EVERSOURCE

Project Approval Form

Project Title [redacted] Deep River CT	**Project Number:** CD02119
Date Prepared: 09/12/2024	**Company:** Eversource CT
Organization: Distributed Energy Resource Planning	**Project Category:** Generation/Interconnection
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distributed Energy Resources	**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: March 31, 2025	
Total Capital Request: $150.9K, 100% reimbursable	**Authorization Type:** Full Funding

1. Executive Summary

Full Funding is requested for this project in the amount of $150.9K, which is 75% of the Partial Funding estimate of $201.4K. CD02119 was approved for Partial funding on 5/23/24. There is no scope change. The variance between Full Funding and Partial Funding is shown in the table below.

Direct Capital Costs	Full Funding (000's)	Partial Funding (000's)	Difference (000's)
Labor/Equipment	7.7	12	-4.3
Outside Services	0	64.9	-64.9
Materials	75.9	26.5	49.4
Removals	2.6	27	-24.4
Risk & Contingency	10.5	1.3	9.2
Other	0	0	0
Indirects/Overheads	54.2	69.8	-15.6
AFUDC	0	0	0
Total Capital Costs	150.9	201.4	-50.5

Original project as presented:

The purpose of this request is to approve a partial funding capital request of $201.4K which is 100% reimbursable. The total 100% customer Contribution In Aide of Construction as indicated in the project cost summary below is $260.4K which includes O&M, taxes, and a 24% contingency. The projected in-service date is estimated to be March 31, 2025. The project was initially presented and approved on January 12, 2023. This partial funding PAF is being re-written and submitted to comply with the new PAF requirements. In addition, the new cost units were applied for this PAF as well as the addition of voltage regulators to the scope of work.

[redacted] is in the Madison AWC of the Eastern Division and is proposing a photovoltaic generator at their facility located at [redacted] CT. The photovoltaic facility is rated at 550 kW. The proposed [redacted] facility will [redacted] Previously only the control settings were expected to be changed; but, upon further review the full regulator replacement is necessary. [redacted]

This PAF is being re-presented with a cost difference of approximately 44.6%. This is primarily driven by the addition of the regulators which accounted for a $45K increase, or approximately 33%. The remaining increase is due to the difference in cost units between 2022 and 2024.

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2025	Year 2026	Year 2027+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	7.7	0.0	0.0	7.7
Outside Services	0.0	0.0	0.0	0.0
Materials	75.9	0.0	0.0	75.9
Removals	2.6	0.0	0.0	2.6
Risk and Contingency	10.5	0.0	0.0	10.5
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**96.8**	**0.0**	**0.0**	**96.8**

Indirect Capital Costs				
Indirect/Overheads (including benefits)	54.2	0.0	0.0	54.2
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal – Indirect Costs	**54.2**	**0.0**	**0.0**	**54.2**
Total Gross Capital Costs	**150.9**	**0.0**	**0.0**	**150.9**
Customer Contribution	**-150.9**	**0.0**	**0.0**	**-150.9**
Total Net Capital Project Costs	**0.0**	**0.0**	**0.0**	**0.0**

The below table illustrates the total cost that will be shared with the customer in the interconnection agreement. It includes a CIAC contribution as well as a witness test fee. The project is 100% reimbursable.

Distribution cost including O&M	$224,668
CIAC Tax: 15%	$33,700
Total Distribution cost	$258,368
Witness Test	$2,000
TOTAL Customer Contribution in Aide of Construction. **paid by customer**	$260,368

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted] approached Eversource in August 2022 regarding a 550 kW project o[redacted]CT as a new construction. A system impact study agreement was issued to Verogy in October 2022. The customer executed the agreement in November 2022. [redacted]. An IA was issued to the customer in January 2023 and the customer signed the agreement in July, 2023. The project paid for construction in February 2024. After an initial kick

off, it was determined that the full regulator unit will need to be replaced and has been added to this latest PAF at a cost of $45K.

b. Project Need

This is an interconnection requirement. The proposed solutions are standard industry practice for the issues that were identified in the system impact study.

c. Project Scope

[redacted]

The following is a list of major material that will be required to complete this project:

- 1X OH Primary Meter
- 1X Radial recloser
- 100 Feet of 556 TW for line extension
- 1X New 45/1 pole
- Three overhead voltage regulators, capable of reverse power flow from a generator

4. Alternatives Considered

The project is a compliance obligation. There were no alternatives considered. There is no financial benefit.

5. Project Schedule

Milestone/Phase Name	Estimated Date
Partial Approval	May 31, 2024
Customer Authorizes Agreement	July 12, 2023 (Actual)
100% Detailed Engineering Completion	June 30, 2024
Fully Funded	February 27, 2024 (Actual)

Milestone/Phase Name	Estimated Date
Construction Start	January 1, 2025
In Service Date	March 31, 2025

6. Regulatory Decisions

Nonapplicable.

7. Codes and Standards

Nonapplicable.

8. Risk and Contingencies

Contingencies:

A 24% contingency was added.

Risk Mitigation:

No additional dollars were included for risk. Based on the scope of work, risk is expected to be minimal.

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2025	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	2025	Low	Design to minimize customer impact. Project Preplanning and customer/community outreach.

Internal construction resources not available to perform the work.	2025	Medium	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.	2024	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2024	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2024	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2024	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.
Technological risks involving integration of new technology	2024	Low	Before use of new technology ensure support of standards and manufacturer. Schedule project to accommodate for extra time or ensure new technology is not on the critical path.
Wetlands / Environmentally sensitive area	2024	Low	Use of mats and specialty equipment, only work during certain times of the year.

9. References

References
1. DSEM- Distributed Generation- Remote monitoring and control- 7.0
2. DSEM- Distributed Generation- General Standards- Large scale DER 1.4.1
3. DSEM- New Service- NB-3-7a

4.
5.

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Geographic Map	*YES*
C. Customer One Line	*YES*
D. Feeder One Line	*YES*

Attachment A:

WINTHROP RD

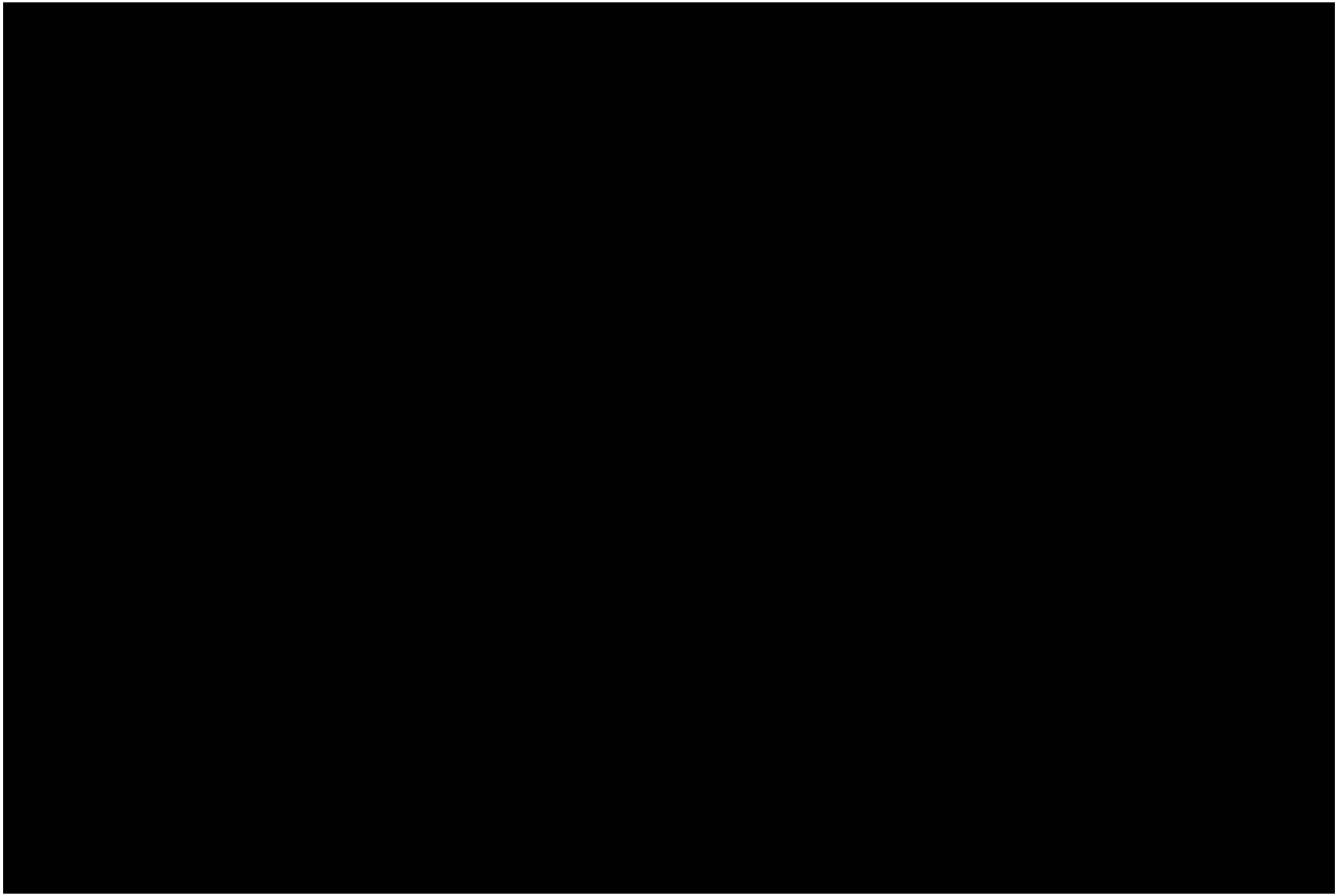
Estimating Sheet

Code	Unit Type	Unit Description	Included	Unit of Measu	[redacted]	Total Cost	KEYWORD	
ALL14	ALL	OTHER	Item not in list	$		$30,000	OTHER	Cost of 1 primary meter
ALL14	ALL	OTHER	Item not in list	$		$10,000	OTHER	Regulator settings update
ALL14	ALL	OTHER	Item not in list	$		$45,000	OTHER	OH, 3 Regulators
ALL18	ALL	OH/DB/UG - Traffic Control - Police Officer	$1000 / day / officer, Urban area, Main/State roads, 2 needed for reconductoring, multiple crews	$		$3,000	TRAFFIC	1 officer / 3 days
OH14A	OH	OH - JUNCTION POLE - 3ph (Eversource custodian)	Install and shift any 3ph JUNCTION with CLASS 1 pole - Eversource installs pole	LOC		$15,198	POLE	Replace pole 466 with 45' class 1
OH34	OH	OH - Line Extension - 3ph (556 kcmil)	Includes conductor, poles, poletops, arresters, c/o's, guys, average trimming	FT		$15,600	OH WIRE	on site to primary meter
OH38	OH	OH - Recloser - 3ph	Includes Replacing Pole, 6 Stirrups, 6 arresters, 3 Vertical Disc Switches, Control, etc.	LOC		$62,386	SECTIONALIZE	
Total						$181,184		
			Contingency/Contractor Contingency/			$43,484		
						$224,668		

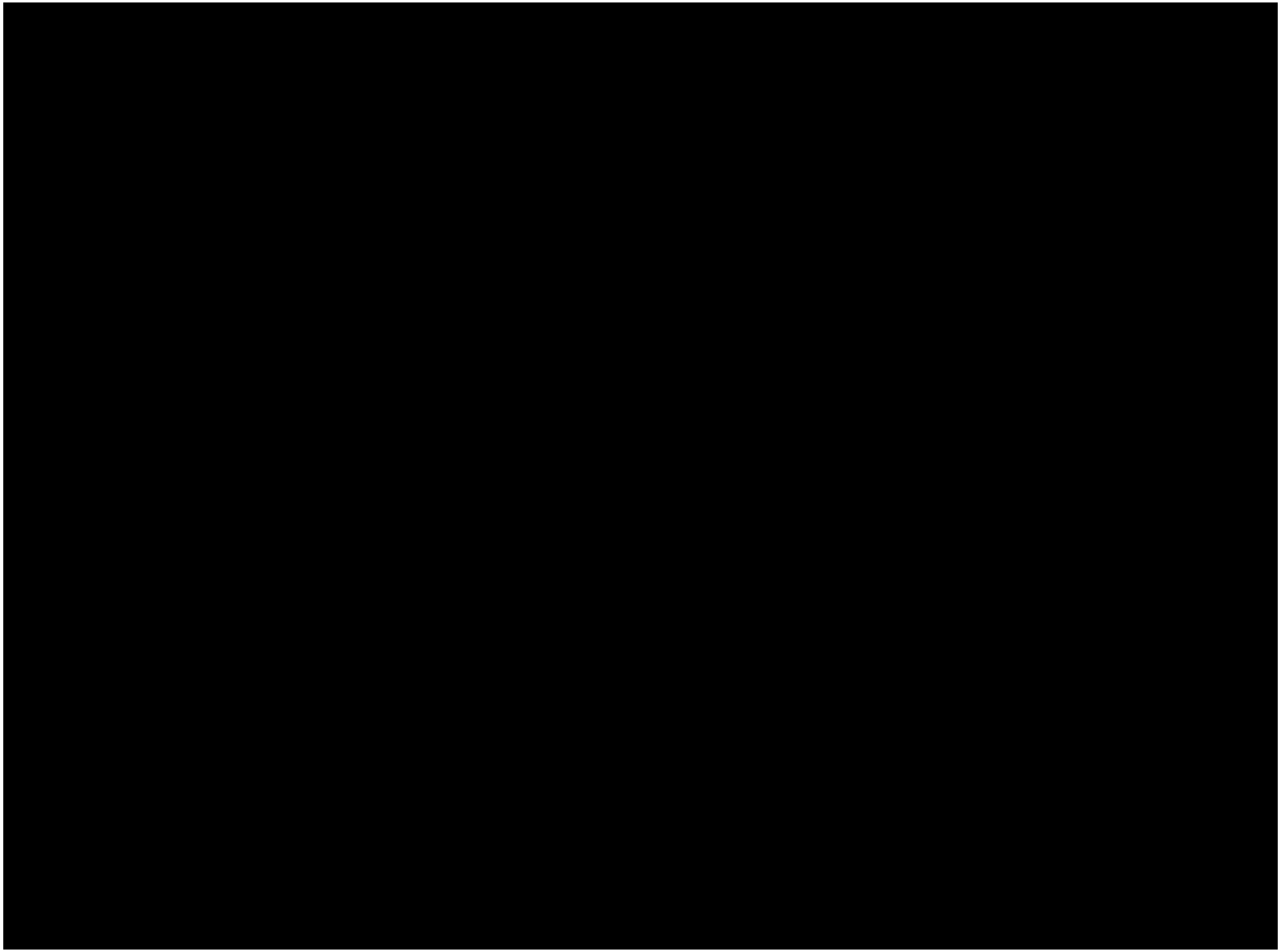
Attachment B



Attachment C:



Attachment D:



EVERSOURCE

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Project Title: [redacted] Deep River CT	**Project Number:** CD02119
Date Prepared: 05/21/2024	**Company:** Eversource CT
Organization: Distributed Energy Resource Planning	**Project Category:** Generation/Interconnection
Project Initiator: [redacted]	**Project Type:** Specific
Initiating Organization: Distributed Energy Resources	**Capital Investment part of original Op Plan:** No
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: March 31, 2025	
Total Capital Request: $201.4K, 100% reimbursable	**Authorization Type:** Partial Funding

1. Executive Summary

The purpose of this request is to approve a partial funding capital request of $201.4K which is 100% reimbursable. The total 100% customer Contribution In Aide of Construction as indicated in the project cost summary below is $260.4K which includes O&M, taxes, and a 24% contingency. The projected in-service date is estimated to be March 31, 2025. The project was initially presented and approved on January 12, 2023. This partial funding PAF is being re-written and submitted to comply with the new PAF requirements. In addition, the new cost units were applied for this PAF as well as the addition of voltage regulators to the scope of work.

[redacted] is in the Madison AWC of the Eastern Division and is proposing a photovoltaic generator at their facility located at [redacted] Deep River, CT. The photovoltaic facility is rated at 550 kW. The propose[redacted] facility will interconnect to the [redacted] 23 kV circuit. A distribution system impact study determined that the proposed project will need a three-phase new service with a site-dedicated recloser and one primary meter. [redacted]

This PAF is being re-presented with a cost difference of approximately 44.6%. This is primarily driven by the addition of the regulators which accounted for a $45K increase, or approximately 33%. The remaining increase is due to the difference in cost units between 2022 and 2024.

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2025	Year 2026	Year 2027+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	12.0	0.0	0.0	12.0
Outside Services	64.9	0.0	0.0	64.9
Materials	26.5	0.0	0.0	26.5
Removals	27.0	0.0	0.0	27.0
Risk and Contingency	1.3	0.0	0.0	1.3
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**131.6**	**0.0**	**0.0**	**131.6**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	69.8	0.0	0.0	69.8
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal – Indirect Costs	**69.8**	**0.0**	**0.0**	**69.8**
Total Gross Capital Costs	**201.4**	**0.0**	**0.0**	**201.4**
Customer Contribution	**-201.4**	**0.0**	**0.0**	**-201.4**
Total Net Capital Project Costs	**0.0**	**0.0**	**0.0**	**0.0**

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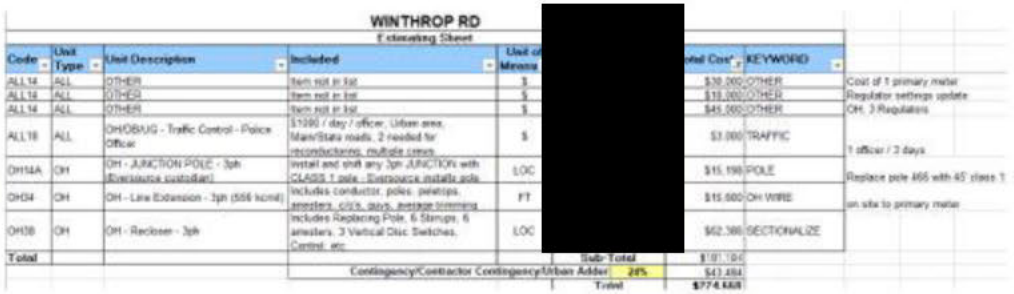
C. Customer One Line	*YES*
D. Feeder One Line	*YES*

Attachment A:



WINTHROP RD

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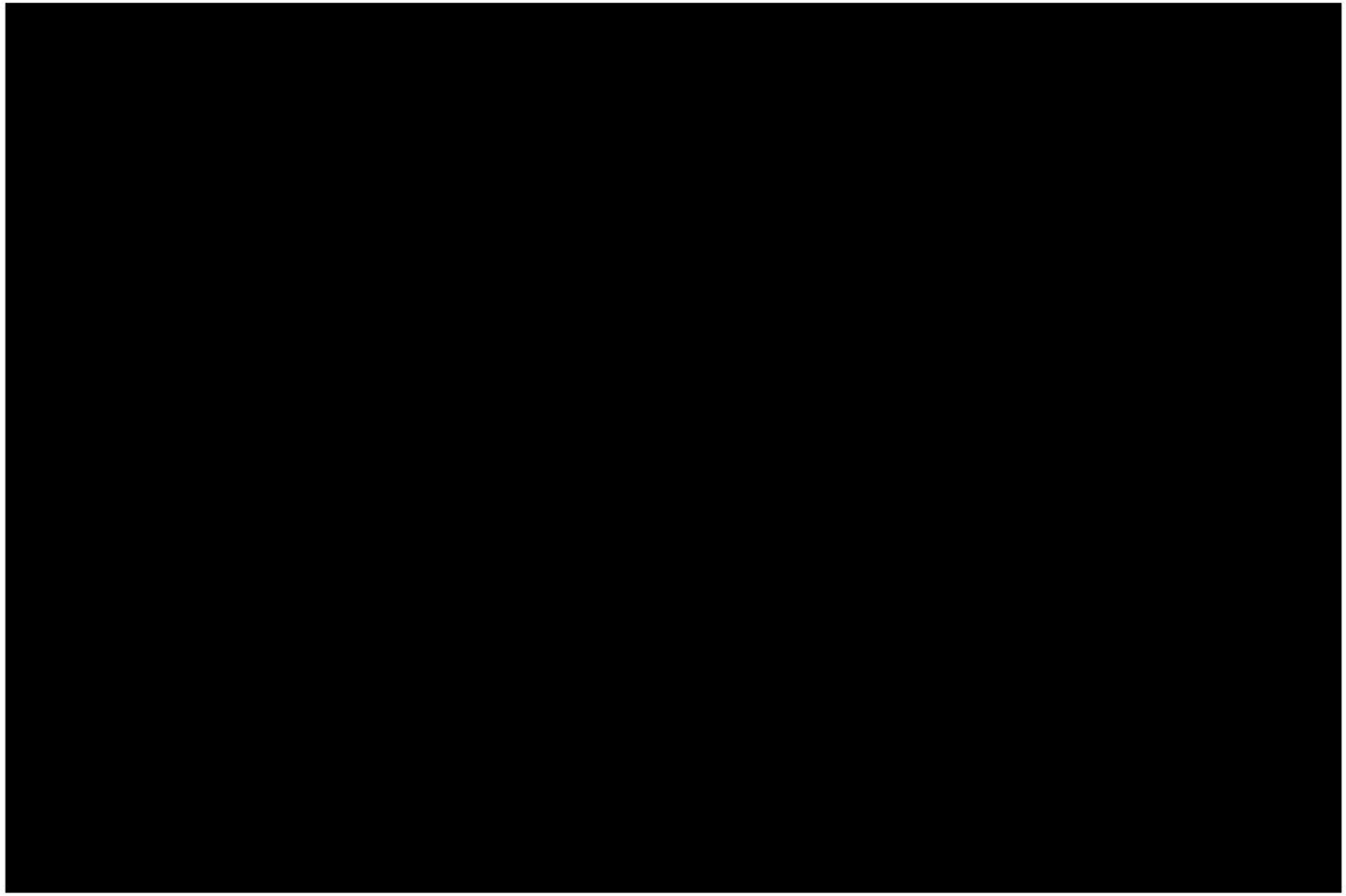
OH34	OH	OH - Line Extension - 3ph (556 kcmil)	Includes conductor, poles, pelatops, arresters, c/c's, guys, average trimming	FT		$15,600	OH WIRE	on site to primary meter
OH38	OH	OH - Recloser - 3ph	Includes Replacing Pole, 6 Stirrups, 6 arresters, 3 Vertical Disc Switches, Control, etc	LOC		$62,386	SECTIONALIZE	
Total					Sub-Total	$191,104		
			Contingency/Contractor Contingency/Urban Adder		28%	$43,484		
					Total	$774,668		

Attachment B



Attachment C:



Attachment D:

