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August 24, 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 for Approval to Reconfigure Existing and Construct New 138 kV Transmission Lines in Allegheny County, Pennsylvania  
Docket No. A-2018-3002896**

Dear Secretary Chiavetta,

Enclosed please find a copy of Duquesne Light Company's responses to Data Request of the Bureau of Technical Utility Services, Nos. 14 through 21. 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. The signature is fluid and cursive, with a large loop at the end.

Emily M. Farah

Enclosures

cc: Jordan Van Order  
Certificate of Service

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

Docket No. A-2018-3002896

Witness: Jason Harchick

**Set A-14**

A-14 Reference the Letter of Notification, Paragraph 19. The diagram provided as Attachment 1 and the response to TUS Data Request A-9 appear to show the capability of isolating any single 138 kV transmission line feed and its associated transformer. Please explain.

**Response:**

The present configuration does have the capability of isolating any single 138 kV transmission line feed and its associated transformer under non-faulted conditions. The proposed configuration has the capability of isolating any single 138 kV transmission line feed and associated transformer under all conditions. The disconnect switches shown in the diagrams provided as Attachment 1 and the response to TUS Data Request A-9 do not have the ability to interrupt fault current and therefore cannot isolate any single 138 kV transmission feed and its associated transformer under faulted conditions. Under the present configuration, faults associated with the distribution transformer will remove Bulk Electric System (BES) facilities (the 138 kV transmission lines), from service and thus adversely affect the reliability of the BES as a whole.

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

Docket No. A-2018-3002896

Witness: Nathaniel Ostrander

**Set A-15**

A-15 Reference the Letter of Notification, Paragraph 18. Please explain whether the proposed project is part of the replacement of aging infrastructure.

**Response:**

Yes. Aspects of the Montour Substation Project are a part of the Company's plan to replace aging infrastructure. The Montour Substation and towers that will be replaced as a part of this project were built in the 1950s. The project includes both distribution and transmission facilities. Portions of the distribution scope are included in the Company's Long Term Infrastructure Improvement Plan.

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

Docket No. A-2018-3002896

Witness: Jason Harchick

**Set A-16**

A-16 Reference the Letter of Notification, Attachment 1 and Response to TUS Data Request A-9. Please explain whether the addition of Future #3-23 kV Tfmr to the existing ring bus configuration would have mitigated the overload concern on March 31, 2018.

**Response:**

The addition of the Future #3-23 kV 50 MVA Tfmr to the existing ring bus configuration, as illustrated in Attachment 1, would have mitigated the overload concern on March 31, 2018.

The addition of the Future #3-23 kV Tfmr however would not address the other drivers for the project including installing modern protection and control equipment, replacing equipment that is over 60 years old, increasing the capacity of the transmission lines, and enhancing the operability of the Montour substation.

The addition of the Future #3-23 kV Tfmr would also cause the available fault current at the Montour substation to exceed the interrupting capability of several 23 kV circuit breakers and would necessitate the replacement of the affected breakers.

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

Docket No. A-2018-3002896

Witness: Jason Harchick

**Set A-17**

A-17 Reference TUS Data Requests, Response to A-9. Please explain whether any customers lost service as a result of these planned and unplanned operations. If so, state the number of customer that were impacted as well as the customer class.

**Response:**

As the DLC Operations Center was able to remotely transfer customers that were being served from the Montour substation to neighboring substations, no customers lost service as a result of these planned and unplanned outages.

However, this was only possible due to the light load conditions that existed at that time. Had DLC been experiencing heavier load conditions, these customers may not have been able to be transferred to neighboring substations. For example, had the events on March 31, 2018, occurred during a peak load period where circuits were more heavily loaded and transfer capacities were limited, approximately 21,900 customers could have been without electric service.

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

Docket No. A-2018-3002896

Witness: Jason Harchick

**Set A-18**

A-18 Reference TUS Data Requests, Response to A-9. Please state the total number of customers served by the Montour substation distribution and sub-transmission lines and state whether any of these are critical customers.

**Response:**

The total number of customers served by the Montour substation distribution and sub-transmission lines is 34,657. Of these customers, 19 are considered critical. Critical customers include:

- one (1) military facility,
- two (2) communication facilities,
- two (2) hospitals/surgical centers,
- two (2) medical facilities,
- three (3) airline facilities, and
- nine (9) water treatment plants.

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

Docket No. A-2018-3002896

Witness: Jason Harchick

**Set A-19**

A-19 Reference TUS Data Requests, Response to A-9. Please explain whether the loss of one 138 kV transmission line feed to the Montour substation and its associated transformer results in an overload condition on either of the two remaining transmission line feeds and the remaining transformer.

**Response:**

Under normal operating conditions, the loss of one 138 kV transmission feed to the Montour substation and its associated transformer does not result in an overload condition on the remaining transmission line feeds and the remaining transformer.

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

Docket No. A-2018-3002896

Witness: Jason Harchick

**Set A-20**

A-20 Reference TUS Data Requests, Response to A-9. The proposed project appears to design for N-2. Please explain whether the proposed project is needed to resolve any NERC or other regulatory standard violations. If so, explain the violation and how the proposed project will resolve it.

**Response:**

While the proposed project is not required to resolve any NERC or other regulatory standard violations, it is against best utility practice for distribution transformer faults to remove Bulk Electric System (BES) Facilities from service and thus adversely affect the reliability of the BES as a whole. Utilizing a breaker and a half scheme for the 138 kV equipment at Montour addresses this issue.

Additionally, the proposed project enhances the operational flexibility of DLC to allow for the required maintenance of substation equipment while maintaining high level of reliability to its customers. As noted in the response to A-18, the Montour substation provides service to a large number of critical customers.

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

Docket No. A-2018-3002896

Witness: Jason Harchick

**Set A-21**

A-21 Reference TUS Data Requests, Response to A-10. Please state the total load, in kVA, served by the Montour substation.

**Response:**

During peak conditions, the total load served by the Montour substation is approximately 81,700 kVA.

**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. :  
:

**VERIFICATION**

I, Meenah Shyu, PE, being the MANAGER of CIVIL AND TRANSMISSION  
LINE ENGINEERING 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).



Meenah Shyu, PE  
Manager, Civil & Transmission Line

Engineering

Date: 8/24/2018

**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 Data Request Responses 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 MAILING**

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

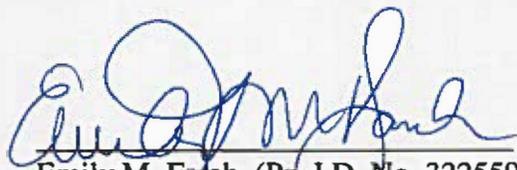
Tanya J. McCloskey – Acting Consumer Advocate  
Pennsylvania Office of Consumer Advocate  
555 Walnut Street  
Forum Place, 5<sup>th</sup> Floor  
Harrisburg, PA 17101-1923

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: August 24, 2018