EVERSOURCE

Project Approval Form

Project Title: [redacted] Winchester, Spencer Hill Road	**Project Number:** CD01961
Date Prepared: 08/29/2024	**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: 12/2024	
Total Capital Request: $1,961.6K, 100% reimbursable	**Authorization Type:** Full Funding

1. Executive Summary

Full funding is being requested for this fully reimbursable project at a cost of $1.96M which is 133% of the partial funding capital estimate of $1.47M. CD01961 was partially approved on 8/17/2023. The variance on this project is due primarily to the fact that the customer opted to authorize a full conversion to expedite construction, which led to increased spending for direct and indirect cost categories. On this full funding request, the following notes & changes were applied:

- The contractor bid was estimated due to the timing the customer requested.
  - $475K was based on the partial funding estimate and agreed upon in a meeting on 2/22/2024.
- One recloser and control were not included in the final design, which required manual addition of $35.5K for materials. The partial funding PAF was originally presented as two reclosers / primary meters adjacent to one another. [redacted] r. The customer agreed and the design was altered accordingly.
- One work order was not included in this request and should have been, which required manual addition of $8.3K for labor, and $78.5K for materials.
- A contingency of 10% was used per other distributed generation estimates.

Please see table below for a high-level comparison of the highest variance cost elements between the full and partial funding requests:

Total (all years)	Full Funding	Partial Funding	Request Difference
Labor	$102K	$87K	+ $15K
Materials	$245K	$193K	+ $52K
Outside Services	$571K	$474K	+ $97K
Removals / Risk and Contingency	$210K	$207K	+ $3K
Indirects	$834K	$509K	+ $325K
Total	**$1,962K**	**$1,470K**	**+ $492K**

The Original Project was presented as follows:

- *The purpose of this request is to approve the 100% reimbursable partial funding estimate of $1469.9K. The preliminary engineering estimate includes a 24% contingency for a projected December 31, 2024 in service date. The in-service date is subject to be pushed out based on the timelines of the ongoing transmission study and recently executed facility study. Eversource recently received $75,000 to perform the detailed engineering and must provide a result to the developer within 100 business days. The project will be in the Western Division, in the Torrington AWC, in the town of Winchester.*
- [redacted]. *This will also speed up the timeline of construction, for approximately $607,533 more.*

2. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	2024	Total
Internal Labor and Construction Equipment	102.2	102.2
Outside Services	571.7	571.7
Materials	245.3	245.3
Removals	30.5	30.5
Risk and Contingency	178.3	178.3
Other	0.0	0.0
Subtotal	**1,127.9**	**1,127.9**

Indirect Capital Costs	2025	Total
Indirects/Overheads (including benefits)	833.7	833.7
Capitalized interest or AFUDC, if any	0.0	0.0
Subtotal	**833.7**	**833.7**
Total Capital Costs (Gross)	**1,961.7**	**1,961.7**
Less Total Customer Contribution	**-1,961.7**	**-1,961.7**
Project Costs (Net of Reimbursement)	**0.0**	**0.0**

Explain unique payment provisions, if applicable:

3. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted]pproached Eversource in February 2022 regarding a 3.74 MW project on Spencer Hill Road, Winchester, CT as a new construction. A system impact study agreement was issued to

[redacted] in May 2022. The customer executed the system impact study agreement in March 2023. Eversource conducted the distribution system impact study and identified that a primary new service (recloser and primary meter) would be required to serve the generation-only customer. The DER customer, Greenskies, came to Eversource with a proposal at approximately [redacted] for a 3.74 MW project. [redacted]

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

The project will begin once the generating customer executes an interconnection agreement authorizing the Company to begin construction. The generating customer will also be required to pay for their construction in a payment schedule as outlined in the interconnection agreement. Once construction is authorized, Eversource will work to put the project on the schedule.

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

- 2X OH primary meters
- 2X reclosers
- 2X joint utility junction poles
- 4X Eversource-owned poles (new service)
- 5,220 feet 556 TW
- 3,950 feet of 1/0 ACSR neutral
- 6X Beckwith regulator controls
- 1X GOAB
- 2X 23/4.8 kV step transformers (if betterment is not done)

Additional material should the customer opt to have the expedited construction schedule:

- 874 feet of 1/0 ACSR TW
- 1100 feet of 556 TW

4. Alternatives Considered

The project is a compliance obligation. There were no alternatives considered. There is no financial benefit. [redacted] There was no need to review alternate feeders.

5. Project Schedule

Add any additional milestones that are pertinent to the project

Milestone/Phase Name	Estimated Date
Partial Approval	August 2023
Customer Authorizes Agreement	October 2023
100% Detailed Engineering Completion	March 2023
Construction Start	September 2024
In Service Date	December 2024

6. Regulatory Decisions

N/A

7. Codes and Standards

N/A

8. Risk and Contingencies

Contingencies:

A 10% contingency was added for the full funding estimate, standard with other DER projects.

Risk Mitigation:

No additional dollars were included for risk as the project is underwent a facility study for detailed engineering.

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2024	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	2024	Medium	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2024	High	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	Medium	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	Medium	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

N/A

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

Attachment	Included in Submittal?
A1. Partial Funding PAF Form	*YES*
A. Cost Estimate	*YES*
B. Geographic Map	*YES*
C. One-Lines	*YES*

EVERSOURCE

Project Approval Form

Attachment A1: Partial Funding PAF Form

Project Title: [redacted] Winchester, Spencer Hill Road	**Project Number:** CD01961
Date Prepared: 07/28/2023	**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: December 31, 2024	
Total Capital Request: $1469.9K, 100% reimbursable	**Authorization Type:** Partial Funding

11. Executive Summary

The purpose of this request is to approve the 100% reimbursable partial funding estimate of $1469.9K. The preliminary engineering estimate includes a 24% contingency for a projected December 31, 2024 in service date. The in-service date is subject to be pushed out based on the timelines of the ongoing transmission study and recently executed facility study. Eversource recently received $75,000 to perform the detailed engineering and must provide a result to the developer within 100 business days. The project will be in the Western Division, in the Torrington AWC, in the town of Winchester.

[redacted] is proposing an aggregate site of 3.74 MWs. This will consist of two reclosers and two primary meters adjacent to one another. [redacted]. A tree trimming estimate is also included in this preliminary engineering estimate.

[redacted]

12. Project Cost Summary

Note: Dollar values are in thousands.

Capital Costs	Year 2024	Year 2025	Year 2026+	Total
Direct Capital Costs				
Internal Labor and Construction Equipment	87.3	0.0	0.0	87.3
Outside Services	473.8	0.0	0.0	473.8
Materials	193.1	0.0	0.0	193.1
Removals	197.0	0.0	0.0	197.0
Risk and Contingency	9.6	0.0	0.0	9.6
Other	0.0	0.0	0.0	0.0
Subtotal – Direct Costs	**960.7**	**0.0**	**0.0**	**960.7**
Indirect Capital Costs				
Indirect/Overheads (including benefits)	477.5	0.0	0.0	477.5
Capitalized interest or AFUDC, if any	31.7	0.0	0.0	31.7
Subtotal – Indirect Costs	**509.2**	**0.0**	**0.0**	**509.2**
Total Gross Capital Costs	**1,469.9**	**0.0**	**0.0**	**1,469.9**
Customer Contribution	**-1,469.9**	**0.0**	**0.0**	**-1,469.9**
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 witness test fee. Please note, the costs are subject to change based on the results of the ongoing facility study that will perform detailed engineering prior to issuing an interconnection agreement.

Distribution cost with O&M	$1,639,713
CIAC 15%	$245,957
Total Distribution cost	$1,885,670
Witness Test	$2,000
TOTAL COST **paid by customer**	$1,887,670

13. Technical Justification

Background, Project Need/Justification, and Project Scope

a. Background

[redacted] approached Eversource in February 2022 regarding a 3.74 MW project on Spencer Hill Road, Winchester, CT as a new construction. A system impact study agreement was issued to [redacted] in May 2022. The customer executed the system impact study agreement in March 2023. Eversource conducted the distribution system impact study and identified that a primary new service (recloser and primary meter) would be required to serve the generation-only customer. The DER customer, [redacted], came to Eversource with a proposal at approximately [redacted] r a 3.74 MW project. [redacted]

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

The project will begin once the generating customer executes an interconnection agreement authorizing the Company to begin construction. The generating customer will also be required to pay for their construction in

a payment schedule as outlined in the interconnection agreement. Once construction is authorized, Eversource will work to put the project on the schedule.

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

- 2X OH primary meters
- 3X reclosers
- 2X joint utility junction poles
- 4X Eversource-owned poles (new service)
- 5,220 feet 556 TW
- 3,950 feet of 1/0 ACSR neutral
- 6X Beckwith regulator controls
- 1X GOAB
- 2X 23/4.8 kV step transformers (if betterment is not done)

Additional material should the customer opt to have the expedited construction schedule:

- 874 feet of 1/0 ACSR TW
- 1100 feet of 556 TW

14. Alternatives Considered

The project is a compliance obligation. There were no alternatives considered. There is no financial benefit. [redacted] There was no need to review alternate feeders.

15. Project Schedule

Milestone/Phase Name	Estimated Date
Partial Approval	September 7, 2023
Customer Authorizes Agreement	October 27, 2023
100% Detailed Engineering Completion	March 21, 2023
Fully Funded	March 28, 2023
Construction Start	June 30, 2024
In Service Date	December 31, 2024

16. Regulatory Decisions

Nonapplicable.

17. Codes and Standards

Nonapplicable.

18. Risk and Contingencies

Contingencies:

A 24% contingency was added, standard with a projected in-service date one year out. The project is undergoing a facility study to undergo detailed engineering. The detailed engineering will reduce the risk that may not get identified in a preliminary engineering design.

Risk Mitigation:

No additional dollars were included for risk as the project is undergoing a facility study for detailed engineering.

Risk Event	Risk Horizon	Likelihood of Occurrence	Risk Mitigation
Actual cost higher than estimated due to scope changes.	2024	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	2024	Medium	Design to minimize customer impact. Project Preplanning and customer/community outreach.
Internal construction resources not available to perform the work.	2024	High	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	Medium	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	Medium	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.

19. 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. DER Planning Guide
5.

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

Attachment	Included in Submittal?
A. Cost Estimate	*YES*
B. Geographic Map	*YES*
C. System One-Line	*YES*

Attachment A, Cost Estimate:

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Specific Project Proposal - Project #: CD01961

[redacted]

Work Classification

Category: Line
Type: NB3
Type Desc: DISTRIBUTED GENERATION-L4
Work Type:

Ownership / Management

AWC: Torrington
Statewide: No
Owner: [redacted]
Manager:

Project Information

Status: Draft
SPS #:
AIS Score:
Associated Projects:
Assignment ID:
Patrol Find ID:

Budget Summary - Preferred Option

Spencer Hill Conversion and Lowsaw Rd Stepdown

2024

ID	Title	Status	Rev #	Contingency	Expenditure Amount	Net Estimate
1	Spencer Hill Rd Minimum Scope	Draft	0	24%	$1,567,858	$1,567,858
3	Additional Reconductoring along Spencer	Draft	0	24%	$276,451	$276,451
5	Losaw Rd Voltage Conversion	Draft	0	24%	$9,039	$9,039
6	Manchester Heights Conversion	Draft	0	24%	$71,855	$71,855
				2024 Total:	**$1,925,202**	**$1,925,202**
				Total Project:	**$1,925,202**	**$1,925,202**

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01961 [redacted]

Project Option Summary

ID	Description	Segments	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)	Prfrd
O1	Spencer Hill Partial & Losaw Rd Step-down	1,4,5,6	$1,691,699	$0	100%	$0.00	$0.00	☐
O2	Spencer Hill Conversion and Lowsaw Rd Stepdown	1,3,5,6	$1,925,202	$0	100%	$0.00	$0.00	☑
O3	Spencer Hill Rd Conversion & Losaw Rd Conversion	1,2,3,6	$2,247,246	$0	100%	$0.00	$0.00	☐

Segments

ID	Title	Preliminary Estimate	Construction Estimate	Variance	IEEE $/CMS	All (w/Storm)
1	Spencer Hill Rd Minimum Scope	$1,567,858			$0.00	$0.00
2	Lowsaw Rd conversion	$331,082			$0.00	$0.00
3	Additional Reconductoring along Spencer	$276,451			$0.00	$0.00
4	Spencer Hill Rd Voltage Conversion Equip	$42,948			$0.00	$0.00
5	Losaw Rd Voltage Conversion	$9,039			$0.00	$0.00
6	Manchester Heights Conversion	$71,855			$0.00	$0.00

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961 [redacted]

Design Alternative CD01961-01

General Information

Segment: 1 - Spencer Hill Rd Minimum Scope
Status: Draft
Segment Type: NEW SERVICE
Town: WINCHESTER
Budget Year: 2024
Work Type: LT-Sctnlzng-Rclsrs+Recond
Trimming Required: ☐
In Service Date: 12/31/2024
Description: [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961 [redacted]

Design Alternative CD01961-01

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$1,264,402
Contingency Amount:	$303,456
Estimate:	$1,567,858
Reimbursement:	$0
Net Amount:	**$1,567,858**
Description:	

Item Description	CU	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	$9,124.96
POLE OH - POLE - 3ph (Telephone custodian) 1/2 Pole replacement not covered under reconductoring costs	23-OH12	$55,536.00
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 2 - Officers, 2 Days	23-ALL18	$4,000.00
OTHER OTHER 2 - Primary meters 3-PH ($17,855 each)	23-ALL14	$36,710.00
SECTIONALIZE OH - Recloser - 3ph 3 Radial Reclosers w/ Settings (1 - P#2384 and 2 - New set poles fe	23-OH38	$187,159.44
OTHER OTHER 6 - Beckwith Regulator Controls (SC605271) for installation at Hunti tion regulators ($1,546 each)	23-ALL14	$9,834.00
XF OH - Stepdown - 1ph - on POLE Includes work for installing new 23kV to 4.8 kV Step XFMRs on new	23-OH49	$8,840.00
POLE OH - POLE - 3ph (Telephone custodian) Install 1 new midspan joint utility pole between P# 2059 & 2057	23-OH12	$4,628.00
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil Install 1,689' of 3-PH 556 TW between P#2384 & P#358	23-OH27	$170,386.32

Asset & Investment Management System 7/19/2023 Page 5 of 18

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961

INT-60352: GRE, Spencer Hill, Winchester

Design Alternative			CD01961-01
POLE OH - JUNCTION POLE - 3ph (Eversource custodian) Install 2 new junction poles for new service (P# 383 & New Set)	23-OH14A	[redacted]	$30,395.04
XF OH - OH XF - 1ph Install 3 new OH XMFR (2 - 25kVA 23kV XFMRs, 1 - 25kVa 4.8kV XF	23-OH45		$8,227.44
OH WIRE OH - Neutral Install 3,950' of 1/0 ACSR between P#360 and P#2059	23-OH31		$32,864.00
POLE OH - POLE - 3ph (Eversource custodian) Install 4 new Eversource Owned poles for new service radial reclosers	23-OH14		$24,315.20
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil Install 400' of 3-PH 556 TW from p#383 & new set junction poles to se	23-OH27		$40,352.00
SECTIONALIZE OH - GOAB Switch Install GOAB (P#381)	23-OH44		$26,736.32
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil P#358 to 360 - Install 870' of 3-PH 556 TW	23-OH27		$87,765.60
OH WIRE OH - Remove circuit wire (3 phase) P#358 to P# 360 - Remove 870' of 3-PH #4 & #6 Conductor	23-OH37A		$3,619.20
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil P#360 to 2059 - Install 3,950' of 3-PH 556 TW	23-OH27		$398,476.00
OH WIRE OH - Remove circuit wire (3 phase) P#360 to 2059 - Remove 3,950' of 2-PH #6 Conductor	23-OH37A		$16,432.00
OTHER OTHER Tree trimming estimate from Arborist	23-ALL14		$109,000.00

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961

[redacted]

Design Alternative CD01961-02

General Information

Segment: 2 - Lowsaw Rd conversion | Status: Draft

Segment Type: NEW SERVICE | Town: WINCHESTER | Budget Year: 2024

Work Type: LT-Conversion-Recond | Trimming Required: ☑ | In Service Date: 12/31/2024

Description: [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961 [redacted]

Design Alternative CD01961-02

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$267,002
Contingency Amount:	$64,080
Estimate:	$331,082
Reimbursement:	$0
Net Amount:	**$331,082**
Description:	

Item Description	CU	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	$4,562.48
OH WIRE OH - Reconductor Open Wire Secondary w/ Triplex 1,988' of 1/0 ACSR Triplex Neutral between P#4590 & P#378	23-OH30	$42,640.00
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 2 Officers, 1 Day	23-ALL18	$2,000.00
OH WIRE OH-Reconductor w/175 Mil Tree Wire-1ph (any gauge) 4,100' of 1/0 ACSR TW between P#8149 & P#378	23-OH25	$62,025.60
XF DB/UG - Padmount XF - 1ph Replace 1 UG XFMR along Losaw Rd	23-UG130	$4,091.36
XF OH - OH XF - 1ph Replace 9 OH XFMRS along Losaw Rd	23-OH45	$24,682.32
OTHER OTHER Tree trimming Estimate from Arborist	23-ALL14	$127,000.00

[redacted]

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961 [redacted]

Design Alternative

CD01961-03

General Information

Segment: 3 - Additional Reconductoring along Spencer
Status: Draft
Segment Type: NEW SERVICE
Town: WINCHESTER
Budget Year: 2024
Work Type: BB-Conversion-Recond
Trimming Required: ☐
In Service Date: 12/31/2024
Description:

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961 [redacted]

Design Alternative

1961-03

Estimate

Preliminary Estimate Summary

Revision Number:	0
Contingency:	24.00%
SubTotal:	$222,944
Contingency Amount:	$53,507
Estimate:	$276,451
Reimbursement:	$0
Net Amount:	**$276,451**
Description:	

Item Description	CU	Amount
SWITCHING OH/DB/UG - SWITCHING NonNetwork - Average	23-ALL17	$4,562.48
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 2 Officers, 1 Day	23-ALL18	$2,000.00
POLE OH - POLE - 3ph (Telephone custodian) Assumed 3 midspan poles required to ensure appropriate wire span [redacted]ite to 556 TW	23-OH12	$13,884.00
OTHER OTHER Cost for OH Service XFMR Units (assumed $1,000 average cost per [redacted]	23-ALL14	$3,000.00
OTHER OTHER Includes cost to remove 2 1-PH 23/4.8kV Steps and 2 1-PH 4.8/23kV [redacted]5,500 Each)	23-ALL14	$22,000.00
OH WIRE OH - Neutral Install 1,512' of 1/0 ACSR Neutral between P#2059 & P#2250	23-OH31	$12,579.84
OH WIRE OH-Reconductor w/175 Mil Tree Wire-3ph- 556 kcmil Install 1,512' of 3-PH 556 TW between P#2059 & P#2250	23-OH27	152,530.56
OH WIRE OH - Remove circuit wire (3 phase) Remove existing #631 Composite between P#2250 & P#2059	23-OH37A	$4,160.00
XF OH - OH XF - 1ph Replace 3 existing 25kVA 4.8kV XFMRs w/ 25kVA 23kV XFMRs	23-OH45	$8,227.44

Asset & Investment Management System

7/19/2023

Page 10 of 18

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961 [redacted]

Design Alternative CD01961-04

General Information

Segment: 4 - Spencer Hill Rd Voltage Conversion Equip Status: Draft

Segment Type: NEW SERVICE Town: WINCHESTER Budget Year: 2024

Work Type: BB-Conversion-Recond Trimming Required: ☐ In Service Date: 12/31/2024

Description: [redacted]

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961

INT-60352 [redacted] Spencer Hill, Winchester

Design Alternative CD01961-04

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$34,636
Contingency Amount:	$8,313
Estimate:	$42,948
Reimbursement:	$0
Net Amount:	$42,948
Description:	

Item Description	CU	Amount
OTHER	23-ALL14	$7,488.00
OTHER 2 - 167kVA 23/4.8kV Auto XFMRs ($3,724 each) SC.534996		
OTHER	23-ALL14	$16,500.00
OTHER Includes cost to remove 2 1-PH 23/4.8kV Steps and 1 1-PH 4.8/23kV		5,500
Each)		
POLE	23-OH12	$4,628.00
OH - POLE - 3ph (Telephone custodian) Install 1 new midspan joint utility pole between P# 2059 & 2057		
SECTIONALIZE	23-OH20	$6,019.52
OH - Cutouts or Arresters - 3ph Install set of 30k's (P#2057) and set of 65k's (P#2059)		

[redacted]

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961 [redacted]

Design Alternative CD01961-05

General Information

Segment: 5 - Losaw Rd Voltage Conversion
Status: Draft
Segment Type: NEW SERVICE
Town: WINCHESTER
Budget Year: 2024
Work Type: LT-Reconductoring
Trimming Required: ☐
In Service Date: 12/31/2024
Description: 1 - 23kV/4.8kV Step XFMR
400' - 1-PH 1/0 ACSR TW
2 - C/Os

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Connecticut Light & Power
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Specific Project Proposal - Project #: CD01961 [redacted]

Design Alternative CD01961-05

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$7,289
Contingency Amount:	$1,749
Estimate:	$9,039
Reimbursement:	$0
Net Amount:	$9,039

Description:

Item Description	CU	Amount
OTHER	23-ALL14	$3,724.00
OTHER 1 - 167kVA 23/4.8kV Auto XFMRs ($3,724 each) SC.534996		
SECTIONALIZE	23-OH19	$3,565.12
OH - Cutouts or Arresters - 1ph Hi and Lo side C/Os for new Step XFMR		

[redacted]

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961 [redacted]

Design Alternative CD01961-06

General Information

Segment: 6 - Manchester Heights Conversion
Status: Draft
Segment Type: NEW SERVICE
Town: WINCHESTER
Budget Year: 2024
Work Type: LT-Conversion-Recond
Trimming Required: ☐
In Service Date: 12/31/2024
Description: 874' - 1-PH 1/0 ACSR TW
2 - 25kVA 23kV OH XFMR

Itemized Work List

ID	Major Grid	Minor Grid	Description of Work to be Performed

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: [redacted]

Design Alternative CD01961-06

Estimate

	Preliminary Estimate Summary
Revision Number:	0
Contingency:	24.00%
SubTotal:	$57,947
Contingency Amount:	$13,907
Estimate:	$71,855
Reimbursement:	$0
Net Amount:	**$71,855**
Description:	

Item Description	CU	Amount
XF OH - Stepdown - 1ph - on POLE	23-OH49	$17,680.00
TRAFFIC OH/DB/UG - Traffic Control - Police Officer 1 Officer, 1 Day	23-ALL18	$1,000.00
OTHER OTHER 2 25kVA 23kV OH XFMR (Assumed $1000 each)	23-ALL14	$2,000.00
OH WIRE OH - Neutral 874' 1/0 ACSR Neutral between P#359 & P#5686	23-OH31	$7,271.68
OH WIRE OH-Reconductor w/175 Mil Tree Wire-1ph (any gauge) 874' 1-PH 1/0 ACSR TW between P#359 & P#5686	23-OH25	$27,268.80
OH WIRE OH - Remove circuit wire (1 phase) Cost to remove 1-PH of #4 Bare conductor, 874'	23-OH37	$2,726.88

Associated / Impacted Devices

Status	Type / SysID	Street / Cross St	Structure / Town	Circuit	Map	Cust	Notes
Existing	[redacted]						

Connecticut Light & Power
A Northeast Utilities Company

Specific Project Proposal - Project #: CD01961 [redacted]

Design Alternative CD01961-06

Reliability Projection

Title:

Outage Start Date: 6/27/2019 Outage End Date: 6/27/2023 Years History: 4.00

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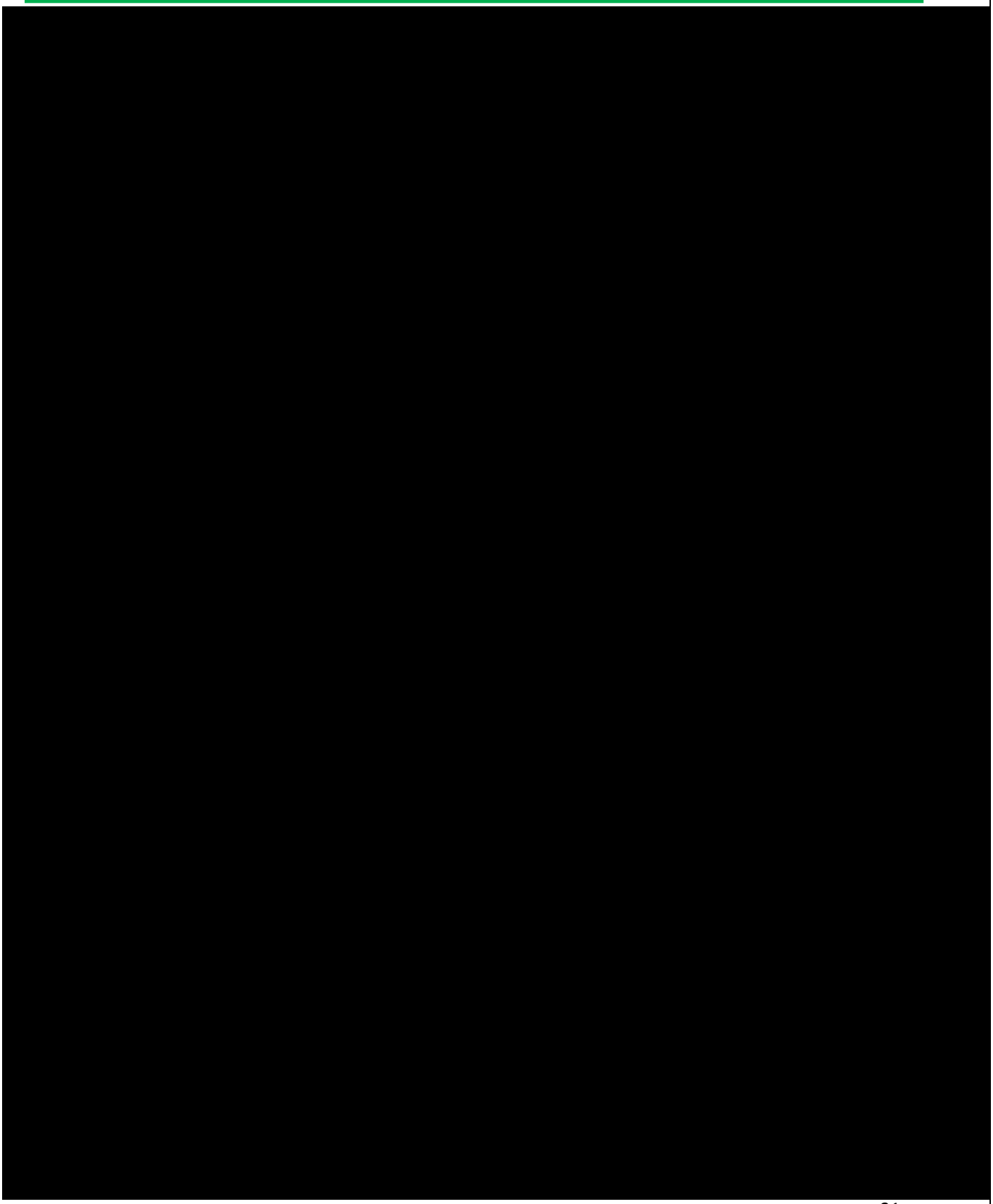

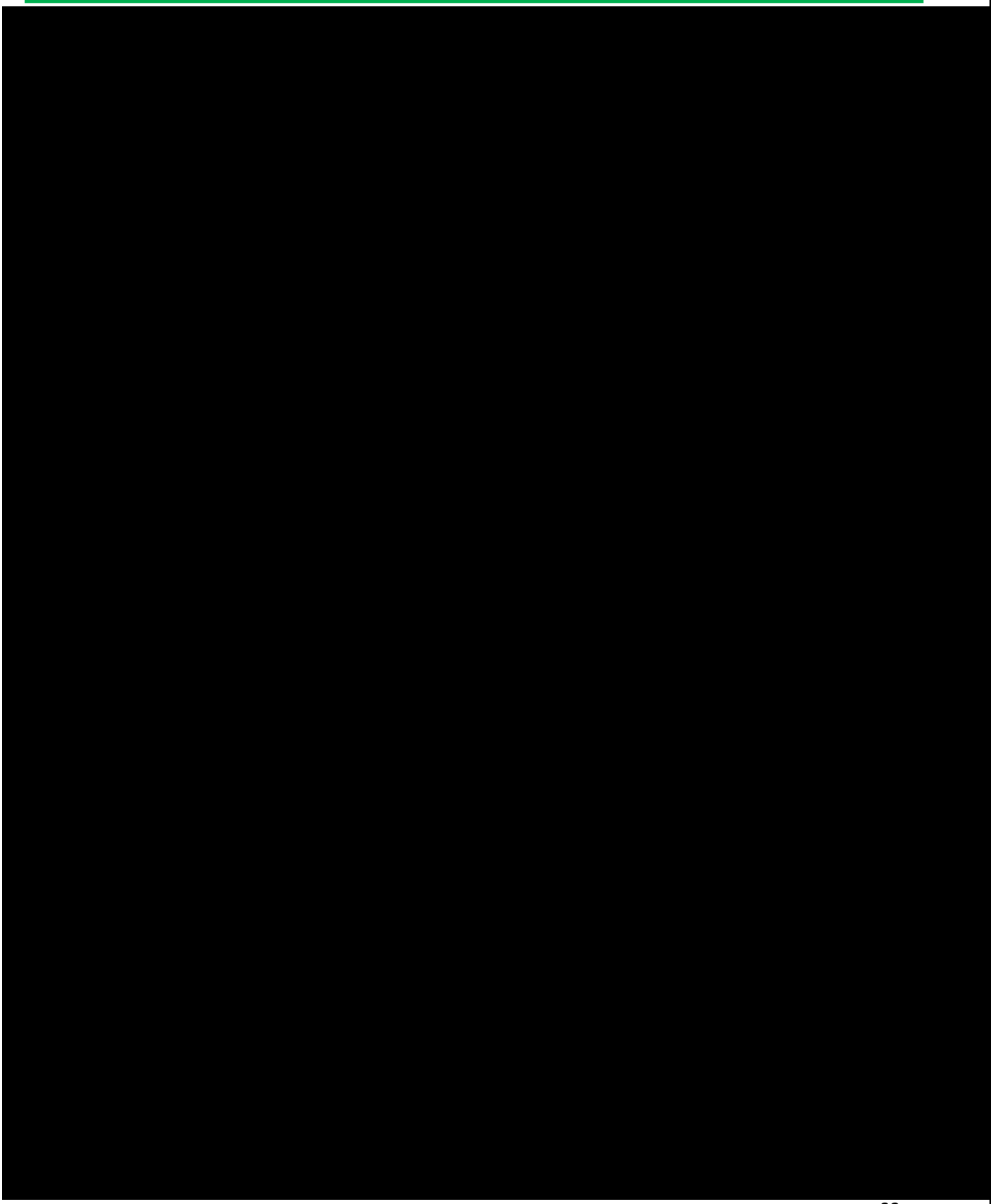

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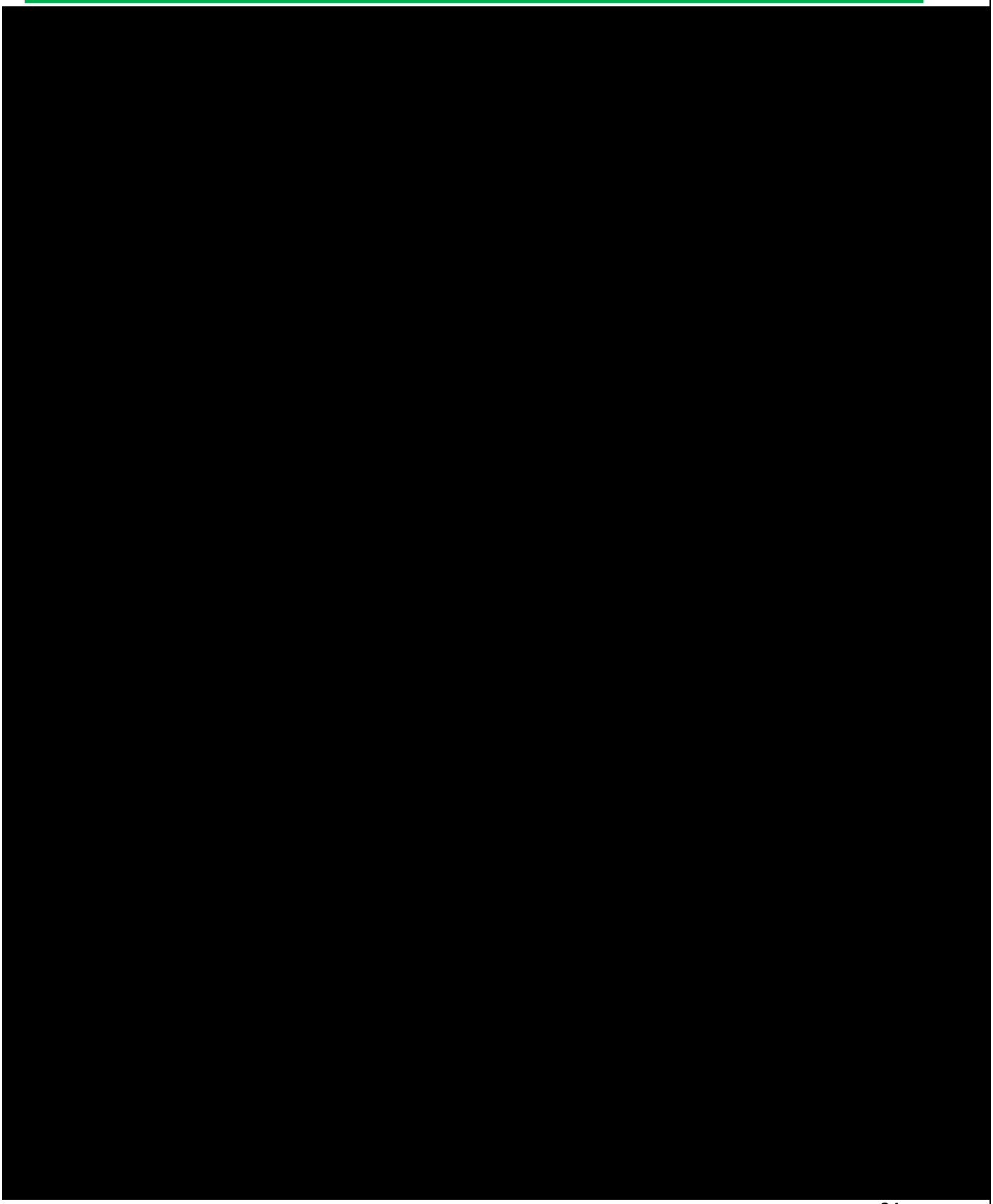

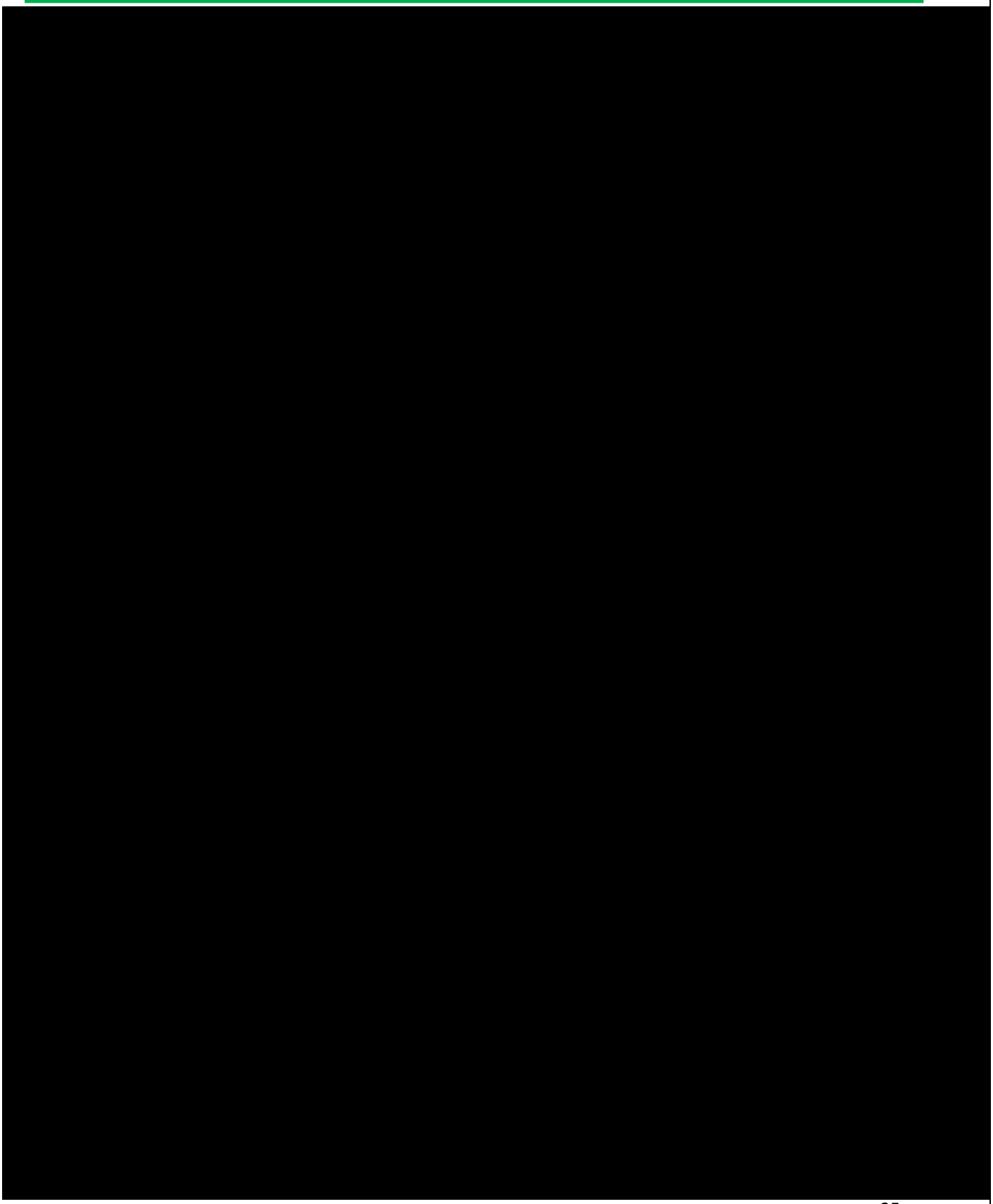

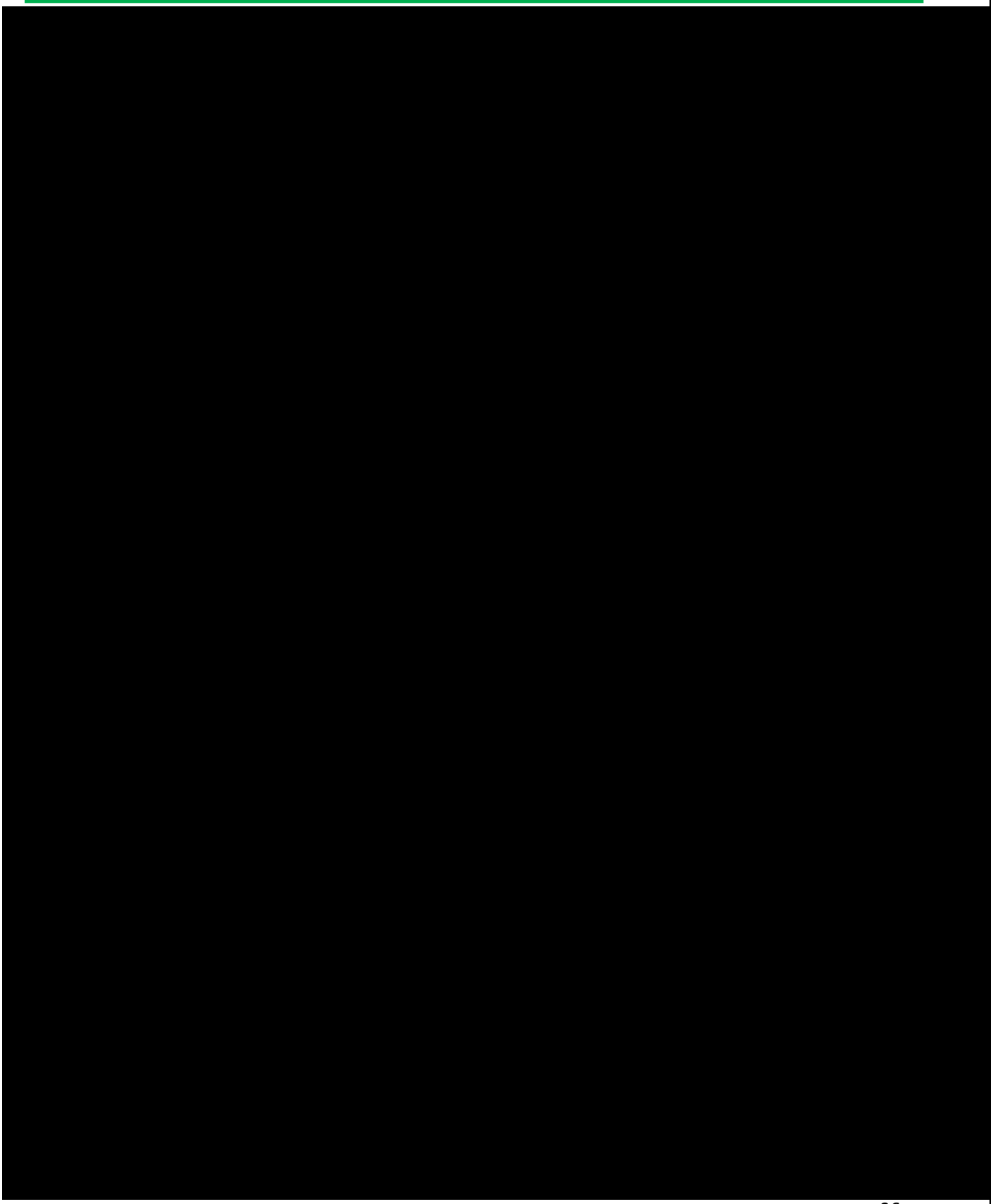

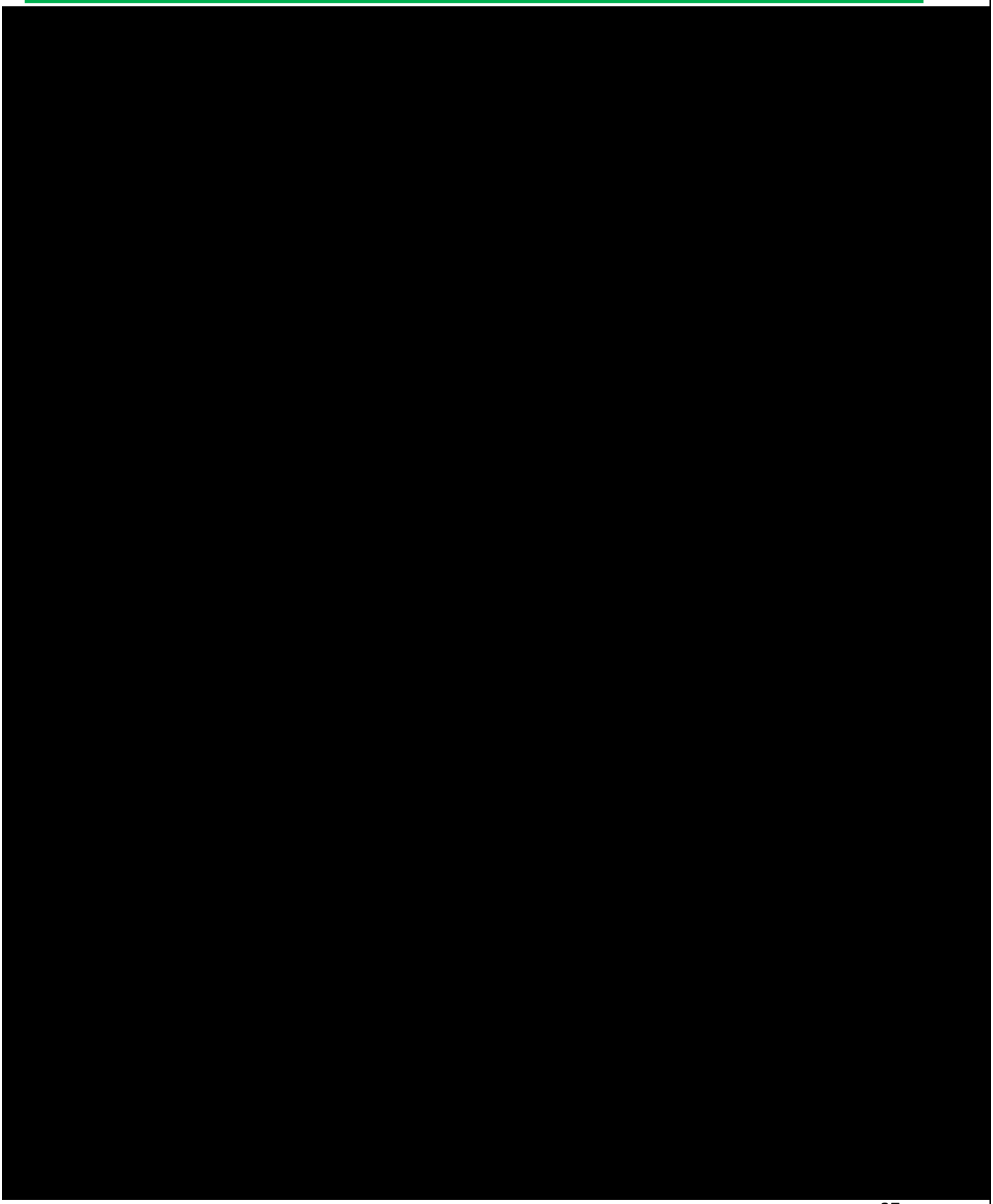

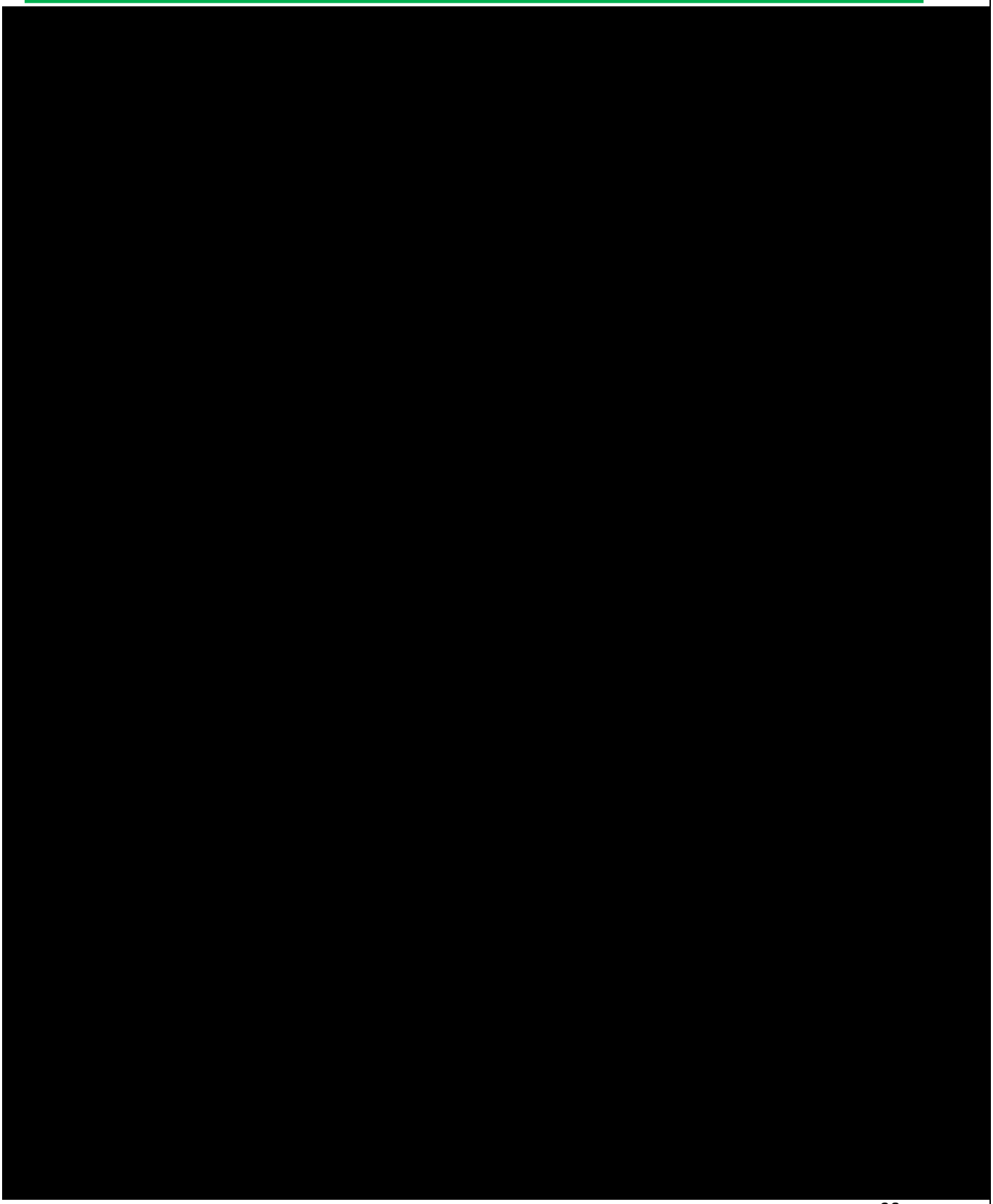

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