EVERSOURCE

Supplement Authorization Form

Project Title: New Customer Load on Hope St. Bristol	Project Number: [redacted]
Date Prepared: 10/08/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** New Customer-ED
Initiating Organization: Distribution	**Project Type:** Specific
Project DDE: [redacted]	**Capital Investment part of 5-year plan?** Yes
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: $1,642.2K	**Approved In-Service Date:** 11/8/2024
Supplement Request: $418.4K	**Estimated In-Service Date: 06/1/2026**
Total Capital Request: $2,060.6K ($231.4K reimbursable)	**Authorization Type:** Supplement Request
	Reason: : Cost Overage

1. Project Background

The City of Bristol constructed a new road named [redacted] proposes the City of Bristol install UG structures on [redacted] and the company relocates [redacted] circuits from the existing duct bank at the corner of [redacted] and installs two new ISG switchgear units on an easement obtained from the city. The new switchgear units will be installed at the intersection of [redacted] along with a new [redacted] to supply the new [redacted]. In addition, five sections of PILC (Paper Insulated Lead Cable) on the [redacted] will be replaced to supply the new switchgear and increase the circuit's rating.

The remaining work is listed below.

[redacted]

2. Supplement Justification Overview

This project has been delayed due to the acceptance of the new ISG switchgear and the required permitting from the local railroad company. The railroad company and Eversource worked cooperatively on the permitting to work on the railroad ROW which took over an year. In addition, the City of Bristol wanted to relocate the switchgear to the City's parking lot.

The cost increase is attributed to inflation since the work orders were written five years ago and the cost to retrofit the ISG switchgear was $10k.

3. Supplement Justification Detail

The reason for the project authorization supplement of $418.4K are described below.

- Direct Costs: Full Funding - $1,088.9K vs Supplemental - $ 1,185.8K for $96.9K increase.
    - Labor - Project was shifted from contractor to internal crews for savings of $20K.
    - Material - Material costs increased by $158K. The cost is attributed to inflation since the work orders were created five years ago. In addition, the cost to retrofit the ISG switchgear was $10k.
- Indirect: Full Funding - $553.3K vs Supplemental - $874.8K for $321.5K increase.

4. Supplement Cost Summary (Project Total)

Line-item Category	To Date Spend Year(s)	Prior Authorized Year(s)	Variance (Supplemental Request) Year(s)	New Total Request (Add Prior Authorized and Variance) Year(s)
Internal Labor and Construction Equipment	125.7	63.9	108.8	172.7
Outside Services	191.7	332.6	-134.6	198.0
Materials	717.8	582.9	158.0	740.9
Removals	36.5	45.7	-5.3	40.4
Risk and Contingency	0.0	63.8	-41.4	22.4
Other	11.4	0.0	11.5	11.5
SUBTOTAL DIRECTS W/ RISKS	**1,083.0**	**1,088.9**	**96.9**	**1,185.8**
Indirect / Overhead (including benefits)	589.1	483.0	249.4	732.4
AFUDC	142.4	70.3	72.1	142.4
Subtotal – Indirect Costs	**731.5**	**553.3**	**321.5**	**874.8**
TOTAL CAPITAL REQUEST	**1,814.6**	**1,642.2**	**418.4**	**2,060.6**
Reimbursables/Customer Contribution	-213.4	-231.4	0.0	-231.4
PROJECT TOTAL (LESS REIMBURSABLES)	**1,601.2**	**1,410.8**	**418.4**	**1,829.2**

New Total Request by Year (if applicable)

Note: If multi-year project includes actuals for current and past years, then show forecasted spend for upcoming years.

Line item Category	2018-2023	20024	2025	2026	Projected Spend
Internal Labor and Construction Equipment	28.6	82.2	15.6	46.3	172.7
Outside Services	159.6	34.4	-2.4	6.5	198.0
Materials	428.1	290.8	-1.1	23.2	740.9
Removals	18.2	17.9	0.0	4.3	40.4
Risk and Contingency	0.0	0.0		22.4	22.4
Other	11.4	0.1	0.0	0.0	11.5
SUBTOTAL DIRECTS W/ RISKS	**645.8**	**425.4**	**12.0**	**102.6**	**1,185.8**
Indirect / Overhead (including benefits)	231.8	324.2	33.2	143.3	732.4
AFUDC	70.4	35.1	36.9	0.0	142.4
Subtotal – Indirect Costs	**302.2**	**359.2**	**70.1**	**143.3**	**874.8**
TOTAL CAPITAL REQUEST	**948.0**	**784.6**	**82.1**	**245.9**	**2,060.6**
Reimbursables/Customer Contribution	-213.4			-18.0	-231.4
PROJECT TOTAL (LESS REIMBURSABLES)	**734.6**	**784.6**	**82.1**	**227.9**	**1,829.198**

5. Lessons Learned

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Supplement Authorization Form

Project Title: New Customer Load on Hope St Bristol	**Project Number:** [redacted]
Date Prepared: 10/24/2023	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** New Customer-ED
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** Yes
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: 6/1/2024	
Total Capital Request: $1,642.2K ($231.4K reimbursable)	**Authorization Type:** Full Funding

1. Executive Summary

The City of Bristol constructed a new road named [redacted]. The existing easement and duct bank with three circuits needs to be lowered or relocated to alleviate the conflict with the city's design. With the location of the current duct bank and condition of the fiber conduits, lowering the manholes and duct banks was not a feasible option.

[redacted] proposes relocation of the [redacted] circuits from the existing duct bank on Hope Street and installs [redacted] ISG switchgear units on an easement obtained from the city. The new switchgear will be installed at the intersection of [redacted] along with a new [redacted] to supply the new lots. In addition, [redacted] sections of PILC (Paper Insulated Lead Cable) on the [redacted] will be replaced to supply the new switchgear and increase the circuit's rating.

The city of Bristol will install the new duct bank containing [redacted] 5-inch conduits on [redacted], and will bear the cost to relocate the [redacted] from the existing duct bank to a duct bank on Riverside Ave. As part of an agreement with the city in 2019, Eversource agreed to pay for the relocation of [redacted] the circuits out of the existing duct bank since both feeders would need to be extended in the new [redacted] duct bank to feed the new switchgear.

The City of Bristol installed the new UG structures on Hope Street, and the company has relocated the [redacted] circuits. The remaining work is the switchgear installation.

On March 24, 2022, the Partial Funding project was approved for $1,250K. The Full Funding amount is $1,642.2K. The difference is $392.2K, due in most part to the use of legacy units which do not account for increased cost and labor, (an increase of ~$375K) and a scope change (an increase of ~$60K).

The scope change was due to a City of Bristol request. After a customer purchased the lot adjoining the switchgear easement area, the City and the customer wanted the switchgear location relocated. The City gave the company a new easement, will install the new UG structures, and bear the cost for the addition cable required. The City wants to roll the switchgear relocation work in with the new parking garage service work.

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2022 ITD	2023	2024	Total
Internal Labor and Construction Equipment	25.2	3.3	35.5	63.9
Outside Services	145.0	12.9	174.7	332.6
Materials	426.3	0.0	156.6	582.9
Removals	26.2	0.7	18.9	45.7
Risk and Contingency	0.0	0.0	63.8	63.8
Other	0.0	0.0	0.0	0.0
Subtotal	**622.6**	**16.8**	**449.5**	**1,089.0**

Indirect Capital Costs	2022 ITD	2023	2024	
Indirect/Overheads (including benefits)	223.9	7.1	251.9	483.0
Capitalized interest or AFUDC, if any	57.0	13.2	0.0	70.3
Subtotal	**281.0**	**20.4**	**251.9**	**553.3**
Total Capital Costs (Gross)	**903.6**	**37.2**	**701.4**	**1,642.2**
Less Total Customer Contribution	**(231.4)**	**0.0**	**0.0**	**(231.4)**
Project Costs (Net of Reimbursement)	**672.2**	**37.2**	**701.4**	**1,410.8**

Explain unique payment provisions, if applicable:

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

In the past, whenever cable work was required in this duct bank, the circuit was relocated from this duct bank to the underground structures in the city right way. There are [redacted] circuits that remain in the duct bank where the new service is proposed.

b. Project Need

The City of Bristol has requested Eversource to lower a [redacted] conduit duct bank that conflicts with the location for a proposed new street. The proposal is to relocate the [redacted] circuits in the duct bank located on private property to the proposed new underground structures on [redacted] and in the underground structures on [redacted]. The company requested the city of Bristol to install a [redacted] conduit duct bank structure on [redacted] to enable Eversource to supply the new customer load and have a duct bank to relocate [redacted] circuits into. The Bristol [redacted] and [redacted] would supply the proposed switchgear and the new customer's load.

c. Project Scope

[redacted]



4. Alternatives Considered

Project Option Comparison

Design Criteria	Option	
	1 – Create New Circuit	**2 – Replace existing duct bank in easement area.**
Normal loads < 80% of UG rating	X	X
Normal loads < 90% of OH rating	X	
Contingent loads < 100% of rating		
Get out of a bad location easement area.	X	
Avoid tying plastic conduits to Fiber ducts nightmare.	X	

Eliminate future access to easement area nightmare issues.	X	
Authorization Type	Full	Partial
Capital Cost	$1,642.2K	$1,250K
Expense Cost	$79.2K	$25K
Total Cost	$1,721.4K	$1,1275K
Total Cost / MVA added	$/MVA	$/MVA
Total Cost / CM Saved	$/CM	$/CM
Total Cost / CI Saved	$/CI	$/CI
Preferred option	X	

Option One

This is the preferred option for the following reasons: The existing [redacted] conduit duct bank is old and made of fiber ducts. Excavating near the old duct bank would compromise the integrity of the existing duct bank with [redacted] feeders still energized within the duct bank. Manholes at each end of the relocation area would need to be enlarged as they already have [redacted] conduits entering the manhole wall. Wall space would be limited to add an additional conduit. The new [redacted] development in an underground area requires a new duct bank to be installed on the new street. Maintaining the easement for the [redacted] conduit duct bank made no sense with a new duct bank going on the new street ([redacted]). Plus, the company was already moving the circuits in this duct bank to the duct bank in the City's Street ROW.

Option Two

This alternative is to lower the [redacted] conduit fiber duct bank and replace [redacted] circuits in the duct bank verses relocating [redacted] circuits into the city right of way. This option was not chosen for the following reasons.

1. Lowering a fiber conduit duct bank is exceedingly difficult and excavation under the old fiber duct bank could compromise reliability.
2. Making room in the manhole wall for [redacted] new conduits with [redacted] existing conduits is also very costly.
3. The [redacted] circuits are in an easement area where the company is getting out of whenever a circuit fails.
4. The City of Bristol is installing a [redacted]-conduit duct bank underground structure on [redacted].
5. The [redacted] circuits need to be installed in the new Hope Street underground structures to supply the new switchgear.

5. Project Schedule

Add any additional milestones that are pertinent to the project.

Milestone/Phase Name	Estimated Date
Partial Approval	3/24/2022
100% Detailed Engineering Completion	10/1/02023
Fully Funded	12/31/2023
Construction Start	6/1/2018
In Service Date	6/1/2024

6. Regulatory Decisions

7. Codes and Standards

Risk and Contingencies

Contingencies:

Risk Mitigation:

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost is higher than estimated due to scope changes.	2022/2023/2024	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	2022/2023/2024	Medium	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources are not available to perform the work.	2022/2023/2024	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Internal engineering resources are not available to perform the work.	2022/2023/2024	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2022/2023/2024	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2022/2023/2024	Medium	If storm activity delays work, we may be forced to use external resources.

System abnormal configuration	2022/2023/2024	Medium	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system is abnormal for extended periods.
Technological risks involving integration of new technology	2022/2023/2024	Medium	Before use of new technology ensures support of standards and manufacturers. Schedule projects to accommodate for extra time or ensure new technology is not on the critical path.
Wetlands / Environmentally sensitive area	2022/2023/2024	Medium	Use of mats and specialty equipment, only work during certain times of the year.

8. References

References
1.
2.
3.
4.
5.

9. 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. Detail Letter Agreement Letters.	*YES*
F. Partial PAF	*YES*

A. Cost Estimate.

Budget Summary - Preferred Option — Relocate 11K42 and 11K41 on New Road

2019

ID	Title	Status	Rev	Contingency	Expenditure Amount	Net Estimate
6	Install [redacted] switcgear	Prelim	0	8%	$573,046	$573,046
3	Relocate [redacted]	Prelim	0	8%	$100,489	($15,891)
2	Relocate [redacted] Duct Bank	Prelim	0	8%	$342,476	$342,476
1	Remove Cables	Prelim	0	8%	$70,353	$70,353
				2019 Total:	$1,086,364	$969,984

2022

ID	Title	Status	Rev	Contingency	Expenditure Amount	Net Estimate
9	[redacted] UG Cable Replacement	Prelim	0	24%	$120,984	$120,984
				2022 Total:	$120,984	$120,984

2024

ID	Title	Status	Rev	Contingency	Expenditure Amount	Net Estimate
8	Additonal Cable for Switchgear Relocatio	Prelim	0	40%	$67,469	$0
				2024 Total:	$67,469	$0
				Total Project:	$1,274,817	$1,090,968

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Supplement Authorization Form

Segment

CD00992-01

General Information

Segment:	1 - Remove Cables			Status:	Prelim Design Approved
Segment Type:	RELOCATION - UG	Town:	BRISTOL	Budget Year:	2019
Work Type:	Other	Trimming	☐	In Service Date:	12/31/2019
Description:	Remove Cables from duct bank that will be abandoned.				

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed
1	G07-1	H3	Remove [redacted]
2	G07-1	H3	Remove [redacted]
3	G07-1	H3	Remove [redacted]
4	G07-1	H3	Remove [redacted]
5	G07-1	H3	Remove [redacted]

Estimate

	Preliminary Estimate Summary	Construction (ACT) Estimate Summary	Variance	
Revision Number:	1	0		
Contingency:	24.00%	7.50%		
SubTotal:	$18,400	$65,445	$47,045	256%
Contingency Amount:	$4,416	$4,908	$492	11%
Estimate:	$22,816	$70,353	$47,537	208%
Reimbursement:	$0	$0	$0	
Net Amount:	**$22,816**	**$70,353**	**$47,537**	**208%**
Description:	Remove Cables between manholes 75, 74 and 93.	ACT Estimate		

Item Description	CU	$ / Per	Qty	Amount
UG CABLE [redacted]	16-UG117	[redacted]		$5,200.00
UG CABLE [redacted]	16-UG117			$5,200.00
UG CABLE [redacted]	16-UG117			$4,000.00
UG CABLE [redacted]	16-UG117			$4,000.00

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Supplement Authorization Form

Segment

CD00992-02

General Information

Segment: 2 - Relocate [redacted] Duct Ban | Status: Prelim Design Approved

Segment Type: RELOCATION - UG | Town: BRISTOL | Budget Year: 2019

Work Type: Other | Trimming ☐ | In Service Date: 12/31/2019

Description: Relocate [redacted] Duct Bank Structure.

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Estimate

	Preliminary Estimate Summary	Construction (ACT) Estimate Summary	Variance	
Revision Number:	1	0		
Contingency:	24.00%	7.50%		
SubTotal:	$221,760	$318,582	$96,822	44%
Contingency Amount:	$53,222	$23,894	($29,329)	55%
Estimate:	$274,982	$342,476	$67,493	25%
Reimbursement:	$0	$0	$0	
Net Amount:	**$274,982**	**$342,476**	**$67,493**	**25%**

Description: Relocate [redacted] ACT Estimate
Circuits in the New Road.

Item Description	CU	$ / Per	Qty	Amount
UG CABLE [redacted]	16-UG114B	[redacted]		$29,760.00
UG CABLE [redacted]	16-UG114B			$57,120.00
UG CABLE [redacted]	16-UG114B			$24,000.00
UG CABLE [redacted]	16-UG114B			$29,760.00
UG CABLE [redacted]	16-UG114B			$57,120.00
UG CABLE [redacted]	16-UG114B			$24,000.00

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Supplement Authorization Form

Segment

CD00992-03

General Information

Segment: 3 - Relocate [redacted]
Status: Prelim Design Approved
Segment Type: RELOCATION - UG
Town: BRISTOL
Budget Year: 2019
Work Type: Other
Trimming ☐
In Service Date: 12/31/2019
Description: Relocate [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed
1	G07-1	H3	Relocate the [redacted]

Estimate

	Preliminary Estimate Summary	Construction (ACT) Estimate Summary	Variance	
Revision Number:	1	0		
Contingency:	24.00%	7.50%		
SubTotal:	$116,681	$93,478	($23,203)	20%
Contingency Amount:	$28,003	$7,011	($20,993)	75%
Estimate:	$144,684	$100,489	($44,195)	31%
Reimbursement:	$130,216	$116,380	($13,836)	11%
Net Amount:	**$14,468**	**($15,891)**	**($30,360)**	**210%**

Description:

Item Description	ACT Estimate CU	$ / Per	Qty	Amount
UG CABLE [redacted]	16-UG114B	[redacted]		$17,280.00
UG CABLE [redacted]	16-UG114B			$45,600.00
UG CABLE [redacted]	16-UG114			$8,212.80
UG CABLE [redacted]	16-UG114			$12,528.00
UG CABLE [redacted]	16-UG114			$33,060.00

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Supplement Authorization Form

Segment

CD00992-06

General Information

Segment:	6 - Install new Innovative switcgear			Status:	Prelim Design Approved
Segment Type:	NEW SERVICE	Town:	BRISTOL	Budget Year:	2019
Work Type:	Other	Trimming	☐	In Service Date:	12/31/2019
Description:					

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Estimate

	Preliminary Estimate Summary	Construction (ACT) Estimate Summary	Variance	
Revision Number:	2	0		
Contingency:	24.00%	7.50%		
SubTotal:	$424,819	$533,066	$108,247	25%
Contingency Amount:	$101,957	$39,980	($61,977)	61%
Estimate:	$526,776	$573,046	$46,270	9%
Reimbursement:	$0	$0	$0	
Net Amount:	**$526,776**	**$573,046**	**$46,270**	**9%**

Description:

Item Description	ACT Estimate CU	$ / Per	Qty	Amount
SWITCHGEAR [redacted]	16-UG128	[redacted]		$359,923.20
DB CABLE [redacted]	16-UG113			$53,760.00
UG CABLE [redacted]	16-UG114			$11,136.00

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Supplement Authorization Form

Segment

CD00992-08

General Information

Segment:	8 - Additonal Cable for Switchgear Relocatio			**Status:**	Prelim Design Approved
Segment Type:	NEW SERVICE	**Town:**	BRISTOL	**Budget Year:**	2024
Work Type:	Other	**Trimming**	☐	**In Service Date:**	6/1/2024
Description:	Additional Work to accommodate the switchgear location changing. Just the additional cable. The switchgear will be installed under segment Six				

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	40.00%
SubTotal:	$48,192
Contingency Amount:	$19,277
Estimate:	$67,469
Reimbursement:	$67,469
Net Amount:	**$0**

Description:

Item Description	CU	$ / Per	Qty	Amount
UG CABLE [redacted]	16-UG114B	[redacted]		$19,680.00
DB CABLE [redacted]	16-UG113			$7,392.00
UG CABLE [redacted]	16-UG114B			$21,120.00

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Supplement Authorization Form

Segment

CD00992-09

General Information

Segment: 9 - [redacted] UG Cable Replacement Status: Prelim Design Approved

Segment Type: NEW SERVICE Town: BRISTOL Budget Year: 2022

Work Type: BB-Reconductoring Trimming ☐ In Service Date: 12/31/2023

Description: Replace the [redacted] circuit to increase the circuit's limiting factors.

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$97,568
Contingency Amount:	$23,416
Estimate:	$120,984
Reimbursement:	$0
Net Amount:	**$120,984**

Description:

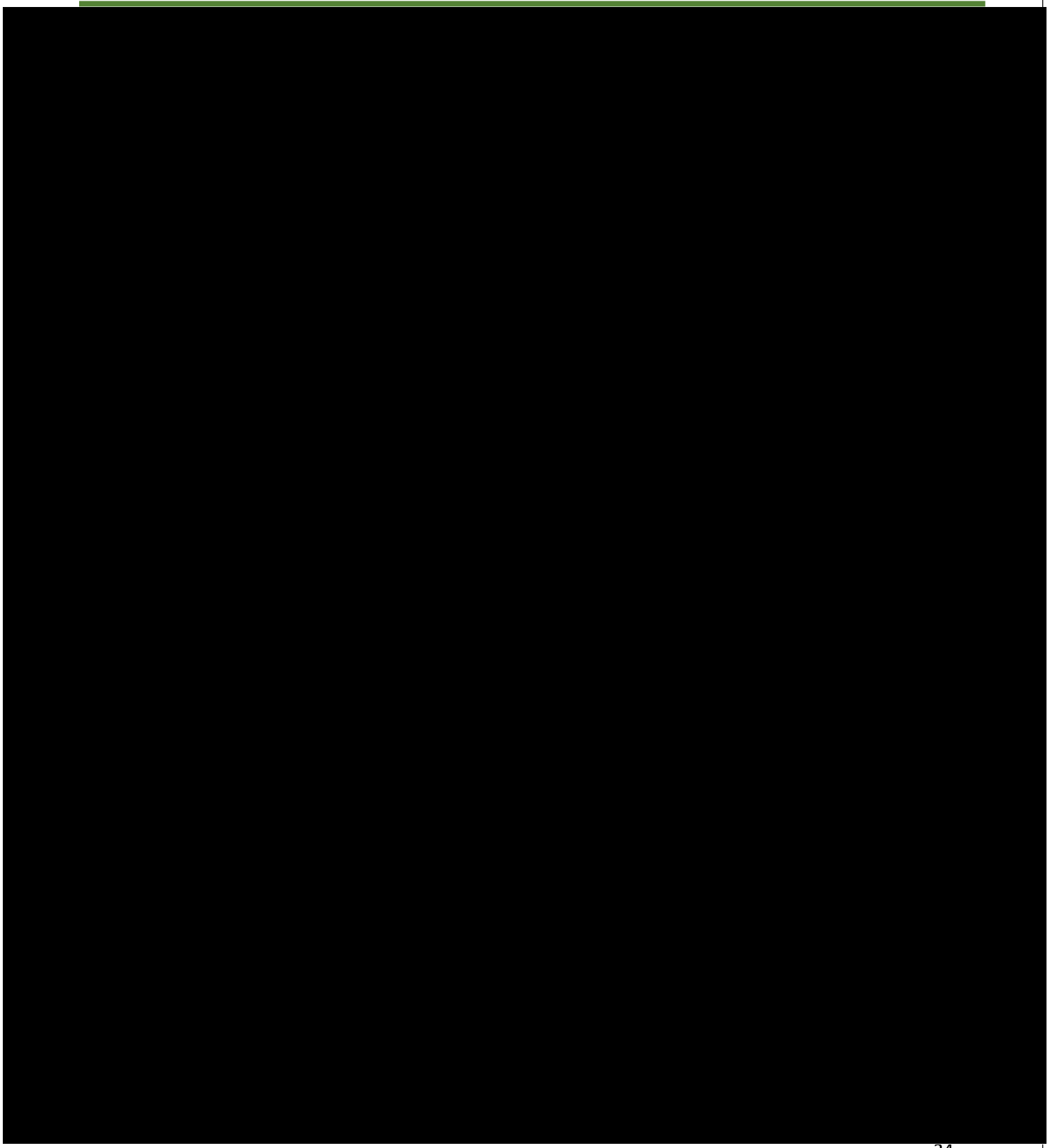
Item Description	CU	$ / Per	Qty	Amount
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	16-ALL18	[redacted]		$5,000.00
UG CABLE UG - Cable Removal - all cables	16-UG117			$15,960.00
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu [redacted]	16-UG114B			$21,792.00
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu [redacted]	16-UG114B			$54,816.00

C. Geographic Maps.

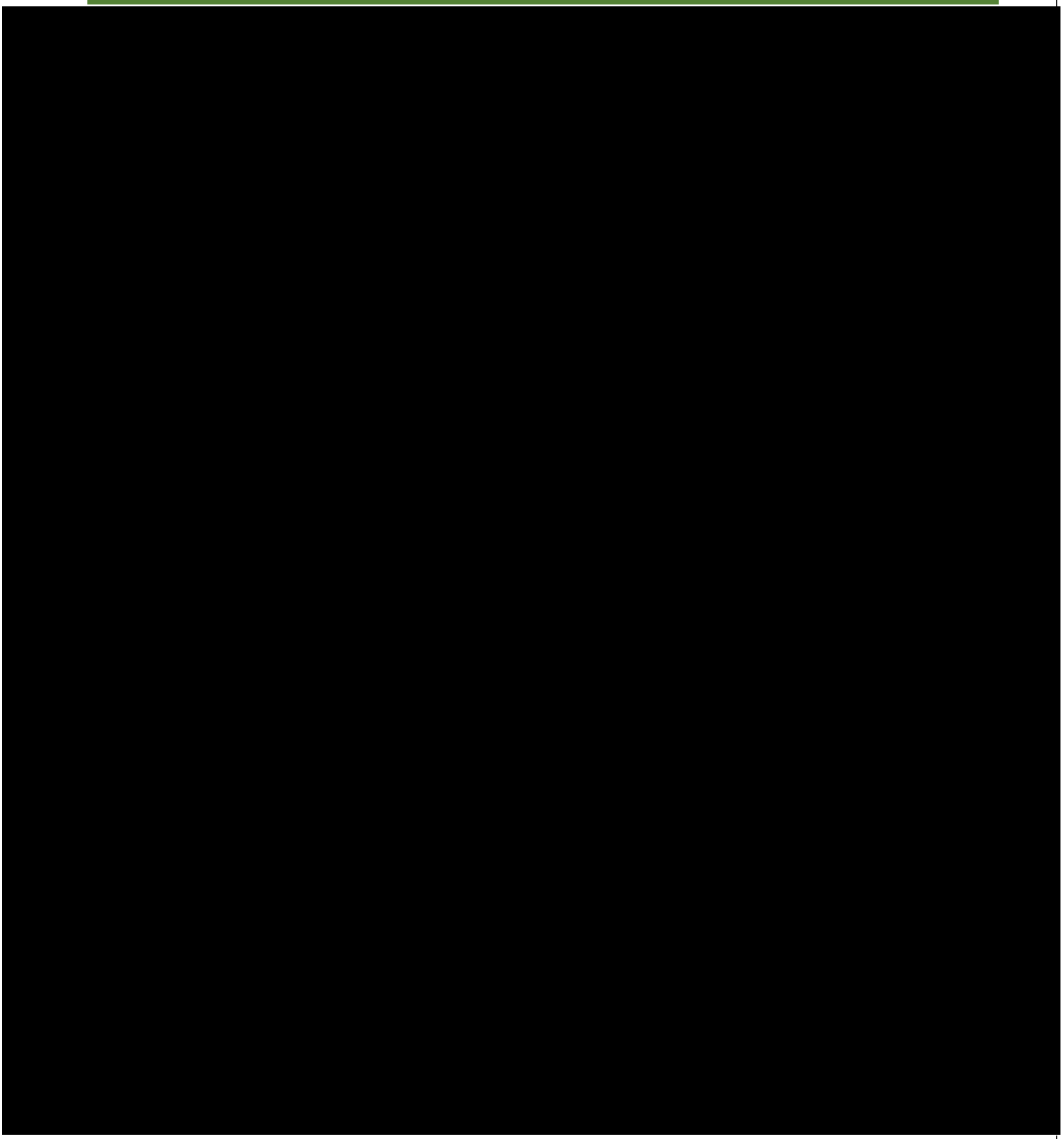
Before Showing New UG Structures on [redacted].

[redacted]

Consturction in 2024



Relocate [redacted] Circuits.



Relocate [redacted] Circuit.

[redacted]

[redacted]

[redacted]

E. Detail Letter Agreement Letters.

EVERSOURCE ENERGY

705 West Johnson Avenue
Cheshire, CT 06410

March 19, 2019

Mayor Ellen A. Zoppo-Sassu
City of Bristol
111 North Street
Bristol, CT 06010

Dear Customer:

Instead of requiring the City of Bristol (the "City") to bear the cost of lowering The Connecticut Light and Power Company's (Eversource's) duct bank currently located in [redacted] as shown on the map entitled "Compilation Plan Easements to be Acquired/Released Property of the City of Bristol Date: 12-26-2017 Rev B. RE [redacted] ("Map #1"), a copy of Map #1 is attached, Eversource and the City have agreed to the following:

- Under work request [redacted] Eversource will relocate its [redacted] circuit from the underground structures in said [redacted] o the public right of way known as [redacted] and the City will bear the entire cost of that relocation. (That cost will be equivalent to the cost to lower the existing duct bank.)
- Provided that the City first delivers to Eversource via warranty deed an easement in and to the roadway identified on Map #2 (as defined below) as the New Road (such easement shall be in form and substance as well as recorded all in accordance with Eversource's standard easement acquisition policy and requirements), Eversource will then relocate the [redacted] ircuits from said [redacted] o the New Road; and Eversource will bear the costs of that relocation.
- The City will grant to Eversource via warranty deed an easement at the new switchgear location on the corner of [redacted] and the New Road as shown on the Easement Map (preliminary-for review only) entitled "Depicting Easement Area to be Granted to The Connecticut Light and Power Company d/b/a Eversource Energy Across the Property of THE CITY OF BRISTOL and THE BRISTOL HOSPITAL, INCORPORATED [redacted] Connecticut Date; February 14, 2019Revision Date 03-04-2019 CL&P File No. W18166 Project No. [redacted] cale 1" = 60'" ("Map #2"), a copy of Map #2 is attached Said easement shall be in form and substance as well as recorded all in accordance with said policy and requirements.
- Upon completion, to Eversource's sole and absolute satisfaction, of all the City's obligations found in and relating to this letter including, without limitation, such completion of the above three items and upon the City's completion of its dedication of New Road as a public right-of-way/city road , Eversource will agree to release Utility Easement "E".

The City's cost for Eversource to relocate the [redacted] ircuit from the City's [redacted] is projected to be $126,915.14. Please submit a check payable to Eversource for the total amount.

The projected cost of the relocation is valid for 90 days and assumes average working conditions. Additional charges may apply if we encounter unusual conditions (rock, water, frost, etc.). All tree trimming, trenching, conduit and blasting on private property are to be performed by the City at the City's sole cost.

To enable Eversource to schedule the work, please detach the bottom portion of this letter and return it in the enclosed envelope with your nonrefundable payment. Your payment in good and collectible funds authorizes Eversource to relocate electric service at the above location and acknowledges your agreement with the terms and conditions stated in this letter.

EVERSOURCE ENERGY

705 West Johnson Avenue
Cheshire, CT 06410

March 19, 2019

Facilities installed by Eversource will remain the property of Eversource. This payment will not entitle you to ownership interest or rights to Eversource facilities.

If you should have any questions, please contact [redacted]

Sincerely,

[redacted]
Manager,
Distribution Engineering

Please cut at dotted line and return with your mail in payment.

Payment Options:

Credit/Debit Card or ACH (echeck) payments (convenience fee required): Call the Electric Service Support Center, (888)544-4826

US Mail Payments: Eversource - Electric Service Support Center, PO Box 2985, Hartford CT 06104-2985

Overnight/Express Payments: Eversource - Electric Service Support Center, 107 Selden St., Berlin CT 06037 (Monday-Friday)

ENT	CCC	Work Order	Cost Ele	LOB	FERC	STORMS WR #	
11	15D	2M724405	A68			3040876	$ 116,380.00
11	310	1864W011	A68	11100	1864W0		$ 10,535.14
Job Address:		***Reimbursement Estimate, Job Type ESNBS***				**Total Due**	**$126,915.14**

Riverside Avene, Bristol CT

Customer Billed
City of Bristol
111 North Street
Bristol , CT 06010

EVERSOURCE ENERGY

705 West Johnson Avenue
Cheshire, CT 06410

March 24, 2023

The City of Bristol
Mayor Jeffrey Caggiano
3rd Floor
111 North Street
Bristol, CT 06010

Dear Customer:

Instead of installing the proposed switchgear in a designated easement area at the corner of [redacted], install the switchgear on a new easement area per the City of Bristol 's (the "City") request. The City will bear additional cable installation and removal costs of relocating the switchgear in the new easement area on the City's municipal parking lot off [redacted] since the switchgear will be further from the underground facilities on [redacted] The Connecticut Light and Power Company's (Eversource's) currently has a switchgear easement at the corner of [redacted] Eversource and the City have agreed to the following work that the City will be responsible for and bear the cost:

[redacted]

The City will provide Eversource an easement for the new switchgear location. Once the City records Eversource the new easement and pays the cable work costs listed above, Eversource will relinquish the easement area around the switchgear manhole numbers [redacted]

The City's cost for Eversource to install the switchgear at the new easement location is $104,479.77. Please submit a check payable to Eversource for the total amount.

The projected cost of the relocation is valid for 90 days and assumes average working conditions. Additional charges may apply if we encounter unusual conditions (rock, water, frost, etc.). All tree trimming, trenching, conduit and blasting on private property are to be performed by the City at the City's sole cost.

EVERSOURCE ENERGY

705 West Johnson Avenue
Cheshire, CT 06410

March 24, 2023

To enable Eversource to schedule the work, please detach the bottom portion of this letter and return it in the enclosed envelope with your nonrefundable payment. Your payment in good and collectible funds authorizes Eversource to relocate electric service at the above location and acknowledges your agreement with the terms and conditions stated in this letter.

Facilities installed by Eversource will remain the property of Eversource. This payment will not entitle you to ownership interest or rights to Eversource facilities.

If you should have any questions, please contact [redacted]

Sincerely,

[redacted]
Manager
Distribution Engineering

Please cut at dotted line and return with your mail in payment.

Payment Options:

Credit/Debit Card or ACH (echeck) payments (convenience fee required): Call the Electric Service Support Center, (888)544-4826
US Mail Payments: Eversource - Electric Service Support Center, PO Box 2985, Hartford CT 06104-2985
Overnight/Express Payments: Eversource - Electric Service Support Center, 107 Selden St., Berlin CT 06037 (Monday-Friday)

ENT	CCC	WAMFWO	Cost Ele	LOB	FERC	MAXIMO WO #	
11	2AD	80354165	A68			11172618	$ 97,015.90
11	310	1864W011	A68	11100		1864W0	$ 7,463.87
Job Address:	**Reimbursement Estimate, Job Type RLOCCI-SD**					Total Due	$ 104,479.77

Customer Billed
The City of Bristol
Mayor Jeffrey Caggiano
3rd Floor
111 North Street
Bristol, CT 06010
February 16, 2023

Operations Project Authorization Form

Project Title: New Customer Load on Hope St Bristol	**Project Number:** [redacted]
Date Prepared: 03/16/2022	**Company:** Eversource CT
Organization: Electric Field Operations	**Class(es) of Plant:** D Line
Project Initiator: [redacted]	**Project Category:** New Service
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** Yes
Estimated in service date: 12/31/2023	**Emergency Related Request?** No
Eng./Constr. Resources Budgeted? Yes	**Facility Type** (check all that apply): ☐ PTF ☐ [redacted] PTF X Distribution
Total Gross Capital Request: $1,253K ($154K)	**Authorization Type:** Initial Funding

Executive Summary

The City of Bristol constructed a new road named [redacted] which extends from [redacted], near the Bristol [redacted]. The existing easement and duct bank with three circuits needs to be lowered or relocated to alleviate the conflict with the city's design. With the location of the current duct bank and condition of the fiber conduits, lowering the manholes and duct banks was not a feasible option.

Project [redacted] proposes relocation of [redacted] circuits from the existing duct bank on [redacted] and installs two new ISG switchgear units on an easement obtained from the city. The new switchgear will be installed at the intersection [redacted] along with a new [redacted] to supply the new lots. In addition, [redacted] sections of PILC on the [redacted] will be replaced to supply the new switchgear and increase the circuit's rating.

The city of Bristol will install the new duct bank containing t[redacted]5-inch conduits on [redacted], and will bear the cost to relocate the [redacted] from the existing duct bank to a duct bank on [redacted]. As part of an agreement with the city in 2019, Eversource agreed to pay for the relocation of [redacted] the circuits out of the existing duct bank since both feeders would need to be extended in the new Hope St duct bank to feed the new switchgear.

As of 5/22, the City of Bristol has built a new duct bank, and the company has relocated [redacted] feeders.

Project Costs Summary

Note: Dollar values are in thousands

Capital Costs	Previous Years	Year 2022	Year 2023	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	$82	$13	$10	$104
Outside Services	$277	$43	$34	$353
Materials	$225	$35	$27	$287
Removals	$34	$5	$4	$43
Risk and Contingency	($88)	($14)	($11)	($112)
Other	$0	$0	$0	$0
Subtotal	**$529**	**$82**	**$64**	**$676**
Indirect Capital Costs	**Year 1**	**Year 2**	**Year 3+**	**Total**
Indirect/Overheads (including benefits)	$431	$70	$54	$555
Capitalized interest or AFUDC, if any	$18	$3	$2	$23
Subtotal	**$449**	**$72**	**$57**	**$578**
Total Capital Costs (Gross)	**$978**	**$155**	**$121**	**$1,253**
Total Customer Contribution	**($154)**	**$0**	**$0**	**($154)**
Total Capital Project Costs	**$824**	**$158**	**$123**	**$1,105**

Technical Justification:

Project Need, Objective, and Justification

The City of Bristol has requested Eversource to lower a [redacted]conduit duct bank that conflicts with the location for a proposed new street. The proposal is to relocate the[redacted] circuits in the duct bank located on private property to the proposed new underground structures on [redacted] and in the underground structures on[redacted]. The city of Bristol is requested to install a[redacted]-conduit duct bank structure on Hope Street to enable Eversource to supply the new customer load and have a duct

bank to relocate [redacted] circuits into. The Bristol [redacted] would supply the proposed switchgear and the new customer's load.

Project Scope

[redacted]

Background

In the past, whenever cable work was required in this duct bank, the circuit was relocated from this duct bank to the underground structures in the city right way. There are [redacted] circuits that remain in the duct bank.

Alternatives Considered:

Were alternative solutions considered/applicable? Include any cost/benefit analysis.

Alternatives were considered (please describe below)

The only alternative would be to build another duct bank within the existing easement area, but this option was not selected for the following reasons:

- The existing duct bank is old and made of fiber ducts. Excavating near the old duct bank would compromise the integrity of the existing duct bank with [redacted] feeders still energized

within the duct bank.

- Manholes at each end of the relocation area would need to be enlarged as they already have [redacted] conduits entering the manhole wall. Wall space would be limited to add an additional 12 conduits.
- The new duct bank proposed by the city are located within the town road providing easy access to the manholes. Rebuilding the duct bank within the easement area may have been difficult to access in the future depending on what is constructed at this site.

Regulatory Approvals:

Are Regulatory body approvals needed for the project?

No

If yes, provide detailed regulatory approvals.

Project Schedule

Milestone/Phase Name	Estimated Date
80% Engineering Completion	12/31/2017
100% Engineering Completion	6/1/2022
Construction Start	6/1/2018
Install switchgear	12/31/2022
Upgrade 11K44	12/31/2023

Risk and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost is higher than estimated due to scope changes.	2022/2023	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	2022	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction resources are not available to perform the work.	2022/2023	High	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Internal engineering resources are not available to perform the work.	2022	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Storm delays	2022/2023	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 the system to be abnormal for any extended period.

References

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

Reference appendices items in the appropriate section of the PAF and list items in the same order as referenced in the PAF.