

Public Version

September 18, 2023

BY HAND DELIVERY

Mr. Bernard Logan, Clerk
State Corporation Commission
c/o Document Control Center
Tyler Building – First Floor
1300 East Main Street
Richmond, Virginia 23219

2023 SEP 18 P 4:01
SEC - ELECTRIC
DOCUMENT CONTROL CENTER

Application of Virginia Electric and Power Company To participate in the pilot program for electric power storage batteries pursuant to § 56-585.1:6 of the Code of Virginia and for certification of a proposed battery energy storage system pursuant to § 56-580 D of the Code of Virginia

Case No. PUR-2023-00162

Dear Mr. Logan:

Please find enclosed for filing in the above-referenced matter, an original and one (1) copy of the public version of *Virginia Electric and Power Company's Application and Request for Waivers*. A confidential and extraordinarily sensitive version is also being filed under seal under separate cover.

In addition, the Company is contemporaneously filing with the Commission, under separate cover, a Motion for Entry of a Protective Order and Additional Protective Treatment in the above-referenced matter.

Please do not hesitate to contact me if you have any questions regarding the enclosed.

Highest regards,

/s/ Jontille D. Ray

Jontille D. Ray

Enclosures

Cc: William H. Chambliss, Esq.
C. Meade Browder, Jr., Esq.

September 18, 2023
Page 2

Paul E. Pfeffer, Esq.
Lisa R. Crabtree, Esq.
Etahjayne J. Harris, Esq.

230930125



**Dominion
Energy®**

**Application Direct Testimony,
Exhibits and Schedules of
Virginia Electric and Power
Company**

**Before the State Corporation Commission of
Virginia**

**To participate in the pilot program for electric
power storage batteries pursuant to §
56-585.1:6 of the Code of Virginia, and for
certification of a proposed battery energy
storage system pursuant to § 56-580 D of the
Code of Virginia**

Volume 1 of 1

PUBLIC VERSION

Case No. PUR-2023-00162

Filed: September 18, 2023

Application of Virginia Electric and Power Company, To participate in the pilot program for electric power storage batteries pursuant to § 56-585.1:6 of the Code of Virginia, and for certification of a proposed battery energy storage system pursuant to § 56-580 D of the Code of Virginia
Case No. PUR-2023-00162

TABLE OF CONTENTS

PUBLIC AND CONFIDENTIAL / EXTRAORDINARILY SENSITIVE VOLUME 1 of 1

Application

Exhibit 1

Generation Rules

Direct Testimony of Brandon E. Martin

Schedule 1 – Electric Power Storage Battery Pilot Program Proposal Summary for BESS-4
(contains extraordinarily sensitive information)

Direct Testimony of Sean Stevens

Schedule 1 – Electric Power Storage Battery Pilot Program Proposal Summary for BESS-5
(contains confidential and extraordinarily information)

Schedule 2 - Electric Power Storage Battery Pilot Program Proposal Summary for BESS-6
(contains confidential and extraordinarily information)

Direct Testimony of Amelia H. Boschen

Schedule 1 – DEQ Supplement for BESS-4 Pilot Project

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF	)	
	)	
VIRGINIA ELECTRIC AND POWER COMPANY	)	
	)	Case No. PUR-2023-00162
To participate in the pilot program for electric power	)	
storage batteries pursuant to § 56-585.1:6	)	
of the Code of Virginia, and for certification of	)	
a proposed battery energy storage system pursuant to	)	
§ 56-580 D of the Code of Virginia	)	

VIRGINIA ELECTRIC AND POWER COMPANY'S
APPLICATION AND REQUEST FOR WAIVERS

Pursuant to § 56-585.1:6 of the Code of Virginia (“Va. Code” or “Code”), Rule 80 A of the Rules of Practice and Procedure of the State Corporation Commission of Virginia (the “Commission”), 5 VAC 5-20-80 A, and the Commission’s Guidelines Regarding Electric Power Storage Battery Pilot Programs (the “Guidelines”), Virginia Electric and Power Company (“Dominion Energy Virginia” or the “Company”), by counsel, hereby files its second application (“Application”) to participate in the pilot program for electric power storage batteries (the “Pilot Program”). Through this Application, the Company presents three projects for deployment of battery energy storage systems (“BESS”) as part of the Pilot Program: BESS-4: Evaluation of Two Co-Located Nonlithium-Ion Technologies; BESS-5: Outage Mitigation and Grid Support Through a Microgrid Capable BESS; and BESS-6: Long Duration Energy Storage in a Behind-the-Meter Application.

In addition, to the extent required by the Commission, and pursuant to Va. Code § 56-580 D and the Commission’s Filing Requirements in Support of Applications for Authority to Construct and Operate an Electric Generating Facility (the “Generation Rules”), 20 VAC 5-302-10 *et seq*, the Company requests a certificate of public convenience and necessity (“CPCN”) to

construct and operate BESS-4 at the Company's Darbytown Power Station. To facilitate this request, the Company has provided information required by the Generation Rules, but requests waivers of certain of the Generation Rules pursuant to Rule 40, 20 VAC 5-302-40. Specifically, the Company requests a waiver of Rule 25(6)(b) (topographical map), and Rule 35 (need), and a limited waiver of Rule 25(4) with respect to filing more than one copy of its 2022 Form 10-K.

In support of this Application, the Company states as follows:

GENERAL INFORMATION

1. Dominion Energy Virginia is a public service corporation organized under the laws of the Commonwealth of Virginia furnishing electric service to the public within its certificated service territory. The Company also supplies electric service to non-jurisdictional customers in Virginia and to the public in portions of North Carolina. The Company is engaged in the business of generating, transmitting, distributing, and selling electric power and energy to the public for compensation. The Company also is a public utility under the Federal Power Act, and certain of its operations are subject to the jurisdiction of the Federal Energy Regulatory Commission. The Company is an operating subsidiary of Dominion Energy, Inc.

2. The Company's name and post office address are:

Virginia Electric and Power Company
120 Tredegar Street
Richmond, Virginia 23219

3. The names, addresses, and telephone numbers of the attorneys for the Company are:

Paul E. Pfeffer
Lisa R. Crabtree
Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia 23219
(804) 787-5607 (PEP)

(804) 819-2612 (LRC)

Jontille D. Ray
 Etahjayne J. Harris
 McGuireWoods LLP
 Gateway Plaza
 800 East Canal Street
 Richmond, Virginia 23219-3916
 (804) 775-1173 (JDR)
 (804) 775-1463 (EJH)

STATUTORY AUTHORITY

4. As part of the Grid Transformation and Security Act of 2018 (the "GTSA"), the General Assembly directed the Commission to establish the Pilot Program, a program under which the Company must submit a proposal or proposals to deploy electric power storage batteries.¹ The legislation established the permissible objectives of the Pilot Program; set a maximum size for and duration of the Pilot Program; and addressed cost recovery for BESS deployed under the Pilot Program:

A proposal shall provide for the deployment of batteries pursuant to a pilot program that accomplishes at least one of the following: (i) improve reliability of electrical transmission or distribution systems; (ii) improve integration of different types of renewable resources; (iii) deferred investment in generation, transmission, or distribution of electricity; (iv) reduced need for additional generation of electricity during times of peak demand; or (v) connection to the facilities of a customer receiving generation, transmission, and distribution service from the utility. A Phase I Utility may install batteries with up to 10 megawatts of capacity. A Phase II Utility may install batteries with up to 30 megawatts of capacity. Each pilot program shall have a duration of five years. The pilot program shall provide for the recovery of all reasonable and prudent costs incurred under the pilot program through the electric utility's base rates on a nondiscriminatory basis.²

¹ Va. Code § 56-585.1:6 A.

² *Id.*

5. The legislation declared the Pilot Program to be in the public interest: “Any pilot program proposed by a Phase I Utility or Phase II Utility that satisfies the requirements of this subsection is in the public interest.”³

6. The legislation also directed the Commission to establish guidelines for the general administration of the Pilot Program. The Commission issued the Guidelines in November 2018.⁴ The Guidelines allow each utility to “file with the Commission one or more applications to participate in the Pilot Program at different times,” and set forth the content for such filings.⁵

7. Va. Code § 56-580 D requires a CPCN for electrical generating facilities:

The Commission shall permit the construction and operation of electrical generating facilities in Virginia upon a finding that such generating facility and associated facilities (i) will have no material adverse effect upon reliability of electric service provided by any regulated public utility, (ii) are required by the public convenience and necessity, if a petition for such permit is filed after July 1, 2007, and if they are to be constructed and operated by any regulated utility whose rates are regulated pursuant to § 56-585.1, and (iii) are not otherwise contrary to the public interest. In review of a petition for a certificate to construct and operate a generating facility described in this subsection, the Commission shall give consideration to the effect of the facility and associated facilities on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact as provided in § 56-46.1.

8. The Generation Rules apply generally to the construction of electric generating facilities with rated capacities of more than 5 megawatts (“MW”). For facilities with rated

³ *Id.*

⁴ See *Commonwealth of Virginia, ex rel. State Corporation Commission, Ex Parte: In the matter concerning the implementation by Virginia Electric and Power Company d/b/a Dominion Energy Virginia of a pilot program for the deployment of electric power storage batteries pursuant to Enactment Clause Nos. 9 and 10 of Senate Bill 966*, Case No. PUR-2018-00060, Order Establishing Guidelines at 4 (Nov. 26, 2018).

⁵ Guidelines at Section D, E.

capacities of 50 MW or less but greater than 5 MW, Rule 25 applies, 20 VAC 5-302-25.

APPLICATION TO PARTICIPATE IN PILOT PROGRAM

9. In this Application, the Company presents three projects for deployment: BESS-4: Evaluation of Two Co-Located Nonlithium-Ion Technologies; BESS-5: Outage Mitigation and Grid Support Through a Microgrid Capable BESS; and BESS-6: Long Duration Energy Storage in a Behind-the-Meter Application.

10. Through BESS-4, the Company proposes to install an 8.94 MW BESS-4 pilot facility comprised of two nonlithium-ion technologies. The Form Energy Iron-Air BESS is a 4.94 MW / 494 megawatt-hour ("MWh") alternating current ("AC") multi-day system and the Eos Energy Zinc Hybrid BESS is a 4 MW / 16 MWh AC system. BESS-4 seeks to accomplish the following statutory objectives: (ii) improve integration of renewable resources; and (iv) reduce the need for additional generation during times of peak demand. The projected cost for BESS-4 is approximately \$70.6 million, with a projected commercial operation date of August 1, 2026, based upon Commission approval on or before March 31, 2024.

11. Through BESS-5, the Company proposes to install a 1.9 MW / 3.8 MWh AC-coupled BESS. BESS-5 seeks to accomplish the following statutory objectives: (i) improved reliability of electrical transmission or distribution systems; (ii) improved integration of different types of renewable resources; (iii) deferred investment in generation, transmission, or distribution of electricity; and (iv) reduced need for additional generation of electricity during times of peak demand. The projected cost for BESS-5 is approximately \$6 million, with a projected commercial operation date by third quarter 2025, based upon Commission approval on or before March 31, 2024.

12. Through BESS-6, the Company proposes to install a 1.5 MW / 15 MWh AC-coupled BESS. BESS-6 seeks to accomplish the following statutory objectives: (i) improved reliability of electrical transmission or distribution systems; (iv) reduced need for additional generation of electricity during times of peak demand; and (v) connection to the facilities of a customer receiving distribution service from the utility. The projected cost for BESS-6 is approximately \$14.4 million, with a projected commercial operation date of December 31, 2027, based upon Commission approval on or before March 31, 2024.

13. The detailed information on each BESS required by the Guidelines is provided in the direct testimony and schedules of the Company's witnesses. Specifically, the pre-filed Direct Testimony of Company Witness Brandon E. Martin provides details on BESS-4. Details regarding BESS-5 and BESS-6 are addressed in the pre-filed Direct Testimony of Company Witness Sean Stevens.

14. The Company requests Commission approval for BESS-4, BESS-5, and BESS-6 to participate in the Pilot Program. The three projects seek to accomplish various legislative objectives for BESS deployed through the Pilot Program as described above. Consistent with Va. Code § 56-585.1:6, the Company will include the costs of BESS-4, BESS-5, and BESS-6 in its base rate cost of service for recovery through its rates for generation and distribution services.

15. The Commission has already approved three BESS facilities under the Pilot Program totaling 16 MW in Case No. PUR-2019-00124. This Application will bring the aggregate capacity of all Pilot Program projects approved by the Commission for the utility to 28.34 MW.

16. To support the projected commercial operation dates for BESS-4, BESS-5, and BESS-6, the Company respectfully requests an order granting permission to participate in the Pilot Program by March 31, 2024.

CPCN FOR BESS-4

17. The Company seeks to use BESS-4 as a generation asset. Accordingly, to the extent required by the Commission, the Company requests a CPCN pursuant to Va. Code § 56-580 D and the Generation Rules.

18. BESS-4 will store energy from the grid from both renewable and traditional energy sources.

19. In addition to the information on BESS-4 provided in the pre-filed Direct Testimony of Company Witness Brandon E. Martin, details on BESS-4 required by statute and the Generation Rules are attached to this Application as Exhibit 1, subject to the waiver requests outlined below.

REQUESTS FOR WAIVERS

20. Pursuant to Rule 40 and for good cause shown, the Company requests a waiver of Rule 25(6)(b), and Rule 35, and requests a limited waiver of Rule 25(4).⁶

21. The Company requests a waiver of the requirement in Rule 25(6)(b) to provide “a

⁶ Similar waiver requests were granted in the Company’s previous Pilot Program filing. *See Application of Virginia Electric and Power Company, To participate in the pilot program for electric power storage batteries pursuant to § 56-585.1:6 of the Code of Virginia, and for certification of a proposed battery energy storage system pursuant to § 56-580 D of the Code of Virginia*, Case No. PUR-2019-00124, Order for Notice and Hearing at 5 (Aug. 16, 2019). Additionally, two of the waiver requests are similar to waivers granted by the Commission in Case No. PUR-2019-00105. *Petition of Virginia Electric and Power Company, For approval and certification for the proposed US-4 Solar Project pursuant to §§ 56-580 D and 56-46.1 of the Code of Virginia, and approval of a rate adjustment clause, designated Rider US-4, under § 56-585.1 A 6 of the Code of Virginia*, Case No. PUR-2019-00105, Order for Notice and Hearing at 21, Ordering Paragraphs (22) and (24) (Jul. 31, 2019).

depiction on topographic maps of the proposed site” because a topographic map is not available for the site.

22. The Company requests a waiver of Rule 35, which requires specific information on “the need for the proposed facility.” The General Assembly has declared participation in the Pilot Program to be in the public interest. Therefore, the traditional requirements to justify the “need” for electric generating facilities should be found to not be applicable in this circumstance.

23. Finally, the Company requests a partial waiver of Rule 25(4) to the extent it requires multiple copies of the Company’s publicly available 2022 Form 10-K. Rule 25(4) requires “[f]inancial information for the applicant.” “If the applicant . . . is a public company, financial information should include the entity’s most recent stockholder report and most recent Securities and Exchange Commission Form 10-K.” The Company’s financial information is filed publicly with the Securities and Exchange Commission and is available on the Company’s website. The Company is filing one copy of its 2022 Form 10-K with the Clerk and providing website links to the publicly available documents in Exhibit 1. For purposes of judicial economy and environmental consciousness, the Company respectfully requests partial waiver of filing additional copies of its publicly available 2022 Form 10-K.

WHEREFORE, the Company respectfully requests that the Commission: (i) direct that notice of the Application be given; (ii) grant the Company’s requested waivers; (iii) issue an order by March 31, 2024 allowing BESS-4, BESS-5, and BESS-6 to participate in the Pilot Program established under Va. Code § 56-585.1:6; and (iv) grant such other relief as deemed appropriate and necessary.

Respectfully submitted,

VIRGINIA ELECTRIC AND POWER COMPANY

By: /s/ Jontille D. Ray
Counsel

Paul E. Pfeffer
Lisa R. Crabtree
Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, Virginia 23219
(804) 787-5607 (PEP)
(804) 819-2612 (LRC)
paul.e.pfeffer@dominionenergy.com
lisa.r.crabtree@dominionenergy.com

Jontille D. Ray
Etahjayne J. Harris
McGuireWoods LLP
Gateway Plaza
800 East Canal Street
Richmond, Virginia 23219-3916
(804) 775-1173 (JDR)
(804) 775-1463 (EJH)
jray@mcguirewoods.com
eharris@mcguirewoods.com

Counsel for Virginia Electric and Power Company

September 18, 2023

**Legal and Trade Names and Description of Authorized Business Structure
of Virginia Electric and Power Company
20 VAC 5-302-25(1) and (2)**

Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") is a public service corporation, which was incorporated in Virginia in 1909. The Company's current legal name is Virginia Electric and Power Company, and it uses the following trade names: Virginia Power, Dominion Energy Virginia, Dominion Virginia Power, Dominion Virginia, Dominion Energy North Carolina, Dominion North Carolina, Dominion North Carolina Power, North Carolina Power, Dominion Generation, and West Virginia Power.

**Principal Corporate Officers / Directors of Virginia Electric and Power Company
20 VAC 5-302-25(3)**

Robert M. Blue
Director, Chairman and Chief Executive Officer
120 Tredegar Street
Richmond, VA 23219

Edward H. Baine
Director and President
120 Tredegar Street
Richmond, VA 23219

Diane Leopold
Director, Executive Vice President and Chief Operating Officer
120 Tredegar Street
Richmond, VA 23219

Carlos M. Brown
Senior Vice President and General Counsel
120 Tredegar Street
Richmond, VA 23219

Carter M. Reid
Executive Vice President, Chief of Staff, and Corporate Secretary
120 Tredegar Street
Richmond, VA 23219

Darius A. Johnson
Vice President and Treasurer
120 Tredegar Street
Richmond, VA 23219

Dr. Cedric F. Green
Senior Vice President – Generation
600 E. Canal Street
Richmond, VA 23219

Robert H. Locke
Senior Vice President – Electric Distribution
600 E. Canal Street
Richmond, VA 23219

Eric Carr
President – Nuclear Operations and Chief Nuclear Officer
5000 Dominion Boulevard
Glen Allen, VA 23060

Douglas C. Lawrence
Senior Vice President – Nuclear Operations & Fleet Performance
5000 Dominion Boulevard
Glen Allen, VA 23060

William L. Murray
Senior Vice President – Corporate Affairs & Communications
120 Tredegar Street
Richmond, VA 23219

Corynne S. Arnett
Senior Vice President – Regulatory Affairs and Customer Experience
120 Tredegar Street
Richmond, VA 23219

Michele L. Cardiff
Senior Vice President, Controller and Chief Accounting Officer
120 Tredegar Street
Richmond, VA 23219

**Virginia Electric and Power Company Financial Information
and Qualifications to Construct and Operate the Proposed Facilities
20 VAC 5-302-25(4) and (5); 20 VAC 5-302-10, Par. 1 (ii)**

One copy of the most recent Form 10-K for Virginia Electric and Power Company has been filed with the Clerk (20 VAC 5-302-25(4)). The 2022 Form 10-K filed on February 21, 2023, with the U.S. Securities and Exchange Commission is publicly available at the following website: <https://investors.dominionenergy.com/financials-and-reports/sec-filings/sec-filings-details/default.aspx?FilingId=16418073>.

See pages 49 to 51 of the Form 10-K for a list of other generation facilities developed or owned and operated by the Company as of December 31, 2022 (20 VAC 5-302-25(5)(a)). A description of the Company's organization structure is provided on page 11 and in Exhibit 21 of the Form 10-K.

Virginia Electric and Power Company is an incumbent electric utility as defined in Va. Code § 56-576 (20 VAC 5-302-25(5)(b)).

**Specific Site Information for the Proposed Facility
20 VAC 5-302-25(6)**

The proposed BESS-4 will be installed at the Company's Darbytown Power Station located in Henrico County, Virginia, on Company-owned property, on a site of approximately 10 acres within a 51.36-acre parcel. This location was chosen because of the space available within the site to locate the three BESS technologies and its proximity to a direct connection at the Varina 34.5kV substation. This location is optimal to demonstrate and monitor each battery's performance at one location. The Varina substation also has sufficient space available to connect the BESS-4 without requiring expansion of the existing facility. See the Direct Testimony of Company Witness Brandon E. Martin, Schedule 1 for a map identifying the location of BESS-4.

**General Description of the Proposed Facility
20 VAC 5-302-25(7); 20 VAC 5-302-10, Par. 1 (i)**

The Company proposes to install an 8.94 MW BESS-4 pilot facility comprised of two nonlithium-ion technologies. The Form Energy Iron-Air BESS is a 4.94 MW / 494 megawatt-hour ("MWh") alternating current ("AC") multi-day system and the Eos Energy Zinc Hybrid BESS is a 4 MW / 16 MWh AC system. Each of the BESS-4 pilot technologies is a standalone system.

**General Description of the Fuel Supply Arrangement for the Proposed Facility
20 VAC 5-302-25 (8)**

The proposed BESS-4 will store energy from the grid from both renewable and traditional energy sources. To the extent the fuel source for the proposed BESS-4 is from renewable energy, this fuel-related requirement is not applicable.

To the extent the fuel source for the proposed BESS-4 is from a traditional source fueled by natural gas or oil, the Company employs a disciplined natural gas procurement plan to ensure a reliable supply of natural gas at competitive prices. Through periodic solicitations and the open market, the Company serves its gas-fired fleet using a combination of day-ahead, monthly, seasonal, and multiyear physical gas supply purchases. In addition to managing its natural gas supply portfolio, the Company evaluates and reconfigures as appropriate its diverse portfolio of pipeline transportation and storage contracts to provide the most reliable and economical

delivered fuel options for each power station. This portfolio of natural gas transportation contracts, all with various term expirations, provides access to multiple natural gas supply and trading points from the Marcellus region to the Southeast region. Further, the Company actively participates in short-term, interstate pipeline capacity markets, buying capacity (when available) during times of need or selling capacity during low generation periods or power station outages.¹

The Company purchases its No. 2 fuel oil and No. 6 fuel oil requirements on the spot market and optimizes its inventory, storage, and transportation to ensure reliable supply to its power generating facilities. Trucks, vessels, barges, and pipelines are employed to transport oil to the Company's stations and third-party storage locations, ensuring a reliable supply of oil and mitigating the price risk associated with potentially volatile prices for these products.²

Economic Development Impacts of the Proposed Facility
20 VAC 5-302-25(9); 20 VAC 5-302-10, Par. 1 (iii)

During development and construction, the proposed BESS-4 will provide direct and indirect economic benefits to the Commonwealth. Additionally, local and state tax revenues will incrementally increase as a result of the proposed BESS.

Other Agency Requirements
20 VAC 5-302-25(10)

The Company may need the local and environmental permits discussed in detail in Schedule 1 to the Direct Testimony of Company Witness Amelia H. Boschen.

Environmental Impacts of the Proposed Facility
Va. Code § 56-580 D; 20 VAC 5-302-25 (11); 20 VAC 5-302-10, Par. 1 (iii)

See Schedule 1 to the Direct Testimony of Company Witness Amelia H. Boschen.

Transmission Reliability Impacts of the Proposed Facility
Va. Code § 56-580 D (i); 20 VAC 5-302-25(12); 20 VAC 5-302-10, Par. 1 (iv)

BESS-4 should have no impact on transmission reliability. See Schedule 1 to the Direct Testimony of Company Witness Brandon E. Martin discussing the specific objectives and potential impacts of the proposed BESS-4.

Public Interest of the Proposed Facility
Va. Code § 56-580 D (iii); 20 VAC 5-302-25(13); 20 VAC 5-302-10, Par. 1 (v)

The proposed BESS-4 is declared by statute to be in the public interest because it satisfies the requirements of Va. Code § 56-585.1:6 A.

¹ See *Application of Virginia Electric and Power Company To revise its fuel factor pursuant to Va. Code § 56-249.6*, Case No. PUR-2023-00067, Direct Testimony of Dale E. Hinson at 7-8 (filed May 1, 2023).

² *Id.* at 12.