Operations Project Authorization Form

Date Prepared: 12/09/2020	**Project Title:** [redacted] Ringed Spacer Cable Replacement
Company/ies: CT	**Project ID Number:** CD01653
Organization: Electric	**Class(es) of Plant:** Distribution
Project Initiator: [redacted]	**Project Category:** Reliability
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Project Purpose:** Replace Defective Conductor
Estimated in service date: 12/31/2021	**If Transmission Project: PTF?** NA
Eng. /Constr. Resources Budgeted? No	**Capital Investment Part of Original Operating Plan?** N
Authorization Type: Initial Funding	**O&M Expenses Part of the Original Operating Plan?** N
Total Request: $459,165.06	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

The purpose of this project is to address ringed spacer cable on [redacted] The 556 Aluminum spacer cable location on [redacted].

[redacted]

[redacted]

Project Costs Summary

Note: Dollar values are in thousands

	Prior Authorized	2021	2022	2023+	Totals
Capital Additions - Direct	$0	$276,925	$0	$0	$276,925
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$11,593	$0	$0	$11,593
Total - Direct Spending	$0	$288,518	$0	$0	$288,518
Capital Additions - Indirect	$0	$156,749	$0	$0	$156,749
Subtotal Request	$0	$445,267	$0	$0	$445,267
AFUDC	$0	$7,146	$0	$0	$7,146
Total Capital Request	$0	$452,413	$0	$0	$452,413
O&M	$0	$6,752	$0	$0	$6,752
Total Request	$0	$459,165	$0	$0	$459,165

Financial Evaluation

Note: Dollar values are in thousands

Direct Capital Costs	2021	2022	2023+	Total
Straight Time Labor	$6,609	$0	$0	$6,609
Overtime Labor	$4,480	$0	$0	$4,480
Outside Services	$253,268	$0	$0	$253,268
Materials	$24,403	$0	$0	$24,403
Other, including contingency amounts (describe)	($242)	$0	$0	($242)
Total Direct Costs	**$288,518**	**$0**	**$0**	**$288,518**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$156,749	$0	$0	$156,749
Capitalized interest or AFUDC, if any	$7,039	$0	$0	$7,039
Total Indirect Costs	**$163,788**	**$0**	**$0**	**$163,788**
Total Capital Costs	**$452,306**	**$0**	**$0**	**$452,306**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$452,306**	**$0**	**$0**	**$452,306**
Total O&M Project Costs	**$6,859**	**$0**	**$0**	**$6,859**
Total Project Cost	**$ 459,165**	**$ -**	**$ -**	**$ 459,165**

Note: Explain unique payment provisions, if applicable

Technical Justification

Project Need Statement

The 556 Aluminum spacer cable location on [redacted], Southbury has been identified as having ringed portions on it's covering. These ringed spots exposes the conductor to the environment causing cable degradation and ultimately resulting in cable failure. [redacted]

Project Objectives

The goal of this project is to reduce the risk of cable failure resulting is an outage for [redacted]

Project Scope

[redacted]

- [redacted]

Major Materials

- 2,650' 556 Tree wire.

Background / Justification

The [redacted]

Outage History

Id	Start Time	Start Date	Device	Cause Type	Duration	Weather Type
4324255	3:52 AM	8/27/2020	[redacted]	Tree Related	407	High Winds
~~4157672~~	~~7:08 AM~~	~~6/8/2020~~		~~Planned Interruptions~~	~~40~~	~~Normal Weather~~
3664228	4:53 AM	5/15/2018		Tree Related	4637	High Winds

Business Process and / or Technical Improvements:

1. Replacing damaged spacer cable with 556 TW will eliminate the risk in system reliability.
2. Replacing spacer cable with standard tree wire construction is more cost effective than replacing spacer cable with spacer cable

3. Eliminates the cost for replacing spreaders every ~25 years.

Project Option Comparison

	✓		
[redacted]			
Cost	$459,165.06	$555,711.46	
Cost / MVA added			
Cost / CM Saved	$17.46	$21.16	
Cost / CI Saved	$16,292.28	$19,742.81	

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Engineering Approval	January 2021
Detail Design	February 2021
Construction	July 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	High	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. Most of this work will to require system to be abnormal for any extended period of time.

References

None

Attachments (One-Line Diagrams, Images, etc.)

[redacted]3 - Oneline.pdf

[redacted] - Geo Map and Images.pdf

CD01653_project_needs_statement.pdf

[redacted] Sheets.pdf