# Operations Project Authorization Form

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|---|---|
| Date Prepared: 10/22/21 | Project Title: [redacted], PUTNAM – DB Cable Repl |
| Company/ies: Eversource CT | Project ID Number: 5D920586P |
| Organization: Distribution Electric | Class(es) of Plant: Distribution |
| Project Initiator: | Project Category: Line |
| Project Manager: [redacted] | Project Type: *Specific DB Cable Replacement* |
| Project Sponsor: [redacted] | Project Purpose: Replace DB Cable |
| Estimated in service date: 12/31/21 | If Transmission Project: N/A |
| Eng. /Constr. Resources Budgeted? N | Capital Investment Part of Original Operating Plan? N |
| Authorization Type: Full Funding | O&M Expenses Part of the Original Operating Plan? N |
| Total Request:$294,582 | |

## Financial Requirements:

### Executive Summary

This program funds the rejuvenation or replacement of direct buried (DB) distribution cables in underground residential (URD) and commercial developments that are reaching the end of their useful lives. It has been determined on an industry-wide basis that much of the original XLP and HMP-insulated primary cable installed in the DB system has not achieved its engineered life expectancy. Premature cable failures have degraded the reliability for the Eversource customers served by these cables.

This project was to capture and document the charges to address emergent failures of the direct buried/underground (DB/UG) system. The aim was to replace DB/UG cable that had experienced faults and was deemed unreliable. Workorders were created for each of the locations to capture labor and material for the replacement of the cable.

The project calls to replace 3 sections of DB Cable. This project calls to replace the [redacted] Since this work exceeds $100K this project was created.

## Project Costs Summary

*Note: Dollar values are in thousands*

| | Prior Authorized | 20__ | 20__ | 20__+ | Totals |
|---|---|---|---|---|---|
| Capital Additions - Direct | $0 | $233,203 | $0 | $0 | $233,203 |
| Removals net of Salvage ____% | $0 | $0 | $0 | $0 | $0 |
| Total - Direct Spending | $0 | $233,203 | $0 | $0 | $233,203 |
| Capital Additions - Indirect | $0 | $56,020 | $0 | $0 | $56,020 |
| Subtotal Request | $0 | $289,223 | $0 | $0 | $289,223 |
| AFUDC | $0 | $2,852 | $0 | $0 | $2,852 |
| Total Capital Request | $0 | $292,075 | $0 | $0 | $292,075 |
| O&M | $0 | $2,507 | $0 | $0 | $2,507 |
| Total Request | $0 | $294,582 | $0 | $0 | $294,582 |

## Financial Evaluation

*Provide the following financial information (attach additional detail if summarized items are significant or additional information is needed). Note: Dollar values are in thousands*

| Direct Capital Costs | Year 1 | Year 2 | Year 3+ | Total |
|---|---|---|---|---|
| Straight Time Labor | $1,079 | $0 | $0 | $1,079 |
| Overtime Labor | $1,125 | $0 | $0 | $1,125 |
| Outside Services | $157,586 | $0 | $0 | $157,586 |
| Materials | $4,689 | $0 | $0 | $4,689 |
| Other, including contingency amounts (describe) | $0 | $0 | $0 | $0 |
| **Total Direct Costs** | **$164,479** | **$0** | **$0** | **$164,479** |

| Indirect Capital Costs | Year 1 | Year 2 | Year 3+ | Total |
|---|---|---|---|---|
| Indirects/Overheads (including benefits) | $124,743 | $0 | $0 | $124,743 |
| Capitalized interest or AFUDC, if any | $2,852 | $0 | $0 | $2,852 |
| **Total Indirect Costs** | **$127,595** | **$0** | **$0** | **$127,595** |
| | | | | |
| **Total Capital Costs** | **$292,074** | **$0** | **$0** | **$292,074** |
| | | | | |
| Less Total Customer Contribution | **$0** | **$0** | **$0** | **$0** |

| | | | | |
|---|---|---|---|---|
| **Total Capital Project Costs** | **$292,074** | **$0** | **$0** | **$292,074** |
| | | | | |
| **Total O&M Project Costs** | **$2,507** | **$0** | **$0** | **$2,507** |
| | | | | |
| **Total Project Cost** | **$ 294,581** | **$ -** | **$ -** | **$ 294,581** |

# Operations Technical Authorization Form

## Technical Justification:

**Project Need Statement**
Emergent failures in direct buried cable developments required cable replacement to address the reliability issues. [redacted] Since this work exceeds $100K this project was created.

**Project Objectives**
To replace DB cable that has a history of failure to improve reliability and customer experience.

**Project Scope**
**Explain in detail the scope of work:**

- **Trenched and installed 1262' of conduit**
- **Installed 1262' of #1 – 1PH primary**

**Major Material**
- **1262' of #1 – 1PH primary**

**Background / Justification**
[redacted]

**Business Process and / or Technical Improvements**
[redacted]

**Cost Estimate and Assumptions**

Emergent work completed because of a cable failure. All costs captured are actual charges accumulated during repair.

### Alternatives Considered with Cost Estimates

### Project Schedule

*Describe the project schedule and milestones. Include estimated start and end dates.*

| Milestone/Phase Name | Estimated Completion Date |
|---|---|
| Project Initiation | Emergent work |
| Project In-Service Date | Completed on ***** |
| | |

### Regulatory Approvals

### Risks and Risk Mitigation Plans

| Risk Event | Risk Horizon | Likelihood of Occurrence | Risk Mitigation |
|---|---|---|---|
| Actual cost higher than estimated due to scope changes. | **2021** | Medium | Create a PAF if the Work Order cost exceeds $100k |
| Internal construction resources not available to perform the work. | 2021 | Low | Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost. |
| System abnormal configuration | 2021 | Low | Schedule work to minimize system abnormal time. Most of this work will require system to be abnormal for any extended period of time. |

**References**

**One-Line Diagrams, Attachments, and Images**