EVERSOURCE

Project Approval Form

Project Title: [redacted] Getaways	**Project Number: CD02459**
Date Prepared: 09/04/2024	**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:** 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: 12/31/24, 6/30/25	
Total Capital Request: $942.1K	**Authorization Type:** Full Funding

1. Executive Summary

Full funding is being requested for this project at a cost of $942.1K which is 135.4% of the partial funding capital estimate of $695.8K. CD02459 was partially approved on 6/20/2024. There is no scope change on the project. The variance between the full funding and partial funding estimate is due a variety of factors:

- Internal labor was approximately $90K higher relative to the partial funding request, approximately $33K of which was identified in the CR completed by Madison AWC and New London UG.
    - Travel time costs led to an additional $22K increase reflected on the full funding request.
- Material costs increased a total of $44K on the full funding request.
- Costs associated with Removals, Risk and Contingency, and "other" led to a combined differential of approximately $38K over the entire project.
- Overall, the sum of indirect costs and AFUDC also increased and contributed significantly to the difference for this project, for a total of increase of approximately $190K.
- Please note reduced utilization in outside services offset the total cost of this project by $116K.

The Original Project was presented as follows:

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

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2024	2025	Total
Direct Capital Costs			
Internal Labor and Construction Equipment	99.7	19.3	118.9
Outside Services	101.6	19.6	121.2
Materials	136.2	26.3	162.5
Removals	21.2	8.2	29.4
Risk and Contingency	0.0	65.7	65.7
Other	0.0	0.0	0.0
Subtotal – Direct Costs	**358.6**	**139.2**	**497.7**
Indirect Capital Costs			
Indirect/Overheads (including benefits)	370.0	74.4	444.4
Capitalized interest or AFUDC, if any	0.0	0.0	0.0

Subtotal – Indirect Costs	370.0	74.4	444.4
Total Gross Capital Costs	**728.6**	**213.6**	**942.1**
Less Total Customer Contribution	0.0	0.0	0.0
Total Net Capital Project Costs	**728.6**	**213.6**	**942.1**

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted]

b. Project Need

[redacted]

c. Project Scope

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

[redacted]

Major Material

- 1,360 feet 1000 kcmil Cu cable.
- Pre-cast manhole 8 X 14 X 7.
- 2,000 feet 6-inch conduit.
- 400 feet 556 3-phase tree wire.

4. Alternatives Considered

Project Option Comparison

	Option	
[redacted]		
Authorization Type	Full	Partial
Capital Cost	$942.1K	$627K
Expense Cost	$37.6K	$21K

Total Cost	$979.7K	$700K
Preferred option	X	

Option 1 - This is the preferred option [redacted]

Option 2 - was not chosen because it [redacted]

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	6/20/24
100% Detailed Engineering Completion	7/31/24
Construction Start	11/1/24
In Service Date	12/31/24, 6/30/26

6. Regulatory Decisions

N/A

7. Codes and Standards

- DESM 02.301 Automatic Sectionalizing Device Guidelines.
- DESM 05.82 Overhead System Nomenclature
- DESM 06.521 Getaway Component Ratings
- DTR 12.591 Riser Pole 900 Amp switches
- DTR 12.009 Cable Riser Guide
- DESM 08.10 Overhead Rating

- DESM 08.36 Substation Getaway feeder Cable Ratings.
- DESM 18.10 Substation Planning Criteria

8. Risk and Contingencies

Risk Mitigation:

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

System abnormal configuration	2024	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	2024	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	2024	Low	Use of mats and specialty equipment, only work during certain times of the year.

9. References

References
1. CD01929 Retire [redacted]
2. CS00365 [redacted] substation expansion
3. CD02381 Conversion on [redacted] circuits

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

Attachment	Included in Submittal?
A. Partial Funding PAF Form	*YES*
B. Cost Estimate	*YES*
C. Station One-line layout	*YES*
D. Geographic Map	*YES*

EVERSOURCE

Project Approval Form

Attachment A: Partial Funding PAF Form

Project Title: [redacted] **Getaways**	**Project Number: CD02459**
Date Prepared: 05/02/2024	**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:** 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: 12/31/24, 6/30/26	
Total Capital Request: $695.8K	**Authorization Type:** Partial Funding

1. Executive Summary

[redacted]

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2024	2025	2026	Total
Internal Labor and Construction Equipment	24.2	4.9	0.0	29.1
Outside Services	197.1	39.7	0.0	236.8
Materials	98.9	19.9	0.0	118.8
Removals	43.8	8.8	0.0	52.6
Other	3.8	0.8	0.0	4.6
Risk and Contingency	0.0	0.0	0.0	0.0
Subtotal	**367.8**	**74.2**	**0.0**	**441.9**

Indirect Capital Costs	2024	2025	2026	Total
Indirects/Overheads (including benefits)	198.1	40.0	0.0	238.1
Capitalized interest or AFUDC, if any	13.1	2.6	0.0	15.8
Subtotal	**211.2**	**42.6**	**0.0**	**253.8**
Total Capital Costs (Gross)	**579.0**	**116.8**	**0.0**	**695.8**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net)	**579.0**	**116.8**	**0.0**	**695.8**

3. Technical Justification

[redacted]

a. Background

- [redacted]

b. Project Need

- [redacted]

c. Project Scope

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

Major Material

- 1,360 feet 1000 kcmil Cu cable.
- Pre-cast manhole 8 X 14 X 7.
- 2,000 feet 6-inch conduit.
- 400 feet 556 3-phase tree wire.

4. Alternatives Considered

Project Option Comparison

	Option	
[redacted]		
Authorization Type	Partial	Partial
Capital Cost	$695.8K	$627K
Expense Cost	$21.7K	$21K
Total Cost	$717.5K	$700K
Preferred option	X	

Option 1 - This is the preferred option due to the [redacted]

Option 2 - was not chosen because it [redacted]

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	6/13/24
100% Detailed Engineering Completion	7/31/24
Fully Funded	9/30/24
Construction Start	11/1/24
In Service Date	12/31/25

6. Regulatory Decisions

7. Codes and Standards

DESM 02.301 Automatic Sectionalizing Device Guidelines.

DESM 05.82 Overhead System Nomenclature

DESM 06.521 Getaway Component Ratings

DTR 12.591 Riser Pole 900 Amp switches

DTR 12.009 Cable Riser Guide

DESM 08.10 Overhead Rating

DESM 08.36 Substation Getaway feeder Cable Ratings.

DESM 18.10 Substation Planning Criteria

8. Risk and Contingencies

Contingencies:

Risk Mitigation:

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

System abnormal configuration	2024	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	2024	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	2024	Low	Use of mats and specialty equipment, only work during certain times of the year.

9. References

References
1. CD01929 Retire Westbrook 20S
2. CS00365 Bokum 15L substation expansion
3. CD02381 Conversion on 15L circuits
4.
5.

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Station One-line layout	*YES*
C. Geographic Map	*YES*
D. Other	*YES / NO / N/A*

Attachment B – Cost Estimate – [redacted]

Design Alternative CD02459-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	20.00%
SubTotal:	$94,679
Contingency Amount:	$18,936
Estimate:	$113,615
Reimbursement:	$0
Net Amount:	**$113,615**
Description:	

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$4,562.48
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18			$12,000.00
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu	23-UG114B			$33,696.00
UG CABLE UG - Cable Removal - all cables	23-UG117			$7,020.00
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph pole 40	23-OH43	1		$13,368.16
POLE DB/UG - Riser - 3ph Pole 40	23-UG146			$14,032.72
OTHER OTHER Remove 6 auto transformers on [redacted]	23-ALL14			$10,000.00

Cost Estimate – [redacted]

Design Alternative CD02459-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	20.00%
SubTotal:	$84,528
Contingency Amount:	$16,906
Estimate:	$101,434
Reimbursement:	$0
Net Amount:	**$101,434**
Description:	

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Complex	23-ALL16	[redacted]		$9,131.20
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph	23-OH43			$13,368.16
UG CABLE DB/UG - 750/1000 - 3-1/C (3ph) Cu	23-UG114B			$33,696.00
UG CABLE UG - Cable Removal - all cables	23-UG117			$14,300.00
POLE DB/UG - Riser - 3ph Pole 39	23-UG146			$14,032.72

Associated / Impacted Devices

Cost Estimate – [redacted]

Design Alternative CD02459-03

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	20.00%
SubTotal:	$10,000
Contingency Amount:	$2,000
Estimate:	$12,000
Reimbursement:	$0
Net Amount:	**$12,000**
Description:	

Item Description	CU	$ / Per	Qty	Amount
OTHER	23-ALL14	[redacted]		$10,000.00
OTHER Nonmenclature Change from [redacted]				

Cost Estimate – [redacted]

Design Alternative CD02459-04

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	20.00%
SubTotal:	$159,435
Contingency Amount:	$31,887
Estimate:	$191,322
Reimbursement:	$0
Net Amount:	**$191,322**
Description:	

Item Description	CU	$ / Per	Qty	Amount
CONDUIT UG-Ductline-up to 12 duct - Traveled Way / Paved [redacted]two -6" conduits per circuit From new MH 5 acroos [redacted]	23-UG137	[redacted]		$28,464.80
CONDUIT UG-Ductline-up to 12 duct-Non- Traveled/Non-Paved From [redacted]	23-UG138	[redacted]		$49,088.00
ENCLOSURE UG - MANHOLE - Precast New Manhole 5	23-UG139	[redacted]		$81,882.32

Cost Estimate – Install new conduit duct bank from MH5 to MH10.

Design Alternative CD02459-05

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	20.00%
SubTotal:	$14,726
Contingency Amount:	$2,945
Estimate:	$17,672
Reimbursement:	$0
Net Amount:	**$17,672**
Description:	

Item Description	CU	$ / Per	Qty	Amount
CONDUIT UG-Ductline-up to 12 duct-Non- Traveled/Non-Paved	23-UG138	[redacted]		$14,726.40

Cost Estimate - Summary

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD02459 [redacted]

Work Classification

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

Ownership / Management

AWC: Madison
Statewide: No
Owner: [redacted]
Manager:

Project Information

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

Budget Summary - Preferred Option

Bokum Duct bank and getaway

2024

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	Install new Getaway [redacted]	Draft	0	20%	$113,615	$113,615
2	Install Getaway [redacted]	Draft	0	20%	$101,434	$101,434
3	Renomenclate [redacted]	Draft	0	20%	$12,000	$12,000
4	Install duct & new MH 5 to risers	Draft	0	20%	$191,322	$191,322
5	Install a new duct bank from MH10 to MH5	Draft	0	20%	$17,672	$17,672
				2024 Total:	$436,043	$436,043
				Total Project:	$436,043	$436,043

Attachment C - Schematic one-line of station layout



Attachment D - Geographic Map - OMS

