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#### COMMONWEALTH OF VIRGINIA STATE CORPORATION COMMISSION

# **APPLICATION OF**

# VIRGINIA ELECTRIC AND POWER COMPANY

CASE NO. PUR-2022-00198

For approval and certification of electric transmission facilities: Cirrus – Keyser 230 kV Loop and Related Projects

## **REPORT OF M. RENAE CARTER, HEARING EXAMINER**

### September 14, 2023

This case concerns a request for approval of transmission facilities in Culpeper County, Virginia. The record supports approval of the Company's request. The Project is needed so the Company can continue to provide reliable electric service in the Project area, including supplying new data center load, and comply with North American Electric Reliability Corporation Reliability Standards and with the Company's transmission planning criteria.

### **HISTORY OF THE CASE**

On November 21, 2022, Virginia Electric and Power Company ("Dominion" or "Company") filed with the State Corporation Commission ("Commission") an application ("Application") for a certificate of public convenience and necessity ("CPCN") for electric transmission facilities in Culpeper County, Virginia.<sup>1</sup> Dominion filed its Application pursuant to § 56-46.1 of the Code of Virginia ("Code") and the Utility Facilities Act, Code § 56-265.1 *et seq.* 

Specifically, the Company proposed to complete the following, which is collectively referred to as the "Project":<sup>2</sup>

- Construct a new, approximately 5.2-mile overhead 230 kilovolt ("kV") double circuit transmission line-loop. This 5.2 mile line-loop will be built entirely on the existing 100-foot-wide right-of-way ("ROW"). Dominion proposes cutting existing 230 kV overhead Line #2199 at Structure #2199/100 ("Mountain Run Junction"). This will result in three separate lines: (1) 230 kV Gordonsville-Cirrus Line #2199, (2) 230 kV Cirrus-Keyser Line #2278, and (3) 230 kV Keyser-Germanna Line #2276 (collectively, the "Cirrus-Keyser 230 kV Loop").
- Remove a portion of one existing 115 kV double circuit transmission line (Line #2 and Line #70) located within the existing ROW between existing Structures #2/1201-1253 and Structures #70/53-1 and install a new, overhead single circuit 115 kV line which will require an additional 25 feet of permanent ROW from the edge of the existing 100 feet of ROW for approximately 0.02 miles from proposed Structure #2/486A to proposed Structure #2/486B to connect Lines #2 and #70 at the Mountain Run Junction.

<sup>&</sup>lt;sup>1</sup> The Company filed an errata page to the Application on August 16, 2023.

<sup>&</sup>lt;sup>2</sup> Exhibit ("Ex.") 2 (Application) at 2-3 and Appendix at 5-6.

- Construct two overhead 230 kV transmission lines, Line #2283 and Line #2284. Line #2283 will be 0.15 miles in length, and Line #2284 will be 0.10 miles in length. Both will be built in new ROW provided by a certain Rappahannock Electric Cooperative ("REC") data center customer ("REC Customer") and will run from the proposed new Keyser Switching Station ("Keyser Station") to the existing REC Mountain Run Substation ("Mountain Run Substation" or "Mountain Run 1 and 2").
- Construct two overhead 230 kV transmission lines, Line #2288 and Line #2289, approximately 0.01 miles in length. Lines #2288 and #2289 will run from the proposed new Cirrus Switching Station ("Cirrus Station") to the proposed new REC Mountain Run 3 Substation ("Mountain Run 3 Substation") and will not require any new ROW.
- Build a new section of overhead 115 kV single circuit transmission line (Line #70), approximately 0.07 miles in length in new ROW provided by the REC Customer. This new section of Line #70 will run from the proposed Cirrus Station to existing Structure #70/1255.
- Construct two new 230 kV switching stations located along Frank Turnage Drive, the Cirrus Station and the Keyser Station, on land purchased by the Company from the REC Customer.
- Update line protection settings at the Company's existing Remington, Germanna, Gordonsville, Oak Green and Culpeper Substations.

To allow Dominion to meet area demands and prevent additional outages during Project construction, Dominion also plans to build a temporary approximately 5.4-mile 115 kV single circuit line from the Mountain Run Junction near Structure #2/1201 (70/53) to existing Structure #70/1257. The temporary line will be in service for approximately 12 months and will be removed when the Cirrus-Keyser 230 kV Loop is energized.<sup>3</sup>

The Company asserted that if the REC Customer's load were connected to the existing Mountain Run Substation, the substation's distribution equipment would overload, resulting in substation transformer thermal overloads and violation of Dominion's transmission planning criteria.<sup>4</sup>

The Company stated the desired in-service date for the Project is December 30, 2025.<sup>5</sup>

On December 20, 2022, the Commission entered an Order for Notice and Hearing, which among other things: docketed the Application; established a procedural schedule for the case;

<sup>4</sup> *Id.* at 3.

<sup>&</sup>lt;sup>3</sup> *Id.*, Appendix at 5-6, 28.

<sup>&</sup>lt;sup>5</sup> *Id.* at 4. The Company requested that the Commission enter a final order by October 31, 2023, which the Company averred would allow it to begin construction by November 1, 2024, and complete construction by December 30, 2025. *Id.* 

scheduled a public evidentiary hearing to convene on August 29 and 30, 2023, with telephonic public witness testimony on August 29, 2023 ("Public Witness Session"), and the remainder of the hearing on August 30, 2023, in the Commission's courtroom; required the Company to provide notice and service of its Application; provided opportunities for interested persons to participate in this case; directed Commission Staff ("Staff") to investigate the Application; and assigned the case to a Hearing Examiner to conduct all further proceedings in this matter on behalf of the Commission.

On December 28, 2022, a Hearing Examiner's Ruling granted Dominion's motion to extend deadlines for publication of notice of the Application, service on property owners and local officials, and the filing of proof of notice and service. On February 22, 2023, a Hearing Examiner's Ruling granted the Company's motion for leave to file its proof of notice and service out of time.<sup>6</sup>

On June 1, 2023, the Board of Supervisors of Culpeper County, Virginia ("Board") filed a Notice of Participation in this docket.

One public comment was received in this case. Lisa Fraser commented that the costs for riders on her electric bill are making electric service increasingly unaffordable, and she questioned charges on her bill for certain power lines. She argued that the Company should pay for special projects out of Company profits instead of charging customers for them.

No one registered to testify as a public witness in this case; therefore, the Public Witness Session was not convened.

The evidentiary portion of the hearing was convened as scheduled on August 30, 2023. The Company appeared by its counsel Jontille D. Ray, Esquire, and Benjamin A. Shute, Esquire. Staff appeared by its counsel William H. Harrison, IV, Esquire, and Kati K. Dean, Esquire.

#### **SUMMARY OF THE RECORD**

#### **Dominion Direct Testimony**

Dominion offered the direct testimony of four witnesses: Mark R. Gill, Consulting Engineer – Electric Transmission Planning; Sherrill A. Crenshaw, Principal Engineer – Electric Transmission Line Engineering; Santosh Bhattarai, Engineer III – Substation Engineering; and Nancy R. Reid, Siting and Permitting Specialist.

Mark R. Gill sponsored those sections of the Application Appendix describing Dominion's electric transmission system and the need for, and benefits of, the proposed Project, as follows:

• <u>Section I.C</u>: This section describes the present system and details how the Project will effectively satisfy present and projected future load demand requirements.

<sup>&</sup>lt;sup>6</sup> Proof of notice and service was accepted into the record as Ex. 1.

- <u>Section I.D</u>: This section describes critical contingencies and associated violations due to inadequacy of the existing system.
- <u>Section I.E</u>: This section explains that there are no feasible Project alternatives.
- <u>Section I.G</u>: This section provides a system map of the affected area.
- <u>Section I.H</u>: This section provides the desired in-service date of the Project and the estimated construction time.
- <u>Section I.J</u>: This section provides information about the Project if approved by PJM Interconnection, L.L.C. ("PJM").
- <u>Section I.K</u>: This section is not applicable to the Project.
- <u>Section I.M</u>: This section is not applicable to the Project.
- <u>Section I.N</u>: This section provides the proposed and existing generating sources, distribution circuits or load centers planned to be served by all new substations, switching stations, and other ground facilities associated with the Project.
- <u>Section II.A.3</u>: This section provides color maps of existing or proposed ROW in the Project vicinity.
- <u>Section II.A.10</u>: This section provides details of the construction plans for the Project, including requested line outage schedules.<sup>7</sup>

In addition, Mr. Gill co-sponsored the following sections of the Appendix:

- <u>Executive Summary</u>: This section provides a high-level overview of the need for and components of the Project.
- <u>Section I.A</u>: This section details the primary justifications for the Project.
- <u>Section I.B</u>: This section details the engineering justification for the Project.
- <u>Section I.I</u>: This section provides the estimated total Project cost.
- <u>Section I.L</u>: This section is not applicable to the Project.<sup>8</sup>

Sherrill A. Crenshaw sponsored those sections of the Appendix providing an overview of the design characteristics of the Project's transmission facilities and discussing electric and magnetic field levels, as follows:

- <u>Section I.F</u>: This section describes any lines or facilities that will be removed, replaced, or taken out of service upon completion of the Project.
- <u>Section II.A.5</u>: This section provides drawings of the ROW cross section showing typical transmission line structure placements.
- <u>Sections II.B.1 through II.B.2</u>: These sections provide the line design and operational features of the Project.
- <u>Sections II.B.3 through II.B.5</u>: These sections provide supporting structure details along the proposed Project route.

<sup>&</sup>lt;sup>7</sup> Ex. 3 (Gill Direct) at 2 (unnumbered).

<sup>&</sup>lt;sup>8</sup> Id. at 2-3 (unnumbered).

• <u>Section IV</u>: This section provides analysis on the health aspects of electric and magnetic field levels.<sup>9</sup>

In addition, Mr. Crenshaw co-sponsored the following portions of the Appendix:

- <u>Executive Summary</u>: This section provides a high-level overview of the need for and components of the Project.
- <u>Section I.A</u>: This section details the primary justifications for the Project.
- <u>Section I.B</u>: This section details the engineering justification for the Project.
- <u>Section I.I</u>: This section provides the estimated total Project cost.
- <u>Section I.L</u>: This section is not applicable to the Project.
- <u>Section II.A.4</u>: This section explains why the existing ROW is inadequate to serve the Project's needs.
- <u>Section II.B.6</u>: This section provides photographs of existing facilities, representations of proposed facilities, and visual simulations.
- <u>Section V.A</u>: This section provides the proposed route description and structure heights for notice purposes.<sup>10</sup>

**Santosh Bhattarai** sponsored or co-sponsored the following sections of the Appendix describing work to be performed for the Project at existing and proposed substations, as follows:

- <u>Executive Summary</u>: This section provides a high-level overview of the need for and components of the Project.
- <u>Section I.A</u>: This section details the primary justifications for the Project.
- <u>Section I.I</u>: This section provides the estimated total Project cost.
- <u>Section II.C</u>: This section describes and furnishes a one-line diagram of the substations associated with the Project.<sup>11</sup>

Nancy R. Reid sponsored those sections of the Appendix providing an overview of the design of the Project route and related permitting, as follows:

- <u>Section II.A.1</u>: This section provides the length of the proposed corridor and viable Project alternatives.
- <u>Section II.A.2</u>: This section provides a map showing the Project's route in relation to notable points close to the Project.
- <u>Sections II.A.6 through II.A.8</u>: These sections provide details regarding the Project ROW.

<sup>&</sup>lt;sup>9</sup> Ex. 4 (Crenshaw Direct) at 2 (unnumbered). Exhibit 4 indicates Mr. Crenshaw sponsors Section II.A.4 himself (*id.*), but Ex. 6 (Reid Direct) at 3 indicates that Ms. Reid and Mr. Crenshaw co-sponsor Section II.A.4.

<sup>&</sup>lt;sup>10</sup> Ex. 4 (Crenshaw Direct) at 2-3 (unnumbered). Exhibit 4 indicates Mr. Crenshaw sponsors Section II.A.4 himself (*id.*), but Ex. 6 (Reid Direct) at 3 indicates that Ms. Reid and Mr. Crenshaw co-sponsor Section II.A.4.

<sup>&</sup>lt;sup>11</sup> Ex. 5 (Bhattarai Direct) at 2-3 (unnumbered).

- <u>Section II.A.9</u>: This section describes the proposed route selection procedures.
- <u>Section II.A.11</u>: This section details how the Project's construction follows the provisions discussed in Attachment 1 to the Transmission Appendix Guidelines.
- <u>Section II.A.12</u>: This section identifies the counties and localities through which the Project will pass and provides General Highway Maps for these localities.
- <u>Section III</u>: This section details the Project's impact on scenic, environmental, and historic features.
- <u>Sections V.B through V.D</u>: These sections provide information related to public notice of the Project.<sup>12</sup>

In addition, Ms. Reid co-sponsored the following sections of the Appendix:

- <u>Executive Summary</u>: This section provides a high-level overview of the need for and components of the Project.
- <u>Section I.A</u>: This section details the primary justifications for the Project.
- <u>Section II.A.4</u>: This section explains why the existing ROW is inadequate to serve the Project's needs.
- <u>Section II.B.6</u>: This section provides photographs of existing facilities, representations of proposed facilities, and visual simulations.
- <u>Section V.A</u>: This section provides the proposed route description and structure heights for notice purposes.<sup>13</sup>

Ms. Reid also sponsored: (1) the Department of Environmental Quality ("DEQ") Supplement filed with the Application,<sup>14</sup> and (2) the portion of the Appendix confirming that, in accordance with Code § 15.2-2202 E, a letter was sent to the County Administrator of Culpeper County advising him of the Project and inviting him to consult with the Company thereon.<sup>15</sup>

### **DEQ** Report

On January 27, 2023, DEQ filed a report ("DEQ Report") summarizing the Project's potential impacts to natural and cultural resources in Virginia.<sup>16</sup> DEQ stated that the following agencies joined with DEQ in review of the Project:

- Department of Conservation and Recreation ("DCR");
- Virginia Department of Health ("VDH");
- Department of Historic Resources ("DHR");
- Marine Resources Commission;
- Department of Wildlife Resources ("DWR"); and

<sup>&</sup>lt;sup>12</sup> Ex. 6 (Reid Direct) at 3 (unnumbered).

<sup>&</sup>lt;sup>13</sup> Id.

<sup>&</sup>lt;sup>14</sup> *Id.* at Summary Page.

<sup>&</sup>lt;sup>15</sup> Ex. 2 (Application), Appendix at 197, 271-72.

<sup>&</sup>lt;sup>16</sup> Ex. 8 (DEQ Report) at Cover Letter, p. 1 (unnumbered).

• Department of Aviation ("DOAV").<sup>17</sup>

The DEQ Report listed numerous permits and approvals that are likely prerequisites to the Project's construction.<sup>18</sup> In addition to these requirements of local, state, or federal law, the DEQ Report included a number of recommendations made by the reviewing agencies for the Commission's consideration. These are:<sup>19</sup>

- Follow the DEQ Office of Wetlands and Stream Protection's recommendations for construction activities to avoid and minimize impacts to wetlands to the maximum extent possible.<sup>20</sup>
- Follow DEQ's recommendations regarding erosion and sediment control and stormwater management, as applicable.<sup>21</sup>
- Reduce solid waste at the source, reuse it and recycle it to the maximum extent practicable, as applicable, and minimize and properly handle generated hazardous waste.<sup>22</sup>
- Coordinate with DCR's Division of Natural Heritage to obtain an update on natural heritage information, and regarding its recommendations related to karst topography, invasive species management, and ecological cores.<sup>23</sup>
- Coordinate with DHR regarding the recommendation to perform comprehensive cultural resource surveying prior to construction of any Commission-approved alternative and evaluation of all identified resources.<sup>24</sup>
- Coordinate with VDH regarding its recommendations to protect public drinking water sources.<sup>25</sup>
- Follow the principles and practices of pollution prevention to the maximum extent practicable.<sup>26</sup>
- Limit the use of pesticides and herbicides to the extent practicable.<sup>27</sup>
- Coordinate with DWR regarding its recommendations to minimize adverse impacts from linear utility projects.<sup>28</sup>

#### **Commission Staff Direct Testimony**

**Yousuf Malik**, Utilities Engineer in the Commission's Division of Public Utility Regulation, offered testimony and sponsored the Staff Report on the Application. He stated that

<sup>27</sup> See id. at 23.

<sup>&</sup>lt;sup>17</sup> Id. at 1.

<sup>&</sup>lt;sup>18</sup> These are detailed *id*. at 3-5.

<sup>&</sup>lt;sup>19</sup> See generally, id. at 5-6.

<sup>&</sup>lt;sup>20</sup> These are delineated *id*. at 8-10.

<sup>&</sup>lt;sup>21</sup> See id. at 13.

<sup>&</sup>lt;sup>22</sup> *Id.* at 16.

<sup>&</sup>lt;sup>23</sup> See id. at 18-19.

<sup>&</sup>lt;sup>24</sup> See id. at 20-21.

<sup>&</sup>lt;sup>25</sup> See id. at 22.

<sup>&</sup>lt;sup>26</sup> See id. at 22-23.

<sup>&</sup>lt;sup>28</sup> See id. at 25-26.

Staff verified the Company-provided power flow models and confirmed that, without the Project, certain thermal and voltage violations are projected to occur in 2025. He added that Staff also verified the Project would resolve these violations. Mr. Malik stated Staff agrees the Project is needed to comply with North American Electric Reliability Corporation ("NERC") Reliability Standards and Dominion's own transmission planning criteria. He testified Staff concurs with the Company that demand-side management load reductions do not change the need for the Project.<sup>29</sup>

Mr. Malik stated that Staff concluded: (1) Dominion has reasonably demonstrated the Project is needed to support interconnection of the anticipated load associated with the REC Customer's new data center campus, and is needed to maintain overall reliability of Dominion's transmission system; (2) the proposed route for the Cirrus-Keyser 230 kV Loop reasonably minimizes impacts to scenic, environmental, and historic resources; and (3) the Project does not appear to adversely impact any goal of the Virginia Environmental Justice Act. For these reasons, Mr. Malik testified, Staff does not oppose issuance of a CPCN for the Project.<sup>30</sup>

#### **Dominion Rebuttal Comments**

On August 11, 2023, the Company filed a letter containing Rebuttal Comments. Therein, the Company stated its appreciation for Staff's endorsement of the Project and offered one factual clarification to the Staff Report.<sup>31</sup>

The Company also made two comments in relation to the DEQ Report. First, Dominion requested that it not be required to develop an invasive species management plan, including an invasive species inventory, as part of the Project's ROW maintenance practices. Second, the Company reported that it and DHR had reached agreement as to when the Company would provide certain information and perform certain actions related to cultural resources.<sup>32</sup>

### APPLICABLE LAW

The statutory scheme governing the Application is found in several chapters of Title 56 of the Code. Code § 56-265.2 A provides that "it shall be unlawful for any public utility to construct... any facilities for use in public utility service, except ordinary extensions or improvements in the usual course of business, without first having obtained a certificate from the Commission that the public convenience and necessity require the exercise of such right or privilege."

Code § 56-46.1 A requires the Commission to consider environmental reports issued by other state agencies, local comprehensive plans, the impact on economic development, and improvements in reliability before approving construction of electrical utility facilities:

<sup>&</sup>lt;sup>29</sup> Ex. 7 (Malik Direct), Staff Report at 8.

<sup>&</sup>lt;sup>30</sup> *Id.*, Staff Report at 24.

<sup>&</sup>lt;sup>31</sup> Ex. 9 (Rebuttal Comments) at 2.

 $<sup>^{32}</sup>$  Id. at 2-4.

Whenever the Commission is required to approve the construction of any electrical utility facility, it shall give consideration to the effect of that facility on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact. . . . In every proceeding under this subsection, the Commission shall receive and give consideration to all reports that relate to the proposed facility by state agencies concerned with environmental protection; and if requested by any county or municipality in which the facility is proposed to be built, to local comprehensive plans that have been adopted pursuant to Article 3 (§ 15.2-2223 et seq.) of Chapter 22 of Title 15.2. Additionally, the Commission (a) shall consider the effect of the proposed facility on economic development within the Commonwealth, including but not limited to furtherance of the economic and job creation objectives of the Commonwealth Clean Energy Policy set forth in § 45.2-1706.1, and (b) shall consider any improvements in service reliability that may result from the construction of such facility.

Code § 56-46.1 B further provides:

As a condition to approval the Commission shall determine that the line is needed and that the corridor or route chosen for the line will avoid or reasonably minimize adverse impact to the greatest extent reasonably practicable on the scenic assets, historic resources recorded with the Department of Historic Resources, and environment of the area concerned. . . . In making the determinations about need, corridor or route, and method of installation, the Commission shall verify the applicant's load flow modeling, contingency analyses, and reliability needs presented to justify the new line and its proposed method of installation.

As provided in Code § 56-46.1 D, the term "[e]nvironment" or "environmental" used in Code § 56-46.1 "shall be deemed to include in meaning 'historic,' as well as a consideration of the probable effects of the line on the health and safety of the persons in the area concerned."

The Code also requires the Commission to consider existing ROW easements when siting transmission lines. Code § 56-46.1 C provides that "[i]n any hearing the public service company shall provide adequate evidence that existing rights-of-way cannot adequately serve the needs of the company." In addition, Code § 56-259 C provides, "Prior to acquiring any easement of right-of-way, public service corporations will consider the feasibility of locating such facilities on, over, or under existing easements of rights-of-way."

Code § 2.2-235 of the Virginia Environmental Justice Act provides that "[i]t is the policy of the Commonwealth to promote environmental justice and ensure that it is carried out throughout the Commonwealth, with a focus on environmental justice communities and fenceline communities."

Code § 2.2-234 defines the following terms, among others, used in the Virginia Environmental Justice Act:

"Community of color" means any geographically distinct area where the population of color, expressed as a percentage of the total population of such area, is higher than the population of color in the Commonwealth expressed as a percentage of the total population of the Commonwealth....

"Environmental justice" means the fair treatment and meaningful involvement of every person, regardless of race, color, national origin, income, faith, or disability, regarding the development, implementation, or enforcement of any environmental law, regulation, or policy.

"Environmental justice community" means any low-income community or community of color. . . .

"Fenceline community" means an area that contains all or part of a low-income community or community of color and that presents an increased health risk to its residents due to its proximity to a major source of pollution.

"Low income" means having an annual household income equal to or less than the greater of (i) an amount equal to 80 percent of the median income of the area in which the household is located, as reported by the Department of Housing and Urban Development, and (ii) 200 percent of the Federal Poverty Level.

"Low-income community" means any census block group in which 30 percent or more of the population is composed of people with low income.

#### ANALYSIS

#### Need

#### A. Near-Future Need

Need for the Project is addressed in Application Appendix Sections 1.A through 1.J and 1.N. Broadly, the Company asserted that "the proposed Project will provide service requested by the REC data center customer in Culpeper County, Virginia, maintain reliable service for the overall growth in the Project area, and comply with mandatory NERC Reliability Standards."<sup>33</sup>

The Project intersects portions of both Dominion's and REC's exclusive distribution service territories;<sup>34</sup> the Town of Culpeper also has its own distribution customers. Dominion's existing transmission system provides electricity to all three distribution service entities, *i.e.*, to itself, to REC, and to the Town of Culpeper.<sup>35</sup> Transmission of electricity is via a double-circuit

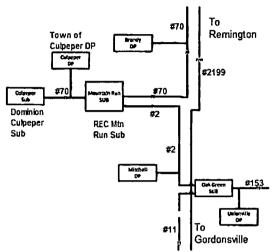
<sup>&</sup>lt;sup>33</sup> Ex. 2 (Application), Appendix at 6.

<sup>&</sup>lt;sup>34</sup> *Id.*, Appendix at 94-95.

<sup>&</sup>lt;sup>35</sup> Ex. 7 (Malik Direct), Staff Report at 3-4 and Appendix A, Response to Staff Set No. 2, Question 7.

115 kV line, consisting of Line #2 and Line #70, which flows from the Gordonsville-to-Remington side toward the Mountain Run Substation and provides electricity to the Mountain Run Substation (to REC), the Culpeper Delivery Point (to the Town of Culpeper), and the Culpeper Substation (a Dominion distribution substation).<sup>36</sup> This is depicted in the diagram to the right.<sup>37</sup>

The Company reported that on REC's system, electric load is expected to grow by 61 MW by 2024, and up to 320 MW by 2034. Of this total, 20 MW by 2024 and 220 MW by 2034 is attributable to data center growth.<sup>38</sup> These changes are expected to add 100 MW of load on the Mountain Run Substation by 2034, for a total load of 320 MW on that substation. Moreover, Dominion anticipates that by 2034, approximately 78 MW of load will come from the Culpeper Substation and Culpeper delivery point.<sup>39</sup> Thus, by 2034, the Mountain Run Substation and associated 115 kV transmission lines would have to serve approximately 398 MW of load.<sup>40</sup>



As a transmission owner, Dominion must follow NERC and Regional Planning Standards and criteria, as well as the Company's own transmission planning criteria filed with the Federal Energy Regulatory Commission ("FERC").<sup>41</sup> There are four major criteria considered in relation to this Project: (1) a ring bus arrangement is required for load interconnections in excess of 100 MW; (2) the amount of direct-connected load at any substation is limited to 300 MW; (3) contingency load loss is limited to 300 MW; and (4) the minimum load levels within a 10-year planning horizon for the direct interconnection to existing transmission lines is 30 MW for a 230 kV delivery.<sup>42</sup>

Dominion claimed that attempting to serve just the REC Customer from a 115 kV line would cause that line to exceed its capacity limit.<sup>43</sup> Dominion also assessed that attempting to serve all 398 MW (78 MW from the Culpeper Substation and Culpeper Delivery Point together, plus 320 MW from REC's system if the data center is included) from the current 115 kV transmission lines would create overloads on the lines, cause voltage problems, and violate NERC and Dominion transmission planning criteria.<sup>44</sup> Specifically, the Company predicted that

<sup>42</sup> Id.

<sup>&</sup>lt;sup>36</sup> *Id.*, Staff Report at 3-4 and Appendix A, Response to Staff Set No. 2, Question 7; Ex. 2 (Application), Appendix at 10.

<sup>&</sup>lt;sup>37</sup> Ex. 2 (Application), Appendix at 10.

<sup>&</sup>lt;sup>38</sup> Id., Appendix at 3.

<sup>&</sup>lt;sup>39</sup> Id.

<sup>&</sup>lt;sup>40</sup> *Id.*, Appendix at 18.

<sup>&</sup>lt;sup>41</sup> Id., Appendix at 14.

<sup>&</sup>lt;sup>43</sup> Id., Appendix at 3.

<sup>&</sup>lt;sup>44</sup> Id.

all or parts of Lines #2, #11, #70, and #153 would overload under contingency conditions.<sup>45</sup> The Company concluded that a 230 kV system is needed to provide reliable service to the REC Customer.<sup>46</sup>

The Company also explained limitations at the current Mountain Run Substation. Dominion claimed that if unserved load (estimated to be 61 MW in 2024 and 320 MW by 2034) were connected to the existing Mountain Run Substation, existing distribution substation equipment would overload.<sup>47</sup> Specifically, Dominion reported that serving 192 MW of load in 2025 through the two existing Mountain Run Substation transformers would cause each transformer to experience a thermal overload of 140% of its emergency capacity rating.<sup>48</sup> Moreover, Dominion claimed that without the Project, the extra load expected by 2034 would cause the Mountain Run Substation servicing more than 100 MW of load may not be served radially but should be networked to the system.<sup>49</sup> Dominion concluded that "[t]he ultimate demand and need for power for the REC Customer is more than the local area at Mountain Run Substation can provide."<sup>50</sup> Accordingly, Dominion has proposed to take several steps, depicted in the figure below.<sup>51</sup>

The Company has proposed to convert the east-west sections of Line #2 and Line #70 to 230 kV (Items 1 and 2 in the figure below) and to connect them to Line #2199 (Item 3 in the figure below). These lines will be renumbered Lines #2199 and #2276, respectively. This configuration will provide the necessary 230 kV supply to the Culpeper area.<sup>52</sup> The Company also has proposed to construct two new switching stations: Cirrus and Keyser (Items 5 and 6 in the figure). The REC Customer's load will be served from Mountain Run 3, a new REC data center substation, which is not part of the Project. Mountain Run 3 will be served by the Cirrus Station (Item 5).<sup>53</sup> The balance of the additional REC load will be served by Mountain Run 1

<sup>&</sup>lt;sup>45</sup> Id., Appendix at 4, 19-23. See also Ex. 7 (Malik Direct), Staff Report at 5-6.

<sup>&</sup>lt;sup>46</sup> Ex. 2 (Application), Appendix at 3.

<sup>&</sup>lt;sup>47</sup> *Id.*, Appendix at 4.

<sup>&</sup>lt;sup>48</sup> *Id.*, Appendix at 18; Ex. 7 (Malik Direct), Staff Report at 6 and Appendix A, Response to Staff Set No. 3, Question 12.

<sup>&</sup>lt;sup>49</sup> Ex. 2 (Application), Appendix at 3.

<sup>&</sup>lt;sup>50</sup> *Id.*, Appendix at 4.

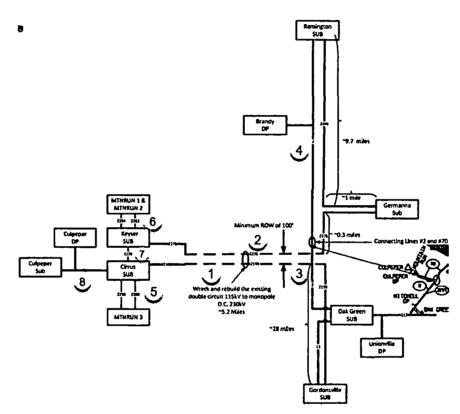
<sup>&</sup>lt;sup>51</sup> See id., Appendix at 11 for the origin of the diagram.

<sup>&</sup>lt;sup>52</sup> *Id.*, Appendix at 3. Line #2 will continue in a north-south direction up toward Remington, and what is now the north-south portion of Line #70 will be renumbered as Line #2 (depicted by Item 4 in the figure). Item 3 in the figure is also the approximate location where Line #2199 will cross over Line #2, requiring an additional 25 feet of ROW. *Id.*, Appendix at 28, 30, 77.

<sup>&</sup>lt;sup>53</sup> *Id.*, Appendix at 4, 11; Ex. 7 (Malik Direct), Staff Report at 7. Cirrus will be connected to Mountain Run 3 by Lines #2288 and #2289 (#5 in the figure). Ex. 2 (Application), Appendix at 5, 11.

and 2, which in turn will be served by the Keyser Station (Item 6).<sup>54</sup> The Company has proposed to connect the Cirrus and Keyser Stations with Line #2278 (Item 7 in the figure).<sup>55</sup>

Line #70 would be re-routed through the Cirrus Station and would continue to serve the Culpeper Delivery Point and the Culpeper Substation (Item 8 in the figure below).<sup>56</sup> Dominion has designed the Keyser Station with transformers that would source the 115 kV line supplying the Culpeper Substation and the Culpeper Delivery Point if the transformer at Cirrus is out for maintenance or due to a contingency. Dominion claimed this switching plan will ensure reliability for customers.<sup>57</sup>



As part of its need analysis, the Company is required to provide an analysis of demandside management incorporated into the Company's planning studies in the Application. Demand-side management includes both energy efficiency and demand response programs. Dominion's analysis indicated that despite accounting for demand-side management consistent with PJM's methods, the Project remains necessary. Additionally, the Company's analysis

<sup>&</sup>lt;sup>54</sup> Ex. 2 (Application), Appendix at 4, 11; Ex. 7 (Malik Direct), Staff Report at 7. Keyser will be connected to Mountain Run 1 and 2 by Lines #2283 and #2284 (#6 in the figure). Ex. 2 (Application), Appendix at 5, 11.

<sup>&</sup>lt;sup>55</sup> See, e.g., Ex. 2 (Application), Appendix at 27.

<sup>&</sup>lt;sup>56</sup> See, e.g., *id.*, Appendix at 11, 71, 77.

<sup>&</sup>lt;sup>57</sup> *Id.*, Appendix at 16-17.

indicated that incremental demand-side management would not obviate the need for the Project.<sup>58</sup>

Commission Staff verified the Company's power flow models and confirmed that various thermal and voltage violations are projected to occur in 2025 without the Project. Staff verified that the Project resolves these violations. Staff concluded that the Project is necessary to comply with NERC Reliability Standards and Dominion's transmission planning criteria and to provide reliable service in the Project area. Staff also agreed that the anticipated load reduction from demand-side management does not change the need for the Project.<sup>59</sup>

#### B. Planning for the Interim/Immediate Future

The Company estimated the Project will take approximately 26 months for detailed engineering, procurement, and construction activities after a Commission final order on its Application, with actual construction beginning approximately November 1, 2024, and ending by December 30, 2025. This schedule is contingent upon scheduling outages, unforeseen delays that may occur due to labor and material shortages or issues, and upon the Company obtaining needed permits.<sup>60</sup>

In the meantime, to be able to meet demands in the Project area and prevent outages during construction, the Company has proposed to build an approximately 5.4-mile temporary 115 kV single circuit line from the Mountain Run Junction near Structure #2/1201 (#70/53) to existing structure #70/1257, feeding the Culpeper Delivery Point and the Town of Culpeper.<sup>61</sup> Dominion anticipates the temporary line will be in service for approximately twelve months, during the Project's construction. When the Company energizes the Cirrus-Keyser 230 kV Loop, it will remove this temporary line.<sup>62</sup>

Staff raised no issue with the Company's plan to use these temporary facilities.<sup>63</sup>

### C. Planning for Additional Load Growth

The Company stated that when load demand reaches 300 MW, likely between 2026 and 2030, a new 230 kV line will be required to prevent existing infrastructure from exceeding the contingency load loss limit of 300 MW imposed by NERC and Dominion transmission planning requirements. The Company stated at that time, it may need to expand the ROW and add another double circuit 230 kV source to both the Cirrus and Keyser Stations to prevent a 300 MW loss of load violation.<sup>64</sup> As part of its analysis, the Company considered the load served by the new Germanna Switching Station, which is proposed to be located in the Project

- <sup>59</sup> Ex. 7 (Malik Direct), Staff Report at 8.
- <sup>60</sup> Ex. 2 (Application), Appendix at 31.
- <sup>61</sup> Id., Appendix at 5.
- <sup>62</sup> Id., Appendix at 28.
- <sup>63</sup> Ex. 7 (Malik Direct), Staff Report at 16.
- <sup>64</sup> Ex. 2 (Application), Appendix at 13.

<sup>&</sup>lt;sup>58</sup> *Id.*, Appendix at 24.

area between the Remington and Gordonsville Substations (to the right of the Gordonsville-to-Remington line in the figure above), and which would serve another new data center with projected load of 139 MW.<sup>65</sup>

Accordingly, Dominion explained it is planning for future growth. Specifically, it will build the Cirrus Station with the following equipment beyond what is needed for the Project: three 230 kV circuit breakers, two 230 kV line terminals, and a 230 kV capacitor bank. The Company also will build the Keyser Station with equipment beyond what is needed for the Project, including: four 230 kV circuit breakers, two 230 kV line terminals, and two 230 kV capacitor banks.<sup>66</sup>

Staff raised no issue with the Company's assessment of future contingency load loss limit violations.<sup>67</sup>

#### D. Conclusion

Based on the above, I find the Project is needed so the Company can continue to provide reliable electric service in the Project area, including supplying new data center load, and to comply with NERC Reliability Standards and with the Company's transmission planning criteria. I also find the record supports the Company's plan to construct and energize the temporary 115 kV line to meet area demands and prevent additional outages during Project construction. I further find the record supports the proposal to construct the Cirrus and Keyser Stations to accommodate future load growth expected to materialize between 2026 and 2030; this proposal should help the Company accommodate construction of a future transmission line to prevent violation of the Company's transmission planning criteria, specifically the contingency load loss limit of 300 MW. I further agree with the Company and Staff that anticipated load reductions from demand-side management will not obviate need for the Project.

#### Cost

The estimated total cost of the Project is \$63.1 million, including \$26.3 million for transmission-related work and \$36.8 million for substation-related work (in 2022 dollars).<sup>68</sup> The reasonableness of the cost of the Project is not questioned in this case.

<sup>&</sup>lt;sup>65</sup> Id., Appendix at 13, 39, 55-56. The Germanna Switching Station project was submitted to PJM at meetings on June 7, 2022, and September 6, 2022, at the same time the Project that is the subject of this Application also was submitted. Id., Appendix at 55-58.

<sup>&</sup>lt;sup>66</sup> *Id.*, Appendix at 6. Note that regarding Cirrus, another portion of the Appendix states that future growth will be accommodated with a build-out of four additional 230 kV circuit breakers, not three. *Id.*, Appendix at 187.

<sup>&</sup>lt;sup>67</sup> Ex. 7 (Malik Direct), Staff Report at 8-9.

<sup>&</sup>lt;sup>68</sup> Ex. 2 (Application), Appendix at 32.

## **Economic Development**

The record reflects that the Project will assure continued reliable bulk power delivery and will provide positive economic impacts associated with construction and operation of the REC Customer's data center.<sup>69</sup> Thus, I find that the Project supports economic development in Culpeper County.

## Route/Right-of-Way

The route and ROW for the Project are discussed in Appendix Sections II.A.1 through II.A.12. Generally, the Project will span approximately 5.2 miles of Culpeper County, Virginia starting at Structure #100 on Line #2199 (the Mountain Run Junction) between the Gordonsville and Remington Substations, and ending at the location of the proposed Cirrus and Keyser Stations along Frank Turnage Drive, near the existing REC Mountain Run Substation.<sup>70</sup> The Project crosses a Virginia Outdoors Foundation easement near the Mountain Run Junction.<sup>71</sup> A map showing the location of each pole along the route is included in Appendix Attachment II.B.5.<sup>72</sup> The Project is located in both the Company's and REC's service territories.<sup>73</sup> The Company confirmed during the hearing that REC does not object to the Project.<sup>74</sup>

The Project is largely within existing Lines #2 and #70 ROW for approximately 5.2 miles from the Mountain Run Junction to the Cirrus and Keyser Stations.<sup>75</sup> New ROW will be required as follows:

- Where the new Line #2199/2276 crosses over 115 kV Line #2, an additional 25-footwide ROW is needed for approximately 0.02 miles to allow installation of the necessary three-pole structures and to meet forestry clearances.<sup>76</sup> The new 25-foot ROW will abut the current 100-foot-wide ROW.<sup>77</sup>
- Line #2283 (0.15 miles long) and Line #2284 (0.10 miles long) between the new Keyser Station and Mountain Run 1 and 2 will require new ROW that is being provided by the REC Customer.<sup>78</sup>
- A new section of 115 kV Line #70 stretching from the new Cirrus Station to existing Structure #70/1255, approximately 0.07 miles long, will require new ROW that is being provided by the REC Customer.<sup>79</sup>

- <sup>75</sup> Ex. 2 (Application), Appendix at 73.
- <sup>76</sup> *Id.*, Appendix at 77, 265.

<sup>&</sup>lt;sup>69</sup> Ex. 7 (Malik Direct), Staff Report at 21.

<sup>&</sup>lt;sup>70</sup> Ex. 2 (Application), Appendix at 5-7.

<sup>&</sup>lt;sup>71</sup> *Id.*, Appendix at 73.

<sup>&</sup>lt;sup>72</sup> *Id.*, Appendix at 110-13.

<sup>&</sup>lt;sup>73</sup> *Id.*, Appendix at 94.

<sup>&</sup>lt;sup>74</sup> Transcript at 12-13.

<sup>&</sup>lt;sup>77</sup> Id.

<sup>&</sup>lt;sup>78</sup> *Id.*, Appendix at 5, 77.

<sup>&</sup>lt;sup>79</sup> Id.

• The temporary 115 kV line from the Mountain Run Junction (near Structure #2/1201, #70/53) to existing Structure #70/1257 will be in service while the Project is being constructed. This line will require a 15-foot temporary construction ROW for approximately 5.0 miles with the exception of a 0.01 mile stretch near the Mountain Run Junction, where the additional temporary ROW varies from 15 to 45 feet. There is also a 0.4 mile segment from existing Structure #2/1251 (#70/3) to Structure #70/1257 that will require a 40-foot temporary ROW. This line will be removed once the Cirrus-Keyser 230 kV Loop is energized.<sup>80</sup>

The Company stated that no alternative routes are being proposed because any such alternatives would require substantial acquisitions of new permanent ROWs.<sup>81</sup> The Company asserted the proposed route maximizes the use of existing ROW, with minimal additional ROW being required and much of that new ROW being provided by the REC Customer.<sup>82</sup> Dominion explained that using existing ROW generally minimizes impacts on natural and human environments and minimizes impacts to any site listed on the National Register of Historic Places ("NRHP").<sup>83</sup> The Company asserted that maximizing use of existing ROW also is consistent with FERC guidelines and with Code §§ 56-46.1 and 56-259.<sup>84</sup>

The evidence in this case supports that the Company has selected the route that uses the greatest amount of existing ROW possible. Additionally, much of the new ROW that is needed is being provided by the REC Customer, which is the greatest immediate contributor to the need for the Project. Further, Dominion represented that the Project, even with the new ROW and temporary ROW, "is not expected to permanently affect land use" or impact the character of the local area since the transmission corridor has been in use for at least 94 years.<sup>85</sup> I thus conclude the Company has reasonably considered the feasibility of locating Project facilities on existing ROW, as required by law.

#### Scenic, Environmental, and Historic Resources

The impact of the Project on scenic, environmental, or historic resources is discussed in Appendix Sections III.A through III.L. Generally speaking, the Project traverses Culpeper County for approximately 5.2 miles.<sup>86</sup> The Project area is largely agricultural and open space land and, for approximately 0.73 miles, the Project runs adjacent to a quarry.<sup>87</sup> The Company stated the Project does not cross any scenic Virginia byways<sup>88</sup> or designated scenic rivers, there are no local parks within a mile of the Project ROW, and the Company does not expect the

<sup>86</sup> *Id.*, Appendix at 94.

<sup>&</sup>lt;sup>80</sup> Id., Appendix at 5-6, 92.

<sup>&</sup>lt;sup>81</sup> Id., Appendix at 72.

<sup>&</sup>lt;sup>82</sup> Id., Appendix at 88.

<sup>&</sup>lt;sup>83</sup> *Id.*, Appendix at 88, 92.

<sup>&</sup>lt;sup>84</sup> Id., Appendix at 88.

<sup>&</sup>lt;sup>85</sup> *Id.*, Appendix at 227.

<sup>&</sup>lt;sup>87</sup> Id., Appendix at 192.

<sup>&</sup>lt;sup>88</sup> Id., Appendix at 236.

Project will result in significant impacts to forest resources or result in negative impacts on geology or mineral resources in the Project area.<sup>89</sup>

The Company also stated that within the Project ROW, there are approximately 11.1 to 12.1 acres of prime farmland and approximately 47.2 to 52.0 acres of farmland of statewide importance.<sup>90</sup> Additionally, Dominion reported that approximately 2.54 miles of the Project crosses through the Stevensburg Agricultural/Forestal District.<sup>91</sup> The Company claimed its use of an existing transmission corridor minimizes the need for additional ROW and encroachment on these designated farmlands.<sup>92</sup> The Company explained that where agricultural use is present, it has been occurring within the ROW while the existing transmission line has been operating. The Company stated there may be temporary impacts to farmland during Project construction but, otherwise, the Project is not expected to impact farmlands or alter agricultural uses.<sup>93</sup>

Dominion also reported that there are several jurisdictional wetland resources within the Project ROW.<sup>94</sup> The Company indicated that to the extent practicable, it has sited structures to avoid wetlands and streams. The Company stated it would obtain any necessary permits to impact these resources.<sup>95</sup>

The Company provided an "SCC Pre-Application Analysis of Cultural Resources for the Cirrus-Keyser 230 kV Loop and Related Projects" ("PAA") prepared by Dutton + Associates, LLC ("Dutton").<sup>96</sup> Dutton considered the impact of the Project on 13 architectural resources listed on the NRHP, eligible for listing on the NRHP, or potentially eligible for listing on the NRHP, and concluded that the Project will have no more than a minimal impact on these resources, due to the following factors, among others:<sup>97</sup>

- Structures will generally be replaced on a one-to-one basis;
- Replacement structures will generally be near the existing locations;
- Replacement structures will have similar design and appearance as existing structures;
- The increase in structure heights will be less noticeable when seen across open field; and
- Existing and proposed views from the historic properties incorporate "multiple structures and lengths of transmission line, often seen in conjunction with structures on the existing Gordonsville-Remington line" with which the Project connects.

The PAA related that one archaeological resource had been previously recorded in the Project area, a trace of road dating to the nineteenth century that has not been subject to a formal evaluation. Dutton recommended a survey, and assessment of impacts on, any archaeological

<sup>94</sup> Id., DEQ Supplement at 4.

<sup>&</sup>lt;sup>89</sup> Id., DEQ Supplement at 10, 12.

<sup>&</sup>lt;sup>90</sup> Compare id., DEQ Supplement at 10 with id., Appendix at 192.

<sup>&</sup>lt;sup>91</sup> *Id.*, Appendix at 229-30.

<sup>&</sup>lt;sup>92</sup> *Id.*, Appendix at 230.

<sup>&</sup>lt;sup>93</sup> Id., DEQ Supplement at 10-11.

<sup>&</sup>lt;sup>95</sup> Id., DEQ Supplement at 4-5.

<sup>&</sup>lt;sup>96</sup> See generally, id., DEQ Supplement at Attachment 2.I.1.

<sup>&</sup>lt;sup>97</sup> Id., DEQ Supplement at Attachment 2.I.1, p. 6-2.

resources.<sup>98</sup> In Rebuttal Comments, Dominion indicated it is already planning to perform an archaeological and architectural study in accordance with DEQ Report recommendation 7(c).<sup>99</sup>

As to federal and state threatened, endangered, protected, or candidate species, C2 Environmental, Inc., performed database searches for Dominion. Findings and conclusions were reported as follows:<sup>100</sup>

Species	Status	Conclusion
Northern long-eared bat	Federal threatened State threatened	DWR records show no known hibernacula or maternity roost trees in the Project area; there is no expected time-of-year restriction on tree removal.
Monarch butterfly	Federal candidate	No long-term effects to this species or its habitat are expected.
Dwarf wedgemussel	Federal endangered State endangered	No impacts are expected.
Yellow lance	Federal threatened State threatened	No impacts are expected.
Bald eagle	Federal protected	The Project is not within a designated Eagle Concentration Area. The closest known nest is 7.25 miles away from the Project area.

Dominion stated that the Project is largely a rebuild of a transmission line within existing ROW and that areas affected by clearing related to the temporary construction easement will not be grubbed, nor will root disturbance occur. The Company claimed these areas will revegetate via natural succession. Dominion further committed to minimizing potential effects to species by cutting trees outside the April 1 to November 14 window to avoid, to the extent practicable, impacts to songbirds and bat maternity roosting locations. Dominion stated it does not anticipate significant loss of wildlife habitat because of the Project.<sup>101</sup> DWR agreed, stating that it does not anticipate adverse impacts from the Project upon such species or resources.<sup>102</sup>

As to residences, the Company reported there are approximately five dwellings within 500 feet of the Project's centerline, and no dwellings within 250 feet or 100 feet of the centerline.<sup>103</sup>

- <sup>98</sup> *Id.*, DEQ Supplement at Attachment 2.1.1, pp. 6-2 through 6-3.
- <sup>99</sup> Ex. 9 (Rebuttal Comments) at 4.
- <sup>100</sup> Ex. 2 (Application), DEQ Supplement at Attachment 2.G.1, pp. 2-3.
- <sup>101</sup> Id., DEQ Supplement at 9-10. See also id., Appendix at 194.
- <sup>102</sup> Ex. 8 (DEQ Report) at 25.

<sup>&</sup>lt;sup>103</sup> Ex. 2 (Application), Appendix at 194.

Staff reviewed the environmental, scenic, and historic impacts of the Project and agreed that the proposed route for the Cirrus-Keyser 230 kV Loop reasonably minimizes impacts to environmental, scenic, and historic resources.<sup>104</sup>

Considering all of the above, I find that the Project avoids or reasonably minimizes adverse impacts to the greatest extent reasonably practicable on the scenic assets, historic resources recorded with DHR, and environment of the area concerned.

#### **DEQ** Report – Contested Issues

The Company addressed two recommendations in the DEQ Report. First, Dominion requested that it not be required to develop an invasive species management plan, including an invasive species inventory, as part of the Project's ROW maintenance practices. Dominion asserted it already has an integrated vegetation management plan ("IVMP") and that preparing a separate plan and inventory for the Project area is unnecessary.<sup>105</sup> The Company stated it eliminates vegetation that threatens the transmission system by mowing and applying selective approved herbicides, and that its restoration and maintenance practices include revegetation and the use of native grasses and vegetation.<sup>106</sup>

Dominion explained that it held discussions with DCR's Division of Natural Heritage in August 2022 and February 2023 and continues to review the IVMP for application to woody and herbaceous species. The Company stated it is working to provide DCR with an addendum to the IVMP that would provide additional explanation of how Dominion's operations and maintenance forestry program addresses invasive species; the Company expects that it will provide DCR a draft of the addendum for review in the third quarter of 2023. Dominion committed to report on the addendum, once finalized, in future Commission proceedings.<sup>107</sup> The Company asked that the Commission reject, as it has done in prior cases, the recommendation for Dominion to develop an invasive species management plan for the Project.<sup>108</sup>

In light of Dominion's existing IVMP and the ongoing cooperation between the Company and DCR to address application of the IVMP to woody and herbaceous species, I find the recommendation that Dominion develop a separate Project-related invasive species

<sup>108</sup> Ex. 9 (Rebuttal Comments) at 3.

<sup>&</sup>lt;sup>104</sup> Ex. 7 (Malik Direct), Staff Report at 24.

<sup>&</sup>lt;sup>105</sup> Ex. 9 (Rebuttal Letter) at 2-3.

<sup>&</sup>lt;sup>106</sup> *Id.* at 3.

<sup>&</sup>lt;sup>107</sup> Id. The discussions were held pursuant to a Commission directive in Application of Virginia Electric and Power Company, For approval and certification of electric transmission facilities: 230 kV Line #293 and 115 kV Line #83 Rebuild Project, Case No. PUR-2021-00272, 2022 S.C.C. Ann. Rep. 406, 409, Final Order (Aug. 31, 2022) (wherein the Commission directed Dominion to meet with a certain individual and DCR's Division of Natural Heritage, and to "report on the status of the meetings in the Company's next transmission CPCN case following the conclusion of the meetings.").

management plan is duplicative and unwarranted. This finding is in keeping with Commission precedent.<sup>109</sup>

Second, the Company stated it has had discussions with DHR concerning its request for information and further investigation of any portions of the Project route that have not been subject to a previous cultural resource survey, and for an assessment of impacts from the Project on any newly identified sites. Dominion stated that DHR agrees this information will be supplied and recommended actions will be taken as part of the Phase I report that the Company already plans to complete.<sup>110</sup> Given the Company's and DHR's agreement, I find there is no need to address this matter further.

I also find that Dominion should be required to comply with the uncontested summary recommendations of the DEQ Report as they are "desirable or necessary to minimize adverse environmental impact" associated with the Project.

#### Alternatives to the Project

The Company addressed alternatives to the Project in the sections I.E and I.J of the Application Appendix. The Company reported there are no feasible alternatives to meet the REC Customer's demand needs.<sup>111</sup> The record indicates that both PJM and Dominion have identified a need for the Project to comply with mandatory NERC Reliability Standards while maintaining the long-term reliability of the transmission system.<sup>112</sup> The Company asserted there is a need for the Project despite accounting for demand-side management consistent with PJM's methods and that incremental demand-side management also will not erase the need for the Project.<sup>113</sup> The Company also claimed it did not propose any alternative routes because they would require extensive acquisitions of new permanent ROW.<sup>114</sup> The new ROW for the proposed Project route is minimal, and much of that is being provided by the REC Customer, for which there were no routing alternatives.<sup>115</sup>

I find there are no feasible alternatives to the Project.

### Public Health and Safety

The Company's studies on the health effects of electromagnetic fields are found in Sections IV.A, IV.B, and IV.C of the Appendix. Based on those studies and the levels of

<sup>&</sup>lt;sup>109</sup> See, e.g., Application of Virginia Electric and Power Company, For approval and certification of electric transmission facilities: Aviator 230 kV Line Loop and Aviator Substation, Case No. PUR-2022-00012, 2022 S.C.C. Ann. Rep. 470, 474, Final Order (Nov. 28, 2022).

<sup>&</sup>lt;sup>110</sup> Ex. 9 (Rebuttal Comments) at 4.

<sup>&</sup>lt;sup>111</sup> Ex. 2 (Application), Appendix at 24, 57-58.

<sup>&</sup>lt;sup>112</sup> Id., Appendix at 24.

<sup>&</sup>lt;sup>113</sup> Id.

<sup>&</sup>lt;sup>114</sup> *Id.*, Appendix at 72.

<sup>&</sup>lt;sup>115</sup> Id., Appendix at 88.

electromagnetic fields associated with the Project, Dominion determined that no adverse health effects are anticipated as a result of operating the Project.<sup>116</sup>

I find the Project does not represent a hazard to public health or safety.

#### **Aviation Resources**

Dominion identified one Federal Aviation Administration airport within ten miles of the Project: Culpeper Regional Airport, 6.5 miles north of the Mountain Run Junction. The Company also identified two private airports/helipads within ten miles of the Project: (1) Berryfield Airport, a private airfield 4.4 miles north of Cirrus Station; and (2) UVA Culpeper Medical Center heliport, 2.1 miles southwest of Cirrus Station. The Company stated it would work with these private entities as appropriate.<sup>117</sup>

According to the Company, DOAV advised that Dominion must file a Form 7460 with the Federal Aviation Administration if any Project structures exceed a height of 200 feet above ground level, so that an aeronautical study can be initiated to ensure the Project will not constitute an air navigation hazard. Dominion stated it would submit this form as appropriate based on final engineering and design; however, at the time of the Application, no structures exceed the 200-foot-above-ground-level threshold.<sup>118</sup>

I find the Company has reasonably addressed the impact of the Project on aviation resources.

### Virginia Environmental Justice Act

Dominion addressed environmental justice in Section III.B of the Appendix.<sup>119</sup> The Company stated that when preparing its Application, it researched the demographics of communities surrounding the Project using 2021 U.S. Census data and other resources. The information indicated that there are five Census Block Groups ("CBGs") within one mile of the existing transmission line corridor. Populations within the Project study area meeting the U.S. Environmental Protection Agency's threshold to be considered Environmental Justice Communities were then identified based on ethnicity, income, age, and education data. The Company reported that communities of color have been identified in one of three CBGs in the Project study area, and two of three CBGs in this area were identified as low-income communities. One of the CBGs was determined to have both a low-income population and a community of color.<sup>120</sup> The Company stated it does not expect the Project and the temporary transmission line to create disproportionately high or adverse impacts to the surrounding

<sup>&</sup>lt;sup>116</sup> *Id.*, Appendix at 249.

<sup>&</sup>lt;sup>117</sup> Id., Appendix at 235.

<sup>&</sup>lt;sup>118</sup> Id.

<sup>&</sup>lt;sup>119</sup> *Id.*, Appendix at 197-98, 224.

<sup>&</sup>lt;sup>120</sup> *Id.*, Appendix at 198.

community or to the Environmental Justice Communities within the study area, consistent with the Project's design to reasonably minimize adverse impacts.<sup>121</sup>

The Application described the Company's outreach efforts in relation to the Project, including: developing a Project-specific website; mailing Project announcements to property owners within 1,000 feet of the Project ROW; inviting property owners to attend a virtual community meeting; and advertising that meeting. The Company reported it held the meeting and posted a recording thereof, along with meeting materials, to the Project-specific website. Dominion noted it sent out post-event notices directing the public to the website.<sup>122</sup>

The Company committed that it has been and will continue engaging Environmental Justice Communities and others affected by the Project in a way that allows them to meaningfully participate so their input can be considered as part of the Project development and approval process.<sup>123</sup> Dominion also provided a copy of its environmental justice policy as Attachment III.B.6.<sup>124</sup>

After reviewing the Company's assertions as to environmental justice, Staff concluded that the Project does not appear to adversely impact any goal of the Virginia Environmental Justice Act.<sup>125</sup>

I find that the Company reasonably considered the requirements of the Virginia Environmental Justice Act in its Application.

#### FINDINGS AND RECOMMENDATIONS

Based on the evidence received in this case, I FIND that:

(1) The Project is needed so the Company can continue to provide reliable electric service in the Project area, including supplying new data center load, and comply with North American Electric Reliability Corporation Reliability Standards and with the Company's transmission planning criteria.

(2) The record supports the Company's plan to construct and energize the temporary 115 kV line to meet area demands and prevent additional outages during Project construction.

(3) The record supports the proposal to construct the Cirrus and Keyser Stations to accommodate future load growth expected to materialize between 2026 and 2030.

<sup>&</sup>lt;sup>121</sup> Id.

 <sup>&</sup>lt;sup>122</sup> Id., Appendix at 197-98. The Company also stated that in October 2022, it solicited comments via letter from several federally recognized Native American tribes. Id., Appendix at 237-38. Populations of individuals identifying as Native American are considered within Code § 2.2-234's definition of "[p]opulation of color."

<sup>&</sup>lt;sup>123</sup> Ex. 2 (Application), Appendix at 198.

<sup>&</sup>lt;sup>124</sup> *Id.*, Appendix at 224.

<sup>&</sup>lt;sup>125</sup> Ex. 7 (Malik Direct), Staff Report at 24.

(4) Anticipated load reductions from demand-side management will not obviate the need for the Project.

(5) The Project supports economic development in Culpeper County, Virginia.

(6) The Company has reasonably considered the feasibility of locating Project facilities on existing rights-of-way, as required by law.

(7) The Project avoids or reasonably minimizes adverse impacts to the greatest extent reasonably practicable on the scenic assets, historic resources recorded with the Department of Human Resources, and environment of the area concerned.

(8) The recommendation that Dominion develop a separate Project-related invasive species management plan is duplicative and unwarranted.

(9) Dominion should be required to comply with the uncontested summary recommendations of the Department of Environmental Quality Report.

(10) There are no feasible alternatives to the Project.

(11) The Project does not represent a hazard to public health or safety.

(12) The Company has reasonably addressed the impact of the Project on aviation resources.

(13) The Company reasonably considered the requirements of the Virginia Environmental Justice Act in its Application.

Accordingly, I **RECOMMEND** the Commission enter an Order that:

(1) ADOPTS the findings and recommendations contained in this Report;

(2) **ISSUES** a certificate of public convenience and necessity to the Company to construct and operate the Project; and

(3) **DISMISSES** this case from the Commission's docket of active cases.

#### **COMMENTS**

The parties are advised that, pursuant to Rule 5 VAC 5-20-120 C of the Commission's Rules of Practice and Procedure ("Rules of Practice") and § 12.1-31 of the Code, any comments to this Report must be filed on or before September 28, 2023. To promote administrative efficiency, the parties are encouraged to file electronically in accordance with Rule 5 VAC 5-20-140 of the Commission's Rules of Practice. If not filed electronically, an original and fifteen (15) copies must be submitted in writing to the Clerk of the Commission, c/o

Document Control Center, P.O. Box 2118, Richmond, Virginia 23218. Any party filing such comments shall attach a certificate to the foot of such document certifying that copies have been served by electronic mail to all counsel of record and any such party not represented by counsel.

Respectfully submitted,

Renae Carter M. Renae Carter

M. Renae Carter Hearing Examiner

The Clerk of the Commission is requested to send a copy of this Report to all persons on the official Service List in this matter. The Service List is available from the Clerk of the Commission, c/o Document Control Center, 1300 East Main Street, First Floor, Tyler Building, Richmond, Virginia 23219.