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September 10, 2018

**Via Electronic Filing**

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
400 North Street  
Harrisburg, PA 17120

**Re: Letter of Notification of Duquesne Light Company, Filed Pursuant to 52 Pa. Code Chapter 57 Subchapter D, for Approval to Upgrade an Existing 138KV Ring Bus at Montour Substation in Robinson Township, Allegheny County  
Docket No. A-2018-3002896**

Dear Secretary Chiavetta,

Enclosed please find a copy of Duquesne Light Company's responses to the Data Requests of the Bureau of Technical Utility Services, Nos. 28 and 29. Please feel free to contact me with any questions, comments, or concerns.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "Emily M. Farah", is written over the typed name.

Emily M. Farah

**Enclosures**

cc: Jordan Van Order  
Deborah Backer (via email - dbacker@pa.gov)  
Certificate of Service

**BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Letter of Notification of Duquesne Light :  
Company, Filed Pursuant to 52 Pa. Code :  
Chapter 57 Subchapter D, for Approval to : Docket No. A-2018-3002896  
Upgrade an Existing 138KV Ring Bus at :  
Montour Substation in Robinson Township, :  
Allegheny County. :  
:

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a true copy of the foregoing upon the participants listed below in accordance with the requirements of 52 Pa. Code § 57.74(b) (relating to service of copies):

**VIA FIRST CLASS MAIL**

Rick Urbano – Chairman  
Robinson Township Planning Commission  
1000 Church Hill Road  
Pittsburgh, PA 15205

Allegheny County Planning Commission  
Rich Fitzgerald – County Executive  
Allegheny County  
436 Grant Street  
Pittsburgh, PA 15219

Patrick McDonnell – Acting Secretary  
Department of Environmental Protection  
Rachel Carson State Office Building  
400 Market Street  
Harrisburg, PA 17101

Leslie S. Richards – Secretary  
PA Department of Transportation  
Keystone Building  
400 North St.  
Harrisburg, PA 17120

Nancy Moses – Chairman  
Historical and Museum Commission  
State Museum Building  
300 North Street  
Harrisburg, PA 17120

Donna Killingsworth – Manager Real Estate  
Pittsburgh & Ohio Central RR Co, c/o  
Genesee & Wyoming Railroad Services, Inc.  
13901 Sutton Park Dr., S Suite 160  
Jacksonville, FL 32224

Donald Newman – Chairman of the Board  
Allegheny County Conservation District  
River Walk Corporate Center  
33 Terminal Way, Suite 325B  
Pittsburgh, PA 15219

John Soprano – Director  
Bureau of Enforcement and Investigation  
Penn Center, 2601 N. 3<sup>rd</sup> Street  
Harrisburg, PA 17110

Tanya J. McCloskey – Acting Consumer Advocate  
Pennsylvania Office of Consumer Advocate  
555 Walnut Street  
Forum Place, 5<sup>th</sup> Floor  
Harrisburg, PA 17101-1923

Jennifer Lynn Rubolino  
2092 Forest Grove Road  
Coraopolis, PA 15108

Jason M. Rubolino  
2094 Forest Grove Road  
Coraopolis, PA 15108

John R. Evans – Small Business Advocate  
Pennsylvania Office of Small Business  
300 North Second Street, Suite 202  
Harrisburg, PA 17101

Richard Kanaskie  
Bureau of Investigation & Enforcement  
Commonwealth Keystone Building  
400 North Street, 2<sup>nd</sup> Floor West  
PO Box 3265  
Harrisburg, PA 17105-3265



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*Counsel for Duquesne Light Company*

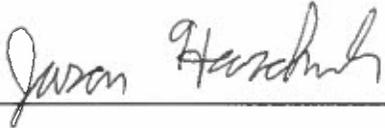
Date: September 10, 2018

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:

**VERIFICATION**

I, Jason Harchick, being the GENERAL MANAGER OF SYSTEM PLANNING, PROTECTION, AND COMPLIANCE at Duquesne Light Company, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief, and that I expect Duquesne Light Company to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).



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Jason Harchick, P.E.  
General Manager, System Planning, Protection, and Compliance

Date: 9/10/2018

**Bureau of Technical Utility Services  
Data Requests to Duquesne Light Company**

Docket Nos. A-2018-3002896, A-2018-3003113, & A-2018-3003125

Witness: Jason Harchick

**Set A-28**

A-28 Reference TUS Data Requests, Response to A-24. The response does not fully address the question. Please provide a detailed description of the physical condition of substation transmission facilities to be replaced as part of Duquesne Light's aging infrastructure replacement or provide utility specific data or survival curves used to determine the equipment has reached the end of its useful service life.

**Response:**

Duquesne Light Company (DLC) has developed a HIGHLY CONFIDENTIAL Asset Health Model in conjunction with an internationally recognized outside engineering consultant, Black and Veatch. This model determines the expected life estimates of various transmission and distribution assets based on industry data.

The four (4) weathering steel monopoles that DLC is proposing to replace as part of this project were manufactured and installed in the 1990's. These structures are approximately 82 feet high. These monopoles are directly embedded approximately 9 feet below grade and backfilled with a controlled dense fill (CDF) concrete. This backfill typically holds moisture due to its high air content and voids.

Weathering steel requires environments that allow the patina layer to dry to ensure proper life expectancy. When weathering steel is consistently exposed to moist conditions, such as locations by the sea or below grade, the patina layer will shed abnormally and regrow. This cyclic reaction will decrease the overall thickness of the steel, lowering life expectancy. The replacement of these structures will allow for destructive testing to determine the subgrade adequacy. Using DLC's Asset Health Model, the expected life for steel transmission monopoles was determined to be 70 years.

The steel lattice tower that DLC is proposing to replace as part of this project was installed in the 1950's and is approaching 70 years of service. This tower is constructed with galvanized steel and is approximately 93 feet high. Using DLC's Asset Health Model, the expected life for transmission steel lattice towers was determined to be 70 years.

Two (2) of the 138kV oil circuit breakers were manufactured in 1991 and the remaining 138kV oil circuit breaker was manufactured in 1978. The oil contained within these circuit breakers

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**Set A-28**

presents an environmental hazard during certain failure modes. Using DLC's Asset Health Model, the expected life for transmission breakers was determined to be 35 years.

There are approximately 50 transmission relays installed at the Montour substation. The manufacturing date of these relays range from the 1950's to 2014. The majority of the transmission relays were installed in the 1970's and 1980's. Using DLC's Asset Health Model, the expected life for transmission breakers was determined to be 35 years.

The substation was originally constructed in the 1950's and the majority of the transmission substation equipment (structures, bus, disconnects, etc.) was installed at this time. Using DLC's Asset Health Model, the expected life for transmission substation equipment was determined to be 35 years.

As stated in Section C. *NEED FOR THE PROJECT* of the Letter of Notification, the primary drivers for the project are to enhance the operability of the Montour Substation and promote reliability through increased capacity. The replacement of aging infrastructure is a secondary benefit of this project.

**Bureau of Technical Utility Services  
Data Requests to Duquesne Light Company**

Docket Nos. A-2018-3002896, A-2018-3003113, & A-2018-3003125

Witness: Jason Harchick

**Set A-29**

A-29 Reference TUS Data Requests, Response to A-9. Please explain whether any of the critical customers served by the Montour Substation are among the loads which could be impacted or if these loads could be transferred to another substation.

**Response:**

Of the nineteen (19) critical customers served by the Montour Substation, and as identified in the DLC response to TUS Data Request A-18, six (6) could not have been transferred to another substation. These facilities include two (2) water treatment facilities, two (2) communication facilities, one (1) medical facility, and (1) airline facility.