EVERSOURCE

Project Approval Form

Project Title: 2025 Large Customer Zones RWO Eastern-3-4	**Project Number:** CD02319
Date Prepared: 12/09/2024	**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: $349K	**Authorization Type:** Full Funding

1. Executive Summary

Full funding is being requested for this project at a cost of $349K which is 66.49% of the partial funding capital estimate of $524.9K. CD02319 was partially approved on 8/29/2024. There is no scope change on the project. The variance between the full funding and partial funding estimate is due to material differences between the two requests, with the full funding request showing a reduction in material costs. Upon investigation, no material was found missing in the detailed design, leading to the conclusion that the partial funding estimate was atypically high, and this full funding request being more representative with the design work proposed.

The original project was presented as follows:

[redacted]

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2025	Total
Internal Labor and Construction Equipment	23.3	23.3
Outside Services	0.0	0.0
Materials	166.0	166.0
Removals	5.0	5.0
Risk and Contingency	24.3	24.3
Other	0.0	0.0
Subtotal	**218.7**	**218.7**

Indirect Capital Costs	2025	Total
Indirects/Overheads (including benefits)	130.3	130.3
Capitalized interest or AFUDC, if any	0.0	0.0
Subtotal	**130.3**	**130.3**
Total Capital Costs (Gross)	**349.0**	**349.0**
Less Total Customer Contribution	**0.0**	**0.0**
Project Costs (Net of Reimbursement)	**349.0**	**349.0**

Explain unique payment provisions, if applicable:

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

The Smart Switch Program is a continuation of an Eversource initiative of 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 this project is as follows:



[redacted]

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	Aug 2024
100% Detailed Engineering Completion	Dec 2024
Fully Funded	Dec 2024
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	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2025	Medium	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

N/a

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

Attachment	Included in Submittal?
A1. Partial Funding PAF Form	*YES*
A. Cost Estimate	*YES*
B. Load Sheets	*YES*
C. One-lines	*YES*
D. Geographic maps	*YES*

Attachment A1: Partial Funding PAF Form

Project Title: 2025 Large Customer Zones RWO Eastern-3-4	**Project Number:** CD02319
Date Prepared: 04/01/2024	**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: $524.9K	**Authorization Type:** Partial Funding

1. Executive Summary

The 2025 Smart Switch Program addresses 60% of the large customer zones feeding over 1000 customers in Connecticut – the other 40% were previously addressed under project CD02203. The installation of multiple smart switches will reduce the customers affected on a circuit in the event of future outages. One project has been created per division.



2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2025	2026	2027+	Total
Internal Labor and Construction Equipment	28.6	0.0	0.0	28.6
Outside Services	58.7	0.0	0.0	58.7
Materials	272.5	0.0	0.0	272.5
Removals	31.4	0.0	0.0	31.4
Other	1.4	0.0	0.0	1.4
Risk and Contingency	0.0	0.0	0.0	0.0
Subtotal	**392.6**	**0.0**	**0.0**	**392.6**

Indirect Capital Costs	2025	2026	2027+	Total
Indirects/Overheads (including benefits)	126.1	0.0	0.0	126.1
Capitalized interest or AFUDC, if any	6.2	0.0	0.0	6.2
Subtotal	**132.3**	**0.0**	**0.0**	**132.3**
Total Capital Costs (Gross)	**524.9**	**0.0**	**0.0**	**524.9**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net)	**524.9**	**0.0**	**0.0**	**524.9**

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

The Smart Switch Program is a continuation of an Eversource initiative of 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 this 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

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

6. Regulatory Decisions

N/A

7. Codes and Standards

N/A

8. 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.
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	Low	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2025	Medium	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?
A. Cost Estimate	*YES*
B. Load Sheets	*YES*
C. One-lines	*YES*
D. Geographic maps	*YES*

Attachment A: Cost Summary:

[redacted]

Design Alternative CD02319-01

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	28.00%
SubTotal:	$112,952
Contingency Amount:	$31,627
Estimate:	$144,578
Reimbursement:	$0
Net Amount:	**$144,578**
Description:	

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Complex	23-ALL16	[redacted]		$9,131.20
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18			$2,000.00
SECTIONALIZE [redacted]	23-OH38			$62,386.48
SECTIONALIZE [redacted]	23-OH43			$13,368.16
OTHER OTHER [redacted]	23-ALL14			$26,066.00

[redacted]

Design Alternative CD02319-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	28.00%
SubTotal:	$107,013
Contingency Amount:	$29,964
Estimate:	$136,977
Reimbursement:	$0
Net Amount:	**$136,977**
Description:	

Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$4,562.48
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18			$2,000.00
SECTIONALIZE [redacted]	23-OH38			$62,386.48
SECTIONALIZE [redacted]	23-OH43			$13,368.16
OTHER OTHER [redacted]	23-ALL14			$24,696.00

[redacted]

Design Alternative CD02319-03

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	28.00%
SubTotal:	$208,094
Contingency Amount:	$58,266
Estimate:	$266,360
Reimbursement:	$0
Net Amount:	**$266,360**
Description:	

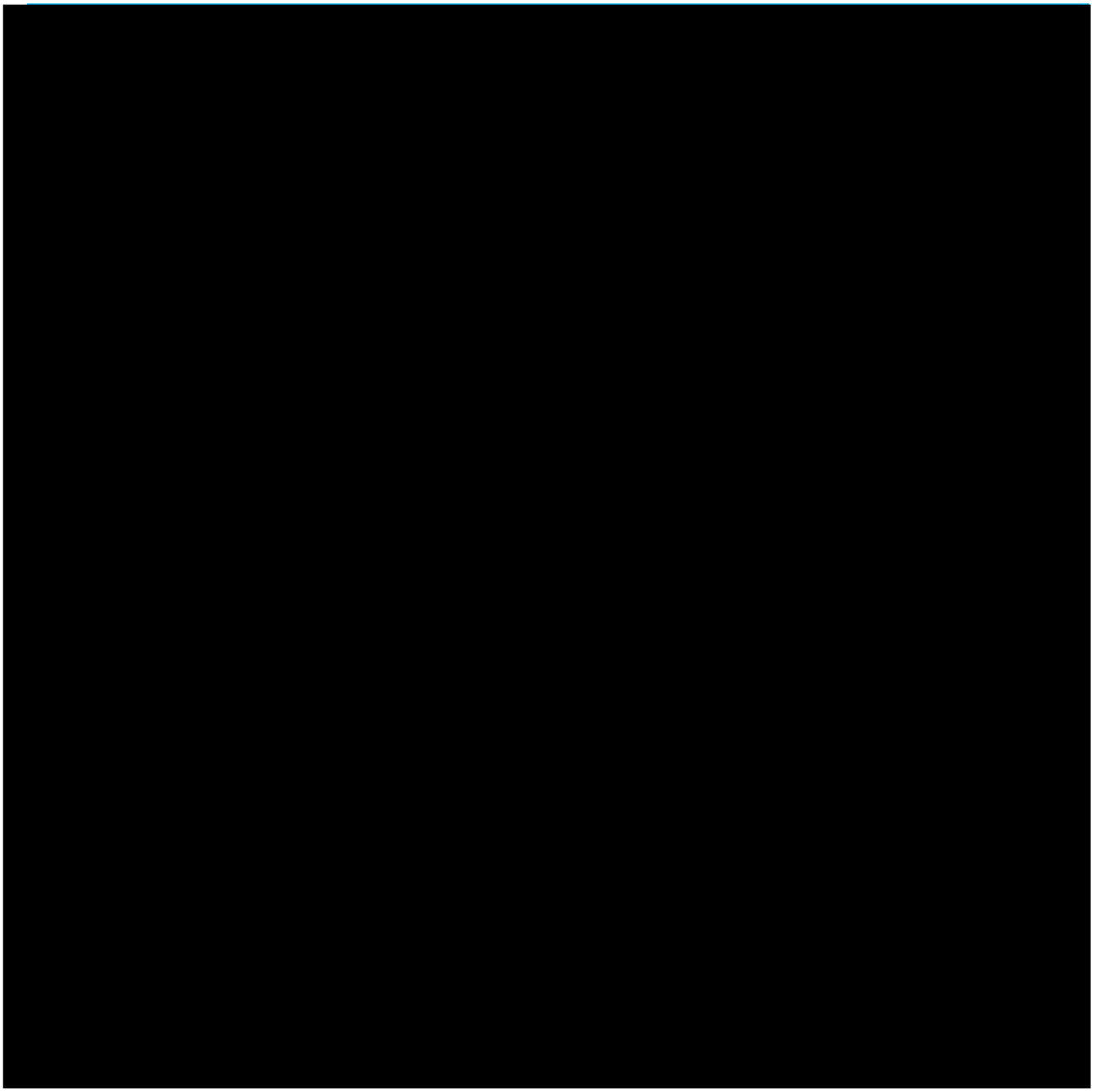
Item Description	CU	$ / Per	Qty	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	[redacted]		$4,562.48
TRAFFIC OH/DB/UG - Traffic Control - Police Officer	23-ALL18			$4,000.00
SECTIONALIZE [redacted]	23-OH38			$124,772.96
SECTIONALIZE [redacted]	23-OH43			$26,736.32
OTHER OTHER [redacted]	23-ALL14			$48,022.00

Attachment B: Load Sheet:

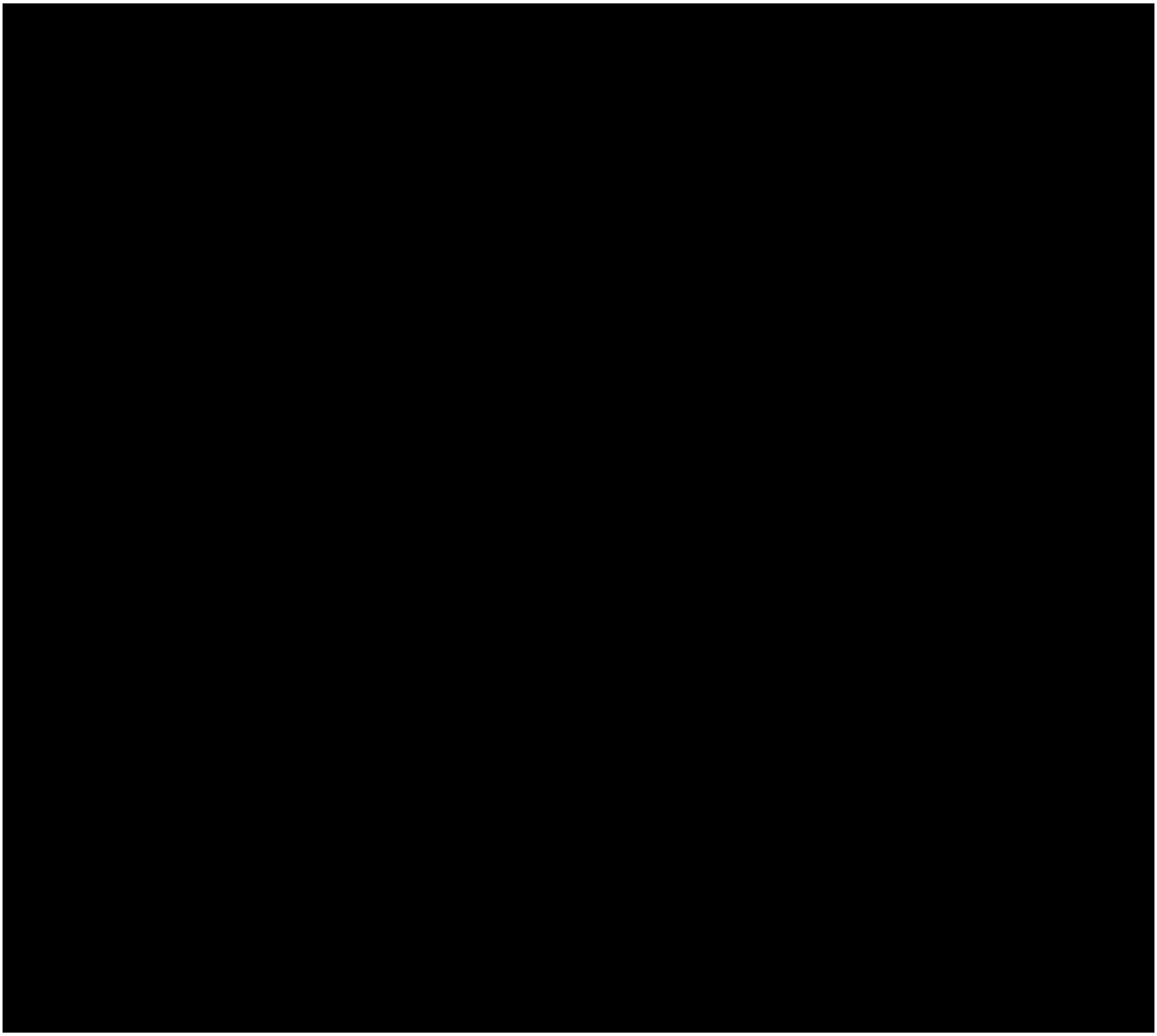




East Hampton AWC:

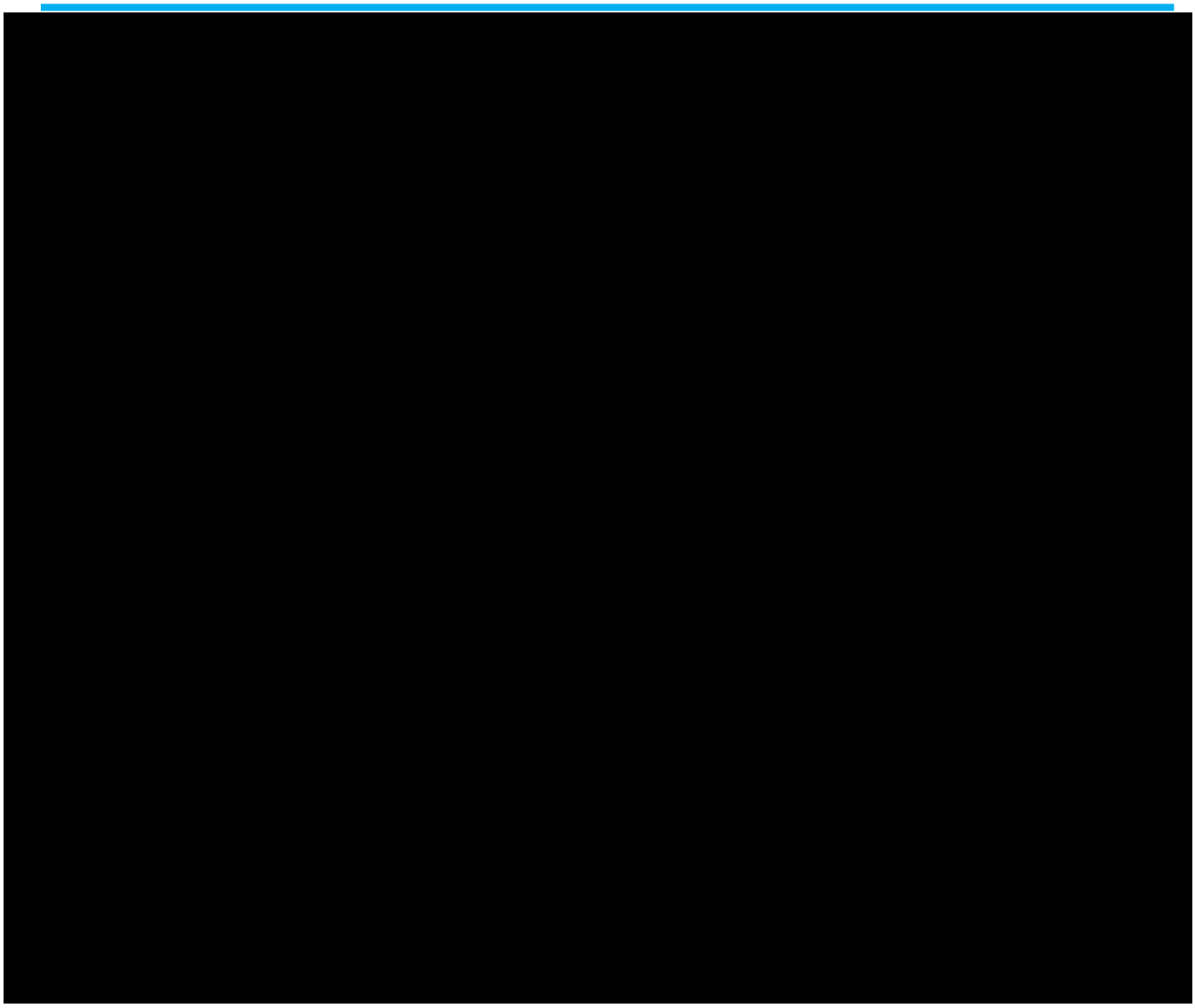


Attachment C: One line:

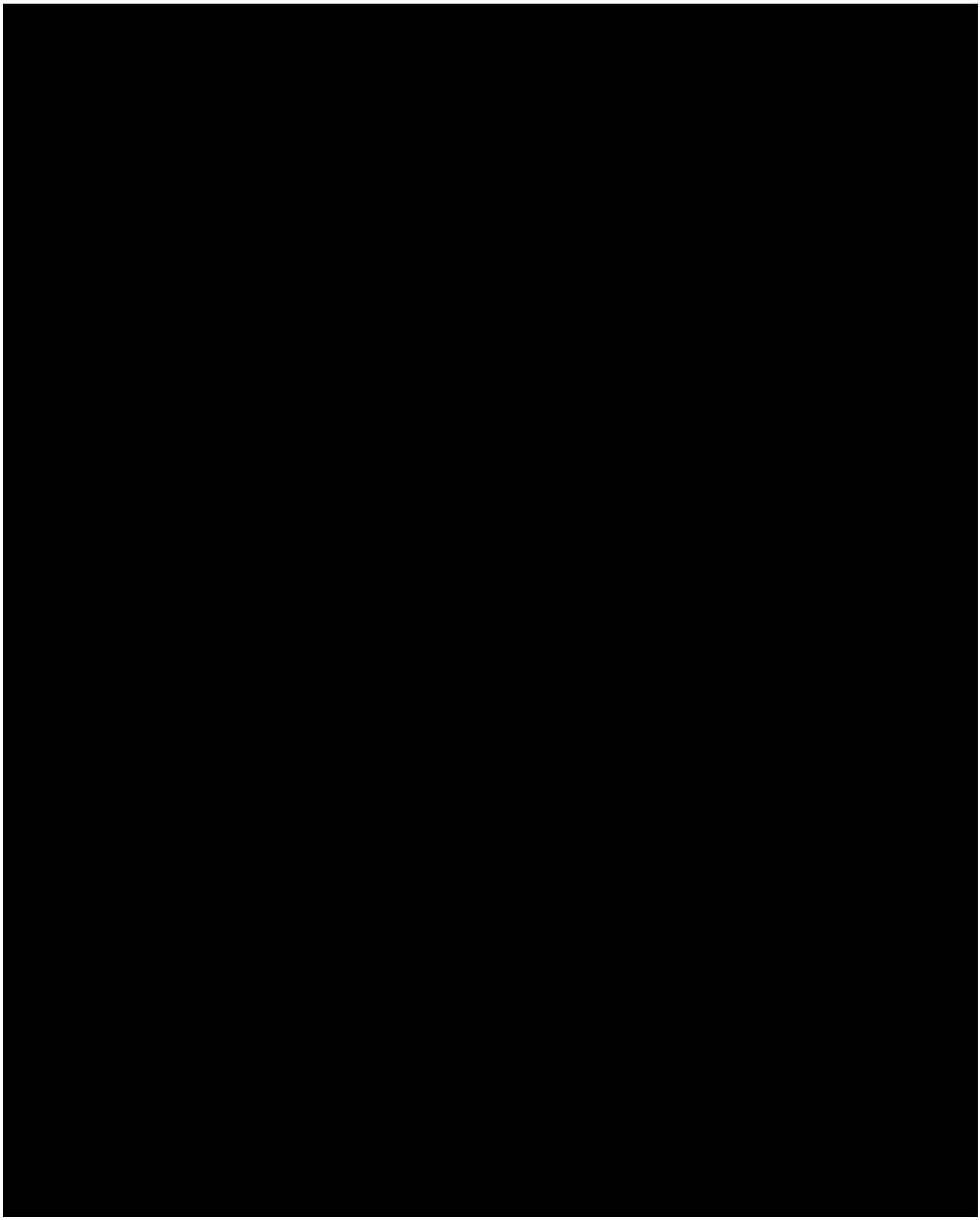


After









Attachment D: Geographic map:





