EVERSOURCE

Project Approval Form

Project Title: Energy Release MH Covers – Central 2025	**Project Number:** CD02329
Date Prepared: 10/13/2025	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** UNDERGROUND STRUCTURE ISSUE
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: 12/31/2027	**NWS Excludable:** ☒ Yes ☐ No
Total Capital Request: $1,901.8K	**Authorization Type:** Full Funding

1. Executive Summary

Full Funding is being requested for this project at a capital cost of $1,901.8K to install Energy Release MH covers at 115 priority 2 manholes in the Central region of Connecticut. This full funding request is 151% of the approved $1,261.4K partial funding for this project. The number of locations decreased from 117 to 115. The variance in cost estimates is due mainly to changes in labor, material and overhead costs.

- Labor: $267.5K decrease
- Material: $162.2K increase
- Direct Costs: $67.3K increase
- Indirect Costs: $573.8K increase

There is also a 10% contingency added to the Full Funding estimate. The manholes being addressed are shown in Attachment "B" of the attached Partial Funding PAF.

Location Information:

Division: Central

Districts: Cheshire, Hartford

City: Various Cities/Towns

2. Project Cost Summary

Capital Costs	Year 2027	Year 2028	Year 2029+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	93.5	0.0	0.0	93.5
Outside Services	389.3	0.0	0.0	389.3
Materials	194.3	0.0	0.0	194.3
Removals	94.4	0.0	0.0	94.4
Risk and Contingency	172.9	0.0	0.0	172.9
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	944.4	0.0	0.0	944.4
Indirect Capital Costs				
Indirect/Overheads (including benefits)	957.4	0.0	0.0	957.4
Capitalized interest or AFUDC, if any	0.0	0.0	0.0	0.0
Subtotal – Indirect Costs	957.4	0.0	0.0	957.4
Total Gross Capital Costs	**1,901.8**	0.0	0.0	**1,901.8**
Customer Contribution	0.0	0.0	0.0	0.0
Total Net Capital Project Costs	**1,901.8**	0.0	0.0	**1,901.8**

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

Two types of Energy Release Manhole Covers and Frames were piloted on Eversource's system in early 2023 – Neenah and East Jordan. The preference is for East Jordan (EJ) covers. Some specifications of EJ covers and frames are as follows:

- Designed to restrain the cover during explosion.
- Cover is allowed to lift providing relief of internal pressure.
- Currently tooled for various sizes ranging from 26" – 40" diameter. Other sizes are available on request.
- Heavy duty (AASHTO H25 rated)
- Optional security bolt



b. Project Need

Cable faults in manholes sometimes cause an explosion that dislodges the manhole covers, and they get launched up in the air. This poses a danger to pedestrians and could cause property damage. Eversource created a program to proactively replace all manhole covers throughout the state with new energy release covers. These new covers would release the energy caused from faults and gaseous build up in these manholes and not allow the covers to be dislodged from the manholes. There are approximately 8,222 manholes on Eversource's UG system with covers that are currently not of the Energy Release type and not being addressed by previous projects. At an average capital cost of $15,708 per manhole, 115 covers

will be replaced in the Central region in 2026. The average cost was developed based on written work orders for these 115 holes.

c. Project Scope

Replace 115 existing manhole frames and covers with new energy release frames and covers according to highest priorities throughout Central AWCs as shown in Attachment "B" of the Partial Funding PAF attachment.

4. Alternatives Considered

NWS Exclusion Criteria (select all that apply)

☐ Project cost < $250k	☐ New Service
☐ CDOT Relocation	☐ Generator interconnection project
☒ Maintenance, Asset condition or safety related*	

The alternative to doing this project would be to leave the existing manhole frames and covers in place. Eversource has developed a program to proactively replace existing manhole frames and covers with safer energy release frames and covers.

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	August 2024
100% Detailed Engineering Completion	October 2025
Fully Funded	October 2025
Construction Start	May 2027
In Service Date	December 2027

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.	2026	Low	Included contingency costs in the funding request. Perform detailed Field Analysis and walk down in project development to avoid potential issues.
Internal construction resources not available to perform the work.	2026	Medium	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2026	Medium	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Storm delays	2026	Low	If storm activity delays work, we may be forced to use external resources.
Technological risks involving integration of new technology	2026	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.

9. References

References
N/A

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

Attachment	Included in Submittal?
A. Partial Funding PAF	*YES*

Attachment A: Partial Funding PAF

Project Title: Energy Release MH covers – Central 2025	**Project Number:** CD02329
Date Prepared: 08/23/2024	**Company:** Eversource CT
Organization: Distribution Engineering	**Project Category:** UNDERGROUND STRUCTURE ISSUE
Project Initiator: Bruce Peart	**Project Type:** Specific
Initiating Organization: Distribution	**Capital Investment part of original Op Plan:** Yes
Project Manager: Mark Fangiullo	**Emergency Related Request?** No
Project Sponsor: Steven Lamontagne	**Facility Type** (check all that apply)**:** ☐ PTF ☐ non-PTF ☒ Distribution ☐ N/A (General Plant)
Required in service date: 12/31/2025	
Total Capital Request: $1,261.4K	**Authorization Type:** Partial Funding

11. Executive Summary

Energy Release MH covers are made such that they do not dislodge from MH structures in the event of a splice/cable failure in the manholes. Eversource created a program to replace existing MH covers throughout its territory with new energy release manhole covers. The program began in 2024 with a $2M investment and another $2M will be invested across the state in 2025. The $2M for 2025 will be spent across the 3 divisions with the highest priority holes being done first. Holes are prioritized as shown:

Priority	Description
1	Outdoor Dining Areas

2	High Pedestrian and Vehicular Traffic
3	Downtown areas
4	Holes containing High Fault Duty circuits
5	Getaway manholes
6	Other

There are approximately 8,346 manholes throughout Eversource in Connecticut without energy release covers. Priority 1 holes accounted for 124, and were addressed under projects CD02324, CD02325 and CD02326 for the Western, Eastern and Central divisions respectively. The remaining 8222 manholes are spread throughout the state with a ratio of 63%, 27% and 10% for the Central, Western and Eastern divisions respectively. This ratio was used to allocate funding from the $2M to the different regions. This project is being created to request Partial Funding at a cost of $1,261.4K to install Energy Release MH covers at 117 priority 2 holes in the Central region of Connecticut throughout 2025. The manholes being addressed are shown in Attachment "B".

Location Information:

Division: Central

Districts: Cheshire, Hartford

City: Various Cities/Towns

12. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2025	2026	2027+	Total
Internal Labor and Construction Equipment	26.8	0.0	0.0	26.8
Outside Services	518.1	0.0	0.0	518.1
Materials	32.1	0.0	0.0	32.1
Removals	299.8	0.0	0.0	299.8
Other	1.0	0.0	0.0	1.0
Risk and Contingency	0.0	0.0	0.0	0.0
Subtotal	**877.8**	**0.0**	**0.0**	**877.8**

Indirect Capital Costs	2025	2026	2027+	Total
Indirects/Overheads (including benefits)	379.4	0.0	0.0	379.4
Capitalized interest or AFUDC, if any	4.2	0.0	0.0	4.2
Subtotal	**383.6**	**0.0**	**0.0**	**383.6**

Total Capital Costs (Gross)	**1,261.4**	**0.0**	**0.0**	**1,261.4**
Less Total Customer Contribution	**0.0**	**0.0**	**0.0**	**0.0**
Project Costs (Net)	**1,261.4**	**0.0**	**0.0**	**1,261.4**

13. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

Two types of Energy Release Manhole Covers and Frames were piloted on Eversource's system in early 2023 – Neenah and East Jordan. The preference is for East Jordan (EJ) covers. Some specifications of EJ covers and frames are as follows:

- Designed to restrain the cover during explosion.
- Cover is allowed to lift providing relief of internal pressure.
- Currently tooled for various sizes ranging from 26" – 40" diameter. Other sizes are available upon request.
- Heavy duty (AASHTO H25 rated)
- Optional security bolt



b. Project Need

Cable faults in manholes sometimes cause an explosion that dislodges the manhole covers and they get launched up in the air. This poses a danger to pedestrians and could cause property damage. Eversource created a program to proactively replace all manhole covers throughout the state with new energy release covers. These new covers would release the energy caused from faults and gaseous build up in these manholes, and not allow the covers to be dislodged from the manholes. There are approximately 8,222 manholes on Eversource's UG system with covers that are not of the Energy Release type and not being addressed by previous projects. At an average cost of $7,500 per manhole, 117 covers will be installed in the Central region in 2025. The average cost was developed based on "Full Funding" estimates from the previous 3 projects that addressed priority 1 manholes.

c. Project Scope

Replace 117 existing manhole frame and covers with new energy release frames and covers according to highest priorities throughout Central AWCs as shown in Attachment "B".

14. Alternatives Considered

The alternative to doing this project would be to leave the existing manhole frames and covers in place. Eversource has developed a program to proactively replace existing manhole frames and covers with safer energy release frames and covers.

15. Project Schedule

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

16. Regulatory Decisions

N/A

17. Codes and Standards

N/A

18. 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	High	Plan internal resources to perform the work. Use competitive bidding to ensure lowest outside labor cost.
Materials Shortage or long lead times	2025	High	Pre-order long lead time material; minimize the use of non-standard and non-stocked material.
Technological risks involving integration of new technology	2025	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.

19. References

References
1. N/A

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Priority 2 Manholes	*YES*
C. Manhole Summary	*YES*

Attachment A: Cost Estimate.

Project Approval Form

Design Alternative CD02329-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$1,047,016
Contingency Amount:	$251,284
Estimate:	$1,298,300
Reimbursement:	$0
Net Amount:	**$1,298,300**

Description:

Item Description	CU	[redacted]	Amount
OTHER OTHER	23-ALL14		$147,016.00
OTHER OTHER Energy release covers	23-ALL14		$900,000.00

Attachment B: Central Priority 2 Manholes



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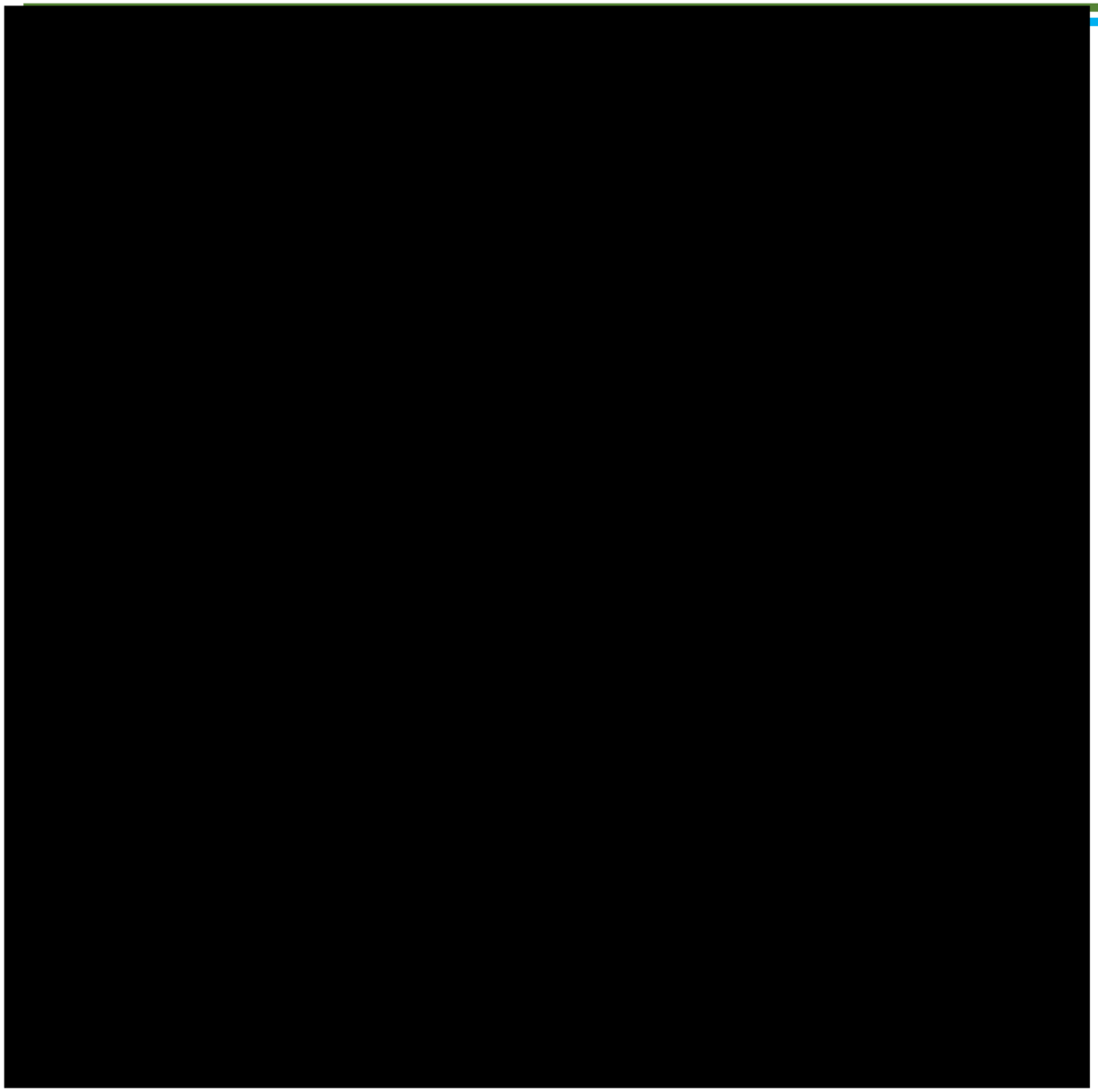
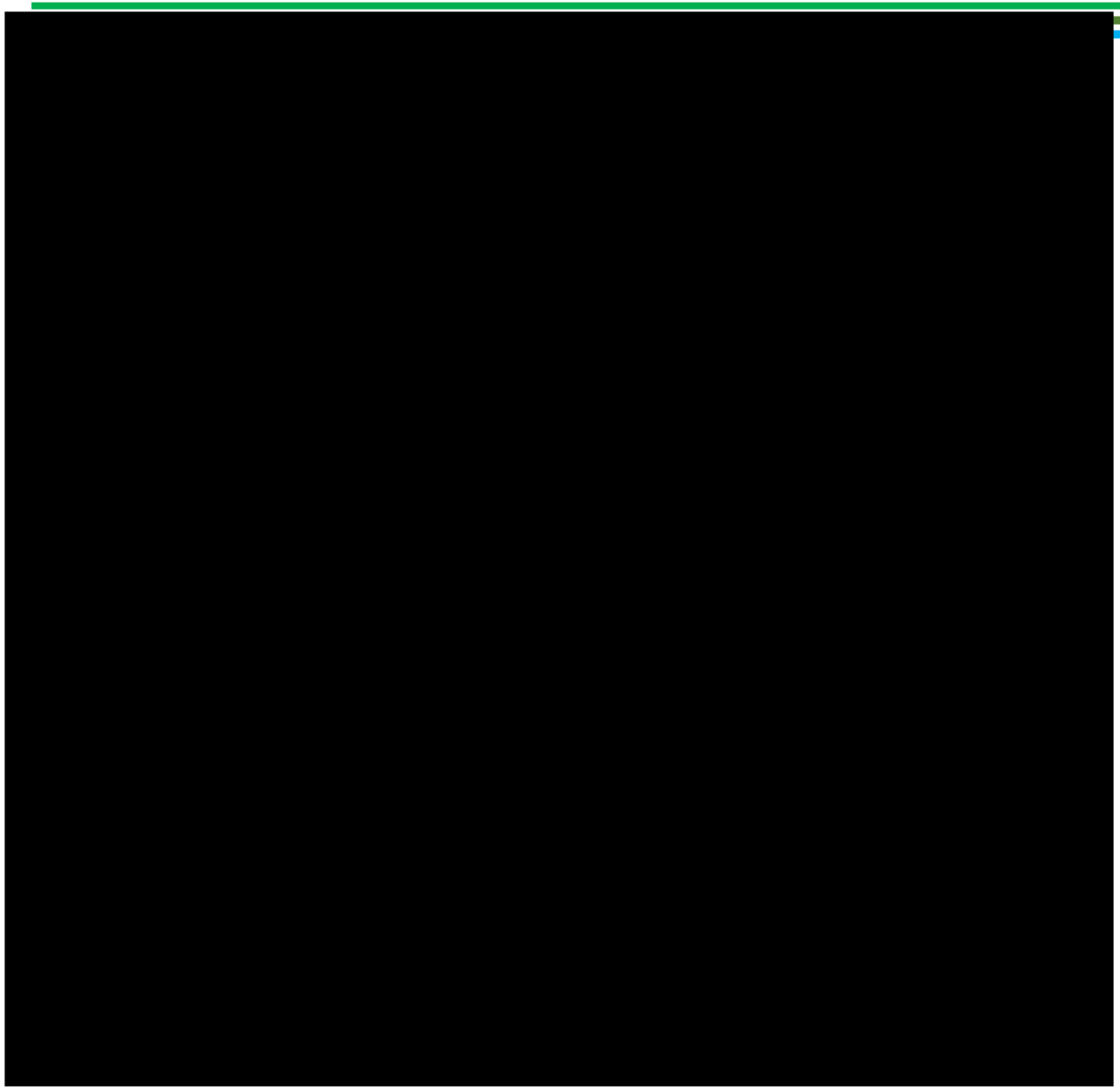
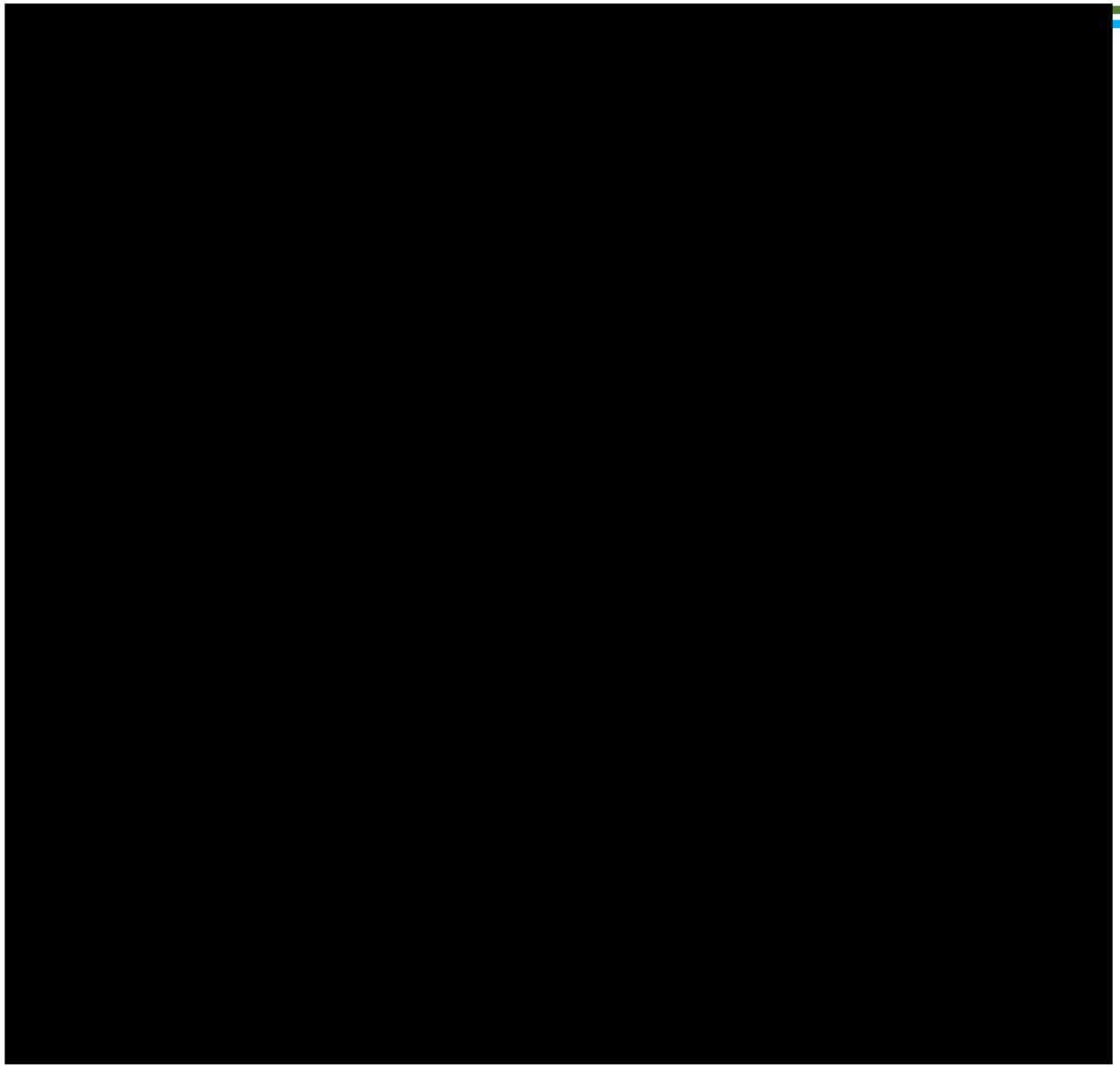


Project Approval Form



Refer to Distribution Capital Project Approval Process
JA-AM-2001-B, Rev.1

Project Approval Form



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