

**DIRECT TESTIMONY
OF
SERGIO E. DE HOYOS IRIZARRY
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
VIRGINIA STATE CORPORATION COMMISSION
CASE NO. PUR-2024-00181**

1 **Q. Please state your name, business address and position with Virginia Electric and**
2 **Power Company (“Dominion Energy Virginia” or the Company”).**

3 A. My name is Sergio E. De Hoyos Irizarry, and I am an Electric Transmission Engineer in
4 the Electric Transmission Line Engineering Department of the Company. My business
5 address is 5000 Dominion Boulevard, Glen Allen, Virginia 23060. A statement of my
6 qualifications and background is provided as Appendix A.

7 **Q. Please describe your areas of responsibility with the Company.**

8 A. I am responsible for the estimating, conceptual, and final design of high voltage
9 transmission line projects from 69 kilovolt ("kV") to 500 kV.

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

11 A. In order to provide requested transmission service to Rappahannock Electric Cooperative
12 (“REC”), with the requested service being prompted by the growing data center
13 development in the area; to maintain reliable service for overall load growth in the area;
14 and to comply with mandatory North American Electric Corporation (“NERC”) Reliability
15 Standards, Virginia Electric and Power Company (“Dominion Energy Virginia” or the
16 “Company”) proposes in Spotsylvania County, Virginia to:

17 • Construct a new 230 kilovolt (“kV”) delivery point (“DP”) switching station
18 (“Tributary Station”), which will provide interconnection to REC to serve its

1 customer, the SpotsyTech Campus, a planned mixed-use technology park which
2 includes a data center; and

- 3 • Extend the Company’s existing 230 kV Line #2090 (Fredericksburg — Ladysmith
4 CT) by constructing a new double circuit overhead 230 kV line on new
5 approximately 100-foot-wide right-of-way by cutting the Company’s existing 230
6 kV Line #2090 (Fredericksburg — Ladysmith CT) at the proposed Structure
7 #2090/91A¹ (“#2090 Tap”) (the new double circuit overhead 230 kV line is referred
8 as “230 kV Line #2090 extension”). The cut in will result in (i) new 230 kV Line
9 #2404 from New Post to Tributary Station, and (ii) 230 kV Line #2090 from
10 Ladysmith CT to Tributary Station.² From the cut-in location at the #2090 Tap, the
11 230 kV Line #2090 extension will extend for approximately 2.4 miles to the
12 Tributary Station.

13 The Tributary Station and the 230 kV Line #2090 extension are collectively referred to as
14 the “Project.” The purpose of my testimony is to describe the design characteristics of the
15 transmission facilities for the proposed Project, and also to discuss electric and magnetic
16 field (“EMF”) levels. I sponsor Section I.F, Section II.A.5, Sections II.B.1 to II.B.2, and
17 Section IV of the Appendix. Additionally, I co-sponsor the Executive Summary with

¹ Structure #209091A is a proposed structure to be constructed between existing Structures #2090/91 and #2090/92 of Line #2090.

² Segments of Line #2090 (Fredericksburg – Ladysmith CT) will be renumbered several times as a result of other projects in the Fredericksburg – Ladysmith CT corridor. Line #2090 will be renumbered to 230 kV Line #2301 between Fredericksburg and Lee’s Hill Substations, and to 230 kV Line #2335 between Lee’s Hill and New Post Substations. After this Project is completed, 230 kV Line #2090 will again be renumbered to Line #2404 between New Post and Tributary Stations, with existing 230 kV Line #2090 extending between Tributary Station and Ladysmith CT only. See Attachments I.A.3, I.A.4, and I.A.5 for one-line diagrams of: (i) the existing transmission system in the Project load area, (ii) the Project load area after the New Post and Lee’s Hill Substations are built, and (iii) the Project load area after the Project is energized.

1 Company Witnesses Ramtin Khalili, Blair Parks, George Brimmer, and Mariah
2 Weitzenkamp; Section I.I with Company Witness George Brimmer; Section I.L with
3 Company Witness Ramtin Khalili; Section II.A.9 with Company Witnesses Mariah
4 Weitzenkamp and Blair Parks; Sections II.B.3 to II.B.5 with Company Witness Blair Parks;
5 and lastly, Section V.A with Company Witnesses Mariah Weitzenkamp and Blair Parks.

6 **Q. Does this conclude your testimony?**

7 A. Yes, it does.

**BACKGROUND AND QUALIFICATIONS
OF
SERGIO E. DE HOYOS IRIZARRY**

Sergio E. De Hoyos Irizarry received a Bachelor of Science degree in Civil Engineering from the University of Puerto Rico in 2010 and a Master of Science degree in Civil Engineering from City University of New York in 2013. He was employed by Exelon from 2014-2023 and has worked with Dominion since 2023. Mr. De Hoyos Irizarry's experience includes Overhead Transmission Standards Development & Overhead Transmission Engineering (2014-2018, 2023-Present), Underground Transmission Engineering (2018-2021), and Substation Engineering (2021-2023). Mr. De Hoyos Irizarry has held a Professional Engineering license in the State of Virginia since 2019.

Mr. De Hoyos Irizarry has previously testified before the Virginia State Corporation Commission.

WITNESS DIRECT TESTIMONY SUMMARY

Witness: Mariah Weitzenkamp

Title: Managing Consultant, ERM

Summary:

Company Witness Mariah Weitzenkamp sponsors the Environmental Routing Study provided as part of the Company's Application. Additionally, Ms. Weitzenkamp co-sponsors the following portions of the Appendix:

- Executive Summary (co-sponsored with Company Witnesses Ramtin Khalili, George Brimmer, Sergio E. De Hoyos Irizarry, and Blair Parks): The Executive Summary provides a brief summary of the Project.
- Section II.A.1 (co-sponsored with Company Witness Blair Parks): This section provides the length of the proposed corridor and viable alternatives to the Project.
- Section II.A.2 (co-sponsored with Company Witness Blair Parks): This section provides a map showing the route of the Project in relation to notable points close to the Project.
- Section II.A.4 (co-sponsored with Company Witness Blair Parks): This section explains why the existing right-of-way is not adequate to serve the need, to the extent applicable.
- Sections II.A.6 to II.A.8 (co-sponsored with Company Witnesses Blair Parks): These sections provide detail regarding the right-of-way for Project.
- Section II.A.9 (co-sponsored with Company Witnesses Blair Parks and Sergio E. De Hoyos Irizarry): This section describes the proposed route selection procedures and details alternative routes considered.
- Section II.A.11 (co-sponsored with Company Witness Blair Parks): This section details how the construction of the Project follows the provisions discussed in Attachment 1 of the Transmission Appendix Guidelines.
- Section II.A.12 (co-sponsored with Company Witness Blair Parks): This section identifies the counties and localities through which the Project will pass and provides General Highway Maps for these localities.
- Section II.B.6 (co-sponsored with Company Witness Blair Parks): This section provides photographs of existing facilities, representations of proposed facilities, and visual simulations.
- Section III (co-sponsored with Company Witnesses Blair Parks): This section details the impact of the Project on scenic, environmental, and historic features.
- Section V.A (co-sponsored with Company Witnesses Blair Parks and Sergio E. De Hoyos Irizarry): This section provides the proposed route description and structure heights for notice purposes.

Finally, Ms. Weitzenkamp also co-sponsors the DEQ Supplement filed with this Application with Company Witness Blair Parks.

A statement of Ms. Weitzenkamp's background and qualifications is attached to her testimony as Appendix A.

**DIRECT TESTIMONY
OF
MARIAH WEITZENKAMP
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2024-00181**

1 **Q. Please state your name, business address and position with Virginia Electric and**
2 **Power Company (“Dominion Energy Virginia” or the “Company”).**

3 A. My name is Mariah Weitzenkamp, and I am employed as a Managing Consultant for
4 Environmental Resources Management (“ERM”). My business address is 222 South 9th
5 Street, Suite 2900, Minneapolis, Minnesota, 55402. A statement of my qualifications and
6 background is provided as Appendix A.

7 **Q. What professional experience does ERM have with the routing of linear energy**
8 **transportation facilities?**

9 ERM has extensive experience in the routing, feasibility assessments, and permitting of
10 energy infrastructure projects. It has assisted its clients in the identification, evaluation and
11 development of linear energy facilities for the past 30 years. During this time, it has
12 developed a consistent approach for linear facility routing and route selection based on the
13 identification, mapping and comparative evaluation of routing constraints and
14 opportunities within defined study areas. ERM uses data-intensive Geographic
15 Information System spatial and dimensional analysis and the most current and refined data
16 layers and aerial photography resources available for the identification, evaluation and
17 selection of transmission line routes. In addition to Virginia Electric and Power Company
18 (“Dominion Energy Virginia” or the “Company”), its clients include some of the largest
19 energy companies in the United States, Canada, and the world, including ExxonMobil, TC

1 Energy, Shell, NextEra Energy, Phillips 66, Kinder Morgan, British Petroleum, Enbridge
2 Energy, and others. ERM also routinely assists the staff of the Federal Energy Regulatory
3 Commission, United States Army Corps of Engineers, and the U.S. Forest Service in the
4 identification and/or evaluation of linear energy routes to support federal National
5 Environmental Policy Act evaluations. ERM works on both small and large energy
6 projects and has assisted in or conducted the routing and route evaluation of some of the
7 largest electric transmission line and pipeline facilities in North America. In Virginia,
8 ERM served as routing consultant to Dominion Energy Virginia for many projects over the
9 last 15 years, including:

- 10 • Cannon Branch-Cloverhill 230 kilovolt ("kV") transmission line project in the City of
11 Manassas and Prince William County (Case No. PUE-2011-00011);
- 12 • Dahlgren 230 kV double circuit transmission line project in King George County (Case
13 No. PUE-2011-00113);
- 14 • Surry-Skiffes Creek-Wheaton 500 and 230 kV transmission lines (Case No. PUE-
15 2012-00029);
- 16 • Remington CT-Warrenton 230 kV double circuit transmission line (Case No. PUE-
17 2014-00025);
- 18 • Haymarket 230 kV Line and Substation Project (Case No. PUE-2015-00107);
- 19 • Remington-Gordonsville Electric Transmission Project (Case No. PUE-2015-00117);
- 20 • Norris Bridge (Case No. PUE-2016-00021);
- 21 • Idylwood-Tysons 230 kV single circuit underground transmission line, Tysons
22 Substation rebuild, and related transmission facilities (Case No. PUR-2017-00143);
- 23 • Lockridge 230 kV Line Loop and Substation (Case No. PUR-2019-00215);

- 1 • Coastal Virginia Offshore Wind Commercial Project (Case No. PUR-2021-00142);
- 2 • DTC 230 kV Line Loop and DTC Substation (Case No. PUR-2021-00280);
- 3 • Aviator 230 kV Line Loop and Substation (Case. No. PUR-2022-00012);
- 4 • Nimbus Substation and 230 Farmwell-Nimbus Transmission Line (Case No. PUR-
- 5 2022-00027);
- 6 • 500-230 kV Wishing Star Substation, 500 kV and 230 kV Mars-Wishing Star Lines,
- 7 500-230 kV Mars Substation, and Mars 230 kV Loop (Case No. PUR-2022-00183);
- 8 • 500-230 kV Unity Switching Station, 230 kV Tunstall-Unity Lines #2259 and #2262,
- 9 230-36.5 kV Tunstall, Evans Creek, Raines Substations, and 230 kV Substation
- 10 Interconnect Lines (Case No. PUR-2022-00167);
- 11 • Butler Farm to Clover 230 kV Line and Butler Farm to Finneywood 230 kV Line (Case
- 12 No. PUR-2022-00175);
- 13 • 230 kV Altair Loop and Altair Switching Station (Case No. PUR-2022-00197);
- 14 • 230 kV Finneywood-Jeffress Lines and Jeffress Switching Station Conversion (Case
- 15 No. PUR-2023-00088); and
- 16 • 230 kV White Oak Lines and White Oak Substation Expansion, in Case No. PUR-
- 17 2023-00110.

18 Most recently, ERM served as the routing consultant for the Company's 230 kV Germanna
19 Lines and Germanna Substation, in Case No. PUR-2023-00206; Daves Store 230 kV Line
20 Extension, in Case No. PUR 2024-00021; the Aspen-Golden 500-230 kV Electric
21 Transmission Project, in Case No. PUR-2024-00032; and the Apollo-Twin Creeks Electric
22 Transmission Project, in Case No. PUR-2024-00044.

1 ERM's role as routing consultant for each of these transmission line projects included
2 preparation of an Environmental Routing Study for the project and submission of testimony
3 sponsoring it.

4 **Q. What were you asked to do in connection with this case?**

5 A. In order to provide requested transmission service to Rappahannock Electric Cooperative
6 (“REC”), with the requested service being prompted by the growing data center
7 development in the area; to maintain reliable service for overall load growth in the area;
8 and to comply with mandatory North American Electric Corporation (“NERC”) Reliability
9 Standards, Virginia Electric and Power Company (“Dominion Energy Virginia” or the
10 “Company”) proposes in Spotsylvania County, Virginia to:

- 11 • Construct a new 230 kilovolt (“kV”) delivery point (“DP”) switching station
12 (“Tributary Station”), which will provide interconnection to REC to serve its
13 customer, the SpotsyTech Campus, a planned mixed-use technology park which
14 includes a data center; and
- 15 • Extend the Company’s existing 230 kV Line #2090 (Fredericksburg — Ladysmith
16 CT) by constructing a new double circuit overhead 230 kV line on new
17 approximately 100-foot-wide right-of-way by cutting the Company’s existing 230
18 kV Line #2090 (Fredericksburg — Ladysmith CT) at the proposed Structure
19 #2090/91A¹ (“#2090 Tap”) (the new double circuit overhead 230 kV line is referred
20 as “230 kV Line #2090 extension”). The cut in will result in (i) new 230 kV Line
21 #2404 from New Post to Tributary Station, and (ii) 230 kV Line #2090 from

¹ Structure #209091A is a proposed structure to be constructed between existing Structures #2090/91 and #2090/92 of Line #2090.

1 Ladysmith CT to Tributary Station.² From the cut-in location at the #2090 Tap, the
2 230 kV Line #2090 extension will extend for approximately 2.4 miles to the
3 Tributary Station.

4 The Tributary Station and the 230 kV Line #2090 extension are collectively referred to as
5 the “Project.” ERM was engaged on behalf of the Company to assist in the identification
6 and evaluation of route alternatives to resolve the identified electrical need that would meet
7 the applicable criteria of Virginia law and the Company’s operating needs. The purpose
8 of my testimony is to introduce and sponsor the Environmental Routing Study, which is
9 included as part of the Application filed by the Company in this proceeding. Additionally,
10 I co-sponsor the Executive Summary with Company Witnesses Ramtin Khalili, George
11 Brimmer, Sergio E. De Hoyos Irizarry, and Blair Parks; Sections II.A.1, II.A.2, II.A.4,
12 II.A.6 to II.A.8, II.A.11, II.A.12, II.B.6, III of the Appendix with Company Witness Blair
13 Parks; Sections II.A.9 and V.A with Company Witness Blair Parks and Sergio E. De Hoyos
14 Irizarry; and lastly, I co-sponsor the DEQ Supplement filed with this Application with
15 Company Witness Blair Parks.

16 **Q. Does this conclude your pre-filed direct testimony?**

17 A. Yes, it does.

² Segments of Line #2090 (Fredericksburg – Ladysmith CT) will be renumbered several times as a result of other projects in the Fredericksburg – Ladysmith CT corridor. Line #2090 will be renumbered to 230 kV Line #2301 between Fredericksburg and Lee’s Hill Substations, and to 230 kV Line #2335 between Lee’s Hill and New Post Substations. After this Project is completed, 230 kV Line #2090 will again be renumbered to Line #2404 between New Post and Tributary Stations, with existing 230 kV Line #2090 extending between Tributary Station and Ladysmith CT only. See Attachments I.A.3, I.A.4, and I.A.5 for one-line diagrams of: (i) the existing transmission system in the Project load area, (ii) the Project load area after the New Post and Lee’s Hill Substations are built, and (iii) the Project load area after the Project is energized.

**BACKGROUND AND QUALIFICATIONS
OF
MARIAH WEITZENKAMP**

Mariah Weitzenkamp received a Bachelor of Bioproducts and Biosystems Engineering from the University of Minnesota Twin Cities in 2015. Ms. Weitzenkamp has been employed by Environmental Resources Management (“ERM”) since 2020. Prior to joining ERM, she worked as a Project Manager at the United States Army Corps of Engineers. Her areas of expertise are aquatic resources, stormwater management, Clean Water Act and Rivers and Harbor Act regulations, NEPA regulations, environmental impact assessments (EAs and EISs), and transmission line routing.

Ms. Weitzenkamp has not previously testified before the Virginia State Corporation Commission.