STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF
ROCKLAND ELECTRIC COMPANY
FOR APPROVAL OF AN INFRASTRUCTURE
INVESTMENT PROGRAM, AND
RELATED COST RECOVERY MECHANISM

VERIFIED PETITION

BPU DOCKET NO. ____

I. INTRODUCTION

Rockland Electric Company ("RECO", the "Company", or "Petitioner"), a corporation of the State of New Jersey, which has an office at One Lethbridge Plaza, Suite 32 – Second Floor, Route 17 North, Mahwah, New Jersey 07430, respectfully petitions the New Jersey Board of Public Utilities ("Board"), pursuant to N.J.S.A. 48:2-1 et seq. and N.J.A.C. 14:3-2A.1 et. seq., as follows:

1. Petitioner is a public utility engaged in the distribution of electricity and the provision of electric Basic Generation Service, for residential, commercial and industrial purposes within the State of New Jersey. RECO is a wholly-owned subsidiary of Orange and Rockland Utilities, Inc., and an affiliate of Consolidated Edison Company of New York, Inc. RECO provides electric distribution service to approximately 73,000 customers in an area which extends from eastern Bergen County at the Hudson River to western Passaic County and small communities in Sussex County, New Jersey.

2. The rates and charges for electric service furnished by Petitioner and the conditions upon which the same are furnished are set forth in Petitioner's tariff designated B.P.U. No. 3 - Electricity.

3. Petitioner is subject to regulation as a public utility by the Board for the purposes of setting its retail distribution rates and to assure safe, adequate and reliable electric distribution service pursuant to N.J.S.A. 48:2-1, *et seq*. and N.J.S.A. 48:2-13.

4. Through this Petition and the accompanying schedules and testimonies, RECO seeks Board approval for a $209 million Infrastructure Investment Program ("Program") and an associated cost recovery mechanism. RECO proposes a five-year period (*i.e*., 2023 – 2027) for Program investments.

5. RECO's proposed Program is designed to comply with the Board's rules on Infrastructure Investment Programs ("IIPs") set forth in N.J.A.C. 14:3-2A ("IIP Rules"). Exhibit A hereto identifies where in this Petition and supporting materials all of the minimum filing requirements ("MFRs") of the IIP Rules are addressed.

6. RECO proposes an average baseline level of investment of $20.5 million per year to be maintained by RECO throughout the length of the proposed Program consistent with N.J.A.C. 14:3-2A.3, and as discussed in the direct testimony of the Operations and Engineering Panel; this spending level is based on five years of actual capital spending and five years of projected capital spending, subject to certain normalization adjustments (*e.g*., to remove non-recurring AMI investment). In order to comply with the "ten percent rule" set forth in N.J.A.C. 14:3-2A.2(c) for this $209 million Program, the Company has identified $25.9 million of projects similar to those proposed in the Program that it will invest in outside of the Program over the five-year Program period (in excess of the required $20.9 million).

7. Also consistent with the IIP Rules, RECO's Program proposes accelerated infrastructure investments to enhance safety, reliability, and/or resiliency. The Program

proposes estimated investment of $209 million in electric distribution infrastructure over this period. The Program investment will occur in the following project categories: (1) enhanced overhead storm hardening; (2) selective undergrounding; (3) underground rebuild and rehabilitation; and (4) Franklin Lakes substation and related high voltage distribution line projects (collectively the "Franklin Lakes Projects"). Tables 1 and 2 below outline the timing of both capital expenditures and plant additions by category.

Table 1: IIP Project Categories ($000's)	2023	2024	2025	2026	2027	Total
Enhanced OH Storm Hardening	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	**$ 10,000**
Selective Undergrounding	$ 5,000	$ 10,000	$ 10,000	$ 10,000	$ 13,000	**$ 48,000**
Underground Rebuild and Rehabilitation	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	**$ 20,000**
Franklin Lakes - Substation	$ 1,000	$ 6,000	$ 10,000	$ 10,000	$ -	**$ 27,000**
Franklin Lakes - Underground Exit	$ 500	$ 3,500	$ 4,000	$ 4,000	$ -	**$ 12,000**
Franklin Lakes - High Voltage Distribution Line	$ 5,000	$ 15,000	$ 30,000	$ 29,000	$ 13,000	**$ 92,000**
Total Proposed IIP Capital Investment	**$ 17,500**	**$ 40,500**	**$ 60,000**	**$ 59,000**	**$ 32,000**	**$ 209,000**

Table 2: IIP Project Categories ($000's)	2023	2024	2025	2026	2027	Total
Enhanced OH Storm Hardening	$ 600	$ 2,200	$ 2,700	$ 2,200	$ 2,300	**$ 10,000**
Selective Undergrounding	$ 1,200	$ 5,400	$ 9,200	$ 15,900	$ 16,300	**$ 48,000**
Underground Rebuild and Rehabilitation	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	**$ 20,000**
Franklin Lakes - Substation	$ -	$ -	$ -	$ -	$ 27,000	**$ 27,000**
Franklin Lakes - Underground Exit	$ -	$ -	$ -	$ -	$ 12,000	**$ 12,000**
Franklin Lakes - High Voltage Distribution Line	$ -	$ -	$ -	$ -	$ 92,000	**$ 92,000**
Total Proposed IIP Plant Additions	**$ 5,800**	**$ 11,600**	**$ 15,900**	**$ 22,100**	**$ 153,600**	**$ 209,000**

Due to the unique nature of the proposed projects, especially the Franklin Lakes Projects, the Company does not anticipate that capital expenditures and project closings (additions) will be levelized over the course of the five-year Program.

II. THE PROGRAM

8. The Program includes the following proposed project categories, with summaries and investment totals as listed below. Each project category is discussed in further detail in the direct testimony of the Operations and Engineering Panel.

Enhanced Overhead Storm Hardening

RECO's Enhanced Overhead Storm Hardening Program, as discussed in the direct testimony of the Operations and Engineering Panel, consists of eight planned projects, identified in the table below, to improve the reliability and resiliency of the Company's overhead distribution system. These projects primarily focus on replacing existing open wire primary cable with Hendrix Spacer Cable construction. As appropriate, these projects will also include the replacement of aging poles and the addition of switching devices to assist with isolating faults.

The Enhanced Overhead Storm Hardening Program will provide storm hardening benefits to the area by installing spacer cable construction that makes the overhead distribution system more resistant to tree contacts. With the expectation that major storms will increase in both severity and frequency because of climate change, the need for resiliency from tree contacts will increase accordingly. In total this program will replace approximately ten miles of overhead distribution circuit with spacer cable system and improve reliability and resiliency for approximately 18,000 customers.

RECO has identified candidates for Enhanced Overhead Storm Hardening by examining the Company's worst performing circuits while taking into account areas that have experienced multiple outages due to weather, tree contact, and animal contact in the past.

Enhanced Overhead Storm Hardening Projects

Ranking	IIP Additions	Feet	Est. Cost ($000)	2023	2024	2025	2026	2027	Customers Benefiting	Tie Circuit Customers
1	Oakland - 36-2-13 High Mountain Road	8,500	$1,700	$1,400	$300				915	1,004
2	Oakland - Long Hill Road	2,700	$500		$500				589	1,163
3	Franklin Lakes - Ewing Ave	6,100	$1,200			$1,200			1,240	2,067
4	West Milford - Awosting Rd (Part 1)	9,000	$1,500		$1,200	$300			1,176	1,963
5	Harings Corner 30-4-13 - Old Tappan Rd	2,800	$600	$600					1,017	1,106
6	West Milford - Awosting Rd (Part 2)	9,000	$1,500				$300	$1,200	1,176	1,963
7	West Milford - Union Valley Rd	11,700	$2,200			$500	$1,700		1,902	0
8	Saddle River - East Allendale Ave	4200	$800					$800	822	0
	TOTALS	**54,000**	**$10,000**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**8,837**	**9,266**

Selective Undergrounding

RECO's Selective Undergrounding Program consists of 18 planned projects, identified in the table below, to underground portions of the Company's overhead distribution system. Sixteen of these projects involve the elimination of double circuit construction by relocating one circuit underground. Double circuit overhead construction involves the installation of two distribution circuits on a common pole line. Because the circuits share common structures, there is a risk that a single contingency (*e.g.*, tree, motor vehicle accident) will result in the loss of both circuits. One of the two undergrounding projects that do not involve the elimination of double circuit construction establishes a new underground circuit (*i.e.*, the Ringwood – 78-2-13 – Sloatsburg Road & Kendall project), and the other undergrounds an existing overhead segment (*i.e.*, the West Milford – 79-6-13 – Warwick Turnpike project).

The Selective Undergrounding Program includes projects that are designed to improve, directly or indirectly, the performance and resiliency of overhead segments most vulnerable to damage from severe weather. These projects target areas of the circuits (segments) that have been severely impacted by past storms (despite standard tree trimming techniques). The Company utilizes many factors when identifying and

prioritizing potential selective undergrounding projects. One factor that the Company utilizes is the worst performing circuit data.

Selective Undergrounding Projects

Ranking	IIP Additions	Feet	Est. Cost ($000)	2023	2024	2025	2026	2027	Customers Benefiting
1	Allendale – 39-8-13 – Martis Ave	2,100	$1,200	$1,200					1,928
2	West Milford – 79-6-13 – Warwick Tpke	4,200	$2,300	$1,300	$1,000				2,630
3	Darlington – 43-6-13 – Darlington Ave	5,500	$3,100	$1,600	$1,500				3,103
4	Closter – 28-2-13 – Livingston St	9,300	$5,400	$500	$3,900	$1,000			1,563
5	Franklin Lakes – 36-5-13 – Franklin Lakes Road	6,700	$3,800	$400	$2,400	$1,000			1,539
6	West Milford –- 79-1-13/79-2-13 – Greenwood Lake Tpke & Awosting	9,300	$5,600		$1,200	$3,200	$1,200		1,911
7	Ringwood – 78-2-13 – Sloatsburg Rd to KendalL	5,700	$3,200			$2,200	$1,000		1,451
8	Cresskill – 37-7-13 – Anderson Ave	5,700	$3,200			$1,800	$1,400		1,806
9	Closter – 28-9-13 – Herbert Ave & Homans Ave	4,900	$2,700			$500	$2,200		1,300
10	Oakland – 36-2-13 – Yawpo Drive	4,800	$2,600				$900	$1,700	2,289
11	Cresskill –37-5-13 – Piermont & County Rd	2,200	$1,200				$1,200		1,856
12	South Mahwah – 58-9-13 – W. Airmont Rd.	2,000	$1,300				$100	$1,200	1,243
13	Ringwood – 78-2-13 – Cupsaw Ave to Voorhis Pl	5,500	$3,100				$600	$2,500	1,446
14	Oakland – 36-7-13 – Paige Drive	600	$400					$400	1,569
15	Upper Saddle River Selective UG – 49-1-13 – West Saddle River Rd	750	$500					$500	1,976
16	Upper Saddle River – 49-2-13 – Lake St	8,300	$4,900			$300	$1,200	$3,400	1,792
17	Allendale – 39-3-13 – Franklin Tpke	1,600	$1,000					$1,000	2,089
18	Upper Saddle River – 49-4-13 – Pleasant Ave	4,500	$2,500				$200	$2,300	579
	TOTALS	**83,650**	**$48,000**	**$5,000**	**$10,000**	**$10,000**	**$10,000**	**$13,000**	**32,070**

Underground Rebuild and Rehabilitation

The Underground Rebuild and Rehabilitation Program will replace or rejuvenate Underground Residential Development ("URD") subdivisions' cable and their underground components with the intent of preventing customer interruptions and improving system reliability. The amount of cable to be addressed by this program will vary based on the prioritization of needs and if those projects involve rehabilitation or rebuild. The Company identifies and prioritizes potential candidates for rebuild/rehabilitation based on outage statistics at an individual subdivision level. The Company will develop and review the projects selected for this program on an annual basis to determine the worst performing subdivisions, so that work can be prioritized properly. The Underground Rebuild and Rehabilitation Program will lead to a reduction in cable failures and improve reliability for residential customers. This program will

target URD subdivisions that are most vulnerable to cable failures and address those vulnerabilities in the most efficient and cost-effective manner.

The Company proposes to accelerate the investment of $4 million per year in Underground Rebuild and Rehabilitation Program projects, which is in addition to the Company's ordinary course investments in underground rehabilitation.

Franklin Lakes Projects

As discussed in the direct testimony of the Operations and Engineering Panel, the Franklin Lakes Projects involve the construction of a new 138kV substation on the existing Franklin Lakes Substation property, as well as associated line upgrades. The Franklin Lakes Substation will be replaced with a new 138kV substation and the existing overhead 69kV lines feeding the station will be replaced with new 138kV underground lines from alternate sources. The proposed Franklin Lakes Substation will include two 50MVA 138/13.2kV distribution banks.

Upgrading the Franklin Lakes Substation will allow the station to pass planning criteria along with providing 100 percent redundancy. The two proposed 50 MVA transformer banks will increase station capacity and will maintain redundancy as the load levels and electrification in the area increases. The additional transformer capacity and Load Tap Chargers at the new Franklin Lakes Substation will allow for the addition of three new distribution circuits to relieve the load on adjacent substations.

In order to further improve reliability and resiliency in the greater area, as part of the Franklin Lakes Projects, the Company is also proposing to (1) provide one new underground feed from the Allendale Substation to the Franklin Lakes Substation at 138kV, (2) provide one new underground feed from the Darlington Substation at 138kV

to the new Franklin Lakes Substation, (3) upgrade the two existing underground feeds between the Franklin Lakes and Oakland Substations to 138kV, and (4) upgrade the existing Oakland Substation for operation at 138kV.

The Company did not include the bulk of the Franklin Lakes Projects in its current five-year capital plan. Rather the Company estimated that the Franklin Lakes Substation and Franklin Lakes High Voltage Distribution Lines will be completed in 2029 and 2032, respectively. However, due to the significant size of the Franklin Lakes Projects and the long lead times required to complete them, the Company does plan to commence preliminary work on these projects as part of the five-year capital plan. This work mostly includes activities such as engineering, design, and permitting. Given the need to improve the reliability and resiliency of the Company's distribution system in the Franklin Lakes area, particularly given the increase in the number and severity of major storms, the Company proposes to accelerate the completion of the Franklin Lakes Projects as part of the Program. Accelerating the Franklin Lakes Projects as proposed in the Program will advance the new substation by two years and place the new high voltage distribution feeders into service five years earlier. The acceleration of the Franklin Lakes Projects will result in enhanced reliability and resiliency to customers in the Franklin Lakes area.

The Franklin Lakes Projects included as part of the Program are scheduled to be in-service in 2027. With their completion, the Company will not need to complete any further substation upgrades at the Darlington, Oakland, and South Mahwah Substations within the ten-year forecast period.

Benefits to Customers and the New Jersey Economy

9. The Program will produce many benefits for customers served by RECO's electric distribution system, as well as for the State of New Jersey. Customers will benefit from a safer, more modern system that accommodates new technologies, providing an electric system that can integrate and manage larger quantities of distributed energy resources, and other innovations. When major storms occur, as they likely will with climate change, the Company's electric distribution system will have increased ability to withstand and recover from those events with associated lower extraordinary restoration costs, if any, and less disruption, if any, to customers and the New Jersey economy. The Program will provide higher levels of reliability in the RECO electric distribution system.

10. A five-year period is necessary for the Program because the Franklin Lakes Substation project will require five years to complete. Various aspects of permitting, planning, and coordinating the Program's projects, cannot be reasonably planned for and executed in less than a five-year period. In addition, the multi-year approach provides various efficiencies in planning, staffing, and managing contractors and material procurement.

11. The results of the cost benefit analysis are set forth in the Engineering Evaluation that is provided at Exhibit 3 to the direct testimony of the Operations and Engineering Panel.

12. The Program will also support economic development and enhanced employment opportunities in New Jersey. The Program will support additional skilled

jobs. The multi-year nature of the Program will provide more stability and permanence in the jobs the Program creates and supports.

III. PROGRAM COST RECOVERY

13. RECO's proposed cost recovery mechanism for the Program is addressed in detail in the direct testimony of the Accounting and Rate Panel. Specifically, to recover the revenue requirements associated with the Program, RECO proposes to establish an IIP Surcharge. The IIP Surcharge will be a non-bypassable cents per kWh charge applicable to all RECO distribution customers. It will be set annually based on the Company's forecasted revenue requirement associated with the Program, adjusted for any prior period over- or under-recoveries including interest, and a forecast of the Company's kWh deliveries to customers for each annual period. The resulting rate in cents per kWh will then be increased to reflect the Sales and Use Tax ("SUT").

14. The Company proposes the schedule below for the IIP Surcharge filings. For each annual change of the IIP Surcharge, the Company will make an initial filing that will contain nine months of actual data and three months of forecasted data. An update filing will be made three months later to update for all actuals for the annual period. Two months after that update filing, the revised IIP Surcharge will become effective.

Filing	Initial Filing Date	Revenue Requirement	Update Filing Date	Rate Effective
1	11/1/23	CY 2023	2/1/24	4/1/24
2	11/1/24	CY 2024	2/1/25	4/1/25
3	11/1/25	CY 2025	2/1/26	4/1/26
4	11/1/26	CY 2026	2/1/27	4/1/27
5	11/1/27	CY 2027	2/1/28	4/1/28

15. Each month the actual revenue collected through the IIP Surcharge will be compared to the month's revenue requirement (as defined above). The difference will be deferred as a regulatory asset or regulatory liability with an offsetting charge to expense. A carrying charge will be included in the deferred balance for both an over-collection and for an under-collection. The carrying charge will be calculated as determined by the Board in its Order dated October 21, 2008, in BPU Docket No. ER08060455. As set forth in that Order, the interest rate shall be the interest rate based on two-year constant maturity Treasuries as published in the Federal Reserve Statistical Release on the first day of each month (or the closest day thereafter on which rates are published), plus 60 basis points, but not to exceed the Company's overall rate of return.

16. The Company would expect to roll into base rates during future RECO base rate cases unrecovered Program investment costs for programs/projects (or components) placed in service through the end of the test year and reaching period. Notwithstanding the filing of subsequent base rate cases, the IIP Surcharge cost recovery mechanism will continue to be used until all Program costs are rolled into base rates.

17. Board Staff and the Division of Rate Counsel will have an opportunity to review each Company IIP Surcharge filing to verify that the revenue requirements and proposed rates are being calculated in accordance with the Board Order approving the Program. The IIP Surcharge recoveries would be subject to refund based upon a Board finding that RECO imprudently incurred capital expenditures in its implementation of the Program. The actual prudence of the Company's Program expenditures will be reviewed as part of RECO's subsequent base rate case(s). This is consistent with the approach under the IIP Rules at N.J.A.C. 14:3-2A.6(e). The Company proposes that it will file its

first subsequent base rate case no later than five years after the commencement of the Program, *i.e.*, not later than January 1, 2028, if the Program commences January 1, 2023, as proposed.

18. The IIP Rules limit each Company IIP Surcharge filing to a minimum investment level of ten percent of the Program (N.J.A.C. 14:3-2A.6 (b)) and require an earnings test (N.J.A.C. 14:3-2A.6 (h) and (i)). However, as part of the cost recovery mechanism, RECO requests a waiver of N.J.A.C. 14:3-2A.6(b) pursuant to N.J.A.C. 14:1-1.2 due to the unique timing of the IIP projects and other factors addressed in the pre-filed direct testimony of the Accounting and Rate Panel. Further, if the Company exceeds the allowed ROE from the Company's last base rate case by 50 basis points or more for the most recent twelve-month period, the pending IIP Surcharge adjustment shall not be allowed for the applicable filing period. Details regarding application of the earnings test and minimum ten percent investment are set forth in the direct testimony of the Accounting and Rate Panel.

IV. RATES AND IMPACT

19. The Accounting and Rate Panel are sponsoring draft tariff leaves reflecting the proposed IIP Surcharge which are attached as Exhibit B to this Petition. The Company has included a rate of 0.0000 cents per kWh since the first annual IIP Surcharge is proposed to become effective April 1, 2024. Based on an estimated first annual period revenue requirement of $494,529, the IIP Surcharge that becomes effective April 1, 2024, is 0.0343 cents per kWh, including SUT. At rates effective March 1, 2022, the monthly electric bill for a typical residential customer with an average annualized

monthly usage of 925 kWh is $159.61. The IIP Surcharge would increase this bill by $0.32 to $159.93or by 0.2%.

20. As to the cumulative effect of the Program on customer's electric bills, at the end of the five-year period, the monthly electric bill for a typical residential customer with an average annualized monthly usage of 925 kWh will have increased to $171.33, an increase of $11.72, or 7.3% in total, or an average of 1.5% per year.

V. SUPPORTING TESTIMONY AND PUBLIC NOTICE

21. The Company is presenting the direct testimony of two witness panels in support of this Petition. The Accounting and Rate Panel, consisting of Ann Cedrone, Cheryl Ruggiero and Eric Caban, will address the accounting protocols that the Company proposes to employ to record the costs associated with the Program and outlines the cost recovery mechanisms and reconciliations associated with the Program. The Operations and Engineering Panel, consisting of John Coffey, Wayne Banker and James Koza discuss the details of the Program and demonstrates that the Program complies with the IIP Rules.

22. RECO proposes public comment hearings similar to those that are held when rate increases are proposed. Thus, a proposed form of public notice of filing and public hearings ("Notice"), including the proposed rates and bill impacts attributable to the proposed implementation of the Program, is attached to this Petition as Exhibit C. RECO proposes that, once finalized and public hearing dates determined, the Notice will be placed in newspapers having a circulation within the Company's service territory upon receipt, scheduling, and publication of public hearing dates. The Notice will be served on the County Executives and Clerks of all municipalities within the Company's electric

service territory upon receipt, scheduling, and publication of public hearing dates. The Notice will be provided to the Division of Rate Counsel and the Department of Law and Public Safety.

VI. COMMUNICATIONS

Communications and correspondence related to this Petition should be sent as follows:

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VII. MISCELLANEOUS

This Petition will be filed using the Board's electronic filing system. In addition, copies of this Petition will be served upon the Department of Law and Public Safety, 124 Halsey Street, P.O. Box 45029, Newark, New Jersey 07101 and upon the Director, Division of Rate Counsel, 140 East Front Street, 4th Floor, Trenton, New Jersey 08625. Further, a courtesy copy of this Petition and supporting testimony and attachments will also be e-mailed to the persons identified on the service list provided with this filing.

Attached hereto and made a part of this Petition are the following exhibits:

Exhibit A – Minimum Filing Requirements;

Exhibit B – Draft Tariff Leaves; and

Exhibit C – Form of Notice.

VIII. CONCLUSION AND REQUESTS FOR APPROVAL

For all the foregoing reasons, RECO respectfully requests that the Board retain jurisdiction of this matter and review and expeditiously issue an order:

1. Approving the Company's Program as proposed in this Petition, and making all findings required by the IIP Rules;

2. Approving the cost recovery proposal and mechanism set forth in this Petition; and

3. Granting such other and further relief as the Board may determine to be reasonable and appropriate.

Respectfully submitted,

ROCKLAND ELECTRIC COMPANY

By _____

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Attorneys for Rockland Electric Company

Dated: March 30, 2022

VERIFICATION

STATE OF NEW YORK)
: ss
COUNTY OF ROCKLAND)

ANN CEDRONE, of full age, being duly sworn according to law, on her oath deposes and says:

1. I am the Treasurer of Rockland Electric Company, the Petitioner in the foregoing Petition.

2. I have read the annexed petition, and the matters and things contained therein are true to the best of my knowledge and belief.

Ann M Cedrone

Ann Cedrone

Sworn to and subscribed to
Before me this 29th day
Of March, 2022

Denise A. Collins

DENISE A. COLLINS
Notary Public, State of New York
Registration #01CO5078588
Qualified In Rockland County
Commission Expires May 27, 2023

EXHIBIT A
(Minimum Filing Requirements)

ROCKLAND ELECTRIC COMPANY **INFRASTRUCTURE INVESTMENT PROGRAM**	
Filing Requirements Per N.J.A.C. 14:3-2A.1 *et. seq.*	**Filing Location**
14:3-2A.2 Project eligibility	
(a) The projects within an Infrastructure Investment Program shall be: 1. Related to safety, reliability, and/or resiliency; 2. Non-revenue producing; 3. Specifically identified by the utility within its petition in support of an Infrastructure Investment Program; and 4. Approved by the Board for inclusion in an Infrastructure Investment Program, in response to the utility's petition.	Operations and Engineering Panel Direct Testimony
(b) Projects within an Infrastructure Investment Program may include: 1. Electric distribution automation investments, including, but not limited to, supervisory control and data acquisition equipment, cybersecurity investments, relays, reclosers, voltage and reactive power control, communications networks, and distribution management system integration; 2. Other projects deemed appropriate by the Board.	Operations and Engineering Panel Direct Testimony
(c) A utility shall maintain its capital expenditures on projects similar to those proposed within the utility's Infrastructure Investment Program. These capital expenditures shall amount to at least 10 percent of any approved Infrastructure Investment Program. These capital expenditures shall be made in the normal course of business and recovered in a base rate proceeding, and shall not be subject to the recovery mechanism set forth in N.J.A.C. 14:3-2A.6.	Operations and Engineering Panel Direct Testimony; Exhibit 4
14:3-2A.3 Annual baseline spending levels	
(a) A utility seeking to establish an Infrastructure Investment Program shall, within its petition, propose annual baseline spending levels to be maintained by the utility throughout the length of the proposed Infrastructure Investment Program. These expenditures shall be recovered by the utility in the normal course within the utility's next base rate case.	Operations and Engineering Panel Direct Testimony; Table 3
(b) In proposing annual baseline spending levels, the utility shall provide appropriate data to justify the proposed annual baseline spending levels, which may include historical capital expenditure budgets, projected capital expenditure budgets, depreciation expenses, and/or any other data relevant to the utility's proposed baseline spending level.	Operations and Engineering Panel Direct Testimony; Table 3
14:3-2A.4 Infrastructure Investment Program length and limitations	
(a) A utility may petition the Board for approval of an Infrastructure Investment Program extending for a period of five years or less.	Operations and Engineering Panel Direct Testimony
14:3-2A.5 Infrastructure Investment Program minimum filing and reporting requirements	

(b) A utility requesting approval of an Infrastructure Investment Program shall include within its petition: 1. Projected annual capital expenditure budgets for a five-year period, identified by major categories of expenditures;	Operations and Engineering Panel Direct Testimony; Exhibit 1
2. Actual annual capital expenditures for the previous five years, identified by major categories of expenditures;	Operations and Engineering Panel Direct Testimony; Exhibit 2
3. An engineering evaluation and report identifying the specific projects to be included in the proposed Infrastructure Investment Program, with descriptions of project objectives-including the specific expected resilience benefits, detailed cost estimates, in service dates, and any applicable cost-benefit analysis for each project;	Operations and Engineering Panel Direct Testimony; Exhibit 3
4. An Infrastructure Investment Program budget setting forth annual budget expenditures;	Operations and Engineering Panel Direct Testimony; Tables 1 and 2
5. A proposal addressing when the utility intends to file its next base rate case, consistent with N.J.A.C. 14:3-2A.6(f);	Accounting and Rate Panel Direct Testimony
6. Proposed annual baseline spending levels, consistent with N.J.A.C. 14:3-2A.3(a) and (b);	Operations and Engineering Panel Direct Testimony; Table 3
7. The maximum dollar amount, in aggregate, the utility seeks to recover through the Infrastructure Investment Program; and	Operations and Engineering Panel Direct Testimony; Tables 1 and 2
8. The estimated rate impact of the proposed Infrastructure Investment Program on customers.	Accounting and Rate Panel Direct Testimony
14:3-2A.6 Infrastructure Investment Program expenditure recovery	
(a) A utility may file for annual or semi-annual rate recovery for facilities constructed and placed in service under an Infrastructure Investment Program. "In service" means when a project approved for inclusion in an Infrastructure Investment Program is functioning in its intended purpose, is in use (that is, not under construction) and useful (that is, actively helping the utility provide efficient service).	Accounting and Rate Panel Direct Testimony
(b) Each filing made by a utility seeking accelerated recovery under an Infrastructure Investment Program shall seek recovery, at a minimum, of at least 10 percent of overall Infrastructure Investment Program expenditures.	Accounting and Rate Panel Direct Testimony
(c) A utility's expenditures made prior to the Board's approval of an Infrastructure Investment Program shall not be eligible for accelerated recovery.	N/A
(d) Rates approved by the Board for recovery of expenditures under an Infrastructure Investment Program shall be accelerated, and recovered through a separate clause of the utility's Board-approved tariff.	Accounting and Rate Panel Direct Testimony
(e) Rates approved by the Board for recovery of expenditures under an Infrastructure Investment Program shall be provisional, subject to refund and interest. Prudence of Infrastructure Investment Program expenditures shall be determined in the utility's next base rate case.	Accounting and Rate Panel Direct Testimony

(f) A utility shall file its next base rate case not later than five years after the Board's approval of the Infrastructure Investment Program start date, although the Board, in its discretion, may require a utility to file its next base rate case within a shorter period.	Accounting and Rate Panel Direct Testimony
(g) A utility may continue to file for accelerated recoveries during the approved Infrastructure Investment Program period notwithstanding the filing of the utility's next base rate case.	Accounting and Rate Panel Direct Testimony
(h) An earnings test shall be required, where Return on Equity (ROE) shall be determined based on the actual net income of the utility for the most recent 12-month period divided by the average of the beginning and ending common equity balances for the corresponding period.	Accounting and Rate Panel Direct Testimony
(i) For any Infrastructure Investment Program approved by the Board, if the calculated ROE exceeds the allowed ROE from the utility's last base rate case by 50 basis points or more, accelerated recovery shall not be allowed for the applicable filing period.	Accounting and Rate Panel Direct Testimony

EXHIBIT B
(Draft Tariff Leaves)

ROCKLAND ELECTRIC COMPANY
B.P.U. NO. 3 – ELECTRICITY

DRAFT

Revised Leaf No. 3
Superseding Revised Leaf No. 3

TABLE OF CONTENTS (Continued)

(Continued)

ROCKLAND ELECTRIC COMPANY
B.P.U. NO. 3 - ELECTRICITY

DRAFT

Revised Leaf No. 59
Superseding Revised Leaf No. 59

GENERAL INFORMATION

No. 35 INFRASTRUCTURE INVESTMENT PROGAM ("IIP") SURCHARGE

The IIP Surcharge shall be applied to the kWh usage on the bills of all customers served under this Schedule.

The Company will implement Board-approved infrastructure investment programs that will provide customers with an enhanced level of service reliability, resiliency, and/or safety. The costs for these programs will be recovered through the IIP Surcharge.

The IIP Surcharge will be set annually based on the Company's revenue requirement associated with the IIP, adjusted for any prior period over- or under-recoveries including interest, and a forecast of the Company's kWh deliveries to customers for each annual period. The resulting rate in cents per kWh will then be increased to reflect Sales and Use Tax ("SUT").

The Company will only be allowed to implement an IIP Surcharge for any annual period if an earnings test is passed. Under the earnings test, the Company will compare its allowed return on equity ("ROE") from the Company's most recently approved base rate case to the actual earned ROE for the most recent twelve-month period. If the actual earned ROE for the most recent twelve-month period exceeds the allowed ROE by 50 basis points or more, the Company will only include in the IIP Surcharge the reconciliation of the prior period over- or under-recovery.

The difference between the actual monthly IIP costs and IIP revenues will be deferred, with interest, for future recovery. Interest, calculated as determined by the Board in its Order dated October 21, 2008 in Docket Number ER08060455, will be included in the deferred balance for both an over-collection and for an under-collection.

	IIP Surcharge Rate Components (Cents per kWh)	
	Excluding SUT	Including SUT
IIP Surcharge	0.0000	0.0000

(Continued)

ROCKLAND ELECTRIC COMPANY
B.P.U. NO. 3 - ELECTRICITY

DRAFT

Original Leaf No. 59A

GENERAL INFORMATION

No. 35 INFRASTRUCTURE INVESTMENT PROGAM ("IIP") SURCHARGE (Continued)

The Company will make annual filings to reset the IIP Surcharge as set forth in the chart below. For each annual period, the Company will make: (1) an initial filing that will contain nine months of actual data and three months of forecasted data; and (2) an update filing three months after the initial filing that will include all actual data for the annual period.

Filing	Initial Filing Date	Revenue Requirement	Update Filing Date	Rate Effective
1	11/1/23	CY 2023	2/1/24	4/1/24
2	11/1/24	CY 2024	2/1/25	4/1/25
3	11/1/25	CY 2025	2/1/26	4/1/26
4	11/1/26	CY 2026	2/1/27	4/1/27
5	11/1/27	CY 2027	2/1/28	4/1/28

DRAFT

Revised Leaf No. 83
Superseding Revised Leaf No. 83

SERVICE CLASSIFICATION NO. 1
RESIDENTIAL SERVICE (Continued)

RATE – MONTHLY (Continued)

(3) Transmission Charges

(a) These charges apply to all customers taking Basic Generation Service from the Company. These charges are also applicable to customers located in the Company's Central and Western Divisions and obtaining Competitive Energy Supply. These charges are not applicable to customers located in the Company's Eastern Division and obtaining Competitive Energy Supply. The Company's Eastern, Central and Western Divisions are defined in General Information Section No. 1.

	Summer Months*	Other Months
All kWh ..... @	1.515 ¢ per kWh	1.515 ¢ per kWh

(b) Transmission Surcharge – This charge is applicable to all customers taking Basic Generation Service from the Company and includes surcharges related to Reliability Must Run, EL05-121 Settlement and Transmission Enhancement Charges.

All kWh ..... @	1.445 ¢ per kWh	1.445 ¢ per kWh

(4) Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge.

The provisions of the Company's Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge as described in General Information Section Nos. 33, 34, 35, 36, and 37 respectively, shall be assessed on all kWh delivered hereunder.

* Definition of Summer Billing Months - June through September

(Continued)

DRAFT

Revised Leaf No. 90
Superseding Revised Leaf No. 90

SERVICE CLASSIFICATION NO. 2
GENERAL SERVICE (Continued)

RATE – MONTHLY (Continued)

(3) Transmission Charges (Continued)

(b) Transmission Surcharge – This charge is applicable to all customers taking Basic Generation Service from the Company and includes surcharges related to Reliability Must Run, EL05-121 Settlement and Transmission Enhancement Charges.

	Summer Months*	Other Months
Secondary Voltage Service Only		
All kWh .....@	0.751 ¢ per kWh	0.751 ¢ per kWh
Primary Voltage Service Only		
All kWh .....@	0.886 ¢ per kWh	0.886 ¢ per kWh

(4) Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge.

The provisions of the Company's Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge as described in General Information Section Nos. 33, 34, 35, 36, and 37 respectively, shall be assessed on all kWh delivered hereunder.

* Definition of Summer Billing Months - June through September

(Continued)

DRAFT

Revised Leaf No. 96
Superseding Revised Leaf No. 96

SERVICE CLASSIFICATION NO. 3
RESIDENTIAL TIME-OF-DAY HEATING SERVICE (Continued)

RATE – MONTHLY (Continued)

(3) Transmission Charge

(a) These charges apply to all customers taking Basic Generation Service from the Company. These charges are also applicable to customers located in the Company's Central and Western Divisions and obtaining Competitive Energy Supply. These charges are not applicable to customers located in the Company's Eastern Division and obtaining Competitive Energy Supply. The Company's Eastern, Central and Western Divisions are defined in General Information Section No. 1.

	Summer Months*	Other Months
Peak		
All kWh measured between 10:00 a.m. and 10:00 p.m., Monday through Friday .....@	1.515 ¢ per kWh	1.515 ¢ per kWh
Off-Peak		
All other kWh .....@	1.515 ¢ per kWh	1.515 ¢ per kWh

(b) Transmission Surcharge – This charge is applicable to all customers taking Basic Generation Service from the Company and includes surcharges related to Reliability Must Run, EL05-121 Settlement and Transmission Enhancement Charges.

All kWh .....@	1.171 ¢ per kWh	1.171 ¢ per kWh

(4) Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge.

The provisions of the Company's Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge as described in General Information Section Nos. 33, 34, 35, 36, and 37 respectively, shall be assessed on all kWh delivered hereunder.

* Definition of Summer Billing Months - June through September

(Continued)

DRAFT

SERVICE CLASSIFICATION NO. 4
PUBLIC STREET LIGHTING SERVICE (Continued)

RATE – MONTHLY (Continued)

(2) Additional Charge

(a) An additional $23.02 per luminaire per month will be charged for existing Underground Service where the Company owns and maintains the entire facilities.

(b) An additional $5.60 per luminaire per month will be charged for existing underground service where the customer has installed, owns and maintains the duct system complete, but not the aluminum standard or luminaire.

(c) An additional $0.63 per bracket per month will be charged for a fifteen foot bracket when installed.

(3) Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge.

The provisions of the Company's Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge as described in General Information Section Nos. 33, 34, 35, 36, and 37 respectively shall be assessed on all kWh delivered hereunder.

The charges shall be applied to the kWh estimate in the following manner:

kWh = (Total Wattage divided by 1,000) times Monthly Burn Hours*

* See Monthly Burn Hours Table.

(Continued)

DRAFT

SERVICE CLASSIFICATION NO. 6
PRIVATE OVERHEAD LIGHTING SERVICE (Continued)

RATE – MONTHLY (Continued)

(1) Distribution and Transmission Charges (Continued)

(b) Distribution Charges for Service Type C

Metered Service - Customer Charge at $16.00 per month plus Distribution Charge at 6.444 ¢ per kWh; or

Unmetered Service - Customer Charge at $4.00 per month plus Distribution Charge at 6.444 ¢ per kWh.

(c) Transmission Charges for Service Types A, B, and C

A Transmission Charge of 1.223 ¢ per kWh will apply to all customers taking Basic Generation Service from the Company. Transmission charges are also applicable to customers located in the Company's Central and Western Divisions and obtaining Competitive Energy Supply. Transmission charges are not applicable to customers located in the Company's Eastern Division and obtaining Competitive Energy Supply. The Company's Eastern, Central and Western Divisions are defined in General Information Section No. 1. A Transmission Surcharge, to recover Reliability Must Run Charges, of 0.000 ¢ per kWh will also apply to all customers taking Basic Generation Service from the Company.

For service type A, B, or C if not metered, the charges shall be applied to the kWh estimated as follows:

kWh = (Total Wattage divided by 1,000) times Monthly Burn Hours*

(2) Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge.

The provisions of the Company's Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge as described in General Information Section Nos. 33, 34, 35, 36, and 37 respectively shall be assessed on all kWh delivered hereunder. For service type A, B, or C if not metered, the charges shall be applied to the kWh estimated as follows:

kWh = (Total Wattage divided by 1,000) times Monthly Burn Hours*

* See Monthly Burn Hours Table.

(Continued)

DRAFT

SERVICE CLASSIFICATION NO. 7
LARGE GENERAL TIME-OF-DAY SERVICE (Continued)

RATE– MONTHLY (Continued)

(3) Transmission Charges (Continued)

(a) (Continued)

		Primary	High Voltage Distribution
Demand Charge			
Period I	All kW @	$2.41 per kW	$2.41 per kW
Period II	All kW @	0.64 per kW	0.64 per kW
Period III	All kW @	2.41 per kW	2.41 per kW
Period IV	All kW @	0.64 per kW	0.64 per kW
Usage Charge			
Period I	All kWh @	0.404 ¢ per kWh	0.404 ¢ per kWh
Period II	All kWh @	0.404 ¢ per kWh	0.404 ¢ per kWh
Period III	All kWh @	0.404 ¢ per kWh	0.404 ¢ per kWh
Period IV	All kWh @	0.404 ¢ per kWh	0.404 ¢ per kWh

(b) Transmission Surcharge – This charge is applicable to all customers taking Basic Generation Service from the Company and includes surcharges related to Reliability Must Run, EL05-121 Settlement and Transmission Enhancement Charges.

		Primary	High Voltage Distribution
All Periods	All kWh @	0.543 ¢ per kWh	0.543 ¢ per kWh

(4) Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge.

The provisions of the Company's Societal Benefits Charge, Regional Greenhouse Gas Initiative Surcharge, Infrastructure Investment Program Surcharge, Temporary Tax Act Credit, and Zero Emission Certificate Recovery Charge as described in General Information Section Nos. 33, 34, 35, 36, and 37 respectively, shall be assessed on all kWh delivered hereunder.

(Continued)

EXHIBIT C
(Form of Notice)

NOTICE TO ROCKLAND ELECTRIC COMPANY CUSTOMERS

Notice of Filings
And Notice of Public Hearing for
Proposed Infrastructure Investment Program and an
Associated Cost Recovery Mechanism

BPU Docket No. ER22XXXXXX

TAKE NOTICE that, on March 30, 2022, Rockland Electric Company ("RECO" or "the Company") filed a petition with the New Jersey Board of Public Utilities ("Board") for approval of an Infrastructure Investment Program (the "Program") and the associated cost recovery mechanism for a five-year period. RECO's proposed Program is designed to comply with the Board's rules on IIPs as set forth in N.J.A.C. 14:3-2A ("IIP Regulations").

RECO's Program proposes infrastructure investments to enhance safety, reliability, and/or resiliency. In addition to providing higher levels of reliability in the RECO electric distribution system, the Program will also benefit RECO's customers by providing for a safer, more modern system that accommodates new technologies, providing for an electric system that can integrate and manage larger quantities of distributed energy resources, and offering other innovations.

RECO proposes that the Program will be conducted over a five-year period (*i.e.*, 2023 – 2027). The Program proposes estimated investment of $209 million in electric infrastructure over this period. The Program investment will be spread across the following project categories: (1) underground rebuild and rehabilitation; (2) selective undergrounding; (3) enhanced overhead storm hardening; and (4) substation and 138kV line projects.

In order to recover the costs associated with the Program, the Company is requesting Board approval of an Infrastructure Investment Program Surcharge ("IIP Surcharge"). The IIP Surcharge will be a non-bypassable charge that is set annually based on the Company's revenue requirement associated with the Program, adjusted for any prior period over- or under-recoveries including interest, and a forecast of the Company's kWh deliveries to customers for each annual period. The resulting rate in cents per kWh will then be increased to reflect Sales and Use Tax ("SUT").

Interest, calculated as determined by the Board in its Order dated October 21, 2008 in Docket Number ER08060455, will be included in the deferred balance for both an over-collection and for an under-collection.

The initial IIP Surcharge will be set at 0.0000 cents per kWh. The Company has proposed to make its first IIP Surcharge filing on or before November 1, 2023 that includes an IIP Surcharge of 0.0343 cents per kWh, including SUT, effective April 1, 2024. On every November 1 thereafter, the Company shall make its annual filing with the Board for the IIP Surcharge to be effective commencing the following April 1. The annual filings will provide for: (1) recovery of the Program revenue requirement for the annual period; and (2) recovery of any over- or under-recovered balances, including interest.

The effect of the forecasted IIP Surcharges on typical residential electric bills, if approved by the Board, is illustrated below:

Residential Bills – Typical Average Monthly Bill – Rate Effective 4/1/2024 (Including SUT)				
Based on Proposed IIP Surcharge of 0.0343 cents per kWh				
			Increase	
	Present Charges	Proposed Charges	Amount	Percent
	(1)	(2)		
650 kWh average monthly use	$110.13	$110.35	$0.22	0.20
925 kWh average monthly use	159.61	159.93	0.32	0.20
1,500 kWh average monthly use	262.87	263.38	0.51	0.20

Residential Bills – Typical Average Monthly Bill – Rate Effective 4/1/2025 (Including SUT)				
Based on Proposed IIP Surcharge of 0.1098 cents per kWh				
			Increase	
	Prior Pd Charges	Proposed Charges	Amount	Percent
	(3)	(2)		
650 kWh average monthly use	$110.35	$110.84	$0.49	0.40
925 kWh average monthly use	159.93	160.63	0.70	0.40
1,500 kWh average monthly use	263.38	264.51	1.13	0.40

Residential Bills – Typical Average Monthly Bill – Rate Effective 4/1/2026 (Including SUT)				
Based on Proposed IIP Surcharge of 0.2174 cents per kWh				
			Increase	
	Prior Pd Charges	Proposed Charges	Amount	Percent
	(3)	(2)		
650 kWh average monthly use	$110.84	$111.54	$0.70	0.60
925 kWh average monthly use	160.63	161.63	1.00	0.60
1,500 kWh average monthly use	264.51	266.12	1.61	0.60

Residential Bills – Typical Average Monthly Bill – Rate Effective 4/1/2027 (Including SUT)				
Based on Proposed IIP Surcharge of 0.3598 cents per kWh				
			Increase	
	Prior Pd Charges	Proposed Charges	Amount	Percent
	(3)	(2)		
650 kWh average monthly use	$111.54	$112.47	$0.93	0.80
925 kWh average monthly use	161.63	162.95	1.32	0.80
1,500 kWh average monthly use	266.12	268.26	2.14	0.80

Residential Bills – Typical Average Monthly Bill – Rate Effective 4/1/2028 (Including SUT)				
Based on Proposed IIP Surcharge of 1.2661 cents per kWh				
			Increase	
	Prior Pd Charges	Proposed Charges	Amount	Percent
	(3)	(2)		
650 kWh average monthly use	$112.47	$118.36	$5.89	5.20
925 kWh average monthly use	162.95	171.33	8.38	5.10
1,500 kWh average monthly use	268.26	281.85	13.59	5.10

(1) Based upon Basic Generation Service Fixed Pricing (BGS-RSCP) and Delivery Rates in effect March 1, 2022 and assumes that the customer receives BGS-RSCP service from RECO.
(2) Includes the increase in the IIP Surcharge.
(3) Prior Pd Charges references the bill that will be in effect prior to the application of the revised IIP Surcharge.

If the IIP Surcharge is approved, the average residential customer using 808 kilowatt hours per summer month, and 7,800 kilowatt hours on an annual basis, would see an increase in their annual bill from $1,321.56 to $1,1324.20, or 0.2% based on the IIP Surcharge that would become effective April 1, 2024. Over the course of the Program, such typical residential customer will see an average increase of 1.5% per year. The percentage change applicable to specific customers will vary according to the applicable service classification and the level of the customer's usage.

The Board has the statutory authority pursuant to N.J.S.A. 48:2-21 to approve the budget for these programs at levels it finds just and reasonable. Therefore, the Board may establish a budget at levels other than those proposed by RECO.

The Company's Program filing is posted on the Company's website at TBD

Please Take Further Notice that due to the COVID-19 pandemic, virtual public hearings have been scheduled on the following date and time(s) as noted below so that members of the public may present their views on the Program filing:

Date: MM DD YYYY
Times: 4:30 PM and 5:30 PM

Join by meeting number via WebEx:
Go To www.webex.com and choose "Join a Meeting" at the top of the web page.
When prompted, use Meeting number XXX XXX XXXX to access the meeting

-or-

Join by phone:
Dial (866) 499-4146 (United States Toll Free)

When prompted, use meeting number XXX XXX XXXX to access the meeting. If prompted to provide an attendee ID, you may choose the option in the prompts to allow you to skip this step.

Representatives of the Company, Board Staff and the New Jersey Division of Rate Counsel will participate in the virtual public hearings. Members of the public are invited to participate by utilizing the link or the Dial-In Number set forth above and may express their views on this Petition. All comments will be made part of the final record of the proceeding and will be considered by the Board. In order to encourage full participation in this opportunity for public comment, please submit any requests for needed accommodations, such as interpreters, listening assistance, 48 hours prior to the above hearings to the Board Secretary at board.secretary@bpu.nj.gov.

The Board will also accept written and/or electronic comments. While all comments will be given equal consideration and will be made part of the final record of this proceeding, the preferred method of transmittal is via the Board's Public Document Search tool. Search for the docket number listed above, and post by utilizing the "Post Comments" button. Emailed comments may also be filed with the Secretary of the Board, in pdf or Word format, to board.secretary@bpu.nj.gov.

Written comments may be submitted to the Board Secretary at the Board of Public Utilities, 44 South Clinton Avenue, 1st Floor, P.O. Box 350, Trenton, New Jersey 08625-0350. All emailed or mailed comments should include the name of the Petition and the docket number.

All comments are considered "public documents" for purposes of the State's Open Public Records Act. Commenters may identify information that they seek to keep confidential by submitting them in accordance with the confidentiality procedures set forth in N.J.A.C. 14:1-12.3.

ROCKLAND ELECTRIC COMPANY

ROCKLAND ELECTRIC COMPANY
DIRECT TESTIMONY OF
OPERATIONS AND ENGINEERING PANEL

NJBPU Docket No. _____

Introduction

Q. Would the members of the Operations and Engineering Panel ("Panel") please state their names and business addresses?

A. **(Coffey)** John F. Coffey, 390 West Route 59, Spring Valley, New York, 10977.

(Banker) Wayne A. Banker, 390 West Route 59, Spring Valley, New York 10977.

(Koza) James M. Koza, 390 West Route 59, Spring Valley, New York 10977.

Q. By whom are you employed and in what capacity?

A. **(Coffey)** I am employed by Orange and Rockland Utilities, Inc. ("Orange and Rockland"), the parent company of Rockland Electric Company ("RECO" or the "Company"), as Director of Electrical Engineering. I oversee the planning, engineering, and design for the electric delivery system from the bulk power system through to the customer, including all transmission, substation and distribution projects, advanced systems and technology related projects and programs, and system reliability and performance engineering.

(Banker) I am employed by Orange and Rockland as Chief Engineer of Distribution Engineering. I oversee the planning, engineering, and design for the distribution system and distribution projects, as well as all underground engineering projects, both transmission and distribution ("T&D"), that are included in the Company's capital improvement budget.

(Koza) I am employed by Orange and Rockland as Chief Engineer of Transmission and Substation Engineering. I oversee the planning, engineering, and design of transmission and substation projects included in the Company's capital improvement budget.

Q. Please briefly describe your educational and business experience.

A. **(Coffey)** I received a Bachelor of Science degree in Electrical Engineering from Manhattan College in 1988. I am a licensed Professional Engineer in the State of New York. I worked for one year at Burns and Roe Co. in Oradell, New Jersey as an Electrical Engineer prior to my arrival at Orange and Rockland in 1989. I have held various engineering positions involved in Substation, Relay, Supervisory Control, and Data Acquisition ("SCADA"), and Major Equipment engineering. I served as Chief Engineer of Transmission and Substation Engineering for ten years prior to assuming my present position and responsibilities.

(Banker) I received a Bachelor of Science degree in Electrical Engineering in 1991 from Clarkson University in Potsdam, New York and a Masters of Business Administration in 2000 from Iona College – Hagan School of Business, in New Rochelle, New York. I am a licensed Professional Engineer in the State of New York. I joined Orange and Rockland in 1990 and have held positions for Orange and Rockland as an underground Distribution and Transmission Engineer, as Divisional Field Engineer for the Electrical Operations Department, and my present position, which I assumed in 2005, as Chief Engineer of Distribution Engineering. This position oversees the planning, engineering, and design of underground transmission and distribution projects included in the capital improvement budget.

(Koza) I received a Bachelor of Electrical Engineering Degree in 1981 from Manhattan College. I am a licensed Professional Engineer in the States of New York, New Jersey and Pennsylvania. I began my employment with Orange and Rockland as an Associate Electrical Engineer in 1981 and have progressed to positions of greater responsibility since joining the Electrical Engineering Department.

Q. Have you previously submitted testimony to the New Jersey Board of Public Utilities ("Board")?

A. **(Coffey)** Yes. I previously submitted pre-filed testimony to the Board on a number of occasions, including in the Company's most recent base rate case.[1]

(Banker) Yes. I previously submitted pre-filed testimony in the 2021 RECO Rate Case, as well as in the Company's storm hardening proceeding, BPU Docket No. ER14030250.

(Koza) Yes. I previously submitted pre-filed testimony in the 2021 RECO Rate Case.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of our testimony is to:

- Introduce the Company's Infrastructure Investment Program ("Program") proposal;
- Demonstrate that the Company's proposed Program complies with all applicable rules and requirements for submitting an Infrastructure Investment Program ("IIP") as established by the Board, including a determination of and commitment to a baseline level of investment;
- Discuss the Company's budgeting and project selection process; and

[1] *I/M/O the Verified Petition of Rockland Electric Company for Approval of Changes in Electric Rates, Its Tariff for Electric Service, and Its Depreciation Rates; and for Other Relief*, Docket No. ER21050823, ("2021 RECO Rate Case"), Decision and Order Adopting Initial Decision and Stipulation of Settlement (dated December 15, 2021) ("2021 RECO Rate Order").

- Discuss the categories (types) of projects included in the Program, document cost estimates and project timing, discuss risks and alternatives, and outline and quantify customer benefits.

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes. We are sponsoring the following Exhibits, all of which were prepared by members of the Panel or under our direct supervision.

- **Exhibit 1**: Projected annual capital investment budgets for a five-year period, identified by major categories of investments;
- **Exhibit 2**: Actual annual capital investments for the previous five years, identified by major categories of investments;
- **Exhibit 3**: Engineering Evaluation with detailed project descriptions; and
- **Exhibit 4**: Categorization of similar projects supporting the 10% Baseline Investment Requirement.

Q. What is the total level of investment included in the Company's proposed Program and how is it categorized?

A. The Company is seeking the Board's approval of a five-year (2023 – 2027) Program that includes $209 million of investment across the following categories: (1) enhanced overhead storm hardening; (2) selective undergrounding; (3) underground rebuild and rehabilitation; and (4) Franklin Lakes substation and high voltage distribution line projects (collectively the "Franklin Lakes Projects"). Table 1 below outlines the timing of capital investment by category.

Table 1: IIP Project Categories ($000's)	2023	2024	2025	2026	2027	Total
Enhanced OH Storm Hardening	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	**$ 10,000**
Selective Undergrounding	$ 5,000	$ 10,000	$ 10,000	$ 10,000	$ 13,000	**$ 48,000**
Underground Rebuild and Rehabilitation	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	**$ 20,000**
Franklin Lakes - Substation	$ 1,000	$ 6,000	$ 10,000	$ 10,000	$ -	**$ 27,000**
Franklin Lakes - Underground Exit	$ 500	$ 3,500	$ 4,000	$ 4,000	$ -	**$ 12,000**
Franklin Lakes - High Voltage Distribution Line	$ 5,000	$ 15,000	$ 30,000	$ 29,000	$ 13,000	**$ 92,000**
Total Proposed IIP Capital Investment	**$ 17,500**	**$ 40,500**	**$ 60,000**	**$ 59,000**	**$ 32,000**	**$ 209,000**

Table 2 below outlines the timing of plant additions by category. Due to the unique nature of the proposed projects, especially the Franklin Lakes Projects, the Company does not anticipate that capital investments and project closings (additions) will be levelized over the Program's five-year term. While it will be necessary to begin and continue construction of the Franklin Lakes Projects throughout the five-year Program, the assets will not be placed into service until the final year of the Program.

Table 2: IIP Project Categories ($000's)	2023	2024	2025	2026	2027	Total
Enhanced OH Storm Hardening	$ 600	$ 2,200	$ 2,700	$ 2,200	$ 2,300	**$ 10,000**
Selective Undergrounding	$ 1,200	$ 5,400	$ 9,200	$ 15,900	$ 16,300	**$ 48,000**
Underground Rebuild and Rehabilitation	$ 4,000	$ 4,000	$ 4,000	$ 4,000	$ 4,000	**$ 20,000**
Franklin Lakes - Substation	$ -	$ -	$ -	$ -	$ 27,000	**$ 27,000**
Franklin Lakes - Underground Exit	$ -	$ -	$ -	$ -	$ 12,000	**$ 12,000**
Franklin Lakes - High Voltage Distribution Line	$ -	$ -	$ -	$ -	$ 92,000	**$ 92,000**
Total Proposed IIP Plant Additions	**$ 5,800**	**$ 11,600**	**$ 15,900**	**$ 22,100**	**$ 153,600**	**$ 209,000**

Background and Proposed Program Overview

Q. Please provide an overview of RECO.

A. RECO, a New Jersey corporation, is an electric only utility that provides electric transmission, distribution, and provider of last resort commodity service to approximately 73,000 customers in an area that extends from eastern Bergen County at the Hudson River to western Passaic County and small communities in Sussex County, New Jersey. Its service territory consists of the Eastern Division in northeastern and northwestern Bergen County ("Eastern Division"); a Central Division in northern Passaic County ("Central Division"); and a Western Division in northwestern Sussex County ("Western Division"). The Eastern Division is the largest part of RECO's service territory, covering

approximately 104 square miles and containing more than 59,000 customers who consume a peak load of approximately 434 MW, or about 89 percent of RECO's total peak load. The peak loads of the Central and Western Divisions represent only approximately 51 MW, or about 11 percent of RECO's total peak load. RECO is a New Jersey electric utility whose retail activities are regulated by the Board. RECO's parent, Orange and Rockland, serves more than 234,000 electric and 140,000 gas customers in all of Rockland County, most of Orange County, and part of Sullivan County, New York. Orange and Rockland's retail operations are regulated by the New York Public Service Commission. Orange and Rockland and RECO own no electric generating facilities. Orange and Rockland is a subsidiary of Consolidated Edison, Inc. ("CEI"), a New York corporation and exempt public utility holding company under Section 3(a)(1) of the Public Utilities Holding Company Act. CEI is also the parent of Orange and Rockland's affiliate, Consolidated Edison Company of New York, Inc.

Q. When was RECO's most recent base rate case, and what was the result?

A. RECO recently concluded the 2021 RECO Rate Case, in which the Board approved a settlement among RECO, Board Staff and the New Jersey Division of Rate Counsel ("Rate Counsel"). The electric rates the Board approved in the 2021 RECO Rate Order became effective on January 1, 2022.

Q. What is the Company proposing in this proceeding?

A. The Company is seeking the Board's approval of a five-year Program that includes $209 million of accelerated safety, reliability, and resiliency investments. As discussed in the direct testimony of the Company's Accounting and Rate Panel, the overall impact on customers' rates is expected to average 1.5% per year over the five-year period while

providing customers with significant benefits related to reliability and resiliency. With the expectation that major storms will increase in both severity and frequency due to climate change, the Program includes programs and projects that are designed to improve, directly or indirectly, the performance and resiliency of overhead segments most vulnerable to damage from severe weather. The proposed Program will also increase capacity to improve system performance during contingencies and improve reliability and safety through the replacement or rehabilitation of aging cable systems.

Q. Please discuss the anticipated customer benefits that you have identified in more detail.

A. The Company's Enhanced Overhead Storm Hardening Program will increase reliability and resiliency by installing spacer cable systems that will make the most vulnerable segments of the overhead distribution system more resistant to tree contacts. Similarly, the Company's Selective Undergrounding program will improve reliability and resiliency by undergrounding selected segments of overhead circuits severely impacted by past storms and insulating them entirely from direct tree contacts. In addition, these projects will eliminate certain double circuit configurations, decreasing the number of customers impacted by repairs on these segments. Similarly, the Company's prior selective undergrounding and overhead storm hardening projects have been directly responsible for avoiding outages, particularly during Tropical Storm Isaias. The Underground Rebuild and Rehabilitation Program will improve service reliability, safety, and provide avoided customer outages on the underground distribution system by replacing/rehabilitating aging cable systems. Finally, the Franklin Lakes Projects will increase redundancy at the Franklin Lakes Substation to 100 percent while also relieving load on adjacent substations, improving performance during contingencies and deferring the need for

future infrastructure investment. Overall, the Company projects that the Program will improve reliability and resiliency for approximately 50,000 customers and add redundancy in order to decrease outages during contingency conditions resulting from major storms. We discuss and quantify the projected customer benefits specific to each category of proposed projects later in our testimony and throughout Exhibit 3.

Q. Why is the Company proposing the Program now?

A. The Company has identified $209 million of future infrastructure projects that will be critical in increasing the safety, reliability and resiliency of its distribution system to the benefit of customers and which are eligible for recovery under the IIP rules established by the Board. The Board established the IIP framework to allow petitioning utilities the opportunity to recover the costs of critical investments in an expedited fashion when compared to general rate cases. Although Program investments are recovered on a historic basis (*i.e.*, after they are in service) like investments recovered through the general rate case process, the Program recovery mechanism significantly reduces regulatory lag by comparison (because it eliminates the lag between case filings and the extensive time to complete a proceeding). The IIP Rules (N.J.A.C. 14:3-2A.1(b)) also allow for the Company to undertake such investment in a "systematic and sustained way" over the Program period to advance the installation of utility infrastructure.

Q. Please discuss the concept of regulatory lag in the utility ratemaking context.

A. Simply stated, regulatory lag occurs when the utility's cost of providing service is not aligned with the rates being collected from customers in the same period. Regulatory lag occurs most often when investments are recovered on a historic basis (utilizing an historic test year), as compared with a forecasted basis. Regulatory lag results in the

permanent loss of prudently incurred costs (most notably return on and return of investment) and is usually a key reason that a utility fails to earn its authorized return on equity ("ROE"). Finding ways to minimize or eliminate regulatory lag is therefore critical to a utility's ability to earn its authorized ROE and to aligning the rates customers pay for utility service with the cost of providing that service.

Q. How does the Program recovery mechanism facilitate the reduction of regulatory lag?

A. It is impractical for a utility to file general rate cases on an annual basis. The Board's IIP Rules allow for a utility's annual or semi-annual recovery of approved investments. As discussed in the direct testimony of the Accounting and Rate Panel, the Company is proposing to file Program cost recovery filings annually.

IIP Filing Requirements

Q. Do the projects in the Company's proposed Program comply with the requirements outlined in N.J.A.C. 14:3-2A.1, 14:3-2A.2, 14:3-2A.3, and 14:3-2A.5?

A. Yes. The following testimony documents the Company's compliance with these IIP Rules in turn as they pertain specifically to the capital budgets, projects, baseline spending levels, and minimum filing and reporting requirements sponsored by the Panel.

Project Eligibility

Q. Do the Program projects proposed by the Company satisfy the project criteria set forth in N.J.A.C. 14:3-2A.2(a) and reflected in N.J.A.C. 14:3-2A.1?

A. Yes. N.J.A.C. 14:3-2A.2(a) requires that the projects within an IIP shall be:

1. Related to safety, reliability, and/or resiliency;
2. Non-revenue producing;
3. Specifically identified by the utility within its petition in support of an IIP; and

4. Approved by the Board for inclusion in an IIP, in response to the utility's petition.

Similarly, N.J.A.C. 14:3-2A.1 notes that the IIP Rules allow utilities to accelerate investments in the construction, installation and rehabilitation of utility plant and facilities that enhance safety, reliability and/or resiliency. The projects proposed by the Company, as documented below and in Exhibit 3, satisfy items 1 through 3 of N.J.A.C. 14:3-2A.2(a). Only those projects approved by the Board will be included in the Company's future Program recovery filings, in satisfaction of item 4. Further, all of the programs/projects included in the Program represent accelerated investment versus the ordinary course, as discussed below and consistent with N.J.A.C. 14:3-2A.1.

Baseline Spending

Q. Do the projects proposed by the Company satisfy the two baseline spending commitments required by the IIP Rules?

A. Yes. The two components of baseline spending levels are set forth in N.J.A.C. 14:3-2A.3 and 14:3-2A.2(c). N.J.A.C. 14:3-2A.3 requires the Company to define and maintain baseline spending and continue to recover the revenue requirement associated with baseline investment though the traditional base rate case process. In addition, N.J.A.C. 14:3-2A.2(c), requires the Company to demonstrate that it plans to include capital investments amounting to at least ten percent of approved levels on projects "similar" to those proposed within the Program. By establishing these two requirements, the Board encourages accelerated investment for needed infrastructure over and above a petitioning utility's normal course of business.

Q. How has the Company established baseline spending levels as required by N.J.A.C. 14:3-2A.3?

A. The Company proposes to define baseline spending levels using a combination of historical investment levels and its five-year planning forecast. The Company's most recently completed five-year planning cycle developed the five-year plan for 2022 – 2026. While the Company's annual five-year planning process is not yet complete for 2023 – 2027, we do not anticipate any significant changes except as discussed below.

Q. What were the Company's actual annual capital investments and plant additions for the previous five years (2017 – 2021)?

A. Please see Exhibit 2. The Company's actual average capital investments and actual average plant additions were $22.9 million per year for the five-year period 2017 – 2021.

Q. Is it appropriate to normalize the Company's actual historic spending levels for any reason?

A. Yes. The Company undertook an initiative to install advanced metering infrastructure ("AMI") from 2018 to 2019 and invested a total of $13.6 million to implement its AMI program. Therefore, due to the Company's AMI program, historical spending levels are elevated when compared to the 2022 – 2026 forecast. In order to define an appropriate level of baseline spending, it is necessary to make an adjustment for the Company's AMI investments and normalize historic spending. Adjusting for those investments, the Company's average level of historical investment was $20.2 million per year and is more consistent with its baseline plan for 2022 - 2026.

Q. What are the Company's annual projected capital investments for 2022 - 2026?

A. Please see Exhibit 1. The Company's projected investment (not including the investment proposed in this IIP Petition) for the five-year period 2022 – 2026 is $20.9 million per year.

Q. Are any adjustments to the Company's most recent five-year plan necessary in order to define baseline investment?

A. No. However, at the time the Company developed its current five-year, it included some funding for the commencement of the Franklin Lakes Projects. With this instant IIP Petition, the Company is proposing to accelerate the timing of the Franklin Lakes Projects and complete them by 2027, which is possible with accelerated cost recovery via the Program recovery mechanism. If funding for the Franklin Lakes Projects is approved as filed, the Company will replace the planned investment for the Franklin Lakes Projects in its existing five-year plan with similar baseline projects and thus keep the total amount of investments in the five-year plan intact.

Q. What is the resulting level of baseline investment that the Panel is proposing to satisfy N.J.A.C. 14:3-2A.3?

A. As shown in Table 3 below, average adjusted (normalized) historic and planned investment for the period 2017 – 2027 is $20.4 million for both capital investments and plant additions. Furthermore, the average of actual adjusted historic investment does not vary greatly from the Company's planned baseline investment. Based on this analysis, the Company proposes an average baseline level of investment consistent with N.J.A.C. 14:3-2A.3 of $20.5 million per year. Given the periodic fluctuation of baseline spending due to various factors (including factors beyond the control of the Company, like the COVID-19 pandemic and supply chain issues), the baseline will be aspirational on an annual basis, with a requirement that the average baseline is met over the course of the five-year Program period.

Table 3			
Annual Average (normalized, $000's)	**2017 - 2021**	**2022 - 2026**	**2017 - 2027**
Capital Expenditures	$ 20,160	$ 20,879	$ 20,377
Plant Additions	$ 20,189	$ 20,879	$ 20,390
Proposed Average Baseline Investment Level			**$ 20,500**

Q. Does the Company's five-year baseline budget include projects that allow the Company to comply with N.J.A.C. 14:3-2A.2(c) ("the 10% rule")?

A. Yes. Because the Company's proposed Program includes $209 million of investment, the Company must demonstrate that it has at least $20.9 million of projects that are similar to those proposed for Program recovery, in order to comply with N.J.A.C. 14:3-2A.2(c). The Company has identified $25.9 million of capital investments it can make on projects that are similar to those included in the Program. Details can be found on Exhibit 4.

Minimum Filing and Reporting Requirements

Q. Does the Company's proposal satisfy the minimum filing and reporting requirements set forth in N.J.A.C. 14:3-2A.5(b)?

A. Yes. Items 1-8 of N.J.A.C. 14:3-2A.5(b) are satisfied as follows:

1. Projected annual capital investment budgets for a five-year period, identified by major categories of investments. Please see Exhibit 1.
2. Actual annual capital investments for the previous five years, identified by major categories of investments. Please see Exhibit 2.
3. An engineering evaluation and report identifying the specific projects to be included in the proposed IIP, with descriptions of project objectives-including the specific expected resilience benefits, detailed cost estimates, in service dates, and any applicable cost-benefit analysis for each project. Please see Exhibit 3.

4. An IIP budget setting forth annual budget investments. Please see Tables 1 and 2 above and Exhibit 3.

5. A proposal addressing when the utility intends to file its next base rate case, consistent with N.J.A.C. 14:3-2A.6(f). If its Program commences on January 1, 2023, as proposed, the Company plans to file its next general rate case by no later than January 1, 2028.

6. Proposed annual baseline spending levels, consistent with N.J.A.C. 14:3-2A.3(a) and (b). Please see Exhibits 1 and 2 and Table 3 (above).

7. The maximum dollar amount, in aggregate, the utility seeks to recover through the IIP. The maximum dollar amount, in aggregate, the utility seeks to recover through the Program is $209 million of capital investment.

8. The estimated rate impact of the proposed Infrastructure Investment Program on customers. Please see the direct testimony of the Company's Accounting and Rate Panel.

Budgeting and Project Selection Process

Q. Does the Company have a robust electric delivery system planning process that effectively evaluates its system growth and capacity requirements?

A. Yes.

Q. Please describe the purpose of the Company's electric delivery system planning process.

A. The purpose of the Company's electric delivery system planning process is to maintain and enhance the safety and reliability of the Company's T&D system while maintaining system performance within defined and acceptable design and operating risk tolerances.

Q. What are the primary deliverables and high-level steps of the Company's planning process?

A. The Company's planning process evaluates the electric delivery system over a specified future forecast period and identifies system needs and solutions. Each year, the Company produces a ten-year detailed weather-adjusted forecast at the system, substation bank, and circuit levels. This forecast includes the impact of base load growth, new business projects, and several load modifiers (such as electric vehicles, Demand Response ("DR"), Energy Efficiency ("EE"), solar photovoltaic ("PV"), and batteries). The Company then conducts operating reviews of its assets through that forecast period and applies its design standards and risk-assessment methodology to the results to identify current and future operating risks and potential corrective solutions. The Company also investigates if major capital infrastructure investments can be substantially deferred, reprioritized, or even eliminated by alternative and less costly traditional infrastructure investments, targeted non-traditional measures and alternative solutions, such as Distributed Energy Resources ("DER"), Distributed Generation ("DG"), DR, EE, or a combination thereof. Alternative traditional solutions could include: (1) constructing lower cost distribution projects to defer major upgrades or new construction, (2) using new technologies and/or distribution automation ("DA")/smart grid asset deployment for improved asset utilization, and (3) reprioritizing and accelerating the construction of lower cost distribution and substation investments. The Company also reassesses previously identified needs and project solutions that have not yet been initiated to confirm the need(s) and timing of the solution(s). As part of this reassessment, the Company reviews available data such as: updated load forecasts, load modifier forecasts (which include DERs), asset condition,

system reliability, and the system's load serving capability under normal and specific contingency conditions.

Q. When did the Company most recently complete its planning process?

A. In the spring of 2021.

Q. Please describe the role the Company's design standards play in the T&D system planning process.

A. The Company's electric system planning design standards provide guidance in assessing operating risk, identifying system needs, and prioritizing electrical infrastructure projects. The design standards balance the costs of infrastructure investment against the benefits of mitigating the risk of significant outage events as defined by the magnitude of the outage and duration of the event. The electric design standards provide criteria to evaluate whether electric facilities are, or will be, operating outside of acceptable tolerances for equipment loading, operating parameters, and customer outage exposure. For the Company, acceptability is measured by meeting Company criteria for both the amount of load or number of customers impacted, and the reliability impact based on anticipated customer hours of outage duration. These standards are foundational to the capital planning process, and critical for both short-term and long-term planning, as they provide a process by which future risk mitigation investments are identified and prioritized.

Q. Does RECO have a formalized process to prioritize its major projects?

A. Yes. The Company employs a two-step process for prioritizing major projects in its overall electric capital investment plan. The first step is a prioritization conducted by the Electrical Engineering organization within the planning process. The second step is a

prioritization against other Company projects through a corporate-wide optimization process and methodology.

In the first step, Electrical Engineering prioritizes projects based on key drivers that include load, existing condition toward satisfying design standards, condition of equipment, relationship with respect to sequential project needs, reliability, customer needs, and construction window availability. Electrical Engineering also considers other factors, such as operating conditions, safety, system losses, improving DER hosting capacity, and voltage improvements. Projects that provide the most value and risk reduction are prioritized relative to other projects for the entire forecasted planning period. These results are used in the development of the Company's five–year budget.

In the second step, the Company considers and prioritizes the overall capital budget for a one-year future-looking forecast period. The Company then analyzes its corporate portfolio using its strategic alignment optimization methodology and process. During this optimization process capital projects seeking funds for the upcoming budget year are ranked after they are reviewed using a series of key drivers. Projects are ranked relative to each other based on their attributes with consideration towards the following objectives (in no particular order):

- Improve Public and Employee Safety;
- Reduce Cost to Customers;
- Provide Reliable Service;
- Improve Customer Experience;
- Enhance External Relationships;
- Reduce and Manage Risk;
- Strengthen and Develop Employees;
- Strengthen Company Processes; and

- Sustain Environmental Excellence.

The initial project portfolio prioritization is determined by a team comprised of department managers and directors from all areas of the Company. This team reviews the overall capital portfolio and makes any necessary adjustments. The O&R Capital Governance Committee then approves a final project portfolio.

Q. Was this process used to identify the critical system needs that resulted in the Company's decision to seek to accelerate certain projects pursuant to the instant IIP Petition?

A. Yes. The Company's planning process helped identify the needs of the Company's distribution system that merited an accelerated timeframe. The IIP framework and its associated recovery mechanism will enable the Company to make critically needed investments while minimizing the impact of regulatory lag.

Projects Included in the Proposed Program

Q. What categories of projects are included in the Company's proposed Program?

A. The Company is seeking approval of a Program that includes $209 million of investment across the following categories: (1) enhanced overhead storm hardening, (2) selective undergrounding, (3) underground rebuild and rehabilitation, and (4) the Franklin Lakes Projects. Each is described in more detail below. Within each category of projects, we will (1) describe the nature of the projects, (2) document cost estimates and project timing, (3) discuss risks and alternatives, and (4) outline and quantify customer benefits.

Enhanced Overhead Storm Hardening

Q. Please describe the Company's proposed Enhanced Overhead Storm Hardening Program.

A. RECO's Enhanced Overhead Storm Hardening Program consists of eight accelerated projects, identified in the table below, to improve the reliability and resiliency of the

Company's overhead distribution system. These projects primarily focus on replacing existing open wire (477aac) primary cable with Hendrix Spacer Cable construction. The Hendrix Spacer Cable is a pre-engineered electrical distribution system designed for high reliability, tree contact resistant, and compact design to reduce tree trimming clearances. The conductors are covered with two layers of polymer designed to allow intermittent tree contacts without causing an outage or nuisance tripping. The conductors are supported by a high strength messenger cable which provides mechanical support, a system neutral, and acts as a shield wire against lightning. As appropriate these projects will also include the replacement of aging poles and the addition of switching devices to assist with isolating faults.

Q. What benefits are provided by this program?

A. The Enhanced Overhead Storm Hardening Program will provide storm hardening benefits to the area by installing spacer cable construction that makes the overhead distribution system more resistant to tree contacts. For example, during Tropical Storm Isaias, in one area that is heavily tree covered and was prone to tree contact outages during weather events the Company had recently completed a similar spacer cable construction, and the segment remained energized throughout the storm and sustained no damage. With the expectation that major storms will increase in both severity and frequency because of climate change, the need for resiliency from tree contacts will increase accordingly. For projects that require the replacement of aging poles, the system is further hardened. Examining outages from 2017-2021, if these proposed projects had been completed previously, the Company calculates that approximately 30 outages and 2.2 million customer minutes of interruption would likely have been avoided. In

addition, the motor-operated air-breaker ("MOAB") switching devices installed as part of this program facilitate the isolation of faults and reduce the number of customers impacted by a given outage. The Company estimates that investments in this type of distribution automation avoided 17,200 customer outages and 268 truck rolls during Tropical Storm Isaias. In total this program will replace approximately ten miles of overhead distribution circuit with spacer cable system and improve reliability and resiliency for approximately 18,000 customers at a cost of $552 per customer.

Q. How are locations for this program selected and prioritized?

A. RECO has identified candidates for Enhanced Overhead Storm Hardening by examining the Company's worst performing circuits while taking into account areas that have experienced multiple outages due to weather, tree contact, and animal contact in the past. The worst performing circuit data is one of the factors when selecting/identifying projects, but several additional factors must be considered when identifying storm hardening work. These additional factors include the following:

- Historical storm performance data (segment and circuit level);
- Critical customers (hospitals, EMS, schools, heating/cooling centers);
- Locations of critical infrastructure (water, sewer, telecom);
- Locations counties/municipalities deemed critical;
- Other planned investments (opportunities to reduce overall cost by combining storm hardening projects with other planned area improvements); and
- Areas with aging equipment and/or non-standard construction.

<u>Enhanced Overhead Storm Hardening Projects</u>

Ranking	IIP Additions	Feet	Est. Cost ($000)	2023	2024	2025	2026	2027	Customers Benefiting	Tie Circuit Customers
1	Oakland - 36-2-13 High Mountain Road	8,500	$1,700	$1,400	$300				915	1,004
2	Oakland - Long Hill Road	2,700	$500		$500				589	1,163
3	Franklin Lakes - Ewing Ave	6,100	$1,200			$1,200			1,240	2,067
4	West Milford - Awosting Rd (Part 1)	9,000	$1,500		$1,200	$300			1,176	1,963
5	Harings Corner 30-4-13 - Old Tappan Rd	2,800	$600	$600					1,017	1,106
6	West Milford - Awosting Rd (Part 2)	9,000	$1,500				$300	$1,200	1,176	1,963
7	West Milford - Union Valley Rd	11,700	$2,200			$500	$1,700		1,902	0
8	Saddle River - East Allendale Ave	4200	$800					$800	822	0
	TOTALS	**54,000**	**$10,000**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**$2,000**	**8,837**	**9,266**

Q. Are the above projects included in the Company's current capital budget for the specified periods?

A. No, they are not. They have been selected for acceleration as part of the Program. They are incremental to the Company's work in the normal course.

Selective Undergrounding

Q. Please describe the Company's proposed Selective Undergrounding Program.

A. RECO's Selective Undergrounding Program consists of 18 planned projects, identified in the table below, to underground portions of the Company's overhead distribution system. Sixteen of these projects involve the elimination of double circuit construction by relocating one circuit underground. Double circuit overhead construction involves the installation of two distribution circuits on a common pole line. Because the circuits share common structures, there is a risk that a single contingency (*e.g.*, tree, motor vehicle accident) will result in the loss of both circuits. For example, if a tree contact damages one circuit during a storm, then typically both circuits need to be de-energized and grounded to complete repairs, even when the second circuit is not damaged. This risk is further amplified during storms when multiple circuits may already be affected. This results in limited tie capacity, inhibiting the ability to restore customers through switching. Since Superstorm Sandy, the Company's new substation designs eliminate

double circuit construction by running longer underground substation exits to a point of overhead path diversity.

The two undergrounding projects that do not involve the elimination of double circuit construction (1) establish a new underground circuit (*i.e.*, the Ringwood – 78-2-13 – Sloatsburg Rd & Kendall project) and (2) underground an existing overhead segment (*i.e.*, the West Milford – 79-6-13 – Warwick Turnpike project). In both cases, these are areas that have had challenges to reliability associated with both small and large-scale storms, motor vehicle accidents, and equipment failure.

Q. What benefits are provided by this program?

A. With the expectation that major storms will increase in both severity and frequency because of climate change, the Selective Undergrounding Program includes projects that are designed to improve, directly or indirectly, the performance and resiliency of overhead segments most vulnerable to damage from severe weather. For example, during Tropical Storm Isaias, in one such area where the Company had recently completed a similar undergrounding project, two remaining overhead feeders suffered extended outages due to tree contact while the new corresponding underground feeder remained in service for the duration of the event. These projects target areas of the circuits (segments) that have been severely impacted by past storms (despite standard tree trimming techniques). Several of these projects are located in densely populated areas with a number of critical sites identified that include schools, radio towers, Emergency Medical Services ("EMS"), nursing homes, municipal buildings, cooling/heating centers, and supermarkets. In addition to avoiding some storm-related outages entirely, the Selective Undergrounding Program will improve the Company's major event restoration

performance on a system-wide and local basis through the minimization of long-duration, low customer impacted outages, freeing restoration crews to address other outages. Further, some projects make available additional capacity for contingency purposes. Examining outages from 2017-2021, if these proposed undergrounding projects had been completed previously, then approximately 60 outages and 10 million customer minutes of interruption would likely have been avoided. The Selective Undergrounding Program represents an opportunity to improve the reliability and resiliency of the distribution system at a cost per customer of $1,497, which is significantly lower than other similar programs across the country. In total the program will underground approximately 16 miles of distribution circuit and improve reliability and resiliency for approximately 32,000 customers.

Q. How does the Company select and prioritize program locations?

A. The Company utilizes many factors when identifying potential selective undergrounding projects, and these factors are used in prioritizing the projects. One factor that the Company utilizes is the worst performing circuit data. This looks at the past history of this circuit and ranks this performance against all distribution circuits in the RECO service territory. The worst performing circuit data is one of the factors when selecting/identifying projects, but the Company considers several additional factors when identifying storm hardening work. These additional factors include the following:

- Historical storm performance data (segment and circuit level);
- Critical customers (hospitals, EMS, schools, heating/cooling centers);
- Locations of critical infrastructure (water, sewer, telecom);
- Locations counties/municipalities deemed critical;

- Other planned investments (opportunities to reduce overall cost by combining storm hardening projects with other planned area improvements); and
- Areas with aging equipment and/or non-standard construction.

In addition, segments with double circuit construction represent an ideal opportunity for undergrounding. Because the segments proposed to be placed underground are express segments, meaning there are few if any customers connected directly to the segments, undergrounding costs are reduced due to the fact that switches, transformers, secondaries, and other distribution equipment are not required to be included as part of the underground construction.

Selective Undergrounding Projects

Ranking	IIP Additions	Feet	Est. Cost ($000)	2023	2024	2025	2026	2027	Customers Benefiting
1	Allendale – 39-8-13 – Martis Ave	2,100	$1,200	$1,200					1,928
2	West Milford – 79-6-13 – Warwick Tpke	4,200	$2,300	$1,300	$1,000				2,630
3	Darlington – 43-6-13 – Darlington Ave	5,500	$3,100	$1,600	$1,500				3,103
4	Closter – 28-2-13 – Livingston St	9,300	$5,400	$500	$3,900	$1,000			1,563
5	Franklin Lakes – 36-5-13 – Franklin Lakes Road	6,700	$3,800	$400	$2,400	$1,000			1,539
6	West Milford –- 79-1-13/79-2-13 – Greenwood Lake Tpke & Awosting	9,300	$5,600		$1,200	$3,200	$1,200		1,911
7	Ringwood – 78-2-13 – Sloatsburg Rd to KendalL	5,700	$3,200			$2,200	$1,000		1,451
8	Cresskill – 37-7-13 – Anderson Ave	5,700	$3,200			$1,800	$1,400		1,806
9	Closter – 28-9-13 – Herbert Ave & Homans Ave	4,900	$2,700			$500	$2,200		1,300
10	Oakland – 36-2-13 – Yawpo Drive	4,800	$2,600				$900	$1,700	2,289
11	Cresskill –37-5-13 – Piermont & County Rd	2,200	$1,200				$1,200		1,856
12	South Mahwah – 58-9-13 – W. Airmont Rd.	2,000	$1,300				$100	$1,200	1,243
13	Ringwood – 78-2-13 – Cupsaw Ave to Voorhis Pl	5,500	$3,100				$600	$2,500	1,446
14	Oakland – 36-7-13 – Paige Drive	600	$400					$400	1,569
15	Upper Saddle River Selective UG – 49-1-13 – West Saddle River Rd	750	$500					$500	1,976
16	Upper Saddle River – 49-2-13 – Lake St	8,300	$4,900			$300	$1,200	$3,400	1,792
17	Allendale – 39-3-13 – Franklin Tpke	1,600	$1,000					$1,000	2,089
18	Upper Saddle River – 49-4-13 – Pleasant Ave	4,500	$2,500				$200	$2,300	579
	TOTALS	**83,650**	**$48,000**	**$5,000**	**$10,000**	**$10,000**	**$10,000**	**$13,000**	**32,070**

Q. Are the above projects included in the Company's current capital budget for the specified periods?

A. No, they are not. They have been selected for acceleration as part of the Program. They are incremental to the Company's work in the normal course.

Underground Rebuild and Rehabilitation

Q. Please describe the Company's proposed Underground Rebuild and Rehabilitation Program.

A. The Underground Rebuild and Rehabilitation Program will replace or rejuvenate Underground Residential Development ("URD") subdivision's cable and their underground components with the intent of preventing customer interruptions and improving system reliability. The amount of cable to be addressed by this program will vary based on the prioritization of needs and if those projects involve rehabilitation or rebuild. Historically, the Company has completed rehabilitation at an average cost of $15 per foot and rebuild has been completed at an average of $95 per foot. The Company identifies and prioritizes potential candidates for rebuild/rehab based on outage statistics at an individual subdivision level. The selected projects for this program will be developed and reviewed on an annual basis to determine the worst performing subdivisions, so that work can be prioritized properly. The Company will provide details of each year's selected projects during the first quarter of each program year. Where possible, such as for subdivisions that have not had multiple cable failures, a less expensive rehabilitation process will be conducted to extend service life. Where rehabilitation is not possible, such as for subdivisions that have had multiple cable failures or have been rehabilitated in the past, the Company will rebuild the faulted sections of cable.

Q. What benefits are provided by this program?

A. The Underground Rebuild and Rehabilitation Program will lead to a reduction in cable failures and improve reliability for residential customers. This program will target subdivisions that are most vulnerable to cable failures and address those vulnerabilities in

the most efficient and cost-effective manner. Without rebuild or rehabilitation of these underground facilities, unplanned outages associated with failure of these cables will increase as they continue to age. Another benefit from the rehabilitation program is the field analysis of the condition of the grounding system associated with the existing underground cables. A faulty ground system could result in safety issues with the cable system. These will be addressed in this program and corrected as needed.

Q. Please explain how the Underground Rebuild and Rehabilitation Program reflects accelerated investment.

A. The capital investment for this program is significantly accelerated over the work the Company would conduct in the ordinary course. Indeed, as set forth in Exhibit 4, the Company would anticipate $750,000 per year in spending on similar projects. The Company's proposal to spend $4 million per year is a significant acceleration of additional projects.

Franklin Lakes Projects

Q. Please describe the Franklin Lakes Projects.

A. The Franklin Lakes Projects involve the construction of a new 138kV substation on the existing Franklin Lakes Substation property, as well as associated line upgrades. The Franklin Lakes Substation will be replaced with a new 138kV substation and the existing overhead 69kV lines feeding the station will be replaced with new 138kV underground lines from alternate sources. The proposed Franklin Lakes Substation will include two 50MVA 138/13.2kV distribution banks equipped with Load Tap Changers ("LTCs"), 3500 Amp busses, and 13.2kV switchgear with a total of ten distribution circuit positions.

The Franklin Lakes Substation currently has two 69/13.2kV transformers with nameplate ratings of 25MVA each and serves approximately 6,200 customers. Franklin Lakes has six distribution station exits, four are underground station exits and two are overhead station exits which do not comply with current design standards. The Franklin Lakes load area has distribution ties to Allendale, Darlington, and Oakland substations.

Two of the six existing Franklin Lakes 13.2kV distribution circuits currently fail the Company's Distribution Planning Criteria with less than 100 percent backup for an individual circuit contingency. Near-term load growth will result in increased limitations on contingency to adjacent stations and/or circuits and decreased reliability. The two existing transformer banks are also not equipped with LTCs for voltage control, which is not consistent with current design standard. Further, because the area has limited transmission feeds, the customers fed from Franklin Lakes and Oakland (combined 11,022 customers) rely on outside distribution ties for restoration. However, those customers currently only have 10% to 15% backup during a peak day, and the remaining customers can be restored only after the emergency repairs on the transmission lines has been completed, potentially resulting in extended outages. This was the case in August 2020 during Tropical Storm Isaias where a large tree falling resulted in two 69kV lines faulting. This event resulted in an outage for much of the municipalities of Franklin Lakes, Oakland, and Wyckoff that lasted for 22 hours.

Q. Earlier you referenced some spending for the Franklin Lakes Projects being projected for certain preliminary work. Please explain how the Franklin Lakes Projects constitute accelerated projects.

A. Given the significant size of the Franklin Lakes Projects and the long lead times required to complete them, the Company does plan to commence preliminary work on these projects as part of the five-year capital plan, even though planned completion dates for the Franklin Lakes Substation and Franklin Lakes High Voltage Distribution Lines are estimated to be 2029 and 2032 respectively. This work mostly includes activities such as engineering, design, and permitting. The capital investments related to the Franklin Lakes Projects in the current five-year budget amount to approximately $6.6 million of the total $131 million cost for the projects, and approximately $5.3 million of the capital investment is planned to take place in 2027.

Q. What benefits are provided by the Franklin Lakes Substation upgrade?

A. Upgrading the Franklin Lakes Substation will allow the station to pass planning criteria along with providing 100 percent redundancy. The two proposed 50 MVA transformer banks will increase station capacity and will maintain redundancy as the load levels and electrification in the area increases. During an outage, this will also decrease the dependency on distribution circuit ties from an adjacent station and will avoid a scenario that could result in large-scale extended outages such as the one during Tropical Storm Isaias discussed above. In addition to the substation transformer and distribution circuit upgrades at Franklin Lakes, preparing the station to operate at 138kV will position this station for a future 138kV loop. This will be beneficial in taking load off the 69kV load area and providing a robust 138kV loop for contingencies. The new Franklin Lakes Substation and related projects are considered “multi-value” projects as they also support the State of New Jersey’s Energy Master Plan. The projects will not only upgrade existing facilities to enhance reliability in the area but also will provide additional

capacity to support the delivery of energy from large-scale renewable generation and enable the safe and reliable integration of DERs on RECO's distribution system. These multi-value investments are positioned to provide maximum benefit to customers.

Q. What additional upgrades are proposed in conjunction with the Franklin Lakes Projects?

A. In order to further improve reliability and resiliency in Franklin Lakes and surrounding areas, the Company is proposing to (1) provide one new underground feed from the Allendale Substation to the Franklin Lakes Substation at 138kV, (2) provide one new underground feed from the Darlington Substation at 138kV to the new Franklin Lakes Substation, (3) upgrade the two existing underground feeds between the Franklin Lakes and Oakland Substations to 138kV, and (4) upgrade the existing Oakland Substation for operation at 138kV.

Q. Please describe why the 138kV line upgrades described above are not considered transmission and are appropriate to be included in an IIP.

A. The proposed 138kV line upgrades, and the current lines they would replace, are not considered transmission pursuant to the Federal Energy Regulatory Commission ("FERC") Seven-Factor Test. They are primarily radial in manner and serve the local distribution system.

Q. What benefits do these additional upgrades provide, in conjunction with the new Franklin Lakes Substation?

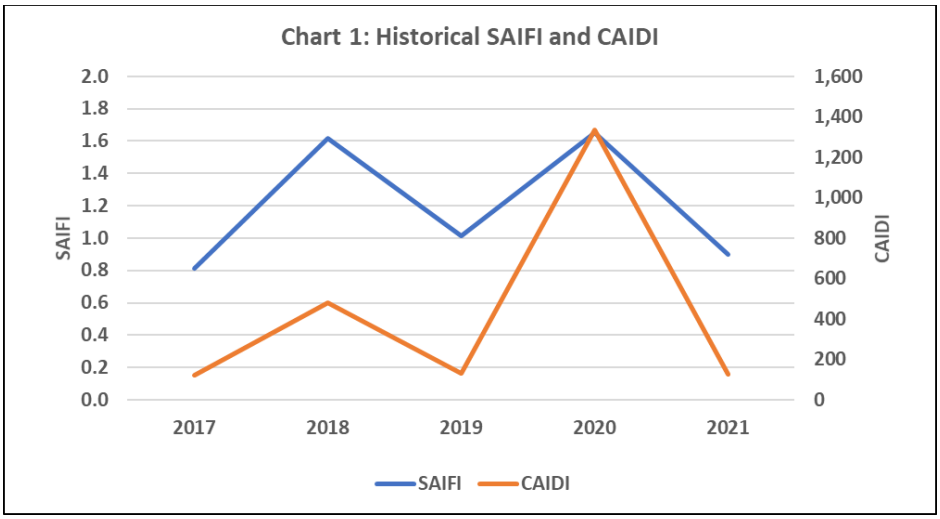
A. The additional transformer capacity and LTC controls at the new Franklin Lakes Substation will allow for the addition of three new distribution circuits to relieve the load on adjacent substations. These upgrades will enable load relief of approximately 12 MVA for the Allendale Substation, load relief of approximately 11 MVA for the

Darlington Substation, load relief of approximately 15MVA for the Oakland Substation. This, along with planned upgrades to the Allendale substation, will defer the need for the planned Wyckoff substation until additional capacity is needed to support beneficial electrification (beyond 2030). The Franklin Lakes area upgrades are scheduled to be in-service in 2027, and with their completion no other further substation upgrades will be needed at the Darlington, Oakland, and South Mahwah Substations within the ten-year forecast period.

Conclusion

Q. Has the Company's historical investment achieved a satisfactory level of reliability over the last five years?

A. Please see Chart 1 below. While the Company has performed admirably over the last five years on the key reliability metrics of System Average Interruption Frequency Index ("SAIFI") and Customer Average Interruption Duration Index ("CAIDI"), Chart 1 illustrates that the Company's reliability continues to be heavily impacted by major events (notably Winter Storms Riley and Quinn in 2018 and Tropical Storm Isaias in 2020). Significant weather events are expected to become more frequent and severe as a result of climate change. Approval and implementation of the Company's proposed Program will allow the Company to continue to improve overall reliability while becoming less sensitive to major events.



Q. Does this conclude your testimony?

A. Yes, it does.

ROCKLAND ELECTRIC COMPANY
DIRECT TESTIMONY OF
OPERATIONS AND ENGINEERING PANEL

NJBPU Docket No. _____

Exhibit 1: Projected Annual Capital Expenditure Budget

Additions

Category	2023	2024	2025	2026	2027
Distribution	$ 74,957	$ 898,393	$ 2,456,280	$ 6,454,207	$ 2,175,000
Transmission & Substation	6,352,358	41,142	44,038	1,132,944	5,309,400
Smart Grid	3,800,060	3,799,358	2,999,616	1,499,721	1,500,000
Electric Operations	10,896,212	10,632,808	10,582,733	11,717,014	9,969,000
Other	2,230,280	1,722,505	1,535,357	1,959,045	-
Total (Normalized)	**$ 23,353,868**	**$ 17,094,208**	**$ 17,618,024**	**$ 22,762,931**	**$ 18,953,400**

Capital Investments

Category	2023	2024	2025	2026	2027
Distribution	$ 74,957	$ 898,393	$ 2,456,280	$ 6,454,207	$ 2,175,000
Transmission & Substation	6,352,358	41,142	44,038	1,132,944	5,309,400
Smart Grid	3,800,060	3,799,358	2,999,616	1,499,721	1,500,000
Electric Operations	10,896,212	10,632,808	10,582,733	11,717,014	9,969,000
Other	2,230,280	1,722,505	1,535,357	1,959,045	-
Total (Normalized)	**$ 23,353,868**	**$ 17,094,208**	**$ 17,618,024**	**$ 22,762,931**	**$ 18,953,400**

ROCKLAND ELECTRIC COMPANY
DIRECT TESTIMONY OF
OPERATIONS AND ENGINEERING PANEL

NJBPU Docket No. _____

Exhibit 2: Actual Annual Capital Expenditures

Additions

Category	2017	2018	2019	2020	2021
Distribution	$ 3,328,539	$ 6,936,655	$ 292,411	$ 4,930,240	$ 4,919,817
Transmission & Substation	325,996	612,729	673,591	3,921,217	(47)
Smart Grid	3,180,889	4,037,735	3,769,449	2,576,927	6,480,129
Electric Operations	8,673,206	11,601,246	10,979,012	9,546,011	11,530,850
Other	669,405	7,996,864	6,916,917	388,533	211,375
Total	**$ 16,178,034**	**$ 31,185,229**	**$ 22,631,380**	**$ 21,362,927**	**$ 23,142,124**
AMI	-	7,762,479	5,486,900	237,267	66,599
Total (Normalized)	**$ 16,178,034**	**$ 23,422,750**	**$ 17,144,481**	**$ 21,125,661**	**$ 23,075,525**

Capital Investments

Category	2017	2018	2019	2020	2021
Distribution	$ 4,138,681	$ 2,589,128	$ 1,888,219	$ 7,249,218	$ 2,872,797
Transmission & Substation	647,454	669,973	527,816	2,146,920	16,521
Smart Grid	4,196,104	4,557,405	4,202,067	3,655,086	5,496,044
Electric Operations	11,689,291	11,517,628	10,628,208	9,544,007	10,641,841
Other	918,663	8,033,394	5,954,767	368,670	202,489
Total	**$ 21,590,192**	**$ 27,367,528**	**$ 23,201,077**	**$ 22,963,901**	**$ 19,229,692**
AMI	559,898	7,223,529	5,465,951	237,267	66,599
Total (Normalized)	**$ 21,030,294**	**$ 20,143,999**	**$ 17,735,126**	**$ 22,726,634**	**$ 19,163,093**

RECO NJ-IIP
2023-2027

1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Enhanced OH - Oakland- 35-7-13- Ewing Ave	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2025	**Estimated Date In Service: 2025**
A. Total Funding Request ($000) **Capital: $1,200.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

This is an enhanced overhead storm hardening project to replace existing open wire (477aac) primary with Hendrix Spacer Cable construction (main line) on Ewing Avenue (between Franklin Avenue and Franklin Lakes Road) in Franklin Lakes, NJ. This project will address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. The scope of this project requires replacement of 6,100 feet of existing 477aac three-phase distribution with mainline spacer cable construction (477AAC) and the installation of Class 2-50 ft poles between pole# 53725/36245 and pole#53843/36820. The area is served from Franklin Lakes Substation (ckt: 35-7-13) and serves 1,240 customers.

Hendrix Spacer Cable is a pre-engineered electrical distribution system designed for high reliability, tree contact resistance, and compact to reduce tree trimming clearances. The conductors are covered with two layers of polymer designed to allow intermittent tree contacts without causing an outage or nuisance tripping. The conductors are supported by a high strength messenger which provides mechanical support, a system neutral, and acts as a shield wire against lightning.

Justification Summary:

During storm events (*e.g.*, wind, lightning), mature trees in the area have damaged the area overhead distribution system, resulting in large-scale outages. The area has experienced multiple outages due to weather, tree and animal contact; this project will reduce future outages. The project will enhance overall resiliency and will have a positive impact on the reliability for local customers. Examining outages from 2017-2021, if this proposed storm hardening project had been completed previously, then two outages and approximately 9,000 customer minutes of interruption would likely have been avoided. In addition, the project will complement existing automation on the circuit and will enhance reliability in cases of major storm events.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

The project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, the project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company considered open wire construction (armless) , however, due to the size and amount of vegetation the Hendrix Spacer Cable system was the preferred design.

Alternative 2 description and reason for rejection
The Company did not consider underground construction due to the area being primarily overhead distribution with numerous customer connections. Undergrounding would require significant additional cost for the Company and customers.

Alternative 3 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system, which serves 1,240 customers, has extensive tree coverage and has been prone to multiple tree outages in the past. If no action is taken, during storm conditions, the probability exists that this circuit would be lost for any tree related outage, leaving these customers out of service until repairs are completed.

Non-Financial Benefits

The new Hendrix Spacer Cable overhead circuit will provide an enhanced overhead distribution system maintaining system reliability and providing additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $1.2 million.

4. Basis for estimate

Historical capital expenditures of similar Hendrix Spacer Cable overhead distribution projects.

5. Conclusion

This project should be performed to improve reliability and provide storm hardening benefits to customers in the Franklin Lakes area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis
Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital			$1,200.0		
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor			$432.0		
M&S			$288.0		
Contract Services			$120.0		
Other					
Overheads			$360.0		
Total			**$1,200.0**		

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Enhanced OH - Harings Corner- 30-4-13- Old Tappan Rd	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2023	**Estimated Date In Service: 2023**
A. Total Funding Request ($000) **Capital: $600.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

This is an enhanced overhead storm hardening project to replace existing open wire (477aac) primary with Hendrix Spacer Cable construction (main line) on Old Tappan Road (between Dewolf Road and Orangeburg Road) in Old Tappan, NJ. This project will address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. The scope of this project requires replacement of 2,800 feet of existing 477aac three-phase distribution with mainline spacer cable construction (477AAC) and the installation of Class 2-50 ft poles between pole# 60078/37187 and pole# 59835/37094. The project also includes the addition of multiple distribution automation devices that will assist with restoration and fault isolation. The area is served from Harings Corner Substation (ckt: 30-4-13) and serves 1,017 customers.

Hendrix Spacer Cable is a pre-engineered electrical distribution system designed for high reliability, tree contact resistance, and compact to reduce tree trimming clearances. The conductors are covered with two layers of polymer designed to allow intermittent tree contacts without causing an outage or nuisance tripping. The conductors are supported by a high strength messenger which provides mechanical support, a system neutral, and acts as a shield wire against lightning.

Justification Summary:

During storm events (*e.g.*, wind, lightning), mature trees in the area have damaged area overhead distribution system, resulting in large-scale outages. The area has experienced multiple outages due to weather, tree, and animal contact; this project will reduce future outages. The project will enhance overall resiliency and will have a positive impact on the reliability for local customers. Examining outages from 2017-2021, if this proposed storm hardening project had been completed previously, then three outages and approximately 98,000 customer minutes of interruption would likely have been avoided. In addition, the project will complement existing automation on the circuit and will enhance reliability in cases of major storm events.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

The project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, the project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company considered open wire construction (armless), however due to the size and amount of vegetation, the Hendrix Spacer cable system was the preferred design.

Alternative 2 description and reason for rejection
The Company did not consider underground construction due to the area being primarily overhead distribution with numerous customer connections. Undergrounding would require significant additional cost for the Company and customers.

Alternative 3 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system, which serves 1,017 customers, has extensive tree coverage and has been prone to multiple tree outages in the past. If no action is taken, during storm conditions, the probability exists that this circuit would be lost for any tree related outage, leaving these customers out of service until repairs are completed.

Non-Financial Benefits

The new Hendrix Spacer Cable overhead circuit will provide an enhanced overhead distribution system maintaining system reliability and providing additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $0.6 million.

4. Basis for estimate

Historical capital expenditures of similar Hendrix Spacer Cable overhead distribution projects.

5. Conclusion

This project should be performed to improve reliability and provide storm hardening benefits to customers in the Old Tappan area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital	$600.0				
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor	$216.0				
M&S	$144.0				
Contract Services	$60.0				
Other					
Overheads	$180.0				
Total	**$600.0**				

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

1. Project / Program Summary

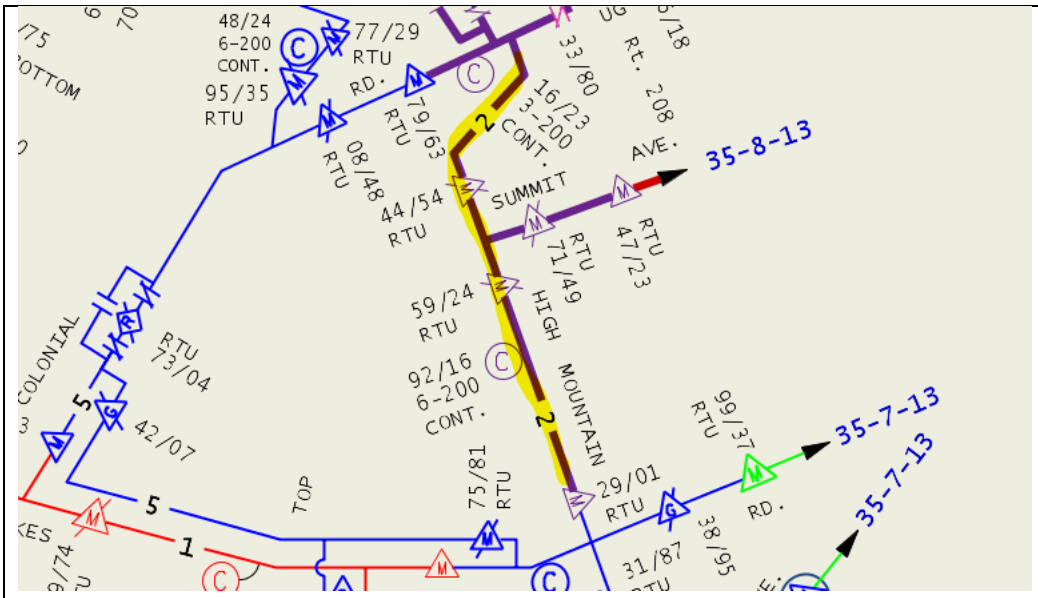
Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Enhanced OH - Oakland- 36-2-13- High Mountain Road	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2023	**Estimated Date In Service: 2024**
A. Total Funding Request ($000) **Capital: $1,700.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

This is an enhanced overhead storm hardening project to replace existing open wire (477aac) primary with Hendrix Spacer Cable construction (main line) on High Mountain Road in Franklin Lakes, NJ. This project will address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. The scope of this project requires replacement of 8,500 feet of existing 477aac three-phase distribution with higher capacity mainline spacer cable construction (477AAC) and the installation of Class 2-50 ft poles between pole# 53130/36931 and pole#53329/36201. The area is served from Oakland Substation (ckt: 36-2-13) and serves 915 customers.

Hendrix Spacer Cable is a pre-engineered electrical distribution system designed for high reliability, tree contact resistance, and compact to reduce tree trimming clearances. The conductors are covered with two layers of polymer designed to allow intermittent tree contacts without causing an outage or nuisance tripping. The conductors are supported by a high strength messenger which provides mechanical support, a system neutral, and acts as a shield wire against lightning.

This project will also address aging infrastructure through the replacement of aging poles. Further, the project will include the addition of switching devices to assist with isolating faults and reducing the number of customers impacted by outages.



Justification Summary:

During storm events *(e.g.*, wind, lightning), mature trees in the area have damaged the overhead distribution system, resulting in large scale outages. The area has experienced multiple outages due to weather, tree, and animal contact. The Hendrix Spacer Cable overhead system will provide storm hardening benefits to the area by being more resistant to tree contacts. Resiliency will be further increased in the area due to the added switching devices. Examining outages from 2017-2021, if this proposed storm hardening project had been completed previously, then 13 outages and approximately 208,000 customer minutes of interruption would likely have been avoided.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

The project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, the project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company considered open wire construction (armless). However, due to the extensive tree coverage along High Mountain Road, and the extra expense of clearing vegetation to install an armless wire system, the Hendrix Spacer Cable system was the preferred design

Alternative 2 description and reason for rejection
The Company did not consider underground construction due to the area being primarily overhead distribution with numerous customer connections. Undergrounding would require significant additional cost for the Company and customers.

Alternative 3 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system, which serves 915 customers, has extensive tree coverage and has been prone to multiple tree outages in the past. If no action is taken, during storm conditions, the probability exists that this circuit would be lost for any tree related outage, leaving these customers out of service until repairs are completed.

Non-Financial Benefits

The new Hendrix Spacer Cable overhead circuit will provide an enhanced overhead distribution system maintaining system reliability and providing additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $1.7 million.

4. Basis for estimate

Historical capital expenditures of similar Hendrix Spacer Cable overhead distribution projects.

5. Conclusion

This project should be performed to improve reliability and provide storm hardening benefits to customers in the Franklin Lakes area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital	$1,400.0	$300.0			
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor	$504.0	$108.0			
M&S	$336.0	$72.0			
Contract Services	$140.0	$30.0			
Other					
Overheads	$420.0	$90.0			
Total	**$1,400.0**	**$300.0**			

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

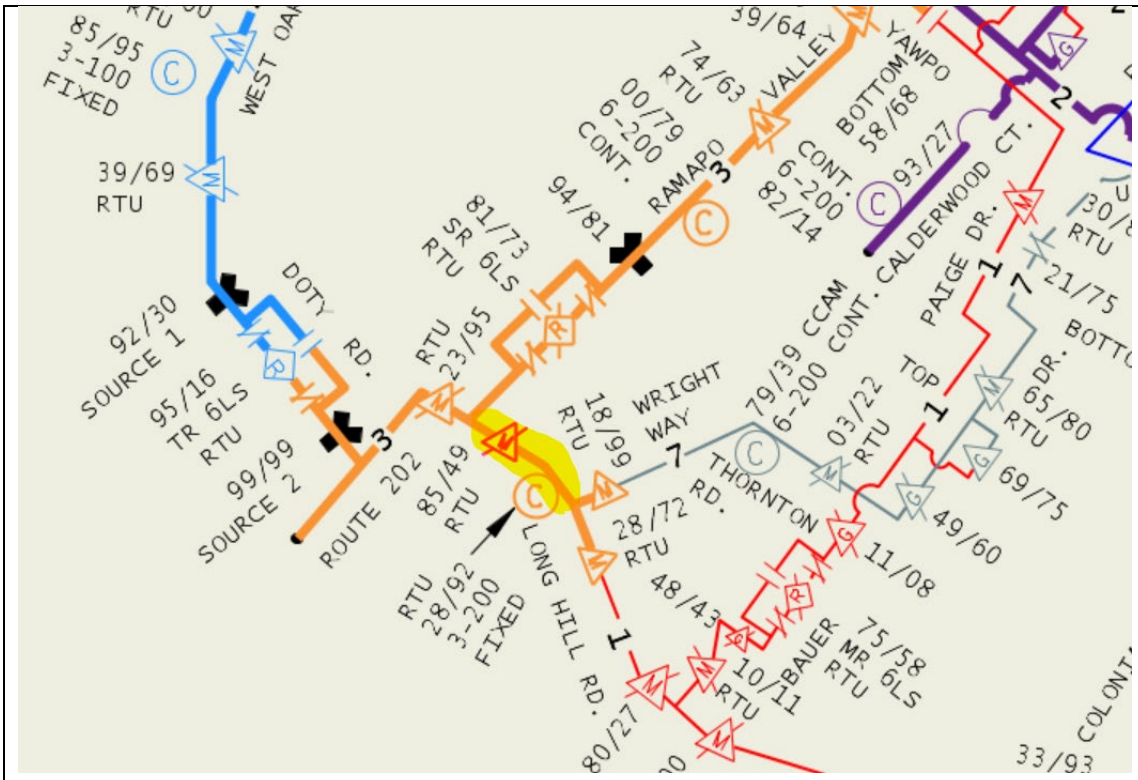
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Enhanced OH - Oakland- 36-3-13- Long Hill Road	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2024	**Estimated Date In Service: 2024**
A. Total Funding Request ($000) **Capital: $500.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

This is an enhanced overhead storm hardening project to replace existing open wire (477aac) primary with Hendrix Spacer Cable construction (main line) on Long Hill Road (between Ely Lane and Oakland Avenue) in Franklin Lakes, NJ. This project will address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. The scope of this project requires replacement of 2,500 feet of existing cross arm construction (477aac) three-phase distribution with mainline spacer cable construction (477AAC) and the installation of Class 2-50 ft poles between pole #52177/36955 and pole #52238/36708. The area is served from Oakland Substation (ckt: 36-3-13) and serves 589 customers.

Hendrix Spacer Cable is a pre-engineered electrical distribution system designed for high reliability, tree contact resistance, and compact to reduce tree trimming clearances. The conductors are covered with two layers of polymer designed to allow intermittent tree contacts without causing an outage or nuisance tripping. The conductors are supported by a high strength messenger which provides mechanical support, a system neutral, and acts as a shield wire against lightning.



Justification Summary:

During storm events (*e.g.*, wind, lightning), mature trees in the area have damaged area overhead distribution system, resulting in large scale outages. The area has experienced multiple outages due to weather, tree, and animal contact; this project will reduce future outages. The project will enhance overall resiliency and will have a positive impact on the reliability for local customers. Examining outages from 2017-2021, if this proposed storm hardening project had been completed previously, then two outages and approximately 35,000 customer minutes of interruption would likely have been avoided. In addition, the project will complement existing automation on the circuit and will provide enhance reliability in cases of major storm events.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy
Explain how this project/program will help achieve goals in 5-year and long-range plans.
Explain how this project/program addresses risk mitigation activity. List specific departmental and/or corporate risk being impacted.

The project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, the project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company considered open wire construction (armless). However, due to the size and amount of vegetation in the area, the Hendrix Spacer Cable system was the preferred design.

Alternative 2 description and reason for rejection
The Company did not consider underground construction due to the area being primarily overhead distribution with numerous customer connections. Undergrounding would require significant additional cost for the Company and customers.

Alternative 3 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system, which serves 589 customers, has extensive tree coverage and has been prone to multiple tree outages in the past. If no action is taken, during storm conditions, the probability exists that this circuit would be lost for any tree related outage, leaving these customers out of service until repairs are completed.

Non-Financial Benefits

The new Hendrix Spacer Cable overhead circuit will provide an enhanced overhead distribution system maintaining system reliability and providing additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $0.5 million.

4. Basis for estimate

Historical capital expenditures of similar Hendrix Spacer Cable overhead distribution projects.

5. Conclusion

This project should be performed to improve reliability and provide storm hardening benefits to customers in the Franklin Lakes area.

Project Risks and Mitigation Plan	
Risk 1	Mitigation plan
Risk 2	Mitigation plan
Technical Evaluation / Analysis	
Project Relationships (if applicable)	

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital		$500.0			
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor		$180.0			
M&S		$120.0			
Contract Services		$50.0			
Other					
Overheads		$150.0			
Total		**$500.0**			

Total Gross Cost Savings / Avoidance by Year:

	2023	2024	2025	2026	2027
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	2024	2025	2026	2027
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

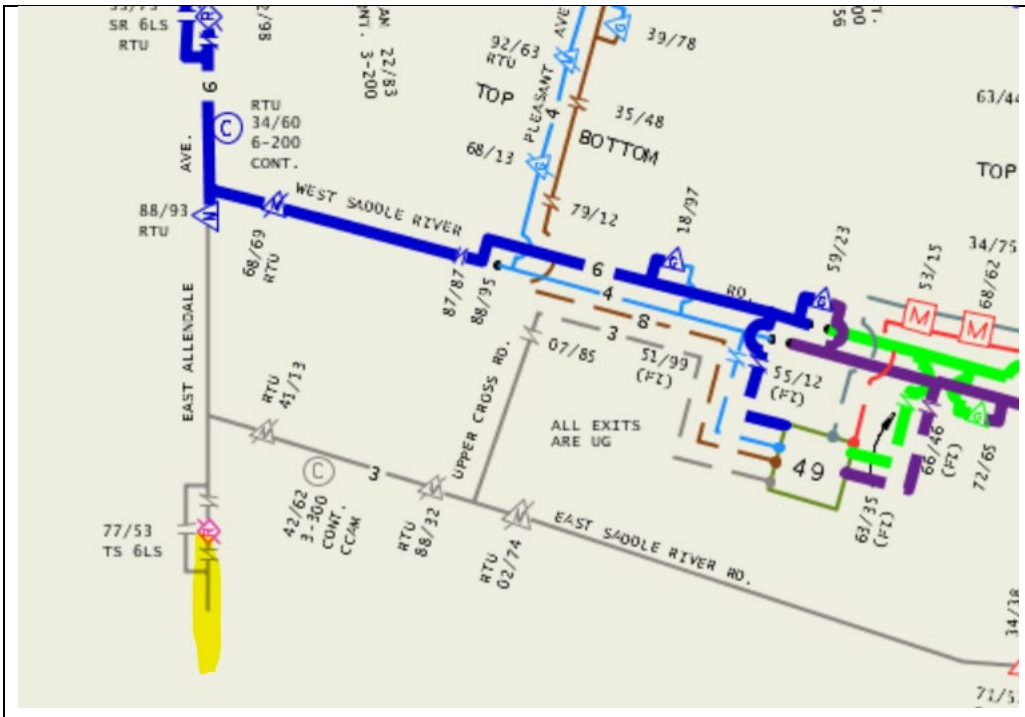
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Enhanced OH – Upper Saddle River - East Allendale Ave	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2027	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $800.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

This is an enhanced overhead storm hardening project to replace existing open wire (477aac) primary with Hendrix Spacer Cable construction (main line) on E Allendale Avenue in Saddle River, NJ. This project will address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. The scope of this project requires replacement of 4,200 feet of existing open wire 477AAC three-phase distribution with mainline spacer cable construction (477AAC) and the installation of Class 2-50 ft poles between pole# 56587/37550 and pole#56913/37737. The area is served from Upper Saddle River Substation (ckt: 49-3-13) and serves 822 customers. This project will also address aging infrastructure through the replacement of aging poles.

Hendrix Spacer Cable is a pre-engineered electrical distribution system designed for high reliability, tree contact resistance, and compact design to reduce tree trimming clearances. The conductors are covered with two layers of polymer designed to allow intermittent tree contacts without causing an outage or nuisance tripping. The conductors are supported by a high strength messenger which provides mechanical support, a system neutral, and acts as a shield wire against lightning.



Justification Summary:

During storm events (*e.g.*, wind, lightning), mature trees in the area have damaged area overhead distribution system, resulting in large-scale outages. The area has experienced multiple outages due to weather, tree, and animal contact; this project will reduce future outages. The project will enhance overall resiliency and will have a positive impact on the reliability for local customers. Examining outages from 2017-2021, if this proposed storm hardening project had been completed previously, then five outages and approximately 1.5 million customer minutes of interruption would likely have been avoided. In addition, the project will complement existing automation on the circuit and will provide enhance reliability in cases of major storm events.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

The project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, the project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company considered open wire construction (armless). However, due to the extensive tree coverage and the extra expense of clearing vegetation to install an armless wire system, the Hendrix Spacer Cable system was the preferred design

Alternative 2 description and reason for rejection
The Company did not consider underground construction due to the area being primarily overhead distribution with numerous customer connections. Undergrounding would require significant additional cost for the Company and customers.

Alternative 3 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system, which serves 822 customers, has extensive tree coverage and has been prone to multiple tree outages in the past. If no action is taken, during storm conditions, the probability exists that this circuit would be lost for any tree related outage, leaving these customers out of service until repairs are completed.

Non-Financial Benefits

The new Hendrix Spacer Cable overhead circuit will provide an enhanced overhead distribution system maintaining system reliability and providing additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $0.8 million.

4. Basis for estimate

Historical capital expenditures of similar Hendrix Spacer Cable overhead distribution projects.

5. Conclusion

This project should be performed to improve reliability and provide storm hardening benefits to customers in the Saddle River area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis
Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital					$800.0
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor					$288.0
M&S					$192.0
Contract Services					$80.0
Other					
Overheads					$240.0
Total					**$800.0**

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

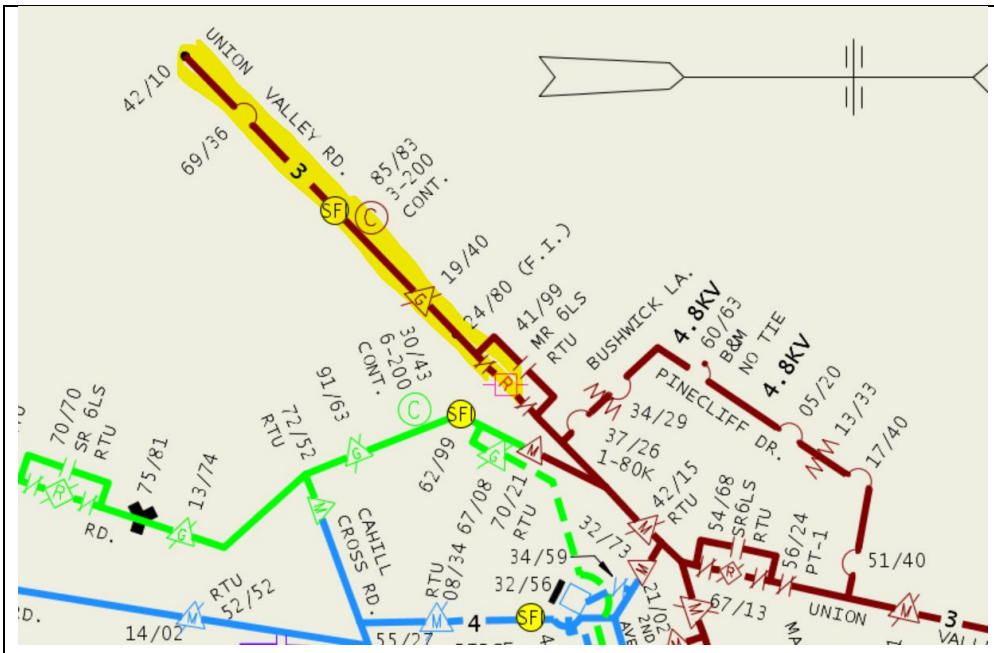
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Enhanced OH - West Milford- 79-3-13- Union Valley Rd	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2025	**Estimated Date In Service: 2026**
A. Total Funding Request ($000) **Capital: $2,200.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

This is an enhanced overhead storm hardening project to replace existing open wire (336aac) primary with Hendrix Spacer Cable construction (main line) on Union Valley Road (between Bushwick Lane and Old Milford Lane) in West Milford, NJ. This project will address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. The scope of this project requires replacement of 11,700 feet of existing 336aac three-phase distribution with higher capacity mainline spacer cable construction (477AAC) and the installation of Class 2-50 ft poles between pole# 48841/40999 and pole#48032/40186. The area is served from West Milford Substation (ckt: 79-3-13) and serves 1,902 customers. This project will also address aging infrastructure through the replacement of aging poles.

Hendrix Spacer Cable is a pre-engineered electrical distribution system designed for high reliability, tree contact resistance, and compact to reduce tree trimming clearances. The conductors are covered with two layers of polymer designed to allow intermittent tree contacts without causing an outage or nuisance tripping. The conductors are supported by a high strength messenger which provides mechanical support, a system neutral, and acts as a shield wire against lightning.



Justification Summary:

During storm events (*e.g.*, wind, lightning), mature trees in the area have damaged area overhead distribution system, resulting in large scale outages. The area has experienced multiple outages due to weather, tree, and animal contact; this project will reduce future outages. The project will enhance overall resiliency and will have a positive impact on the reliability for local customers. Examining outages from 2017-2021, if this proposed storm hardening project had been completed previously, then four outages and approximately 280,000 customer minutes of interruption would likely have been avoided. In addition, the project will complement existing automation on the circuit and will provide enhance reliability in cases of major storm events.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

The project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, the project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company considered open wire construction (armless). However, due to the size and amount of vegetation, the Hendrix system was the preferred design.

Alternative 2 description and reason for rejection
The Company did not consider underground construction due to the area being primarily overhead distribution with numerous customer connections. Undergrounding would require significant additional cost for the Company and customers.

Alternative 3 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system, which serves 1,902 customers, has extensive tree coverage and has been prone to multiple tree outages in the past. If no action is taken, during storm conditions, the probability exists that this circuit would be lost for any tree related outage, leaving these customers out of service until repairs are completed.

Non-Financial Benefits

The new Hendrix Spacer Cable overhead circuit will provide an enhanced overhead distribution system maintaining system reliability and providing additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $2.2 million.

4. Basis for estimate

Historical capital expenditures of similar Hendrix Spacer Cable overhead distribution projects.

5. Conclusion

This project should be performed to improve reliability and provide storm hardening benefits to customers in the West Milford area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital			$500.0	$1,700.0	
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor			$180.0	$612.0	
M&S			$120.0	$408.0	
Contract Services			$50.0	$170.0	
Other					
Overheads			$150.0	$510.0	
Total			**$500.0**	**$1,700.0**	

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

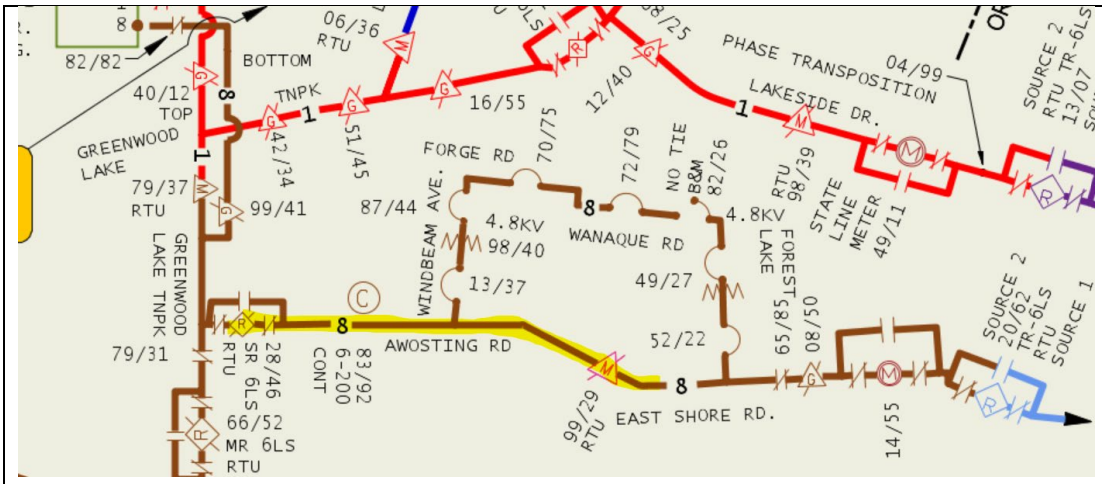
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Enhanced OH - West Milford- 79-8-13- Awosting Rd (part 1)	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2024	**Estimated Date In Service: 2025**
A. Total Funding Request ($000) **Capital: $1,500.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

This is an enhanced overhead storm hardening project to replace existing open wire (477aac) primary with Hendrix Spacer construction (main line) on Awosting Road (between Greenwood Lakes Turnpike and Sterling Place) in West Milford, NJ. This project is the first of two projects to storm harden the area. The first project will be completed from pole#50128/41546 and pole#50049/42260. The second project will be completed from pole#50049/42260 and pole#50314/43055. This project will address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. The scope of this project requires replacement of 9,000 feet of existing 477aac three-phase distribution with mainline spacer cable construction (477AAC) and the installation of Class 2-50 ft poles between pole#50128/41546 and pole#50049/42260. The area is served from West Milford Substation (ckt: 79-8-13) and serves 1,176 customers. The area has experienced multiple outages due to weather, tree, and animal contact. This project will also address aging infrastructure through the replacement of aging poles.

Hendrix Spacer Cable is a pre-engineered electrical distribution system designed for high reliability, tree contact resistance, and compact to reduce tree trimming clearances. The conductors are covered with two layers of polymer designed to allow intermittent tree contacts without causing an outage or nuisance tripping. The conductors are supported by a high strength messenger which provides mechanical support, a system neutral, and acts as a shield wire against lightning.



Justification Summary:

During storm events (*e.g.*, wind, lightning), mature trees in the area have damaged the overhead distribution system, resulting in large-scale outages. The project will enhance overall resiliency and will have a positive impact on the reliability for local customers. Examining outages from 2017-2021, if this proposed storm hardening project had been completed previously, then one outage and approximately 70,000 customer minutes of interruption would likely have been avoided. In addition, the project will complement existing automation on the circuit and will provide enhance reliability in cases of major storm events.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

The project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, the project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company considered open wire construction (armless). However, due to the size and amount of vegetation, the Hendrix Spacer Cable system was the preferred design.

Alternative 2 description and reason for rejection
The Company did not consider underground construction due to the area being primarily overhead distribution with numerous customer connections. Undergrounding would require significant additional cost for the Company and customers.

Alternative 3 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system, which serves 1,176 customers, has extensive tree coverage and has been prone to multiple tree outages in the past. If no action is taken, during storm conditions, the probability exists that this circuit would be lost for any tree related outage, leaving these customers out of service until repairs are completed.

Non-Financial Benefits

The new Hendrix Spacer Cable overhead circuit will provide an enhanced overhead distribution system maintaining system reliability and providing additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)

1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $1.5 million.

4. Basis for estimate

Historical capital expenditures of similar Hendrix Spacer Cable overhead distribution projects.

5. Conclusion

This project should be performed to improve reliability and provide storm hardening benefits to customers in the West Milford area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital		$1,200.0	$300.0		
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor		$432.0	$108.0		
M&S		$288.0	$72.0		
Contract Services		$120.0	$30.0		
Other					
Overheads		$360.0	$90.0		
Total		**$1,200.0**	**$300.0**		

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

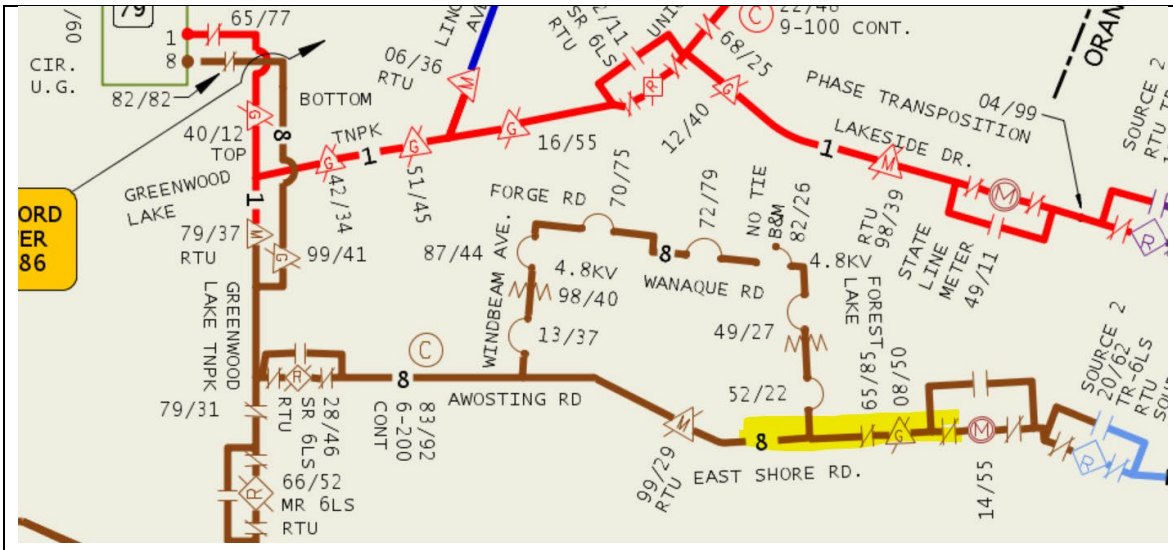
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Enhanced OH - West Milford- 79-8-13- Awosting Rd (part 2)	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2026	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $1,500.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

This is an enhanced overhead storm hardening project to replace existing open wire (477aac) primary with Hendrix Spacer Cable construction (main line) on Awosting Road (between Greenwood Lakes Turnpike and Sterling Place) in West Milford, NJ. This project is the second of two projects to storm harden the area. The first project will be completed from pole#50128/41546 and pole#50049/42260. The second project will be completed from pole#50049/42260 and pole#50314/43055. This project will address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. The scope of this project requires replacement of 9,000 feet of existing 477aac three-phase distribution with mainline spacer cable construction (477AAC) and the installation of Class 2-50 ft poles between pole#50049/42260 and pole#50314/43055. The area is served from West Milford Substation (ckt: 79-8-13) and serves 1,176 customers. This project will also address aging infrastructure and will require the replacement of aging poles.

Hendrix Spacer Cable is a pre-engineered electrical distribution system designed for high reliability, tree contact resistance, and compact to reduce tree trimming clearances. The conductors are covered with two layers of polymer designed to allow intermittent tree contacts without causing an outage or nuisance tripping. The conductors are supported by a high strength messenger which provides mechanical support, a system neutral, and acts as a shield wire against lightning.



Justification Summary:

During storm events (e.g. wind, lightning), mature trees in the area have damaged area overhead distribution system, resulting in large scale outages. The area has experienced multiple outages due to weather, tree, and animal contact. The project will enhance overall resiliency and will have a positive impact on the reliability for local customers. In addition, the project will complement existing automation on the circuit and will provide enhance reliability in cases of major storm events.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

The project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, the project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company considered open wire construction (armless). However, due to the size and amount of vegetation, the Hendrix Spacer Cable system was the preferred design.

Alternative 2 description and reason for rejection
The Company did not consider underground construction due to the area being primarily overhead distribution with numerous customer connections. Undergrounding would require significant additional cost for the Company and customers.

Alternative 3 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system, which serves 1,176 customers, has extensive tree coverage and has been prone to multiple tree outages in the past. If no action is taken, during storm conditions, the probability exists that this circuit would be lost for any tree related outage, leaving these customers out of service until repairs are completed.

Non-Financial Benefits

The new Hendrix Spacer cable overhead circuit will provide an enhanced overhead distribution system maintaining system reliability and providing additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)

1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $1.5 million.

4. Basis for estimate

Historical capital expenditures of similar Hendrix Spacer Cable overhead distribution projects.

5. Conclusion

This project should be performed to improve reliability and provide storm hardening benefits to customers in the West Milford area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital				$300.0	$1,200.0
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor				$108.0	$432.0
M&S				$72.0	$288.0
Contract Services				$30.0	$120.0
Other					
Overheads				$90.0	$360.0
Total				**$300.0**	**$1,200.0**

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

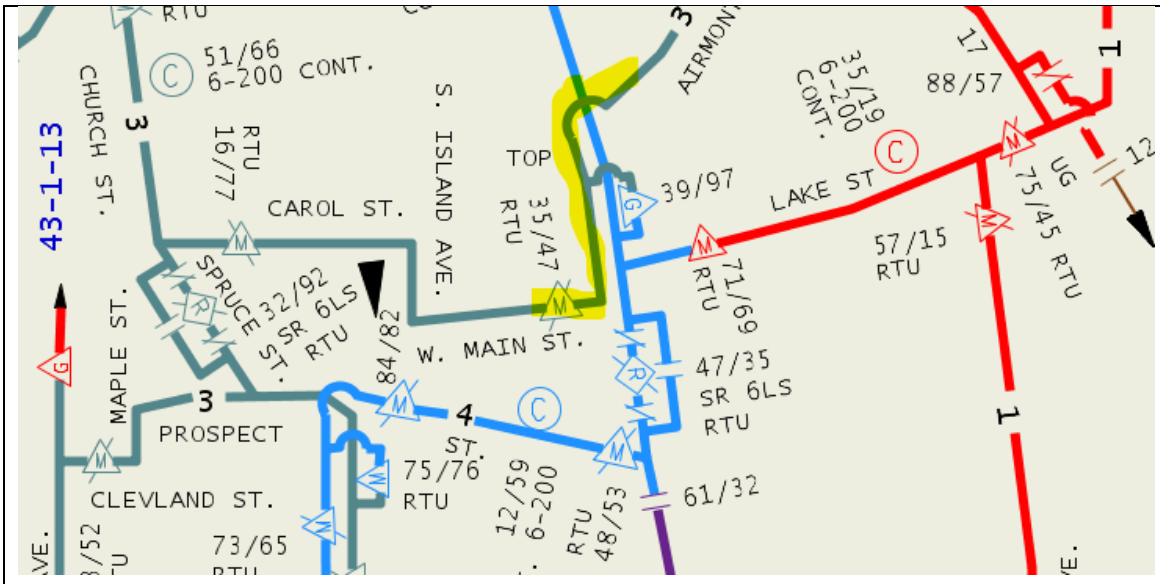
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Allendale 39-3-13 Franklin Turnpike	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2027	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $1,000.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Franklin Turnpike on circuit 39-4-13 and circuit 39-3-13 to address poor service reliability on the distribution system associated with both small- and large-scale storms, motor vehicle accidents, and equipment failure. Circuit 39-3-13 serves 1,115 customers and circuit 39-4-13 serves 974 customers. This project will replace approximately 1,600 feet of overhead distribution with underground main-line distribution system between pole# 55521/38544 and pole# 55543/38664. In general, the underground path will be on E. Main St. to Franklin Turnpike and rise on Airmont Ave. This project will improve reliability issues associated with the overhead distribution system during storm events. The underground system will provide an alternate path in the event of a contingency issue.

The underground cable system will consist of three-phase 750 KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is most prone to damage.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path Franklin Turnpike (Ckt: 39-3-13 and 39-4-13) in Ramsey, NJ. This project will underground circuit 39-3-13 on Franklin Turnpike. During past storms, this portion of Franklin Turnpike has been damaged, which resulted in large-scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Eliminating the double circuit will improve the reliability for customers in Ramsey, NJ. In total approximately 2,100 customers will benefit from this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)

1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $1.0 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be completed in order to improve reliability and provide storm hardening benefits to customers in the Ramsey area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital					$1,000.0
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor					$70.0
M&S					$450.0
Contract Services					$360.0
Other					
Overheads					$120.0
Total					**$1,000.0**

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

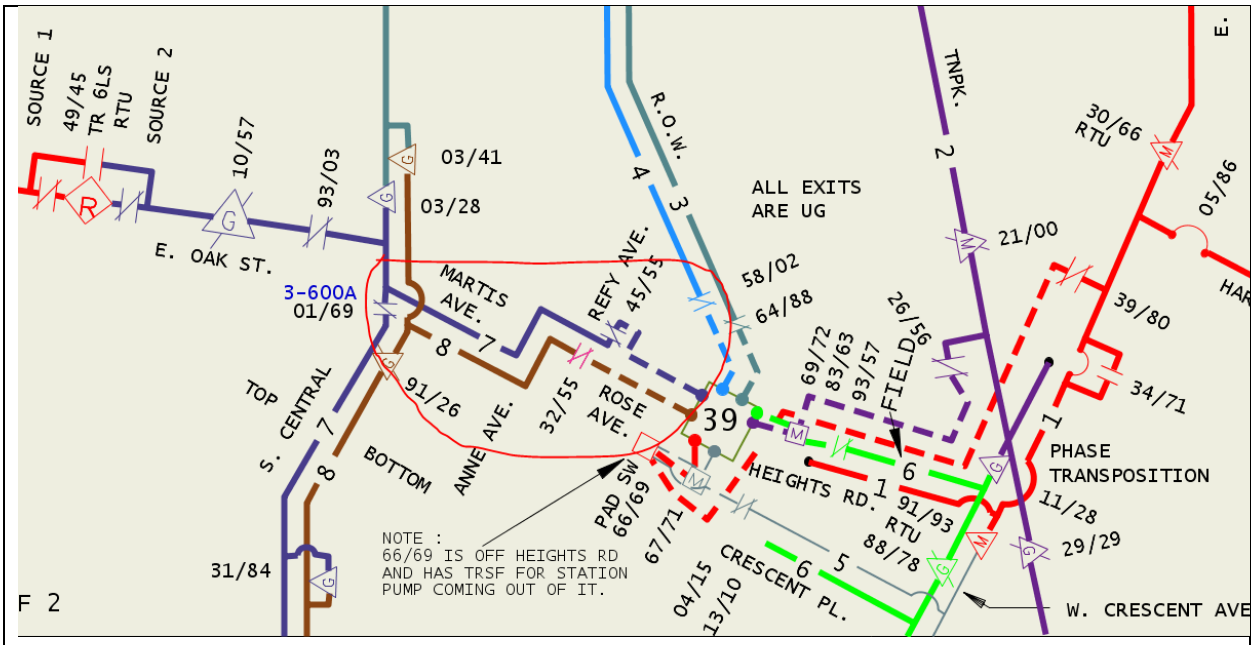
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Allendale 37-8-13 Martis Ave	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2023	**Estimated Date In Service: 2023**
A. Total Funding Request ($000) **Capital: $1,200.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Martis Ave, Anne Ave, and Rose Ave in Ramsey, NJ (Ckt: 39-8-13 and 39-7-13) to address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. Circuit 39-8-13 serves 720 customers and circuit 39-7-13 serves 1,208 customers. The scope of this project will replace approximately 2,100 feet of overhead distribution with underground main-line distribution system between manhole# 55344/38051 (Refy Ave) and pole# 55216/38064 located on Martis Ave.

In general, the underground path will be to exit out of manhole# 55344/38051 (Refy Ave) to Rose Ave, Anne Ave, and rise on pole# 55216/38064 located on Martis Ave, in Ramsey NJ. This project will improve reliability issues associated with the overhead distribution system during storm events. The underground system will provide an alternate path in the event of a contingency issue. The underground cable system will consist of three-phase 750kcm Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The spare duct system will be for a potential future circuit. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is prone to damage.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path Martis Ave, Anne Ave, and Rose Ave (Ckt: 39-8-13 and 39-7-13) in Ramsey NJ. This project will underground circuit 39-8-13 to South Central Ave. During past storms, this portion of Martis and Anne Ave has been damaged, resulting in large-scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Eliminating the double circuit will improve the reliability for our customers in Allendale, Ramsey, and Wyckoff NJ. Examining outages from 2017-2021, if this proposed undergrounding project had been completed previously, then two outages and approximately 230,000 customer minutes of interruption would likely have been avoided. In total approximately 1,900 customers will benefit from this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes however no options are available. The underground distribution route was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

This project will provide the additional benefit of preparing for a future Allendale circuit exit.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $1.2 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in Ramsey, Allendale, and Wyckoff, NJ.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital	$1,200.0				
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor	$84.0				
M&S	$540.0				
Contract Services	$432.0				
Other					
Overheads	$144.0				
Total	**$1,200.0**				

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

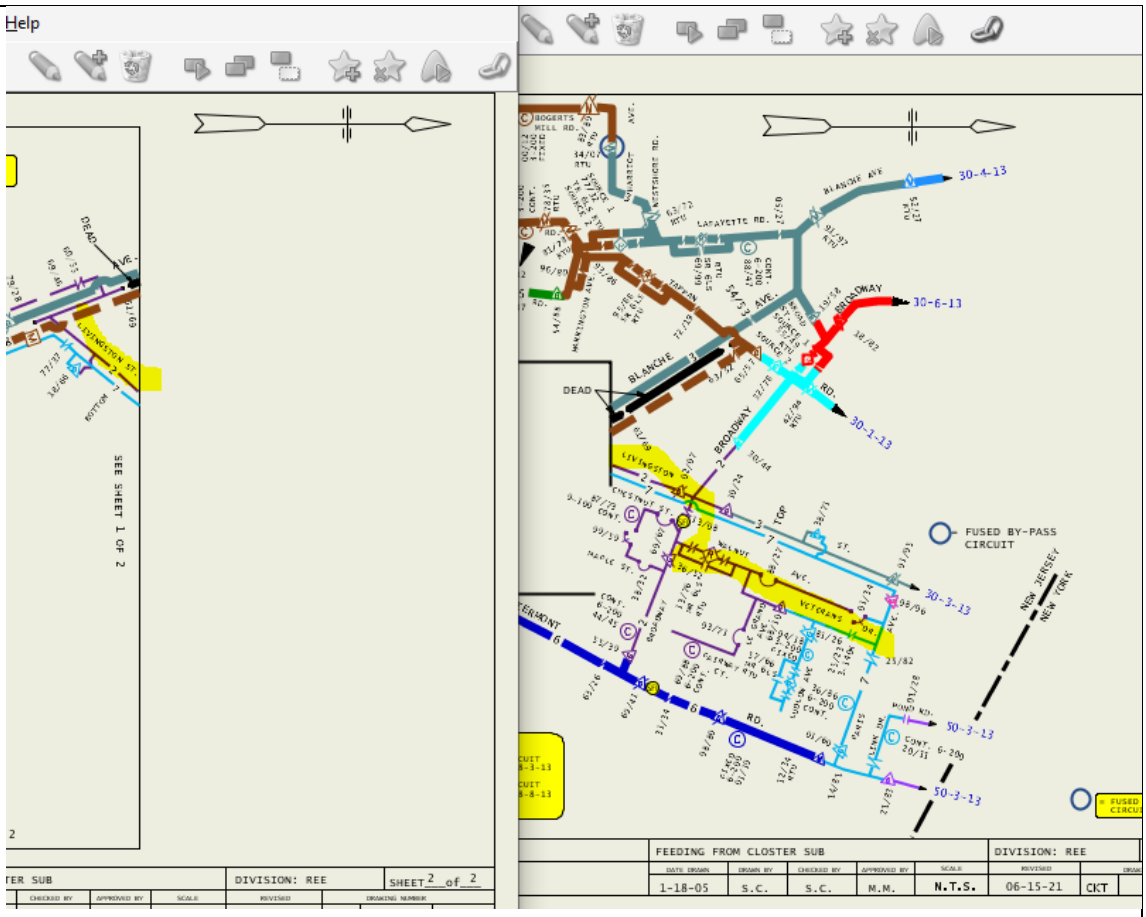
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Closter- 28-2-13- Livingston St	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2023	**Estimated Date In Service: 2025**
A. Total Funding Request ($000) **Capital: $5,400.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Livingston St on circuits 28-2-13 and 28-7-13 to address poor service reliability on the distribution system associated with both small and large-scale storms, motor vehicle accidents, and equipment failure. Circuit 28-2-13 serves 962 customers and circuit 28-7-13 serves 601 customers. The scope of this project will replace approximately 9,300 feet of overhead distribution with underground main-line distribution system between grid# 60288/35945 and grid# 60709/36634. In general, the underground path will be on Livingston St. to Broadway to Walnut St and rise on Paris Ave. This project will improve reliability issues associated with the overhead distribution system during storm events.

The underground system will provide an alternate path in the event of a contingency issue. The underground cable system will consist of three-phase 750KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The spare duct system will be for a potential future circuit. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is most prone to damage.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on Livingston St, Closter, NJ. Currently Livingston St circuits (28-2-13 & 28-7-13) are fed from a double circuit pole line from Blanche Ave to Broadway. This project will underground this portion of circuit 28-2-13. The existing overhead construction is at the end of its life. A spacer cable system was not the best option, because overhead the double circuit configuration would remain.

During past storms, this portion of Livingston St has been damaged due to vegetation contact that resulted in large-scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Eliminating the double circuit will improve the reliability for customers in Closter, NJ. Examining outages from 2017-2021, if this proposed undergrounding project had been completed previously, then 16 outages and approximately 71,000 customer minutes of interruption would likely have been avoided. Circuit 28-2-13 serves 962 customers, and circuit 28-7-13 serves 601 customers. In total approximately 1,600 customers will benefit from this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however no options are available. The underground distribution approach was the only solution

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $5.4 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Closter area.

Project Risks and Mitigation Plan	
Risk 1	Mitigation plan
Risk 2	Mitigation plan
Technical Evaluation / Analysis	
Project Relationships (if applicable)	

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2016	**Actual 2017**	**Actual 2018**	**Actual 2019**	**Historic Year** (O&M only)	**Forecast 2020**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital	$500.0	$3,900.0	$1,000.0		
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor	$70.0	$273.0	$70.0		
M&S	$100.0	$1,755.0	$450.0		
Contract Services	$270.0	$1,404.0	$360.0		
Other					
Overheads	$60.0	$468.0	$120.0		
Total	**$500.0**	**$3,900.0**	**$1,000.0**		

Total Gross Cost Savings / Avoidance by Year:

	2023	2024	2025	2026	2027
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	2024	2025	2026	2027
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

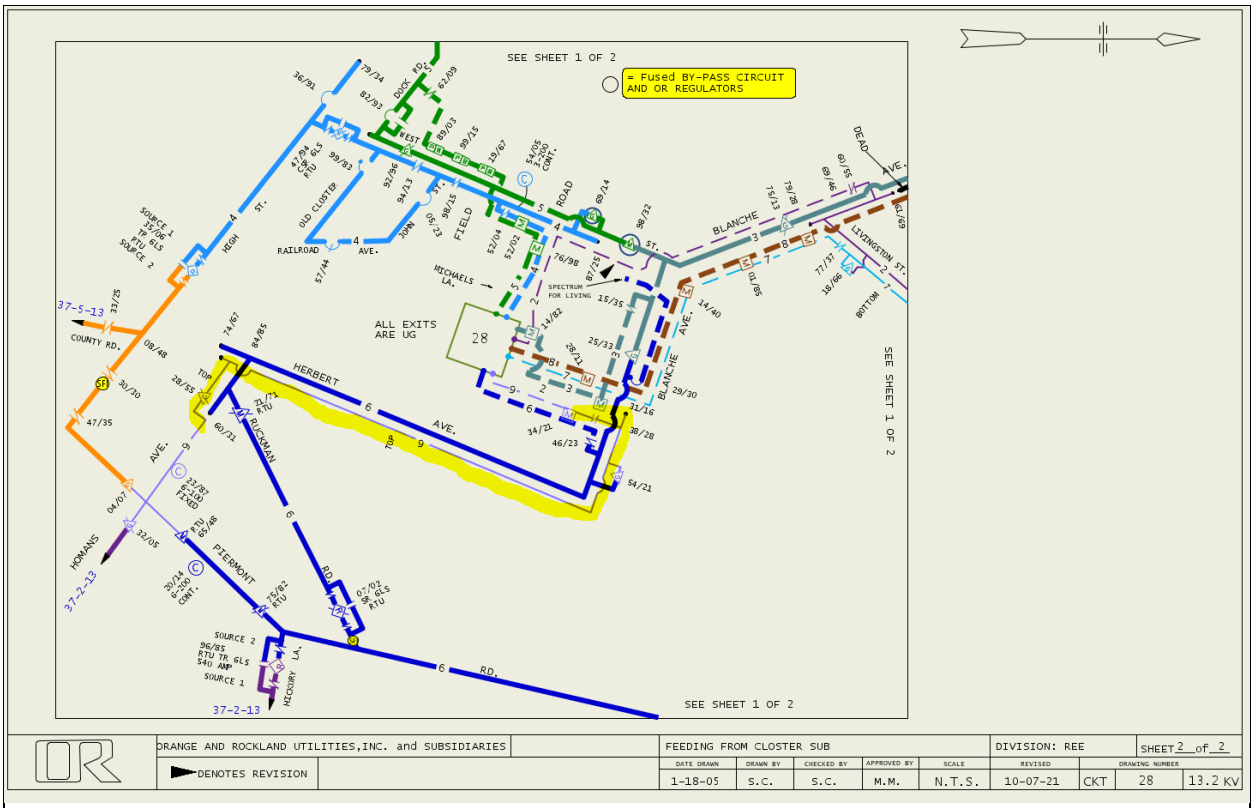
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Closter 28-9-13 Herbert Ave & Homans Ave	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2025	**Estimated Date In Service: 2026**
A. Total Funding Request ($000) **Capital: $2,700.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Herbert Ave and Homans Ave (28-9-13 and 28-6-13) to address poor service reliability on the distribution system associated with both small and large-scale storms, motor vehicle accidents, and equipment failure. Circuit 28-9-13 serves 125 customers and circuit 28-6-13 serves 1,174 customers. Circuit 28-9-13 serves major shopping centers, municipal building, and equipment manufacturing facilities. This project will replace approximately 4,900 feet of overhead distribution with underground main-line distribution system between station riser pole# 60338/35828 and pole# 60388/35411 located on Homans Ave in Closter, NJ. This project will improve reliability issues associated with the overhead distribution system during storm events.

The underground system will provide an alternate path in the event of a contingency issue. The underground cable system will consist of three-phase 750KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The spare duct system will be for a potential future circuit. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is prone to damage.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on Herbert Ave and Homans Ave in Closter, NJ. This project will underground circuit 28-9-13 between the Closter Substation and Homans Ave. During past storms, this portion of Herbert Ave has been damaged, resulting in large-scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Eliminating the double circuit will improve the reliability for our customers in Closter, NJ. In total approximately 1,300 customers will benefit from this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

<u>Alternative 1 description and reason for rejection</u>
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a Storm Hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits
The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

This project will provide the additional benefit of preparing for a future Closter circuit exit.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $2.7 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Closter, NJ area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital			$500.0	$2,200.0	
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor			$75.0	$154.0	
M&S			$115.0	$990.0	
Contract Services			$250.0	$792.0	
Other					
Overheads			$60.0	$264.0	
Total			**$500.0**	**$2,200.0**	

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

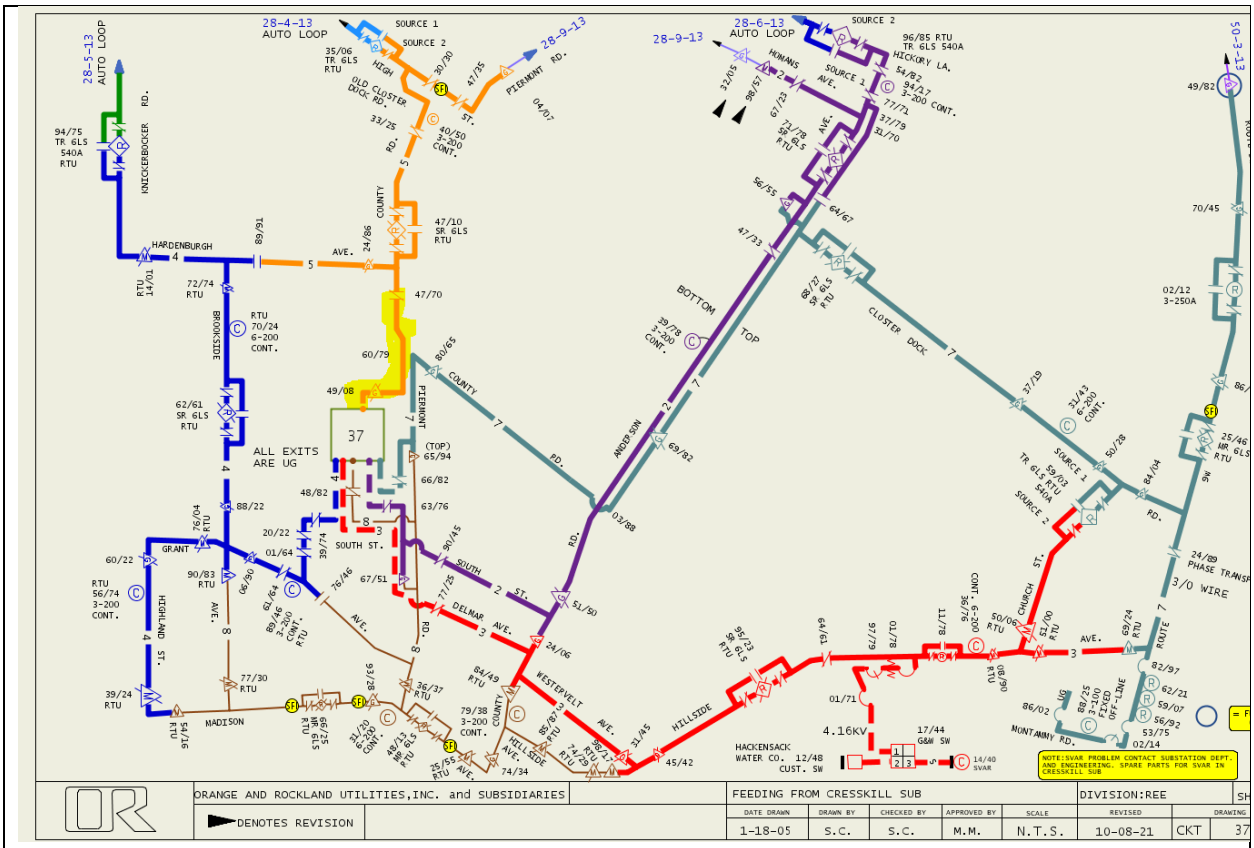
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Cresskill-37-5-13 Piermont & County Rd	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2026	**Estimated Date In Service: 2026**
A. Total Funding Request ($000) **Capital: $1,200.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Piermont Ave (37-5-13 and 37-7-13) to address poor service reliability on the distribution system associated with both small and large-scale storms, motor vehicle accidents, and equipment failure. Circuit 37-5-13 serves 1,028 customers and circuit 37-7-13 serves 828 customers. This project will replace approximately 2,200 feet of overhead distribution with underground main-line distribution system between station breaker 37-5-2B and pole# 60254/34796 located on County Road. In general, the underground path will be to exit out of the rear of Cresskill substation (near pole# 60249/34608) to Piermont Ave to County Road (P# 60249/34796) in Demarest, NJ. This project will improve reliability issues associated with the overhead distribution system during storm events. The underground system will provide an alternate path in the event of a contingency issue.

The underground cable system will consist of three-phase 750 KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The spare duct system will be for a potential future circuit. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is prone to damage.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on Piermont Road in Cresskill, NJ. Currently Piermont Ave circuits (37-5-13 & 37-7-13) are fed from a double circuit pole line along Piermont Ave. This project will underground circuit 37-5-13 between the Cresskill Substation and County Road. During past storms, this portion of Piermont has been damaged and resulted in large scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Eliminating the double circuit will improve the reliability for our customers in Cresskill and Demarest, NJ. Examining outages from 2017-2021, if this proposed undergrounding project had been completed previously, then four outages and approximately 900 customer minutes of interruption would likely have been avoided. In total approximately 1,900 customers will benefit from this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

This project will provide the additional benefit of preparing for a future Cresskill Substation circuit exit.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $1.2 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Cresskill and Demarest, NJ.

Project Risks and Mitigation Plan	
Risk 1	Mitigation plan
Risk 2	Mitigation plan
Technical Evaluation / Analysis	
Project Relationships (if applicable)	

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital				$1,200.0	
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor				$84.0	
M&S				$540.0	
Contract Services				$432.0	
Other					
Overheads				$144.0	
Total				**$1,200.0**	

Total Gross Cost Savings / Avoidance by Year:

	2023	2024	2025	2026	2027
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	2024	2025	2026	2027
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Cresskill-37-7-13 Anderson Ave	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2025	**Estimated Date In Service: 2026**
A. Total Funding Request ($000) **Capital: $3,200.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Anderson Ave in Demarest Ave (37-7-13 & 37-2-13) to address poor service reliability on the distribution system associated with both small and large-scale storms, motor vehicle accidents, and equipment failure. This project will replace approximately 5,700 feet of overhead distribution on the 37-7-13 with underground main-line distribution between pole# 60494/34596 (located on County Rd) and pole# 60857/34850 located on Brenner Place in Alpine, NJ. In general, the underground path will be County Road, Anderson and Duane Lane with a new riser pole on Brenner drive in Alpine, NJ. This project will improve reliability issues associated with the overhead distribution system during storm events.

The underground system will provide an alternate path in the event of a contingency issue. The underground cable system will consist of three-phase 750KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The project design will reduce the exposure on a double circuit pole line configuration and provide a dedicated circuit to a frequently impacted by storms.

Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on Anderson Ave between County Road and Closter Dock Road in Demarest and Alpine, NJ. During past storms, this portion of the circuit along Anderson Ave has been damaged due to vegetation contact, resulting in large scale outages. Specifically, the existing spacer construction constructed in the early 1970s is at its end of its life and has been damaged multiple times. Replacement with an overhead spacer cable system was not the best option, as the overhead double circuit configuration, and its' corresponding risks, would remain. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Eliminating the double circuit will improve the reliability for our customers in Cresskill and Alpine, NJ. Circuit 37-7-13 serves 830 customers and circuit 37-2-13 serves 976 customers. In total, approximately 1,800 customers will benefit from this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a Storm Hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $3.2 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Alpine and Cresskill, NJ.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis
Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital			$1,800.0	$1,400.0	
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor			$126.0	$98.0	
M&S			$810.0	$630.0	
Contract Services			$648.0	$504.0	
Other					
Overheads			$216.0	$168.0	
Total			**$1,800.0**	**$1,400.0**	

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

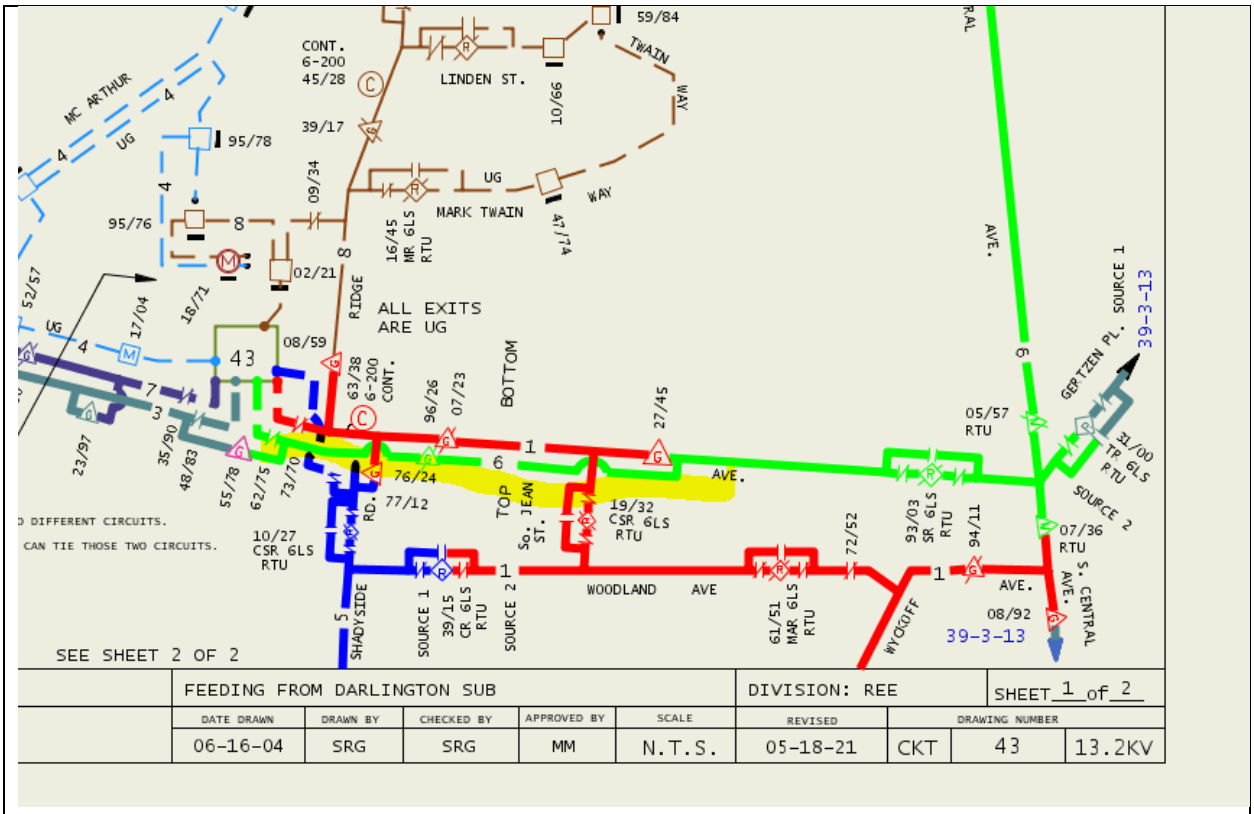
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Darlington- 43-6-13- Darlington Ave.	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2023	**Estimated Date In Service: 2024**
A. Total Funding Request ($000) **Capital: $3,100.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Darlington Ave in Ramsey (Ckt: 43-6-13 and 43-1-13) to address poor service reliability on the distribution system associated with both small- and large-scale storms, motor vehicle accidents, and equipment failure. This project will replace approximately 5,500 feet of overhead distribution with underground main-line distribution system between existing riser pole# 54462/38775 and pole# 54939/38648. In general, the underground path will be on Darlington Ave between Darlington Substation and Jean Street. This project will improve reliability issues associated with the overhead distribution system during storm events.

The underground system will provide an alternate path in the event of a contingency issue. The underground cable system will consist of three-phase 750KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The spare duct system will be for a potential future circuit. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is most prone to damage.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on Darlington Ave, Darlington, NJ. Currently Darlington Ave (43-6-13 & 43-1-13) is fed from a double circuit pole line. This project will underground this portion of circuit 43-6-13. Circuit 43-6-13 serves 1,479 customers, and circuit 43-1-13 serves 1,624 customers.

During past storms, this portion of Darlington Ave has been damaged due to vegetation contact, which resulted in large-scale outages. The existing overhead construction is at the end of its life, and a spacer cable system was not the best option for replacement, as the overhead double circuit configuration, and its' corresponding risks, would remain. During emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Eliminating the double circuit will improve the reliability for customers in Ramsey and Mahwah, NJ. Examining outages from 2017-2021, if this proposed undergrounding project had been completed previously, then two outages and approximately two million customer minutes of interruption would likely have been avoided. In total, approximately 3,100 customers will benefit with this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits
The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

This project will provide the additional benefit of preparing for a future Darlington circuit exit.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $3.1 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Ramsey area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan

Risk 2	Mitigation plan
Technical Evaluation / Analysis	
Project Relationships (if applicable)	

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital	$1,600.0	$1,500.0			
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor	$112.0	$105.0			
M&S	$720.0	$675.0			
Contract Services	$576.0	$540.0			
Other					
Overheads	$192.0	$180.0			
Total	**$1,600.0**	**$1,500.0**			

Total Gross Cost Savings / Avoidance by Year:

	2023	2024	2025	2026	2027
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	2024	2025	2026	2027
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

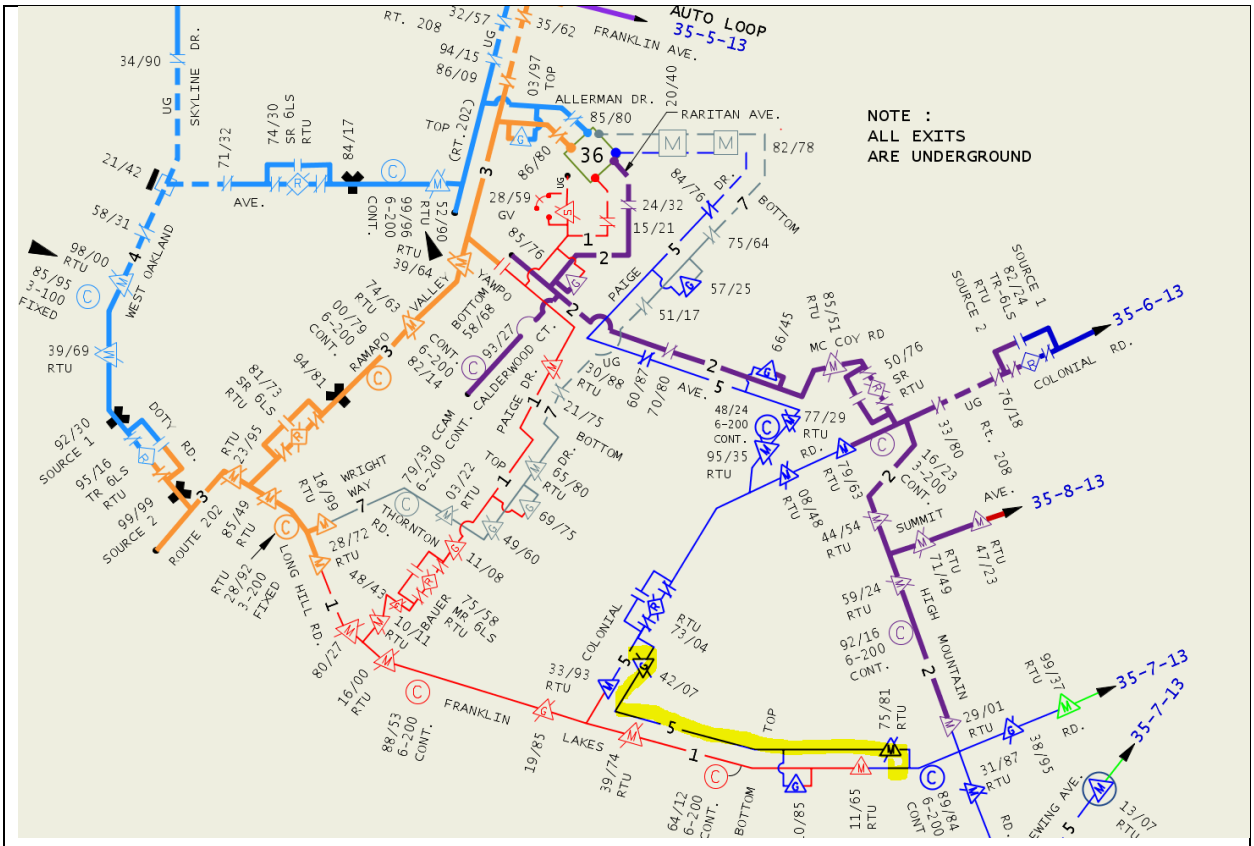
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Franklin Lakes - 36-5-13 Franklin Lakes Road	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2023	**Estimated Date In Service: 2025**
A. Total Funding Request ($000) **Capital: $3,800.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Franklin Lakes Road in Franklin Lakes, NJ (36-5-13 & Ckt: 36-1-13) to address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. Circuit 36-5-13 serves 976 customers and circuit 36-1-7-13 serves 563 customers. This project will replace approximately 6,700 feet of overhead distribution with underground main-line distribution system between Colonial Road (Grid# 52740/36400) and Franklin Lakes Road (Grid# 53296/36186) in Franklin Lakes. This project will improve reliability issues associated with the overhead distribution system during storm events.

The underground system will provide an alternate path in the event of a contingency issue. The underground cable system will consist of three-phase 750KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is prone to damage.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on Franklin Lakes Road (Ckt: 36-5-13 and 36-1-13) in Franklin Lakes, NJ by undergrounding circuit 36-5-13 on Franklin Lakes. During past storms, this portion of Franklin Lakes Road has been damaged, which resulted in large-scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as had occurred in the past. Eliminating the double circuit will improve the reliability for customers in Franklin Lakes, NJ. In total, approximately 1,540 customers will benefit with this project including a local high school.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

<u>Alternative 1 description and reason for rejection</u>
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits
The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $3.8 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Franklin Lakes area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital	$400.0	$2,400.0	$1,000.0		
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor	$100.0	$168.0	$70.0		
M&S	$75.0	$1,080.0	$450.0		
Contract Services	$175.0	$864.0	$360.0		
Other					
Overheads	$50.0	$288.0	$120.0		
Total	**$400.0**	**$2,400.0**	**$1,000.0**		

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Oakland – 36-2-13 Yawpo Drive	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2026	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $2,600.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Yawpo Drive in Oakland, NJ which involves three circuits (Ckt: 36-1-13, Ckt: 36-2-13, and Ckt: 36-5-13) to address poor service reliability on the distribution system associated with motor vehicle accidents, small- and large-scale storms, and equipment failure. Circuit 36-2-13 serves 757 customers, circuit 36-1-13 serves 553 customers, and circuit 36-5-13 serves 979 customers. This project will replace approximately 4,800 feet of overhead distribution with underground main-line distribution system between grid# 52590/37321 (located on East Oak) and pole# 52889/37076 located on McCoy Road.

This project will improve reliability issues associated with the overhead distribution system during storm events. The underground system will provide an alternate path in the event of a contingency issue. This project will also eliminate a triple circuit pole located on Yawpo Ave and Paige Drive. In the event of a motor vehicle accident at this intersection, three circuits would be affected (Ckt: 36-2-13, Ckt: 36-1-13 & Ckt: 36-5-13).

The underground cable system will consist of three-phase 750KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is prone to damage.

Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on Yawpo Drive. During past storms, this portion of Yawpo Drive has been damaged, resulting in large scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Eliminating the double circuit will improve the reliability for customers in Oakland, NJ. Examining outages from 2017-2021, if this proposed undergrounding project had been completed previously, then 19 outages and approximately 54,000 customer minutes of interruption would likely have been avoided. In total, approximately 2,300 customers will benefit from this project including large commercial customers, municipal building, and local schools.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $2.6 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Oakland area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis
Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital				$900.0	$1,700.0
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor				$63.0	$119.0
M&S				$405.0	$765.0
Contract Services				$324.0	$612.0
Other					
Overheads				$108.0	$204.0
Total				**$900.0**	**$1,700.0**

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

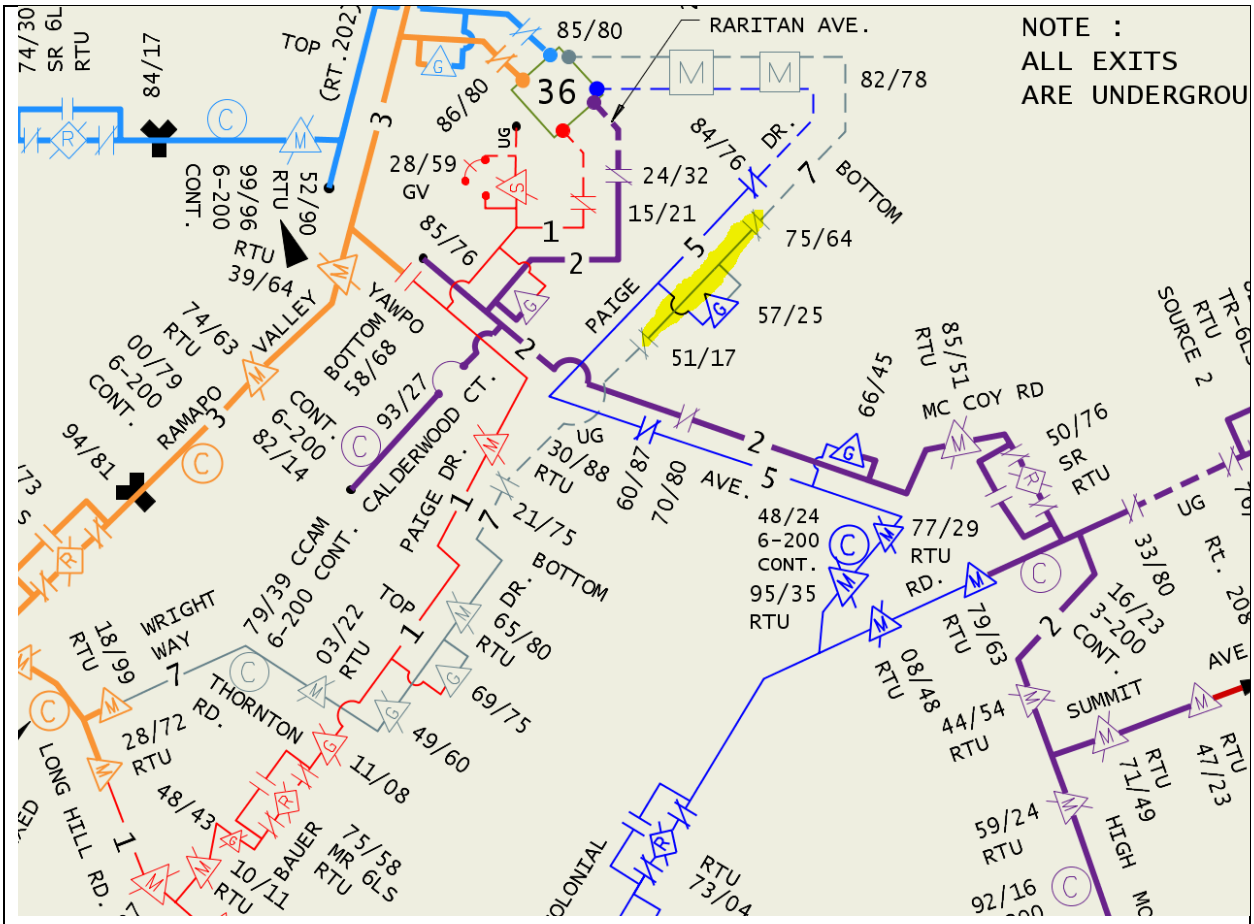
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☒ Regulatory Mandated ☐ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Oakland – 36-7-13 Paige Drive	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2027	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $400.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Paige Drive in Oakland, NJ (Ckt: 36-7-13 & Ckt: 36-5-13) to address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. Circuit 39-7-13 serves 590 customers and circuit 36-5-7-13 serves 979 customers. This project will replace approximately 600 feet of overhead distribution with underground main-line distribution system between station exit riser pole# 52775/37264 and riser pole# 52751/37217 located on Paige Drive in Oakland, NJ. This project will improve reliability issues associated with the overhead distribution system during storm events. The underground system will provide an alternate path in the event of a contingency issue.

The underground cable system will consist of three-phase 750 KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is prone to damage.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on Paige Drive (Ckt: 36-7-13 and 36-5-13) in Oakland, NJ. This project will underground circuit 35-7-13 on Paige Drive Oakland, NJ. During past storms, this portion of Paige Drive has been damaged, resulting in large scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Eliminating the double circuit will improve the reliability for customers in Oakland, NJ. In total, approximately 1,570 customers will benefit from this project, including a local high school.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $0.4 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Oakland area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis
Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital					$400.0
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor					$28.0
M&S					$180.0
Contract Services					$144.0
Other					
Overheads					$48.0
Total					**$400.0**

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

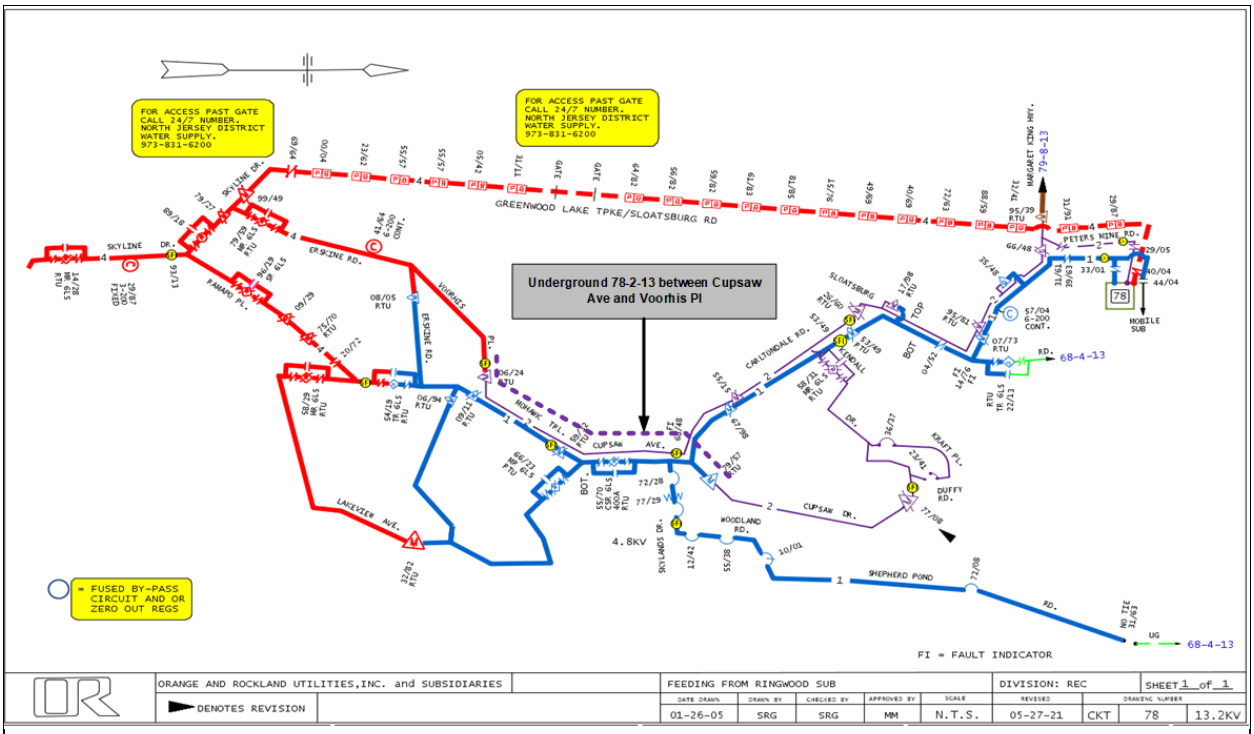
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG – Ringwood – 78-2-13 – Cupsaw Ave to Voorhis Pl	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2026	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $3,100.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project that will underground part of circuit 78-2-13 from Cupsaw Ave to Voorhis Pl in Ringwood, NJ. This eliminates 9,200 feet of double circuit construction on the 78-2-13 to address poor service reliability associated with both small- and large-scale storms, motor vehicle accidents, and equipment failure. Circuit 78-2-13 serves 575 customers and circuit 78-1-13 serves 871 customers. This project will install approximately 5,500 feet of underground main-line distribution between pole# 52305/40475 and pole# 52088/40027. In general, the underground path will be from Cupsaw Ave to Mohawk Trl to Voorhis Pl. This project will improve reliability issues associated with the overhead distribution system during storm events. The underground system will provide an alternate path in the event of a contingency issue.

The underground cable system will consist of three-phase 750 KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The project design will reduce the exposure and provide an alternate feed to a frequently affected area.



Justification Summary:

This project will storm harden the local distribution system and provide an alternate distribution path into Ringwood, NJ. Currently, circuit 78-2-13 load is served from a double circuit pole line along Sterling Mine Rd/Sloatsburg Rd and Carltondale Rd to Cupsaw Ave. During past storms, Kendall Dr and the surrounding Cupsaw Lake area have been affected, resulting in prolonged outages. In addition, to facilitate emergency repairs, the overhead double circuit configuration may require both circuits to be de-energized. Providing an alternate underground path to the area will improve the reliability for customers in Ringwood, NJ fed from both circuits 78-1-13 and 78-2-13. Examining outages from 2017-2021, if this proposed undergrounding project had been completed previously, then one outage and approximately 170 customer minutes of interruption would likely have been avoided. In total, approximately 1,450 customers will benefit from this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

<u>Alternative 1 description and reason for rejection</u>
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $3.1 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in Ringwood, NJ.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital				$600.0	$2,500.0
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor				$42.0	$175.0
M&S				$270.0	$1,125.0
Contract Services				$216.0	$900.0
Other					
Overheads				$72.0	$300.0
Total				**$600.0**	**$2,500.0**

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

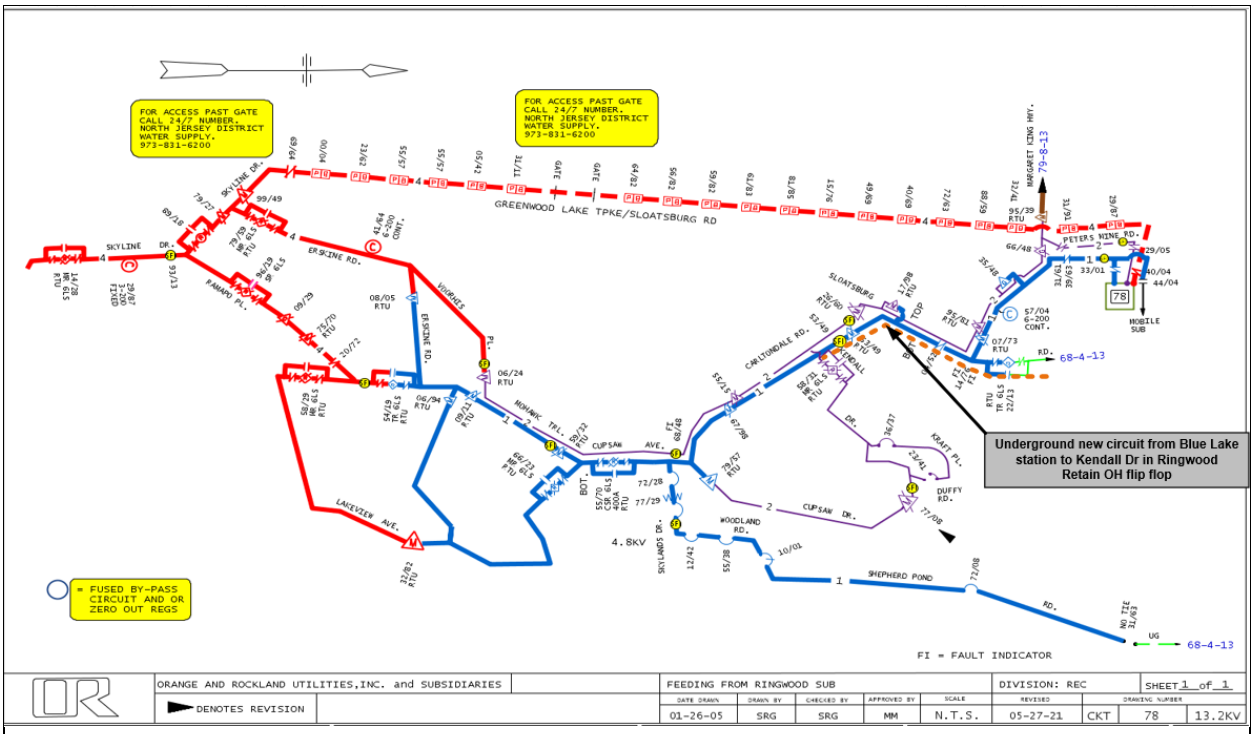
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG – Ringwood – 78-2-13 – Sloatsburg Rd & Kendall	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2025	**Estimated Date In Service: 2026**
A. Total Funding Request ($000) **Capital: $3,200.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to extend a circuit out of Blue Lake Substation underground to Carltondale Rd in Ringwood, NJ. This brings a strong distribution source into Ringwood to address poor service reliability associated with both small and large-scale storms, motor vehicle accidents, and equipment failure. This project also improves capacity for contingency purposes. Circuit 78-2-13 serves 580 customers and circuit 78-1-13 serves 871 customers. This project will install approximately 5,700 feet of underground main-line distribution between the Sloatsburg Rd (P# 52023/41129) and Kendall (P# 52072/40745). In general, the underground path will be Sloatsburg Rd to Carltondale Rd to a riser on Kendal Drive. This new feeder (68-4-13) will serve as a contingency for circuits 78-2-13 or 78-1-13 in the event of a bank failure in Ringwood or issues along Carltondale Ave. Circuit 78-2-13 will remain as primary source and circuit 68-4-13 will serve as alternate distribution source for circuit contingency. This project will improve reliability issues associated with the overhead distribution system during storm events.

The underground system will provide an alternate path in the event of a contingency issue. The underground cable system will consist of three-phase 750KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The project design will reduce the exposure and provide an alternate feed to a frequently affected area.



Justification Summary:

This project will storm harden the local distribution system and provide an alternate distribution path into Ringwood, NJ. Currently, circuit 78-2-13 load is served from a double circuit pole line along Sterling Mine Rd/Sloatsburg Rd and Carltondale Rd. This project will install a contingency circuit 68-4-13 from Sloatsburg Road and will benefit 1,451 customers in Ringwood NJ.

During past storms, Carltondale Rd and Sloatsburg Rd feeders has been damaged, affecting the Cupsaw Lake area and resulting in prolonged outages. In addition, to facilitate emergency repairs, the overhead double circuit configuration may require both circuits to be de-energized. Providing an alternate underground path to the area will improve the reliability for our customers in Ringwood NJ fed from the 78-2-13. Examining outages from 2017-2021, if this proposed undergrounding project had been completed previously, then two outages and approximately 240,000 customer minutes of interruption would likely have been avoided.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company conducted a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $3.2 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Ringwood area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis
Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital			$2,200.0	$1,000.0	
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor			$154.0	$70.0	
M&S			$990.0	$450.0	
Contract Services			$792.0	$360.0	
Other					
Overheads			$264.0	$120.0	
Total			**$2,200.0**	**$1,000.0**	

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

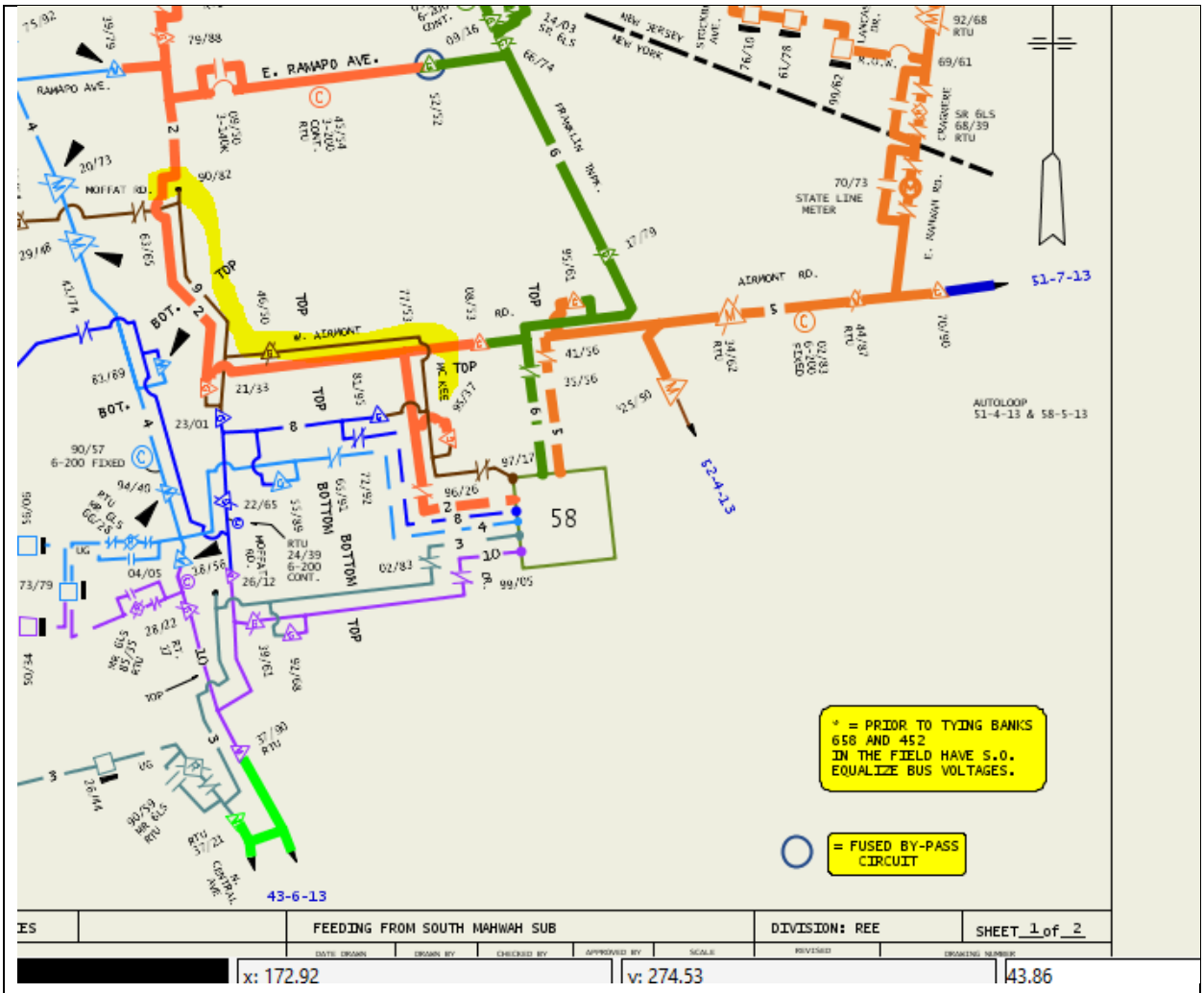
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - South Mahwah- 58-9-13- W. Airmont Rd.	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2026	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $1,300.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Livingston St on circuits 58-9-13 and 58-2-13 to address poor service reliability on the distribution system associated with both small- and large-scale storms, motor vehicle accidents, and equipment failure. Circuit 58-9-13 serves 432 customers and circuit 58-2-13 serves 811 customers. This project will replace approximately 2,000 feet of overhead distribution with underground main-line distribution system between grid# 55081/39642 and grid# 54978/39765. In general, the underground path will be on Mc Kee Dr., to Airmont Ave and rise on Moffat Rd. This project will improve reliability issues associated with the overhead distribution system during storm events. The underground system will provide an alternate path in the event of a contingency issue.

The underground cable system will consist of three-phase 750 KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The spare duct system will be for a potential future circuit. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is most prone to damage.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on W. Airmont Rd. Mahwah, NJ. Currently, South Mahwah circuits (58-9-13 & 58-2-13) are fed from a double circuit pole line from Mc Kee Drive to Moffat Rd. This project will underground this portion of circuit 58-9-13. The existing overhead construction is at the end of its life, and a spacer cable system was not the best option, as overhead double circuit configuration, and its' corresponding risks, would remain.

During past storms, this portion of W. Airmont Rd. has been damaged due to vegetation contact, resulting in large-scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as had occurred in the past. Eliminating the double circuit will improve the reliability for our customers in Mahwah, NJ. Examining outages from 2017-2021, if this proposed undergrounding project had been completed previously, then one outage and approximately 9,000 customer minutes of interruption would likely have been avoided. In total, approximately 1,250 customers will benefit from this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $1.3 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in Ramsey and South Mahwah, NJ.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan
Technical Evaluation / Analysis	
Project Relationships (if applicable)	

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital				$100.0	$1,200.0
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor				$25.0	$84.0
M&S					$540.0
Contract Services				$63.0	$432.0
Other					
Overheads				$12.0	$144.0
Total				**$100.0**	**$1,200.0**

Total Gross Cost Savings / Avoidance by Year:

	2023	2024	2025	2026	2027
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	2024	2025	2026	2027
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

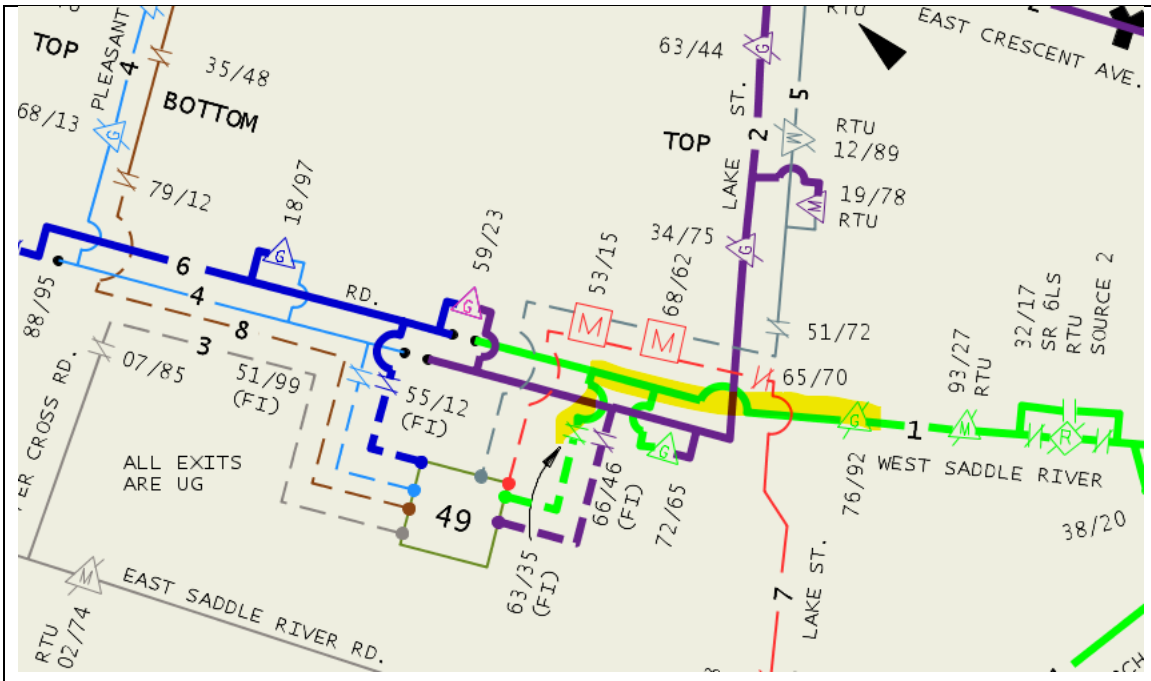
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Upper Saddle River - 49-1-13 West Saddle River Road	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2027	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $500.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along West Saddle River Road in Upper Saddle River NJ (Ckt. 49-1-13 & Ckt: 49-2-13) to address poor service reliability on the distribution system associated with both small- and large-scale storms and equipment failure. Circuit 49-1-13 serves 789 customers and circuit 49-2-13 serves 1187 customers. This project will replace approximately 750 feet of overhead distribution with underground main-line distribution system between station exit riser Pole# 56463/38535 on West Saddle River Road to pole# 56477/38604 in Upper Saddle River. This project will improve reliability issues associated with the overhead distribution system during storm events. The underground system will provide an alternate path in the event of a contingency issue.

The underground cable system will consist of three-phase 750 KCm Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is prone to damage.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on West Saddle River Road (Ckt: 49-1-13 and 49-2-13) in Upper Saddle River NJ. This project will underground circuit 49-1-13 on West Saddle River Rd in Upper Saddle River, NJ. During past storms, this portion of West Saddle Road has been damaged, resulting in large-scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Eliminating the double circuit will improve the reliability for customers in Upper Saddle River NJ. In total, approximately 1,980 customers will benefit from this project including a local high school and municipal buildings.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)

1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $0.5 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Upper Saddle River area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital					$500.0
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor					$35.0
M&S					$225.0
Contract Services					$180.0
Other					
Overheads					$60.0
Total					**$500.0**

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

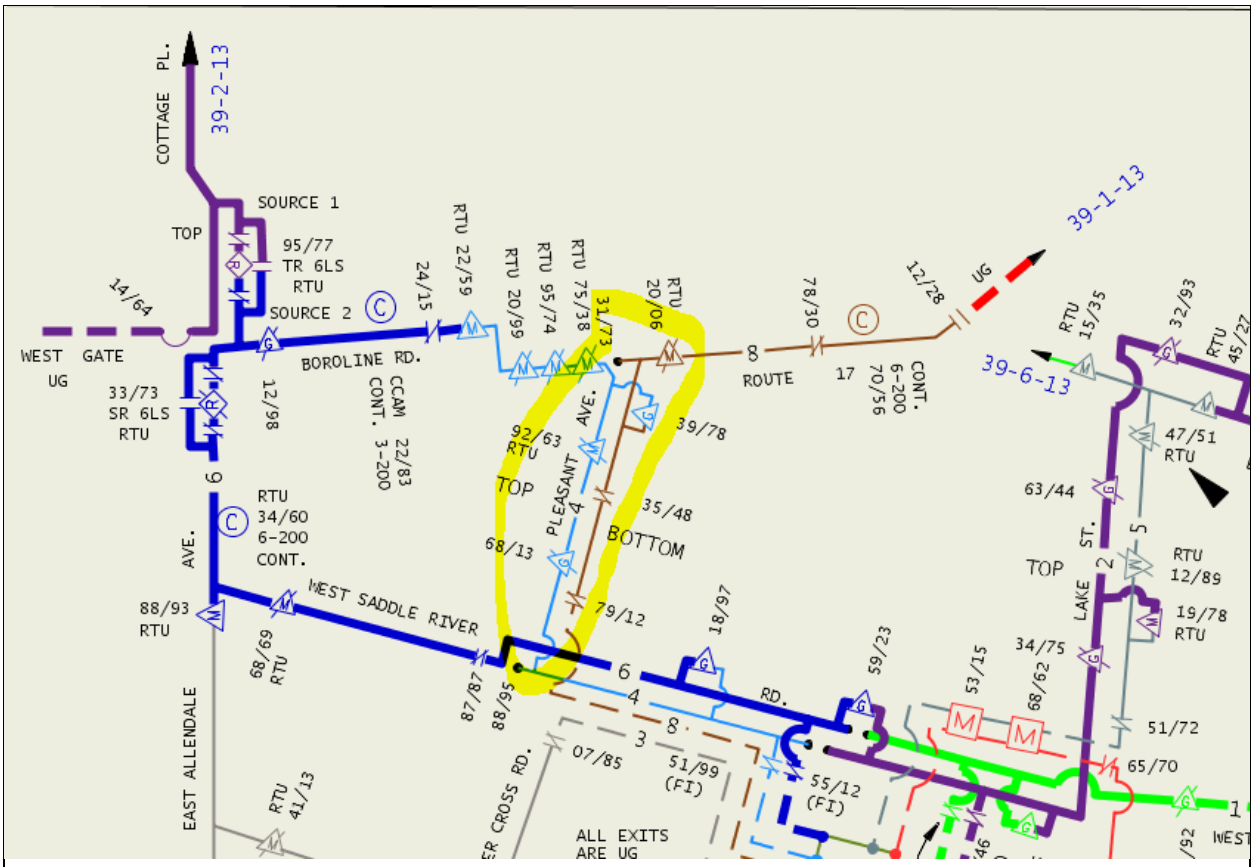
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Upper Saddle River- 49-4-13 Pleasant Ave	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2026	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $2,500.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a strategic undergrounding project to eliminate a double circuit distribution system along Pleasant Ave on circuits 49-4-13 and 49-8-13 to address poor service reliability on the distribution system associated with both small- and large-scale storms, motor vehicle accidents, and equipment failure. Circuit 49-4-13 serves 222 customers and circuit 49-8-13 serves 357 customers. This project will replace approximately 4,500 feet of overhead distribution with underground main-line distribution system between grid# 55933/38267 and rise close to West Saddle River Road. In general, the underground path will be Pleasant Ave. This project will improve reliability issues associated with the overhead distribution system during storm events. The underground system will provide an alternate path in the event of a contingency issue.

The underground cable system will consist of three-phase 750 KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The spare duct system will be for a potential future circuit. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is most prone to damage.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path Pleasant Ave (Ckt: 49-4-13 and 49-8-13) in Upper Saddle River, NJ. This project will underground circuit 49-4-13 on Pleasant Ave. During past storms, this portion of Pleasant Ave has been damaged, resulting in large-scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Eliminating the double circuit will improve the reliability for customers in Upper Saddle River, NJ. In total, approximately 580 customers will benefit from this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $2.5 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Upper Saddle River area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis
Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital				$200.0	$2,300.0
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor				$35.0	$161.0
M&S				$15.0	$1,035.0
Contract Services				$126.0	$828.0
Other					
Overheads				$24.0	$276.0
Total				**$200.0**	**$2,300.0**

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG - Upper Saddle River- 49-2-13- Lake St	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2025	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $4,900.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Lake Street (Ckt. 49-2-13 and Ckt. 49-5-13) to address poor service reliability on the distribution system associated with both small- and large-scale storms, motor vehicle accidents, and equipment failure. Circuit 49-2-13 serves 1,169 customers and circuit 49-5-13 serves 623 customers. This project will replace approximately 8,300 feet of overhead distribution with underground main-line distribution system between grid# 56463/38576 and grid# 55846/38832. In general, the underground path will be on Lake Street. This project will improve reliability issues associated with the overhead distribution system during storm events. The underground system will provide an alternate path in the event of a contingency issue.

The underground cable system will consist of three-phase 750 KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The spare duct system will be for a potential future circuit. The project design will reduce the exposure on a double circuit pole line configuration and provide an alternate path to reroute a portion of the circuit that is most prone to damage.

Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on Lake St, Upper Saddle River, NJ. Currently Lake St (Ckt. 49-2-13 & Ckt. 49-5-13) is fed from a double circuit pole line from W, Saddle River till E Crescent Ave. This project will underground this portion of circuit 49-2-13. The existing overhead construction is at the end of its life, and a spacer cable system was not the best option, as overhead double circuit configuration, and its' corresponding risks, would remain.

During past storms, this portion of Lake St has been damaged due to vegetation contact, resulting in large-scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as had occurred in the past. Eliminating the double circuit will improve the reliability for our customers in Upper Saddle River, NJ. Examining outages from 2017-2021, if this proposed undergrounding project had been completed previously, then nine outages and approximately 53,000 customer minutes of interruption would likely have been avoided. In total, approximately 1,800 customers will benefit from this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $4.9 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the Upper Saddle River area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis
Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital			$300.0	$1,200.0	$3,400.0
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor			$50.0	$84.0	$238.0
M&S			$50.0	$540.0	$1,530.0
Contract Services			$164.0	$432.0	$1,224.0
Other					
Overheads			$36.0	$144.0	$408.0
Total			**$300.0**	**$1,200.0**	**$3,400.0**

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

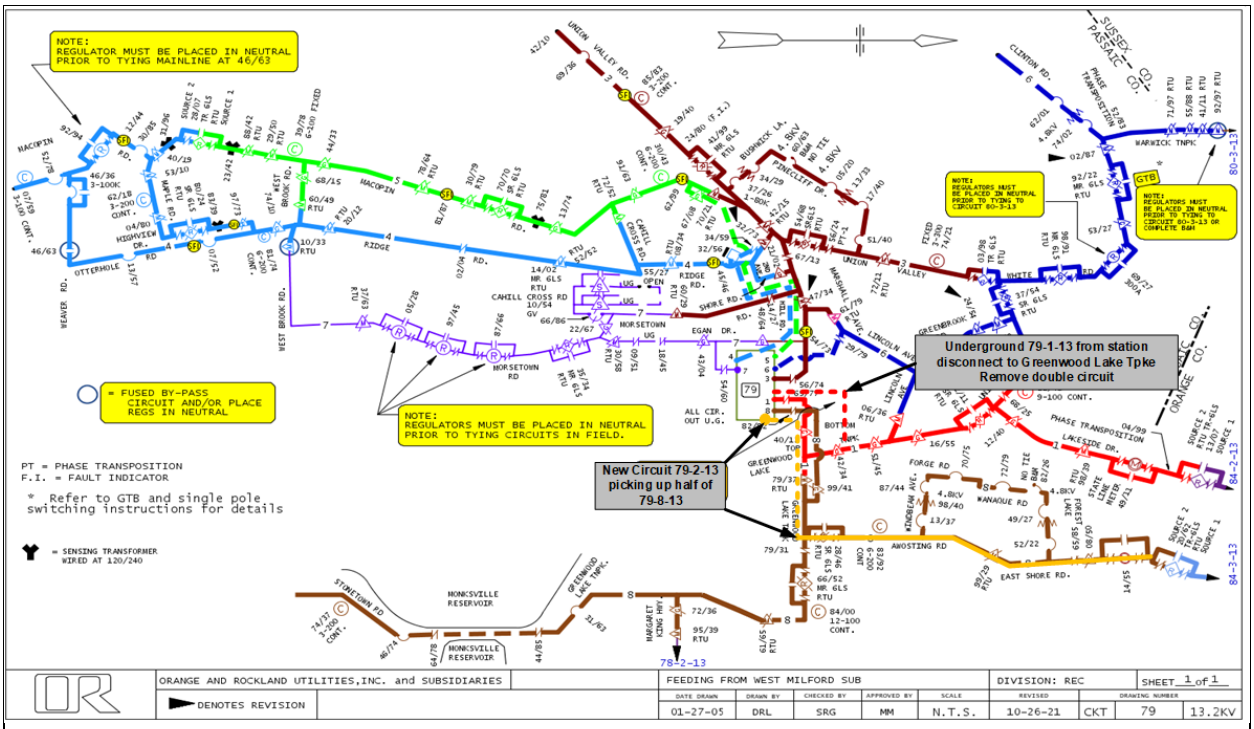
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG – West Milford - 79-1-13/79-2-13 Greenwood Lake Tpke & Awosting Rd	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2024	**Estimated Date In Service: 2026**
A. Total Funding Request ($000) **Capital: $5,600.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a double circuit distribution system along Greenwood Lake Turnpike on circuits 79-1-13 and 79-8-13 to address poor service reliability on the distribution system associated with both small- and large-scale storms, motor vehicle accidents, and equipment failure. This project also includes adding another circuit, 79-2-13, to split the load on circuit 79-8-13 and improve capacity for contingency purposes. Circuit 79-1-13 serves 791 customers and circuit 79-8-13 serves 1120 customers. This project will replace approximately 2,600 feet of overhead distribution on circuit 79-1-13 with underground main-line distribution between pole# 49565/41377 and pole# 49704/41449. In general, the underground path will be Marshall Hill Rd to a riser on Greenwood Lake Turnpike. A new circuit, 79-2-13, will be commissioned exiting underground (6,700 feet) from West Milford Substation following Marshall Hill Rd to Greenwood Lake Turnpike and rising at Awosting Rd (pole# 50133/41533). This new circuit will carry load on Awosting Rd and split the customer count on circuit 79-8-13. This project will improve reliability issues associated with the overhead distribution system during storm events.

The underground system will provide an alternate path in the event of a contingency issue. The underground cable system will consist of three-phase 750KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased from West Milford Substation to Greenwood Lake Turnpike. From Marshall Hill Rd to Awosting Rd (pole# 50133/41533) will be (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. From Marshall Hill Rd to pole # 49704/41449 will be (2) six-inch scheduled 40 steel reinforced conduit system concrete encased.



Justification Summary:

This project will storm harden the local distribution system and eliminate a double circuit configuration along the distribution path on Marshall Hill Rd and Greenwood Lake Turnpike in West Milford, NJ. Currently, circuits 79-1-13 & 79-8-13 are fed from a double circuit pole line along Marshall Hill Rd and Greenwood Lake Turnpike. This project will underground the existing circuit 79-1-13 to Greenwood Lake Turnpike and a new circuit ,79-2-13, between the West Milford Substation and Awosting Rd.

During past storms, this portion of Anderson Ave has been damaged due to vegetation contact, resulting in large-scale outages. In addition, during emergency repairs the overhead double circuit configuration may require both circuits to be de-energized, as has occurred in the past. Therefore, a spacer cable system was not the best option, as overhead double circuit configuration, and its' corresponding risks, would remain. Eliminating the double circuit will improve reliability for our customers in West Milford, NJ. In total, approximately 1,910 customers will benefit with this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a storm hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

This project will provide the additional benefit of an additional circuit being installed from the West Milford Substation.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $5.6 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the West Milford area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis
Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital		$1,200.0	$3,200.0	$1,200.0	
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor		$84.0	$224.0	$84.0	
M&S		$540.0	$1,440.0	$540.0	
Contract Services		$432.0	$1,152.0	$432.0	
Other					
Overheads		$144.0	$384.0	$144.0	
Total		**$1,200.0**	**$3,200.0**	**$1,200.0**	

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

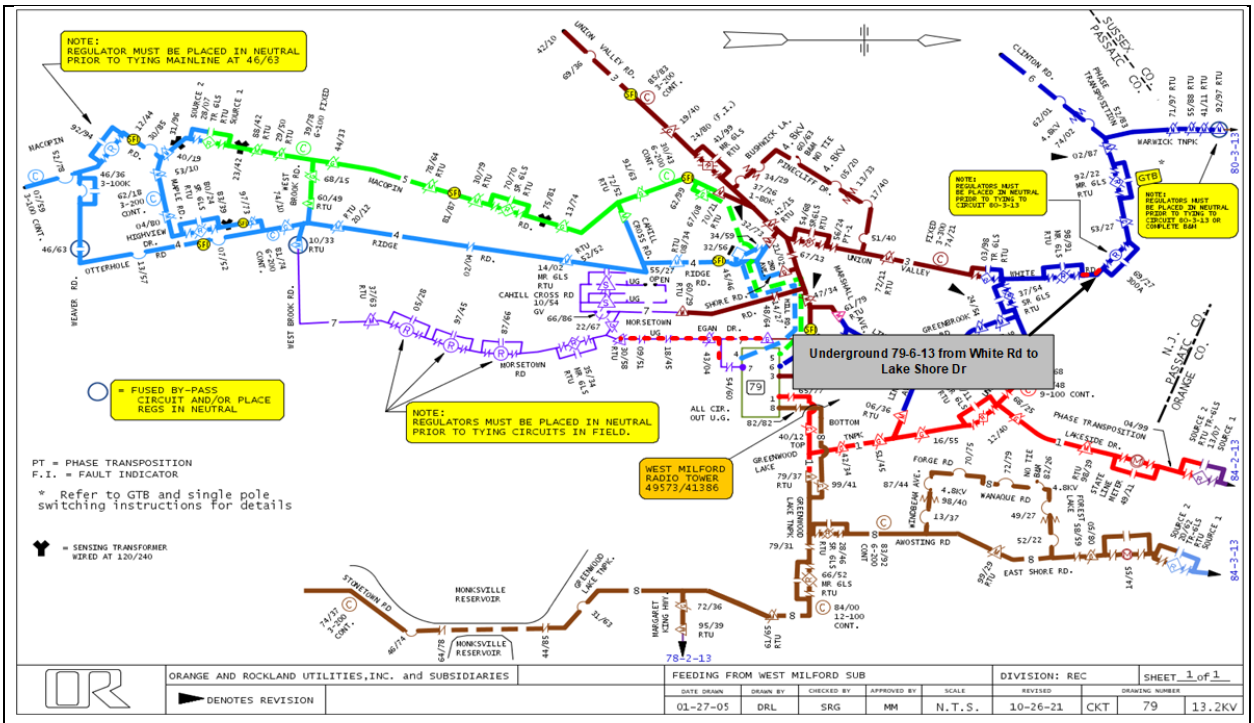
1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Selective UG – West Milford – 79-6-13 – Warwick Turnpike	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2023	**Estimated Date In Service: 2024**
A. Total Funding Request ($000) **Capital: $2,300.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period: (Years/months) (If applicable)**

Work Description:

This is a selective undergrounding project to eliminate a portion of an overhead circuit and run it underground for a segment of circuit 79-6-13 out of West Milford Substation to Warwick Turnpike in Hewitt, NJ. This segment of overhead wire is prone to motor vehicle accidents and tree contact. Circuit 79-6-13 serves 2,630 customers. This project will install approximately 4,200 feet of underground main-line distribution between pole# 49076/42156 and pole# 48799/42417. The underground path will be along Warwick Turnpike.

This project will improve reliability issues associated with both small- and large-scale storms, motor vehicle accidents, and equipment failure. The underground cable system will consist of three-phase 750KCM Cu, CNJ 15kv cable, constructed with (2) six-inch scheduled 40 steel reinforced conduit system concrete encased. The spare duct system will be for a potential future circuit. The project design will reduce the exposure and provide an alternate feed to a frequently affected area.



Justification Summary:

This project will storm harden the local distribution system for customers in Hewitt, NJ. Currently, circuit 79-6-13 load is served from an exposed pole line along Warwick Turnpike between White Rd and Lake Shore Dr. The purpose of this project is to run underground distribution to replace the overhead pole line. Providing an underground path to the area will improve the reliability for customers in Hewitt and West Milford, NJ fed from circuit 79-6-13. Examining outages from 2017-2021, if this proposed undergrounding project had been completed previously, then two outages and approximately 7.5 million customer minutes of interruption would likely have been avoided. In total, approximately 2,630 customers will benefit with this project.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This project is in alignment with the Company's goals to increase reliability through storm hardening, meet design standard, and upgrade aging infrastructure. In addition, this project addresses Corporate risk from major storms by providing storm hardening benefits.

2. Supplemental Information

Alternatives

<u>Alternative 1 description and reason for rejection</u>
The Company completed a detailed review to identify potential overhead alternative routes, however, no options are available. The underground distribution approach was the only solution.

Alternative 2 description and reason for rejection
This is a Storm Hardening reliability project construction design, and as such a non-wires alternative ("NWA") solution would not be suitable.

Risk of No Action

The existing overhead system is constructed utilizing double circuit design. If no action is taken, then during storm conditions the probability exists that both circuits would be lost for any tree related outage or a major vehicle accident on any single pole. By relocating one of the circuits underground, reliability is increased, and the surrounding area is storm hardened.

Non-Financial Benefits

The new underground mainline is required in this area to maintain system reliability and provide additional storm hardening benefits to the surrounding area.

Summary of Financial Benefits and Costs (attach backup)
1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $2.3 million.

4. Basis for estimate

Historical capital expenditures of similar underground distribution projects.

5. Conclusion

This project should be done to improve reliability and provide storm hardening benefits to customers in the West Milford area.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric		
O&R Gas		
RECO	X	

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital	$1,300.0	$1,000.0			
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor	$91.0	$70.0			
M&S	$585.0	$450.0			
Contract Services	$468.0	$360.0			
Other					
Overheads	$156.0	$120.0			
Total	**$1,300.0**	**$1,000.0**			

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

1. Project / Program Summary

Type: ☐ Project ☒ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: NJ IIP Rehab/Rebuild Program	
Project/Program Manager: Wayne Banker	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2023	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $20,000** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

The proposed five-year program ($4.0 million/year) is to accelerate the rehabilitation or rebuild of Underground Residential Development (URD) subdivisions' cable and their underground components in order to prevent customer interruptions and improve system reliability.

The Company analyzes all underground system outage statistics on an individual subdivision basis and develops a priority listing. The Company develops the priority list by reviewing and ranking the following subdivision statistics: subdivision density, interruption frequency, average subdivision interruption, average outage duration, number of interruptions, and age of the cable system. From this listing, the Company determines if the underground cable is to be rehabilitated with silicone fluid or rebuilt with new cable. Where multiple cable failures have occurred on the same cable section, cables are replaced with Ethylene Propylene Rubber (EPR) insulated cable.

For URD subdivisions cable systems that have not had multiple cable failures, the Company considers a less expensive rehabilitation process. Rehabilitation is accomplished by injecting a patented silicone-based fluid into the interstices of the cable, which impregnates the insulation and fills the voids. This process restores the dielectric properties of the deteriorated cable allowing for extended service life.

The amount of cable to be addressed by this program will vary based on the prioritization of needs and if the selected projects involve rehabilitation or rebuild. Historically, the Company has completed rehabilitation at an average cost of $15 per foot and rebuild at an average of $95 per foot. The Company will develop, review and select projects for the program on an annual basis to determine the worst performing URD subdivisions, so that work can be prioritized properly.

Justification Summary:

From a reliability and maintenance standpoint, URD subdivision outages negatively impact all utilities. For the past 40 years, O&R has improved URD subdivision reliability by focusing on the most impactful part, *i.e.*, the underground cable system. The successful combination of the rehabilitation and rebuild programs has resulted in the reduction in cable failures.

The Rehabilitation Program is a proactive measure to increase customer reliability and therefore focuses on URD subdivisions that fit the Company's rehabilitation criteria and have experienced a small number of outages due to cable failure. The criteria for rehabilitation vs. rebuilding a subdivision are based on the following factors: total costs of both options, due large express cable runs or multiple splice sections exist, cable neutral system conditions, and are there radial systems. During the rehabilitation process, the Company tests and evaluates cable neutrals to verify that an adequate neutral conductor is still operational. If the neutrals are insufficient in size, the Company will replace the cable due to safety concerns. If there have been multiple outages within a cable section due to cable failures, it is usually more cost effective to rebuild the faulted sections.

The Company selects URD subdivisions that are served by underground facilities for cable replacement based upon the frequency of cable failures and whether they do not fit the criteria for rehabilitation or previously have been unsuccessfully rehabilitated. Outage statistics are used as an initial guide in identifying URD subdivisions that experience frequent outages. From this selection process, further outage analysis is required to isolate outages that occur only as a result of cable failure. The Company then develops a priority list which ranks URD subdivisions according to outage frequency, customers affected, and load.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

The program is in alignment with the Company's goals to increase reliability by meeting design standard and upgrading aging infrastructure.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
Using the current existing budget for this program will result in older infrastructure remaining in the ground, leading to an increase in underground cable failure rates. The Company rejected this alternative due to reduced customer satisfaction and increased operation and maintenance costs.

Alternative 2 description and reason for rejection
This is a Service Reliability program and as such a non-wires alternative (NWA) solution would not be suitable to address it.

Risk of No Action

The existing underground system continues to age which has resulted in increased URD cable failures resulting in increased customer outages. If nothing is done, the failure rate will increase, increasing System Average Interruption Frequency Index (SAIFI) and Customer Average Interruption Duration Index (CAIDI) numbers.

Non-Financial Benefits

The additional rehabilitation/rebuild program will increase service reliability thus reducing cable failure rates, resulting in fewer customer outages. This will increase customer satisfaction.

Summary of Financial Benefits and Costs (attach backup)

1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned program is $20.0 million over five years.

4. Basis for estimate

Historical capital expenditures of similar underground distribution rehabilitation/rebuild program.

5. Conclusion

This project should be performed to improve reliability by increasing the service life of existing underground cables or the replacement of aged cable systems.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital	$4,000.0	$4,000.0	$4,000.0	$4,000.0	$4,000.0
O&M*					

Capital Request by Elements of Expense:

EOE	**2023**	**2024**	**2025**	**2026**	**2027**
Labor	$400.0	$400.0	$400.0	$400.0	$400.0
M&S	$1000.0	$1000.0	$1000.0	$1000.0	$1000.0
Contract Services	$1,800.0	$1,800.0	$1,800.0	$1,800.0	$1,800.0
Other					
Overheads	$800.0	$800.0	$800.0	$800.0	$800.0
Total	**$4,000.0**	**$4,000.0**	**$4,000.0**	**$4,000.0**	**$4,000.0**

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

RECO NJ-IIP
2023-2027

1. Project / Program Summary

Type: ☒ Project ☐ Program	**Category: ☒ Capital ☐ O&M**
Work Plan Category: ☐ Regulatory Mandated ☒ Operationally Required ☐ Strategic	
Project/Program Title: Franklin Lakes Substation and High Voltage Distribution Line Upgrades	
Project/Program Manager: James Koza	**Project/Program Number (Level 1):**
Status: ☒ Initiation ☐ Planning ☐ Execution ☐ On-going ☐ ☐ Other: _____	
Estimated Start Date: 2023	**Estimated Date In Service: 2027**
A. Total Funding Request ($000) **Capital: $131,000.0** **O&M:**	**B.** **☐ 5-Year Gross Cost Savings ($000)** **☐ 5-Year Gross Cost Avoidance ($000)** **O&M:** **Capital:**
C. 5-Year Ongoing Maintenance Expense ($000) **O&M:** **Capital:**	**D. Investment Payback Period:** **(Years/months) (If applicable)**

Work Description:

The Franklin Lakes Substation and High Voltage Distribution Line Upgrades Project involves the construction of a new 138kV substation on the existing Franklin Lakes Substation property, as well as associated line upgrades.

Substation Upgrades

The existing Franklin Lakes Substation will be replaced with a new 138kV substation. The proposed Franklin Lakes Substation will include two (2) 50MVA 138/13.2kV distribution transformer banks each equipped with a Load Tap Changer ("LTC"), 3500 Amp distribution busses, and a new 13.2kV switchgear lineup with a total of ten (10) distribution circuit positions.

The current Franklin Lakes Substation has two (2) 69/13.2kV transformers, Banks 335 and 435, with nameplate ratings of 25MVA each which serve approximately 6,200 customers. The 2021 Weather Normalized ("WN") loads for Banks 335 and 435 were 21.9MVA and 21.8MVA, respectively. Bank 335 has a normal rating of 33MVA and an LTE rating of 38MVA. Bank 445 has a normal rating of 30MVA and an LTE rating of 34MVA.

The proposed Franklin Lakes Substation will:

- Provide four (4) additional distribution circuit positions;
- Include underground circuit exists for improved circuit reliability;
- Add transformer LTC voltage control; and
- Allow for increased hosting capacity relative to distributed energy resources consistent with the State Energy Master Plan.

Underground Exits

As part of the Franklin Lakes Substation Upgrade, underground exits will be required for all ten (10) distribution circuits. These underground exits will be designed and installed to points of path diversity to provide storm hardening benefits. The underground civil system will be installed in a manhole and concrete encased conduit system in existing roadways. The electrical system will consist of 3/C - 750 kcm copper 15kV cables that are installed in the conduit system along with cable splices and terminations.

High Voltage Distribution Line Upgrades

Two 69kV overhead lines (Lines 57 and 58) currently feed the Franklin Lakes Substation. These lines originate at the South Mahwah Substation, located in Mahwah, New Jersey, and are supported on a combination of wood pole and lattice steel structures over approximately 6.4 miles. Lines 57 and 58 each have a normal rating of 113MW and a Long-Term Emergency ("LTE") rating of 119MW. Two 69kV underground lines (Lines 570 and 580) originate at the Franklin Lakes Substation and serve the Oakland Substation located on Raritan Road in the Borough of Oakland, New Jersey. Lines 570 and 580 are approximately 1.6 miles long and each line has a normal rating of 65MW and an LTE rating of 79MW. There is currently no 69kV or 138kV tie between the Franklin Lakes Substation and Allendale Substation, which is located on Heights Road in the Borough of Allendale, New Jersey.

Because the ability to serve the area is limited to Lines 57 and 58, the combined customers fed from the Franklin Lakes and Oakland Substations (currently approximately 11,000 customers) rely on outside distribution ties for restoration. However, these customers currently only have 10 to 15 percent backup from the Allendale and Darlington Substation during peak. In the event of an outage of both Lines 57 and 58, the remaining customers can be restored only after the emergency repairs to at least one of these lines has been completed, potentially resulting in extended outages.

To improve reliability and resiliency in the greater Franklin Lakes area, the Company is proposing the following substation and line upgrades, in addition to the new 138kV Franklin Lakes Substation:

- Provide one new underground feed from the Allendale Substation to the Franklin Lakes Substation at 138kV;
- Provide one new underground feed from the Darlington Substation at 138kV to the new Franklin Lakes Substation;
- Upgrade the two existing underground feeds between the Franklin Lakes and Oakland Substations (Lines 570 and 580) from 69kV to 138kV; and
- Upgrade the existing Oakland Substation for operation from 69kV to 138kV.
-

The above-described line upgrades will allow for the retirement and removal of existing overhead Lines 57 and 58.

Justification Summary:

Substation Upgrades

The new Franklin Lakes Substation will provide various customer benefits. In the event of a contingency of less than four hours on either of the new Franklin Lakes banks at the time of peak load, the substation upgrade will allow the remaining bank to assume 100% of the station load without depending on switchable ties from adjacent stations. This will remain the case for approximately the next 15 years with peak load growth at an average growth rate of 1.0%. The new Franklin Lakes Substation will provide load relief of approximately 12 MVA for the Allendale Substation, load relief of approximately 11 MVA for the Darlington Substation, and load relief of approximately 15 MVA for the Oakland Substation. The

two proposed 50 MVA transformer banks at the Franklin Lakes Substation will increase station capacity and will maintain redundancy as the load levels and electrification in the area increases. The new 13.2 kV switchgear will be more reliable than the existing open-air distribution structure. During an outage, these upgrades will also decrease the dependency on distribution circuit ties from the adjacent Allendale, Darlington and Oakland Substations and will avoid a scenario that could result in large-scale extended outages. In addition, the new Substation will allow for increased hosting capacity relative to distributed energy resources consistent with the State Energy Master Plan.

Underground Exits

The underground exits for constructed for all ten (10) distribution circuits as part of the Franklin Lakes Substation Upgrade will provide increased reliability and storm hardening for the associated circuits. The underground exits will eliminate the risk of tree contacts and other impacts associated with major storms.

High Voltage Distribution Line Upgrades

Serving the new Franklin Lakes Substation from the 138kV system will provide load relief of approximately 82.8 MVA (the combined loads of the Franklin Lakes and Oakland Substations) to the 69kV system. The additional transformer capacity and LTC controls will support three additional distribution circuits which will also allow for the off-load of adjacent stations. In addition, the Company can defer the planned Wyckoff Substation until additional capacity is needed to support beneficial electrification (beyond 2030). This project also provides a third 138kV line to serve the Allendale Substation. The Allendale Substation is currently served by two 138kV lines that originate at the South Mahwah Substation. These lines, Lines 585 and 587, run approximately three miles along a former trolley car right-of-way to the Allendale Substation. Both lines utilize oil and paper insulated pipe type cable systems which are approaching the limit of their anticipated reliable lifespan. The installation of a new line between the Franklin Lakes and Allendale Substations will provide continued reliable service to Allendale while Lines 585 and 587 are replaced with new solid dielectric cables at some point in the future. Consistent with its' current operating practices, the Company will operate all of the 138kV lines as distribution facilities.

The Company did not include the bulk of the Franklin Lakes Projects in its current five-year capital plan. Rather the Company estimated that the Franklin Lakes Substation and Franklin Lakes High Voltage Distribution Lines will be completed in 2029 and 2032, respectively. However, due to the significant size of the Franklin Lakes Projects and the long lead times required to complete them, the Company does plan to commence preliminary work on these projects as part of the five-year capital plan. This work mostly includes activities such as engineering, design, and permitting. Given the need to improve the reliability and resiliency of the Company's distribution system in the Franklin Lakes area, particularly given the increase in the number and severity of major storms, the Company proposes to accelerate the completion of the Franklin Lakes Projects as part of the Program. Accelerating the Franklin Lakes Projects as proposed in the Program will advance the new substation by two years and place the new high voltage distribution feeders into service five years earlier. The acceleration of the Franklin Lakes Projects will result in enhanced reliability and resiliency to customers in the Franklin Lakes area. The Franklin Lakes area upgrades are scheduled to be in-service in 2027, and with their completion no other further upgrades will be needed at the Darlington, Oakland, and South Mahwah Substations within the forecast period.

Relationship to 5-Year and Long-Range Plans and Enterprise Risk Management Strategy

This area wide project is in alignment with the Company's goals to increase reliability through meeting design standards, storm hardening, and upgrading aging infrastructure. In addition, this project provides storm hardening benefits.

2. Supplemental Information

Alternatives

Alternative 1 description and reason for rejection
Construct a new Franklin Lakes Substation for continued operation at 69kV from existing Lines 57 and 58.

This alternative was rejected due to the continued reliance on Lines 57 and 58. Lines 57 and 58 have previously been upgraded from 34.5kV to 69kV with larger conductor. The existing 397 Aluminum Conductor Steel Supported ("ACSS") conductor is the largest conductor that the existing towers can accommodate, and further voltage and conductor upgrades of these structures is not possible. Also, during storms the Company has experienced extended outages of both Lines 57 and 58 where all the impacted customers served from the Franklin Lakes and Oakland Substations could not be picked up from distribution ties. Finally, this alternative would not provide an additional 138kV feed to the Allendale Substation and allow for the replacement of existing Lines 585 and 587.

Alternative 2 description and reason for rejection
Construct a new Franklin Lakes Substation and rebuild existing Lines 57 and 58 for operation at 138kV.

This alternative was rejected due to the limited corridor available for Lines 57 and 58. Temporary lines would have to be installed on the same right-of-way as existing Line 57 and 58 to allow for continuity of service to Franklin Lakes while the existing towers were removed, and new structures installed. The current right-of-way width of 100 feet will not accommodate this configuration during construction and significant additional rights would need to be acquired from the property owner along the line's corridor for construction and vegetation clearing. Also, these overhead lines would be subject to the same extended outages of both Lines 57 and 58 as described in Alternative 1 resulting in significant impact to the customers served from the Franklin Lakes and Oakland Substations. Finally, this alternative would not provide an additional 138kV feed to the Allendale Substation and allow for the replacement of existing Lines 585 and 587.

Risk of No Action

With no action, the risks to reliability in the Franklin Lakes area will only grow over time and various aspects will continue to fail current design standards. Specifically, two the Franklin Lakes circuits will continue to lack 100 percent backup for an individual circuit contingency. Further, limitations for load transfer to adjacent station circuits during a contingency will continue to grow.

Non-Financial Benefits

- Increased reliability in the Franklin Lakes area
- Increased resiliency during major storms and contingencies
- Greater flexibility for load relief for adjacent substations

Summary of Financial Benefits and Costs (attach backup)

1. Cost-benefit analysis (if required)

2. Major financial benefits

3. Total cost

Total current estimated cost for the above-mentioned project is $131 million.

4. Basis for estimate

Historical capital expenditures of similar substation and line projects.

5. Conclusion

This project should be done to improve reliability in the Franklin Lakes Load Area as well as in the neighboring Darlington, Allendale, and Oakland Load Areas.

Project Risks and Mitigation Plan

Risk 1	Mitigation plan
Risk 2	Mitigation plan

Technical Evaluation / Analysis

Project Relationships (if applicable)

3. Funding Detail

O&R Electric	
O&R Gas	
RECO	X

	Common Split Percentages				
	A0	C0	E0	01	02
O&R Electric	55.69%	66.93%	76.69%	100.00%	–
O&R Gas	27.51%	33.07%	–	–	100.00%
RECO	16.80%	–	23.31%	–	–

Historical Spend

	Actual 2017	**Actual 2018**	**Actual 2019**	**Actual 2020**	**Historic Year** (O&M only)	**Forecast 2022**
Capital						
O&M						

Total Request ($000):

Total Request by Year:

	Request 2023	**Request 2024**	**Request 2025**	**Request 2026**	**Request 2027**
Capital					
O&M*					

Capital Request Project Components:

Component	**2023**	**2024**	**2025**	**2026**	**2027**
Franklin Lakes - Substation	1,000	6,000	10,000	10,000	-
Franklin Lakes – Underground Exits	500	3,500	4,000	4,000	-
Franklin Lakes – High Voltage Distribution Lines	5,000	15,000	30,000	29,000	13,000
Total	**6,500**	**24,500**	**44,000**	**43,000**	**13,000**

Total Gross Cost Savings / Avoidance by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M Savings					
O&M Avoidance					
Capital Savings					
Capital Avoidance					

Total Ongoing Maintenance Expense by Year:

	2023	**2024**	**2025**	**2026**	**2027**
O&M					
Capital					

*If whitepaper is supporting a capital project/program this refers to implementation O&M

4. Definitions

Total Funding Request: All funding requested for program or project over program/project lifecycle or for on-going programs the five-year requested amount, including all capital, O&M, retirement.

Cost Savings: Reductions in costs that are currently being incurred (e.g., reduced annual maintenance cost relative to today)

Cost Avoidance: Reductions in anticipated future costs that don't occur today (e.g., anticipated short-term fixes/maintenance if capital isn't deployed)

Project Status:

- Initiation – New project, not authorized yet
- Planning – Project authorized, not started yet
- Executing – Project in-flight
- On-going – Annual program

ROCKLAND ELECTRIC COMPANY
DIRECT TESTIMONY OF
OPERATIONS AND ENGINEERING PANEL

NJBPU Docket No. _____

Exhibit 4: Categorization of Similar Projects Supporting the 10% Baseline Investment Requirement

IIP Category	2023	2024	2025	2026	2027
Enhanced OH Storm Hardening	$ 1,314,287	$ 913,503	$ 704,458	$ 1,602,473	$ -
Selective Undergrounding	-	823,406	2,381,370	6,379,297	1,500,000
Underground Rebuild and Rehabilitation	750,000	750,000	750,000	750,000	750,000
Franklin Lakes	38,437	41,142	44,038	1,132,944	5,309,400
Total	**$ 2,102,725**	**$ 2,528,051**	**$ 3,879,866**	**$ 9,864,714**	**$ 7,559,400**

Five-Year Cumulative Total	**$ 25,934,756**

ROCKLAND ELECTRIC COMPANY
DIRECT TESTIMONY OF
ACCOUNTING AND RATE PANEL

NJBPU Docket No. _____

Q. Would the members of the Accounting and Rate Panel please state your names and business addresses?

A. Ann Cedrone, One Blue Hill Plaza, Pearl River, NY 10965. Cheryl Ruggiero and Eric Caban, 4 Irving Place, New York, NY 10003.

Q. By whom and in what capacity are you employed?

A. **(Cedrone)** I am employed by Orange and Rockland Utilities, Inc. ("Orange and Rockland," "O&R," or the "Company") where I hold the position of Director – O&R Financial Planning & Analysis.

(Ruggiero) I am employed by Consolidated Edison Company of New York, Inc. ("Con Edison") where I hold the position of Department Manager of the Orange and Rockland Rate Design section in the Rate Engineering Department.

(Caban) I am employed by Con Edison where I hold the position of Senior Rate Analyst in the Orange and Rockland Rate Design section in the Rate Engineering Department.

Q. Please briefly outline your educational and business experience.

A. **(Cedrone)** I graduated from Stevens Institute of Technology in 2001 with a Bachelor of Engineering degree in Chemical Engineering. I obtained my Master of Business Administration in 2013 from New York University's Stern School of Business, with concentrations in Business Analytics and Quantitative Finance. After seven years in the refining industry, I joined Con Edison in 2008 as a Senior Planning Analyst in the Steam Long Range Planning group. I was promoted to

Section Manager of that group in 2014 and assumed my current role as Director of O&R Financial Planning and Analysis on June 1, 2019. I am responsible for coordinating the financial, budget, administrative and regulatory activities for the senior management of Orange and Rockland. In addition, the FP&A department acts as a financial liaison between the Company, Consolidated Edison, Inc. ("CEI") and Con Edison. I submitted pre-filed testimony to the Board of Public Utilities ("Board") in the Company's last base rate case.[1]

(Ruggiero) In 2000, I graduated from Polytechnic University with a Bachelor of Science degree in Electrical Engineering. In 2009, I graduated from Baruch College with a Master in Business Administration degree in Finance and Investments. I joined Con Edison in 2000 as a Management Intern with rotational assignments in Electric Operations, Engineering Services, and Gas Operations. In July 2001, I accepted a position as Associate Engineer - A in Distribution Engineering. In November 2005, I accepted a position as Senior Analyst in Rate Engineering and since then, I have held positions with increasing responsibility. I was promoted to my current position in March 2013. I have submitted pre-filed testimony before the Board in numerous proceedings on behalf of the Company.

(Caban) In 2003, I graduated from Boston University with a Bachelor of Arts degree in Economics, and a minor in Business Administration and Management. My first employment thereafter was as an analyst within the Structured Transactions Group at Deutsche Bank Berkshire Mortgage from 2003 to 2006. I

[1] *I/M/O the Verified Petition of Rockland Electric Company for Approval of Changes in Electric Rates, Its Tariff for Electric Service, and Its Depreciation Rates; and for Other Relief*, Docket No. ER21050823, ("2021 RECO Rate Case"), Decision and Order Adopting Initial Decision and Stipulation of Settlement (dated December 15, 2021).

was subsequently employed as an analyst within the CMBS Group at Hyperion Brookfield Asset Management from 2007 to 2008. I joined O&R in 2009 as a Specialist in the Customer Energy Services Group. In June 2011, I was promoted within the group to the position of Program Administrator. In June 2013, I accepted a position as Senior Analyst within Con Edison's Rate Engineering department. I was promoted to my current position in September 2015. I have submitted pre-filed testimony before the Board in numerous proceedings on behalf of the Company.

SUMMARY OF TESTIMONY

Q. What is the purpose of your direct testimony in this proceeding?

A. The purpose of our direct testimony is to describe the accounting and cost recovery mechanism for the Company's proposed Infrastructure Investment Program ("Program"), the details of which are discussed in the direct testimony of the Operations and Engineering Panel. Our testimony provides the accounting protocols that the Company proposes to employ to record the costs associated with the Program and outlines the cost recovery mechanisms and reconciliations associated with the Program.

Q. Please identify the exhibits to your direct testimony.

A. Exhibit ARP-1 has six schedules that set forth the Company's expected capital costs that it will incur in implementing the Program and the financial assumptions used to calculate the associated proposed incremental revenue requirement. Schedule 1 of Exhibit ARP-1 forecasts the Company's five-year total revenue requirement based on the Company's capital structure approved in the 2021

RECO Rate Case; forecasted expenditures that will be incurred by the Company, including plant additions, the impact of accumulated depreciation and deferred taxes and the impact of depreciation expense incurred during the course of the Program; to arrive at an annual revenue requirement. Five subsequent schedules provide additional detail supporting specific line items that are summarized in Schedule 1. Schedule 2 sets forth the Company's consolidated capital structure that the Board approved in the 2021 RECO Rate Case. Schedule 3 is a detailed list of all the proposed capital expenditures for the five years of the Program. Schedule 4 provides the detail for how the Company computed the accumulated deferred tax calculation. Schedule 5 is the depreciation expense the Company expects to realize over the course of the Program. Finally, Schedule 6 represents the revenue multiplier the Board approved in the 2021 RECO Rate Case that is used to calculate the Company's annual revenue requirements. In addition, this Panel sponsors the tariff leaves which are attached to the Petition as Exhibit B.

Q. Please discuss the costs of the Company's proposed Program.

A. As discussed by the Operations and Engineering Panel, the Company proposes to make Program investments over a five-year period. A five-year estimate of the incremental capital costs associated with the Company's proposed Program is summarized below. Additional detail can be found in Exhibit ARP-1, Schedule 3.

Capital ($ 000's)	2023 - 2027
Strategic Underground Initiative	$48,000
Enhanced Overhead Design	$10,000
Underground Rebuild / Rehab Program	$20,000

Franklin Lakes (Substation, High Voltage Distribution, and UG Exit)	$131,000
Total	$209,000

Q. Please address the calculation of the Program's revenue requirement.

A. Each month, the Company will calculate a revenue requirement for the Program based on the return of rate base and depreciation expense. The return component will be calculated using the Company's pre-tax overall weighted cost of capital ("WACC") as ordered by the Board in the 2021 RECO Rate Case, which equals 7.08% on an after-tax basis and 8.90% on a before tax-basis.

The revenue requirement will be calculated as follows:

(Net Investment x Pre-Tax WACC)
+ Depreciation Expense
= Revenue Requirement before Gross Up
x Revenue Multiplier
= Revenue Requirement after Gross up

The Net Investment in this calculation is defined as the gross Program costs to date, less accumulated deferred income taxes applicable to the Program.

Q. How does the Company propose to recover the revenue requirements described above from its customers?

A. The Company proposes to establish an Infrastructure Investment Program ("IIP") Surcharge. The IIP Surcharge will be set annually based on the Company's forecasted revenue requirement associated with the Program, adjusted for any prior period over- or under-recoveries including interest, and a forecast of the Company's kWh deliveries to customers for each annual period. The resulting

rate in cents per kWh will then be increased to reflect the Sales and Use Tax ("SUT"). The Company will only be allowed to implement an IIP Surcharge for any annual period if the Company passes an earnings test; in the Petition, the Company has requested a waiver of the requirement that each IIP Surcharge adjustment comply with the ten percent investment requirement.

Q. Please describe the ten percent investment requirement.

A. Under the IIP Rules (N.J.A.C. 14:3-2A.6 (b)), each rate recovery filing shall seek recovery of a minimum of at least ten percent of the overall IIP expenditures, *i.e.*, ten percent of the Program's total expenditures, *i.e.*, $209 million. In the Petition, RECO has requested a waiver of this subpart with respect to the Program. We have been advised by counsel that, in special cases and for good cause shown, the Board may, unless otherwise specifically stated, relax or permit deviations from its rules.

Q. Please explain the basis for RECO's waiver request regarding N.J.A.C. 14:3-2A.6(b).

A. This case presents special circumstances and good cause for waiver of the ten percent investment requirement. First, due to the unique nature of the Company's proposed projects, especially the Franklin Lakes Projects (which are a sizable portion of the Program), the in-service dates for plant (and associated costs to be added to rates) in the Program are not expected to be directly linear (*i.e.*, levelized) over the five-year term of the Program. Second, the Program's projects are accelerated reliability projects that are otherwise eligible for inclusion in an IIP, as discussed in the pre-filed direct testimony of the Operations and

Engineering Panel. Thus, individual projects will be accelerated and the components of the Program that do go in service should be afforded accelerated rate recovery, without recovery being delayed by the overall lumpiness of individual Program project closings. Third, the capital expenditures in the Program (including those below the ten percent threshold) represent a significant investment for a Company the size of RECO, as compared to the other New Jersey electric utilities that are covered by the IIP Rules. In addition, to the extent that the ten percent investment requirement promotes the conservation of administrative resources, the Company has already agreed to submit its cost recovery filings on an annual basis, rather than a semi-annual basis, to reduce the burdens on the parties in processing these filings.

Q. Please describe the earnings test.

A. Pursuant to the IIP Rules (N.J.A.C. 14:3-2A.6 (h) & (i)), an adjustment shall not be allowed for an applicable rate recovery filing period if the calculated return on equity ("ROE") exceeds Company's allowed ROE from its last base rate case by more than 50 basis points. Thus, The Company will compare its allowed ROE from the Company's last base rate case to the actual earned ROE for the most recent twelve-month period. If the actual earned ROE for the most recent twelve-month period exceeds the allowed ROE by 50 basis points or more, the Company will only include in the IIP Surcharge the reconciliation of the prior period over- or under-recovery. The Company will not include further capital investment costs until the next filing when the test is satisfied.

Q. When does the Company plan to make its annual IIP Surcharge filings?

A. The Company proposes the below schedule for the IIP Surcharge filings. For each annual change of the IIP Surcharge, the Company will make an initial filing that will contain nine months of actual data and three months of forecasted data along with the forecast of the revenue requirement for the subsequent annual period. An update filing will be made three months later to update for all actuals for an annual period and the forecast of the revenue requirement for the subsequent annual period. Two months after that update filing, the revised IIP Surcharge will become effective.

Filing	Initial Filing Date	Revenue Requirement to be Recovered	Update Filing Date	Rate Effective
1	11/1/23	CY 2023	2/1/24	4/1/24
2	11/1/24	CY 2024	2/1/25	4/1/25
3	11/1/25	CY 2025	2/1/26	4/1/26
4	11/1/26	CY 2026	2/1/27	4/1/27
5	11/1/27	CY 2027	2/1/28	4/1/28

Q. How will any over- or under-collection of revenue be treated for each month?

A. Each month the actual revenue collected through the IIP Surcharge will be compared to the month's revenue requirement (as defined above). The difference will be deferred as a regulatory asset or regulatory liability with an offsetting charge to expense.

For any under-collection the entry will be:

182	Regulatory Asset- IIP Surcharge	XXX
456	Other Electric Revenue	XXX

For an over-collection the entry will be:

456	Other Electric Revenue	XXX
254	Regulatory Liability- IIP Surcharge	XXX

A carrying charge will be included in the deferred balance for both an over-collection and for an under-collection. The carrying charge will be calculated as determined by the Board in its Order dated October 21, 2008 in BPU Docket No. ER08060455. As set forth in that Order, the interest rate shall be the interest rate based on two-year constant maturity Treasuries as published in the Federal Reserve Statistical Release on the first day of each month (or the closest day thereafter on which rates are published), plus 60 basis points, but not to exceed the Company's overall rate of return. The interest rate will be reset each month. For an under-collection the entry will be:

182	Regulatory Asset-IIP Surcharge	XXX
419	Other Income	XXX

For an over-collection the entry will be:

431	Interest Expense	XXX
254	Regulatory Liability- IIP Surcharge	XXX

At the end of each annual period the balances in the Regulatory Asset/Liability IIP Surcharge account will be included in the revenue requirement.

Q. How will the tax effect of timing differences be handled?

A. Deferred income taxes will be recorded for all tax-book timing differences that are a result of the Program.

Q. Will the Company propose to roll-in unrecovered Program costs through base rates?

A. Yes, the Company would expect to roll into base rates during future RECO base rate cases the unrecovered Program investment costs for programs/projects (or components) placed in service through the end of the test year and reaching

period. Notwithstanding the filing of subsequent base rate cases, the IIP cost recovery mechanism will continue to be used until all IIP costs are rolled into base rates.

Q. Has the Company proposed any amendments to its electric tariff to implement the Program?

A. Yes. Draft tariff leaves, which this Panel supports, reflecting the proposed IIP Surcharge are attached as Exhibit B to the Petition.

Q. Is the Company's cost recovery proposal consistent with the IIP Rules?

A. Yes, it is. As set forth in Exhibit B to the Petition, the Company proposes to recover IIP expenditures on an accelerated basis through a separate clause of its electric tariff (N.J.A.C. 14:3-2A.6 (d)). Further, as discussed above, the Company has addressed rate recovery on an annual basis, sought waiver of the ten percent expenditure requirement, satisfaction of the earnings test, and rates being provisional until expenditures are deemed prudent in a base rate case (N.J.A.C. 14:3-2A.6).

Q. What is the initial level of the IIP Surcharge?

A. The draft tariffs contained in this filing include an initial IIP Surcharge of 0.0000 cents per kWh. The revenue requirement for the first year of the program (*i.e.,* calendar year 2023) will be collected from customers commencing April 1, 2024. Based on the estimated revenue requirement of $494,529 for calendar year 2023, the IIP Surcharge effective April 1, 2024, is calculated to be 0.0343 cents per kWh, including SUT.

Q. What impact will the IIP Surcharge that becomes effective April 1, 2024, have on customer's electric bills?

A. At rates effective March 1, 2022, the monthly electric bill for a typical residential customer with an average annualized monthly usage of 925 kWh is $159.61. The IIP Surcharge would increase this bill by $0.32 to $159.93 or by 0.2%.

Q. What will be the cumulative effect of the IIP Surcharge on customer's electric bills?

A. At the end of the five-year period, the monthly electric bill for a typical residential customer with an average annualized monthly usage of 925 kWh will have increased to $171.33, an increase of $11.72, or 7.3% in total, or an average of 1.5% per year.

Q. Does this conclude your direct testimony?

A. Yes, it does.

Exhibit ARP-1
Schedule 1

Rockland Electric Company
Infrastructure Investment Program
Financial Summary

Capital Structure (See Schd. 2)

Equity Component	48.51%
Equity Return	9.60%
Pre-Tax WACC	8.90%
After-Tax WACC	7.08%
Effective Tax Rate	28.11%
Interest Expense	2.42%

	2023	2024	2025	2026	2027	Cumulative
Expenditures						
Plant Additions (See Schd. 3)	$5,800,000	$11,600,000	$15,900,000	$22,100,000	$153,600,000	$209,000,000
Plant in Service	5,800,000	17,400,000	33,300,000	55,400,000	209,000,000	
Accumulated Depreciation	29,866	210,691	617,957	1,276,142	2,217,888	
Net Plant	5,770,134	17,189,309	32,682,043	54,123,858	206,782,112	
Accumulated Deferred Tax (See Schd. 4)	(562,433)	(1,732,730)	(3,415,546)	(5,838,443)	(21,394,026)	
Infrastructure Investment Program Rate Base	5,207,701	15,456,579	29,266,497	48,285,415	185,388,086	
Return Requirement (Rate Base x Pre-Tax WACC)	463,377	1,375,315	2,604,111	4,296,401	16,495,696	
Depreciation Expense (See Schd. 5)	29,866	180,826	407,266	658,186	941,746	2,217,888
	493,243	1,556,141	3,011,377	4,954,586	17,437,442	
Revenue Multiplier (See Schd. 6)	1.003	1.003	1.003	1.003	1.003	
Total Revenue Requirement	$ 494,529	$ 1,560,197	$ 3,019,227	$ 4,967,502	$ 17,482,897	
Annual Revenue Requirement		$ 1,065,668	$1,459,030	$1,948,275	$12,515,395	

Exhibit ARP-1
Schedule 2

Case ER21050823
Docket PUC 05219-21

Rockland Electric Company
Infrastructure Investment Program
Consolidated Capital Structure
For Twelve Months Ending September 30, 2021

	Ratio	Cost Rate	After-Tax Weighted Average Ratio	Pre-Tax Weighted Average Ratio
Long Term Debt	51.49%	4.70%	2.42%	2.42%
Common Equity	48.51%	9.60%	4.66%	6.48%
Total	100%		7.08%	8.90%

Exhibit ARP-1
Schedule 3

Rockland Electric Company
Infrastructure Investment Program
Plant Additions
(Thousands of Dollars)

Program Name	Project Type	2023	2024	2025	2026	2027	Total
Oakland - 36-2-13 High Mountain Road	Enhanced OH Storm Hardening	$ -	$ 1,700	$ -	$ -	$ -	1,700
Oakland - Long Hill Road	Enhanced OH Storm Hardening	-	500	-	-	-	500
Franklin Lakes - Ewing Ave	Enhanced OH Storm Hardening	-	-	1,200	-	-	1,200
West Milford - Awosting Rd (Part 1)	Enhanced OH Storm Hardening	-	-	1,500	-	-	1,500
Old Tappan - Old Tappan Rd	Enhanced OH Storm Hardening	600	-	-	-	-	600
West Milford - Awosting Rd (Part 2)	Enhanced OH Storm Hardening	-	-	-	-	1,500	1,500
West Milford - Union Valley Rd	Enhanced OH Storm Hardening	-	-	-	2,200	-	2,200
Saddle River - East Allendale Ave	Enhanced OH Storm Hardening	-	-	-	-	800	800
Allendale 39-8-13 Martis Ave	Selective Underground	1,200	-	-	-	-	$ 1,200
West Milford – 79-6-13 – Warwick Tpke	Selective Underground	-	2,300	-	-	-	2,300
Darlington- 43-6-13- Darlington Ave	Selective Underground	-	3,100	-	-	-	3,100
Closter- 28-2-13- Livingston St	Selective Underground	-	-	5,400	-	-	5,400
Franklin Lakes - 36-5-13 Franklin Lakes Road	Selective Underground	-	-	3,800	-	-	3,800
West Milford - 79-1-13/79-2-13 Greenwood Lake Tpke & Awosting	Selective Underground	-	-	-	5,600	-	5,600
Ringwood – 78-2-13 – Sloatsburg Rd to KendalL	Selective Underground	-	-	-	3,200	-	3,200
Cresskill-37-7-13 Anderson Ave	Selective Underground	-	-	-	3,200	-	3,200
Closter 28-9-13 Herbert Ave & Homans Ave	Selective Underground	-	-	-	2,700	-	2,700
Oakland – 36-2-13 Yawpo Drive	Selective Underground	-	-	-	-	2,600	2,600
Cresskill-37-5-13 Piermont & County Rd	Selective Underground	-	-	-	1,200	-	1,200
South Mahwah- 58-9-13- W. Airmont Rd.	Selective Underground	-	-	-	-	1,300	1,300
Ringwood – 78-2-13 – Cupsaw Ave to Voorhis Pl.	Selective Underground	-	-	-	-	3,100	3,100
Oakland – 36-7-13 Paige Drive	Selective Underground	-	-	-	-	400	400
Upper Saddle River Selective UG - 49-1-13 West Saddle River Rd.	Selective Underground	-	-	-	-	500	500
Upper Saddle River- 49-2-13- Lake St	Selective Underground	-	-	-	-	4,900	4,900
Allendale 39-3-13 Franklin Tnpk	Selective Underground	-	-	-	-	1,000	1,000
Upper Saddle River 49-4-13 Pleasant Ave	Selective Underground	-	-	-	-	2,500	2,500
Underground Rebuild and Rehabilitation Program	Underground Rebuild and Rehabilitation	4,000	4,000	4,000	4,000	4,000	20,000
Franklin Lakes - Substation	Franklin Lakes	-	-	-	-	27,000	27,000
Franklin Lakes - High Voltage Distribution Line	Franklin Lakes	-	-	-	-	92,000	92,000
Franklin Lakes - Underground Exit	Franklin Lakes	-	-	-	-	12,000	12,000
	Total Plant Additions	$ 5,800	$ 11,600	$ 15,900	$ 22,100	$ 153,600	$ 209,000

Exhibit ARP-1
Schedule 4

Rockland Electric Company
Infrastructure Investment Program
(Thousands of Dollars)

	2023	2024	2025	2026	2027
Plant Additions	$5,800.0	$11,600.0	$15,900.0	$22,100.0	$153,600.0
Retirements	0	0	0	0	0
Book Depreciation Expense	30	181	407	658	942
Tax Depreciation Expense	147	576	1,229	2,099	6,391
Tax Expense (Repair Allowance)	(1,731)	(3,463)	(4,746)	(6,597)	(45,850)
263 (A)	(153)	(305)	(418)	(581)	(4,040)
Calculation of Deferred Income Tax					
Book Income/(Loss) Before Taxes	(30)	(181)	(407)	(658)	(942)
Schedule M Items					
Add:					
Book Depreciation	30	181	407	658	942
Deduct:					
Tax Depreciation	(147)	(576)	(1,229)	(2,099)	(6,391)
Repair Allowance	(1,731)	(3,463)	(4,746)	(6,597)	(45,850)
263 Overheads	(153)	(305)	(418)	(581)	(4,040)
Total Timing Differences	(2,001)	(4,163)	(5,987)	(8,619)	(55,338)
Deferred Income Tax Expense @ 28.11%	($562)	($1,170)	($1,683)	($2,423)	($15,556)

Exhibit ARP-1
Schedule 5

Rockland Electric Company
Infrastructure Investment Program
Depreciation Expense
(Thousands of Dollars)

	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Total
Distribution	$ -	$ 0.4	$ 0.9	$ 1.4	$ 1.8	$ 2.3	$ 2.7	$ 3.2	$ 3.6	$ 4.1	$ 4.5	$ 5.0	$ 29.9

	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Total
Distribution	$ 7.9	$ 8.3	$ 8.8	$ 11.6	$ 12.0	$ 12.5	$ 16.7	$ 17.2	$ 17.6	$ 22.3	$ 22.8	$ 23.2	$ 180.8

	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Distribution	$ 23.7	$ 24.1	$ 24.6	$ 27.1	$ 27.5	$ 28.0	$ 40.9	$ 41.4	$ 41.8	$ 42.3	$ 42.7	$ 43.2	$ 407.3

	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Total
Distribution	$ 45.3	$ 45.7	$ 46.2	$ 46.6	$ 47.1	$ 47.5	$ 60.0	$ 60.4	$ 60.9	$ 65.7	$ 66.1	$ 66.6	$ 658.2

	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27	Jul-27	Aug-27	Sep-27	Oct-27	Nov-27	Dec-27	Total
Distribution	$ 75.3	$ 75.8	$ 76.2	$ 76.7	$ 77.2	$ 77.6	$ 78.1	$ 78.5	$ 79.0	$ 82.0	$ 82.5	$ 82.9	$ 941.7

Exhibit ARP-1
Schedule 6

Case ER21050823
Docket PUC 05219-21

Rockland Electric Company
Infrastructure Investment Program
Revenue Multiplier
For Twelve Months Ending September 30, 2021

1.	Revenue		100.00%	
	Less:			
2.	Uncollectibles		0.26%	(A)
3.	Taxable Income		99.74%	
4.	State Income Taxes @	9.0%	0.00%	(B)
5.	Federal Taxable Income		99.74%	
6.	Income Taxes @	21.0%	0.00%	(B)
7.	Operating Income		99.74%	
8.	Revenue Multiplier		1.003	(C)

Sources:
(A) Company Filing, 12+0 Update, Exhibit P-2, Summary, Page 3.
(B) Reflects statutory tax rates.
(C) Line 1 / Line 7.