EVERSOURCE

Project Approval Form

| Project Title: New Service – [redacted] | Project Number: CD02458 |
|---|---|
| **Date Prepared:** 10/31/2024 | **Company:** Eversource CT |
| **Organization: Distribution Engineering** | **Project Category:** SPECIFIC PROJECTS-NEW SRVCE |
| **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):<br>☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant) |
| **Required in service date: 08/30/2025** | |
| **Total Capital Request: $2,810.8K** ($129K Customer Reimbursement) | **Authorization Type:** Full Funding |

# 1. Executive Summary

Full funding is being requested for this project at a cost of $2,810.8K which is 85% of the partial funding capital estimate of $3,292.5K. CD02458 was partially approved on 5/23/2024. There are not major scope changes on the project. This project's full funding request falls with 15% of the partial funding estimate and is being requested with no further changes anticipated.

The project is presented as follows:

- *This project is being established to upgrade electric service to [redacted] new EV-charging hub and commercial warehouse located on* [redacted]
- [redacted]
- *In mid-September 2024,* [redacted]

- [redacted]
- *Under Eversource's NB-2 policy "Pricing Policy for Standard Charges", which is applicable to the work inside of the customer's premises; the customer's contribution is estimated to be $129,128.* [redacted]
- *(Under part A of the NB-12 calculations, the Anticipated Annual Distribution Company Revenue is estimated to be $613.2K, and then over a period of 6.7 years the Anticipated Annual Distribution Company Revenue equals $4,108K. The construction cost to update the system $2,810K does not exceed the 6.7 times Anticipated Annual Revenue generated ($4,108K); therefore, modifications to the distribution system will be at no cost to the customer.*
- *Under Part C, of NB-12 the customer is responsible of providing an advance payment when there is a significant risk that the Company's new construction may not be used to the extent specified by the customer. Therefore, the customer is responsible to provide an advance payment of $710,173K + CIAC. The advance payment is derived from prorating the total cost of the project based on the requested load and divided by the total capacity* [redacted]
- *This location of this new warehouse is* [redacted] *which is part of the Danielson Area Work Center (AWC) in the Eastern Region.*

## 2. Project Cost Summary

Note: Dollar values are in thousands.

| Capital Costs | 2025 | Total |
|---|---|---|
| Internal Labor and Construction Equipment | 367.7 | 367.7 |
| Outside Services | 427.5 | 427.5 |
| Materials | 424.9 | 424.9 |
| Removals | 62.1 | 62.1 |
| Risk and Contingency | 196.1 | 196.1 |
| Other | 0.0 | 0.0 |
| **Subtotal** | **1,478.4** | **1,478.4** |

| Indirect Capital Costs | 2025 | Total |
|---|---|---|
| Indirects/Overheads (including benefits) | 1,332.4 | 1,332.4 |
| Capitalized interest or AFUDC, if any | 0.0 | 0.0 |
| **Subtotal** | **1,332.4** | **1,332.4** |
| | | |
| **Total Capital Costs (Gross)** | **2,810.8** | **2,810.8** |
| Less Total Customer Contribution | **-129.0** | **-129.0** |
| **Project Costs (Net of Reimbursement)** | **2,681.8** | **2,681.8** |

Explain unique payment provisions, if applicable:

## 3. Technical Justification

### Background, Project Need/Justification, and Project Scope

### a. Background

Eversource Energy has received a request to supply [redacted] to a new commercial warehouse in [redacted] This new service project will provide electrical service at 23 kV for the commercial warehouse and EV charging stations fo[redacted]

[redacted]

## b. Project Need

Eversource Energy has an obligation to feed the new customers with the 5.0 MW of load. [redacted]

## c. Project Scope

**Major Material**

- 8,300 feet of 477 Tree Wire three-phase
- 450 feet of 750 KCMIL Cu cable three-phase
- 1,600 feet of 1/0 neutral wire
- 2- precast manholes
- 2- Overhead Primary Meters
- 80 poles
- 3- 333KVA single-phase stepdown transformers 23kV-4.8kV
- 23- single-phase transformers
- 250 feet of UG conduit work
- 2- capacitors
- 2- Reclosers

# 4. Alternatives Considered

- **Option 1_$2.81M** [redacted]**.** This option also eliminates Eversource ownership of equipment beyond the primary meters.

**Option 2_$3.5M** requires all the work as in option 1, [redacted] This option was not selected because it is more expensive.

**Project Option Comparison**

| | Option | |
|---|---|---|
| [redacted] | | |
| | | |
| Capital Cost | $2.81M | $3.5M |
| Expense Cost | $.11M | $.1955M |
| Total Cost | $2.92M | $3.695M |
| Preferred option | X | |

# 5. Project Schedule

Add any additional milestones that are pertinent to the project

| Milestone/Phase Name | Estimated Date |
|---|---|
| Partial Approval | 05/23/2024 |
| 100% Detailed Engineering Completion | 11/15/2024 |
| Construction Start | 01/05/2025 |
| In Service Date | 08/30/2025 |

# 6. Regulatory Decisions

N/A

# 7. Codes and Standards

Standards that will be followed:

- DTR 42.047 and 42.061 - Location of transformers.
- DTR 42.061- Tagging of primary cables.
- DTR 44.221- Installation of fault indicators
- DTR 51.102- Cable layout of conduit.
- DSEM 07.012 - Spare Conduits
- DSEM 07.042- DB system Design Philosophy
- DSEM 07.161- Cable Riser Guide DSEM 07.222 UG/DB Design Selections
- DSEM 07.364- UG/DB Design Three Phase Commercial
- DSEM 08.31- 1 Insulated Al Cable Ratings

# 8. Risk and Contingencies

| Risk Event | Risk Horizon | Likelihood of Occurrence | Risk Mitigation |
|---|---|---|---|
| Actual cost higher than estimated due to scope changes. | 2025 | 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 | 2025 | Low | Design to minimize customer impact. Project Preplanning and customer/community outreach. |
| Internal construction resources not available to perform the work. | 2025 | 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 | 2025 | High | Pre-order long lead time material; minimize the use of non-standard and non-stocked material. |
| Storm delays | 2025 | Low | If storm activity delays work, we may be forced to use external resources. |
| System abnormal configuration | 2025 | 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 | 2025 | 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 | 2025 | Low | Use of mats and specialty equipment, only work during certain times of the year. |

## 9. References

| References |
|---|
| 1. DSEM 11.60 Switches/Switchgear |
| 2. DSEM 06.713 Overhead Design |
| 3. DSEM 11.504 Load Current Rating |
| 4. DSEM 11.505 Applicable Rules and Consideration |
| 5. DSEM 11.551 Selection of Design |
| 6. DSEM 11.554 Automatic Switchgear Selection |

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

| Attachment | Included in Submittal? |
|---|---|
| A1. Partial Funding PAF Form | *YES* |
| A. Cost Estimate | *YES* |
| B. Geographic Map | *YES* |
| C. System and Station One-Lines | *YES* |
| D. Load Summary | *YES* |
| E. NB-2 & NB-12 Policy Worksheet | *YES* |

EVERSOURCE

Project Approval Form

Attachment A1 – Partial Funding PAF Form

| | |
|---|---|
| **Project Title: New Service –** [redacted] | **Project Number: CD02458** |
| **Date Prepared:** 04/25/2024 | **Company:** Eversource CT |
| **Organization: Distribution Engineering** | **Project Category:** SPECIFIC PROJECTS-NEW SRVCE |
| **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: 05/30/2025** | Feeders [redacted] |
| **Total Capital Request: $3,292.5K** (129K Customer Reimbursement) | **Authorization Type: Partial Funding** |

# 1. Executive Summary

This project is being established to provide electric service to a new commercial warehouse on [redacted] Most of the load will be Electric Vehicle (EV) chargers in addition to the new service feeding the warehouse.

[redacted]

Under Eversource's NB-2 policy "Pricing Policy for Standard Charges", which is applicable to the work inside of the customer's premises; the customer's contribution is estimated to be $129,128. [redacted]

(Under part B of the NB-12 calculations, the Anticipated Annual Distribution Company Revenue is estimated to be $779.5K, and then over a period of 6.7 years the Anticipated Annual Distribution Company Revenue equals $5,223K. The construction cost to update the system $3,406K does not exceed the 6.7 times Anticipated Annual Revenue generated ($5,223K); therefore, modifications to the distribution system will be

at no cost to the customer.) The total NB-12 contribution will be calculated once an option has been approved.

Under Part C, of NB-12 the customer is responsible of providing an advance payment when there is a significant risk that the Company's new construction may not be used to the extent specified by the customer. Therefore, the customer is responsible to provide an advance payment of $1,269,274. [redacted]

The development is in [redacted], which is part of the Danielson Area Work Center (AWC) in the Eastern Region.

## 2. Project Cost Summary

Note: Dollar values are in thousands.

| Capital Costs | 2024 | 2025 | 2026 | Total |
|---|---|---|---|---|
| Internal Labor and Construction Equipment | 24.8 | 189.6 | 0.0 | 214.4 |
| Outside Services | 70.9 | 543.0 | 0.0 | 613.9 |
| Materials | 79.2 | 606.2 | 0.0 | 685.4 |
| Removals | 54.6 | 418.2 | 0.0 | 472.9 |
| Other | 0.5 | 3.9 | 0.0 | 4.4 |
| Risk and Contingency | 0.0 | 0.0 | 0.0 | 0.0 |
| **Subtotal** | **230.1** | **1,760.9** | **0.0** | **1,991.0** |

| Indirect Capital Costs | 2024 | 2025 | 2026 | Total |
|---|---|---|---|---|
| Indirects/Overheads (including benefits) | 141.0 | 1,079.6 | 0.0 | 1,220.6 |
| Capitalized interest or AFUDC, if any | 9.4 | 71.6 | 0.0 | 81.0 |
| **Subtotal** | **150.4** | **1,151.2** | **0.0** | **1,301.6** |
| | | | | |

| | | | | |
|---|---|---|---|---|
| **Total Capital Costs (Gross)** | **380.4** | **2,912.1** | **0.0** | **3,292.5** |
| | | | | |
| Less Total Customer Contribution | **0.0** | **129.1** | **0.0** | **122.7** |
| | | | | |
| **Project Costs (Net)** | **380.4** | **2,783.0** | **0.0** | **3,163.4** |

Explain unique payment provisions, if applicable:

# 3. Technical Justification

## Background, Project Need/Justification, and Project Scope

### a. Background

Eversource Energy has received a request to supply [redacted] to a new commercial warehouse in [redacted]. This new service project will provide electrical service at [redacted] for the commercial warehouse and EV chargers for [redacted]

[redacted] remainder of this project is estimated to begin in May of 2024. [redacted]

### b. Project Need

Eversource Energy has an obligation to feed the new customers [redacted]

### c. Project Scope

**Major Material**

- 8,300 feet of 477 Tree Wire three-phase
- 450 feet of 750 Kcmil Cu cable three-phase
- 1,600 feet of 1/0 neutral wire
- 2- precast manholes
- 2- Overhead Primary Meters
- 80 poles
- 3- 333KVA single-phase stepdown transformers 23kV-4.8kV
- 23- single-phase transformers
- 250 feet of UG conduit work
- 2- capacitors
- 2- Reclosers

# 4. Alternatives Considered

Option 1 involves serving the customer [redacted]

Option 2 consists of [redacted]

| | Option |
|---|---|
| [redacted] | |

| [redacted] | [redacted] | [redacted] |
|---|---|---|
| Authorization Type | Partial | Partial |
| Capital Cost | $3.29M | $4.11M |
| Expense Cost | $.17M | $.23M |
| Total Cost | $3.46M | $4.34M |

## 5. Project Schedule

| Milestone/Phase Name | Estimated Date |
|---|---|
| Partial Approval | 05/02/2024 |
| 100% Detailed Engineering Completion | 09/15/2024 |
| Fully Funded | 12/01/2024 |
| Construction Start | 01/05/2025 |
| In Service Date | 05/30/2025 |

## 6. Regulatory Decisions

## 7. Codes and Standards

Standards that will be followed:

- DTR 42.047 and 42.061 - Location of transformers.
- DTR 42.061- Tagging of primary cables.
- DTR 44.221- Installation of fault indicators
- DTR 51.102- Cable layout of conduit.
- DSEM 07.012 - Spare Conduits
- DSEM 07.042- DB system Design Philosophy

- DSEM 07.161- Cable Riser Guide DSEM 07.222 UG/DB Design Selections
- DSEM 07.364- UG/DB Design Three Phase Commercial
- DSEM 08.31- 1 Insulated Al Cable Ratings

## 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. | 2025 | 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 | 2025 | Low | Design to minimize customer impact. Project Preplanning and customer/community outreach. |
| Internal construction resources not available to perform the work. | 2025 | 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 | 2025 | High | Pre-order long lead time material; minimize the use of non-standard and non-stocked material. |
| Storm delays | 2025 | Low | If storm activity delays work, we may be forced to use external resources. |

| | | | |
|---|---|---|---|
| System abnormal configuration | 2025 | 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 | 2025 | 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 | 2025 | Low | Use of mats and specialty equipment, only work during certain times of the year. |

## 9. References

| References |
|---|
| 1. DSEM 11.60 Switches/Switchgear |
| 2. DSEM 06.713 Overhead Design |
| 3. DSEM 11.504 Load Current Rating |
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| 5. DSEM 11.551 Selection of Design |
| 6. DSEM 11.554 Automatic Switchgear Selection |

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

| Attachment | Included in Submittal? |
|---|---|
| A. Cost Estimate | *YES* |
| B. Geographic Map | *YES* |
| C. System and Station One-Lines | *YES* |
| D. Load Summary | *YES* |
| E. NB-2 & NB-12 Policy Worksheet | *YES* |

Attachment A – Cost Estimate

Connecticut Light & Power
A Northeast Utilities Company

**Specific Project Proposal - Project #: CD02458**
New Service - [redacted]

| Work Classification | | Ownership / Management | |
|---|---|---|---|
| Category: | Line | AWC: | Danielson |
| Type: | NB1 | Statewide: | No |
| Type Desc: | SPECIFIC PROJECTS-NEW SRVCE | Owner: | [redacted] |
| Work Type: | | Manager: | [redacted] |

**Project Information**

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

**Budget Summary - Preferred Option** — Option 1

**2024**

| ID | Title | Status | Rev # | Contingency | Expenditure Amount | Net Estimate |
|---|---|---|---|---|---|---|
| 5 | ROW Reconductoring | Prelim | 0 | 0% | $400,000 | $400,000 |
| | | | | 2024 Total: | $400,000 | $400,000 |

**2025**

| ID | Title | Status | Rev # | Contingency | Expenditure Amount | Net Estimate |
|---|---|---|---|---|---|---|
| 1 | Work to bring in [redacted] | Prelim | 0 | 24% | $2,833,710 | $2,833,710 |
| 2 | Option 1 | Prelim | 0 | 24% | $228,079 | $228,079 |
| | | | | 2025 Total: | $3,061,789 | $3,061,789 |
| | | | | Total Project: | $3,461,789 | $3,461,789 |

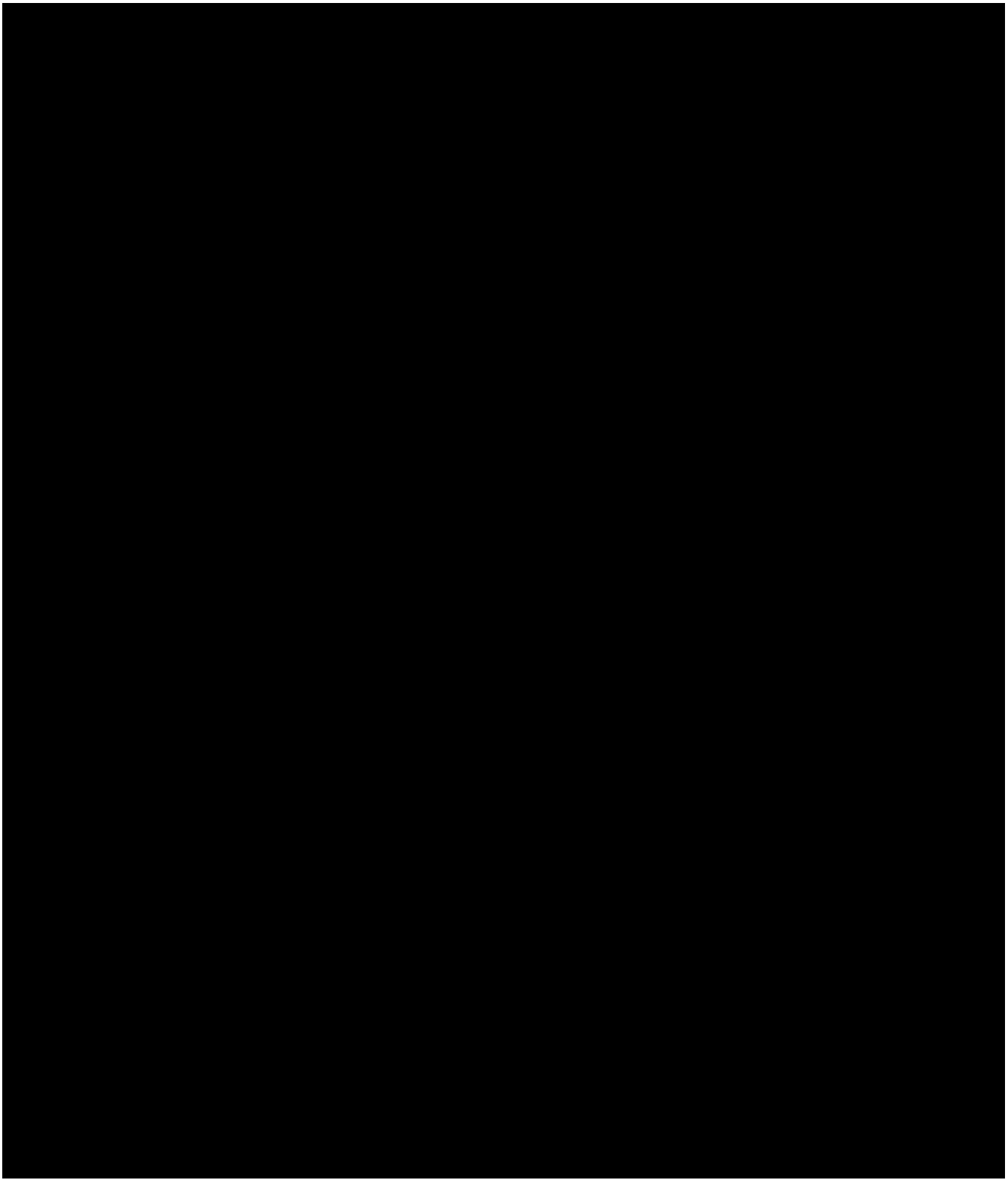
Attachment B – Geographic Map



Attachment C – System and Station One-Lines



Attachment D – Load Summary



Attachment E – NB-2 & NB-12 Policy Worksheet

