EVERSOURCE

Project Approval Form

Project Title: 2025 Central Smart Switch (CI) RWO -6Z- 8R	**Project Number:** CD02299
Date Prepared: 01/21/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** SMART SWITCHES PROGRAM
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: 12/31/2025	
Total Capital Request: $987.5K	**Authorization Type:** Full Funding

1. Executive Summary

Full funding is requested for **$987K** which is 95% of the partial funding estimate of $1,042K. CD02299 was partially approved on 6/6/2024. There are no changes in scope.

The original project was presented as follows:

The Smart Switch Program includes the installation of additional smart switch devices (reclosers) on circuits with zones impacting 500 or more customers. Reducing the size of customer zones will minimize the customers affected in the event of future outages – improving SAIDI, SAIFI and CEMI. These additional reclosers will also provide additional telemetry towards the implementation of DMS.

CD02299 will address zones with many customers interrupted over a four-year period within the Central division.

This project seeks partial funding of $1,042.5K to address the following 6 circuit zones in the Central region of Connecticut:

District	Circuit Zone	Customers at Risk	Total Customers Impacted (2019-2022)
[redacted]			

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2025	Total
Internal Labor and Construction Equipment	62.2	62.2
Outside Services	0.0	0.0
Materials	477.0	477.0
Removals	14.3	14.3
Risk and Contingency	68.9	68.9
Other	0.0	0.0
Subtotal	**622.4**	**622.4**

Indirect Capital Costs	2025	Total
Indirects/Overheads (including benefits)	365.1	365.1
Capitalized interest or AFUDC, if any	0.0	0.0
Subtotal	**365.1**	**365.1**
Total Capital Costs (Gross)	**987.5**	**987.5**

Less Total Customer Contribution	**0.0**	**0.0**

Project Costs (Net of Reimbursement)	**987.5**	**987.5**

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

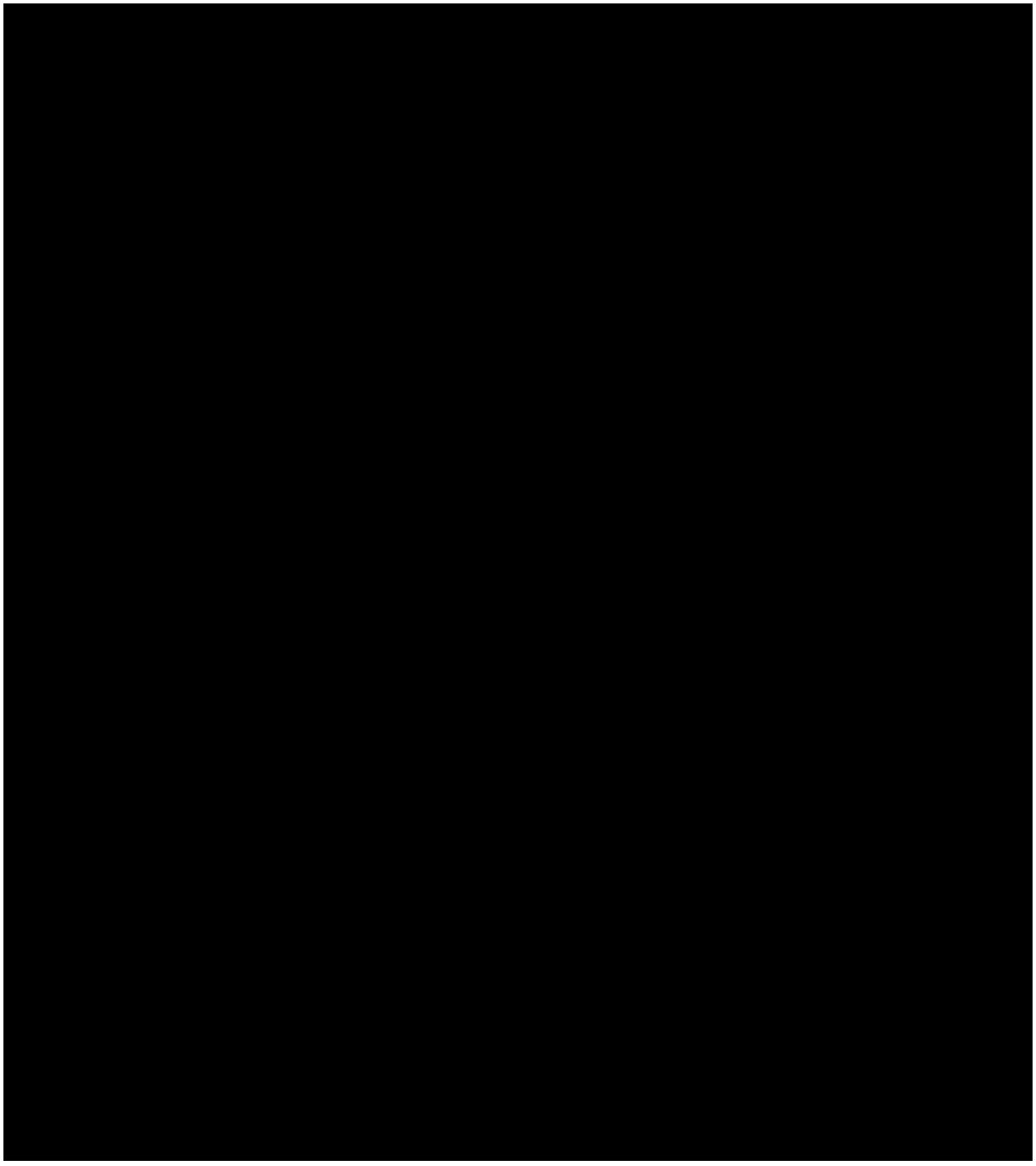
The Smart Switch Program is a continuation of an Eversource initiative for a multi-year program to improve circuit reliability by adding automatic or SCADA sectionalizing devices on overhead distribution circuits. The Smart Switch Program focuses on breaking up customer zones and lowering the average number of customers impacted by a backbone interruption.

b. Project Need



c. Project Scope

The scope for the project is as follows:



4. Alternatives Considered

An alternative for this project was to "do nothing", but this wasn't selected as it doesn't address the large customer zones that would be affected by a single location outage.

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	Jun 2024
100% Detailed Engineering Completion	Nov 2024
Fully Funded	Jan 2025
Construction Start	Mar 2025
In Service Date	Dec 2025

6. Regulatory Decisions

N/A

7. Codes and Standards

N/A

8. Risk and Contingencies

Risk Mitigation:

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	2025	Low	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2025	Low	If storm activity delays work, we may be forced to use external resources.
System abnormal configuration	2025	Low	Schedule work to minimize system abnormal time. Install temporary bypasses/equipment if system will be abnormal for extended periods.

9. References

References
1. N/A

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

Attachment	Included in Submittal?
A1. Partial PAF	*YES*
A. Cost Estimates	*YES*
B. Load Sheets	*YES*
C. Geographic Maps	*YES*
D. One-Lines	*YES*

A1 – Partial PAF:

Project Title: 2025 Central Smart Switch (CI) RWO – 6Z – 8R	**Project Number:** CD02299
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Organization: Distribution Engineering	**Project Category:** SMART SWITCHES PROGRAM
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: 12/31/2025	
Total Capital Request: $1,042.5K	**Authorization Type:** Partial Funding

1. Executive Summary

The Smart Switch Program includes the installation of additional smart switch devices (reclosers) on circuits with zones impacting 500 or more customers. Reducing the size of customer zones will minimize the customers affected in the event of future outages – improving SAIDI, SAIFI and CEMI. These additional reclosers will also provide additional telemetry towards the implementation of DMS.

CD02299 will address zones with a large number of customers interrupted over a four-year period within the Central division.

This project seeks partial funding of $1,042.5K to address the following 6 circuit zones in the Central region of Connecticut:

District	Circuit Zone	Customers at Risk	Total Customers Impacted (2019-2022)
[redacted]			

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2025	2026	2027+	Total
Internal Labor and Construction Equipment	56.8	0.0	0.0	56.8
Outside Services	116.6	0.0	0.0	116.6
Materials	541.3	0.0	0.0	541.3
Removals	62.3	0.0	0.0	62.3
Other	2.7	0.0	0.0	2.7
Risk and Contingency	0.0	0.0	0.0	0.0
Subtotal	**779.7**	**0.0**	**0.0**	**779.7**

Indirect Capital Costs	2025	2026	2027+	Total
Indirects/Overheads (including benefits)	250.5	0.0	0.0	250.5
Capitalized interest or AFUDC, if any	12.3	0.0	0.0	12.3
Subtotal	**262.8**	**0.0**	**0.0**	**262.8**
Total Capital Costs (Gross)	**1,042.5**	**0.0**	**0.0**	**1,042.5**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net)	**1,042.5**	**0.0**	**0.0**	**1,042.5**

Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

The Smart Switch Program is a continuation of an Eversource initiative for a multi-year program to improve circuit reliability by adding automatic or SCADA sectionalizing devices on overhead distribution circuits. The Smart Switch Program focuses on breaking up customer zones and lowering the average number of customers impacted by a backbone interruption.

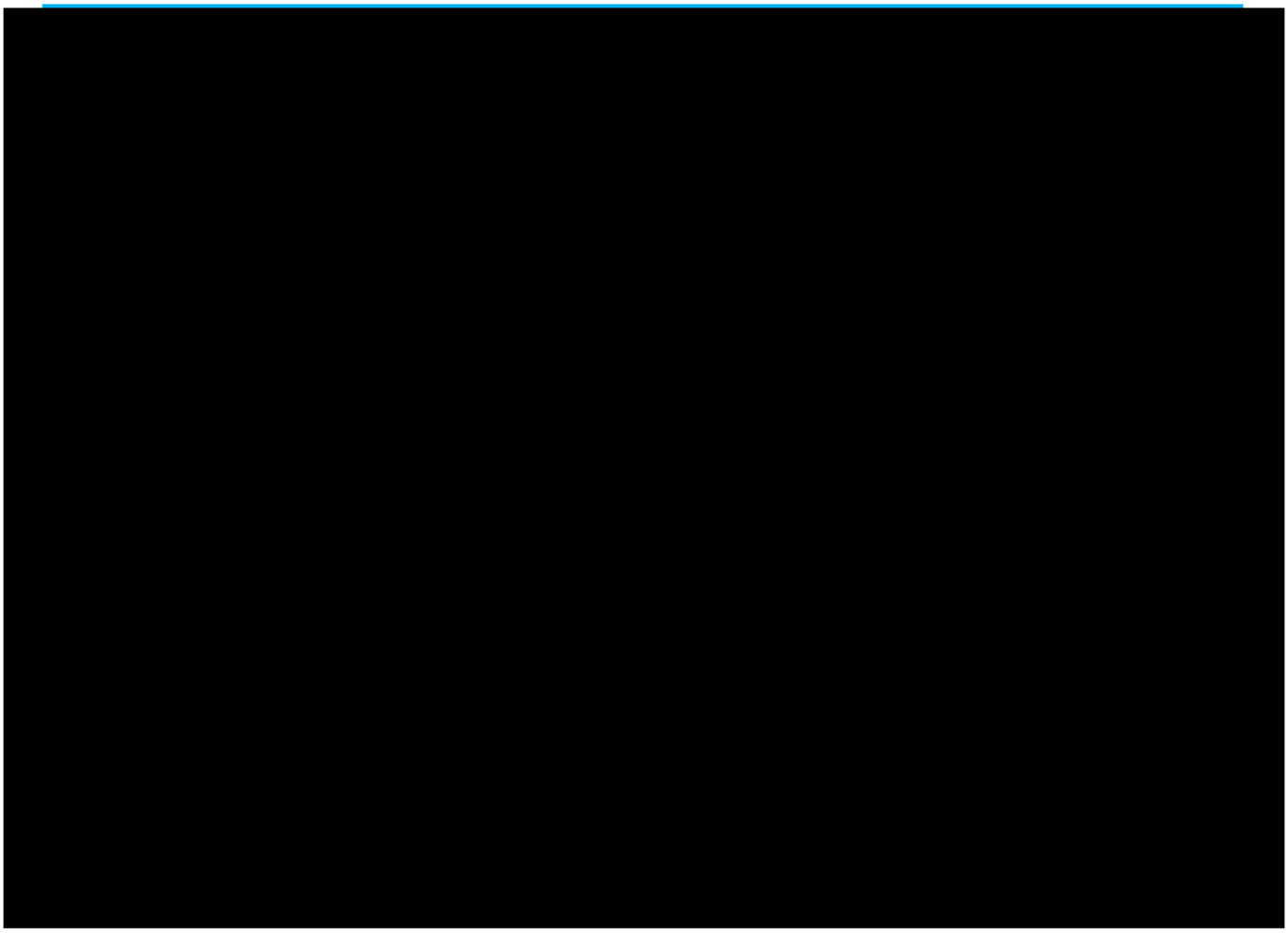
b. Project Need

[redacted]

c. Project Scope

The scope for the project is as follows:

[redacted]



3. Alternatives Considered

An alternative for this project was to "do nothing", but this wasn't selected as it doesn't address the large customer zones that would be affected by a single location outage.

4. Project Schedule

Milestone/Phase Name	Estimated Date
Partial Approval	February 2024
100% Detailed Engineering Completion	November 2024
Fully Funded	December 2024
Construction Start	January 2025
In Service Date	December 2025

5. Regulatory Decisions

N/A

6. Codes and Standards

N/A

7. Risk and Contingencies

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.
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8. References

References
1. N/A

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

Attachment	Included in Submittal?
A. Cost Estimates	*YES*
B. Load Sheets	*YES*
C. Geographic Maps	*YES*
D. One-Lines	*YES*

Attachment A: Cost Estimate

Cheshire reclosers:

Design Alternative CD02299-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$431,674
Contingency Amount:	$103,602
Estimate:	$535,276
Reimbursement:	$0
Net Amount:	**$535,276**

Description:

Item Description	CU	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	$13,687.44
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18	$9,000.00
SECTIONALIZE OH - Recloser - 3ph	23-OH38	$249,545.92
SECTIONALIZE OH - Recloser Control - setting changes only	23-OH39A	$6,351.28
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph	23-OH43	$53,472.64
OTHER OTHER 30% Contractor adder	23-ALL14	$99,617.00

Hartford reclosers:

Design Alternative CD02299-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$124,826
Contingency Amount:	$29,958
Estimate:	$154,784
Reimbursement:	$0
Net Amount:	**$154,784**
Description:	

Item Description	CU	[redacted]	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17		$4,562.48
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18		$3,000.00
SECTIONALIZE OH - Recloser - 3ph	23-OH38		$62,386.48
SECTIONALIZE OH - Recloser Control - setting changes only	23-OH39A		$12,702.56
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph	23-OH43		$13,368.16
OTHER OTHER 30% contractor adder	23-ALL14		$28,806.00

Tolland reclosers:

Design Alternative CD02299-03

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$321,036
Contingency Amount:	$77,049
Estimate:	$398,085
Reimbursement:	$0
Net Amount:	**$398,085**

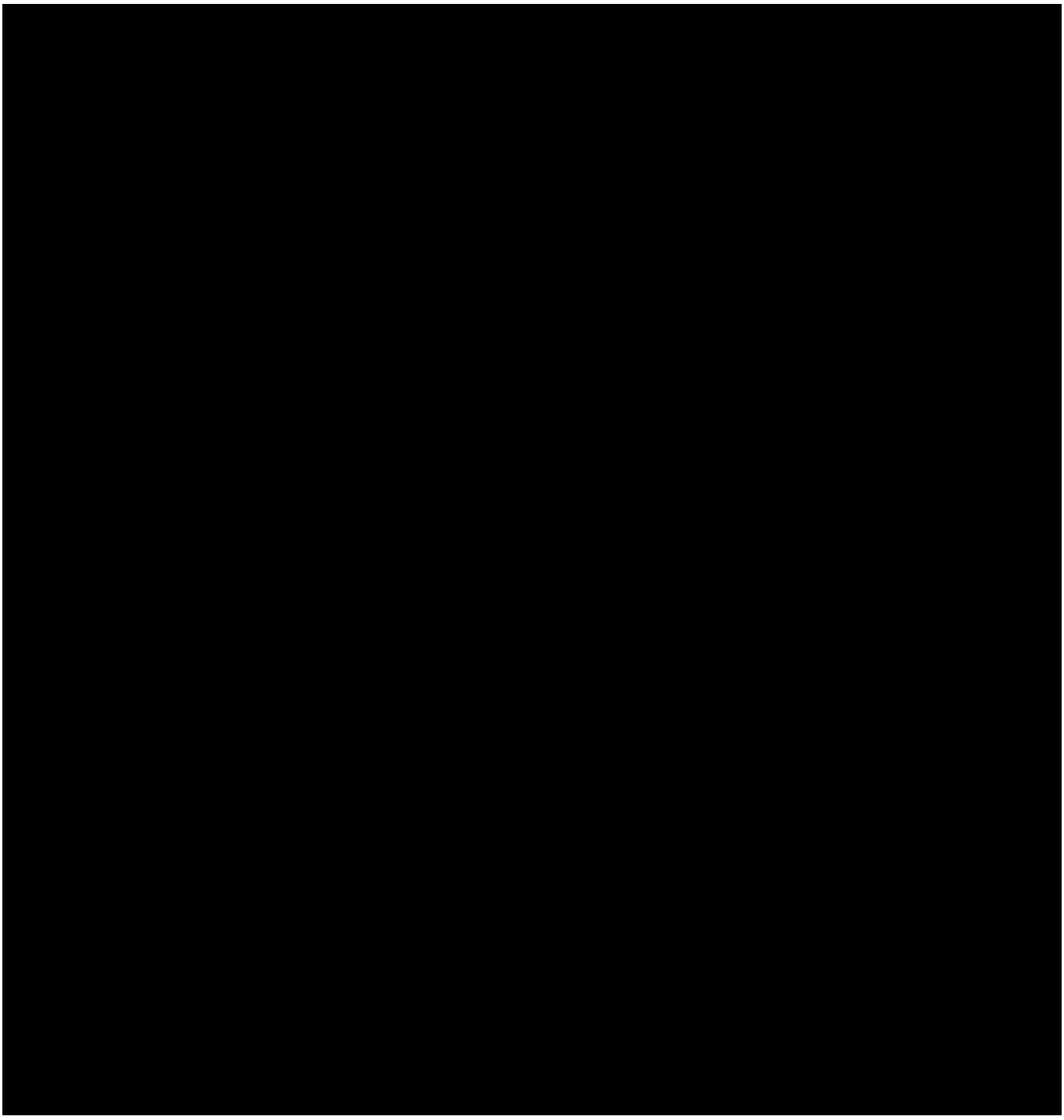
Description:

Item Description	CU	[redacted]	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17		$13,687.44
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18		$6,000.00
SECTIONALIZE OH - Recloser - 3ph	23-OH38		$187,159.44
SECTIONALIZE OH-Vertical Disconnect Switches-600/900 amp 3-1ph	23-OH43		$40,104.48
OTHER OTHER 30% contractor adder	23-ALL14		$74,085.00

Attachment B: Load sheets

Cheshire AWC

[redacted]







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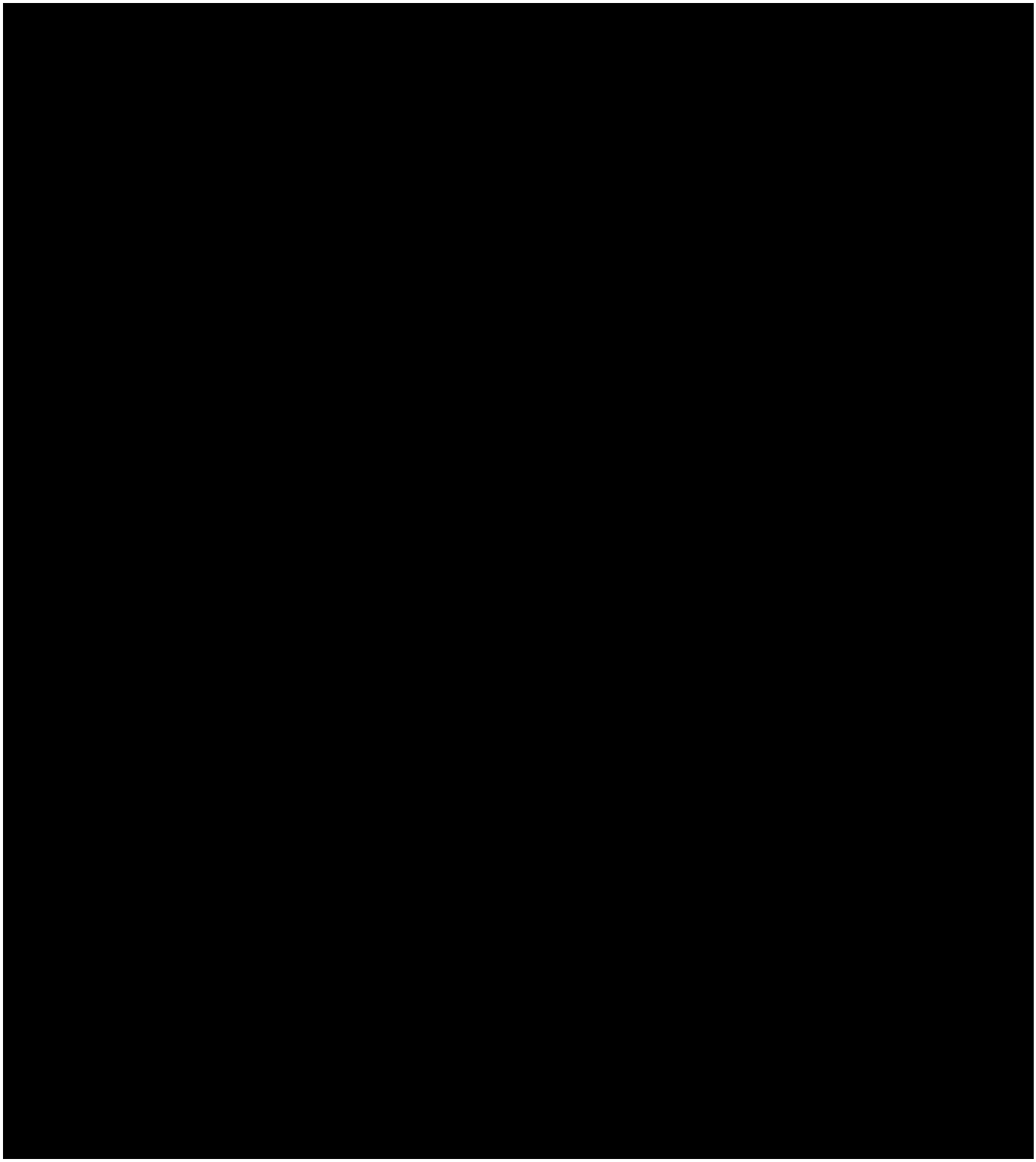
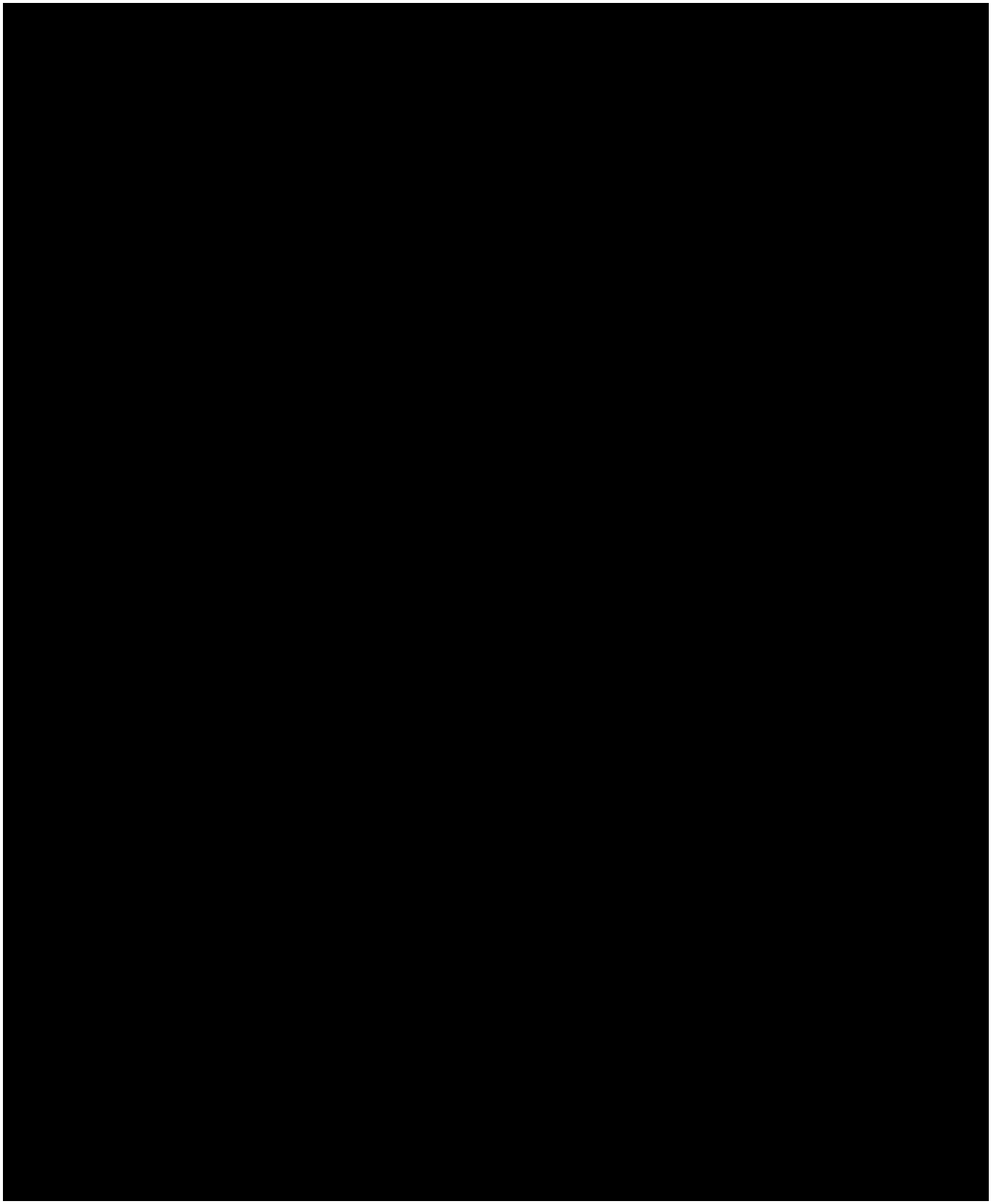
Hartford AWC





Attachment C: Geographic Maps

Cheshire

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BEFORE



AFTER



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Before


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After



EVERSOURCE

Project Approval Form

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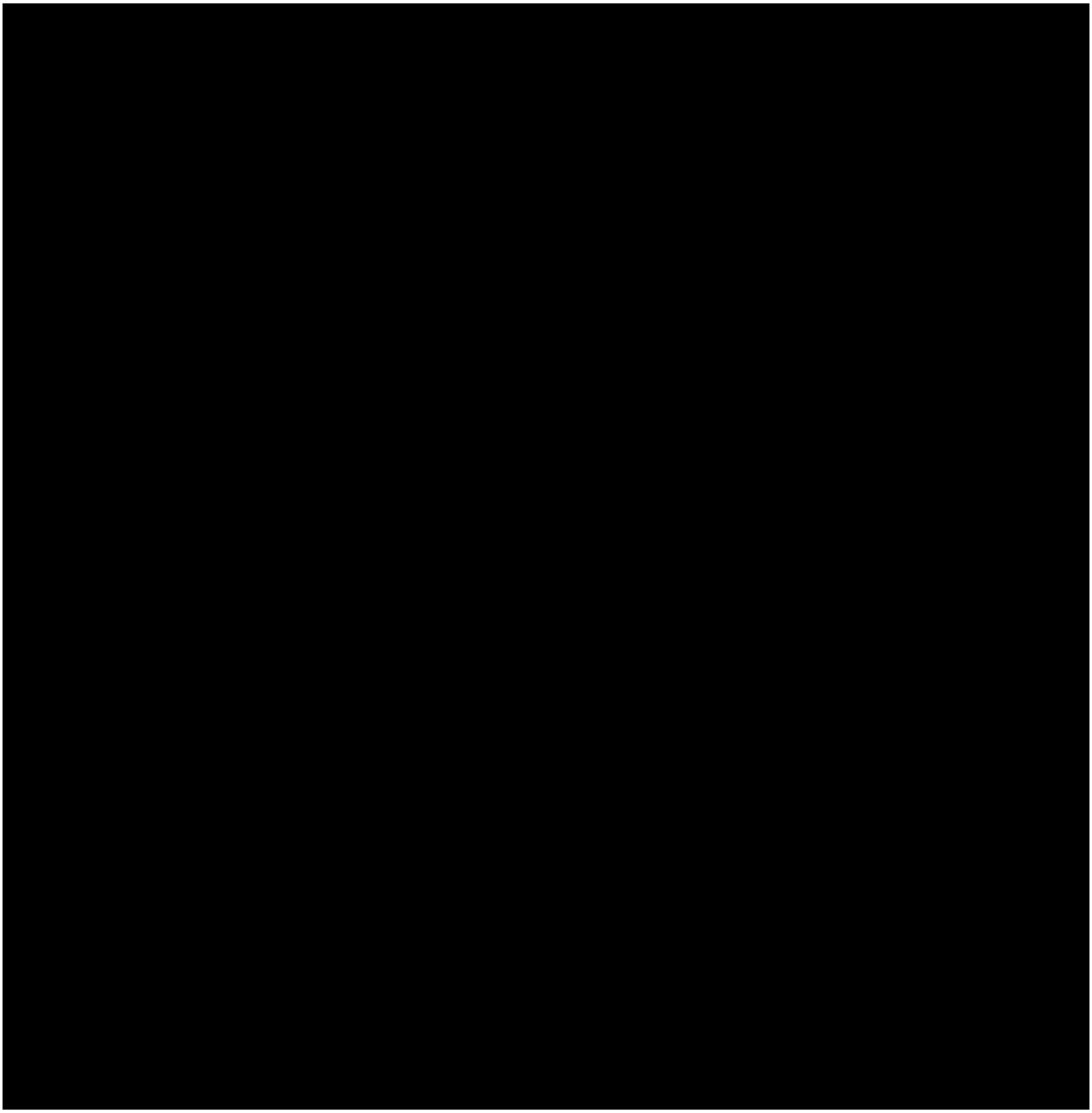
Before



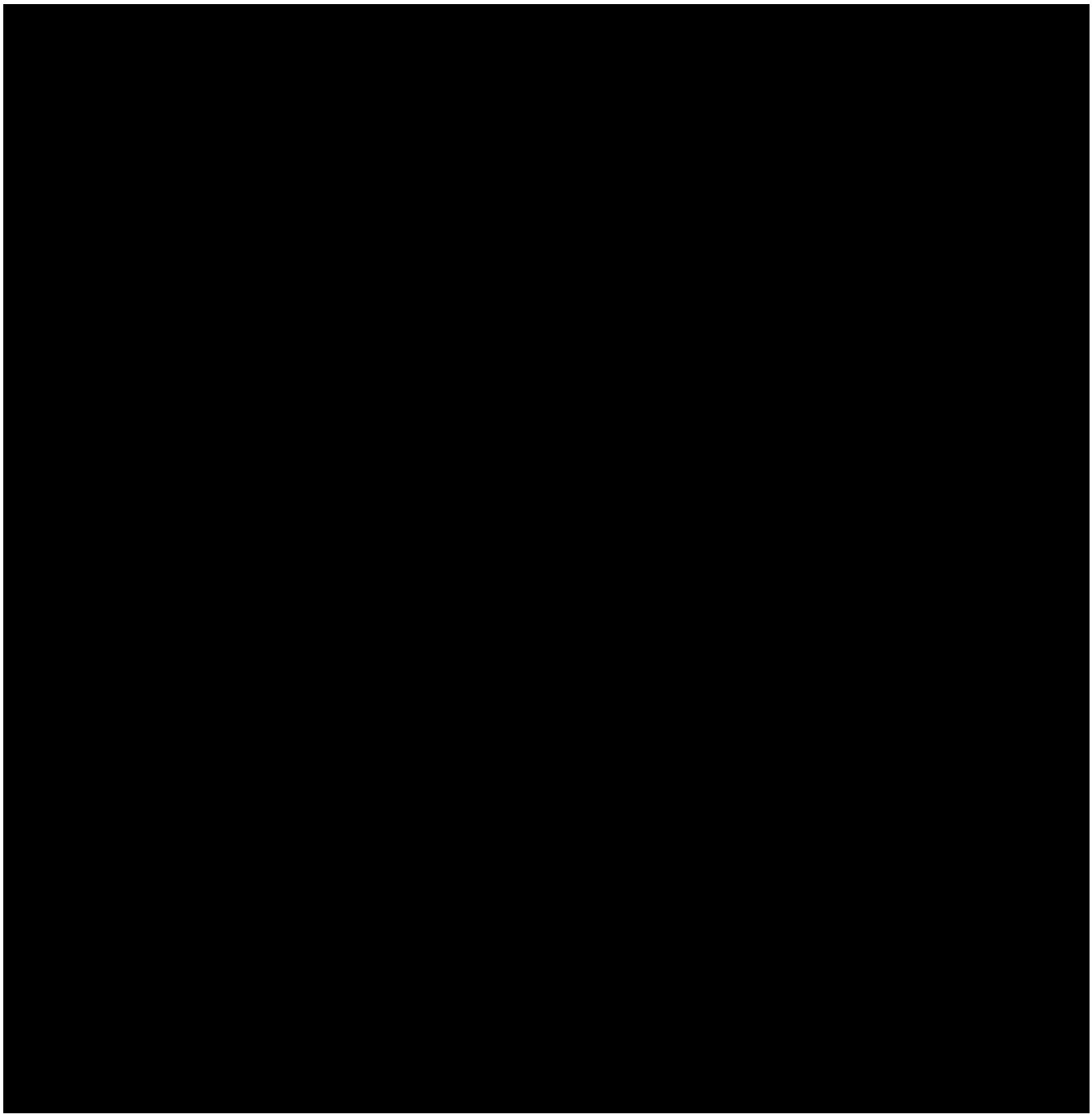
After



Attachment D: One-Lines

[redacted]

[redacted]



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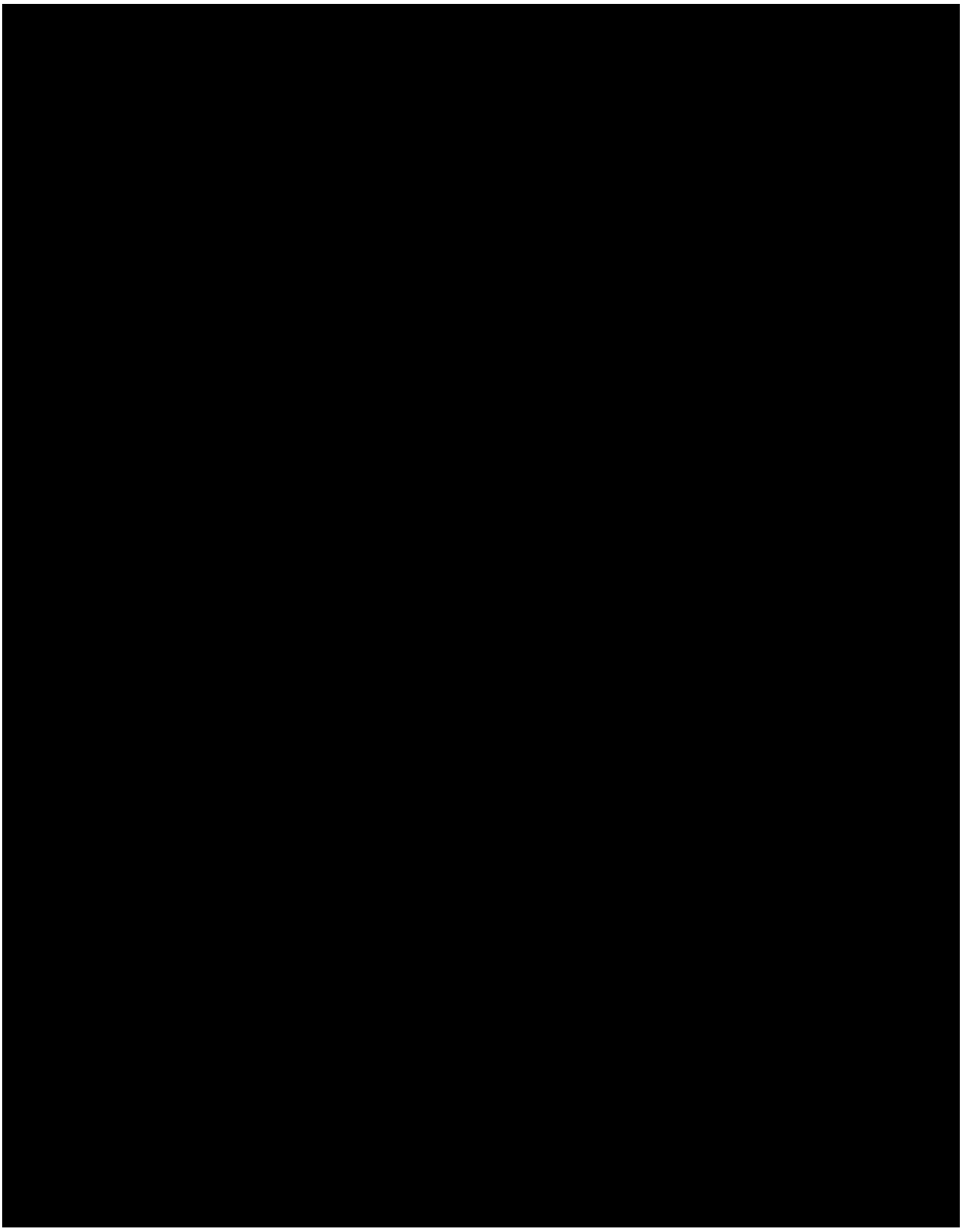

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Before



After



EVERSOURCE

Project Approval Form

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Before



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