Operations Project Authorization Form

Date Prepared: 7/29/21	**Project Title: CT Lateral Reliability - 2021**
Company/ies: Eversource - CT	**Project ID Number: CD01789**
Organization: Statewide	**Class(es) of Plant: Distribution**
Project Initiator: [redacted]	**Project Category: Line**
Project Manager: [redacted]	**Project Type: Specific**
Project Sponsor: [redacted]	**Project Purpose: Reliability**
Estimated in service date: 12/31/21	**If Transmission Project: PTF? No**
Eng. /Constr. Resources Budgeted? Y	**Capital Investment Part of Original Operating Plan? Y**
Authorization Type: Full Funding	**O&M Expenses Part of the Original Operating Plan? Y**
Total Request: $286k	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

Lateral reliability improvements will be completed beyond 42 fuse devices that have experienced two or more animal caused outages over the past year (7/22/20 to 7/22/21).

These 42 laterals have had a total of 92 animal caused outages, impacting 6,120 customers and generating 413,078 customer minutes over the past year.

Additional laterals will be identified on a weekly basis for lateral reliability if they experience an animal caused outage in the future and have had a previous animal caused outage in the past three years.

Project Costs Summary

	Prior Authorized	2021	Totals
Capital Additions - Direct	$0	$163	$163
Removals net of Salvage ____%	$0	$15	$15
Total - Direct Spending	$0	$178	$178
Capital Additions - Indirect	$0	$97	$97
Subtotal Request	$0	$275	$275
AFUDC	$0	$2	$2
Total Capital Request	$0	$277	$277
O&M	$0	$9	$9
Total Request	$0	$286	$286

Financial Evaluation

Direct Capital Costs	2021	Total
Straight Time Labor	$12	$12
Overtime Labor	$2	$2
Outside Services	$122	$122
Materials	$42	$42
Other, including contingency amounts (describe)	$1	$1
Total Direct Costs	**$178**	**$178**

Indirect Capital Costs	2021	Total
Indirects/Overheads (including benefits)	$97	$97
Capitalized interest or AFUDC, if any	$2	$2
Total Indirect Costs	**$99**	**$99**
Total Capital Costs	**$277**	**$277**
Less Total Customer Contribution	**$0**	**$0**
Total Capital Project Costs	**$277**	**$277**
Total O&M Project Costs	**$9**	**$9**

Total Project Cost	**$ 286**	**$ 286**

Technical Justification:

Project Need Statement

There are 42 lateral devices that have experienced 2 or more animal caused outages within the past year. These laterals have unfused transformers which lack animal protection leading to multiple animal caused interruptions impacting large groups of customers.

Project Objectives

This project will add fusing an animal protection to transformers located downstream of these 42 lateral devices.

Additional laterals will be identified on a weekly basis for lateral reliability if they experience an animal caused outage in the future and have had a previous animal caused outage in the past three years.

Project Scope

Animal protection will be installed on 216 transformer locations, downstream of these 42 lateral devices to prevent future animal caused outages.

Transformers beyond these lateral devices will be fused to limit the customers impacted to those supplied by the individual transformer as opposed to those supplied by the upstream primary isolating device.

Background / Justification

Outage history for the 42 laterals identified for lateral reliability:

DIVISION	AREA	# Taps	# Events	Customers Affected	CMI	XF Locations	Cost Estimate
CT CENTRAL	CHESHIRE AWC	8	17	1,751	120,993	43	$39,100
	HARTFORD AWC	5	14	642	66,716	19	$18,700
	TOLLAND AWC	8	16	1,240	84,204	30	$25,500
CT CENTRAL Total		**21**	**47**	**3,633**	**271,913**	**92**	**$83,300**
CT EASTERN	DANIELSON AWC	2	4	120	11,616	13	$11,050
	EAST HAMPTON AWC	4	8	500	41,331	19	$16,150
	MADISON AWC	1	3	645	4,945	4	$5,100
	NEW LONDON AWC	6	13	414	26,919	44	$37,400
CT EASTERN Total		**13**	**28**	**1,679**	**84,811**	**80**	**$69,700**
CT WESTERN	NEWTOWN AWC	2	4	484	27,163	9	$8,500
	STAMFORD AWC	2	5	116	8,286	5	$4,250
	TORRINGTON AWC	4	8	208	20,905	30	$25,500
CT WESTERN Total		**8**	**17**	**808**	**56,354**	**44**	**$38,250**
Grand Total		**42**	**92**	**6,120**	**413,078**	**216**	**$191,250**

Business Process and / or Technical Improvements:

Animal caused outages within these 42 laterals have generated 413,078 customer minutes within the past year (7/22/20 to 7/22/21).

Estimated cost to fuse these transformers an add animal protection is $191,250.

The $ / customer minute saved is $0.46 assuming a 100% improvement.

Alternatives Considered with Cost Estimates

Do nothing – No lateral reliability improvement will be achieved within these 42 laterals and customer satisfaction will not improve.

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Material ordered	8/6/21
Begin construction	8/9/21
Complete construction	9/3/21

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	Scope of work is minimal and not subject to scope changes.
Internal construction resources not available to perform the work.	2021	Low	Use competitive bidding to ensure lowest outside labor cost.
Storm delays	2021	Medium	If storm activity delays work, we may be forced to use additional external resources.

References

None

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

AIMs Need Statement:

CD01789_project_needs_statement.pdf

Location information:

2021%20Emergent%20Animal%20Taps