Appendix 2
Operations Project Authorization Form

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Project Title: Enhanced Tree Removal (ETR) Program	**Project Number: ETR2024**
Date Prepared: 10/03/2023	**Company:** Eversource CT
Organization: Asset Management	**Class(es) of Plant:** Other
Project Initiator: [redacted]	**Project Category:** Annual - General
Project Manager: [redacted]	**Project Type:** Specific
Project Sponsor: [redacted]	**Capital Investment part of original Operating Plan:** Choose an item
Estimated in service date: 12/31/2024	**Emergency Related Request?** No
Eng./Constr. Resources Budgeted? No	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☐ Distribution
Total Gross Capital Request: 18M	**Authorization Type:** Full Funding

Executive Summary

Executive Summary

An authorization of $18,000,000 is requested for the Connecticut Distribution Enhanced Tree Removal (ETR) capital project (id: ETR2024) which is part of Eversource CT's annual distribution vegetation maintenance plan.

The ETR project strategically removes trees to proactively improve system reliability and mitigate long term costs for the distribution cycle trimming programs. Tree removals, in conjunction with cycle pruning, drive improved reliability performance. Additionally, the service area has experienced drought conditions and insect infestations that have negatively impacted tree health and there are signs of increased tree mortality for the coming years.

The CT tree removal program is a Regulatory supported program that targets removals, primarily focused on circuit backbones and large laterals.

Project Costs Summary

See APS3 and APS8 requirements and consult with Plant Accounting for capital/O&M determination. Use published loaders for benefits, materials, and invoices, maintained by the Director, Budget and Internal Reporting.
Note: Dollar values are in thousands

Capital Costs	Year 2024__	Year 20__	Year 20__+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment				
Outside Services	17,485.0			17,485.0
Materials				
Removals				
Risk and Contingency				

Other				
Subtotal – Direct Costs	17,485.0			17,485.0
Indirect Capital Costs				
Indirect/Overheads (including benefits)	515.0			515.0
Capitalized interest or AFUDC, if any				
Subtotal – Indirect Costs				
Total Gross Capital Costs	**515.0**			**515.0**
Customer Contribution				
Total Net Capital Project Costs	**18,000**			**18,000**

Technical Justification:

The ETR program removes trees that have the potential to impact the utility plant thereby extending the life of the plant. The ETR program meets the three tests for capitalization:

- Substantial investment towards asset life extension
- One time program cost as the activity can only be performed once
- Standalone program which will be budgeted, charged and tracked separately

Justification:
The 2024 Vegetation Management distribution program requires expenditures across Connecticut Eversource operating company to address hazardous and risk tree removals. These activities improve the system's ability to survive major storms with less extensive damage. This will improve reliability performance across the service area.

Risk Assessment:
The Company has made commitments to customers and regulators to improve reliability and system resiliency. In the case of CT, there are specific vegetation management program goals for ETR as part of the System Resiliency Program.

- CT PURA 12-01-10 specified risk tree removal and the recapture of Enhanced Tree Trimming (ETT) clearances on backbones and large laterals.

There are both operational and regulatory risks associated with a failure to approve this program. Operationally, there is an increased risk of more vegetation caused outages, both on normal days and during adverse weather. The Company is required to report on both maintenance costs and volume and risk/hazard tree removals on an annual basis. The Vegetation Management programs also receive intense scrutiny during storm cost recovery hearings and rate case proceedings, creating a regulatory risk for the Company.

Project Need, Objective and Justification

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Project Need

In Connecticut, trees are the number one cause of outages during storm events. The risk posed by entire trees failing and impacting the conductors is not prevented by trimming alone. Hazardous trees that are dead, declining or structurally unsound are more likely to fail and result in customer outages and damage to infrastructure. Removing risk and hazard trees eliminates the chances of the tree causing an outage.

Project Scope

Eversource arborists will evaluate circuits scheduled for scheduled maintenance in 2024 for hazard trees, with the emphasis placed on prioritizing the backbone and large customer count laterals. The evaluation will take into consideration the condition of risk and hazard trees, proximity to electrical infrastructure and potential customer impact. The following list of circuit backbones will be patrolled for risk and hazard trees threatening reliability. Arborist patrols will begin in November 2023 to identify ETR work for January 1st 2024.

CIRCUIT NAME					
113	13C2	1B12	23K12	36C8	32G3
11A51	13C4	1C08	23Q8	36C9	32G7
11A55	13F1	1G28	24A16	39M1	32P1
11B1	13F72	1K02	24A19	39M2	33M1
11F14	13H1	1K07	24F2	3A01	34D8
11H12	13H2	1K11	24H3	3A04	34D9
11H31	13H91	1Q02	24H5	3A08	3505
11H64	13H99	1Q03	25L1	3R03	35L10
11H77	13S7	20S1	25R1	3R05	36A1
11J40	14G3	20S2	25R2	3R12	36C4
11J43	14H1	20S3	25R3	4405	36C6
11K42	14H3	20Y1	26N2	44J3	5R2
11K43	14H6	20Y2	27H11	4503	5R4
11K45	14K44	210B4	27K5	47N2	5R6
11K46	14K6	21H13	27K7	47N8	5R80
11N87	14K7	21H14	28A1	48C4	5S01
11N89	14L4	21H9	28F11	48C5	6A11
11S14	14L6	21J3	28F8	48C6	6A3
11Y6	14M8	21K11	28M13	48C9	6A5
11Y8	14N2	21K2	28M3	4A1	6A6
12A11	14S2	21K7	2904	4A10	6A8
12A12	14W4	21L6	2906	4A2	7A71
12B34	14W8	21L8	29J1	4A4	7A74
12B35	15M3	21M1	29J2	4A6	7A75
12B36	15Q6	21M3	2A1	4C15	7A79

12C4	16M1	21P3	2A15	4R16	7A81
12C5	16M2	21P4	2A17	4R17	7L85
12C7	16Q1	21P6	2A3	4R18	7L90
12F5	16S2	22D1	2A4	5L02	8A2
12F55	17F3	22H14	2B8	5P3	8A3
12J17	17Q2	22H18	2H02	5R1	8F01
12J38	18J1	22M12	2H03	30G3	9L01
12M1	18P1	22M15	2N16	30K12	9L06
12M4	18P2	22M3	300F2	30K16	9L08
12M6	18P4	22R1	300Z1	30L23	9L09
12N16	18P8	22R2	300Z3	30L24	9S13
12S1	18P9	22R5	301B1	30L26	9S14
12S2	19U1	22R6	301L3	30Y9	9S15
12Y10	1B06	23A1	302P1	31A15	9S24
12Y15	1B07	23A3	303Q1	31A9	9S25
130	1B08	23D7	303Q4	31C1	
13B27	1B10	23J33	30G2	32G2	

Background

Connecticut is a densely forested state with an aging tree population that has been subjected to numerous stressors over the past decade. Invasive insects such as Emerald Ash Borer, Spongy Moth, and others have resulted in widespread tree mortality. Environmental factors such as drought have further stressed Connecticut's trees. Dead, declining and trees with defects pose an increased risk to causing an outage during blue sky days and storm events. In addition to hazard trees, risk trees may be identified for removal based on their species, structure, lean and proximity to electrical conductors. Addressing risk and hazard trees along backbone distribution segments is one of the best ways to improve reliability and resiliency for Eversource's customers.

Alternatives Considered:

Alternatives were considered (please describe below)

Eversource has delineated the benefits of enhanced tree removal programs to regulatory bodies in CT as an important component of the vegetation management program for both day-to-day reliability improvement and increasing system resiliency for adverse weather events. Additionally, the majority of our customer and community officials have come to appreciate the impact of these programs and expect the company to have robust line clearance efforts. The deferral of this proactive maintenance approach to address only specific instances of insufficient clearance runs counter to the goals of improved reliability and system resiliency.

Regulatory Approvals:

No

Project Schedule

Milestone/Phase Name	Estimated Date
Arborist Backbone Surveys begin	November 2023
Project Start	01/01/2024
Assessment of Emergent Tree Issues	On-Going
Project Completion	12/31/24

Risks and Risk Mitigation Plans

References

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

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Reference appendices items in the appropriate section of the PAF and list items in the same order as referenced in the PAF

If the project has future financial benefits, please use the following table to provide the yearly amounts.

Financial Benefits	**Year 20__**	**Year 20__**	**Year 20__**	**Year 20__**
Capital				
O&M				
Other				
Total Financial Benefits				

Describe the estimated future Capital, O&M and/or Other benefits noted above:

What functional area(s) will these benefits be reflected in?_____
A representative from the respective functional area is required to be included as a project approver.