EVERSOURCE

Project Approval Form

| | |
|---|---|
| **Project Title:** [redacted] – New Service | **Project Number: CD02383** |
| **Date Prepared:** 09/04/2024 | **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: 12/31/2025** | |
| **Total Capital Request: $799.6K** | **Authorization Type:** Full Funding |

# 1. Executive Summary

Full funding is being requested for this project at a cost of **$799K** which is 96% of the partial funding capital estimate of $830K. CD02383 was partially approved on 3/28/2024. There is no scope change on the project. This project falls within the 15% threshold relative to the partial funding request and is therefore being requested with no further changes anticipated.

Please see the table below for a summary of the combined differences between the full and partial funding estimates:

| Total (all years) | Full Funding | Partial Funding | Request Difference |
|---|---|---|---|
| **Labor** | $101K | $54K | + $47K |
| **Materials** | $218K | $173K | + $45K |
| **Outside Services** | $50K | $155K | ($105K) |
| **Removals / Risk and Contingency** | $74K | $119K | ($45K) |
| **Indirects** | $357K | $329K | + $28K |
| **Total** | **$800K** | $830K | ($31K) |

The Original Project was presented as follows:

- This project is being established to provide electric service to a new residential development on Newfield Street, Middletown, CT. The new development will have 486 apartments and a club house. [redacted]

- [redacted]
- The development is in Middletown, CT, which is part of the East Hampton Area Work Center in the Eastern Region.

## 2. Project Cost Summary

Note: Dollar values are in thousands.

| Capital Costs | 2024 | 2025 | Total |
|---|---|---|---|
| Internal Labor and Construction Equipment | 57.9 | 43.4 | 101.2 |
| Outside Services | 28.0 | 21.0 | 48.9 |
| Materials | 124.4 | 93.3 | 217.6 |
| Removals | 10.6 | 8.0 | 18.6 |
| Risk and Contingency | 31.9 | 23.9 | 55.8 |
| Other | 0.0 | 0.0 | 0.0 |
| **Subtotal** | **252.7** | **189.5** | **442.2** |

| Indirect Capital Costs | 2024 | 2025 | Total |
|---|---|---|---|
| Indirects/Overheads (including benefits) | 204.3 | 153.2 | 357.4 |
| Capitalized interest or AFUDC, if any | 0.0 | 0.0 | 0.0 |
| **Subtotal** | **204.3** | **153.2** | **357.4** |

| | | | |
|---|---|---|---|
| **Total Capital Costs (Gross)** | **456.9** | **342.7** | **799.6** |
| Less Total Customer Contribution | **0.0** | **-36.4** | **-36.4** |
| **Project Costs (Net of Reimbursement)** | **456.9** | **306.3** | **763.2** |

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 1.7 MW to a new residential development in Middletown, CT. This new service project will provide electrical service to 486 new apartments at 13.2 kV for a new 3-phase residential development on Newfield Street in Middletown, CT.

[redacted]

### b. Project Need

Eversource Energy has an obligation to feed the new customers [redacted] of load. [redacted] The proposed design encompasses Eversource's reliability standards and meets the energy needs and expectations of the developer and customers. [redacted]

[redacted]

- [redacted]

### c. Project Scope

[redacted]

**Material**

- 6,015 feet of #1 Al 3-phase primary

- 760 feet of #1 Al single phase
- 1- 75 kVA 13.2 kV, three-phase transformer
- 3- 150 kVA 13.2kV, three-phase transformers
- 7- 300 kVA 13.2kV, three-phase transformers
- 1- 100 kVA 13.2kV, single-phase transformer
- 1- 167 kVA 13.2kV, single-phase transformer
- 2-50' Class 1 poles
- 1- 45' Class 1 pole
- 2- Reclosers

## 4. Alternatives Considered

Option 1 requires little rework of the distribution system. Option 1 consists of [redacted]

Option 2 consists of the work done in option 1 in addition to [redacted]

[redacted]

| Authorization Type | Partial | Full |
|---|---|---|

| | | |
|---|---|---|
| Capital Cost | $729,267 | $799,631 |
| Expense Cost | $37,485 | $31,985 |
| Total Cost | $766,752 | $831,616 |
| Preferred option | | X |
| | | |

## 5. Project Schedule

Add any additional milestones that are pertinent to the project

| Milestone/Phase Name | Estimated Date |
|---|---|
| Partial Approval | 03/21/2024 |
| 100% Detailed Engineering Completion | 04/15/2024 |
| In Service Date | 12/30/2025 |

## 6. Regulatory Decisions

N/A

## 7. Codes and Standards

Standards that will be followed:



# 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. | 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 | High | 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 | 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

N/A

## 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. Detailed Design | *YES* |
| E. DB Loop Design | *YES* |

EVERSOURCE

Project Approval Form

**Attachment A1**: Partial Funding PAF Form

| | |
|---|---|
| **Project Title:** [redacted] – **New Service** | **Project Number: CD02383** |
| **Date Prepared:** 03/08/2024 | **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: 12/30/2024** | Feeders [redacted] Newfield Street Middletown, CT |
| **Total Capital Request: $830K** | **Authorization Type: Partial Funding** |

# 1. Executive Summary

This project is being established to provide electric service to a new residential development on Newfield Street, Middletown, CT. The new development will have 486 apartments and a club house. [redacted]

[redacted]

The development is in Middletown, CT, which is part of the East Hampton Area Work Center 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 | 54.1 | 0.0 | 0.0 | 54.1 |
| Outside Services | 155.0 | 0.0 | 0.0 | 155.0 |
| Materials | 173.0 | 0.0 | 0.0 | 173.0 |
| Removals | 119.4 | 0.0 | 0.0 | 119.4 |
| Other | 0.0 | 0.0 | 0.0 | 0.0 |
| Risk and Contingency | 0.0 | 0.0 | 0.0 | 0.0 |
| **Subtotal** | **501.5** | **0.0** | **0.0** | **501.5** |

| Indirect Capital Costs | 2024 | 2025 | 2026 | Total |
|---|---|---|---|---|
| Indirects/Overheads (including benefits) | 308.1 | 0.0 | 0.0 | 308.1 |
| Capitalized interest or AFUDC, if any | 20.4 | 0.0 | 0.0 | 20.4 |
| **Subtotal** | **328.5** | **0.0** | **0.0** | **328.5** |
| | | | | |
| **Total Capital Costs (Gross)** | **830.0** | **0.0** | **0.0** | **830.0** |
| | | | | |
| Less Total Customer Contribution | **0** | **0.0** | **0.0** | **0** |
| | | | | |
| **Project Costs (Net)** | **830.0** | **0.0** | **0.0** | **830.0** |

(Under part A of the NB-12 calculations, the Anticipated Annual Distribution Company Revenue for Phase 1, or 240 apartments is estimated to be $168,245K, and then over a period of 6.7 years the Anticipated Annual Distribution Company Revenue equals $1,127,241. The construction cost to update the system $284,771 does not exceed the 6.7 times Anticipated Annual Revenue

generated ($1,127,241); therefore, modifications to the distribution system will be at no cost to the customer.)

Under Part C, of NB-12 the customer is responsible for providing an additional 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 for providing an advance payment of $284,771, or extend a certified letter of credit for this amount. Refunds of the additional advance shall be made as soon as the customer's use of the extension is substantially equivalent to that anticipated, as evidenced when Distribution Company Revenue for a two-month period equals or exceeds one-sixth of the anticipated Annual Distribution Company Revenue.

# 3. Technical Justification

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

### a. Background

Eversource Energy has received a request to supply 1.7 MW to a new residential development in Middletown, CT. This new service project will provide electrical service to 486 new apartments at 13.2 kV for a new 3-phase residential development on Newfield Street in Middletown, CT.

[redacted]

### b. Project Need

Eversource Energy has an obligation to feed the new customers [redacted] of load. [redacted]. The proposed design encompasses Eversource's reliability standards and meets the energy needs and expectations of the developer and customers. The 3-phase primary loop was designed by using the Design Philosophy from DSEM 07.011 and 07.012.

Standards that will be followed:

[redacted]

[redacted]

## c. Project Scope

[redacted]

**Material**

- 6,015 feet of #1 Al 3-phase primary
- 760 feet of #1 Al single phase
- 1- 75 kVA 13.2 kV, three-phase transformer
- 3- 150 kVA 13.2kV, three-phase transformers
- 7- 300 kVA 13.2kV, three-phase transformers
- 1- 100 kVA 13.2kV, single-phase transformer
- 1- 167 kVA 13.2kV, single-phase transformer
- 2-50' Class 1 poles
- 1- 45' Class 1 pole
- 2- Reclosers

## 4. Alternatives Considered

Option 1 requires little rework of the distribution system. [redacted]

[redacted]

| Design Criteria | Options | |
|---|---|---|
| | 1 – | 2 – |

[redacted]

| Authorization Type | Partial | Partial |
|---|---|---|
| Capital Cost | $729,267 | $831,133 |
| Expense Cost | $37,485 | $42,721 |
| Total Cost | $766,752 | $873,854 |
| Preferred option | | X |
| | | |

## 5. Project Schedule

| Milestone/Phase Name | Estimated Date |
|---|---|
| Partial Approval | 03/21/2024 |
| 100% Detailed Engineering Completion | 04/15/2024 |
| Fully Funded | 03/28/2024 |
| Construction Start | 6/28/2024 |
| In Service Date | 12/27/2024 |

## 6. Regulatory Decisions

## 7. Codes and Standards

Standards that will be followed:

[redacted]

## 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. | 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 | High | 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 | 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. |
| 2. |
| 3. |
| 4. |

| |
|---|
| 5. |

## 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. Detailed Design | *YES* |
| E. DB Loop Design | *YES* |
| | |

**Attachment A**: Cost Estimate

Connecticut Light & Power
A Northeast Utilities Company

## Specific Project Proposal - Project #: CD02383

**Newfield Street Middletown New Service**

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

**Project Information**

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

**Budget Summary - Preferred Option**

Option 2 - New Service with TR Reconfiguration

**2024**

| ID | Title | Status | Rev # | Contingency | Expenditure Amount | Net Estimate |
|---|---|---|---|---|---|---|
| 1 | Option 1 - New Service | Prelim | 0 | 20% | $766,752 | $766,752 |
| 2 | Option 2- change TR from [redacted] | Prelim | 0 | 20% | $107,102 | $107,102 |
| | | | | 2024 Total: | $873,854 | $873,854 |
| | | | | Total Project: | $873,854 | $873,854 |

**Attachment B:** Geographic Map



**Attachment C**: System and Station One Lines





**Attachment D:** Detailed Design



**Attachment E**: DB Loop Design

