

**Application of Duquesne Light Company Filed Pursuant to 52 Pa. Code Chapter 57,
Subchapter G, for Approval of the Siting and Construction of the Mon-Fayette Tower
Relocations Project in West Mifflin Borough, Borough of Dravosburg, and the
City of Duquesne in Allegheny County, PA**

Docket No. A-2019-_____

DUQUESNE LIGHT COMPANY

DIRECT TESTIMONY

1. Duquesne Light Company Statement No. 1 – Nicholas M. Anderson
2. Duquesne Light Company Statement No. 2 – Sarah J. Soard
3. Duquesne Light Company Statement No. 3 – Meenah Shyu
4. Duquesne Light Company Statement No. 4 – Lesley Gannon

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**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Application of Duquesne Light Company filed :
Pursuant to 52 Pa. Code Chapter 57, : Docket No. A-2019-_____
Subchapter G, for Approval of the Siting and :
Construction of the Mon-Fayette Tower :
Relocations Project in West Mifflin Borough, :
Borough of Dravosburg, and the City of :
Duquesne in Allegheny County, Pennsylvania :

Duquesne Light Company

Statement No. 1

Written Direct Testimony of

Nicholas M. Anderson

Topics Addressed: Project Overview

1 **I. INTRODUCTION**

2 **Q. Please state your full name and business address.**

3 A. My name is Nicholas M. Anderson. My business address is 2825 New Beaver
4 Avenue, Pittsburgh, PA 15233.

5
6 **Q. By whom are you employed and in what capacity?**

7 A. I am employed by Duquesne Light Company (“Duquesne Light” or “Company”)
8 as Senior Project Manager, Project Management and Construction.

9
10 **Q. What are your current responsibilities?**

11 A. I am responsible for planning, executing, controlling, and coordinating the various
12 project planning and construction activities associated with transmission,
13 substation, and distribution projects at Duquesne Light to support organizational
14 goals and objectives.

15
16 **Q. Please provide your educational background.**

17 A. I received a B.S. degree in Business Administration, with a concentration in
18 management, from California University of Pennsylvania in May 2005, and a
19 M.B.A. degree in Business Administration from the University of St. Francis in
20 May 2011. I am certified project management professional since 2015.

21
22 **Q. Please describe your professional experience.**

23 A. I began working as an account manager team lead at Duke Energy (formerly
24 known as Progress Energy) in 2005, where I filled multiple roles including Senior

1 Procurement Specialist, Maintenance and Project Planner, and Project Manager. I
2 joined Duquesne Light Company in August 2017, and have worked as a Senior
3 Project Manager since August 2017.

4

5 **Q. What is the subject matter of your direct testimony?**

6 A. The purpose of my testimony is to summarize (1) the electric transmission facility
7 infrastructure impacts due to the Pennsylvania Turnpike Commission's ("PTC")
8 Mon Fayette Expressway ("MFE"); (2) Duquesne Light's plans to relocate its
9 transmission facilities to accommodate the MFE (the "Project"), including project
10 cost and schedule, (3) public communications related to the MFE and Duquesne
11 Light's planned facility relocations.

12

13 **Q. Are you sponsoring any of the Attachments or exhibits filed with the above-**
14 **captioned Application?**

15 A. Yes. I am sponsoring Attachment 13, Public Notices. Attachment 13 was prepared
16 under my supervision and direction.

17

18 **II. NEED FOR PROPOSED PROJECT**

19 **Q. Please describe the PTC's Mon Fayette Expressway Project ("MFE").**

20 A. The MFE is a four-project highway extension under construction by the PTC
21 pursuant to its statutory authority. The PTC has completed three MFE projects to
22 date. The remaining MFE project will comprise a four-lane, limited access
23 highway that will connect PA Route 51 in Jefferson Hills, Allegheny County to I-
24 376 in Monroeville, Allegheny County. This MFE project consists of two

1 segments. The next segment of the MFE scheduled for construction beginning in
2 2021 will run from PA Route 51 in Jefferson Hills to the Monongahela River in
3 the City of Duquesne. According to the PTC's public website for the MFE,¹ this
4 segment is approximately 8 miles long, and is estimated to take approximately 7
5 years to construct at a cost of approximately \$900 million.

6

7 **Q. Will the MFE impact Duquesne Light transmission facilities?**

8 A. Yes. Several entities, including Duquesne Light, own buildings or structures in
9 the path of the MFE that will need to be relocated or removed. As Ms. Meenah
10 Shyu discusses in her direct testimony (Duquesne Light Statement No. 2),
11 facilities that pose such design conflicts with the MFE include portions of
12 Duquesne Light's existing electric transmission facilities. The PTC has asked
13 Duquesne Light relocate its facilities that pose design conflicts before the PTC
14 begins construction of the corresponding MFE phase.

15

16 **III. DESCRIPTION OF PROPOSED PROJECT**

17 **Q. Which Duquesne Light transmission circuits are affected by the MFE?**

18 A. Duquesne Light has reviewed the PTC's highway design to identify specific
19 impacts to its facilities, and found five areas of conflict between its transmission
20 facilities and the MFE. These areas are located in the Borough of West Mifflin,

¹ <https://www.patpconstruction.com/monfaysb/Default.aspx>.

1 Borough of Dravosburg, and City of Duquesne. The MFE affects portions of
2 each of the following 138 kilovolt (kV) transmission circuits:

- 3 • Z-13 Wilson Substation to West Mifflin Substation
- 4 • Z-14 West Mifflin Substation to Wilson Substation
- 5 • Z-15 Dravosburg Substation to U.S.S Clariton Substation
- 6 • Z-57 Universal Substation to U.S.S. Illinois
- 7 • Z-72 Wilson Substation to Dravosburg Substation
- 8 • Z-73/Z-74 Dravosburg Substation to West Mifflin Substation
- 9 • Z-75 Dravosburg Substation to Elrama Substation
- 10 • Z-76/Z-77 Wilmerding Substation to Dravosburg Substation
- 11 • Z-78 Logans Ferry Substation to Dravosburg Substation
- 12 • Z-79 U.S.S. Illinois Substation to Dravosburg Substation
- 13 • Z-91 Rankin Substation to Dravosburg Substation

14 As shown in the maps accompanying the Application (*see* Attachment 4 (Siting
15 Study), Attachment 6 (Aerial Maps) and Attachment 7 (Topographic Maps)),
16 although several transmission circuits are affected, the affected portions are
17 generally grouped closely together in parallel rights of way.

18

19 **Q. How would the Project address these design conflicts between the MFE and**
20 **Duquesne Light’s existing transmission facilities?**

21 A. The Project would relocate each affected transmission line segment to a new
22 alignment. The engineering and siting details of these relocated alignments are
23 respectively discussed in further in Duquesne Light Statement No. 2, direct

1 testimony of Meenah Shyu, Statement No. 3, direct testimony of Sarah Soard, and
2 the Attachments that Ms. Shyu and Ms. Soard are respectively sponsoring.

3

4 **Q. Please describe the Project schedule.**

5 A. The PTC plans to construct the MFE in six construction phases. As indicated
6 above, Duquesne Light's affected facilities in an area must be relocated before the
7 PTC begins construction of the corresponding phase, to (1) to avoid construction
8 sequencing conflicts between Duquesne Light and the PTC, (2) complete
9 transmission line relocations within outages scheduled with PJM, and (3) to
10 ensure that Duquesne Light can access all operational transmission facilities
11 during the PTC's construction of the MFE.

12

13 The PTC presently plans to commence construction on MFE sections according to
14 the following chart. Note that the PTC assigns separate Design Section and
15 Construction Section identifiers; this chart includes both designations for each
16 Section.

MFE Design Section	MFE Construction Section	Early Start
53C	53C-2	6/2022
53A	53A-1 ²	3/2023

² MFE Construction Section 53A-1 does not impact any Duquesne Light transmission facilities, but is included here for background.

53A	53B-1	9/2023
53B	53B-2	9/2024
53C	53C-1	6/2025
53C	53C-3	6/2023

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Accordingly, Duquesne Light contemplates beginning construction in Summer 2021 and completing construction in Spring 2023 according to the following schedule:

MFE Construction Section	Transmission Circuits	Construction Start	Construction Finish
53C-2	Z-91 Rankin – Dravosburg	7/2021	11/2021
53B-1	Z-13/Z-75 Wilson – West Mifflin Z-14 West Mifflin – Wilson Z-15 Dravosburg – U.S.S. Clairton Z-72 Wilson – Dravosburg	1/2022	5/2022
53B-2	Z-76 Wilmerding - Dravosburg Z-77 Wilmerding - Dravosburg Z-78 Logans Ferry – Dravosburg Z-79 U.S.S. Illinois - Dravosburg	9/2022	12/2022
53B-2	Z-72 Wilson – Dravosburg Z-73/Z-75 Dravosburg – West Mifflin Z-74 Dravosburg – West Mifflin Z-15 Dravosburg – U.S.S. Clairton Z-91 Rankin – Dravosburg	9/2022	3/2023
53C-1	Z-76 Wilmerding - Dravosburg Z-77 Wilmerding - Dravosburg	7/2021	5/2022

	Z-78 Logans Ferry – Dravosburg Z-79 U.S.S. Illinois - Dravosburg		
DLC will coordinate with PJM to establish outages for the circuits impacted by the relocation.	Z-76 Wilmerding - Dravosburg Z-77 Wilmerding - Dravosburg		
53C-3	Z-78 Logans Ferry – Dravosburg	7/2021	5/2022
The Project is estimated to cost approximately \$50 to \$70 million. All project costs will be borne by t	Z-79 U.S.S. Illinois - Dravosburg Z-57 Universal – U.S.S. Illinois		

IV. MFE AND PROJECT COMMUNICATIONS

Q. Has the public been engaged regarding the MFE and the Project?

A. Yes. The PTC has conducted extensive public outreach regarding the MFE, of which Duquesne Light’s facility relocations constitute a small aspect. In addition, the PTC provides details and educational materials at its public website, at <https://www.patpconstruction.com/monfaysb/PublicInvolvement.aspx>. The PTC’s website includes a contact for inquiries or comments from the public, which I understand the PTC regularly monitors and responds to.

At Duquesne Light’s request, the PTC prepared a summary of its public outreach and education efforts as of July 2019. That summary is included as Attachment 14. I understand that the PTC is also continuing to directly engage property owners that would be affected by the MFE as part of its acquisition of property rights. Please refer to Duquesne Light Statement No. 4, direct testimony of Lesley Gannon, for a discussion of Project right-of-way.

Q. Has Duquesne Light conducted additional public outreach and communication regarding the Project?

1 A. Yes. Duquesne Light is working closely with the PTC, as well as local elected
2 officials, to ensure residential, commercial and industrial customers are aware of
3 electric transmission relocations due to the MFE.

4 In addition to the PTC's outreach efforts, Duquesne Light has directly
5 contacted property owners along the relocated transmission facility ROW to
6 provide project background and educational materials. Duquesne Light also
7 provided informational packets, targeted to residential and small nonresidential
8 property owners from whom the PTC is acquiring easements, to advise of the
9 Company's plans to construct the Project. Examples of Duquesne Light's letters
10 to property owners are included in Attachment 13. This packet discloses to the
11 property owner information, including: the name, purpose, and general location of
12 the Project; Duquesne Light's standards of employee and agent conduct; notices
13 of eminent domain power and right-of-way management practices; and also
14 includes a permission form for landowners to grant Duquesne Light access to
15 their property.

16 This packet contains the notices provided by the Pennsylvania Public
17 Utility Commission in its regulations at 52 Pa. Code § 57.91. The first notice
18 discusses the Company's power of eminent domain with respect to the Project,
19 and the associated rights of the property owner.³ While the Company provided

³ The Company has previously provided this notice to owners of property that will be traversed by the transmission facility ROW. the Company is also serving this notice as part of Attachment 13 to these property owners, and to owners of property over which the Company will ultimately operate access roads. As discussed herein, the Company is only acquiring rights-of-way from the PTC, and is not engaging in negotiations with any other property owners.

1 this notice, it did not engage any property owner in negotiations to acquire right-
2 of-way, and is not acquiring property rights from any entity other than the PTC.
3 Right-of-way acquisition is discussed in further detail in Statement No. 4, direct
4 testimony of Lesley Gannon. The second notice provides information regarding
5 the right-of-way maintenance practices for the Project facilities.

6 Duquesne Light also maintains a page on its website⁴ and a dedicated
7 email address⁵ for inquiries regarding the Project.

8

9 **Q. Does this conclude your direct testimony?**

10 A. Yes, it does. If necessary, I will supplement my testimony if and as additional
11 issues arise during the course of this proceeding.

⁴ <https://www.duquesnelight.com/service-reliability/infrastructure-projects/mon-fayette-expressway-project>.

⁵ mon-fayetteexpressway@duqlight.com.

VERIFICATION

I, Nicholas M. Anderson, being a Senior Project Manager, Project Management and Construction, hereby state that the information set forth above is true and correct to the best of my knowledge, information, and belief, and that I expect 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.

Date: 12/30/19



Nicholas M. Anderson
Senior Project Manager, Project
Management and Construction
Duquesne Light Company
2825 New Beaver Avenue
Pittsburgh, PA 15233

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Duquesne Light Company

Statement No. 2

Written Direct Testimony of

Sarah J. Soard

**Topics Addressed: Summary of the Siting Study
Selection of the Proposed Routes for the Project**

1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Sarah Soard. My business address is 9400 Ward Parkway, Kansas City, MO
4 64114.

5

6 **Q. By whom are you employed and in what capacity?**

7 A. I am employed by Burns McDonnell (BMCD) as a Project Manager for Environmental
8 Services. BMCD is a consultant to Duquesne Light Company (“Duquesne Light” or the
9 “Company”) for the Mon-Fayette Tower Relocations Project.

10

11 **Q. What are your principal responsibilities in this position?**

12 A. I am responsible for managing and executing studies for the siting, environmental
13 assessment, and permitting/licensing of various projects.

14

15 **Q. Please provide a summary of your education and professional work experience.**

16 A. I earned a Bachelor of Arts Degree in Biology from Benedictine College in Atchison,
17 Kansas in 1998 and a Master of Science in Botany from Emporia State University in
18 Emporia, Kansas in 2007. In 2001, I was hired by Burns & McDonnell Engineering
19 Company, Inc. in Kansas City, Missouri as a wetland scientist. I am a certified
20 Professional Wetland Scientist by the Society of Wetland Scientists and have over 18
21 years of experience in environmental permitting.

22 In January 2008, I was promoted to the role of Department Manager for the
23 environmental permitting staff at Burns & McDonnell in Kansas City. Over the years,
24 the makeup of my department consisted of wetland scientists, wildlife biologists,

1 archeologists, and stormwater/NPDES specialists. In addition to my staff management
2 duties, I continued as the lead wetland scientist for Burns & McDonnell, responsible for
3 the technical quality review of all wetlands-related client deliverables.

4 In January 2014, I was promoted to lead our Environmental Studies and
5 Permitting practice in the Chicago Region. In this position, I continued to provide
6 environmental planning and permitting services. I assisted clients with finding solutions
7 to their permitting needs and providing and/or overseeing the following services: routing
8 and expert witness testimony, aquatic and terrestrial biological studies, wetland studies,
9 cultural resource studies, environmental assessments, NEPA studies, Federal, State, and
10 Local Permitting, public involvement/participation, visual analysis, and construction
11 monitoring.

12 In January 2018, I returned to the Burns & McDonnell Kansas City office and our
13 Environmental Services practice. I am the national technical services area leader for
14 natural and cultural resources for Burns & McDonnell and I am responsible for managing
15 and executing studies for the siting, environmental assessment, and permitting/licensing
16 of various projects. I also manage permitting projects and conducting or overseeing
17 various field studies for a variety of project types including: coal-fired, natural gas, and
18 biomass power plants; renewable energy development; new and rebuilt electric
19 transmission lines (69kV – 765kV); natural gas, water, and wastewater pipelines; water
20 supply projects; industrial facilities (including grain storage facilities, ethanol plants,
21 biodiesel plants, mines, etc.); highways and bridges; airports; and commercial and
22 residential developments. Additionally, I also specialize in the management of the site
23 selection, conceptual and engineering design, construction, and monitoring of several

1 wetland and stream mitigation sites created to meet permitting requirements or to
2 establish mitigation banks.

3
4 **Q. What is the purpose of your direct testimony in this proceeding?**

5 A. The purpose of my testimony is to provide a summary of the route selection process in
6 support of Duquesne Light's application to the Pennsylvania Public Utility Commission
7 (“Commission”). In my testimony, I identify and generally describe the *Route Selection*
8 *Study for the Duquesne Light Company Mon-Fayette Tower Relocations Project in*
9 *Allegheny County, Pennsylvania*, dated December 30, 2019 (“Route Selection Study”),
10 which is included as Attachment 4 to the Application of Duquesne Light Company for
11 the Siting and Construction of the *Mon-Fayette Tower Relocations Project* in Allegheny
12 County, Pennsylvania (“Siting Application”). I will refer to the Mon-Fayette Expressway
13 as “MFE” and the tower relocations as the “Project.” Duquesne Light retained BMCD to
14 conduct a routing analysis for the Project, to provide engineering services for the Project,
15 and to provide environmental permitting support. The Route Selection Study explains (1)
16 the methodology utilized by BMCD and Duquesne Light (together, the “Siting Team”) to
17 identify the areas of concern between the MFE and Duquesne Light infrastructure, (2)
18 identify route alternatives for each of the five areas of concern, (3) the evaluation of the
19 alternatives, and (4) selection of preferred routes for each Study Area.

20
21 **Q. Were any portions of the siting study prepared by you or under your supervision?**

22 A. Yes, the siting activities described in the Route Selection Study were performed by
23 BMCD, under my supervision, in coordination with Duquesne Light.

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Q. Please provide an overview of the project.

A. As explained in the written direct testimony of Company witness Mr. Nicholas Anderson (Duquesne Light Statement No. 1), the Pennsylvania Turnpike Commission (“PTC”) is proposing to extend the MFE, a tolled, limited access highway in Allegheny County. Construction of the MFE will include a significant number of utility relocations, including Duquesne Light transmission lines. A total of five Study Areas were identified during the comparison of the proposed MFE and Duquesne Light infrastructure. These five areas each require a portion of Duquesne Light’s electric transmission line to be relocated to accommodate the MFE.

II. SITING STUDY

Q. Please describe the purpose of the Siting Study prepared for the proposed Project.

A. The purpose of the Route Selection Study was to evaluate and select suitable locations for the re-route of portions of 138 kV electric transmission lines to allow for the construction of the MFE by the PTC. The Route Selection Study is provided in compliance with 52 Pa. Code §57.72(c) of the PAPUC regulations and provides a brief overview of the Project, the processes used to analyze the preferred and alternate routes, discusses the reasonable alternatives that were investigated for the selection of the preferred routes, and the methodology employed to select the preferred routes for the Project.

Q. Please summarize the route development process used in the Siting Study.

A. Burns & McDonnell identified five distinct areas of concern (“Study Areas”) where Duquesne Light infrastructure must be relocated to allow for construction of the MFE.

1 Each of these five Study Areas includes a length of existing transmission line that must
2 be moved. Each Study Area is distinct and largely noncontiguous. Moreover, the
3 transmission line relocations required in each Study Area are independent of each other.
4 In other words, the selection of one relocated transmission line route in any given Study
5 Area does not affect the availability or applicable siting criteria of any route option in any
6 other Study Area.

7 I therefore use the terms “preferred route” and “alternate route” to refer to route
8 options within a single Study Area. The preferred routes in all Study Areas are
9 collectively referred to as the “combined preferred routes” or the “Proposed Route,” and
10 the alternate routes in all Study Areas are collectively referred to as the “combined
11 alternate routes.” I address these route options in each Study Area in further detail later
12 in my testimony.

13
14 **Q. Please summarize the guidelines and factors used to identify and evaluate the**
15 **potential routes.**

16 A. Core siting principles and goals remain the same across many projects, but there are
17 unique elements to each project related to geography, land use, environmental and
18 socioeconomic setting, the project’s construction requirements, the political climate,
19 public involvement, regulatory requirements, and the schedule needs of the project.
20 These unique elements influence the range of initial possibilities and the siting criteria
21 selected. Most projects must contend with a suite of competing commercial, technical,
22 environmental, and land use criteria, requiring an effective siting study design. This

1 Project has specific elements that limit the range of routes that are possible and practical.

2 Four basic steps guide the siting processes:

3 1. Project scoping and identification of a required relocations: Scoping for this
4 project involves identifying the areas of conflict where existing Duquesne Light
5 transmission lines must be re-routed to accommodate the MFE. This includes the
6 connection points; any interim connections; and engineering, time, and cost
7 limitations. It is necessary to narrow the general study region to a focused Study
8 Area, so data collection can be most efficient.

9 2. Collection and mapping of “constraint” and “opportunity” data and identification
10 of potential route candidates: Constraint and opportunity data refers to the
11 elements on the landscape that provide good opportunities for development of the
12 project (e.g., an existing pipeline right-of-way (“ROW”)) or constraints that
13 should be avoided or minimized (e.g., bald eagle nests, residences). This data is
14 typically collected under three broad headings: ecological, land use/cultural, and
15 technical (engineering/constructability) criteria. Multiple individual criteria are
16 collected under these broad headings and are mapped within the focused Study
17 Area using Geographic Information System mapping and database software. The
18 mapping and data are used to help place and adjust routes, as needed, to maximize
19 the effectiveness of the project while minimizing potential impacts.

20 3. Stakeholder Input: The outreach process is structured to solicit feedback and input
21 from stakeholders to identify additional constraints and to prioritize the relative
22 importance of various types of constraint. Public outreach efforts were conducted

1 by PTC to educate and inform local landowners about the MFE project and the
2 impacts that may occur as a result.

- 3 4. Comparison and evaluation of potential routes: Once potential routes are
4 identified for each Study Area, the siting team establishes a set of metrics through
5 which to compare the routes.
6

7 **Q. Please describe how the Proposed Route is selected.**

8 A. Based on the types of publicly available datasets obtained and the availability of collected
9 field data, a list of evaluation criteria was developed to evaluate potential routes. As
10 noted above, the evaluation criteria were identified broadly as, ecological, land
11 use/cultural, and technical criteria. Multiple individual criteria were evaluated under these
12 broad headings. The ecological and land use/cultural criteria were selected based on their
13 relevance to the Project, the Study Area, and the availability and quality of the data sets.
14 Technical criteria are evaluated to compare engineering design, constructability, and cost
15 constraints so that any preliminary routes can be identified as technically feasible.
16 Criteria identified as constraints should generally be avoided where possible and
17 minimized where avoidance is not practical. Criteria identified as opportunities provide
18 locations where placement of the new route would be beneficial or otherwise minimize
19 impacts to protected resources. Table 3-1 in the Route Selection Study provides the
20 complete list of evaluation criteria and the relevance of the data for electric transmission
21 line routing.
22

23 **Q. Was public outreach part of the route selection process?**

1 A. Yes. Public outreach is necessary to build public understanding and support of the
2 Project through stakeholder education and engagement opportunities. Since this Project
3 is required to accommodate the MFE, the PTC has taken the lead on public outreach.
4 Communication was initiated to share details with the public; and to collect, document,
5 and respond to public feedback. The PTC has a MFE website which includes
6 information regarding the project, frequently asked questions, public involvement, news,
7 and contact information. The PTC held multiple public meetings for the MFE in 2016
8 and 2018. The public feedback generated through these meetings and through contact
9 opportunities with the PTC helped shape the MFE route which has directly led to this
10 Duquesne Light infrastructure relocation project.

11

12 **Q. Did Duquesne Light consider local comprehensive plans and zoning ordinances in**
13 **selecting the Proposed Route for the Project?**

14 A. Yes. Public utility facilities, such as transmission lines and substations, are generally
15 exempt from local municipal authority. However, consistent with the Commission’s
16 interim siting guidelines found at 52 Pa. Code § 69.1101 and § 69.3104, BMCD reviewed
17 local zoning ordinances and comprehensive land use plans to evaluate the impact of the
18 Proposed Route on municipalities.

19

20 **III. PROPOSED ROUTE**
21 **STUDY AREA 1**

22 **Q. Please describe the feasible alternative routes identified by the Siting Team for the**
23 **relocation at Study Area 1.**

1 A. Two options for the reroute at Study Area 1 were identified. The preferred route jogs
2 west of the existing alignment to avoid a conflict with the MFE. The alternate route jogs
3 east of the existing alignment. Both options are indicated in Figure 1-1 in the Route
4 Selection Study. A full breakdown of the siting criteria values for each route option are
5 included in Table 4-1 in the Route Selection Study (Attachment 4), a brief discussion of
6 the criteria evaluation is included below.

7 Biological and natural resource criteria were very similar between the preferred
8 and alternate routes. The preferred route requires more tree clearing than the alternate,
9 but has fewer high-quality stream crossings and crosses less floodplain. Wetland
10 occurrence is very low in this Study Area with the preferred route crossing less wetland
11 acreage than the alternate. Both routes have two stream crossings which may require
12 additional erosion control measures and restoration activities, if equipment must cross the
13 stream during construction.

14 Land use, infrastructure, and cultural criteria that were used to compare the routes
15 discussed below. The rural nature of this Study Area limits encounters with sensitive
16 land uses. There are no NRHP sites, cemeteries, institutions, sensitive lands, or levees
17 located within 1,000 feet of either the preferred or alternate routes.

18 There are no residences within 100 feet of either the preferred or alternate routes.
19 The preferred route is closer to one more residence within 1,000 feet of the ROW than
20 the alternate route (31 residences versus 30 residences).

21 The preferred route is slightly longer than the alternate route, however, it has
22 fewer road crossings than the alternate (2 crossings versus 8 crossings). Both routes have

1 the same length of route paralleling existing electric transmission line infrastructure and
2 very similar acreages crossing steep slopes (greater than 15%).

3 No railroads are located within 1,000 feet of either route and neither route
4 parallels road or railroad corridors or existing gas pipeline corridors. The number of
5 parcels crossed by the preferred route is less than the alternate route (6 parcels versus 8
6 parcels). Fewer landowners to negotiate with generally means that land acquisition will
7 be easier. Challenging geologic conditions, such as previously mined lands and/or karst
8 topography are present near both routes. The preferred route, however, has significantly
9 less acreage of ROW within 1,000 feet of these features than the alternate route. These
10 challenging geologic conditions can dramatically increase construction costs to install
11 tower foundations over large open spaces underground.

12 Since residential proximity is similar and land use criteria constraints are not
13 present, land use and cultural criteria do not appear to be a decisive differentiator
14 between the two routes. Although the preferred route is slightly longer and crosses more
15 acreage of steep slopes, the reduced number of road crossings and the drastically smaller
16 acreage of challenging geology nearby make the preferred route a better option for this
17 Study Area.

18
19 **Q. What route was selected for the relocation at Study Area 1?**

20 A. Based on a qualitative and quantitative comparison of siting criteria, the Siting Team
21 selected the preferred route for the new alignment in Study Area 1.

22

1 **Q. Please explain why the preferred route was selected for the relocation at Study Area**
2 **1.**

3 A. The Siting Team evaluated the feasible alternatives and selected the overall best route
4 that, on balance, minimizes the impact to the natural and human environments, avoids
5 unreasonable and circuitous routes, and avoids non-standard design or construction
6 requirements. Since residential proximity is similar and land use criteria constraints are
7 not present, land use and cultural criteria were not decisive differentiators between the
8 two routes. Although the preferred route is slightly longer (by less than 100 feet) and
9 crosses more acreage of steep slopes than the alternate route, the reduced number of road
10 crossings, fewer parcels crossed, and the drastically smaller acreage of challenging
11 geology nearby make the preferred route a better option for this Study Area as overall
12 project cost will be less.

13

14 **STUDY AREA 2**

15 **Q. Please describe the feasible alternative routes identified by the Siting Team for the**
16 **relocation at Study Area 2.**

17 A. Two options for the reroute at Study Area 2 were identified. The preferred route jogs
18 east of the existing alignment and the MFE. The alternate route requires the relocation of
19 8 poles, but stays close to the original alignment and ROW. Both options are indicated in
20 Figure 2-1 in the Route Selection Study. A full breakdown of the siting criteria values for
21 each route option are included in Table 4-2 in the Route Selection Study, a brief
22 discussion of the criteria evaluation is included below.

1 Biological and natural resource criteria were extremely similar between the two
2 routes. The only difference between the preferred and alternate routes is the amount of
3 potential tree clearing. The preferred route requires more tree clearing than the alternate
4 (6.3 acres versus 2 acres). Wetland occurrence is very low in this Study Area with no
5 wetlands delineated in either ROW. Both routes have a single high-quality stream
6 crossing which may require additional erosion control measures and restoration activities,
7 if equipment must cross the stream during construction.

8 This Study Area is transitioning from a rural setting to more urban, therefore, two
9 sensitive land use areas and one institution are located within 1,000 feet of both the
10 preferred and alternate routes. There are three NRHP sites indicated within 1,000 feet of
11 both the preferred and alternate ROW, but none within 100 feet. There are no cemeteries
12 and no levees located near either the preferred or alternate routes.

13 There are 13 residences within 100 feet of either the preferred route and 7
14 residences within 100 feet of the alternate route. The preferred route is also closer to
15 more residences within 1,000 feet of the ROW than the alternate route (281 residences
16 versus 234 residences).

17 The preferred route is approximately 100 feet longer than the alternate route.
18 Both routes have a single road crossing and no railroad crossings. Neither the preferred
19 nor the alternate route parallels roads, railroads, or gas lines. The preferred route
20 parallels less existing electric transmission line than the alternate route (1,319 feet versus
21 2,140 feet) and has a higher acreage of ROW crossing steep slopes (2.5 acres versus 2
22 acres).

1 The preferred route would face significantly fewer obstacles to construction,
2 access, and maintenance. In particular, the alternate route would require poles to be
3 installed on steep slopes. Placement of poles in that terrain would require increased
4 construction costs through an extremely long, winding access road and additional related
5 increased construction and foundation costs as well as higher cost for long term
6 maintenance access. Thus, compared to the preferred route, the alternate route would be
7 considerably more expensive, more difficult to construct, and more likely to become
8 inaccessible for operation and maintenance purposes. These factors weigh heavily in
9 favor of the preferred route. Additionally, in order to meet PTC's roadbed clearance
10 requirements where the alternate route spans the MFE, the Company would need to
11 install two significantly higher-than-average structures, of approximately 190 feet, on
12 either side of the MFE roadway. This would further increase the alternate route's cost and
13 visual impacts.

14
15 **Q. What route was selected for the relocation at Study Area 2?**

16 A. Based on a qualitative and quantitative comparison of siting criteria, the Siting Team
17 selected the preferred route for the new alignment in Study Area 2.

18
19 **Q. Please explain why the preferred route was selected for the relocation at Study Area**
20 **2.**

21 A. The Siting Team evaluated the feasible alternatives and selected the overall best route
22 that, on balance, minimizes the impact to the natural and human environments, avoids
23 unreasonable and circuitous routes, and avoids non-standard design or construction

1 requirements. The preferred and alternate routes are roughly equivalent for most land use
2 and environmental criteria, so those criteria were not a decisive differentiator. The routes'
3 primary difference with respect to land use and environmental criteria, is that the
4 preferred route requires more tree clearing than the alternate (6.3 acres versus 2 acres).
5 The preferred route has substantial constructability, access, and safety advantages that, on
6 balance, significantly outweigh this factor. The alternate route would require placement
7 of poles in steep terrain, increased construction costs through an extremely long, winding
8 access road, and additional related increased construction and foundation costs as well as
9 higher cost for long term maintenance access. Additionally, the alternate route would
10 require installation of higher-than-average structures to meet PTC's clearance
11 requirements. The preferred route takes a route that parallels less existing electric
12 transmission line than the alternate route (47% versus 79%) and has a higher acreage of
13 ROW crossing steep slopes (2.5 acres versus 2 acres), but in doing so, avoids those
14 constraints of the alternate route. For these reasons, the preferred route was selected.

15 **STUDY AREA 3**

16 **Q. Please describe the feasible alternative routes identified by the Siting Team for the**
17 **relocation at Study Area 3.**

18 A. Two options for the reroute at Study Area 3 were identified. The preferred route turns
19 east and stays north of the MFE, avoiding having to cross the road. The alternate route
20 separates into four different segments and requires three separate crossings of the MFE.
21 Both options are indicated in Figure 3-1 in the Route Selection Study. A full breakdown
22 of the siting criteria values for each route option are included in Table 4-3 in the Route
23 Selection Study, a brief discussion of the criteria evaluation is included below.

1 Biological and natural resource criteria for Study Area 3 demonstrated more
2 variation between the two routes than documented in the other Study Areas. The
3 preferred route requires more tree clearing than the alternate (10.5 acres versus 7.5 acres)
4 and has slightly more non-wooded wetlands (0.4 acre versus 0.3 acre) but has fewer high-
5 quality stream crossings (3 versus 5). Both routes have stream crossings which may
6 require additional erosion control measures and restoration activities, if equipment must
7 cross the stream during construction. Neither route crosses any floodplain nor has bat
8 hibernacula within 1,000 feet.

9 This Study Area is transitioning from a rural setting to more urban, therefore, two
10 sensitive land use areas and one institution are located within 1,000 feet of both the
11 preferred and alternate routes. There is one NRHP site indicated within 1,000 feet of the
12 preferred ROW and two sites within 1,000 feet of the alternate ROW. Neither ROW has
13 an NRHP site within 100 feet of the ROW. Both routes have a single cemetery within
14 1,000 feet and no levees located near either the preferred or alternate routes.

15 There are 5 residences within 100 feet of the preferred route and 7 residences
16 within 100 feet of the alternate route. The preferred route also has fewer residences
17 within 1,000 feet of the ROW than the alternate route (108 residences versus 147
18 residences). The land use criteria constraints are favorable for the preferred route with
19 fewer NRHP sites and residences near the ROW.

20 The preferred route is approximately 1,000 feet longer than the alternate route.
21 Both routes have a single road crossing over existing infrastructure and no railroad
22 crossings. Neither the preferred nor the alternate route parallels roads, railroads, or gas
23 lines. The preferred route parallels less existing electric transmission line than the

1 alternate route (1,767 feet versus 2,547 feet) and has a higher acreage of ROW crossing
2 steep slopes (6.8 acres versus 5.8 acres).

3 The proposed route would use single right-of-way, whereas the alternate route
4 includes several separate sections of alignment in separate rights-of-way. The proposed
5 route's single corridor, as compared to the alternate route's multiple rights-of-way, would
6 streamline access to facilities, and would yield significant construction and maintenance
7 advantages.

8
9 **Q. What route was selected for the relocation at Study Area 3?**

10 A. Based on a qualitative and quantitative comparison of siting criteria, the Siting Team
11 selected the preferred route for the new alignment in Study Area 3.

12
13 **Q. Please explain why the preferred route was selected for the relocation at Study Area
14 3.**

15 A. The Siting Team evaluated the feasible alternatives and selected the overall best route
16 that, on balance, minimizes the impact to the natural and human environments, avoids
17 unreasonable and circuitous routes, and avoids non-standard design or construction
18 requirements. The preferred route presents an opportunity to consolidate transmission
19 facilities in the Study Area into a single right-of-way, thereby producing efficiencies in
20 line access, construction, maintenance, and operation. The preferred and alternate routes
21 each have advantages with respect to environmental criteria: the preferred route requires
22 more tree clearing than the alternate (10.5 acres versus 7.5 acres) and has slightly more
23 non-wooded wetlands (0.4 acre versus 0.3 acre), but has fewer high quality stream

1 crossings (3 versus 5). Where the routes differ materially in land use and cultural criteria,
2 the preferred route is superior, including with respect to NRHP sites within 1,000 feet of
3 the ROW (one versus two) and residences within 1,000 feet of the ROW (108 versus
4 147). With respect to technical criteria, the preferred route is approximately 1,000 feet
5 longer than the alternate route, parallels less existing electric transmission line (28%
6 versus 49%), and has a higher acreage of ROW crossing steep slopes (6.8 acres versus
7 5.8 acres); but it also would require only a single corridor. This preferred route is
8 therefore superior overall.

10 **STUDY AREA 4**

11 **Q. Please describe the feasible alternative routes identified by the Siting Team for the**
12 **relocation at Study Area 4.**

13 A. Study Area 4 is unique in that there was no feasible alternative to the preferred route
14 through this area. The alteration to this portion of Duquesne Light's infrastructure is very
15 minor and requires the shifting of a single pole to account for the alignment of access
16 road to the MFE. The preferred route is indicated in Figure 4-1 in the Route Selection
17 Study. A full breakdown of the siting criteria values for each route option are included in
18 Table 4-4 in the Route Selection Study, a brief discussion of the criteria evaluation is
19 included below.

20 The preferred route for Study Area 4 requires less than 2 acres of clearing of
21 wood lots, only 2 non-high-quality stream crossings, and no floodplain crossings.
22 Wetland occurrence is very low in this Study Area with no wetlands delineated in the
23 ROW. The stream crossings may require additional erosion control measures and
24 restoration activities, if equipment must cross the stream during construction.

1 Land use, infrastructure, and cultural criteria that were evaluated for Study Area 4
2 and identified one sensitive land use area and one institution are located within 1,000 feet
3 of the preferred route. There are no NRHP sites, cemeteries, or levees indicated within
4 1,000 feet of the ROW.

5 There are 55 residences within 1,000 feet of the ROW. None of these residences
6 will be adversely affected by the relocation because of the very minor adjustment to the
7 current alignment.

8 The preferred route is less than 1,500 feet, has three road crossings, and no
9 railroad crossings. This route does not parallel roads, railroads, or gas lines. The
10 preferred route parallels an existing electric transmission line for its entire length and has
11 a very small portion of ROW crossing steep slopes. A total of 10 parcels are crossed by
12 this preferred route.

13
14 **Q. What route was selected for the relocation at Study Area 4?**

15 A. As there was only one feasible option for Study Area 4, the Siting Team selected the
16 preferred route for the new alignment.

17
18 **STUDY AREA 5**

19 **Q. Please describe the feasible alternative routes identified by the Siting Team for the**
20 **relocation at Study Area 5.**

21 A. Two options for the reroute at Study Area 5 were identified. Study Area 5 is the most
22 urban of the Study Areas and has numerous residential areas, infrastructure, and other
23 constraints that should be avoided during the siting process. The preferred route holds
24 close to the existing alignment to avoid a conflict with the MFE and other infrastructure.

1 The alternate route swings south of the existing alignment. Both options are indicated in
2 Figure 5-1 in the Route Selection Study. A full breakdown of the siting criteria values
3 for each route option are included in Table 5-1 in the Route Selection Study, a brief
4 discussion of the criteria evaluation is included below.

5 Biological and natural resource criteria were extremely similar between the two
6 routes. The preferred route requires more tree clearing than the alternate (10.5 acres
7 versus 9 acres). Both routes cross approximately 0.3 acre of forested wetland, 1.2 acres
8 of non-wooded wetland, and 19 streams within the ROW. However, the preferred route
9 only crosses three high-quality streams, while the alternate route crosses four.
10 Additionally, Study Area 5 includes the floodplain of Thompson Run and the
11 Monongahela River. The preferred route crosses less floodplain than the alternate route
12 (1.3 acres versus 2.8 acres).

13 Study Area 5 is the most urban area; therefore, increased presence of land use and
14 cultural criteria would be expected. There are two NRHP sites within 100 feet of both
15 the preferred and alternate ROW. There is one fewer NRHP site indicated within 1,000
16 feet of the preferred ROW (5 sites versus 6 sites). A single cemetery is located within
17 1,000 feet of both routes. There are no levees located near either the preferred or
18 alternate routes. One sensitive land use area and no institutions are located within 1,000
19 feet of both the preferred and alternate routes.

20 There are fewer residences within 100 feet of the preferred route (33 residences
21 versus 128 residences). The preferred route is also closer to fewer residences within
22 1,000 feet of the ROW than the alternate route (562 residences versus 1,077 residences).
23 Study Area 5 is the most densely populated Study Area. Avoidance of impacting the

1 residences in the area was a priority when siting this portion of the Project. As such, the
2 preferred route is near far fewer residences than the alternate route.

3 The preferred route is approximately 4,000 feet shorter than the alternate route
4 (9,000 feet versus 13,900). The preferred route has fewer road crossings (3 roads versus
5 31 roads), but more railroad crossings (41 versus 17). The high number of railroad
6 crossings in Study Area 5 is due to the need to cross the Union Railroad rail yard.
7 Because the rail crossings are grouped together, the application process would more
8 closely match the process for a single crossing, rather than requiring a separate
9 application for each crossing.

10 The preferred route parallels slightly less existing electric transmission line than
11 the alternate route (6,412 feet versus 6,517 feet) but the same length of gas line (604
12 feet). The preferred route contains less ROW crossing steep slopes (18 acres versus 20
13 acres) and crosses fewer parcels (20 parcels versus 62 parcels). Also unique to Study
14 Area 5 is the presence of known hazardous waste sites. The preferred route has fewer
15 sites within 1,000 feet of the ROW than the alternate route (2 sites versus 5 sites).

16
17 **Q. What route was selected for the relocation at Study Area 5?**

18 A. Based on a qualitative and quantitative comparison of siting criteria, the Siting Team
19 selected the preferred route for the new alignment in Study Area 5.

20
21 **Q. Please explain why the preferred route was selected as the location for the relocation**
22 **at Study Area 5.**

1 A. The Siting Team evaluated the feasible alternatives and selected the overall best route
2 that, on balance, minimizes the impact to the natural and human environments, avoids
3 unreasonable and circuitous routes, and avoids non-standard design or construction
4 requirements. Major siting criteria that favored the preferred route over the alternate
5 route include total length of route, acreage of steep slopes, fewer hazardous waste sites,
6 overall number of parcels, fewer high-quality stream crossings and less acreage of
7 floodplain.

8

9 **Q. Please explain how the preferred and alternate routes from each Study Area were**
10 **combined to create the Proposed Route.**

11 A. The preferred and alternate routes were evaluated independently for each Study Area as
12 there are five distinct areas requiring relocation. As I mentioned earlier, the available
13 routes in each Study Area are independent of each other, and the choice of route option in
14 a given Study Area does not impact the applicable siting criteria or availability of route
15 options in any other Study Area. Study Area 4 is the only section with no alternate route
16 included in the analysis, due to the unavailability of another option for this single pole
17 relocation. The linear right-of-way for this single route option in Study Area 4 is
18 included in both the combined preferred and combined alternative routes.

19 Collectively, the combined preferred routes share approximately 17% of the linear
20 right-of-way of the combined alternate routes. As discussed above, the preferred route in
21 is preferable to the alternate route in each Study Area. The combined preferred routes
22 therefore represent the optimal Project option, and so were collectively selected as the
23 Proposed Route.

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IV. **POTENTIAL PERMIT AND MITIGATION REQUIREMENTS**

Q. Please summarize Duquesne Light’s efforts to minimize the anticipated impacts and potential permit and mitigation requirements of the proposed Project.

A. During the siting process, efforts were made to identify any potentially regulated resources and avoid impacts to these resources where possible. These resources include wetlands, streams, high-quality streams, protected species habitat, cultural resources, historic properties, hazardous waste sites, and other regulated resources. Once identified in the digital mapping data, routes were selected to avoid or minimize anticipated impacts to these resources where practicable.

Where potential impacts are unavoidable, Duquesne Light will obtain any necessary permits and comply with the permit conditions and best management practices during construction. Best management practices may include tree clearing during certain times of the year, fencing sensitive resources to protect them from impact during construction, use of timber matting stream and wetland crossings and utilizing erosion and sedimentation controls, as appropriate.

Q. Has Duquesne Light consulted or initiated coordination with the appropriate local, State and Federal Agencies regarding the environmental and historical aspects of the Project?

A. Yes. Initial review and consultation related to the MFE has been conducted and agencies responses shared by the PTC with Duquesne Light. Once final routes are approved by the Commission, direct coordination related to the permitting of the selected routes will begin.

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Q. What permits and approvals are required from those Agencies?

A. A list of the potential permits or clearances that may be required to ultimately construct this Project have been included as Attachment 8 to the Siting Application. However, permits and approvals that will be required for this Project will not be completely known until the final route is approved.

Q. What is the status of those required permits and approvals?

A. Conducting the studies required to obtain permits and approvals is being completed by PTC's consultant in support of the MFE project which overlaps these Study Areas. Once that is complete, final impact analysis and agency consultation can begin. To determine what permits and approvals will be needed, information (such as a description of the project, route, and map) will be submitted to the appropriate reviewing agencies.

Q. Does this conclude your testimony at this time?

A. Yes. I reserve the right to supplement my testimony as additional issues arise during the course of this proceeding.

VERIFICATION

I, Sarah Soard, being a Project Manager for Environmental Services, Burns McDonnell, hereby state that the information set forth above is true and correct to the best of my knowledge, information, and belief, and that I expect 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.

Date: 12/30/19



Sarah Soard
Project Manager for Environmental Services
Burns McDonnell
9400 Ward Parkway
Kansas City, MO 64114

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Application of Duquesne Light Company filed :
Pursuant to 52 Pa. Code Chapter 57, : Docket No. A-2019-_____
Subchapter G, for Approval of the Siting and :
Construction of the Mon-Fayette Tower :
Relocations Project in West Mifflin Borough, :
Borough of Dravosburg, and the City of :
Duquesne in Allegheny County, Pennsylvania. :

Duquesne Light Company

Statement No. 3

**Written Direct Testimony of
Meenah Shyu**

Topics Addressed: Project Need, Design, and Safety Features

1 **Q. Please state your name and business address.**

2 A. My name is Meenah Shyu, and my business address is 2841 New Beaver Avenue
3 Pittsburgh, PA 15233.

4

5 **Q. By whom are you employed?**

6 A. I am employed by Duquesne Light Company (“Duquesne Light” or the “Company”) as
7 Manager of the Civil & Transmission Line Engineering Group.

8

9 **Q. What are your current responsibilities?**

10 A. I lead a team of civil engineers to support capital and maintenance projects. I also
11 oversee the design of transmission projects and structural projects in substation that are
12 engineered by Duquesne Light and Duquesne Light’s engineering contractors.

13

14 **Q. Please provide a summary of your education and professional work experience.**

15 A. In 2008, I received a Bachelor of Science degree in Civil Engineering from Carnegie
16 Mellon University in Pittsburgh, PA. In 2009, I received a Master of Science degree in
17 Civil and Environmental Engineering from Carnegie Mellon University in Pittsburgh,
18 PA.

19 My first professional occupation was at GAI Consultants in Homestead, PA,
20 where I worked as a civil engineer in the Structural and Lines Group from July 2009 to
21 May 2011. My second professional occupation was at DiGioia Gray & Associates in
22 Monroeville, PA, where I worked as a transmission line engineer in the Transmission
23 Line Engineering group from June 2011 to January 2016. My third and current

1 occupation is with Duquesne Light in Pittsburgh, PA. I have been working in the Civil &
2 Transmission Line Engineering group with the Company since January 2016. I am also a
3 licensed professional engineer in the Commonwealth of Pennsylvania.
4

5 **Q. What are your responsibilities in connection with the proposed Project?**

6 A. In my role as Manager of Civil & Transmission Line Engineering, I am responsible for
7 overseeing the overall engineering design development of the proposed Project.
8

9 **Q. What is the purpose of your direct testimony in this proceeding?**

10 A. My testimony addresses several issues. First, I will explain the engineering need for
11 Duquesne Light's existing facilities to be relocated. Second, I will explain the major
12 design features of the Mon Fayette Expressway Relocation Project. Third, I will explain
13 the safety features incorporated into the design of the Mon-Fayette Expressway
14 Relocation Project. Fourth, I will explain Duquesne Light's Magnetic Field Management
15 Program and how it has been incorporated into the design of Mon-Fayette Expressway
16 Relocation Project.
17

18 **Q. Please describe the portions of the Siting Application that you are sponsoring.**

19 A. I am sponsoring Attachment 2, Need Statement, and Attachment 11, Duquesne Light
20 Company Engineering Design Criteria, Electromagnetic Field Policy and Application,
21 and Safety Practices.
22

23 **Q. Please provide an overview of the proposed Project.**

1 A. As discussed in the written direct testimony of Company witness Mr. Nicholas
2 Anderson (Duquesne Light Statement No. 1), the Pennsylvania Turnpike Commission
3 (“PTC”) is designing and constructing a highway extension, to extend the Mon-Fayette
4 Expressway (“MFE”) from PA Route 51 in Jefferson Hills Borough to the Monongahela
5 River in the City of Duquesne. This section is known as the PTC’s Southern Section of
6 the MFE Project. Construction of the MFE will include substantial grading,
7 construction of bridges, development of drainage & storm water management features,
8 and a significant number of utility relocations. A portion of those utility relocations
9 includes Duquesne Light transmission lines. Duquesne Light is proposing to relocate
10 facilities in five Study Areas that have been identified as conflicts with the proposed
11 highway design. These Study Areas are depicted in Attachments 6 and 7 of this
12 application.

13
14 **Q. Please explain the need for the Project.**

15 A. As Mr. Anderson notes, the Project is needed to relocate 138 kV transmission facilities
16 that conflict with the new MFE. The MFE poses a range of design and engineering
17 conflicts with portions of existing Duquesne Light 138 kV infrastructure. These conflicts
18 include:

- 19 • Physical conflicts between existing utility infrastructure and future MFE
20 infrastructure. Several transmission structures fall within the MFE
21 construction area, and must be removed to accommodate MFE construction
22 (including civil grading).

- Violations of the National Electric Safety Code. Portions of existing 138 kV lines would have less than the minimum required clearance to new MFE elevated roadways and bridges.
- Conflicts with PTC design standards, such as minimum distances between the new MFE roadway and existing transmission structures.

These conflicts are discussed in further detail in Attachment 2. A map depicting Duquesne Light's existing 138 kV facilities in each of the Study Areas, superimposed with the future MFE, is included as Appendix A to Attachment 2.

Q. Please describe the facilities to be relocated through the proposed Project.

A. The Project will require relocation of approximately 4.4 miles of existing 138kV overhead transmission lines. Eighty-three associated supporting structures will be removed as part of the Project: 5 steel poles, 34 steel lattice towers, and 42 wood poles. Affected facilities include portions of the following Duquesne Light 138 kV electric transmission lines:

- Z-13 Wilson Substation to West Mifflin Substation
- Z-14 West Mifflin Substation to Wilson Substation
- Z-15 Dravosburg Substation to U.S.S Clariton Substation
- Z-57 Universal Substation to U.S.S. Illinois
- Z-72 Wilson Substation to Dravosburg Substation
- Z-73/Z-74 Dravosburg Substation to West Mifflin Substation
- Z-75 Dravosburg Substation to Elrama Substation
- Z-76/Z-77 Wilmerding Substation to Dravosburg Substation

- 1 • Z-78 Logans Ferry Substation to Dravosburg Substation
- 2 • Z-79 U.S.S. Illinois Substation to Dravosburg Substation
- 3 • Z-91 Rankin Substation to Dravosburg Substation

4

5 **Q. Please describe the types of facilities that will be used for the Project.**

6 A. Based on preliminary engineering, 56 new steel pole structure installations will be
7 required, consisting of double-circuit monopoles (41 structures), single-circuit steel H-
8 Frames (3 structures), single-circuit monopoles (8 structures), and single-circuit three-
9 pole structures (4 structures).

10 The existing steel pole and lattice structures to be replaced range in height from
11 84’ to 121’. The existing structures for Z-91, which are wood pole structures, have a
12 height of 60’ to 80’. The new steel structures will largely consist of self-supporting,
13 tubular, weathering steel structures that will range from 55’ to 195’ in height, with an
14 average height of approximately 125’. The steel poles will largely consist of drilled pier
15 concrete shaft foundations. The average height increase for the new structures is 25 ft.
16 The average span between these structures will be approximately 800’. The longest span
17 is approximately 1,300’.

18 The overhead 138 kV circuit design will utilize three or six power conductors per
19 circuit¹ and one or two shield wires. The power conductors for this Project will be 795
20 kcmil,² 20/7 ACSS-TW-HS³ conductors. The new shield wire will consist of 7#8

¹ Some relocated 138 kV spans consist of single conductor (three conductors per circuit); others of twin-bundled conductor (six conductors per circuit).

² Kcmil stands for thousand circular mils. Kcmil wire size is the equivalent cross sectional area in thousands of circular mils. A circular mil is the area of a circle with a diameter of one thousandth (0.001) of an inch.

1 Alumoweld and fiber optic ground wire. Fiber optic ground wire will be installed only
2 where it currently exists. The fiber optic ground wire will provide lightning protection
3 and a communication path between substations.

4 Conductor design maximum operating temperature is limited to 392 degrees F for
5 ACSS conductors and 200 degrees F for all other conductors. All structures shall be
6 grounded per DLC specifications, with footing resistance not to exceed 10 ohms.

7
8 **Q. What is the National Electrical Safety Code?**

9 A. The National Electrical Safety Code (“NESC”) is a set of rules designed to safeguard
10 people during the installation, operation, and maintenance of electric power lines. The
11 NESC contains the basic provisions considered necessary for the safety of employees and
12 the public. Although it is not intended as a design specification, its provisions establish
13 minimum design requirements.

14
15 **Q. Will the proposed Project comply with the NESC standards?**

16 A. Yes. The Project will be designed to meet, and generally exceed, the NESC, 2017
17 edition’s minimum requirements. For clearance criteria, the Project will be designed with
18 a 10% buffer on top of the required minimum NESC clearances for reconducted areas
19 and the Project will be designed with a 30ft clearance minimum for areas that have new
20 steel structures and conductors. For areas where conductors are crossing the proposed
21 highway extension, clearances will be increased per PTC requirements that exceed NESC
22 clearance requirements.

³ ACSS-TW-HS stands for aluminum conductor steel supported, trapezoidal-shaped aluminum strands, high strength conductors

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Q. Please explain the safety features that will be incorporated into the design of the proposed Project.

A. In addition to the safety features incorporated by designing the line in accordance with the NESC, Duquesne Light’s design loading conditions for structures, wires, and clearances exceed NESC standards. The line is designed for conductor-to-conductor clearances and conductor-to-ground clearances, which support maintenance and inspection activities. Work procedures and an Employee Safety Handbook have been developed to allow work to be performed in a safe manner. Personnel are furnished with appropriate Personal Protection Equipment for the performance of construction or maintenance activities in a safe manner. A description of the safety features incorporated into the design of the proposed Project is provided in Attachment 11 to the Siting Application.

Q. Please explain Duquesne Light’s electric and magnetic field (“EMF”) program and how it will be incorporated into the design of the proposed Project.

A. Duquesne Light has adopted a program to mitigate the potential impacts from EMFs. This EMF program is applied to all new and reconstructed transmission lines. The program generally prescribes the use of a line design that provides ground clearances that meet or exceed the minimum NESC ground clearance to reduce EMF exposures. The program also provides for consideration of other design and engineering measures that reduce transmission line EMF emissions if possible during the design process. Duquesne Light’s EMF program for this Project is provided in the Safety and Design Criteria

1 Attachment 11 to the Siting Application. As Attachment 11 indicates, overall EMF
2 emissions of the new facilities are expected to be similar to or less than the EMF
3 emissions of the corresponding existing facilities they replace. EMF emissions of all new
4 facilities will be below applicable reference levels.

5

6 **Q. Does this complete your direct testimony?**

7 A. Yes, it does. If necessary, I will supplement my testimony if and as additional issues
8 arise during the course of this proceeding.

VERIFICATION

I, Meenah Shyu, being a Manager, Civil & Transmission Line Engineering, hereby state that the information set forth above is true and correct to the best of my knowledge, information, and belief, and that I expect 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.

Date: 12/30/19



Meenah Shyu
Manager, Civil & Transmission Line
Engineering
Duquesne Light Company
2841 New Beaver Avenue
Pittsburgh, PA 15233

**BEFORE THE
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Borough of Dravosburg, and the City of :
Duquesne in Allegheny County, Pennsylvania. :
:

Duquesne Light Company

Statement No. 4

Written Direct Testimony of

Lesley Gannon

Topics Addressed: Right-of-Way

1 **Q. Please state your name and business address.**

2 A. My name is Lesley Cummings Gannon. My business address is 1800 Seymour Street,
3 Pittsburgh, PA 15233.

4
5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Duquesne Light Company (“Duquesne Light” or the “Company”) as
7 the Senior Manager of Real Estate and Rights of Way. In my position, I am responsible
8 for managing all of the real estate-related acquisitions and divestitures for the Company.

9
10 **Q. What are your qualifications, work experience and educational background?**

11 A. I have been employed by Duquesne Light Company since 2013. In my current position, I
12 manage the Real Estate Department, which has one Real Estate Specialist, one
13 Supervisor, four surveying technicians, four right-of-way agents and a clerk. I have been
14 in my current position for two years and two months. I am also Assistant Corporate
15 Secretary for the Company.

16 Prior to assuming my present position at Duquesne Light, I was Managing
17 Counsel, Commercial/General in the Company's Office of the General Counsel for 4
18 years and 9 months, in which position I managed all transactional work at the Company,
19 including any legal issues relating to real estate. Prior to being hired by the Company, I
20 performed similar work as contract counsel for the Company from May of 2008. From
21 2005 to 2013, in addition to representing the Company as set forth above, I managed my
22 law firm, Gannon Law Offices, which represented small and mid-sized businesses in the
23 Pittsburgh area in transactional and real estate matters. From 2001 to 2005, I was an

1 associate at Sherrard, German & Kelly, P.C. in their financial services and transactional
2 practice groups. Prior to 2001, I held various positions in the financial services industry.

3 I am an attorney licensed to practice law in the Commonwealth of Pennsylvania
4 since 2001. I graduated from Duquesne University School of Law in 2001 and was
5 admitted to the Pennsylvania Bar in 2001. I also hold a Bachelor of Arts in Business and
6 Communications from Carlow University.

7
8 **Q. What is the purpose of your direct testimony in this proceeding?**

9 A. First, I will identify the portions of the above-captioned Siting Application for which I
10 provide supporting information. Second, I will summarize our process for acquiring new
11 right-of-way (“ROW”) required for the Project (all of which Duquesne Light will acquire
12 from the Pennsylvania Turnpike Commission (“PTC”)), including the status of such
13 acquisitions. Third, I will explain the Company’s policy regarding the property owner’s
14 use of the ROW area, and will provide examples of measures the Company employs to
15 mitigate the impacts of the Transmission Lines on property owners’ present and future
16 uses of their properties.

17
18 **Q. Please describe the portions of the Siting Application that you are sponsoring.**

19 A. I am sponsoring Attachment 9, which is composed of a series of aerial survey maps that
20 show the owners of property that will be traversed by the proposed relocated
21 Transmission Lines. I am also sponsoring Attachment 10, which is a matrix providing
22 the information and addresses for the landowners whose properties will be traversed by
23 the proposed Transmission Lines. These attachments were prepared by the PTC's section

1 designers in consultation with T.W. Engineering, Incorporated (“TWE”) as part of their
2 role in the larger Mon-Fayette Expressway (“MFE”) project.

3
4 **Q. Please explain how the Company will obtain new right-of-way required for this**
5 **Project.**

6 A. The Company will obtain all new ROW from the PTC. The PTC is presently in the
7 process of obtaining property rights required for the MFE and associated projects,
8 including this Project, from property owners. The PTC will then assign to Duquesne
9 Light the ROW and easements the Company requires for the Project. Except for license
10 agreements associated with railroad crossings, the Company has no plans to acquire new
11 ROW for the Project from any other property owner; however, as discussed further
12 below, the Company has been in contact with property owners regarding the Project.

13
14 **Q. Please describe the Company’s process for identifying the owners of property that**
15 **will be traversed by Project facilities.**

16 A. The Company used information from the PTC to inform its identification of property
17 owners. It is my understanding that PTC's section design firms retrieved initial property
18 boundary data from the Allegheny County website and county and local tax maps, then
19 used that data to create a mosaic of connected parcels impacted by the MFE, including
20 this Project. Following preliminary MFE design work, TWE reviewed the deeds of the
21 impacted parcels and the title searches performed by the PTC's right of way agents to
22 confirm the precise property boundaries of and to compile the list of owners of affected
23 properties.

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Q. Please explain the Company’s policy regarding dealing with owners of property to be traversed by Project facilities.

A. Although the Company is not acquiring ROW from any property owners other than the PTC for this Project, it has reached out to property owners along the Project route. These communications are discussed in further detail in Duquesne Light Statement No. 1, direct testimony of Nicholas Anderson. The Company’s policy regarding dealing with property owners is further described in the informational packet included as Attachment 13. Among other information, this packet provides that Duquesne Light representatives are to: act with integrity at all times; treat everyone courteously and in a professional manner; be forthright and honest in all actions and communications; comply with all laws and regulations; avoid any conflicts of interest; accept responsibility for any actions or decisions; be good stewards of the environment; and place a high priority on safety for the public, as well as Company employees and representatives.

Q. Please explain the Company’s policy regarding the property owner’s use of the ROW area.

A. Following the Company’s acquisition of a ROW and easement, the property owner can continue to use the ROW area, so long as such use is compatible with the safe and reliable operation and maintenance of Company facilities. Compatible uses that require no prior review or approval from the Company include farming and gardening. The Company also allows compatible development within the ROW area, provided that the design and work in the area does not interfere with the safe and reliable operation and

1 maintenance of Company facilities. Such uses can include: grading, installation of
2 roadways or parking lots, and installation of underground infrastructure (such as utilities).

3
4 **Q. What is the current status of the PTC's acquisition of property rights on properties**
5 **that will be traversed by the Project?**

6 A. There are a total of 24 separate real property parcels along the proposed Project route.
7 The relocation of Company facilities associated with the MFE Project will require the
8 PTC to obtain easements or other property rights on 22 parcels. As indicated in
9 Attachment 10, based on information available to me as of the date of this testimony, the
10 PTC has acquired 4 of these parcels. The Company anticipates receiving the required
11 ROW and easements from the PTC prior to commencing construction of the
12 corresponding transmission facility(ies).

13
14 **Q. Does this complete your direct testimony?**

15 A. Yes.

VERIFICATION

I, Lesley Gannon, being the Senior Manager of Real Estate and Rights of Way, hereby state that the information set forth above is true and correct to the best of my knowledge, information, and belief, and that I expect 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.

Date: 12/30/19



Lesley Gannon
Senior Manager, Real Estate and
Rights of Way
Duquesne Light Company
1800 Seymour Street
Pittsburgh, PA 15233