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— DUQUESNE LIGHT CO. —

August 29, 2025

**VIA EMAIL**

Secretary Matthew L. Homsher, Esq.
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120



Re: **Duquesne Light Company – 2025 – 2029 Capital Investment Plan Report**

Dear Secretary Homsher:

Enclosed please find Duquesne Light Company's Capital Investment Plan Report for 2025 - 2029, as required by 52 Pa. Code § 73.7. The report is submitted in two versions, confidential and public. Enclosed is the public version. The confidential version will be submitted via overnight mail.

If you have any questions regarding the information contained in this filing, please feel free to contact me or Ethan Bayne at ebayne@duqlight.com or 412-393-1078.

Sincerely,

Mary Kellam

Mary Kellam
Specialist, Regulatory Performance

Enclosure
CC (w/public version):
Bureau of Technical Utility Services (dsearfoorc@pa.gov; jvanzant@pa.gov)
Office of Consumer Advocate (ra-oca@paoca.org)
Office of Small Business Advocate (ra-sba@pa.gov)


# CAPITAL INVESTMENT PLAN REPORT 2025-2029

**August 29, 2025**

## Introduction

Duquesne Light Company (DLC) is investing in the future to continue providing safe and reliable service to more than 600,000 customers in Allegheny and Beaver counties while also leading the region's clean energy transition. Per 52 Pa. Code §73.7, DLC is required to file a capital investment plan report every 5 years with the Commission. The Company's report is due August 31, 2025. DLC timely submits the following five-year capital investment plan in accordance with the formatting requirements contained in 52 Pa. Code §73.8. As detailed below, this report includes 17 planned and anticipated major projects.[1]

Operations Projects

1. Watson Substation
2. Brunot Island (BI) to Crescent Corridor Rebuild
3. Bus Rapid Transit (BRT) Fifth and Forbes
4. Dravosburg 69 kV Facilities Elimination
5. Allegheny County Sanitary Authority (ALCOSAN) Substation Relocation
6. Clairton Substation Elimination
7. Trafford Substation Elimination
8. New DLC Headquarters
9. New Service Center – South Hills
10. Electric Fleet Charging
11. Community, Fleet & Transit Pilot
12. Oakland Capacity and Resilience
13. Rural Ridge Substation Elimination

Information Technology (IT) Projects

14. Oracle Utility Suite Upgrade
15. Supervisory Control and Data Acquisition (SCADA) [REDACTED] Upgrade
16. Program STREAM
17. Distribution Management System (DMS) and Distributed Energy Resource Management System (DERMS)

A description of these projects follows, including the needs they are intended to meet, the alternatives investigated, effects on existing equipment, projected in-service dates, and estimated costs.

[1] For purposes of this report, a "major project" for the Company is a project with initial Capital Committee or Senior Management approval with an estimated cost in excess of 1% of the undepreciated original cost of the Company's total plant in-service or $10 million, whichever is less.

## Major Project Expansion, Modification, and Other Alterations of Current and Proposed Facilities

### 1. Watson Substation

***Description and Need***

This project will enhance reliability and redundancy by establishing Watson Substation, a new 138/23 kV substation. This substation will provide load relief, resiliency, and additional capacity in the Downtown, Uptown, Hill District, and Oakland areas. This additional capacity can be used to eliminate the 11/4 kV Grant Substation, provide capacity for load growth in Uptown and the Hill District, and aid in the future conversion of the Forbes 11 kV network to 23 kV. Most importantly, Watson Substation will provide an additional 23 kV source for the Downtown network.

This project will establish a bulk power substation served by looping two 138 kV underground transmission lines into the station to establish four sources connected to a 138 kV bus, the installation of three distribution transformers, and necessary distribution-voltage components.

***Alternatives Investigated***

Build a more resilient version of Watson Substation. Watson Substation could be built with a 15 breaker 138 kV bus using a breaker and a half scheme, including five distribution transformers to support independent network and subtransmission buses, as well as extensive distribution-voltage components. This alternative is not recommended due to cost.

***Effect on Existing Equipment***

This project will establish a new substation with all new equipment.

***Projected In-Service Date***

This project is anticipated to have the majority of assets placed in service in 2025, with final project close out in 2026.

***Estimated Cost***

The cost of this project is estimated to be $249 million.

### 2. Brunot Island (BI) to Crescent Corridor Rebuild

***Description and Need***

The Brunot Island-Crescent transmission line corridor has some of DLC's oldest in-service steel lattice towers. Structural evaluations have determined that the structures have exceeded their expected life. Based on current conditions, below grade section losses, and Power Line Systems – Computer-Aided Design and Drafting (PLS-CADD) modeling at current design codes, all

results indicate these structures are beyond permanent repair and require replacement. Temporary repairs have been made to some of the foundations to ensure that they will remain in service until replacement structures can be installed.

BI to Crescent will use self-supporting monopoles with deep soil foundations to eliminate the risk created by potential landslides. The structures will have two 138 kV transmission circuits constructed with 795 ACSS/TW, a high-temperature conductor that will provide increased ratings with minimal sag.

***Alternatives Investigated***
Alternative 1: Other alternatives investigated included varying degrees of rehabilitation of the existing lattice towers. These alternatives were determined to be insufficient to achieve the objectives of addressing issues associated with equipment ages and providing increased capacity to serve increasing load.

Alternative 2: Rebuild one BI-Crescent circuit to 345 kV to achieve additional capacity. This alternative is no longer being pursued based upon the input DLC received from its customers. Present PJM planning requirements are met without building one of the circuits to 345 kV standards.

***Effect on Existing Equipment***
Execution of this project will cause the existing towers, conductors, and ancillary equipment to be retired and replaced with new towers, conductors, and ancillary equipment.

***Projected In-Service Date***
This project is being placed in service in several phases. The project's final completion date is in 2027.

***Estimated Cost***
The cost of this project is estimated to be $176 million.

## 3. Bus Rapid Transit (BRT) Fifth and Forbes

***Description and Need***
The Port Authority of Allegheny County is working to create a Bus Rapid Transit (BRT) system to streamline commutes for buses from Downtown Pittsburgh to the city's eastern neighborhoods. In preparation for this, Duquesne Light Company (DLC) will be upgrading its infrastructure in areas on and around the route of the bus system. This work is part of DLC's commitment to providing safe and reliable service to our customers in the Downtown, Uptown, and Hill District neighborhoods.

Duquesne Light will be working in conjunction with other local utilities, who will also be upgrading their respective infrastructure for the BRT system. DLC's upgrades are part of a major investment in maintaining reliability in the area and enabling capacity expansion as the community's needs grow.

***Alternatives Investigated***
Maintain the status quo. This is not viable because all circuits and rights-of-way (ROW) in the vicinity of the BRT system must be upgraded in order to support it and the new Watson Substation.

***Effect on Existing Equipment***
DLC will be replacing 2.5 miles of electric duct bank, 86,000 feet of outdated underground cables, more than 50 poles, and at least 30 electrical circuits.

***Projected In-Service Date***
This project is anticipated to be placed into service in 2026.

***Estimated Cost***
The cost of this project is estimated to be $69 million.

## 4. Dravosburg 69 kV Facilities Elimination

***Description and Need***
Dravosburg Substation includes an area of end-of-life and obsolete facilities that will be removed and replaced with new 138 kV facilities to expand the useful life of the substation. The proposed upgrades will increase the electrical capacity of the substation and the connected circuits to also address load growth needs.

***Alternatives Investigated***
Maintain the status quo. Maintaining the existing condition of the equipment does not address the increased failure risk of the aged transformers and does not address Dravosburg Substation's limited capacity to serve new distribution load.

***Effect on Existing Equipment***
DLC will be removing the existing transmission equipment, transformers, duct banks, and control equipment that are in place in the 69 kV area of the substation. New 138 kV breakers, 138/23 kV transformers, and distribution-voltage components will be installed.

***Projected In-Service Date***
This project is anticipated to be placed into service in 2028.

***Estimated Cost***

The cost of this project is estimated to be $75 million.

## 5. Allegheny County Sanitary Authority (ALCOSAN) Substation Relocation

***Description and Need***
The ALCOSAN is expanding their facilities as part of the Ohio River Tunnel (ORT) Project. At the customer's request, DLC is building a new substation for ALCOSAN and removing the old substation. The new substation will have increased capacity and reliability to be able to serve the needs of the ORT project as well as long-term operation of ALCOSAN facilities.

***Alternatives Investigated***
Expand the existing substation. The location of this substation conflicted with new equipment to be installed by ALCOSAN, so this alternative was eliminated.

***Effect on Existing Equipment***
DLC will be removing existing distribution equipment, transformers, switches, and control equipment and building a new substation at a different location on the customer's property. This includes a new Ohio River crossing to expand the capacity of the substation to meet the increased demand of the ALCOSAN facility.

***Projected In-Service Date***
This project is anticipated to be placed into service in 2026.

***Estimated Cost***
The cost of this project is estimated to be $47 million.

## 6. Clairton Substation Elimination

***Description and Need***
This project is necessary in order to eliminate equipment that is susceptible to failure due to obsolescence, age, or end of useful life. By removing this equipment from service, unplanned outages and equipment damage associated with failures will be avoided. Duquesne Light will reduce costs by preventing these future incidents and forgoing perpetual maintenance on the obsolete 4 kV equipment. The entire Clairton distribution load is to be converted to 23 kV operation and transferred to a fifth Wilson 23 kV distribution circuit. This fifth Wilson distribution circuit is required to support the conversion of Clairton 4 kV distribution load.

***Alternatives Investigated***
Alternative 1: Replace all substation assets with pad-mounted equipment and create a new "distribution load center." This option is less advantageous from a resiliency perspective because aged distribution assets outside of the substation would not be replaced.

Alternative 2: Maintain the status quo. This program addresses equipment that failed, has limited life, must be modified due to changes in load concentrations, and/or has nonspecific deterioration because of aging and/or changes to system requirements. Therefore, there are no viable alternatives.

***Effect on Existing Equipment***
DLC will construct new 23 kV circuits to replace the existing 4 kV circuits from Clairton Substation. DLC will be removing all existing 4 kV distribution equipment, upgrading poles and transformers, and reconnecting customer services to the new 23 kV equipment. Additional work will be performed at Wilson Substation to convert an existing subtransmission circuit position to a 23 kV distribution circuit.

***Projected In-Service Date***
This project is anticipated to be placed into service in 2029.

***Estimated Cost***
The cost of this project is estimated to be $37 million.

## 7. Trafford Substation Elimination

***Description and Need***
Trafford Substation is an "Operational Island," meaning that it is a 4 kV substation supplying a 4 kV circuit which has no emergency load transfer capability. For a loss of source or equipment failure, all of the customers served from the Trafford Substation experience a prolonged outage until repairs can be made or until a mobile substation is installed. Furthermore, this project will eliminate equipment that is susceptible to failure due to obsolescence, age, or end of useful life. This project entails eliminating Trafford Substation and equipment, establishing a new Wilmerding 23 kV circuit position, and extending the circuit from Wilmerding Substation approximately 4.5 miles to the Trafford load center.

***Alternatives Investigated***
Alternative 1: Replace all substation assets with pad-mounted equipment and create a new "distribution load center." This option is less advantageous from a resiliency perspective because aged distribution assets outside of the substation would not be replaced.

Alternative 2: Maintain the status quo. This program addresses equipment that failed, has limited life, must be modified due to changes in load concentrations, and/or has nonspecific deterioration because of aging and/or changes to system requirements. Therefore, there are no viable alternatives.

***Effect on Existing Equipment***

DLC will construct one new 23 kV circuit to replace the existing 4 kV circuit from Trafford Substation. DLC will be removing all existing 4 kV distribution equipment, upgrading poles and transformers, and reconnecting customer services to the new 23 kV equipment. Additional work will be performed at Wilmerding Substation to install a new 23 kV circuit position and related distribution-voltage components.

***Projected In-Service Date***
This project is anticipated to be placed into service in 2028.

***Estimated Cost***
The cost of this project is estimated to be $22 million.

## 8. New DLC Headquarters

***Description and Need***
The scope of this project includes identifying a new headquarters location, designing and constructing a new space, moving employees' personal items and business documents, and evaluating and acquiring furniture to meet the needs of employees in the new space.
REDACTED

***Alternatives Investigated***
REDACTED

***Effect on Existing Equipment***
REDACTED

***Projected In-Service Date***
This project is anticipated to be placed into service in 2026.

***Estimated Cost***
The cost of this project is estimated to be $22 million.

## 9. New Service Center – South Hills

***Description and Need***
DLC will build a small service center on an existing DLC property in Pleasant Hills to aid in both splitting up the Preble Service Center territory and requiring less travel for field personnel. By building this new service center, DLC will reduce operational costs annually due to reduced travel time and fuel consumption for the assigned crews.

***Alternatives Investigated***

DLC considered alternative locations for the service center. This property was chosen because it is already owned by DLC and is of sufficient size for the service center.

***Effect on Existing Equipment***
This will involve construction of a new service center, material storage, truck garages, employee parking lots, and associated fencing and security.

***Projected In-Service Date***
This project is anticipated to be placed into service in 2028.

***Estimated Cost***
The cost of this project is estimated to be $21 million.

**10. Electric Fleet Charging**

***Description and Need***
DLC has a goal to electrify 30% of its fleet by 2030. To meet that goal, the Company will need to expand the charging infrastructure available at its facilities to support electric fleet vehicles and employee workplace charging.

***Alternatives Investigated***
N/A. This project addresses the need to install a significant amount of electric vehicle charging infrastructure required to support DLC's growing electric fleet.

***Effect on Existing Equipment***
DLC will be improving existing services or adding new service points at DLC facilities to support the electrical load for the new EV charging facilities. Some system upgrades may potentially be required as the result of this work (e.g., reconductoring, load transfers).

***Projected In-Service Date***
This project is anticipated to be placed into service in 2029.

***Estimated Cost***
The cost of this project is estimated to be $19 million.

**11. Community, Fleet & Transit Pilot**

***Description and Need***
The Community, Fleet and Transit Pilot was included among the settlement commitments in DLC's 2024 distribution rate case. This program will help support the deployment of electric vehicle charging infrastructure (Level 2 and DC Fast Charger) in DLC's service territory. DLC

will install, own, and maintain the make-ready portion of the infrastructure on the customer side of the meter. DLC will hire a third-party contractor to work with multiple customers to install infrastructure, including conduit, panels, and wiring from the transformer/meter/service point up to the charging stations.

***Alternatives Investigated***
None. The project is required as part of DLC's 2024 distribution rate case settlement.

***Effect on Existing Equipment***
Some system upgrades may potentially be required as the result of this work (e.g., reconductoring, load transfers).

***Projected In-Service Date***
This project is anticipated to be placed into service in 2029.

***Estimated Cost***
The cost of this project is estimated to be $17 million.

## 12. Oakland Capacity and Resilience

***Description and Need***
In order to fully utilize Riazzi Substation, additional duct paths and circuits need to be established. Then new duct paths and circuits will be used to transfer load from DLC's Oakland Substation and increase ratings on the substation's remaining circuits. This added capacity is necessary to support load growth in Pittsburgh's Oakland neighborhood.

***Alternatives Investigated***
Alternative 1: Maintain the status quo. This would limit the usefulness of Riazzi Substation. The substation has a base power rating of 115 MVA and present loading is only 35 MVA.

Alternative 2: Extend Circuits from Arsenal Substation. Arsenal Substation is approximately 2.5 miles from the Oakland neighborhood. Routing new circuits out of Arsenal Substation is difficult due to several physical constraints, would provide less capacity, and would be more costly.

Alternative 3: Extend Circuits from Highland Substation. Highland Substation is approximately 4.5 miles from the Oakland neighborhood. Routing new circuits out of Highland Substation is difficult due to several physical constraints and would be more costly.

***Effect on Existing Equipment***

DLC will be constructing three new duct banks to support the seven new circuits that will be powered by Riazzi Substation. These duct banks will be separate and unique to maximize the reliability of the power from the substation.

***Projected In-Service Date***
This project is anticipated to be placed into service by the end of 2025.

***Estimated Cost***
The cost of this project is estimated to be $17 million.

## 13. Rural Ridge Substation Elimination

***Description and Need***
Rural Ridge is the last 2,400 V circuit on the DLC distribution system and has no circuit ties in the area for reliability. Furthermore, this project will eliminate equipment that is susceptible to failure due to obsolescence, age, or end of useful life. This project will replace the existing DLC assets with 23 kV equipment and connect Rural Ridge to other circuits in the area.

***Alternatives Investigated***
Alternative 1: Replace all substation assets with pad-mounted equipment and create a new "distribution load center." This option is less advantageous from a resiliency perspective because aged distribution assets outside of the substation would not be replaced.

Alternative 2: Maintain the status quo. This program addresses equipment that failed, has limited life, must be modified due to changes in load concentrations, and/or has nonspecific deterioration because of aging and/or changes to system requirements. Therefore, there are no viable alternatives.

***Effect on Existing Equipment***
DLC will be removing existing 4 kV distribution equipment, upgrading poles and transformers, and reconnecting customer services to the new 23 kV equipment.

***Projected In-Service Date***
This project is anticipated to be placed into service in 2027.

***Estimated Cost***
The cost of this project is estimated to be $13 million.

## 14. Oracle Utility Suite Upgrade

***Description and Need***

The Oracle Utility Suite is DLC's core system for managing customer, meter, and billing data. The current on-premises platform is nearing end-of-support within several years. This upgrade initiative will transition DLC to the latest, supported on-premises version.

***Alternatives Investigated***
Maintain the status quo. This was not recommended due to vulnerabilities and lack of support.

***Effect on Existing Equipment***
This will update the software used by the Company and not otherwise affect equipment.

***Projected In-Service Date***
This project is anticipated to be placed into service in 2027.

***Estimated Cost***
The cost of this project is estimated to be $39 million.

## 15. Supervisory Control and Data Acquisition (SCADA) [REDACTED] Upgrade

***Description and Need***
As part of the requirements in Federal Energy Regulatory Commission (FERC) Order 881, DLC is required to expand the database associated with tracking ratings with the SCADA system. The Company will upgrade the SCADA platform to a newer version to support FERC 881.
REDACTED

***Alternatives Investigated***
REDACTED

***Effect on Existing Equipment***
This will update the software used by the Company and not otherwise affect equipment.

***Projected In-Service Date***
REDACTED

***Estimated Cost***
The cost of this project is estimated to be $32 million.

## 16. Program STREAM

***Description and Need***
DLC is pursuing targeted initiatives to improve financial end-to-end processes and optimize usage of existing systems, including Oracle Enterprise Resource Planning (ERP), Maximo, and

PowerPlan. The Company aims to optimize the use and interaction of the core ERP Oracle system by implementing integrated business planning, cost accounting, and procurement & inventory management systems within the ERP/Enterprise Performance Management (EPM) suite. Phase one of the project, including monthly forecasting processes and resource balancing, was implemented in 2025.

***Alternatives Investigated***
Maintain the status quo. This is not recommended due to inefficient financial processes.

***Effect on Existing Equipment***
This will update the software used by the Company and not otherwise affect equipment.

***Projected In-Service Date***
This project is anticipated to be placed into service in phases, with some already in service in 2025, others to be placed in service in 2026, and more in 2027.

***Estimated Cost***
The cost of this project is estimated to be $24 million.

## 17. Distribution Management System (DMS) and Distributed Energy Resource Management System (DERMS)

***Description and Need***
DLC will implement a DMS to enhance its ability to monitor and manage distribution circuits in real time, allowing for improved circuit analysis, switch order management, distribution power flow, fault detection and restoration, and Volt/Var Control. A DMS is foundational for future utility operations and essential for integrating a DERMS. A DERMS system will assist in managing or integrating distributed energy resources (DERs), such as solar panels, battery storage, electric vehicles, microgrids, or demand response programs.

***Alternatives Investigated***
Maintain the status quo. This is not recommended due to ongoing goals related to grid modernization and meeting customer expectations.

***Effect on Existing Equipment***
These new systems would not affect existing equipment.

***Projected In-Service Date***
This project is anticipated to be placed into service in 2028.

***Estimated Cost***
The cost of this project is estimated to be $11 million.

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