Operations Project Authorization Form

Date Prepared: 5/14/2020	**Project Title: 2021 Connecticut DB Inspection/Fault Indicator Replacement**
Company/ies: CT	**Project ID Number: CD01561**
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: 12/31/2021	**If Transmission Project: PTF? NA**
Eng. /Constr. Resources Budgeted? Y	**Capital Investment Part of Original Operating Plan? Y**
Authorization Type: Final Funding	**O&M Expenses Part of the Original Operating Plan? Y**
Total Request: $1,135,000.00	**Rev 0**

Executive Summary:
The purpose of this project is to fund Year 3, 2021, of the Direct Buried (DB) Fault Indicator Inspection Program and replace approximately 4,316 Fault Indicators installed throughout Connecticut.

Technical Justification:

Project Need Statement
Annual Inspections of Direct Buried (DB) Infrastructure and Replacement of Fault Indicators.

Project Objectives
Identify any issues within the DB System and replace old Fault Indicators at approximately 4,316 locations throughout Connecticut. Fault Indicator Replacement is necessary to ensure that when a fault occurs on the DB System it can be quickly identified and isolated to restore Customers in a timely manner. This is a part of Eversource's efforts to focus on improving the Overall Restoration Time of Outages involving a fault on the DB System.

The distribution of the locations are as follows:

	AWC	Year 1 - 2019		Year 2 - 2020		Year 3 - 2021	
Central	Cheshire	Meriden (p)	203	Bristol (p)	322	Bristol (p)	310
		Bristol (p)	310	Meriden (p)	680	Wethersfield	18
		Middlebury	296			Durham	330
						Middlefield	144
			809		1002		802
	Tolland	Enfield (p)	214	East Granby	338	Andover	69
		Tolland (p)	258	Tolland (p)	224	Coventry	317
			472		562		386
	Hartford	Rocky Hill (p)	251	Rocky Hill (p)	225	Bloomfield	683
		Simsbury (p)	413	West Hartford	554		
			664		779		683
			1945		**2343**		**1871**
	AWC	**Year 1 - 2019**		**Year 2 - 2020**		**Year 3 - 2021**	
Eastern	Danielson	Woodstock (p)	193	Woodstock (p)	79	Thompson	129
				Chaplin	36		
			193		115		129
	East Hampton	East Haddam (p)	174	East Haddam (p)	199	East Hampton (p)	206
		Portland	238	East Hampton (p)	215	Franklin	75
			412		414		281
	Madison	Madison (p)	386	Essex	261	Deep River	128
						Chester	122
			386		261		250
	New London	East Lyme (p)	332	Groton	304	North Stonington	121
						Lyme	118
			332		304		239
			1323		**1094**		**899**
	AWC	**Year 1 - 2019**		**Year 2 - 2020**		**Year 3 - 2021**	
Western	Falls Village	Salisbury (p)	90	Salisbury (p)	73	Sharon (p)	58
			90		73		58
	Newtown	Danbury (p)	342	Newtown (p)	336	Newtown (p)	250
		Ridgefield (p)	156	Ridgefield (p)	165	Ridgefield (p)	203
		Bridgewater	92	New Fairfield	411	Roxbury	239
		Beacon Falls	242				
			832		912		692
	Norwalk	Westport (p)	228	Westport (p)	200	Norwalk (p)	252
				Norwalk (p)	275		
			228		475		252
	Stamford	Darien (p)	39	Darien (p)	27	Darien (p)	10
		Stamford (p)	174	Stamford (p)	110	Stamford (p)	107
		Greenwich (p)	128	Greenwich (p)	181	Greenwich (p)	138
			341		318		255
	Torrington	Torrington (p)	344	Torrington (p)	448	Kent	289
			344		448		289
			1835		**2226**		**1546**
	AWC	**Year 1 - 2019**		**Year 2 - 2020**		**Year 3 - 2021**	
CL&P		**5103**		**5663**		**4316**	

Project Scope

Segment 1

Inspect Direct Buried Infrastructure and replace current Fault Indicators at approximately 4,316 locations. This inspection has been changed from a 10 Year Cycle to a 15 Year Cycle. Also, Eversource Standards has indicated that the Manufacturer gives the existing Fault Indicators in stock a 20 Year Shelf Life.

Background / Justification:

N/A

Estimate

Project Cost Summary

	Prior Authorized	2021	20__	20__+	Totals
Capital Additions - Direct	$0	$647	$0	$0	$647
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$60	$0	$0	$60
Total - Direct Spending	$0	$707	$0	$0	$707
Capital Additions - Indirect	$0	$385	$0	$0	$385
Subtotal Request	$0	$1,092	$0	$0	$1,092
AFUDC	$0	$9	$0	$0	$9
Total Capital Request	$0	$1,100	$0	$0	$1,100
O&M	$0	$35	$0	$0	$35
Total Request	$0	$1,135	$0	$0	$1,135

Financial Evaluation

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$48	$0	$0	$48
Overtime Labor	$9	$0	$0	$9
Outside Services	$483	$0	$0	$483
Materials	$165	$0	$0	$165
Other, including contingency amounts (describe)	$2	$0	$0	$2
Total Direct Costs	**$707**	**$0**	**$0**	**$707**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$385	$0	$0	$385
Capitalized interest or AFUDC, if any	$8	$0	$0	$8
Total Indirect Costs	**$393**	**$0**	**$0**	**$393**
Total Capital Costs	**$1,100**	**$0**	**$0**	**$1,100**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$1,100**	**$0**	**$0**	**$1,100**
Total O&M Project Costs	**$35**	**$0**	**$0**	**$35**
Total Project Cost	**$ 1,135**	**$ -**	**$ -**	**$ 1,135**

Business Process and / or Technical Improvements:

This project will improve reliability by inspecting 4,316 locations where Fault Indicators are currently installed and replace with new units.

Alternatives Considered with Cost Estimates
No alternatives

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Final Engineering Approval	September 2020
Order Material	October 2020
Construction	March 2021

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.	2021	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	2021	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
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.
Internal engineering resources not available to perform the work.	2021	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Storm delays	2021	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2021	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

CD01561 PAF Calculator - 02-18-2(

DB 15 Year Schedule Rev 2.xlsx