Type: Other
Trimming Required: ☐
In Service Date: 12/31/2019
Description: Install new U-425 and primary cable in the southern vault upon completion of repairs. Remove existing U-425 and primary cable from the northern vault to allow building owner to make structural repairs.

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed
1	[redacted]		
2			

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203
[redacted] - Vault Repairs

Design Alternative CD01203-02

Estimate

Preliminary Estimate Summary	
Revision Number:	0
Contingency:	24.00%
SubTotal:	$113,634
Contingency Amount:	$27,272
Estimate:	$140,907
Reimbursement:	$0
Net Amount:	**$140,907**

Description: Original ENG estimate

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING Network	16-ALL15	[redacted]		$14,048.80
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18			$10,000.00
UG CABLE DB/UG - 1/0 - 3-1/C (3ph) Cu	16-UG113A			$3,760.00
UG CABLE DB/UG - 350/500 - 3-1/C (3ph) Cu	16-UG114			$25,752.00
UG CABLE UG - Cable Removal - all cables	16-UG117			$8,600.00
UG CABLE UG - Transition Splice	16-UG120			$5,273.60
XF UG - Network XF	16-UG134			$41,200.00
OTHER OTHER Manhole Cleaning [redacted] MH X $ [redacted] MH)	16-ALL14			$3,000.00
OTHER OTHER XFMR Removal	16-ALL14			$2,000.00

Asset & Investment Management System 10/17/2018 Page 9 of 16

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203
[redacted] - Vault Repairs

Design Alternative CD01203-02

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]	[redacted]	HARTFORD	[redacted]		1	

Reliability Projection

Title:

Outage Start Date: 01/01/2007 Outage End Date: 10/04/2018 Years History: 11.76

[redacted]

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203 [redacted] - Vault Repairs

Design Alternative CD01203-03

General Information

Segment: 3 - Fdr 151 - Elect Work to Facil Vlt Rep
Status: Prelim Design Submitted
Segment Type: JOB HAZARD REDUCTION
Town: HARTFORD
Budget Year: 2019
Work Type: Other
Trimming Required: ☐
In Service Date: 12/31/2019
Description: Remove existing U-437 and primary cable from the northern vault to allow building owner to make structural repairs.

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed
1	[redacted]		
2			

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203

[redacted] - Vault Repairs

Design Alternative CD01203-03

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$24,449
Contingency Amount:	$5,868
Estimate:	$30,317
Reimbursement:	$0
Net Amount:	**$30,317**

Description: Original ENG estimate

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING Network	16-ALL15	[redacted]		$14,048.80
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18			$5,000.00
UG CABLE UG - Cable Removal - all cables	16-UG117			$1,400.00
OTHER OTHER LETC (1 loc X $1500/loc)	16-ALL14			$1,500.00
OTHER OTHER Manhole Cleaning [redacted]MH X $[redacted]MH)	16-ALL14			$500.00
OTHER OTHER XFMR Removal	16-ALL14			$2,000.00

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]	RESERVE RD	HARTFORD	[redacted]		5	

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203
[redacted] - Vault Repairs

Design Alternative CD01203-03

Reliability Projection

Title:

Outage Start Date: 01/01/2007 Outage End Date: 10/04/2018 Years History: 11.76

[redacted]

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Specific Project Proposal - Project #: CD01203
[redacted] - Vault Repairs

Design Alternative CD01203-04

General Information

Segment: 4 - Fdr 143A - Elect Work to Facil Vlt Rep
Status: Prelim Design Submitted
Segment Type: JOB HAZARD REDUCTION
Town: HARTFORD
Budget Year: 2019
Work Type: Other
Trimming Required: ☐
In Service Date: 12/31/2019
Description: [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed
1	[redacted]		
2			

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Specific Project Proposal - Project #: CD01203

[redacted] - Vault Repairs

Design Alternative CD01203-04

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$106,806
Contingency Amount:	$25,634
Estimate:	$132,440
Reimbursement:	$0
Net Amount:	**$132,440**

Description: Original ENG estimate

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING Network	16-ALL15	[redacted]		$14,048.80
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18			$8,000.00
UG CABLE DB/UG - 1/0 - 3-1/C (3ph) Cu	16-UG113A			$2,632.00
UG CABLE DB/UG - 350/500 - 3-1/C (3ph) Cu	16-UG114			$25,752.00
UG CABLE UG - Cable Removal - all cables	16-UG117			$7,400.00
UG CABLE UG - Transition Splice	16-UG120			$5,273.60
XF UG - Network XF	16-UG134			$41,200.00
OTHER OTHER Manhole Cleaning [redacted] MH X [redacted] MH)	16-ALL14			$1,500.00
OTHER OTHER Temporary wall removal	16-ALL14			$1,000.00

Asset & Investment Management System 10/17/2018 Page 15 of 16

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01203
[redacted] - Vault Repairs

Design Alternative CD01203-04

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]	[redacted]	HARTFORD	[redacted]		1	

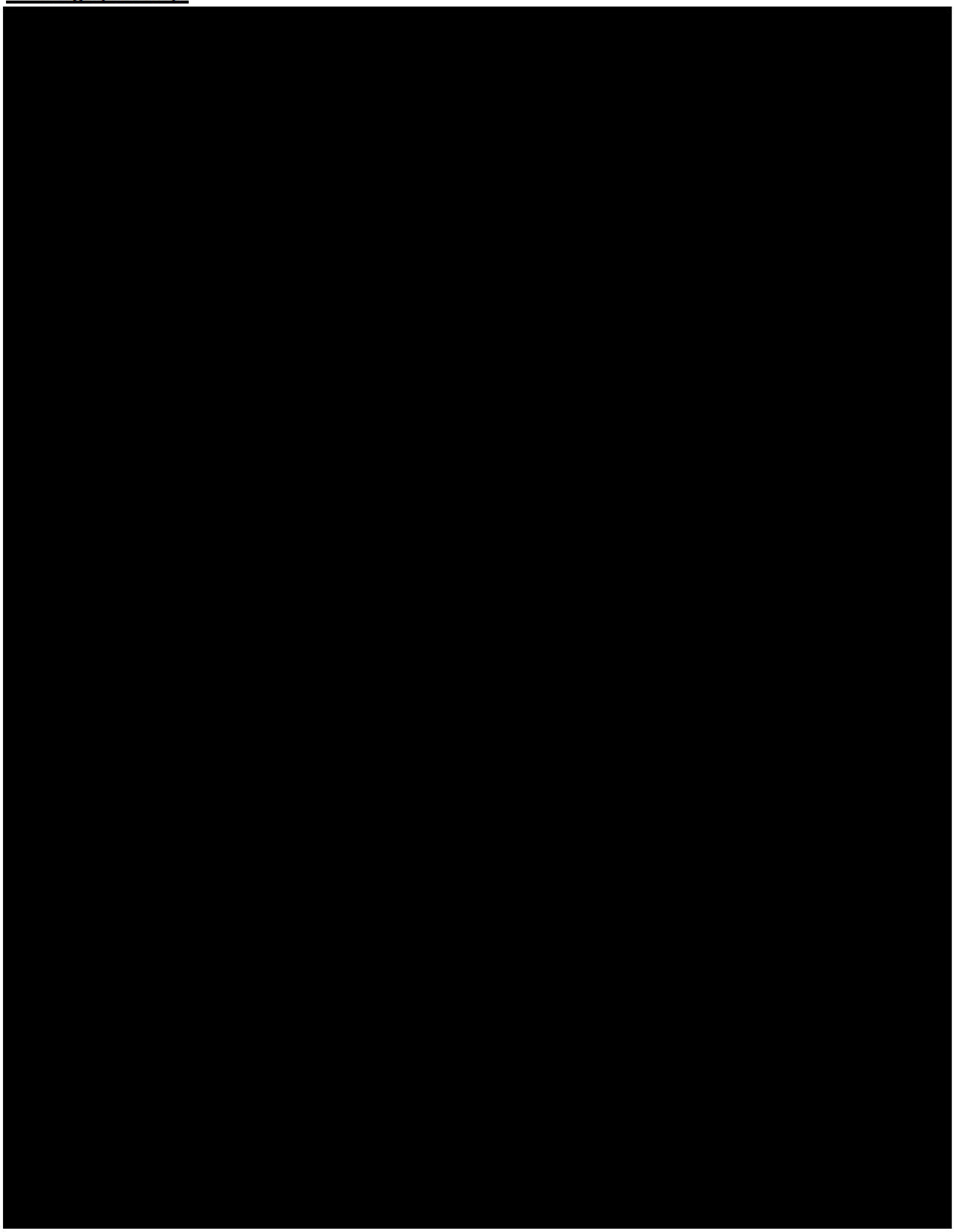
Reliability Projection

Title:

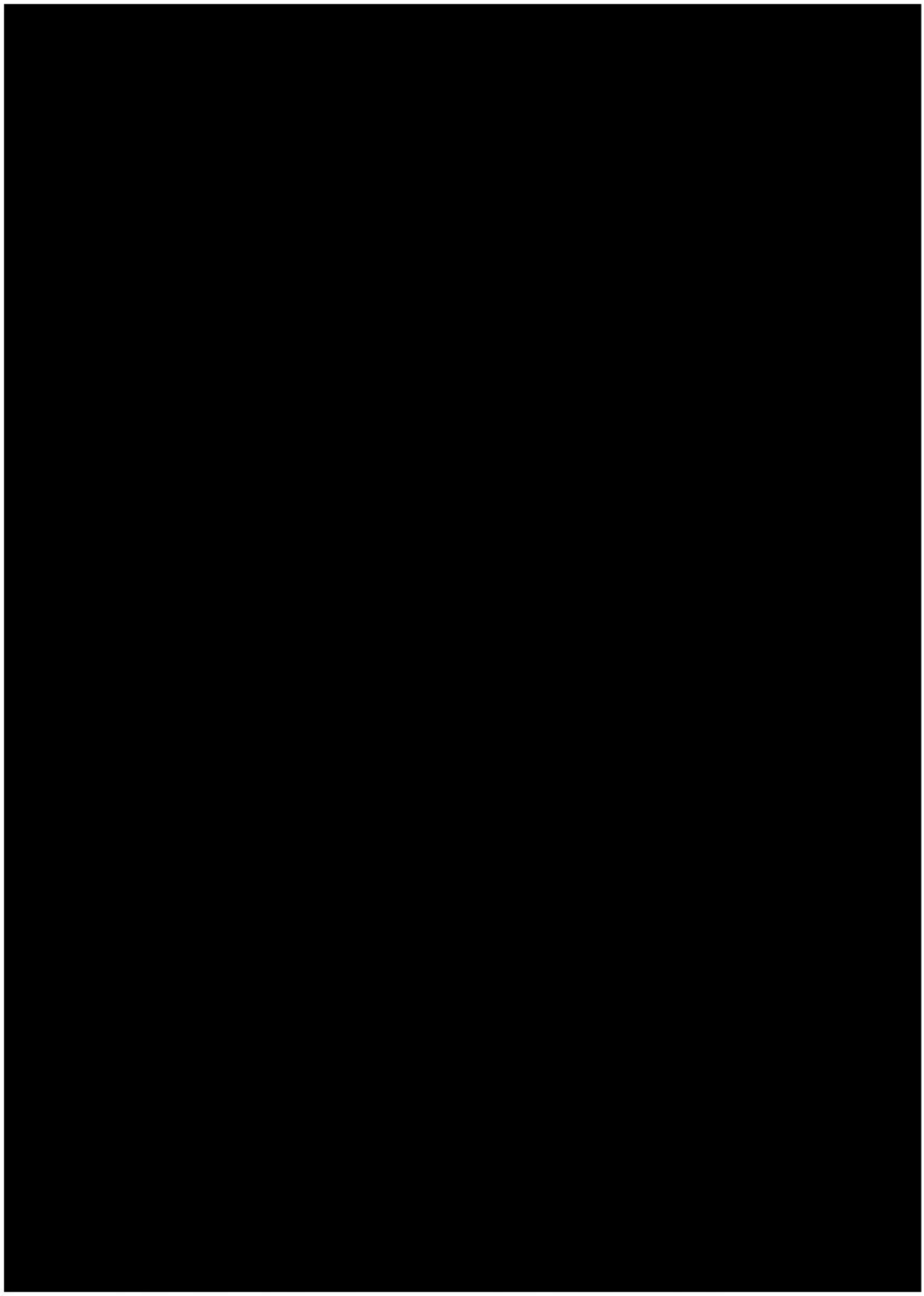
Outage Start Date: 01/01/2007 Outage End Date: 10/04/2018 Years History: 11.76

[redacted]

C – Geographic Map:



D – System and Station One Lines:



E - Time Line:

[redacted] - ELECTRICAL FACILITIES AND VAULT REPAIR/RECONFIGURATION

[redacted]



[redacted]

[redacted]

