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February 28, 2023

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120

**Re: Duquesne Light Company's Annual Asset Optimization Plan
Docket No. M-2023-_____**

Dear Secretary Chiavetta:

Enclosed please find Duquesne Light Company's Annual Asset Optimization Plan. Should you have any questions please contact me.

Respectfully Submitted,

A handwritten signature in blue ink that reads "Michael Zimmerman".

Michael Zimmerman
PA ID #323715

Enclosures

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CERTIFICATE OF SERVICE

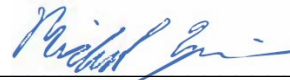
I hereby certify that a true and correct copy of the foregoing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant):

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Dated: February 28, 2023

Duquesne Light Company

Annual Asset Optimization Plan

March 1, 2023

Table of Contents

INTRODUCTION..... 4

BACKGROUND 4

EXECUTIVE SUMMARY LTIP 1..... 6

Distribution Assets 8

4 KV Program 9

 I. *4kV Substation Elimination Initiative*..... 9

 II. *Stepdown Transformer Conversion Initiative* 9

 III. *Modular Integrated Transformer System Initiative (“MITS”)*..... 10

Overhead Program 10

 I. *Aerial Cable Replacement Initiative* 11

Underground Program 11

 I. *Underground Cable Replacement Initiative*..... 11

 II. *Network Transformers & Protector Replacement Initiative* 12

 III. *Underground Residential Distribution Rehabilitation Initiative*..... 12

Substations Program 13

 I. *Breaker & Switch Replacement Initiative* 13

 II. *Substation Upgrades Initiative*..... 14

Highway Relocation Program..... 14

EXECUTIVE SUMMARY - LTIP 2 16

Distribution Assets 18

Overhead Program 19

 I. *4kV Substation Elimination Initiative*..... 19

 II. *4 kV Stepdown Conversion Initiative* 19

 III. *Circuit Rehabilitation Initiative* 20

 IV. *Overhead Devices Initiative* 21

 V. *Deteriorated Pole Replacements Initiative* 21

 VI. *Overhead Line Repairs Initiative* 22

 VII. *Overhead Repairs and Restoration Initiative*..... 22

Substations Program 23

<i>I. East End Substation Rehabilitation</i>	23
<i>II. Establish Watson Substation</i>	23
<i>III. Unit Substation Rehabilitation Initiative</i>	24
<i>IV. Substation Upgrades Initiative</i>	25
<i>V. Breaker and Switch Replacements Initiative</i>	25
Underground Program	26
<i>I. Cable Replacement Initiative</i>	26
<i>II. URD Rehabilitation Initiative</i>	27
<i>III. Underground Infrastructure Rehabilitation Initiative</i>	27
<i>IV. Network Transformers Replacements Initiative</i>	28
<i>V. Underground Repairs and Restoration Initiative</i>	28
System Reliability Program	29
Highway Relocation Program	30

INTRODUCTION

Pursuant to 66 Pa.C.S. §1356, Duquesne Light Company (“DLC or the Company”) hereby files its Annual Asset Optimization Plan (“AAO Plan”). Section 1356 provides that utilities with an approved distribution system improvement charge (“DSIC”) and long-term infrastructure improvement plan (“LTIIIP”) are required to file an AAO Plan that includes:

- 1) A description that specifies all eligible property repaired, improved and replaced in the immediately preceding 12-month period pursuant to the utility’s long-term infrastructure improvement plan and prior year’s asset optimization plan; and
- 2) A detailed description of all the facilities to be improved in the upcoming 12-month period.

In the AAO Plan, the Company provides details regarding the actual and projected repair, improvement and replacement of aging infrastructure in 2022 and 2023. The Company’s LTIIIP performance is an important part of its plan to ensure that its distribution system continues operate in a safe and reliable manner.

BACKGROUND

Duquesne Light Company is a public utility as that term is defined under Section 102 of the Public Utility Code, 66 Pa. C.S. § 102, certificated by the Pennsylvania Public Utility Commission (“PUC” or the “Commission”) to provide electric service in the City of Pittsburgh and in Allegheny and Beaver Counties in Pennsylvania. DLC is also an EDC as that term is defined under Section 2803 of the Public Utility Code, 66 Pa. C.S. § 2803. DLC provides electric distribution service to approximately 610,000 customers within its service territory that covers approximately 817 square miles.

DLC filed an LTIIIP spanning calendar years 2017 through 2022 on April 15, 2016 (“LTIIIP 1”). DLC filed a second LTIIIP spanning calendar years 2023 through 2028 on June 1, 2022 (“LTIIIP 2”). In preparing LTIIIP 1 and LTIIIP 2, DLC followed the guidelines established in the Commission’s August 2, 2012 Final Implementation Order. The LTIIIPs provide for accelerated replacement of DSIC eligible property to support and fulfill the goals of Act 11, which are aimed at constructing, installing, rehabilitating, improving and replacing portions of the Pennsylvania electric distribution system in an accelerated time frame to the betterment of Pennsylvania electricity customers. LTIIIP 1 and LTIIIP 2 support DLC’s continuing efforts to maintain

reliability and safety that could otherwise suffer due to normal degradation of facilities that occurs with time and natural environmental stresses.

The Company's LTIP 1 was approved as filed by Order entered September 15, 2016, at Docket No. P-2016-2540046. On May 26, 2016, DLC filed a petition seeking approval of a DSIC. By Order entered April 20, 2017, the Commission approved DLC's DSIC at docket number P-2016-2540046. On May 26, 2020, the Commission initiated the periodic review of DLCs LTIP as required by the Public Utility Code. 52 Pa. Code § 121.7(a). On October 29, 2020, the Commission issued an Opinion and Order finding "[t]hat the Long-Term Infrastructure Improvement Plan of Duquesne Light Company is designed adequately to ensure and maintain safe, adequate, reasonable, and reliable service and that DLC has substantially adhered to its plan. The Company's LTIP 2 was approved as filed on November 10, 2022, by Order entered November 10, 2022, at Docket No. P-2022-3032805.

LTIP 2 programs differ from those included in LTIP 1. Therefore, as this AAO Plan addresses 2022 (i.e., the final year of LTIP 1) and 2023 (i.e., the first year of LTIP 2), it is organized in two main sections, one for each LTIP. This AAO Plan also includes a brief summary of amounts that the Company has previously recovered through the DSIC, which is provided for informational purposes only.

EXECUTIVE SUMMARY LTIP 1

Duquesne Light's Commission approved LTIP 1 includes five (5) asset programs and nine (9) initiatives.¹ Details regarding the asset programs included factors used to identify the need for the project, average age of the asset, scope of the project including the number of units to be replaced or improved, the approximate location by geographic region for the projects, and the annual expenditures for 2017 through 2022 for each asset class. The asset programs address DLC's areas of aged infrastructure, which are approaching the end of their expected useful life.

In developing its AAO Plan, DLC has included all of the five (5) asset programs and nine (9) initiatives, as well as other work associated with each asset program that does not fall into a specific initiative category, originally included in its Commission-approved LTIP 1. The AAO Plan provides projected and actual replacement numbers for 2022. The project descriptions included in the AAO Plan are consistent with those provided in the LTIP 1. The Company has added information to describe the progress of the programs and to explain deviations from the original projections where appropriate. Some programs' spending forecasts were adjusted due to changing circumstances.

¹Duquesne Light's LTIP 1 included an explanation that the Company planned to develop a Microgrid to improve the reliability of the portion of its distribution system that serves its Woods Run Operations facilities and its Preble Avenue Service Center. LTIP 1 did not provide a specific proposal for the Woods Run Microgrid, did not include any proposed budget or funding for the Woods Run Microgrid and specifically stated that the Company would file an Amended LTIP to provide such information. Upon further consideration, the Company did not petition to amend LTIP 1. Accordingly, the Microgrid is not included in LTIP 1, or addressed in this AAOP.

The chart below details the Company’s LTIP 1 plan as filed, as well as the Company’s actual 2022 performance. The columns titled “2022 Plan” reflects numbers as filed in the LTIP plan. The column titled “2022 Midterm” represents the forecasted numbers included in the comments submitted by the Company in June 2020 as part of the PUC’s periodic review of the Company’s LTIP 1. The column titled “2022 AAOP” identifies numbers included as the 2022 Forecast in the Company’s AAOP filed on March 1, 2022.

Duquesne Light Company LTIP 1 - 2022 Actual and Projected LTIP Spend

<i>All figures in \$ millions</i>	2022 Plan	2022 Midterm	2022 AAOP	2022 Actual
4kV Program				
4kV Substation Elimination	7.5	-	0.2	0.5
Stepdown Transformer Conversion	1.1	2.9	0.6	1.2
Modular Integrated Transformer System	-	0.9	1.1	0.6
Other 4kV Work	3.2	-	<i>Note 1</i>	-
Total 4kV Program	11.8	3.7	1.9	2.3
Overhead Program				
Aerial Cable Replacement	2.4	7.1	4.7	6.9
Other Overhead Work	42.5	68.4	<i>Note 1</i>	87.5
Total Overhead Program	44.9	75.5	4.7	94.4
Underground Program				
Underground Cable Replacement	2.0	-	3.0	4.4
Network Transformer and Protector Replacement	2.8	2.9	1.4	1.9
Underground Residential Distribution Rehabilitation	3.5	5.0	5.6	3.9
Other Underground Work	13.9	32.1	<i>Note 1</i>	47.0
Total Underground Program	22.2	40.0	10.0	57.2
Substations Program				
Breaker & Switch Replacements	2.3	3.3	3.1	3.3
Substation Upgrades	-	-	-	-
Other Substations Work	3.9	13.9	<i>Note 1</i>	45.2
Total Substations Program	6.2	17.1	3.1	48.4
Highway Relocation Program				
Unreimbursed Highway Relocations	3.0	3.6	19.0	8.1
Total Highway Relocations Program	3.0	3.6	19.0	8.1
TOTAL	88.1	139.9	38.6	210.3

Note 1 - The 2022 AAOP did not include forecast values for the "Other Work" categories.

Distribution Assets

The following pages set forth actual results for calendar year 2022. These assets involved in the LTIP Initiatives include, but are not limited to, the following:

- Structures
 - Poles
 - Crossarms
- Overhead Conductors and Hardware
- Underground Cables and Hardware
- Breakers and Disconnect Switches
- Protective Devices
 - Fuses
 - Reclosers
 - Network Protectors
 - Lightning Arresters
- Transformers

4 KV Program

The Substation Elimination Initiative and the Stepdown Conversion Initiative are intended to replace the aged, 4kV infrastructure on DLC's system. In certain instances, renewal of the 4kV substation infrastructure may be prudent, as opposed to substation elimination or conversion. In those instances, DLC will replace the substation equipment.

I. 4kV Substation Elimination Initiative Initiative Description and Purpose

The Substation Elimination Initiative will convert a substation's 4kV load to 23kV operation. By removing the 4kV equipment and upgrading to 23kV, this initiative will permit the decommissioning of 4kV substations.

Scope (Units of Work) and Actual/Planned Expenditures

4kV Substation Elimination	2022 Plan	2022 Midterm	2022 AAOP	2022 Actual
Units (circuits)	2	0	0	0
Spending (\$ millions)	7.5	0.0	0.2	0.5

Locations

Areas generally outside of downtown Pittsburgh.

Comments:

DLC provided a forecast in its Midterm Review comments that included zero 4kV Substation Elimination projects in its final two years of the LTIP (2021 and 2022). Spending in 2022 was associated with close out work for projects where the 4kV to 23kV circuit conversion work was completed in earlier years.

II. Stepdown Transformer Conversion Initiative Initiative Description and Purpose

The 4kV Stepdown Conversions Initiative will convert 4kV load fed from a stepdown to 23kV. By eliminating the 4kV stepdown and upgrading the associated infrastructure to 23kV, this initiative will permit the decommissioning of the 4kV system.

Scope (Units of Work) and Actual/Planned Expenditures

Stepdown Transformer Conversion	2022 Plan	2022 Midterm	2022 AAOP	2022 Actual
Units (three phase transformer set)	1	1	0	0
Spending (\$ millions)	1.1	2.9	0.6	1.2

Locations

Areas generally outside of downtown Pittsburgh.

Comments

DLC completed one project in 2021 that was originally planned for 2022. 2022 spending is associated with starting construction on one project that will continue into 2023.

III. Modular Integrated Transformer System Initiative (“MITS”)

Initiative Description and Purpose

The purpose of this program is to replace aged substation transformers. The original approach to the replacement was to utilize a Modular Integrated Transformer System. However, as explained in the Company’s AAOP filed on March 1, 2018, the Company will continue this initiative by utilizing a conventional solution consisting of individual components as opposed to the modular integrated solution.

Scope (Units of Work) and Actual/Planned Expenditures

Modular Integrated Transformer System	2022 Plan	2022 Midterm	2022 AAOP	2022 Actual
Units (units)	0	1	1	0
Spending (\$ millions)	0.0	0.9	1.1	0.6

Locations

All areas of DLC System.

Comments

DLC planned to complete one unit substation replacement in 2022, however, the project was delayed due to supply chain challenges with switchgear needed for the project. This project is scheduled to be completed in 2023.

Overhead Program

DLC’s Overhead Program addresses aerial cable and other eligible property on the overhead distribution system approaching the end of its expected useful life.

I. *Aerial Cable Replacement Initiative*
Initiative Description and Purpose

Aerial cable is used when multiple circuits are on the same pole. It is also used through rights-of-way with trees that may cause interference. Aerial cable is used principally on the 23kV sub-transmission and distribution circuits. This initiative focuses on the replacement of aged, failure-prone aerial cable to maintain DLC’s current high level of reliability and reduce the likelihood of failures.

Scope (Units of Work) and Actual/Planned Expenditures

Aerial Cable Replacement	2022 Plan	2022 Midterm	2022 AAOP	2022 Actual
Units (miles)	3.0	6.0	5.0	5.3
Spending (\$ millions)	2.4	7.1	4.7	6.9

Locations

Areas generally outside of downtown Pittsburgh.

Comments:

DLC completed the work planned for 2022 as forecasted in our 2022 AAO Plan.

Underground Program

DLC’s Underground Program replaces, rehabilitates, and improves obsolete, eligible property approaching the end of its expected useful life.

I. *Underground Cable Replacement Initiative*
Initiative Description and Purpose

DLC’s underground cable initiative focuses on replacing underground cable that is approaching the end of its expected useful life. This initiative focuses on the replacement of underground cable to maintain the current high level of reliability and reduce the likelihood of future failures.

Scope (Units of Work) and Actual/Planned Expenditures

Underground Cable Replacement	2022 Plan	2022 Midterm	2022 AAOP	2022 Actual
Units (miles)	1.0	0.0	1.8	2.4
Spending (\$ millions)	2.0	0.0	3.0	4.4

Locations

Areas generally inside of downtown Pittsburgh.

Comments

DLC completed slightly more work than planned in 2022 as compared to the forecasted work in the 2022 AAO Plan.

II. *Network Transformers & Protector Replacement Initiative*
Initiative Description and Purpose

The majority of network transformers and protectors are located in downtown Pittsburgh in sidewalk vaults. Many of these vaults are exposed to natural and human elements that may lead to corrosion. These factors contribute to the deterioration of the transformers. This initiative focuses on the rehabilitation of network transformer and protector installations in downtown Pittsburgh to maintain the current high level of reliability and reduce the likelihood of failures.

Scope (Units of Work) and Actual/Planned Expenditures

Network Transformer and Protector Replacement	2022 Plan	2022 Midterm	2022 AAOP	2022 Actual
Units (transformers)	24	20	10	10
Spending (\$ millions)	2.8	2.9	1.4	1.9

Location

Areas generally inside of downtown Pittsburgh.

Comments

In DLC’s 2022 AAO Plan, it was noted that due to the age and condition of assets in this category, the plan was to replace 10 units in 2022 as opposed to the 20 units forecasted in DLC’s Midterm Review comments.

III. *Underground Residential Distribution Rehabilitation Initiative*
Initiative Description and Purpose

DLC installed a significant number of Underground Residential Distribution (URD) facilities in housing developments in the 1970s. This equipment is approaching the end of expected useful life. Some of this equipment is below grade. The equipment has been exposed to wet conditions due to rain runoff. In addition, chemicals from lawn treatment in the water in below-grade vaults further deteriorate the equipment. The deteriorated equipment includes transformers, primary cable, splices, bushing junctions, elbows, brackets, and the vaults themselves.

This initiative focuses on the rehabilitation of the failure-prone underground residential (URD) system to maintain the current high level of reliability and reduce the likelihood of future failures.

Scope (Units of Work) and Actual/Planned Expenditures

Underground Residential Distribution Rehabilitation	2022 Plan	2022 Midterm	2022 AAOP	2022 Actual
Units (transformers)	116	150	141	99
Spending (\$ millions)	3.5	5.0	5.6	3.9

Locations

Areas generally outside of downtown Pittsburgh.

Comments:

Less work was completed in 2022 than forecasted in the 2022 AAO Plan due to supply chain challenges associated with components used for these types of projects.

Substations Program

DLC’s Substations Program addresses eligible property associated with its substations that are approaching the end of expected useful life. The eligible property under LTIP 1 includes circuit breakers, associated switches, line protection devices, and substation infrastructure.

I. Breaker & Switch Replacement Initiative

Initiative Description and Purpose

The 23kV distribution infrastructure is the backbone of DLC’s delivery system. As part of that system, substation breakers are important for reliable operation. The line protection of the system must also work as appropriate and in coordination with other protective devices such as IntelliRupters and line fuses. The line and bus disconnect switches will be changed while the breakers are being replaced. The disconnect switches are used to establish a valid clearance for a visual break, allowing construction crews to perform line work safely.

Scope (Units of Work) and Actual/Planned Expenditures

Breaker & Switch Replacements	2022 Plan	2022 Midterm	2022 AAOP	2022 Actual
Units (breakers)	19	17	14	15
Spending (\$ millions)	2.3	3.3	3.1	3.3

Locations

All areas of DLC System.

Comments

The work completed in this initiative in 2022 is consistent with the forecasted work in DLC’s 2022 AAO Plan.

II. *Substation Upgrades Initiative*

Initiative Description and Purpose

The Substation Upgrades Initiative replaces substation infrastructure that is approaching the end of expected useful life. Within the substation, DLC has identified several pieces of equipment and/or systems that need to be replaced or rehabilitated. The infrastructure principally includes, but is not limited to transformers, relays, substation structures, system control equipment, foundations, ground grid systems, and battery systems.

Scope (Units of Work) and Actual/Planned Expenditures

Substation Upgrades	2022 Plan	2022 Midterm	2022 AAOP	2022 Actual
Units (projects)	0	0	0	0
Spending (\$ millions)	0.0	0.0	0.0	0.0

Locations

All areas of DLC System.

Comments

Spending and work in this initiative was completed in 2019 resulting in spending consistent with the LTIIIP.

Highway Relocation Program

The Highway Relocation Program consists of work that arises during the course of normal operations required by the State of Pennsylvania, PennDOT, counties, cities, municipalities, or other government agencies. As part of unreimbursed road and bridge projects, DLC is required to relocate its distribution facilities. During these relocations, there is the potential for system improvements. Due to the nature of how these relocation projects are scheduled, DLC cannot definitively determine the annual expenditures or number of projects that will be required during the LTIIIP period. DLC will include eligible costs as part of its LTIIIP.

Actual/Planned Annual Expenditures

Unreimbursed Highway Relocations	2022 Plan	2022 Midterm	2022 AAOP	2022 Actual
Spending (\$ millions)	3.0	3.6	19.0	8.1

EXECUTIVE SUMMARY - LTIP 2

Duquesne Light's Commission approved LTIP 2 includes five (5) asset programs and seventeen (17) initiatives. Details regarding the asset programs included scope of the project including the number of units to be replaced or improved, the approximate location by geographic region for the projects, and the annual expenditures for 2023 through 2028 for each initiative.

In developing its AAO Plan, DLC has included all of the five (5) asset programs and seventeen (17) initiatives, as well as other work associated with each asset program that does not fall into a specific initiative category, as originally included in its Commission-approved LTIP 2. The AAO Plan provides projected work for 2023. The initiative descriptions included in the AAO Plan are consistent with those provided in the LTIP 2. The Company has added information to describe the progress of the programs and to explain deviations from the original projections where appropriate. While some initiative spending forecasts have been adjusted due to changing circumstances, DLC does not propose to eliminate any of its programs at this time.

The chart below details the Company's LTIP 2 plan as filed, as well as the Company's projected performance for 2023. The columns titled "2023 Plan" reflects the numbers as filed in the LTIP 2 plan. The columns titled "2023 Forecast" identifies the Company's forecast for the current calendar year.

Duquesne Light Company LTIP 2 – 2023 Projected LTIP Spend

(Values in \$ Millions)	2023	2023
Program/Initiative	Plan	Forecast
Overhead Program		
4kV Substation Elimination	-	-
4kV Stepdown Conversion	2.7	2.7
Circuit Rehabilitation	0.7	0.5
Overhead Devices	5.7	5.3
Deteriorated Pole Replacements	21.7	26.3
Overhead Line Repairs	1.2	1.1
Overhead Repairs and Restoration	20.5	19.3
Other Overhead Work	15.0	22.8
Total Overhead Program	67.5	78.1
Substations Program		
East End Substation Rehabilitation	2.1	2.5
Establish Watson Substation	45.4	43.1
Unit Substation Rehabilitation	1.0	1.0
Substation Upgrades	10.8	9.2
Breaker and Switch Replacements	1.4	1.3
Other Substations Work	0.8	10.7
Total Substations Program	61.5	67.8
Underground Program		
Cable Replacement	12.8	20.4
URD Rehabilitation	1.6	1.6
Underground Infrastructure Rehabilitation	4.9	4.1
Network Transformer Replacements	1.3	0.7
Underground Repairs and Restoration	9.6	9.0
Other Underground Work	6.4	5.1
Total Underground Program	36.6	41.0
System Reliability Program		
System Reliability	10.8	7.5
Highway Relocation Program		
Unreimbursed Highway Relocations	10.5	16.0
TOTAL	186.9	210.4

Distribution Assets

The following pages set forth current projections for calendar year 2023. These assets involved in the LTIP 2 Initiatives include, but are not limited to, the following:

- Structures
 - Poles
 - Crossarms
- Overhead Conductors and Hardware
- Underground Cables and Hardware
- Breakers and Disconnect Switches
- Protective Devices
 - Fuses
 - Reclosers
 - Network Protectors
 - Lightning Arresters
- Transformers

Overhead Program

The Overhead Program eliminates, converts, and/or upgrades various distribution system assets at or approaching the end of expected useful life. This program includes initiatives aimed at proactive infrastructure upgrades and also includes funding to address failed equipment and equipment identified as in need of replacement through inspections.

I. *4kV Substation Elimination Initiative*
Initiative Description and Purpose

The Substation Elimination Initiative will convert a substation’s 4kV load to 23kV operation. By removing the 4kV equipment and upgrading to 23kV, this initiative will permit the decommissioning of 4kV substations.

Scope (Units of Work) and Actual/Planned Expenditures

Overhead Program		
4kV Substation Elimination	2023 Plan	2023 Forecast
Units (Circuit Miles)	-	-
Spending (\$ millions)	-	-

Locations

Areas generally outside of downtown Pittsburgh.

Comments:

No construction work and no significant engineering design is planned for 2023.

II. *4 kV Stepdown Conversion Initiative*
Initiative Description and Purpose

The majority of DLC’s 23kV - 4kV stepdown transformers were purchased and installed during the 1970s. The 4kV Stepdown Conversion Initiative will convert 4kV load fed from a stepdown to 23kV. By eliminating 4kV stepdown and upgrading the associated infrastructure to 23kV, this initiative will permit the decommissioning of the 4kV system.

Scope (Units of Work) and Actual/Planned Expenditures

Overhead Program		
4kV Stepdown Conversion	2023 Plan	2023 Forecast
Units (Circuit Miles)	2.0	2.0
Spending (\$ millions)	2.7	2.7

Locations

Areas generally outside of downtown Pittsburgh.

Comments:

DLC's forecasted work for 2023 is consistent with the LTIP 2 as filed.

III. Circuit Rehabilitation Initiative

Initiative Description and Purpose

This initiative identifies circuits with equipment failures for rehabilitation with the goal of improving reliability on these circuits. Circuit rehabilitation includes, but is not limited to, replacement of aged cable, connectors/jumpers, insulators, transformers, and terminations.

Scope (Units of Work) and Actual/Planned Expenditures

Overhead Program		
Circuit Rehabilitation	2023 Plan	2023 Forecast
Units (Circuit Miles)	7.0	2.8
Spending (\$ millions)	0.7	0.5

Locations

Areas generally outside of downtown Pittsburgh

Comments:

The cost per mile of rehabilitation of circuits will vary based on the condition of the equipment on each circuit selected for rehabilitation. DLC updated the approximate cost per mile since LTIP 2 was filed, and will continue to refine the estimate as work is executed in this initiative.

IV. *Overhead Devices Initiative*

Initiative Description and Purpose

The purpose of this initiative is to replace distribution overhead devices such as Intellirupters, Vipers, Scadamates, and capacitors. This initiative will focus on the replacement equipment listed above based on condition, age, loading, or equipment that is at or approaching end of useful life.

Scope (Units of Work) and Actual/Planned Expenditures

Overhead Program		
Overhead Devices	2023 Plan	2023 Forecast
Units (Work Orders)	52	52
Spending (\$ millions)	5.7	5.3

Locations

All areas of DLC system.

Comments:

DLC’s forecasted work for 2023 is consistent with the LTIP 2 as filed.

V. *Deteriorated Pole Replacements Initiative*

Initiative Description and Purpose

The purpose of this initiative is to replace or reinforce distribution poles that are identified as deteriorated during DLC’s yearly pole inspection program.

Scope (Units of Work) and Actual/Planned Expenditures

Overhead Program		
Deteriorated Pole Replacements	2023 Plan	2023 Forecast
Units (Poles Addressed)	2,070	2,070
Spending (\$ millions)	21.7	26.3

Locations

All areas of DLC system.

Comments:

DLC’s forecasted work for 2023 is consistent with the LTIP 2 as filed.

VI. *Overhead Line Repairs Initiative*
Initiative Description and Purpose

The purpose of this initiative is to fund the capital replacements for problems found during overhead line inspections performed consistent with the Company’s Biennial Inspection & Maintenance Plan.

Scope (Units of Work) and Actual/Planned Expenditures

Overhead Program		
Overhead Line Repairs	2023 Plan	2023 Forecast
Units (Work Orders and Tasks)	90	90
Spending (\$ millions)	1.2	1.1

Locations

All areas of DLC system.

Comments:

DLC’s forecasted work for 2023 is consistent with the LTIP 2 as filed.

VII. *Overhead Repairs and Restoration Initiative*
Initiative Description and Purpose

The Overhead Repairs and Restoration Initiative will restore overhead equipment during times of outages as well as mitigate landslides affecting distribution assets. This initiative will allow DLC to maintain the reliability of its distribution infrastructure in landslide-prone areas and respond to emergent issues during active landslides.

Scope (Units of Work) and Actual/Planned Expenditures

Overhead Program		
Overhead Repairs and Restoration	2023 Plan	2023 Forecast
Units (Work Orders)	4,200	4,200
Spending (\$ millions)	20.5	19.3

Locations

All areas of DLC system.

Comments:

DLC’s forecasted work for 2023 is consistent with the LTIP 2 as filed.

Substations Program

The Substations Program will upgrade aged and problematic substation infrastructure in DLC’s territory. Unit substation upgrades will replace aged transformers and associated equipment that are at or approaching end of useful life. The upgrades of substation equipment will reduce the likelihood of equipment failures and increase the ampacity of select distribution circuits. This Program also includes funding to address failed equipment and equipment identified as in need of replacement through inspections.

I. East End Substation Rehabilitation
Initiative Description and Purpose

The East End Substation Project will consist of replacing an existing substation and enabling additional tie points to existing circuits in the substation area. The East End Substation Rehabilitation Project will increase reliability and redundancy in the East Liberty area of Pittsburgh.

Scope (Units of Work) and Actual/Planned Expenditures

Substation Program		
East End Substation Rehabilitation	2023 Plan	2023 Forecast
Units (Project)	-	-
Spending (\$ millions)	2.1	2.5

Locations

City of Pittsburgh.

Comments:

DLC’s forecasted work for 2023 is consistent with the LTIP 2 as filed.

II. Establish Watson Substation
Initiative Description and Purpose

This initiative will construct a new bulk substation in the Uptown neighborhood of Pittsburgh and connect it to existing circuits using underground transmission and distribution lines. Watson Substation is necessary for several reasons, including:

reliability improvements, resiliency gains, location near upgraded underground infrastructure, and community electrical flexibility.

Scope (Units of Work) and Actual/Planned Expenditures

Substation Program		
Establish Watson Substation	2023 Plan	2023 Forecast
Units (Project)	-	-
Spending (\$ millions)	45.4	43.1

Locations

City of Pittsburgh.

Comments:

DLC’s forecasted work for 2023 is consistent with the LTIP 2 as filed.

III. Unit Substation Rehabilitation Initiative

Initiative Description and Purpose

The purpose of this initiative is to replace the most problematic components of unit substations in the DLC territory. A unit substation consists of a set of 23kV switchgear, a 23kV/4kV transformer with a load tap changer, and a 4kV low-side interrupting device, all contained in a metallic enclosure. This equipment will be replaced/upgraded by this initiative, including 23kV/4kV transformers and associated switchgear.

Scope (Units of Work) and Actual/Planned Expenditures

Substation Program		
Unit Substation Rehabilitation	2023 Plan	2023 Forecast
Units (Substations)	1	1
Spending (\$ millions)	1.0	1.0

Locations

All areas of DLC system.

Comments:

DLC’s forecasted work for 2023 is consistent with the LTIP 2 as filed.

IV. *Substation Upgrades Initiative*
Initiative Description and Purpose

The purpose of this initiative is to replace aging or problematic voltage regulators, current-limiting reactors, electrical bus work, substation ground grids, digital fault recorders, substation annunciators, SCADA equipment and remote terminal units (RTU's), protective relays, station control and communication batteries, structures, foundations, and associated equipment within DLC's distribution substations.

Scope (Units of Work) and Actual/Planned Expenditures

Substation Program		
Substation Upgrades	2023 Plan	2023 Forecast
Units (Work Orders)	97	87
Spending (\$ millions)	10.8	9.2

Locations

All areas of DLC system.

Comments:

DLC's forecasted work for 2023 is consistent with the LTIP 2 as filed.

V. *Breaker and Switch Replacements Initiative*
Initiative Description and Purpose

The purpose of this initiative is to replace distribution circuit breakers, switches, and associated equipment, such as structures, foundations, and control cable due to age, condition, and loading.

Scope (Units of Work) and Actual/Planned Expenditures

Substation Program		
Breaker and Switch Replacements	2023 Plan	2023 Forecast
Units (Work Orders)	5	5
Spending (\$ millions)	1.4	1.3

Locations

All areas of DLC system.

Comments:

DLC’s forecasted work for 2023 is consistent with the LTIIP 2 as filed.

Underground Program

DLC’s Underground Program replaces, rehabilitates, and improves obsolete, eligible property approaching the end of its expected useful life. This Program includes proactive replacements and upgrades of underground infrastructure and also includes funding to address failed equipment and equipment identified as in need of replacement through inspections.

I. Cable Replacement Initiative

Initiative Description and Purpose

DLC’s underground and aerial cable has served the system for several years, but it is approaching the end of its expected useful life. This initiative focuses on the replacement of underground and aerial cable alongside their related assets listed in the below section to maintain the current high level of reliability and reduce the likelihood of future failures. Aerial cable is used principally on the 23kV sub-transmission and distribution circuits, often when multiple circuits are on the same pole and through rights-of-way with trees that may cause interference.

Scope (Units of Work) and Actual/Planned Expenditures

Underground Program		
Cable Replacement	2023 Plan	2023 Forecast
Units (Circuit Miles)	10.0	11.0
Spending (\$ millions)	12.8	20.4

Locations

All areas of DLC system.

Comments:

Compared to LTIIP 2 as filed, 2023 forecasted spending is higher in this initiative due to a major project that experienced some delays in 2021 due to changes in schedules of other parties who are working in the project’s location.

II. *URD Rehabilitation Initiative*
Initiative Description and Purpose

DLC installed a significant number of Underground Residential Distribution (“URD”) facilities in housing developments in the 1970s. This equipment is approaching the end of expected useful life. Some of this equipment is below grade. The equipment has been exposed to wet conditions due to rain runoff. The deteriorated equipment includes transformers, primary cable, splices, bushing junctions, elbows, brackets, and the vaults themselves.

Scope (Units of Work) and Actual/Planned Expenditures

Underground Program		
URD Rehabilitation	2023 Plan	2023 Forecast
Units (Transformers)	40	39
Spending (\$ millions)	1.6	1.6

Locations

Areas generally outside of downtown Pittsburgh.

Comments:

DLC’s forecasted work for 2023 is consistent with the LTIP 2 as filed.

III. *Underground Infrastructure Rehabilitation Initiative*
Initiative Description and Purpose

The purpose of this initiative is to replace or extend the life of underground infrastructure such as manholes, vaults, transformers, switches, network protectors, and associated electrical equipment.

Scope (Units of Work) and Actual/Planned Expenditures

Underground Program		
Underground Infrastructure Rehabilitation	2023 Plan	2023 Forecast
Units (Work Orders)	40	40
Spending (\$ millions)	4.9	4.1

Locations

All areas of DLC system.

Comments:

DLC’s forecasted work for 2023 is consistent with the LTIP 2 as filed.

IV. Network Transformers Replacements Initiative

Initiative Description and Purpose

The purpose of this initiative is to replace underground network transformers and associated equipment based on condition, loading, obsolescence, age, or end of useful life in order to maintain reliability and reduce cost associated to outages associated with equipment failure.

Scope (Units of Work) and Actual/Planned Expenditures

Underground Program		
Network Transformer Replacements	2023 Plan	2023 Forecast
Units (Transformers)	10	5
Spending (\$ millions)	1.3	0.7

Locations

City of Pittsburgh.

Comments:

DLC plans to perform fewer asset replacements in this initiative as compared to the LTIP 2 as filed based on the condition and age of assets in this category.

V. Underground Repairs and Restoration Initiative

Initiative Description and Purpose

The Underground Repairs and Restoration Initiative will restore underground equipment during times of equipment and cable failures and outages. This initiative will allow DLC to maintain the reliability of its distribution infrastructure and respond to emergent issues.

Scope (Units of Work) and Actual/Planned Expenditures

Underground Program		
Underground Repairs and Restoration	2023 Plan	2023 Forecast
Units (Work Orders)	300	300
Spending (\$ millions)	9.6	9.0

Locations

All areas of DLC system.

Comments:

DLC's forecasted work for 2023 is consistent with the LTIP 2 as filed.

System Reliability Program

Description and Purpose

DLC is continuously evaluating the distribution system for near-term capital investment needs associated with forecasted equipment overloads and maintaining system performance to within PUC requirements. The purpose of this program is to fund projects required to resolve these needs.

Scope (Units of Work) and Actual/Planned Expenditures

System Reliability Program		
System Reliability	2023 Plan	2023 Forecast
Units (Work Orders)	76	50
Spending (\$ millions)	10.8	7.5

Locations

All areas of DLC system.

Comments:

DLC forecasts slightly less spending in this initiative in 2023 as compared to the LTIP 2 as filed.

Highway Relocation Program

Description and Purpose

The Highway Relocation Program consists of work that arises during the course of normal operations required by the Commonwealth of Pennsylvania, PennDOT, counties, cities, municipalities, or other government agencies. As part of unreimbursed road and bridge projects, DLC is required to relocate its distribution facilities. During these relocations, there is the potential for system improvements. Due to the nature of how these relocation projects are scheduled, DLC cannot definitively determine the annual expenditures or number of projects that will be required during the LTIP period.

Scope (Units of Work) and Actual/Planned Expenditures

Highway Relocation Program		
Unreimbursed Highway Relocations	2023 Plan	2023 Forecast
Units (Work Orders)	65	65
Spending (\$ millions)	10.5	16.0

Locations

All areas of DLC system.

Comments:

Forecasted investment in 2023 is higher than the LTIP 2 as filed amount due to a schedule change in a major project resulting from delays in obtaining right of way required to relocate DLC assets.

DSIC Recovery Summary

The below table summarizes, for years 2016 through 2022, the Company's (1) cumulative gross plant-in-service in DSIC-eligible accounts, and (2) annual DSIC revenue requirement. These data have previously been reported to the Commission through periodic DSIC surcharge updates and reconciliations.

Duquesne Light Company
 LTIIIP 1 Summary - DSIC Surcharge Recoveries
 02.01.2023

	<u>2016</u> [1]	<u>2017</u> [1]	<u>2018</u> [1]	<u>2019</u> [2]	<u>2020</u> [1]	<u>2021</u> [1]	<u>2022</u> [3][4]
Cumulative Gross DSIC Plant In Service	\$ 10,987,085	\$ 103,517,893	\$ 229,078,424	\$ -	\$ 123,927,542	\$ 259,104,589	\$ 285,796,451
DSIC Surcharge Calendar Year Revenue Requirement	\$ 352,914	\$ 8,918,635	\$ 20,620,006	\$ -	\$ 8,368,584	\$ 23,803,093	\$ 1,227,948

[1] Calendar year revenue requirement is based on plant accumulated up through August 31 of each year.

[2] Effective 12/29/2018, DSIC Surcharge reset in accordance with Commission Order dated 12/20/2018 at Docket No. R-2018-3000124, page 15, paragraph 33.

[3] Effective 01/15/2022, DSIC Surcharge reset in accordance with Commission Order dated 12/16/2021 at Docket No. R-2021-3024750, page 15, paragraph 35.

[4] DSIC revenue was collected for 1/1/2022 through 1/14/2022 on plant accumulated up through November 2021. The DSIC Surcharge C-Factor rate was set to zero when new Distribution rates went in to effect on 1/15/2022. Refer to Docket M-2021-3030118 & M-2022-3030371.

Please note that these annual DSIC-related data will not correspond directly to annual expenditures reported in the Company's AAO Plans. This is for several reasons, including:

- The AAO Plans report the Company's expenditures under its LTIIIP programs, whereas the above data categories respectively track (1) the cumulative DSIC-eligible plant in service, and (2) the amounts that have been recovered through the DSIC. There is a lag between when the Company expends funds under an LTIIIP program, and when the associated plant is placed into service. There is then an additional lag between when the plant is placed into service, and when the costs thereof are recovered through the DSIC (if at all).
- The Company's DSIC was reset, and the associated DSIC-eligible plant-in-service was rolled in base distribution rates, as part of the Company's 2018 base distribution rates proceeding at docket no. R-2018-3000124; and again as part of the Company's 2021 base distribution rates proceeding at docket no. R-2021-3024750. Therefore, a significant portion of the Company's costs of DSIC-eligible plant-in-service is recovered through base rates, not through the DSIC.
- The AAO Plans report the Company's total spending under its LTIIIP programs. A small portion of this spending is not eligible for recovery through the DSIC (e.g., the Company's costs of removal), and is not included in DSIC-eligible plant-in-service.

Therefore, these data are provided here for informational purposes only.