Operations Project Authorization Form

Date Prepared: October 2, 2019	Project Title: [redacted] Issue
Company/ies: Eversource CT	**Project ID Number:** CD01370
Organization: Electric	**Class(es) of Plant:** Distribution
Project Initiator: [redacted]	**Project Category:** Line
Project Manager: [redacted]	**Project Type:** Voltage Correction
Project Sponsor: [redacted]	**Project Purpose:** Maintain DPUC Voltage Regulations during Contingency
Estimated in service date: June 30, 2020	**If Transmission Project: PTF? N/A**
Eng. /Constr. Resources Budgeted? No	**Capital Investment Part of Original Operating Plan? Yes**
Authorization Type: Preliminary	**O&M Expenses Part of the Original Operating Plan? Yes**
Total Request: 435K	

Financial Requirements:

Project Authorization

ERM: _____

FP&A: _____

Executive Summary

During a contingency, customers on the [redacted]

[redacted]

Project Costs Summary

Note: Dollar values are in thousands

	Prior Authorized	2020	20__	20__+	Totals
Capital Additions - Direct	$0	$248	$0	$0	$248
Less Customer Contribution	$0	$0	$0	$0	$0
Removals net of Salvage ____%	$0	$6	$0	$0	$6
Total - Direct Spending	$0	$254	$0	$0	$254
Capital Additions - Indirect	$0	$159	$0	$0	$159
Subtotal Request	$0	$413	$0	$0	$413
AFUDC	$0	$5	$0	$0	$5
Total Capital Request	$0	$418	$0	$0	$418
O&M	$0	$17	$0	$0	$17
Total Request	$0	$435	$0	$0	$435

Financial Evaluation

Note: Dollar values are in thousands

Direct Capital Costs	Year 1	Year 2	Year 3+	Total
Straight Time Labor	$38	$0	$0	$38
Overtime Labor	$10	$0	$0	$10
Outside Services	$33	$0	$0	$33
Materials	$172	$0	$0	$172
Other, including contingency amounts (describe)	$1	$0	$0	$1
Total Direct Costs	**$254**	**$0**	**$0**	**$254**

Indirect Capital Costs	Year 1	Year 2	Year 3+	Total
Indirects/Overheads (including benefits)	$159	$0	$0	$159
Capitalized interest or AFUDC, if any	$5	$0	$0	$5
Total Indirect Costs	**$164**	**$0**	**$0**	**$164**
Total Capital Costs	**$418**	**$0**	**$0**	**$418**
Less Total Customer Contribution	**$0**	**$0**	**$0**	**$0**
Total Capital Project Costs	**$418**	**$0**	**$0**	**$418**
Total O&M Project Costs	**$17**	**$0**	**$0**	**$17**
Total Project Cost	**$435**	**$ -**	**$ -**	**$435**

Note: Explain unique payment provisions, if applicable

Technical Justification:

Project Need Statement

To eliminate customer low voltage complaints when the [redacted]

[redacted]

[redacted]

Project Objectives

- [redacted]
- [redacted]
- [redacted]

Project Scope

Preferred Proposal

Title: Middletown_Preferred_[redacted] Low Voltage Contingency

[redacted]

Distribution Project Cost: $435K
$/CMS: $7.68
$/CIS: $0
Outage Summary: (2) Equipment Failures
Impacted Customer: 3,380
Impacted Critical Customer(s): 3
Major Material: (4) Reclosers, (3) 416 kVA Regulators

[redacted]

Background / Justification

During two events on January 5, 2018, [redacted]

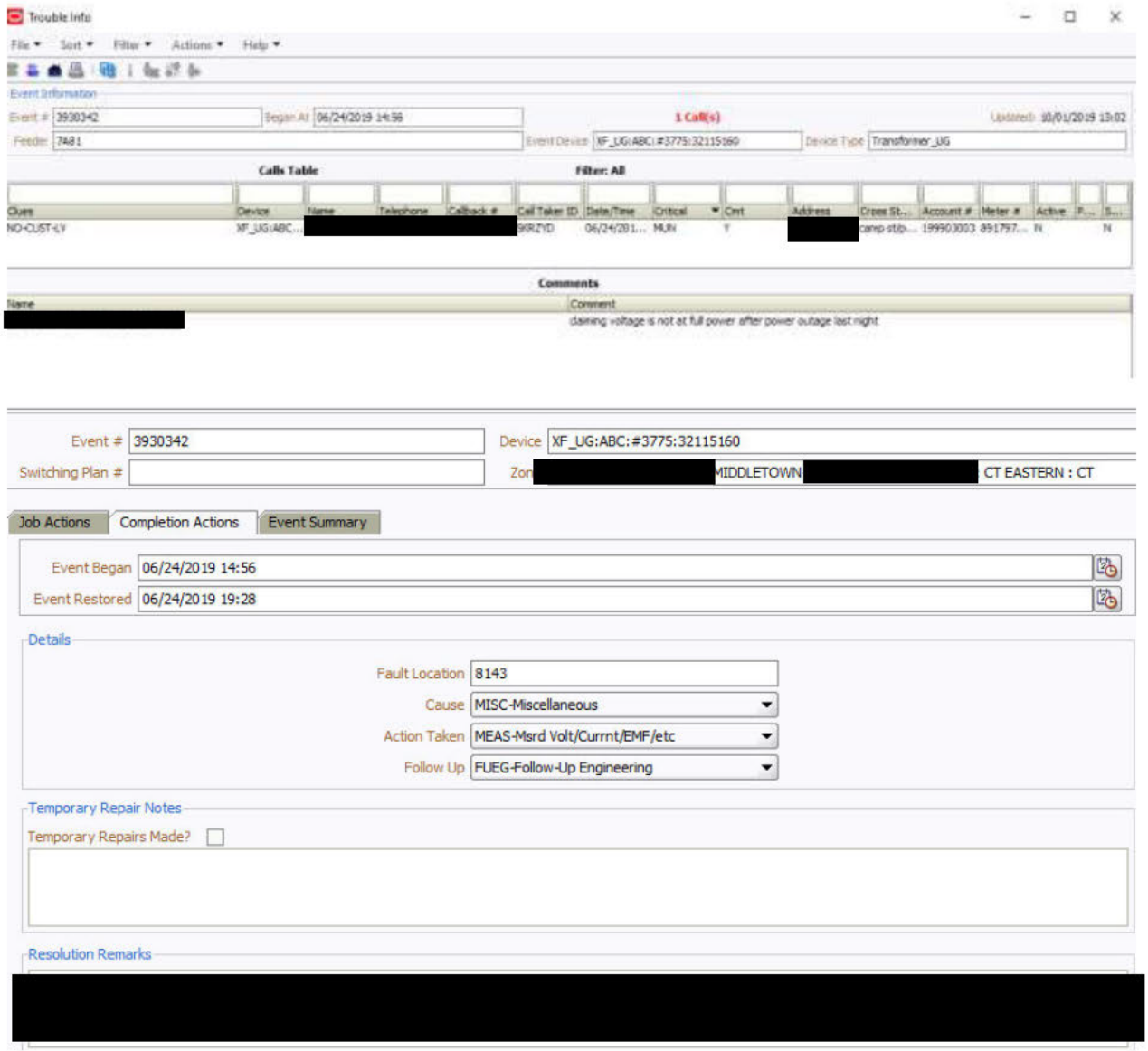
Date	Device	Town	Cause	CM	Remarks
8/20/2015	[redacted]	Middletown	Equipment	153,932	West St., Wire Down
8/20/2015		Middletown	Equipment	496,620	West St., Wire Down
8/20/2015		Middletown	Equipment	28,490	West St., Wire Down
01/05/2018		Middlefield	Miscellaneous	0	Low Voltage Complaint; C Phase Only
6/23/2019		Middletown	Equipment	94,124	[redacted]
6/23/2019		Middletown	Equipment	53,196	
6/23/2019		Middletown	Equipment	37,020	

1/5/2018 event



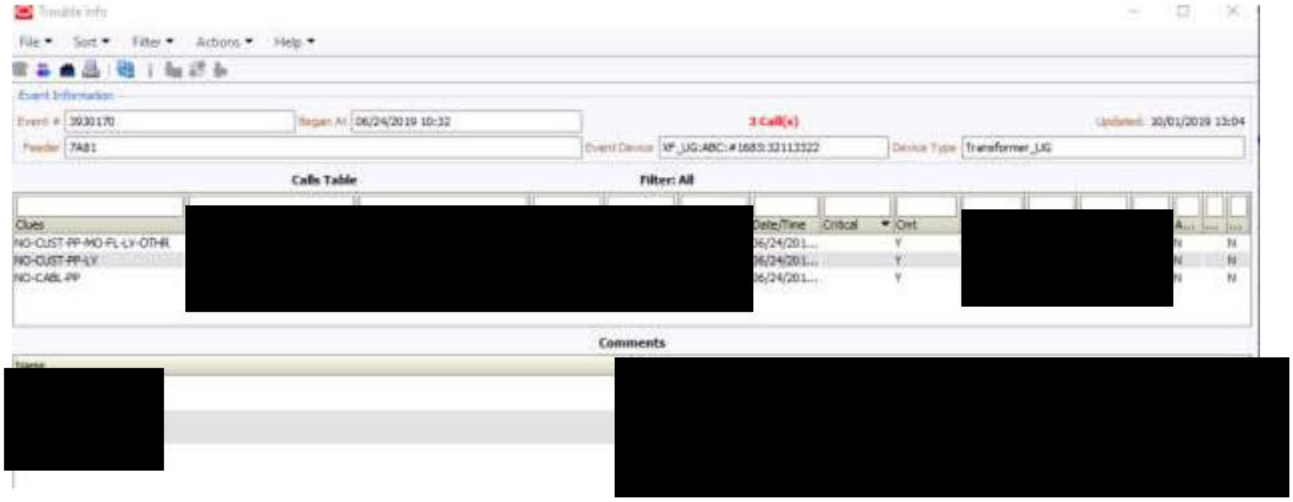
Background / Justification (Cont'd)

6/23/19 event
[redacted] Office Supply



Background / Justification (Cont'd)

Various other calls on circuit for 6/23/19 event



Business Process and / or Technical Improvements:

1. Establishing 500 Customer Zones
2. Maintaining voltage within regulated limits
3. Automating a Tie between circuits

Alternatives Considered with Cost Estimates

Title:

Distribution Project Cost: $1,024K
$/CMS: $18.07
$/CIS: $435.50
Outage Summary: (2) Equipment Failures
Impacted Customer: 3,380
Impacted Critical Customer(s): 3
Major Material: (4) Reclosers, (3) 416 kVA Regulators, 5,571 ft. 556 AAC Cable

Project Schedule

Milestone/Phase Name	Estimated Completion Date
Preliminary Approval	October 2019
Full Funding	January 2020
Start of Construction	June 2020
End of Construction	July 2020

Regulatory Approvals

Not Applicable

Risks and Risk Mitigation Plans

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2020	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	2020	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach
Internal construction resources not available to perform the work.	2020	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.	2020	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Storm delays	2020	Medium	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2020	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods

References

DSEM 02.101 – Reliability Gener**al**
DSEM 02.151 – Auto Zones
DSEM 05.133 – Contingency Voltage Limits
DSEM 05.134 – Voltage Variation Among Phases

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

Synergeee Studies

[redacted] Model Slides.pdf

Proposed Design

[redacted] Au

Need Statement

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Load Summary

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