# Operations Project Authorization Form

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|---|---|
| **Date Prepared: 10/1/2019** | **Project Title: [redacted] Replacement** |
| **Company/ies: CT** | **Project ID Number: CD01386** |
| **Organization: Electric** | **Class(es) of Plant: Distribution** |
| **Project Initiator: [redacted]** | **Project Category: General Modernization** |
| **Project Manager: [redacted]** | **Project Type: Specific** |
| **Project Sponsor: [redacted]** | **Project Purpose: DB Maintenance** |
| **Estimated in service date: 12/31/2020** | **If Transmission Project: PTF? NA** |
| **Eng. /Constr. Resources Budgeted? Y** | **Capital Investment Part of Original Operating Plan? Y** |
| **Authorization Type: Initial Funding** | **O&M Expenses Part of the Original Operating Plan? Y** |
| **Total Request: $2,300K** | **Rev 0** |

**Executive Summary:**
The purpose of this project is to fund Year 2, 2020, of the Direct Buried (DB) inspection program and replace approximately 5,322 fault indicators throughout Connecticut.

## Technical Justification:

**Project Need Statement**
Annual Inspections of DB infrastructure and replacement of fault indicators.

**Project Objectives**
Identify any issues in the DB system and replace old fault indicators at approximately 5,322 locations throughout Connecticut. The distribution of the locations are as follows:

| | AWC | Year 1 - 2019 | | Year 2 - 2020 | |
|---|---|---|---|---|---|
| Central | Cheshire | Meriden (p) | 203 | Bristol (p) | 310 |
| | | Bristol (p) | 310 | Meriden (p) | 680 |
| | | Middlebury | 296 | | |
| | | | | | |
| | | | | | |
| | | | 809 | | 990 |
| | Tolland | Enfield (p) | 214 | East Granby | 300 |
| | | Tolland (p) | 258 | Tolland (p) | 224 |
| | | | | | |
| | | | 472 | | 524 |
| | Hartford | Rocky Hill (p) | 251 | Rocky Hill (p) | 236 |
| | | Simsbury (p) | 413 | Hartford (p) | 315 |
| | | | | | |
| | | | | | |
| | | | 664 | | 551 |
| | | | **1945** | | **2065** |
| | **AWC** | **Year 1 - 2019** | | **Year 2 - 2020** | |
| Eastern | Danielson | Woodstock (p) | 193 | Woodstock (p) | 179 |
| | | | | | |
| | | | | | |
| | | | 193 | | 179 |
| | East Hampton | East Haddam (p) | 174 | East Haddam (p) | 169 |
| | | Portland | 238 | East Hampton (p) | 215 |
| | | | | | |
| | | | 412 | | 384 |
| | Madison | Madison (p) | 386 | Essex | 264 |
| | | | | | |
| | | | 386 | | 264 |
| | New London | East Lyme (p) | 332 | Groton | 312 |
| | | | | | |
| | | | 332 | | 312 |
| | | | **1323** | | **1139** |
| | **AWC** | **Year 1 - 2019** | | **Year 2 - 2020** | |
| Western | Falls Village | Salisbury (p) | 90 | Salisbury (p) | 70 |
| | | | 90 | | 70 |
| | Newtown | Danbury (p) | 342 | Newtown (p) | 250 |
| | | Ridgefield (p) | 156 | Ridgefield (p) | 203 |
| | | Bridgewater | 92 | New Fairfield | 428 |
| | | Beacon Falls | 242 | | |
| | | | 832 | | 881 |
| | Norwalk | Westport (p) | 228 | Westport (p) | 200 |
| | | | | Norwalk (p) | 275 |
| | | | 228 | | 475 |
| | Stamford | Darien (p) | 39 | Darien (p) | 21 |
| | | Stamford (p) | 174 | Stamford (p) | 107 |
| | | Greenwich (p) | 128 | Greenwich (p) | 168 |
| | | | 341 | | 296 |
| | Torrington | Torrington (p) | 344 | Torrington (p) | 396 |
| | | | | | |
| | | | | | |
| | | | 344 | | 396 |
| | | | **1835** | | **2118** |

| AWC | Year 1 - 2019 | Year 2 - 2020 |
|---|---|---|
| CL&P | 5103 | 5322 |

**Project Scope**

Segment 1

Inspect DB infrastructure and replace fault indicators at approximately 5,322 locations. This inspection is changed from a 10 year cycle to a 15 year cycle. Also, Standards has indicated that the Manufacturer gives the existing fault indicator in stock a 20 year shelf-life.

**Background / Justification:**

N/A

**Estimate**

Project Cost Summary

| | Prior Authorized | 20__ | 20__ | 20__+ | Totals |
|---|---|---|---|---|---|
| Capital Additions - Direct | $0 | $980 | $0 | $0 | $980 |
| Less Customer Contribution | $0 | $0 | $0 | $0 | $0 |
| Removals net of Salvage ____% | $0 | $297 | $0 | $0 | $297 |
| Total - Direct Spending | $0 | $1,277 | $0 | $0 | $1,277 |
| Capital Additions - Indirect | $0 | $892 | $0 | $0 | $892 |
| Subtotal Request | $0 | $2,169 | $0 | $0 | $2,169 |
| AFUDC | $0 | $21 | $0 | $0 | $21 |
| Total Capital Request | $0 | $2,190 | $0 | $0 | $2,190 |
| O&M | $0 | $110 | $0 | $0 | $110 |
| Total Request | $0 | $2,300 | $0 | $0 | $2,300 |

Financial Evaluation

| Direct Capital Costs | Year 1 | Year 2 | Year 3+ | Total |
|---|---|---|---|---|
| Straight Time Labor | $159 | $0 | $0 | $159 |
| Overtime Labor | $36 | $0 | $0 | $36 |
| Outside Services | $774 | $0 | $0 | $774 |
| Materials | $299 | $0 | $0 | $299 |
| Other, including contingency amounts (describe) | $8 | $0 | $0 | $8 |
| **Total Direct Costs** | **$1,277** | **$0** | **$0** | **$1,277** |

| Indirect Capital Costs | Year 1 | Year 2 | Year 3+ | Total |
|---|---|---|---|---|
| Indirects/Overheads (including benefits) | $892 | $0 | $0 | $892 |
| Capitalized interest or AFUDC, if any | $20 | $0 | $0 | $20 |
| **Total Indirect Costs** | **$912** | **$0** | **$0** | **$912** |
| | | | | |
| **Total Capital Costs** | **$2,189** | **$0** | **$0** | **$2,189** |
| | | | | |
| | | | | |
| | | | | |
| **Total Capital Project Costs** | **$2,189** | **$0** | **$0** | **$2,189** |
| | | | | |
| **Total O&M Project Costs** | **$111** | **$0** | **$0** | **$111** |

| | | | | |
|---|---|---|---|---|
| **Total Project Cost** | **$ 2,300** | **$ -** | **$ -** | **$ 2,300** |

**Business Process and / or Technical Improvements**:

This project will improve reliability by inspecting 4,969 pads and replace the same number of fault indicators.

**Alternatives Considered with Cost Estimates**
No alternatives

**Project Schedule**

| Milestone/Phase Name | Estimated Completion Date |
|---|---|
| Prelininary Engineering Approval | February 2020 |
| Detail Design | N/A |
| Order Material | February 2020 |
| Construction | March 2020 |

**Regulatory Approvals**
None

**Risks and Risk Mitigation Plans**

| Risk Event | Risk Horizon | Likelihood of Occurrence | Risk Mitigation |
|---|---|---|---|
| Actual cost higher than estimated due to scope changes. | 2020 | 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 | 2020 | Low | Design to minimize customer impact. Project Preplanning and customer/community outreach |
| Internal construction resources not available to perform the work. | 2020 | 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. | 2020 | Medium | Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost. |
| Storm delays | 2020 | Low | If storm activity delays work, we may be forced to use external resources. |

| | | | |
|---|---|---|---|
| System abnormal configuration | 2020 | Low | Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods |

**References**

**Attachments (One-Line Diagrams, Images, etc.)**
none

**Cost Estimate Backup Details**


CD01386 - PAF Calculator.xlsm


CD01386_project_needs_statement.pdf