Operations Project Authorization Form

Project Title: 2022 Osprey Outage Mitigation	Project Number: CD01846
Date Prepared: 10/01/2023	**Company:** Eversource CT
Organization: Electric System Operations	**Project Category:** RELIABILITY IMPROVE SPEC PROJ
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** Yes
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: 3/31/2024	
Total Capital Request: $301.9K	**Authorization Type:** Full Funding

1. Executive Summary

This project is being presented for full funding to resolve outages caused by nesting ospreys across Connecticut. The proposed solutions to mitigate Osprey developing nests on distribution infrastructure will be accomplished by removing the nests, installing deterrents, and, if necessary, installing a platform on a standalone pole. If a nest has either eggs and or a young osprey then removal is not allowed until after they fledge and leave the nest.

This project was originally presented on October 21, 2021, and received initial funding approval for $126K. However, the initial estimate did not include additional new Ospreys locations that were reported after the project was initially authorized. These additional locations were properly addressed and mitigated between 2022-2023 as part of this project.

Therefore, the full funding request for this project is $301.9k, which includes an increase of direct capital cost ($97,2k) and an increase of indirect cost of $82.7K resulting from extending the project for an additional year and a revised estimate per unit cost in labor and materials for the two years that this project was open.

2. Project Cost Summary

Note: Dollar values are in thousands.

Financial Evaluation

Capital Costs	2022	2023	2024	Total
Internal Labor and Construction Equipment	1.1	0.8	23.9	25.7
Outside Services	50.8	36.2	0.0	87.0
Materials	6.4	4.5	0.0	10.9
Removals	24.9	17.8	0.0	42.7
Risk and Contingency	0.0	0.0	1.2	1.2
Other	0.0	0.0	7.6	7.6
Subtotal	**83.1**	**59.3**	**32.7**	**175.2**

Indirect Capital Costs	2022	2023	2024	Total
Indirects/Overheads (including benefits)	55.9	39.9	30.4	126.2
Capitalized interest or AFUDC, if any	0.3	0.2	0.0	0.5
Subtotal	**56.2**	**40.1**	**30.4**	**126.7**
Total Capital Costs (Gross)	**139.3**	**99.4**	**63.1**	**301.9**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**139.3**	**99.4**	**63.1**	**301.9**

3.Technical Justification

a. Background

During the summer of 2021, several circuits experienced outages due to Osprey nesting. Ospreys and nests were removed from some locations but not all, and those that could not be immediately removed due to eggs and nestlings will be resolved via this project.

Business Process and /or Technical Improvements:
Eversource has a standard for avian protection that can be found in the DSEM 02.60. In the attachment section of the PAF, you will find a copy of the Eversource standard for aviation protection.

b. Project Need

In 2021, Ospreys nesting on poles have caused 16 outages on various circuits resulting in the loss of 203,971 customer minutes. Proactive steps are being taken to eliminate known nesting locations by replacing double crossarms with single composite crossarm and installing Osprey deterrent devices on crossarm. Install pole and nesting platforms as necessary to draw birds away from our facilities.

Project Objectives

Eliminate osprey-caused outages in known nesting locations by removing double crossarms and installing single composite crossarms. Install pole and nesting platforms as necessary to draw birds away from our facilities.

c. Project Scope

Description
P-612 & 590 REPLACE POLE TOP AND INSTALL RAPTOR GUARDS. [redacted] OLD LYME
P-1534 REMOVE OSPREY NEST, REPLACE POLE TOP TRANSFORMER AND FUSE. [redacted] CLINTON
3/28/22 SHELTON (14) ST -- 3030, SEYMOUR, DRONE REPORT ATTACHED
CANX ROW CD01846 BEACON FALLS CT; OSPREY PLATFORM
P-957, 958, 407 INSTALL RAPTOR GUARDS. [redacted] WESTBROOK
P-6845 REMOVE CHICKEN NEST. REPLACE POLE TOP AND INSTALL RAPTOR GUARDS
P-93, 95, & 96 REPLACE POLE TOP AND INSTALL RAPTOR GUARD. [redacted] WESTBROOK
P-7378 REPLACE POLE TOP AND INSTALL RAPTOR GUARD. [redacted] OLD LYME
P-123, 124, 126 REPLACE DOUBLE CROSSARM 4/2 CONSTRUCTION WITH SINGLE ARM AND INSTALL RAPTOR GUARD.
P-6982 REPLACE POLE TOP AND ISNTALL RAPTOR GUARDS. [redacted] PRESTON CT

Description
P-740 CHECK FOR EGGS, REPLACE POLE TOP, SET NEW POLE AND TRANSFER NEST. [redacted]
P-3187 &3186 REPLACE POLE TOP AND INSTALL OSPREY GUARD. [redacted]
P-1130,1131,1133,1135 REPLACE POLE TOP AND INSTALL RAPTOR GUARD. [redacted]
MJGw - Osprey Deterrence [redacted] P1865 and P123
DB-CD01846 Osprey Mitigation [redacted]
MJGw - CD01846-04 - Osprey mitigation. [redacted]
CANCEL TO WO# 8832758 [FWO# 80228872]
TL - CD01846 [redacted] REBUILD P#3908 POLE TOP+RMV OSPREY NEST

4. Alternatives Considered

Alternatives were considered (please describe below)

No alternatives were considered for this project because the only way to mitigate Ospreys' risk to reliability and customer outages is by removing their nest, installing deterrent devices, and making changes to electrical infrastructure.

5. Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Approval	10/22/2021
Detailed Design	12/22/2021
Construction Start Date	01/22/2022
In Service Date	3/31/2024

6. Regulatory Decisions

No

7. Codes and Standards

- DSEM 02.60- Avian Protection

8. Risk and Contingencies

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Cost higher than estimated due to scope changes.	2022-2023	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	2022-2023	Medium	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work	2022-2023	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.	2022-2023	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.

9. References

References

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

Attachment	Included in Submittal?
A. Project Need Statement	*YES*
B. Aviant Protection	*YES*
C. Osprey Tracker	*YES*
D. Osprey Photos	*YES*

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


Osprey Photos.docx


Osprey Tracker.xlsx


Aviation Protection.docx


CD01846_project_needs_statement.pdf

- *Attachment A*

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01846
2022 Osprey Mitigation

Project Option Summary

ID	Description	Segments	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)	Prfrd

Segments

ID	Title	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)
1	Osprey Mitigation New London	$78,835			$0.00	$0.00
2	Osprey Mitigation Madison	$46,577			$0.00	$0.00

- Attachment B



[redacted] Old lyme.

Pole 7378. Single xarm





Operations Project Authorization Form

Date Prepared: 9/29/2021	**Project Title: 2022 Osprey Outage Mitigation**
Company/ies: Eversource CT	**Project ID Number: CD01846**
Organization: Distribution Electric	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: Reliability Improvement Specific**
Project Manager: [redacted]	**Project Type: Reliability**
Project Sponsor: [redacted]	**Project Purpose: Resolve Osprey Outages**
Estimated in service date: 12/31/2022	**If Transmission Project: PTF? N/A**
Eng. /Constr. Resources Budgeted?	**Capital Investment Part of Original Operating Plan? Y**
Authorization Type: Initial funding	**O&M Expenses Part of the Original Operating Plan? Y**
Total Request: $ 125,413	

Financial Requirements:
Project Authorization
ERM: _____

FP&A: _____

Executive Summary

This project is being presented for preliminary funding to resolve outages caused by nesting ospreys across Connecticut. The resolution will be accomplished by removing the nests, installing deterrents, and, if necessary, installing a platform on a standalone pole. If a nest has a young osprey, removal is not allowed until after they fledge and leave the nest.

EVERSOURCE

Project Approval Form

Project Costs Summary

Note: Dollar values are in thousands

	Prior Authorized	2022	2023	2024	Totals
Capital Additions - Direct	$0	$72	$0	$0	$72
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$7	$0	$0	$7
Total - Direct Spending	$0	$78	$0	$0	$78
Capital Additions - Indirect	$0	$43	$0	$0	$43
Subtotal Request	$0	$121	$0	$0	$121
AFUDC	$0	$1	$0	$0	$1
Total Capital Request	$0	$122	$0	$0	$122
O&M	$0	$4	$0	$0	$4
Total Request	$0	$126	$0	$0	$126

Financial Evaluation

Note: Dollar values are in thousands

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$5	$0	$0	$5
Overtime Labor	$1	$0	$0	$1
Outside Services	$54	$0	$0	$54
Materials	$18	$0	$0	$18
Other, including contingency amounts (describe)	$0	$0	$0	$0
Total Direct Costs	**$78**	**$0**	**$0**	**$78**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$43	$0	$0	$43
Capitalized interest or AFUDC, if any	$1	$0	$0	$1
Total Indirect Costs	**$44**	**$0**	**$0**	**$44**
Total Capital Costs	**$122**	**$0**	**$0**	**$122**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$122**	**$0**	**$0**	**$122**
Total O&M Project Costs	**$4**	**$0**	**$0**	**$4**
Total Project Cost	**$ 126**	**$ -**	**$ -**	**$ 126**

Technical Justification:

Project Need Statement

Over the past year, Ospreys nesting on poles have caused 16 outages on various circuits resulting in the loss of 203,971 customer minutes. Proactive steps are being taken to eliminate known nesting locations by replacing double crossarms with single composite crossarm and installing Osprey deterrent devices on crossarm. Install pole and nesting platforms as necessary to draw birds away from our facilities.

Project Approval Form

Project Objectives
Eliminate osprey-caused outages in known nesting locations by removing double crossarms and installing single composite crossarms. Install pole and nesting platforms as necessary to draw birds away from our facilities.

Project Scope
Install single compositive crossarms, nesting platforms, and Osprey deterrent devices on crossarm at nine locations in the Eastern Region:



Major Material:

1 Eversource pole
18 composite crossarms

Background / Justification
During the summer of 2021, several circuits experienced outages due to Osprey nesting. Ospreys and nests were removed from some locations, and those that could not be immediately removed due to eggs and nestlings will be resolved via this project.

Business Process and /or Technical Improvements:
Eversource has a standard for avian protection that can be found in the DSEM 02.60. In the attachment section of the PAF, you will find a copy of the Eversource standard for aviation protection.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Approval	10/22/2021
Detailed Design	12/22/2021
Construction Start Date	01/22/2022
In Service Date	12/31/2022

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
ual cost higher than estimated due to scope changes.	2022	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	2022	Medium	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work	2022	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.	2022	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.

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

Project Approval Form

Osprey Photos.docx Osprey Tracker.xlsx Aviation Protection.docx CD01846_project_needs_statement.pdf

Osprey Events

Region	AWC	Circuit	Stree	Town	Pole #	Nearest Cust Address	Event ID	
Eastern	Madison	[redacted]	[redacted]	Clinton	1534	[redacted]		Summer 2021
Eastern	Madison	[redacted]	[redacted]	Westbrook	93	[redacted]	4502859	Summer 2021
Eastern	Madison	[redacted]	[redacted]	Westbrook	957	[redacted]	4540278	Summer 2021
Eastern	New London	[redacted]	[redacted]	Groton	6274	[redacted]	4549903	Summer 2021
Eastern	New London	[redacted]	[redacted]	Old Lyme	590	[redacted]		Summer 2021
Eastern	New London	[redacted]	[redacted]	Old Lyme	7378	[redacted]		Summer 2021
Easterm	New London	[redacted]	[redacted]	Old Lyme	123	[redacted]		Summer 2021
Eastern	New London	[redacted]	[redacted]	Preston	6982	[redacted]	456204	Summer 2021
Eastern	New London	[redacted]	[redacted]	Stonington	1130	[redacted]		Summer 2021
Eastern	New London	[redacted]	[redacted]	Stonington	3187	[redacted]		Summer 2021