PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17105-3265

Public Meeting held November 10, 2022

Commissioners Present:

Gladys Brown Dutrieuille, Chairman
Stephen M. DeFrank, Vice Chairman
Ralph V. Yanora
Kathryn L. Zerfuss
John F. Coleman, Jr.

Petition of Duquesne Light Company for Approval of its Second Long-Term Infrastructure Improvement Plan	Docket Number: P-2022-3032805

OPINION AND ORDER

BY THE COMMISSION:

Before the Commission for consideration is the Petition of the Duquesne Light Company (DLC) for Approval of its Second Long-Term Infrastructure Improvement Plan (LTIIP II). DLC filed its LTIIP II on June 1, 2022. Copies of DLC's LTIIP II were served on the statutory advocates and the parties of record from DLC's most recent base rate case proceeding.[1] On August 24, 2022, via Secretarial Letter, the Commission extended the review period of DLC's LTIIP II to October 31, 2022. On October 20, 2022, via Secretarial Letter, the Commission further extended the review period of DLC's LTIIP II to November 30, 2022.

[1] *See* Docket No. R-2021-3024750.

No comments were received. For the reasons expressed in this Opinion and Order we will approve DLC's LTIIP II.

BACKGROUND

Effective February 14, 2012, Act 11 of 2012, (Act 11) provides jurisdictional water and wastewater utilities, electric distribution companies (EDCs), and natural gas distribution companies (NGDCs) or a city natural gas distribution operation with the ability to implement a Distribution System Improvement Charge (DSIC) to recover reasonable and prudent costs incurred to repair, improve, or replace certain eligible distribution property that is part of the utility's distribution system. The eligible property for the utilities is defined in 66 Pa.C.S. §1351. Act 11 states that as a precondition to the implementation of a DSIC, a utility must file an LTIIP with the Commission consistent with 66 Pa.C.S. §1352.

The Commission promulgated regulations relating to LTIIPs at 52 Pa. Code §§ 121.1 – 121.8 that became effective December 20, 2014. In accordance with the regulations, DSIC-eligible utilities must include the following elements in its LTIIP:[2]

(1) Types and age of eligible property.
(2) Schedule for its planned repair and replacement.
(3) Location of the eligible property.
(4) Reasonable estimates of the quantity of property to be improved.
(5) Projected annual expenditures and measures to ensure that the plan is cost effective.
(6) Manner in which replacement of aging infrastructure will be accelerated and how repair, improvement or replacement will maintain safe and reliable service.

[2] *See* 52 Pa. Code § 121.3.

(7) A workforce management and training program; and

(8) A description of a utility's outreach and coordination activities with other utilities, PennDOT and local governments on planned maintenance/construction projects.

DLC's FIRST LTIIP

DLC is in the business of selling and distributing electric to retail customers within the Commonwealth of Pennsylvania and is therefore a "public utility" within the meaning of Section 102 of the Public Utility Code, 66 Pa.C.S. §§ 102, subject to the regulatory jurisdiction of the Commission. DLC is also an EDC as that term is defined under Section 2803 of the Public Utility Code, 66 Pa. C.S. § 2803. DLC operates and manages a distribution system that provides electric service to more than 600,000 customers within an area covering approximately 817 square miles, including the City of Pittsburgh and parts of Allegheny and Beaver counties.

DLC's first LTIIP (LTIIP I) spanned a six-year time period from January 1, 2017, through December 31, 2022. LTIIP I was filed with the Commission on April 15, 2016, and was approved in an Order entered September 15, 2016, at Docket No. P-2016-2540046. DLC noted that the objective of LTIIP I was 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. DLC also noted that LTIIP I supported and enhanced DLC's continued efforts to sustain its high level of reliability and safety that could otherwise suffer due to normal degradation of facilities that occurs with time and natural environmental stresses. DLC's LTIIP I concentrated on the following five asset programs:

- 4kV Program – The 4kV Program consisted of three major initiatives that eliminated, converted and/or upgraded various 4kV distribution system assets at or approaching the end of expected useful life.
- Overhead Program – The Overhead Program consisted of initiatives that addressed aerial cable and other eligible property at or approaching the end of expected useful life.
- Underground Program – The Underground Program consisted of initiatives that replaced, rehabilitated, and improved obsolete, eligible property at or approaching the end of expected useful life.
- Substations Program – The Substations Program consisted of initiatives to upgrade aged substation infrastructure.
- Highway Relocation Program – This is related to work that arose during the course of normal operations required by the State of Pennsylvania, PennDOT, counties, cities, municipalities, or other government agencies.

DLC's LTIIP I originally proposed a total of $212 million in LTIIP expenditures, not including costs related to unreimbursed highway relocations. DLC provided the estimated unreimbursed highway relocation expenditures in supplemental information provided to the Commission at Docket No. P 2016-2540046. Table 1 below details the original projected LTIIP expenditures, inclusive of the unreimbursed highway relocation amounts.

Table 1: DLC Original LTIIP I Expenditures

Infrastructure Initiative	2017	2018	2019	2020	2021	2022	Total
4kV Program							
Subtation Eliminations	$ 13.0	$ 28.0	$ 47.0	$ -	$ -	$ 7.5	**$ 95.5**
Stepdown Conversions	$ -	$ 5.0	$ 5.0	$ 5.0	$ -	$ -	**$ 15.0**
Modular Integrated Transformers System	$ 2.0	$ 8.0	$ 8.0	$ -	$ -	$ -	**$ 18.0**
Total 4kv Program	**$15.0**	**$41.0**	**$60.0**	**$ 5.0**	**$ -**	**$ 7.5**	**$ 128.5**
Overhead Program							
Aeiral Cable Replacement	**$ -**	**$ 8.5**	**$ 8.0**	**$ 0.5**	**$ 1.0**	**$ 1.0**	**$ 19.0**
Underground Program							
Underground Cable Replacement	$ 5.0	$ 3.5	$ 3.0	$ 0.5	$ 1.0	$ 2.0	**$ 15.0**
Network Transformer & Protector Replacement	$ -	$ 3.0	$ 3.0	$ -	$ -	$ -	**$ 6.0**
URD Rehabilitation	$ -	$ 5.0	$ 5.0	$ 5.0	$ 5.0	$ 2.5	**$ 22.5**
Total Underground Program	**$ 5.0**	**$11.5**	**$11.0**	**$ 5.5**	**$ 6.0**	**$ 4.5**	**$ 43.5**
Substations Program							
Breaker & Switch Replacements	$ -	$ 4.0	$ 4.0	$ 4.0	$ 2.0	$ 1.0	**$ 15.0**
Substation Upgrade	$ -	$ 3.0	$ 3.0	$ -	$ -	$ -	**$ 6.0**
Total Substations Program	**$ -**	**$ 7.0**	**$ 7.0**	**$ 4.0**	**$ 2.0**	**$ 1.0**	**$ 21.0**
Unreimbursed Highway Relocation	**$ 2.8**	**$ 2.8**	**$ 2.9**	**$ 2.8**	**$ 2.9**	**$ 3.0**	**$ 17.2**
Totals	**$22.8**	**$70.8**	**$88.9**	**$17.8**	**$11.9**	**$17.0**	**$ 229.2**

In subsequent discussion with Commission Staff in the Bureau of Technical Utility Services, and as reflected in DLC's subsequent Annual Asset Optimization Plans (AAOPs), DLC adjusted its projected LTIIP I expenditures upward.[3] However, DLC's upwardly adjusted projected LTIIP I expenditures fell below the 20% threshold of a major modification.[4] Table 2 below details the adjusted LTIIP I projected and actual expenditures, with 2022 being a forecast amount. Note that the increase in total actual expenditures over the projected expenditures is largely due to the projected expenditures for unreimbursed highway expenditures in 2022.

[3] The DLC AAOPs may be found at Docket Nos. M-2018-3000184, M-2019-3008214, M-2020-3018948, M-2021-3024315, and M-2022-3031184.
[4] *See* 52 Pa. Code § 121.2, definition of a major modification.

Table 2: DLC Projected and Actual LTIIP I Expenditures

DLC Projected and Actual LTIIP I Expenditures - In Millions of Dollars														
	LTIIP	Actual	LTIIP	Actual	LTIIP	Actual	LTIIP	Actual	LTIIP	Actual	LTIIP	Forecast	Total	Total Actual
Infrastructure Initiative	**2017**	**2017**	**2018**	**2018**	**2019**	**2019**	**2020**	**2020**	**2021**	**2021**	**2022**	**2022**	**LTIIP**	***2022 Forecast**
4kV Program														
Subtation Eliminations	$ 13.0	$ 12.3	$ 28.0	$ 29.4	$ 47.0	$ 23.5	$ -	$ 14.5	$ -	$ 1.9	$ 7.5	$ 0.2	**$ 95.5**	**$ 81.8**
Stepdown Conversions	$ 1.1	$ 1.8	$ 6.1	$ 7.7	$ 6.2	$ 5.3	$ 6.1	$ 0.6	$ 1.1	$ 1.1	$ 1.1	$ 0.6	**$ 21.7**	**$ 17.1**
Modular Integrated Transformers System	$ 2.0	$ 7.2	$ 8.0	$ 4.9	$ 8.0	$ 2.6		$ 1.8	$ -	$ 2.5	$ -	$ 1.1	**$ 18.0**	**$ 20.1**
Total 4kV Program	**$16.1**	**$21.3**	**$42.1**	**$42.0**	**$61.2**	**$31.4**	**$ 6.1**	**$16.9**	**$ 1.1**	**$ 5.5**	**$ 8.6**	**$ 1.9**	**$ 135.2**	**$ 119.0**
Overhead Program														
Aeiral Cable Replacement	**$ 1.2**	**$ 5.2**	**$ 9.7**	**$ 6.8**	**$ 9.2**	**$ 6.2**	**$ 1.8**	**$ 5.8**	**$ 2.3**	**$ 7.5**	**$ 2.4**	**$ 4.7**	**$ 26.6**	**$ 36.2**
Underground Program														
Underground Cable Replacement	$ 5.0	$ 9.5	$ 3.5	$ 0.6	$ 3.0	$ -	$ 0.5	$ -	$ 1.0	$ 0.8	$ 2.0	$ 3.0	**$ 15.0**	**$ 13.9**
Network Transformer & Protector Replacement	$ 2.8	$ 3.2	$ 5.8	$ 4.0	$ 5.7	$ 4.1	$ 2.7	$ 3.2	$ 2.7	$ 2.7	$ 2.8	$ 1.4	**$ 22.5**	**$ 18.6**
URD Rehabilitation	$ 0.9	$ 2.1	$ 5.9	$ 5.7	$ 5.9	$ 7.0	$ 5.9	$ 3.4	$ 5.9	$ 6.7	$ 3.5	$ 5.6	**$ 28.0**	**$ 30.5**
Total Underground Program	**$ 8.7**	**$14.8**	**$15.2**	**$10.3**	**$14.6**	**$11.1**	**$ 9.1**	**$ 6.6**	**$ 9.6**	**$10.2**	**$ 8.3**	**$ 10.0**	**$ 65.5**	**$ 63.0**
Substations Program														
Breaker & Switch Replacement	$ 1.4	$ 4.1	$ 5.4	$ 5.8	$ 5.3	$ 7.4	$ 5.2	$ 6.2	$ 3.3	$ 7.1	$ 2.3	$ 3.1	**$ 22.9**	**$ 33.7**
Substation Upgrades	$ -	$ 0.3	$ 3.0	$ 1.8	$ 3.0	$ 3.7	$ -	$ -	$ -	$ -	$ -	$ -	**$ 6.0**	**$ 5.8**
Total Substations Program	**$ 1.4**	**$ 4.4**	**$ 8.4**	**$ 7.6**	**$ 8.3**	**$11.1**	**$ 5.2**	**$ 6.2**	**$ 3.3**	**$ 7.1**	**$ 2.3**	**$ 3.1**	**$ 28.9**	**$ 39.5**
Unreimbursed Highway Relocations														
Unreimbursed Highway Relocations	**$ 2.8**	**$ 1.2**	**$ 2.8**	**$ 2.6**	**$ 2.9**	**$ 2.7**	**$ 2.8**	**$ 2.9**	**$ 2.9**	**$ 4.9**	**$ 3.0**	**$ 19.0**	**$ 17.2**	**$ 33.3**
Totals	**$30.2**	**$46.9**	**$78.2**	**$69.3**	**$96.2**	**$62.5**	**$25.0**	**$38.4**	**$19.2**	**$35.2**	**$24.6**	**$ 38.7**	**$ 273.4**	**$ 291.0**

On May 26, 2020, via a Secretarial Letter at Docket No. M-2020-3019708, the Commission initiated the periodic review of DLC's LTIIP I as required by 52 Pa. Code § 121.7(a). By Commission Order entered on October 29, 2020, the Commission determined that DLC's LTIIP I was adequately designed to ensure and maintain safe, adequate, reasonable, and reliable service. The Commission's Order also found that the Company substantially adhered to its plan.

DLC's Recent Reliability Performance

The Commission ensures that EDCs are providing reliable service by requiring EDCs to meet certain reliability performance measures. The Commission established reliability benchmarks and standards to measure the performance of each EDC.[5] The benchmarks and standards established by the Commission are based on four reliability performance metrics adopted by the Institute of Electrical and Electronic Engineers, Inc.

[5] *See* Docket No. M-00991220.

(IEEE): SAIFI, CAIDI, SAIDI, and MAIFI.[6] Our electric reliability regulations may be found at 52 Pa. Code § § 57.191-198.

As detailed in the Commission's 2021 *Electric Service Reliability Report in Pennsylvania,*[7] DLC's reliability performance since 2004 has generally been acceptable. However, DLC's recent reliability performance, in particular its CAIDI, has slipped to where DLC has not met its rolling 12-month standard for CAIDI in calendar years 2020 and 2021, as shown in Table 3 below. DLC's rolling 12-month CAIDI and SAIDI for the second quarter of 2022 have dropped to 166 and 162, respectively,[8] and it is expected that this improvement will continue as DLC completes its LTIIP I. DLC has consistently maintained benchmark performance for SAIFI, which is key as SAIFI directly reflects the number of sustained outages a customer experiences. The two most frequent causes of customer interruptions within DLC's territory are off-right-of-way trees followed by equipment failures, which is the case for almost every EDC in Pennsylvania.

Table 3: DLC Rolling 12-month Reliability Metrics Calendar Years 2019-2022

	2019	2020	2021	Average	Benchmark	Standard	Below (+/-) Benchmark	Below (+/-) Standard
CAIDI	106	132	186	141	108	130	72.2%	43.1%
SAIFI	1.01	0.90	0.93	0.95	1.17	1.40	-20.5%	-33.6%
SAIDI	106	111	172	130	126	182	36.5%	-5.5%

DLC averred that because of its investment in LTIIP I, it replaced aging infrastructure, reduced the likelihood of asset failure in the associated asset categories, experienced less cable failures on rehabilitated aerial and underground cable circuits,

[6] SAIFI is the system average interruption frequency index, or frequency of outages; CAIDI is the customer average interruption duration index, or duration of outages; SAIDI is the system average interruption duration index, or average number of minutes the average customer experiences in the measurement period; and MAIFI is the momentary average interruption frequency index, or occurrences of momentary customer interruptions. There is no benchmark measure for MAIFI.
[7] The 2021 *Electric Service Reliability Report in Pennsylvania* may be found here: https://www.puc.pa.gov/media/2053/2021-electric-reliability-report_final.pdf.
[8] DLC's quarterly reliability reports for these periods may be found at Docket No. M-2016-2522508.

improved operational flexibility because of its 4 kilovolt (kV) to 23kV conversions, and experienced better reliability in rehabilitated underground residential distribution (URD) cable.[9] DLCs LTIIP II is expected to have a positive impact upon these metrics.

DLC'S SECOND LTIIP

DLC's LTIIP I expenditures and AAOPs largely reflect the expenditures that DLC sought recovery for through its DSIC.[10] However, DLC in its LTIIP II noted that it will report its total DSIC-eligible expenditures for each year of its six-year term of LTIIP II, as shown in Table 4 below. As shown in Table 4, DLC's total LTIIP II expenditures, as reflected as total DSIC-eligible expenditures in the LTIIP project areas, are a significant increase over its expenditures for LTIIP I as reported through its LTIIP I AAOPs. Whether DLC will either seek or be granted cost recovery through the DSIC for all of its LTIIP II expenditures is a matter to be addressed and resolved through DLC's subsequent DSIC filings.[11]

DLC's LTIIP II is a six-year plan spanning the time period from January 1, 2023, through December 31, 2028. DLC structured its LTIIP II Asset Programs to address the same risk model utilized to prioritize investment in LTIIP I. In general, property with higher probability of failure is addressed by the Overhead Program, Substations Program,

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[9] As a result of the URD work competed in LTIIP 1, DLC noted that annual average SAIFI for equipment failures improved from 0.42 to .05, and the annual average SAIDI for equipment failures improved from 74.23 to 7.06. *See Periodic Review of Duquesne Light Company's Long-Term Infrastructure Improvement Plan*, page 8, Order entered October 29, 2020 at Docket No. M-2020-3019708.

[10] *See Duquesne Light Company – Rider No. 22 Distribution System Improvement Charge Quarterly Update*, Schedule 2 - Computation of Cumulative Distribution System Improvement Charge by Month, filed on December 20, 2021, at Docket No. M-2021-3030118.

[11] We clarified in the Order approving DLC's LTIIP I that "[t]he issues of eligibility and cost recovery, for all property claimed as DSIC-eligible, are to be addressed and resolved in the subsequent DSIC petition and calculation." *See Petition of Duquesne Light Company for Approval of its Long-Term Infrastructure Improvement Plan*, page 23, Order entered September 15, 2016, at Docket No. P 2016-2540046.

Underground Program, and System Reliability Programs. The Unreimbursed Highway Relocations are driven by PennDOT and local governmental needs. DLC's five initiatives and spending comparisons of total actual DSIC-eligible expenditures in those initiatives for the six years prior to LTIIP I, the six years of LTIIP I, and the projected expenditures for the six years of LTIIP II are shown in Table 4 below. DLC noted that its LTIIP II projects an acceleration of approximately $65.7 million in total DSIC-eligible expenditures over the six years of total DSIC-eligible expenditures in LTIIP I.

Table 4: DLC Pre-LTIIP I, LTIIP I, and LTIIP II DISC-Eligible Expenditures

Values in $ Millions - note that some totals are reflective of rounding adjustments							
Infrastructure Initiative	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2011-2016**
Overhead Program	$ 52	$ 40	$ 48	$ 35	$ 35	$ 32	**$ 242**
Substations Program	$ 19	$ 10	$ 12	$ 10	$ 5	$ 11	**$ 68**
Underground Program	$ 24	$ 15	$ 29	$ 20	$ 17	$ 21	**$ 126**
System Reliability Program	$ 12	$ 6	$ 10	$ 3	$ 2	$ -	**$ 34**
Unreimbursed Highway Relocations	$ 1	$ 2	$ 13	$ 11	$ 6	$ 1	**$ 35**
Total	**$108**	**$ 72**	**$112**	**$ 80**	**$ 66**	**$ 67**	**$ 505**
Infrastructure Initiative	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2017-2022**
Overhead Program	$ 65	$ 106	$ 106	$ 101	$ 100	$ 70	**$ 547**
Substations Program	$ 18	$ 30	$ 31	$ 33	$ 39	$ 33	**$ 184**
Underground Program	$ 31	$ 29	$ 31	$ 26	$ 46	$ 60	**$ 222**
System Reliability Program	$ 4	$ 4	$ 2	$ 5	$ 7	$ 19	**$ 41**
Unreimbursed Highway Relocations	$ 1	$ 3	$ 3	$ 3	$ 5	$ 19	**$ 34**
Total	**$119**	**$172**	**$173**	**$168**	**$197**	**$201**	**$ 1,029**
Infrastructure Initiative	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2023-2028**
Overhead Program	$ 67	$ 65	$ 85	$ 92	$ 81	$ 123	**$ 514**
Substations Program	$ 62	$ 93	$ 60	$ 38	$ 24	$ 28	**$ 305**
Underground Program	$ 37	$ 30	$ 30	$ 32	$ 28	$ 37	**$ 194**
System Reliability Program	$ 11	$ 16	$ 7	$ 8	$ 8	$ 9	**$ 58**
Unreimbursed Highway Relocations	$ 11	$ 2	$ 4	$ 1	$ 2	$ 3	**$ 24**
Total	**$187**	**$206**	**$185**	**$173**	**$144**	**$200**	**$ 1,094**

DLC, in its petition, addressed the eight LTIIP elements required by 52 Pa. Code § 121.3, as discussed beginning below:

(1) TYPES AND AGE OF ELIGIBLE PROPERTY

DLC's Position

DLC averred that its Overhead Program features initiatives to address the many elements of its system which are at various ages and states of deterioration. DLC noted that some of those system elements are nearing 60 to 70 years old. DLC also noted that its LTIIP II Overhead Program eliminates, converts, and upgrades elements of its 4kV distribution system to 23kV operation. DLC explained that elimination of its 4kV system by conversion to 23kV will improve transfer capabilities, increase capacity, and thus reduce customer outages and improve reliability metrics.

DLC stated that the Substations Program will upgrade aged and problematic substation infrastructure within DLC's territory. DLC noted that the unit substation upgrades will replace aged transformers and associated equipment that are at or approaching end of useful life. DLC noted that 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. DLC stated that this program also features the creation of the Watson Substation and rehabilitation of the East End Substation.

DLC averred that the new Watson Substation will be constructed in the uptown area of Pittsburgh. It will feature 138kV transmission sources and feed 23kV/11.8kV circuits. DLC noted that because the Watson Substation will be much closer to the load it serves, it will connect with existing distribution and sub transmission circuits over shorter lengths, with new cable, in mostly new and rebuilt duct and manholes. DLC averred that it expects this new equipment will maintain reliability and reduce unplanned outages.

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

DLC stated that its underground and aerial cable has served the system for several years, but it is approaching the end of its expected useful life. DLC noted that the Cable Replacement sub-category initiative focuses on the replacement of underground and aerial cable alongside its related assets 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.

DLC stated that as part of the Underground Program, it will also focus on URD facilities. DLC noted that it installed a significant number of URD facilities in housing developments in the 1970s. DLC noted that this equipment is approaching the end of expected useful life and that some of this equipment is below grade, which exposed the equipment to wet conditions due to rain runoff. DLC stated that the deteriorated equipment includes transformers, primary cable, splices, bushing junctions, elbows, brackets, and the vaults themselves. DLC averred that this initiative will focus on the rehabilitation of the failure-prone URD system to maintain the current high level of reliability and reduce the likelihood of future failures. DLC noted that the LTIIP II encompasses projects addressing these facilities as well as the associated supporting infrastructure, such as poles, cross arms, transformers, etc.

DLC stated that its System Reliability Program Projects are related to forecasted equipment overloads identified annually in a distribution planning system-wide capacity study. System Reliability Program Projects relate to maintaining system performance

within PUC requirements and are identified in quarterly reviews of the poorest performing circuits. DLC noted that example projects within this initiative include:

- Conversion of distribution circuits from 2.4/4.16 kV to 13.2/23 kV.
- Reconductoring or reconfiguration of distribution circuits to support load growth.
- Installation of additional switching devices and protective equipment to reduce outages in known trouble areas.
- Installation of regulation devices in distribution system areas.

Comments

No comments were received regarding the types and ages of eligible property.

Resolution

Upon review of DLC's LTIIP II, the Commission finds that DLC's second LTIIP fulfills the requirements of 52 Pa. Code § 121.3(a)(1) by identifying the types and ages of eligible property for which it seeks DSIC recovery.

(2) SCHEDULE FOR PLANNED REPAIR AND REPLACEMENT OF ELIGIBLE PROPERTY

DLC's Position

DLC stated that estimates of eligible quantities to be improved are derived from a typical cost per project, but that these ranges reflect uncertainty as to the exact number of projects that will be completed in each year due to unforeseen individual project issues, timing and schedule changes, work force availability, weather conditions, and procurement cost and/or availability. DLC's schedule and

quantities for planned repair and replacement of eligible property is shown in Table 5 below.

Table 5: DLC LTIIP II Schedule for Repair and Replacement of Eligible Property

	Units of Work	2023	2024	2025	2026	2027	2028	Total
Overhead Program								
4kV Substation Elimination	Circuit Miles	-	-	-	7	36	-	43
4kV Stepdown Conversion	Circuit Miles	2	1	4	2	4	2	15
Circuit Rehabilitation	Circuit Miles	7	39	33	40	31	3	153
Overhead Devices	Work Orders	52	12	12	12	12	12	112
Deteriorated Pole Replacements	Poles Addressed	2,070	2,070	1,863	1,863	1,863	1,863	11,592
Overhead Line Repairs	Work Orders and Tasks	90	90	90	90	90	90	540
Overhead Repairs and Restoration	Work Orders	4,200	4,200	4,200	4,200	4,200	4,200	25,200
Substations Program	**Units of Work**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**Total**
East End Substation Rehabilitation	Project	-	-	-	-	1	-	1
Establish Watson Substation	Project	-	-	1	-	-	-	1
Unit Substation Rehabilitation	Substations	1	1	1	1	1	1	6
Substation Upgrades	Work Orders	97	83	80	76	76	76	488
Breaker and Switch Replacements	Work Orders	5	5	5	5	5	5	30
Underground Program	**Units of Work**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**Total**
Cable Replacement	Circuit Miles	10	3	9	6	-	6	34
URD Rehabilitation	Transformers	40	80	100	100	120	100	540
Underground Infrastructure Rehabilitation	Work Orders	40	45	40	40	40	40	245
Network Transformer Replacements	Transformers	10	10	10	10	10	10	60
Underground Repairs and Restoration	Work Orders	300	300	300	300	300	300	1,800
System Reliability Program	**Units of Work**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**Total**
System Reliability	Work Orders	76	45	43	48	48	47	307
Highway Relocation Program	**Units of Work**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**Total**
Unreimbursed Highway Relocations	Work Orders	65	38	38	12	12	12	177

Comments

No comments were received regarding the schedule for planned repair and replacement of eligible property.

Resolution

Upon review of DLC's LTIIP II, the Commission finds that DLC's LTIIP II fulfills the requirements of 52 Pa. Code § 121.3(a)(2) by providing a schedule for planned repair and replacement of eligible property.

(3) LOCATION OF THE ELIGIBLE PROPERTY

DLC's Position

DLC averred that total eligible property as outlined in LTIIP II is located throughout DLC's territory in the City of Pittsburgh and Allegheny and Beaver counties. Table 6 below provides the location information. All facilities identified in DLC's LTIIP II were based its estimates on the number of projects that it believes to be reasonable and prudent for purposes of acceleration of existing investment, considering workforce conditions, procurement practices, the likelihood of discovering "as found" field conditions that take time to address and plan, and other similar real-world planning and engineering circumstances. DLC noted that facility relocation areas will be based on the construction plans of PennDOT, the Pennsylvania Turnpike Commission, and local municipalities.

Table 6: DLC LTIIP II Planned Program Initiatives and Locations 2023-2028done

Program	Initiative	Eligible Property
1. Overhead Program	4kV Substation Elimination	Areas generally outside of Pittsburgh
	4kV Stepdown Conversion	Areas generally outside of Pittsburgh
	Circuit Rehabilitation	Areas generally outside of Pittsburgh
	Overhead Devices	All areas of DLC System
	Deteriorated Pole	All areas of DLC System
	Overhead Line Repairs	All areas of DLC System
	Overhead Repairs and	All areas of DLC System
2. Substations Program	East End Substation	City of Pittsburgh
	Establish Watson	City of Pittsburgh
	Unit Substation Rehabilitation	All areas of DLC System
	Substation Upgrades	All areas of DLC System
	Breaker and Switch	All areas of DLC System
3. Underground Program	Cable Replacement	All areas of DLC System
	URD Rehabilitation	Areas generally outside of Pittsburgh
	Underground Infrastructure Rehabilitation	All areas of DLC System
	Network Replacements	City of Pittsburgh
	UG Repairs and Restoration	All areas of DLC System
4. System Reliability Program	System Reliability	All areas of DLC System
5. Highway Relocation Program	Unreimbursed Highway Relocations	All areas of DLC System

Comments

No comments were received regarding the location of eligible property.

Resolution

Upon review of DLC's LTIIP II, the Commission finds that DLC's second LTIIP fulfills the requirements of 52 Pa. Code § 121.3(a)(3) by providing a general description of the location of eligible property.

(4) REASONABLE ESTIMATES OF THE QUANTITY OF PROPERTY TO BE IMPROVED and

(5) PROJECTED ANNUAL EXPENDITURES AND MEASURES TO ENSURE THAT THE PLAN IS COST EFFECTIVE

DLC's Position

DLC provided information through its LTIIP II on how it proposes to ensure cost effectiveness. DLC noted that the LTIIP II expenditures will be cost effective in general because the infrastructure that will be replaced and/or upgraded will have a direct impact on customer service and increase reliability in addition to reducing maintenance and customer outages. DLC averred that it plans to finance the expenditures for its LTIIP II with a combination of external capital, cash from operations, and timely recoveries related to invested funds through the DSIC mechanism.

DLC indicated that it will seek opportunities to streamline administration and reduce costs. DLC noted that it will continue to coordinate LTIIP II projects by geographics and realize reasonable economics of scale to reduce mobilization/demobilization costs. DLC averred that it will leverage competitive bidding processes and relationships with existing suppliers and will pursue long term contracts.

DLC also indicated that it will employ a qualified workforce and robust work management tools for all LTIIP II projects. DLC's quantity of property to improved, as detailed in Table 5 in Element 2 above. Table 7 below shows the planned DSIC-eligible expenditures in each LTIIP II program and sub-program for the years 2023 through 2028.

TABLE 7: LTIIP II Expenditures by Initiative and Year for the Years 2023-2028

(Values in $ Millions)	2023	2024	2025	2026	2027	2028	Total
Overhead Program							
4kV Substation Elimination	-	0.5	15.6	28.9	15.1	2.8	62.9
4kV Stepdown Conversion	2.7	1.9	5.6	3.1	5.6	3.8	22.6
Circuit Rehabilitation	0.7	4.1	3.6	4.5	3.6	0.4	17
Overhead Devices	5.7	1.4	1.3	1.4	1.4	1.5	12.7
Deteriorated Pole Replacements	21.7	23.8	23.7	20.4	20.9	22.6	133.1
Overhead Line Repairs	1.2	1.2	1.3	1.3	1.3	1.4	7.8
Overhead Repairs and Restoration	20.5	21.1	21.6	23.4	23.9	25.9	136.4
Other Overhead Work	15	10.7	11.9	9.4	9.6	64.9	121.5
Total Overhead Program	67.4	64.7	84.6	92.3	81.4	123.4	513.9
Substations Program							
East End Substation Rehabilitation	2.1	16.2	28.6	25.6	8.5	-	80.9
Establish Watson Substation	45.4	64.8	21.5	0.1	-	-	131.9
Unit Substation Rehabilitation	1	1	1.1	1.1	1.2	1.2	6.6
Substation Upgrades	10.8	9.7	7.2	7	7.1	7.4	49.1
Breaker and Switch Replacements	1.4	1.4	1.4	1.4	1.4	1.5	8.7
Other Substations Work	0.8	-	0.4	3	5.5	18.3	28.1
Total Substations Program	61.5	93.2	60.2	38.3	23.6	28.4	305.3
Underground Program							
Cable Replacement	12.8	9.3	6.7	8.4	4.2	4.6	45.9
URD Rehabilitation	1.6	3.2	4.2	4.4	5.4	4.9	23.7
Underground Infrastructure Rehabilitation	4.9	5.2	2.9	3.4	2.7	2.9	21.9
Network Transformer Replacements	1.3	1.4	1.4	1.5	1.5	1.5	8.6
Underground Repairs and Restoration	9.6	9.8	10	10.3	10.5	11.4	61.6
Other Underground Work	6.4	1.4	4.5	3.7	4.1	11.9	32.1
Total Underground Program	36.6	30.3	29.7	31.6	28.4	37.2	193.8
System Reliability Program							
System Reliability	10.8	15.5	6.8	7.9	8.1	8.8	57.8
Highway Relocation Program							
Unreimbursed Highway Relocations	10.5	2.2	3.5	2.4	2.4	2.6	23.7
TOTAL	186.9	205.9	184.9	172.5	143.9	200.4	1,094.50

Comments

No comments were received regarding the reasonable estimates of the quantity or expenditures of property to be improved, and cost effectiveness of the plan.

Resolution

Upon review of DLC's LTIIP II, the Commission finds that DLC's LTIIP II fulfills the requirements of 52 Pa. Code §§ 121.3(a)(4)-(5) by providing reasonable estimates of the quantity of property to be improved and the projected annual expenditures and means to finance the expenditures and ensure cost effectiveness.

(6) ACCELERATED REPLACEMENT AND MAINTAINING ADEQUATE, EFFICIENT, SAFE, RELIABLE AND REASONABLE SERVICE TO CUSTOMERS

DLC's Position

DLC averred that its LTIIP II will maintain the accelerated level of expenditures established by LTIIP I for needed improvements and repairs on its system for the years 2023 through 2028. As shown in Table 4 above, DLC's investment in DSIC-eligible assets is forecasted to be approximately $1.029 billion for the years 2017 through 2022. The LTIIP II forecasted spending on DSIC-eligible assets is approximately $1.094 billion for the years 2023 through 2028. Prior to LTIIP I, DLC's six-year investment in DSIC-eligible assets was approximately $505 million for the years 2011 through 2016. DLC averred that the replacement of aged infrastructure in LTIIP II will ensure it can maintain adequate, efficient, safe, reliable, and reasonable electric distribution service to DLC's customers.

As noted above, DLC has maintained its benchmark SAIFI performance and recently has shown improvement in its CAIDI performance. The Commission expects that with the significant investment in its LTIIP II, DLC will maintain and improve upon its SAIFI performance and return to benchmark CAIDI performance.

Comments

No comments were received regarding the reasonable estimates of the quantity or expenditures of property to be improved, and cost effectiveness of the plan.

Resolution

Upon review of DLC's LTIIP II, the Commission finds that DLC's LTIIP II fulfills the requirements of 52 Pa. Code §§ 121.3(a)(6) by providing a description of the manner in which infrastructure replacement will be accelerated and how repair, improvement, or replacement will ensure and maintain adequate, efficient, safe, reliable, and reasonable service to customers.

(7) WORKFORCE MANAGEMENT AND TRAINING PROGRAM

DLC's Position

DLC averred that it has a long-standing history of maintaining a skilled and qualified workforce to ensure safe and reliable service to our customers. DLC reported that it adheres to the Occupational Safety and Health Administration (OSHA) Regulation 29 CFR 1910.269 for "Electric Power Generation, Transmission, and Distribution" for the minimum requirements for establishing safety-related work practices and training to ensure a qualified and competent workforce. DLC also noted that it leverages industry best practices and consensus standards, such as the American National Standards

Institute, the American Society for Testing Materials, and IEEE to develop safe, modern, and effective work practices and associated training curriculum.

DLC reported that it maintains a workforce sized to manage a relatively steady state workload and to ensure effective storm response based on historical experience. To accommodate periodic peaks in workload demand or extreme storm damage, DLC noted that it will supplement its own resources with qualified skilled contract services as well as mutual assistance resources in the case of storm response. DLC stated that it is not uncommon for it to supplement its workforce for large scale capital projects.

DLC averred that for LTIIP II projects it will only use outside contractors that are fully qualified in accordance with standards set forth in 66 Pa.C.S. § 1359. DLC noted that it administers a standard process for soliciting independent contractors and most independent contractors are employed through the building trades, which include union apprenticeship programs. Non-union independent contractors are stringently reviewed to assess adequate training and certifications.

Comments

No comments were received regarding the workforce management and training program.

Resolution

Upon review of the DLC's LTIIP-II, the Commission finds that DLC's second LTIIP fulfills the requirements of 52 Pa. Code § 121.3(a)(7) by providing a workforce management and training program that is designed to ensure that DLC will have access to a qualified workforce to perform the work in a cost-effective, safe, and reliable manner.

(8) DESCRIPTION OF OUTREACH AND COORDINATION ACTIVITIES WITH OTHER UTILITIES, PENNDOT AND LOCAL GOVERNMENTS ON PLANNED PROJECTS

DLC's Position

Pursuant to 52 Pa. Code § 121.3(a)(8), DLC noted that it regularly communicates with PennDOT, other utilities, local municipalities, and local governments regarding planned work that may impact those entities. For underground work, DLC noted that it follows the PA Act 50 One-Call laws by submitting design one-calls to notify other underground facility owners around planned work and to exchange information identifying facilities in the project during design, prior to construction. DLC reported that it also uses the National Joint Utilities Notification System to coordinate with third parties that attach to its facilities.

DLC reported that it practices proactive outreach for customers and townships utilizing multichannel, active communication. Counties, townships, and municipalities are engaged early in engineering and construction planning. Residents are sent letters providing information about the project that includes a name of the designated customer liaison contact. Businesses are also contacted to minimize disruption of its day-to-day operations. DLC also averred that it works directly with state and local agencies and other outside utilities to ensure projects are completed safely, efficiently, and with least possible impact on local communities. DLC stated that these efforts include proactive communication and planning with PennDOT, the Pittsburgh Streets Department, municipal managers, telecommunications companies, and gas and water providers.

Comments

No comments were received regarding the description of outreach and coordination activities with other utilities, PennDOT and local governments on planned projects.

Resolution

Upon review DLC's LTIIP II, the Commission finds that DLC's Second LTIIP fulfills the requirements of 52 Pa. Code § 121.3(a)(8) by providing a description of DLC's outreach and coordination activities with other utilities, PennDOT and local governments on planned projects and roadways that may be impacted by the Second LTIIP.

SECOND LTIIP SUMMARY

The Commission's review of an LTIIP must determine if the LTIIP:[12]

- Contains measures to ensure that the projected annual expenditures are cost-effective.
- Specifies the manner in which it accelerates or maintains an accelerated rate of infrastructure repair, improvement or replacement.
- Is sufficient to ensure and maintain adequate, efficient, safe, reliable, and reasonable service.
- Meets the requirements of 52 Pa. Code § 121.3(a).

[12] *See* 52 Pa. Code § 121.4(e).

The utility has the burden of proof to demonstrate that its proposed LTIIP and associated expenditures are reasonable, cost effective and designed to ensure and maintain efficient, safe, adequate, reliable, and reasonable service to consumers.[13]

The Commission has reviewed DLC's LTIIP II. The Commission finds that DLC has met its burden of proof by demonstrating that its LTIIP II contains measures to ensure that the projected annual expenditures are cost-effective, specifies the manner in which it accelerates or maintains an accelerated rate of infrastructure repair, improvement, or replacement, is sufficient to ensure and maintain adequate, safe, reliable, and reasonable service, and meets the requirements of 52 Pa. Code § 121.3(a). Accordingly, DLC's LTIIP II is approved.

The Commission finds DLC's Second Long-Term Infrastructure Improvement Plan and manner in which it was filed conforms to the requirements of Act 11 and our Regulations. The plan, as approved herein, is designed to maintain safe, adequate, reliable, and reasonable service and, as such, DLC shall be required to comply with the infrastructure replacement schedule and elements of that plan; **THEREFORE,**

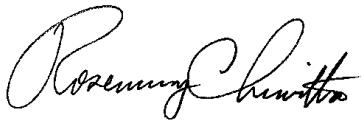
[13] *See* 52 Pa. Code § 121.4(d).

IT IS ORDERED:

1. That the Petition of Duquesne Light Company for Approval of its Second Long-Term Infrastructure Improvement Plan is approved, consistent with this Order

2. That the proceeding at Docket No. P-2022-3032805 be closed.

BY THE COMMISSION,



Rosemary Chiavetta
Secretary

(SEAL)

ORDER ADOPTED: November 10, 2022

ORDER ENTERED: November 10, 2022