

part 4

150620996

Faison

100020000

WITNESS REBUTTAL TESTIMONY SUMMARY

Witness: Diana T. Faison

Title: Senior Siting and Permitting Specialist – Electric Transmission Right-of-Way

Summary:

Company Witness Diana T. Faison discusses the recommendations in the DEQ Report and confirms that the Company has no issues or objections with the permit requirements discussed.

Ms. Faison responds generally to comments made by respondents regarding routing considerations for the proposed Project, and specifically to comments made by Somerset regarding the proximity of the Proposed Route and alternatives to the hospital helipad. Ms. Faison explains that the Company has worked with the hospital, and that personnel there do not expect any impediments to the helicopter flight paths based on the proposed Project.

Ms. Faison lastly addresses the easements necessary for the various routes under consideration and specifically the feasibility of Prince William County (“the County”) granting an easement in order to make the potential route known as the Railroad Alternative viable. She explains the Company did not expect the County would agree to an overhead easement along the Railroad Alternative, and that the County confirmed this expectation via written response on May 26, 2016.

**REBUTTAL TESTIMONY
OF
DIANA T. FAISON
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUE-2015-00107**

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

3 A. My name is Diana T. Faison, and I am a Senior Siting and Permitting Specialist, Electric
4 Transmission Right-of-Way, for the Company. My business address is 701 East Cary
5 Street, Richmond, Virginia 23219.

6 **Q. Have you previously submitted testimony in this proceeding?**

7 A. Yes. I submitted pre-filed direct testimony on behalf of Dominion Virginia Power to the
8 State Corporation Commission of Virginia (“Commission”) in this proceeding on
9 November 6, 2015.

10 **Q. What is the purpose of your rebuttal testimony?**

11 A. The purpose of my rebuttal testimony is to address the Virginia Department of
12 Environmental Quality’s (“DEQ”) coordinated review of the Haymarket Project
13 submitted to the Commission on November 6, 2015. I will also respond to the testimony
14 of Respondents Heritage Hunt HT, LLC, *et al.* (“Heritage”), Somerset Crossing Home
15 Owners Association (“Somerset”), and FST Properties, L.L.C. (“FST”) related to the
16 routing of the proposed transmission facilities and impacts associated with the proposed
17 Project. Finally, I will respond to the testimony and report filed by Commission Staff
18 (“Staff”) Witness Wayne D. McCoy on June 2, 2016.

1 **Q. Are you sponsoring any exhibits as part of your rebuttal testimony?**

2 A. Yes. Company Exhibit No. __, DTF, consisting of Rebuttal Schedules 1-6, was prepared
3 under my direction and supervision, and is accurate and complete to the best of my
4 knowledge and belief.

5 **Q. Before you begin, can you please summarize your rebuttal testimony and explain
6 how it is organized?**

7 A. Certainly. My rebuttal testimony discusses a number of issues:

- 8 • First, I will discuss the recommendations in the DEQ Report and confirm that the
9 Company has no issues or objections with the permit requirements discussed.
- 10 • Second, I respond generally to comments made by Respondents regarding routing
11 considerations for the proposed Project, and specifically to comments made by
12 Somerset regarding the proximity of the Proposed Route and alternatives to the
13 Novant Health Haymarket Medical Center helipad.
- 14 • Third, I address easements required for the various routes under consideration, and
15 the feasibility of Prince William County (“the County”) granting an easement in order
16 to make the potential route known as the Railroad Alternative viable.

17 **I. DEQ REPORT**

18 **Q. Do you have any comments regarding the DEQ Report submitted to the
19 Commission as a result of the DEQ-coordinated review?**

20 A. Yes, I do. The Company generally agrees with all recommendations included in the
21 Summary of Recommendations listed in the DEQ Report. The Company has no issues or
22 objections to the permit requirements described in the DEQ Report, and fully intends to
23 comply with all applicable federal, state, and local laws. I would, however, like to

comment specifically on two agency comments.

First, I will address the Virginia Outdoors Foundation (“VOF”) recommendation. VOF is a state agency established to promote the preservation of open-space and recreational lands in the Commonwealth. The Bull Run Mountains Natural Area Preserve (“Preserve”), an area comprised of approximately 2,500 acres in Fauquier and Prince William Counties, is under easement to VOF. The Preserve includes heavy forests, walking and hiking trails, as well as parking for visitors. VOF indicates in their comments that the Project does not encroach onto the Preserve; however, they have suggested that modifications be fully considered regarding the siting and selection of structure materials. I would like to note that the Company will continue to make an effort during the engineering phase of the Project to design and site new structures in the least impacting locations and to reasonably minimize the removal of vegetation, while also meeting clearance requirements established by the North American Electric Reliability Corporation, the Federal Energy Regulatory Commission, and the National Electrical Safety Code. Also, the Company has selected the use of galvanized steel along the I-66 corridor, which is designed to minimize visual impacts by blending against the sky and dulling naturally over time. However, it is the Commission, and not the Company, who ultimately selects the materials for the Project structures.

Second, I would like to address the coordination between with the Company, the County, and the Virginia Department of Transportation (“VDOT”) regarding construction of the I-66 Alternative Routes. To date, the Company has coordinated closely with VDOT on routing along VDOT’s right-of-way. Furthermore, VDOT has agreed to work with the Company to obtain approval for placement of utilities within limited access right of way

for whichever route is ultimately chosen by the Commission. After a route is selected by the Commission, the Company is willing to include the County in future meetings with VDOT to discuss permitting and construction details.

Q. Were you also able to review the Corrected Wetlands Impact Consultation issued on June 2, 2016, by DEQ’s Office of Wetlands and Stream Protection?

A. Yes. Dominion Virginia Power asked its consultant, Natural Resource Group, Inc. (“NRG”), to review this correction and to provide an analysis. Jon M. Berkin, a Principal Environmental Consultant for NRG, is submitting rebuttal testimony on behalf of the Company and will respond on the issue of potential wetland impacts.

II. ROUTING CONSIDERATIONS

Q. Ms. Faison, have you reviewed the Respondent testimony in this case related to potential impacts of the Company’s Proposed I-66 Overhead Route as well as the I-66 Hybrid, Railroad, Carver, and Madison Alternatives?

A. Yes, I have. Respondents Southview 66, LLC (“Southview”), FST, Somerset, and Heritage all identified potential impacts they expect the routing alternatives would have on their respective properties. The Company has identified and selected the route alternative that meets the need and reasonably minimizes adverse impacts, and continues to support the Proposed Route (*i.e.*, I-66 Overhead Alternative) for approval by the Commission. NRG has reviewed the testimony filed by Respondents in this proceeding, and Mr. Berkin’s rebuttal testimony will address the potential impacts of the specific routes and explain how those impacts are identified and assessed in the routing analysis NRG performed.

Q. Regarding the routes put forth by Dominion Virginia Power in its application (“Application”), FST Witness Don Mayer questions whether the Company’s Proposed Route accounted for future widening of Route 55 (“SR 55”). (Mayer at 2.) What is your response?

A. During the later stages of the routing process for the Project, the Company became aware of a plan to expand the current width of SR 55 by approximately 65 feet to the south of its current right-of-way. The current alignment for the Company’s Proposed Route would place utility structures within the expanded right-of-way for SR 55, approximately 10 to 15 feet from the edge of the right-of-way.

Because of the proposed widening of SR 55, the location of existing distribution circuits along SR 55, and the significant tree clearing that would be required to place transmission structures along road frontage, and to reduce the proximity of existing and proposed buildings fronting SR 55 to the Proposed Route right-of-way, the Company has identified an alternate route alignment, which is referred to in the Application as the “Walmart Variation.” The Walmart Variation moves the Proposed Route away from the proposed expansion of SR 55 right-of-way. It also minimizes the tree clearing and reduces the proximity of the Proposed Route to existing and future buildings located along SR 55. The rebuttal testimony of Company Witness Berkin discusses the Walmart Variation in greater detail.

1 **Q. Mr. James R. Napoli, on behalf of Somerset, testifies that the Town of Haymarket**
2 **opposes all routes except for the I-66 Hybrid Alternative Route due to proximity of**
3 **the Project to the helipad at Novant Health Haymarket Medical Center. (Amended**
4 **Napoli at 15-16.) What is your understanding of this issue?**

5 **A.** I believe Mr. Napoli’s concerns about the helipad are unfounded. On February 24, 2015,
6 the Company met with three representatives of Novant Health Haymarket Medical Center
7 (“Hospital”) to discuss the Company’s proposed Walmart Variation, as well as the
8 proposed I-66 Overhead Alternative Route in relation to Hospital helipad operations.
9 The Company presented a map showing both route alternatives and discussed the
10 preliminary details of each route with Hospital representatives.

11 Mr. Hank Dawson, Senior Construction Manager with Novant Health Corporation
12 (“Novant Health Corp.”) Construction Operations, along with two additional Novant
13 Health Corp. representatives, John Williams and Charles Hunt, discussed the current
14 operations of the Hospital helipad. They noted that the Hospital is not a receiving trauma
15 center and that the helipad is typically used for patient transfers from the Hospital to
16 another medical facility. Consequently, helicopter flights are typically scheduled in
17 advance, meaning that approaching helicopter pilots can preplan their flight approaches
18 into the helipad.

19 Mr. Dawson, Mr. Williams, and Mr. Hunt did not foresee any problems with the
20 Company’s preliminary Project designs, although they did suggest adding markers or
21 lights to adjacent Project facilities to provide enhanced night viewing of the transmission
22 lines. The helipad is a private facility that does not require Federal Aviation
23 Administration (“FAA”) notification, so recommendations of marking or lighting will not

1 be forthcoming from FAA. Lighting may not be viewed favorably by residents in the
2 area; however, the Company will further investigate the use of markers on the facilities if
3 the Commission approves the I-66 Overhead Alternative Route or the Walmart Variation.

4 Mr. Williams also forwarded the map to AirCare, the Hospital’s helicopter pilot provider,
5 for their review and comment. (See Rebuttal Schedule 1.) AirCare stated that neither the
6 I-66 Overhead Alternative nor the Walmart Variation “would have any affect [sic] on
7 operations at the Hospital helipad,” although the likely flight approach into the Walmart
8 or CVS parking lots, if needed as an alternate landing pad during significant winds,
9 would be over the Company’s I-66 Overhead Alternative. (See Rebuttal Schedule 2.)

10 **III. EASEMENTS**

11 **Q. Heritage Witness Russell Gestl presents testimony on the easement granted by**
12 **Somerset to the County that impacts the viability of the Railroad Alternative. (Gestl**
13 **at 5-6.) Are you familiar with the easement Mr. Gestl is referring to?**

14 **A.** Yes, I am. Somerset granted the Deed of Gift of Easement to the County on January 8,
15 2015, giving the County an interest in the property adjacent to the Somerset Crossing
16 residential neighborhood. The easement stipulated that no use shall be made of, nor shall
17 any improvements be made within the open space easement area, without prior written
18 authorization of the County.

1 Q. When asked whether he believes the County would grant an easement to the
2 Company for construction of the Railroad Alternative, Mr. Gestl testifies that he
3 does not believe at the current time that the County has addressed that issue but it
4 certainly could do so. (Gestl at 7.) Do you agree with that assessment?

5 A. No, I do not. The County has consistently stated its opposition to the Railroad
6 Alternative in several ways. In addition to its acceptance of the Deed of Gift of Easement
7 from Somerset, the County Board of Supervisors passed a Resolution on August 4, 2015,
8 declaring that the proposed Project will be supported only if the lines are buried
9 underground in the right-of-way of I-66. (See Rebuttal Schedule 3.) In addition, Corey
10 A. Stewart, Chairman of the County Board of Supervisors, submitted a letter on April 28,
11 2016 to the Commissioners in this docket re-affirming the County's support of the I-66
12 Hybrid Alternative Route. (See Rebuttal Schedule 4.) Moreover, substantive public
13 comments from County Board Members during the several Commission Public Hearings
14 in this matter, along with various news articles concerning the County's support of the I-
15 66 Hybrid Alternative Route, all indicate that the County does not support the grant of an
16 overhead easement along the Railroad Alternative.

17 Nevertheless, on May 20, 2016, the Company submitted a formal letter to the County to
18 request whether it would grant an overhead easement to support construction of the
19 Railroad Alternative. (See Rebuttal Schedule 5.) The County confirmed in its written
20 response on May 26, 2016, that it would not support the Railroad Alternative as a viable
21 route option: "Regarding the Railroad Alternative, the Board does not intend to give the
22 permission necessary for installation of an overhead transmission line within the open
23 space easement, as this would be contrary to the spirit and purpose of such easement."

(See Rebuttal Schedule 6.) Therefore, the Railroad Alternative is not a viable alternative for construction of the Project.

Q. Staff Witness McCoy recommends the I-66 Overhead Route with the Walmart and Jordan Lane variations if the Commission does not select the I-66 Hybrid Alternative because of its higher cost. (McCoy at 5.) Mr. McCoy also notes in his report that the County has indicated it would not allow the Company to cross its landholdings unless necessary for construction of the I-66 Hybrid Alternative Route. (McCoy Staff Report at 5.) Could you please clarify what, if any, easements the Company would need to obtain from the County and/or the Town of Haymarket to construct the Proposed Route and its variations?

A. I would first note that the Company has not expressly requested conveyance of an easement from the Town of Haymarket or the County for the Proposed Route. The correspondence attached as my Rebuttal Schedules 5 and 6 relates only to the Railroad Alternative.

The Proposed Route is currently envisioned to parallel the existing VDOT roadway along Jordan Lane, of which approximately 675 feet of the road continues to be dedicated to the Town of Haymarket and the County. The Company requests the Commission to approve the Proposed Route and, if approved, the Company will work with these localities to negotiate the necessary overhang easement. However, if the Company is unable to obtain such an easement from the Town of Haymarket and/or the County within a reasonable amount of time, the Company requests the Commission to alternatively authorize construction of the route variance described in Section II.A.7 of the Appendix as the Jordan Lane Variation in its Final Order granting a certificate of public convenience and

1 necessity in this proceeding.

2 **Q. Does this conclude your rebuttal testimony?**

3 **A. Yes, it does.**



Diana Faison (VirginiaPower - 1)

From: Chris Behrens (VirginiaPower - 6)
Sent: Wednesday, April 06, 2016 12:47 PM
To: Diana Faison (VirginiaPower - 1); Gregory E Mathe (VirginiaPower - 1); Jeff Thommes
Subject: FW: Proposed High Tension Power Line near Haymarket Medical Center

Follow Up Flag: Follow up
Flag Status: Flagged

See below.

Chris Behrens
Electric T & D Project Manager III
Dominion Technical Solutions
701 E Cary Street
Richmond, Va 23219
Office (804) 771-3736
Mobile (804) 310-6377
Chris.Behrens@dom.com

From: Williams, John [<mailto:john.williams@novanthealth.org>]
Sent: Monday, April 04, 2016 10:15 PM
To: Dawson, Henry L
Subject: FW: Proposed High Tension Power Line near Haymarket Medical Center

Hank,

Below is the response from AirCare on the proposed dominion power high tension line plans for Haymarket. Can you share them with the project planners?

John Williams
Director of Public Safety
Novant Health
Northern Virginia Market
8700 Sudley Rd.
Manassas, VA 20110
(P) 703.369.5151

-----Original Message-----

From: McAllister, Lisa [lmcallister@phihelico.com]
Sent: Monday, April 04, 2016 10:01 PM Eastern Standard Time
To: Williams, John
Subject: RE: Proposed High Tension Power Line near Haymarket Medical Center

Hi John,

Thank you for the opportunity to have our pilots review and comment. For the most part, there was only one concern brought forward.

100620056

'Neither of the proposed routing options have any affect on operations at the Hospital helipad but the southern routing, depicted in blue could impact the potential use of the Wall Mart parking lot and/or the small lot behind the CVS on the other side of 15. With significant N-NW winds, the likely approach to the Wall Mart lot would be directly over the lines.'

General opinion, with the above comment taken into consideration, was that the 'blue line' appeared to be the best option.

Please let me know if we can be of further assistance. Again, truly appreciate you reaching out to us.

Best regards,
Lisa

Lisa McAllister RN, BSN, CEN, CFRN, EMT-P
Air Medical Base Supervisor
PHI AirCare I
Manassas, VA
703-393-7379 Base
703-595-3728 Cell
571-221-0530 Cell

From: Williams, John [john.williams@novanthealth.org]
Sent: Wednesday, March 30, 2016 8:38 AM
To: McAllister, Lisa
Subject: Proposed High Tension Power Line near Haymarket Medical Center

Hi,

Dominion Power has been in contact with us about the proposed high tension power lines. Attached is a map showing the proposed location for their work as part of improvements for the Town of Haymarket. This is not work we are doing or have requested. Please review with the pilots and comment on any concerns ASAP so we can provide them to Dominion Power. Thank you

----- This message and any included attachments are from NOVANT HEALTH INC. and are intended only for the addressee(s). The information contained herein may include trade secrets or privileged or otherwise confidential information. Unauthorized review, forwarding, printing, copying, distributing, or using such information is strictly prohibited and may be unlawful. If you received this message in error, or have reason to believe you are not authorized to receive it, please promptly delete this message and notify the sender by email. If you believe that any information contained in this message is disparaging or harassing or if you find it objectionable please contact Novant Health, Inc. at 1-800-350-0094 or forward the email to reports@novanthealth.org. Thank you.



MOTION: LAWSON

**August 4, 2015
Regular Meeting
Res. No. 15-508**

SECOND: CANDLAND

RE: SUPPORT PROTECTION OF PRIVATE PROPERTY, HISTORICAL RESOURCES AND COMMERCIAL INTERESTS FROM POTENTIAL NEGATIVE IMPACTS OF NEW HIGH VOLTAGE OVERHEAD TRANSMISSION LINES

ACTION: APPROVED

WHEREAS, Dominion Virginia Power (Dominion) has proposed placing additional high-voltage overhead and/or buried transmission lines through portions of Western Prince William County; and

WHEREAS, Section 56-46.1 of the Code of Virginia requires the State Corporation Commission (SCC) to consider, prior to approving any overhead transmission line, whether the line is consistent with the locality's comprehensive plan; and

WHEREAS, the Prince William Board of County Supervisors has directed the County Transportation Department to work with Virginia Department of Transportation (VDOT) to more efficiently utilize infrastructure in the public right-of-way, specifically Interstate 66 right-of-way, consistent with the Community Design Chapter of the Prince William County Comprehensive Plan calling for the "location of utility easements within public rights-of-way, and the collocation of utilities within easements, through County coordination with VDOT and local utility companies";

NOW, THEREFORE, BE IT RESOLVED that the Prince William Board of County Supervisors does hereby:

1. Declare that Dominion and its regulator -- the State Corporation Commission -- in proposing and reviewing the application for the installation of high-voltage transmission lines in Prince William County, shall give full consideration and respect to the County's Comprehensive Plan and Zoning Ordinances in order to minimize the impact on its residents, businesses, environment, and historical importance;
2. Declare its intent that any proposal to install new, or to re-fit, high-voltage transmission lines for Dominion's Haymarket 230kV Line and Substation Project shall be supported only if the lines are buried in the right-of-way of Interstate 66 as they pass from its intersection with US-29 through Haymarket and beyond;



August 4, 2015
Regular Meeting
Res. No. 15-508
Page Two

3. Direct County staff to evaluate the Interstate 66 buried alternative, and to coordinate with VDOT, in furtherance of the County's express goal of supporting the installation of buried transmission lines. As required by Section 56-46.1B of the Code of Virginia, the State Corporation Commission must "consider (a) the costs and economic benefits likely to result from requiring the underground placement of the Line and (b) any potential impediments to timely construction of the Line," at the request of the local government, Prince William County;

4. Recommend that all costs, both direct and incidental, of burying the line be borne by Dominion and not by private property owners who through no fault or choice of their own reside or do business within close proximity to the buried line;

5. Give notice that it will not enter into agreement with Dominion to assess the costs of line burial under the provisions of Section 15.2-2404F of the Code of Virginia;

6. Require that any proposal by Dominion to construct a new electric substation shall first be submitted to the Prince William County Planning Commission for consideration and public hearings, as required by Section 15.2-2232 of the Code of Virginia;

7. Reaffirm and renew its commitment to LU3.14 of the Long-Range Land Use Plan, which designates the corridors that all future electric utility lines of 150 kilovolts or more should follow, and to contain high-voltage transmission lines to designated corridors as detailed in LU3.14 of the Long-Range Land Use Plan, in order to protect private property and preserve the County's distinctive cultural and historic inheritance, including, but not limited to, the 52 county-registered historic sites; Historic and Prehistoric High-Sensitivity Areas identified in the 2008 Comprehensive Plan and updated subsequently, including those in residential areas; high quality open space, such as existing and planned off-road trails, open space easements, conservation easements, public school open space, and resource protection areas; and both the county's designated Rural Crescent urban growth boundary and unique Historic Overlay District;

8. Declare its intent to immediately initiate a zoning text amendment to incorporate appropriate zoning requirements for data centers which would address the infrastructure necessary to support such uses and the potential impacts to other properties. This amendment will continue the County's efforts to advance commercial and industrial development;

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9. Direct that this Resolution be forwarded to Dominion Virginia Power, the Virginia State Corporation Commission, State Delegate Robert "Bob" G. Marshall, State Delegate Timothy D. Hugo, State Delegate David I. Ramadan, State Senator Richard H. Black, State Senator Richard H. Stuart, Virginia State Attorney General Mark Herring, Virginia State Governor Terry McAuliffe, US Senator Timothy M. Kaine, US Congresswoman Barbara Comstock, US Senator Mark Warner, US Congressman Rob Wittman, and Haymarket town council representatives: Mayor David Leake, Vice-Mayor Steve Aitken, Matt Caudle, Chris Morris, Joe Pasanello, Pam Swinford and Kurtis Woods.

DISCLOSURE PRIOR TO VOTE: John D. Jenkins

Votes:

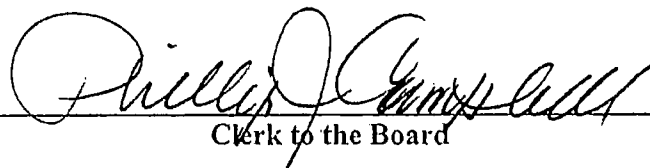
Ayes: Caddigan, Candland, Jenkins, Lawson, May, Nohe, Principi, Stewart

Nays: None

Absent from Vote: None

Absent from Meeting: None

ATTEST: _____


Clerk to the Board

1000000000

20160428



COUNTY OF PRINCE WILLIAM

1 County Complex Court, Prince William, Virginia 22192-9201
(703) 792-4640 Metro (703) 631-1703 cstewart@pwvcgov.org

BOARD OF COUNTY SUPERVISORS

Corey A. Stewart, Chairman
Peter K. Cindlrid, Vice Chairman
Ruth M. Anderson
Maureen S. Caddigan
John D. Jenkins
Jeanine M. Lawson
Martin E. Nohé
Frank J. Principi

Corey A. Stewart
Chairman

April 28, 2016

Honorable Mark C. Christie
Honorable James C. Dimitri
Honorable Judith Williams Jagdmann
Commonwealth of Virginia
State Corporation Commission
1300 E. Main St.
Richmond, VA 23219

2016 MAY -5 P 3:51
SCC-CLERK'S OFFICE
DOCUMENT CONTROL CENTER

Re: Haymarket 230 kV Double Circuit Transmission Line and 230-34.5 kV Haymarket Substation Project, PUE 2015-00107

Dear Commissioners:

I am writing on behalf of the Prince William Board of County Supervisors to re-affirm the Board's support of the I-66 Underground Hybrid Alternative.

To protect private property and to preserve the County's distinctive cultural and historic characteristics, the County's Comprehensive Plan designates corridors for placement of all future electric utility lines above 150 kilovolts. The proposed transmission line is not in one of these corridors. Of the alternatives that Dominion has submitted for SCC consideration, the I-66 Underground Hybrid Alternative is the only alternative that adequately mitigates this inconsistency with the County's Comprehensive Plan by reducing the harmful impacts to the County's existing and planned communities, businesses, and cultural resources. The harmful impacts of all other alternatives, including Dominion's Proposed Route (I-66 Overhead) are inconsistent with the County's Comprehensive Plan and unacceptable to the Board and community it represents.

The Board also re-affirms its intent to participate actively as a Public Witness in this matter to support the I-66 Hybrid Alternative.

Sincerely,

Corey A. Stewart

An Equal Opportunity Employer



Dominion Virginia Power
701 East Cary Street, Richmond, VA 23219
Mailing Address: P.O. Box 26006
Richmond, VA 23261
Web Address: www.dominion.com



May 20, 2016

Mr. Christopher E. Martino
Acting County Executive
Prince William County
1 County Complex Court
Prince William, Virginia 22192

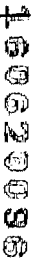
Dear Mr. Martino:

As you are aware, Dominion Virginia Power (Dominion) currently has a pending application before the Virginia State Corporation Commission (SCC) for approval of a new 230kV electric transmission line in Prince William County in the Gainesville/Haymarket area. Dominion's application for the Haymarket 230kV Double Circuit Transmission Line and 230-34.5kV Haymarket Substation (Case No. PUE-2015-00107) includes a proposed route and four alternative routes for the SCC's consideration.

Dominion's application filed with the SCC set forth the I-66 Overhead route as the Proposed Route. It is also clear that the County's preference is the I-66 Hybrid Alternative Route. We understand the position members of the Prince William Board of County Supervisors took regarding certain routes prior to Dominion submitting its application to the SCC. However, now that Dominion's routing study is complete and there has been sufficient time to review the components of its application, the SCC record would benefit from an updated statement from the County regarding its willingness to work with Dominion to convey an overhead electric transmission easement ("Overhead Easement") for property for which the County has an interest.

The County's interest pertinent to these proceedings is located along the Railroad Alternative Route between Somerset Crossing Homeowners Association and Greenhill Crossing. Dominion is aware that parcels along this stretch of land are subject to an open space easement pursuant to the Open-Space Land Act, Va. Code Ann. §10.1-1700 *et seq.* Dominion has reviewed the Deed of Gift of Easement entered into on January 8, 2015 between Somerset Crossing Homeowners Association, Inc. and the Board of Supervisors of Prince William County, Virginia (the "Open Space Easement Agreement"). The plain language of the Open Space Easement Agreement does not prohibit overhead electric transmission utilities or other uses contemplated by a Dominion Overhead Easement within the Open Space Easement.

The SCC application shows that the Railroad Alternative Route can meet the need of the Project and arguably reasonably minimizes adverse impacts, in comparison to the other route alternatives, because it follows an existing transportation corridor, is among the most direct and least cost routes, is the furthest distance from residences (0 within 200 feet) and minimizes impacts to historic and environmental assets, among other reasons. See Dominion's application for details on routing analysis and comparisons.



At the time the Company first presented the Haymarket Project to the County and public, the County's Open Space Easement Agreement along the Railroad Alternative Route did not exist. It was not until well into our public engagement did the easement materialize and become a constraint along that route. Nevertheless, we acknowledge this constraint in our application and noted that coordination with the County and a grant of an Overhead Easement would be needed before it could be deemed constructible and able to be chosen by the SCC.

By way of this letter, and for the benefit of completing a full record on this route, Dominion is formally asking the County to consider conveyance of an Overhead Easement (for a fee to be determined pursuant to a future appraisal and plat to be determined upon future survey) along the Railroad Alternative Route along the County's Open Space Easement Agreement.

A written response by June 2, 2016 responding to the contents of this letter is requested given the procedural scheduling in this case.

If you have any questions or would like to discuss further, please feel free to contact Deborah Johnson (state and local affairs) – 571-203-5002, Dean Obaugh (real estate) – 804-771-6233 or Greg Mathe (project communications) – 804-771-3850 or me at 804-771-6082.

Respectfully,

Diana Faison
Sr. Siting and Permitting Specialist

- Cc: Corey Stewart, Chairman At-Large, Prince William Board of County Supervisors
Pete Candland, Vice Chair and Gainesville District Supervisor, Prince William Board of County Supervisors
Jeanine Lawson, Brentsville District Supervisor, Prince William Board of County Supervisors
Michelle R. Robl, County Attorney, Prince William County
Susan Roltsch, Deputy County Executive, Prince William County
Bill Chambliss, General Counsel, Virginia State Corporation Commission
Deborah Tompkins Johnson, Regional Policy Director, Dominion Resources

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COUNTY OF PRINCE WILLIAM
1 County Complex Court, Prince William, Virginia 22192-9201
(703) 792-4640 Metro (703) 631-1703 cstewart@pwcgov.org

Corey A. Stewart
Chairman

BOARD OF COUNTY SUPERVISORS
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Frank J. Principi

May 26, 2016

Ms. Diana Faison
Sr. Siting and Permitting Specialist
Dominion Virginia Power
P.O. Box 26666
Richmond, VA 23261

Re: Haymarket 230 kV Double Circuit Transmission Line and 230-34.5 kV Haymarket Substation Project, PUE 2015-00107

Dear Ms. Faison:

I am writing on behalf of the Prince William Board of County Supervisors ("Board") in response to your letter dated May 20, 2016, regarding the above-referenced application pending with the Virginia State Corporation Commission (SCC).

Regarding the Railroad Alternative, the Board does not intend to give the permission necessary for installation of an overhead transmission line within the open space easement, as this would be contrary to the spirit and purpose of such easement.

The Board also reaffirms its intent to continue participating actively as a Public Witness in this matter to support the I-66 Hybrid Alternative Route.

Sincerely,

Corey A. Stewart
Chairman

cc: Board of County Supervisors
Christopher E. Martino, Acting County Executive
Michelle R. Robl, County Attorney

160620096

Berkin

WITNESS REBUTTAL TESTIMONY SUMMARY

Witness: Jon M. Berkin

Title: Principal Environmental Consultant with Natural Resource Group, LLC (“NRG”)

Summary:

NRG Witness Jon M. Berkin testifying on behalf of the Company addresses the impacts identified by respondents Southview 66, LLC, FST Properties, LLC, and Somerset Crossing Home Owners Association in this proceeding associated with the proposed I-66 Overhead Route and alternative routes, and updates the Environmental Routing Study as appropriate.

Mr. Berkin first responds to the Department of Environmental Quality’s Revised Wetland Impact Consultation issued on June 2, 2016 and explains how, when considering the additional impacts of the switching station required for the I-66 Hybrid Alternative as well as the ability of an overhead route to span wetlands, the Company believes that wetland impacts would be less with the Proposed Route than the I-66 Hybrid Alternative.

Mr. Berkin explains that Southview is correct that the transition station required for the I-66 Hybrid Alternative would affect Southview’s Parcel Two and preclude development on the parcel, but there is not another open parcel with sufficient space for the siting of a transition station in the surrounding area.

Mr. Berkin acknowledges FST’s concerns regarding development potential on its property if the Proposed Route or I-66 Hybrid Alternative is chosen. Mr. Berkin explains that the Walmart Variation would avoid the impacts to the FST property, and that the Company supports the incorporation of the Walmart Variation into the Proposed Route, as well as the I-66 Hybrid Alternative.

Mr. Berkin testifies that that construction and operation of electric transmission facilities are not expected to cause downstream damage to the Potomac River or Chesapeake Bay, and confirms the Company will construct the Project in accordance with required regulations that constitute effective best management practices to avoid erosion and sediment deposit in waterbodies.

Mr. Berkin disagrees with Somerset’s witness’s characterization of DHR’s review of the Project. He explains how good routing practice considers transmission lines to be compatible with commercial land use. The existing area along I-66 is a mix of residential and commercial lands, which already includes the infrastructure necessary to support activities associated with those uses. Further, the Proposed Route is collocated with other corridors for 90% of its length.

Mr. Berkin finally notes that in order to meet the requirements of Virginia Code § 56-46.1 B, a Project should reasonably minimize, not eliminate, adverse impact on the scenic assets, historic districts, and environment of the area concerned; and the record reflects that the Proposed Route does meet the requirements of the statute.

**REBUTTAL TESTIMONY
OF
JON M. BERKIN
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUE-2015-00107**

1 **Q. Please state your name, position of employment, and business address.**

2 A. My name is Jon M. Berkin. I am employed as a Principal Environmental Consultant with
3 Natural Resource Group, LLC (“NRG”). My business address is 1000 IDS Center, 80
4 South Eighth Street, Minneapolis, Minnesota 55402.

5 **Q. What is your educational and professional background?**

6 A. I earned a Bachelor of Arts degree from Boston University and a Master of Arts and
7 Doctoral degree from Bryn Mawr College. I have 22 years of experience working in the
8 energy-related consulting field, working with the siting and regulatory permitting of
9 major linear energy facilities, including both interstate and intrastate electric transmission
10 lines and gas and oil pipelines throughout the United States. During this time I was
11 employed for 5 years with R. Christopher Goodwin and Associates, Inc. and 18 years
12 with NRG, a privately-owned consulting company specializing in the siting, licensing,
13 and environmental construction compliance of large, multi-state energy transportation
14 facilities.

15 My professional experience related to electric transmission line projects includes the
16 *direct management of field studies, impact assessments and agency negotiations*
17 associated with the routing and licensing of multiple transmission line projects in the
18 mid-Atlantic region, including the management and/or supervision of the routing and

1 permitting. Work on these projects included studies to identify and delineate routing
2 constraints and options; identification and evaluation of route alternatives; and the
3 direction of field studies to inventory wetlands, stream crossings, and sensitive habitats
4 and land uses. Within the last several years I have managed or directed the identification
5 and evaluation of over 100 miles of 230 kV and 500 kV transmission line route
6 alternatives in the Commonwealth for Virginia Electric and Power Company (“Dominion
7 Virginia Power” or the “Company”).

8 **Q. Have you previously submitted testimony in this proceeding?**

9 A. No. However, I am adopting the pre-filed direct testimony of Jeffrey R. Thommes of
10 NRG on behalf of Dominion Virginia Power and will support the Environmental Routing
11 Study that was submitted to the Commission in this matter on November 6, 2015.

12 **Q. What is the purpose of your rebuttal testimony?**

13 A. Dominion Virginia Power retained NRG to conduct a route selection analysis and
14 produce the Environmental Routing Study, which was included as part of the application
15 materials filed by the Company in this proceeding. The purpose of my rebuttal testimony
16 is to respond to the Department of Environmental Quality’s Revised Wetland Impact
17 Consultation issued on June 2, 2016. I will address the impacts identified by respondents
18 Southview 66, LLC (“Southview”), FST Properties, L.L.C. (“FST”), and Somerset
19 Crossing Home Owners Association (“Somerset”) in this proceeding associated with the
20 proposed I-66 Overhead Route (“Proposed Route”) and alternative routes, and to update
21 the Environmental Routing Study as appropriate. I will also respond to the testimony and
22 reports filed by the State Corporation Commission Staff (“Staff”) on June 2, 2016.

1 Q. Are you sponsoring any exhibits as part of your rebuttal testimony?

2 A. Yes. Company Exhibit No. __, JMB, consisting of Rebuttal Schedules 1-3, was prepared
3 under my direction and supervision, and is accurate and complete to the best of my
4 knowledge and belief.

5 Q. **Mr. Berkin, the DEQ's Revised Wetland Impact Consultation issued on June 2,**
6 **2016 (correcting the November 30, 2015 consultation), changes the DEQ's**
7 **recommendation from the Proposed Route (the I-66 Overhead Route) to the I-66**
8 **Hybrid Alternative, because it has the least areal wetland impacts. (Hannah Schul**
9 **letter at 2.) Do you have any comments?**

10 A. Yes, I would like to address this issue. As presented in Table 4-1 of the Environmental
11 Routing Study, the Proposed Route could impact 5.9 acres of wetlands whereas the I-66
12 Hybrid Alternative could impact 5.1 acres of wetlands. Although this shows a greater
13 areal impact on wetlands from the Proposed Route, it is important to consider that the
14 crossing lengths of the two routes (based on proposed centerlines) are essentially equal,
15 and that the increase in acreage for the Proposed Route is simply due to the fact that that
16 the right-of-way for the proposed overhead route would be twice as wide as the right-of-
17 way for the underground portion of the I-66 Hybrid Alternative. The wetlands crossed by
18 the two routes vary due to the difference in alignments immediately west of the U.S.
19 Route 29 crossing where the Proposed Route is on the north side of I-66 and the I-66
20 Hybrid Alternative route is on the south side of I-66.

21 On the surface, the areal difference of estimated wetlands impacts would seem to imply
22 that the wider right-of-way associated with the Proposed Route would have greater
23 impacts on wetlands. However, calculating impact based solely on the areal crossing of

the wetlands in this case is misleading. As Staff Witness Wayne D. McCoy notes, wetland impacts associated with the Proposed Route would be considerably reduced due to the ability of an overhead line to span wetlands. (McCoy Staff Report at 10.) In fact, the Company makes every effort to locate transmission structures outside of wetlands and would do so for the I-66 Overhead Route.

Alternatively, the right-of-way would be trenched for the installation of an underground transmission line. Consequently, the construction of the I-66 Hybrid Alternative would be much more intrusive to the wetland resources. Trenching would require the installation of two concrete duct banks, which will be located approximately 10 feet apart. Two trenches measuring 5 feet wide and 6 feet deep would be excavated for each of the duct banks. Some of the excavated materials from the trenches would need to be hauled offsite and temporarily stored for later use or disposal; approximately 65% of the excavated soil (if suitable) will be returned to the Project site for backfilling the trench, and the remaining 35% will be disposed at an offsite soil disposal area. During this process, wetland hydrology can be disrupted, seed bank disturbed, and wetland function temporarily changed. This is much more impactful than the effects on wetlands associated with construction of an overhead line, where structures are typically placed outside of wetlands (which are in low areas that are typically avoided as structure locations), and travel through wetlands, if necessary, is accomplished across timber mats that do not alter soils, seedbank, or hydrology.

Additionally, the impact acreages presented in the Company's application were based on rights-of-way associated with each alignment. In the case of the I-66 Hybrid Alternative, it is also necessary to construct a switching station (sometimes called a transition station)

1 where the overhead line would be converted to underground. The impacts of this
2 switching station were not previously included in acreage estimates for the I-66 Hybrid
3 Alternative. The switching station would affect 0.8 acres of forested wetland. With the
4 addition of this acreage, the estimated impacts of wetlands along the I-66 Hybrid
5 Alternative (including the switching station) rises to 5.9 acres – equal to the 5.9 acres
6 estimated for the Proposed Route.

7 Therefore, actual impacts on wetlands associated with construction of the underground
8 segment of the I-66 Hybrid Alternative, to include the switching station, could be
9 considered to be equal to the Proposed Route on an areal basis but would be substantially
10 more severe related to actual disruption of the wetlands. Accordingly, the Company
11 believes that wetland impacts would be less with the Proposed Route than the I-66
12 Hybrid Alternative.

13 **Q. Turning to Southview, their witness Arthur Fuccillo testifies that Southview’s**
14 **“Parcel Two” would be almost entirely consumed by the switching station required**
15 **for the I-66 Hybrid Alternative. (Fuccillo at 1-2.) Have you assessed this claim**
16 **from a routing perspective?**

17 **A.** Yes. After reviewing the site plans included with Mr. Fuccillo’s testimony and
18 consulting with Company Witness Wilson O. Velazquez regarding the space needed for
19 the I-66 Hybrid Alternative transition station, I agree with Southview’s assessment. The
20 construction of the transition station would affect Southview’s Parcel Two and preclude
21 development on the parcel. However, there is not another open parcel with sufficient
22 space for the siting of a transition station in the surrounding area. Other parcels in this
23 vicinity have been developed or are currently being developed for residential use.

The rebuttal testimony of Company Witness Velazquez provides further detail regarding the transition station.

Q. FST Witness Antelo states that the imposition of a 100 foot easement on their property, as required for the Proposed Route and I-66 Hybrid Alternative, would reduce their development potential by half. (Antelo at 3.) What is your response?

A. A 100-foot-wide easement would be required across the FST property for construction and operation of the Proposed Route. The testimony from Witness Antelo includes a potential plan for development of the property and a map that depicts anticipated impacts of the Proposed Route on this development. Based on this plan, siting of the transmission line across the property would significantly reduce the developable area of the FST property.

Witness Antelo’s testimony also discusses a subsequent route variation that FST presented, known as the FST Route Variation.¹ The Company has considered the FST Route Variation and developed an FST Optimization Route, both of which would avoid the impacts on the FST property discussed by Witness Antelo.

In addition, the Company’s Application and supporting materials also included a route variation along the Proposed Route known as the Walmart Variation, which would avoid placing the overhead transmission line along State Route (“SR”) 55. The Walmart Variation would limit the amount of tree removal and exposure along SR 55 (also known as John Marshall Highway) across the frontage of the three parcels preceding (east of) the proposed substation parcel, including the FST property. The Walmart Variation would

¹ Motion of Respondent FST Properties to Consider Adjustment to Certain Routes, at 3 (Apr. 22, 2016).

1 avoid the impacts to the FST property discussed by Witness Antelo. The Company now
2 supports the incorporation of the Walmart Variation into the Proposed Route as well as
3 the I-66 Hybrid Alternative as discussed further in the rebuttal testimony of Company
4 Witness Donald Koonce. It should be noted that Staff Witness Wayne McCoy supports
5 the inclusion of the Walmart Variation in the route as well. (McCoy at A7.)

6 **Q. Turning to the testimony filed on behalf of Somerset, Mr. James Napoli testifies to**
7 **what he believes would be “downstream damage” to the environment and the**
8 **Potomac watershed due to the Railroad Alternative’s impact on Rolling Creek Park.**
9 **(Amended Napoli at 9.) What is your response?**

10 A. Much of the area between the Somerset Crossing neighborhood and the Norfolk Southern
11 railroad tracks is designated as Resource Protection Area (“RPA”) under the Chesapeake
12 Bay Preservation Act (“Bay Act”). Prince William County adopted the Bay Act into its
13 local ordinance in 1990. RPAs include land area within 100 feet of perennial stream
14 bank or edge of wetlands adjacent to perennial streams. These areas are intended to
15 provide protection to the Chesapeake Bay by protecting the waters that flow into the Bay.
16 In Prince William County, many activities that would be considered harmful to the Bay
17 are prohibited within RPAs without County approval.

18 Public utilities (including electric lines, natural gas lines, fiber-optic cables, and
19 telephone transmission lines), public roads, railroads, and structures customarily
20 accessory to these utility uses are permitted within the RPA provided that certain minimal
21 criteria are met. These exemptions are based on the premise that the agencies responsible
22 for such construction have water quality protection requirements equal in effectiveness to
23 the Bay Act regulations. In Virginia, the installation of these facilities must conform to



1 both the Erosion and Sediment Control Law (§10.1-560 et seq. of the Code of Virginia)
 2 and the Stormwater Management Act (§10.1-603.1 et seq. of the Code of Virginia) and
 3 must be constructed according to an erosion and sediment control plan and a stormwater
 4 management plan approved by the Virginia Department of Conservation and Recreation.

5 The implication of the exemption of electric transmission lines from the Bay Act
 6 regulations is that construction and operation of these facilities are not expected to cause
 7 downstream damage to the Potomac River or Chesapeake Bay. In addition, the Company
 8 will construct the Project in accordance with required regulations that constitute effective
 9 best management practices to avoid erosion and sediment deposit in waterbodies.

10 **Q. Regarding the Railroad Alternative, Mr. Napoli, also notes that Prince William**
 11 **County has received an open-space easement that acts as a barrier to the**
 12 **Company’s ability to condemn the necessary right-of-way for that route, and that it**
 13 **is “beyond understanding” why the Railroad Alternative remains “under**
 14 **consideration.” (Amended Napoli at 10.) What is your response?**

15 **A.** Although the Company may not condemn property owned by Prince William County, the
 16 Railroad Alternative was retained for consideration to allow: (1) for potential
 17 negotiations with the County if other route alternatives were determined to be infeasible;
 18 and (2) also to provide the Commission with a more complete record establishing the
 19 advantages and disadvantages of all of the alternatives that were considered for the
 20 Project.

21 Additionally, as discussed in the Environmental Routing Study and noted by in the
 22 testimony of Witness Gestl (Gestl at 7-8), the Railroad Alternative has an important

1 advantage in comparison to the other routes. This route has significantly less impact on
2 residences (0 residences/dwellings within 200 feet of the edge of the proposed right-of-
3 way) than other routes, including the Proposed Route (198 residences/dwellings within
4 200 feet of the edge of the proposed right of way).

5 However, as discussed in the rebuttal testimony of Company Witness Diana T. Faison,
6 Prince William County has now expressly rejected granting an overhead easement for the
7 Railroad Alternative, so the Company agrees it is not a viable route.

8 **Q. Mr. Napoli asserts that the Virginia Department of Historic Resources (“DHR”)**
9 **recommends the I-66 Hybrid Alternative Route because it is the only alternative**
10 **that “substantially mitigates the adverse and unalterable impacts that this project**
11 **will have on the unique historic assets of the region.” (Amended Napoli at 12.) Are**
12 **you familiar with DHR’s recommendations?**

13 A. Yes, I am. In its review of the application, the DHR analyzed Dominion Virginia
14 Power’s pre-application analysis, which was prepared in accordance with DHR’s
15 guidelines for assessing potential impacts of proposed transmission lines on historic
16 resources (attached as my Rebuttal Schedule 1). The DHR analyzed the Company’s
17 Proposed Route and four additional alternatives in order to assess potential impacts on
18 known archaeological and architectural properties listed in or determined eligible for
19 listing in the National Register of Historic Places (“NRHP”) or in the Virginia
20 Landmarks Register.

21 The DHR’s assessment of potential direct impacts considered archaeological and
22 architectural resources located within the right-of-way. The assessment of potential

indirect visual impacts was based on a scale of intensity of impact that increases from “none,” “minimal,” “moderate,” to “severe” within a tiered study area. From lowest to highest, “none” indicates that the transmission line is not visible from the historic resource and “severe” indicates the visual introduction of a transmission line is a significant change in the setting of the historic resource.

The DHR considers moderate and severe impacts to be adverse and mitigation is requested. The DHR’s principles of effective visual mitigation require that the development of mitigation strategies be consistent with the nature of the effect, appropriate to the significance of the resource, provide the largest possible public benefit, and considers the views of the landowner and other stakeholders. Identifying mitigation measures according to these principles facilitates the protection of a property’s historic value.

Regarding the potential indirect visual impact on properties eligible for and listed in the NRHP, the Proposed Route does not have a noteworthy variance from the I-66 Hybrid Alternative recommended by the DHR. Table 1 below presents a side-by-side quantitative comparison of the DHR’s recommended impacts for both the Proposed Route and I-66 Hybrid Alternative.

The rights-of-way for the Proposed Route and the I-66 Hybrid Alternative wholly or partially cross previously recorded archaeological sites, including three sites along the Proposed Route and two sites along the I-66 Hybrid Alternative route. Of these three sites, the DHR determined that two are not eligible for listing in the NRHP and the Project would have no effect on historic properties. The third site, a historic domestic

1 site, has not been evaluated for its NRHP-eligibility, and is therefore treated as an NRHP-
 2 eligible resource per the DHR guidelines. The structures for the proposed overhead route
 3 can be designed to span the archaeological site and avoid ground disturbing activities
 4 within the site boundaries. However, the I-66 Hybrid Alternative route would likely
 5 require trenching through a small portion of this archaeological site. Therefore, I-66
 6 Hybrid Alternative route actually would have a greater impact on archaeological
 7 resources.

TABLE 1		
DHR Recommended Impacts		
Intensity of Visual Impact	Proposed I-66 Overhead Alternative	I-66 Hybrid Alternative
None	6	7
Minimal	4	4
Moderate	2	1
Severe	0	0

8 DHR’s opinion is that the I-66 Hybrid Alternative “appears to have the least overall
 9 potential impact to recorded historic resources.” Therefore, the DHR recommends the
 10 selection of the I-66 Hybrid Alternative “to minimize potential impacts to recorded
 11 significant historic resources.” In comparison with the Proposed Route, the I-66 Hybrid
 12 Alternative has the potential for moderate visual impacts on only one civil war battlefield,
 13 the Second Battle of Manassas, whereas the Proposed Route has the potential for
 14 moderate visual impacts on two Civil War battlefields, the Second Battle of Manassas
 15 and the Buckland Mills Battlefield.

16 The Proposed Route may result in visual impacts on the two battlefields where the
 17 historic setting is a character defining feature. However, the Project setting along the I-
 18 66 highway corridor has been altered by a long history of anthropogenic disturbances

1 resulting in a patchwork of residential, commercial, and industrial development
2 interspersed with secondary forests, pasture, and fields. I-66 is classified as an urban
3 interstate by the Federal Highway Administration and is a major east-west corridor that
4 provides access to Washington, D.C.

5 Along the Proposed Route and the I-66 Hybrid Alternative from about one mile east of
6 U.S. Route 15, the interstate is a four-lane divided highway to Catharpin Road, an
7 overpass west of U.S. Highway 29 near Gainesville. I-66 transitions from a four-lane
8 highway to an eight-lane divided highway to Route 234 Business. Since the early 1970's
9 when the U.S. Route 15/I-66 interchange was built, the area was characterized as
10 agricultural and low density residential uses. Since that time, the area around the
11 interchange and to the east along the interstate corridor has shifted towards commercial
12 and medium to high density residential land use. Near the eastern terminus of the
13 Proposed Route and the I-66 Hybrid Alternative, the National Park Service has described
14 the area outside the Manassas National Battlefield Park Historic District as fragmented
15 and altered within an area of encroaching rapid development. The area outside the park
16 is dominated by overhead utility lines.

17 Buckland Mills Battlefield, located in Fauquier and Prince William counties, is crossed
18 near the western terminus of the Proposed Route and the I-66 Hybrid Alternative. U.S.
19 Route 15, currently a four-lane divided highway, traverses the northern portion of this
20 resource. A previous study completed for the U.S. Route 15 Interchange improvements
21 recommended that the all the American Battlefield Protection Program ("ABBP")

1 Potential National Register boundary² (“PotNR”) portions of the battlefield in the vicinity
2 of the U.S. Route 15 Interchange be removed from NRHP eligibility due to its lack of
3 integrity. The Haymarket Medical Center is located on the northwest side of this
4 interchange and a Walmart shopping center is located on the southwest side of this
5 interchange. The DHR concurred with this recommendation in a letter dated December
6 13, 2012.

7 The Second Battle of Manassas in Haymarket begins on the east side of the intersection
8 of U.S. Route 15 and State Route 55. The area east of the intersection of U.S. Route 15
9 and State Route 55 has not been designated as PotNR by the ABPP likely due to the
10 significant modern development in the town of Haymarket. The areas related to the
11 Second Battle of Manassas that are outside the Manassas Battlefield Historic District are
12 primarily located to the west and south of the district. Areas designated as PotNR for the
13 Second Battle of Manassas are located east of the Conway-Robinson Memorial State
14 Forest on the north side of U.S. Route 29 and on a large land parcel adjacent to the Route
15 234 Bypass on the south side of U.S. Route 29. The PotNR area within the Virginia
16 Department of Transportation (“VDOT”) right-of-way at the Route 234 Bypass
17 interchange has been altered by the construction of the interchange. Also on the south
18 side of I-66 along Balls Ford Road, an area designated as PotNR for the Second Battle of
19 Manassas, the integrity of the battlefield setting has been diminished by adjacent
20 development of a hotel and office park.

² As defined by the ABPP, the Potential National Register boundary of a battlefield is the surviving landscape and features that convey the site’s historic sense of place. This designation does not constitute a formal determination of eligibility by the Keeper of the National Register.

The DHR has requested that an archaeological and architectural field survey be conducted prior to construction of the Commission-approved route to evaluate the degree to which each NRHP-listed or eligible battlefield's setting is diminished. Assessing the Project's visibility from the Second Battle of Manassas and the Buckland Mills Battlefield would be completed in coordination with DHR as well as any mitigation that may be necessary to avoid, minimize, or mitigate identified adverse effects.

In conclusion, Mr. Napoli is correct that the DHR has recommended selection of the I-66 Hybrid Alternative, since this route "appears to have the least overall potential impact to recorded historic resources." However, I would say that it is an exaggeration to state that the I-66 Hybrid Alternative "substantially mitigates the adverse and unalterable impacts that this project will have on the unique historic assets of the region." As noted above, the historic resources in question already have been impacted by development in the area, most notably, by the construction of I-66, as well as other commercial, residential, and highway development. Moreover, as reflected in the DHR's review, the impacts of the Proposed Route and I-66 Hybrid Alternative on historic resources are not dramatically different.

Q. Mr. Napoli criticizes the routes under consideration in this proceeding as being inconsistent with Prince William County's Comprehensive Plan, including its designation of corridors that should be followed for all lines of 150 kV or higher. (Amended Napoli at 14-15.) Please explain how a locality's plans factor in the route selection process.

A. The Company routinely reviews County Comprehensive Plans during the route alternative identification phase of a project. The planning criteria contained in the plans

are taken into account, along with a myriad of other environmental and electrical planning considerations, during the development and selection of transmission routes. Moreover, as noted in the Prince William County Comprehensive Plan (“Comprehensive Plan”), “a comprehensive plan is a general guide to the location, character, and extent of proposed or anticipated land use, including public facilities.” (See Comprehensive Plan, Introduction at 2, included as my Rebuttal Schedule 2.) As a “general guide” that covers “proposed or anticipated land use,” the comprehensive plan is neither binding nor is it inclusive of every potential land use that may be considered during the life of the document.

With regard to the corridors designated within the Comprehensive Plan, the areas designated for transmission lines appear simply to represent locations that already contain existing 115 kV or higher voltage transmission lines when the Plan was published rather than considering or planning for future load needs.

The Company makes a concerted effort when developing its transmission line projects to site the projects adjacent to (collocated with) existing like-infrastructure, especially within designated utility corridors. This practice complies with state and federal statutory and regulatory provisions,³ which state that existing rights-of-way should be given priority when siting transmission lines. Routing along existing linear corridors like highways is consistent with Federal Energy Regulatory Commission Guideline #1 (existing rights-of-way should be given priority when adding additional facilities) and is considered good routing practice. The existing corridors within the project area are discussed in detail in the Environmental Routing Study. However, the use of designated

³ See Va. Code §§ 56-46.1 C, 56-259 C; 18 C.F.R. § 380.15.

utility corridors must also be balanced against the purpose and need for a given project.

In the present case, the location where the Proposed Project was required did not align with the areas in Prince William County where the designated corridors were located. Consequently, the route alternative development process focused on collocating the transmission line wherever possible with other existing linear infrastructure such as roads (e.g., I-66) and railroads to maintain a linear flow of the project and to avoid, whenever possible, the creation of new utility corridors. It is common practice to consider routes on new easements that parallel existing linear utility and transportation facilities such as electric transmission lines, railroads, and roads. It should be noted, in this regard, that the Proposed Route is collocated with other corridors for 90 percent of its length.

Further, good routing practice considers transmission lines to be compatible with commercial land use. The existing area along I-66 is a mix of residential and commercial lands, which already includes the infrastructure necessary to support activities associated with those uses. Moreover, the area is not visually pristine, and a transmission line would certainly be compatible with the existing uses or future development along the interstate, which currently contains distribution circuits and is crossed by several transmission lines just outside the Project area.

1 **Q. Mr. Napoli opposes the selection of any overhead alternative because of what he**
 2 **deems serious and irrevocable impacts on environmental, scenic, and historic**
 3 **resources. (Amended Napoli at 7-14.) Can you please explain the temporary and**
 4 **permanent impacts associated with an underground route?**

5 A. Yes. Many people have the misconception that if a transmission line is placed
 6 underground, there will be no impacts. That is simply not the case. Underground
 7 construction causes significant disturbance and has permanent environmental impacts
 8 that do not occur with overhead construction. Company Witness Donald E. Koonce
 9 describes in detail the many challenges and temporary impacts associated with
 10 underground construction, so I will focus on the permanent impacts.

11 The underground segment of the I-66 Hybrid Alternative requires a 40 foot-wide
 12 permanent easement. While vegetation would be allowed to regrow along an overhead
 13 right-of-way and wetlands would not be permanently impacted, the right-of-way for the
 14 underground route would need to be permanently cleared and maintained to provide
 15 access to manhole locations and for any necessary maintenance of the underground
 16 transmission line. This would result in the permanent clearing of 14.6 acres of trees.

17 While the wetlands along the underground portion of the I-66 Hybrid Alternative right-
 18 of-way would not be filled, the wetland that is present within the location of the proposed
 19 switching station would be permanently impacted. Additionally, as discussed above, the
 20 switching station would permanently impact Southview's Parcel Two and preclude future
 21 development on the parcel. This would likely result in the loss of the development value
 22 of this property for the landowner. Moreover, the switching station would represent a
 23 permanent addition to the viewshed, including the basic infrastructure, which would

1 reach approximately 30 feet in height with the center tower extending to approximately
2 75 feet in height. Consequently, it is not the case that the underground portion of the I-66
3 Hybrid Alternative would be devoid of visual impacts.

4 Finally, as discussed above and as reflected in the DHR's review, the impacts of the
5 Proposed Route and I-66 Hybrid Alternative on historic resources are not dramatically
6 different. In fact, existing development already has significantly impacted the historic
7 setting of the area along I-66 west of the switching station. In addition, the I-66 Hybrid
8 Alternative route actually would have a greater impact on archaeological resources,
9 because the construction of this route would likely require trenching through a small
10 portion of an archaeological site.

11 **Q. Staff Witness McCoy asserts that Table 4-1 of the Environmental Routing Study**
12 **gives a "false impression," "does not give a clear picture," and is "misleading" with**
13 **respect to the reported impacts of the I-66 Hybrid Alternative. (McCoy Staff**
14 **Report at 6-7, 9, 14.) How do you respond?**

15 A. NRG, on behalf of the Company, prepared the Environmental Routing Study, including
16 Table 4-1, to provide the Commission with an objective comparison of the route
17 alternatives considered for the Project. Table 4-1 includes a wide array of variables that
18 were measured equally for each alternative to determine the degree of potential impact
19 that could result from the Project. If anything, the numbers provided for the I-66 Hybrid
20 Alternative are an underestimation of potential impacts as the table provides
21 measurements for the rights-of-way of each alternative only and does not include values
22 for impacts that would result from the switching station, which is only required for the I-
23 66 Hybrid Alternative.

1 Mr. McCoy's claims that Table 4-1 does not correctly characterize the impacts of the
2 Proposed Route compared to the I-66 Hybrid Alternative appear to be based largely, or
3 even solely, on the criterion of visual impacts. Table 4-1 conveys data on the proximity
4 of homes to the alternatives rather than attempting to assign a value to visual impacts.
5 Nonetheless, the Company's response to Interrogatory Staff Set No. 2-22 (attached as my
6 Rebuttal Schedule 3) provided an assessment of anticipated visual impacts from the
7 Proposed Route.

8 In addition, Mr. McCoy's statement that the visual impacts associated with the
9 underground portion of the I-66 Hybrid Alternative would be reduced to zero within the
10 most populated areas (McCoy Staff Report at 13) is not technically correct. The
11 construction of the underground portion of the route would require permanent clearing of
12 shrub and forestlands, the placement of manholes every 2,000 feet, the development of
13 permanent access roads to access the manholes, and the construction of a switching
14 station that would encompass 5 to 7 acres at the intersection of U.S. Route 29 and I-66.
15 As my testimony illustrates, the impacts associated with the Proposed Route and I-66
16 Hybrid Alternative are in fact not dramatically different, and, particularly in the case of
17 visual impacts are more qualitative rather than quantitative.

18 I would further suggest that the emphasis on the visual impacts of the Proposed Route has
19 diverted attention from the fact that the other impacts of the routes are generally
20 comparable. Indeed, as explained by Company Witness Koonce, in some cases the
21 impacts associated with the construction of the underground portion of the I-66 Hybrid
22 Alternative are greater than those associated with the Proposed Route.

As Mr. McCoy notes, the Proposed Route is the shortest and most direct of the proposed alignments. (McCoy Staff Report at 10.) The Proposed Route is collocated for the majority of its length and has limited impacts on environmental resources, including wetlands, and historic resources. Finally, it should be remembered that in order to meet the requirements of the statute (§ 56-46.1 B of the Code of Virginia), a Project should reasonably minimize, not eliminate, adverse impact on the scenic assets, historic districts, and environment of the area concerned. I believe that the record more than adequately reflects that the Proposed Route does in fact meet the requirements of the statute.

Q. Please summarize NRG's review of the potential impacts of the Proposed Route and alternatives under consideration in this proceeding.

A. The Environmental Routing Study analyzed the impacts of eight route alternatives that were developed for the Project (New Road Alternative, Northern Alternative, Railroad Alternative, Carver Road Alternative, Madison Alternative, Wheeler Alternative, I-66 Overhead Alternative, and I-66 Hybrid Alternative Routes). Three of these routes subsequently were eliminated from consideration (New Road Alternative, Wheeler Alternative and Northern Alternative Routes) as a result of both electrical planning and environmental issues discussed in detail in Section 5.0 of the Environmental Routing Study.

In terms of impacts, the features and resources associated with some or all of the route alternatives had a noteworthy variance, which included the following: route length; proximity to residential areas; crossings of planned future developments; length of forested lands crossed; acres of wetland impacts; cultural resource impacts; and length of collocation opportunities. The Railroad, Carver Road, Madison, I-66 Overhead

1 (Proposed Route), and I-66 Hybrid Alternative Routes varied in length between a
2 minimum of 5.0 miles (Proposed Route) to a maximum of 8.2 miles (Madison
3 Alternative). While the Carver Road Alternative and Madison Alternative Routes would
4 have fewer single family and townhome/condominiums within 100 feet of the route than
5 the I-66 Hybrid Alternative and Proposed Route, they would require significant clearing
6 of forest land and have substantial wetland impacts. They would also cross more
7 waterbodies than the I-66 Hybrid Alternative and Proposed Route. For these reasons, the
8 Carver Road Alternative and Madison Alternative routes were not selected by the
9 Company as the Proposed Project, but were included in the proceeding for notice and
10 consideration by the Commission.

11 The Railroad Alternative had a number of factors in its favor, including its extensive use
12 of collocation with the existing Norfolk Southern Railway, its relatively shorter length,
13 and its avoidance of proximity to residences. However this route also crossed the
14 greatest amount of wetlands and waterbodies and would have required the clearing of
15 significant amount of trees. Moreover, obtaining an easement across Prince William
16 County's Open Space and Trail Easement along the Railroad Alternative has since the
17 filing of the proceeding been clearly communicated to the Company as unlikely.
18 Therefore, the Railroad Alternative is not a viable alternative for construction of the
19 Project.

20 The I-66 Hybrid Alternative and the Proposed Route are more favorable than the Carver
21 Road Alternative and Madison Alternative Routes based on their shorter length, greater
22 extent of collocation, minimized impacts on cultural resources, fewer impacts on private
23 lands, and significantly less impacts on forests and wetlands. In many respects, the

1 impacts of the I-66 Hybrid Alternative and Proposed Route are comparable since they
2 substantially follow the same alignment. The primary difference between the two routes
3 is that a portion of the I-66 Hybrid Alternative would be constructed underground.
4 Therefore, the visual impacts of the overheard route would be greater than that of the
5 underground route. However, given the extensive development within the immediate
6 project area, including residential, commercial, utility, and transportation infrastructure,
7 including the 10+ feet tall sound walls along the highway, the Proposed Route would not
8 substantially contrast with the existing character of the area.

9 Therefore, although the Proposed Route would have a visual impact on the closest
10 residences, it would be generally visually compatible with the existing landscape. The I-
11 66 Hybrid Alternative, given that it would be buried when near residences, would be
12 considered a negligible visual impact. Finally, it is also important to point out that the
13 underground portion of the I-66 Hybrid Alternative would not be devoid of visual
14 impacts, since this route will require permanent clearing along the right-of-way and the
15 construction of a switching station, which will represent a new aboveground facility. The
16 transition station will be approximately 5 to 7 acres in size and measure approximately 30
17 feet high for most of the infrastructure, but up to 75 feet in height at its highest point.
18 Additionally, as noted above, the transition station will likely dominate Southview's
19 Parcel Two and preclude future development at that site. The Proposed I-66 Overhead
20 Route does not have a similar detrimental impact to development potential.

21 The environmental impacts associated with the I-66 Hybrid Alternative route must also
22 be considered along with the significantly higher cost and longer construction schedule
23 for this route. While not discounting the public's concern about the visual impacts of

1 Proposed Route, the overall record demonstrates that this route meets the requirements of
2 the statute (§ 56-46.1 of the Code of Virginia) to reasonably minimize adverse impact on
3 the scenic assets, historic districts, and environment of the area concerned. The Proposed
4 Route is collocated with a major interstate highway (I-66) for the majority of its length,
5 has no severe impacts on historic resources, and has minimal environmental impacts
6 because it traverses a heavily developed area. Therefore, the I-66 Overhead Alternative
7 should be approved as the Proposed Route for the Project. Finally, I would note again the
8 Company agrees with Staff and supports the Walmart Variation for the Proposed Route
9 and also supports its use for the I-66 Hybrid Alternative if that route is selected by the
10 Commission.

11 **Q. Does this conclude your rebuttal testimony?**

12 **A. Yes, it does.**



COMMONWEALTH of VIRGINIA

Molly Joseph Ward
Secretary of Natural Resources

Department of Historic Resources
2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan
Director

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December 18, 2015

Mr. John E. Fisher
DEQ – OEIR
629 East Main Street, Sixth Floor
Richmond, VA 23219

Re: Haymarket 230 kV Double Circuit Transmission Line and 230-34.5 kV Haymarket Substation, PUE-2015-00107
Prince William County, VA
DHR File No. 2014-0713

Dear Mr. Fisher:

We have received for review the State Corporation Commission (SCC) application for the project referenced above. We have also received directly from Virginia Electric and Power Company (Dominion) the report entitled *Pre-Application Analysis for Cultural Resources of the Haymarket Substation and 230kV Transmission Line Project, Virginia* prepared by Dutton + Associates (Dutton) for the Virginia Electric and Power Company (Dominion) and included as Appendix B to the Routing Study. This pre-application analysis was prepared in accordance with Section I of DHR's *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (2008). The below comments are provided as assistance to DEQ and the SCC in the review of this application. We have not been notified by any Federal agency of their involvement in this project; however, we reserve the right to provide additional comment pursuant to the National Historic Preservation Act, if applicable.

Dominion's pre-application analysis consider the potential impact of the proposed project on recorded archaeological sites and on known historic architectural properties listed or previously determined eligible for listing in the Virginia Landmarks Register (VLR) and the National Register of Historic Places (NRHP) within a tiered study area. DHR's comments on the pre-application analyses are provided in the attached tables and utilize the following scale in describing impacts:

- **None** – Project is not visible from the property
- **Minimal** – Occur within viewsheds that have existing transmission lines, locations where there will only be a minor change in tower height, and/or views that have been partially obstructed by intervening topography and vegetation.
- **Moderate** – Include viewsheds with expansive views of the transmission line, more dramatic changes in the line and tower height, and/or an overall increase in the visibility of the route from the historic properties.

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- **Severe** – Occur within viewsheds that do not have existing transmission lines and where the views are primarily unobstructed, locations where there will be a dramatic increase in tower visibility due to the close proximity of the route to historic properties, and viewsheds where the visual introduction of the transmission line is a significant change in the setting of the historic properties.

DHR's comments are presented in five (5) sections – Carver Alternative, I-66 Hybrid Alternative, I-66 Overhead Alternative, Madison Alternative, and the Railroad Alternative.

Carver Alternative (Attachment 1)

To summarize, the pre-application analysis identifies 12 VLR/NRHP listed/eligible architectural resources and three (3) previously identified archaeological sites within the tiered study area for this alternative. These numbers include seven (7) historic districts/landmarks and five (5) battlefields.

Please see Attachment 1 for our specific comments on impacts. Based upon a review of the information provided, it is our opinion that this section would have minimal impacts on four (4) resources, moderate impacts on two (2) resources, and no impacts on six (6) resources. Moderate impacts are considered an adverse and mitigation is requested.

I-66 Hybrid Alternative (Attachment 2)

To summarize, the pre-application analysis identifies 10 VLR/NRHP listed/eligible architectural resources and two (2) previously identified archaeological sites within the tiered study area for this alternative. These numbers include seven (7) historic districts/landmarks and five (5) battlefields.

Please see Attachment 2 for our specific comments on impacts. Based upon a review of the information provided, it is our opinion that this section would have minimal impacts to four (4) resources, moderate impacts to one (1) resource, and no impacts to seven (7) resources. Moderate impacts are considered an adverse and mitigation is requested.

I-66 Overhead Alternative (Attachment 3)

To summarize, the pre-application analysis identifies 12 VLR/NRHP listed/eligible architectural resources and three (3) previously identified archaeological sites within the tiered study area for this alternative. These numbers include seven (7) historic districts/landmarks and five (5) battlefields.

Please see Attachment 3 for our specific comments on impacts. Based upon a review of the information provided, it is our opinion that this section would have minimal impacts on four (4) resources, moderate impacts to two (2) resources, and no impacts on six (6) resources. Moderate impacts are considered an adverse and mitigation is requested.

Madison Alternative (Attachment 4)

To summarize, the pre-application analysis identifies 13 VLR/NRHP listed/eligible architectural resources and three (3) previously identified archaeological sites within the tiered study area for this alternative. These numbers include eight (8) historic districts/landmarks and five (5) battlefields.

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Please see Attachment 4 for our specific comments on impacts. Based upon a review of the information provided, it is our opinion that this section would have minimal impacts on four (4) resources, moderate impacts to three (3) resources, and no impacts on four (4) resources. Moderate impacts are considered an adverse and mitigation is requested.

Railroad Alternative (Attachment 5)

To summarize, the pre-application analysis identifies 13 VLR/NRHP listed/eligible architectural resources and three (3) previously identified archaeological sites within the tiered study area. These numbers include eight (8) historic districts/landmarks and five (5) battlefields.

Please see Attachment 5 for our specific comments on impacts. Based upon a review of the information provided, it is our opinion that this section would have minimal impacts on four (4) resources, moderate impacts on two (2) resources, and no impacts on seven (7) resources. Moderate impacts are considered an adverse and mitigation is requested.

Conclusion and Recommendations

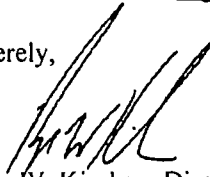
Dominion has identified the I-66 Overhead Alternative as its Proposed Route in the SCC application. Based on the sum of the information provided, it is our opinion that the I-66 Hybrid Alternative appears to have the least overall potential impact to recorded historic resources. The Madison Alternative appears to have the most overall potential for negative impacts to recorded historic resources. This alternative crosses the potentially NRHP-eligible boundaries for three (3) historic battlefields in Prince William County, and has the potential for permanent, negative visual impacts to these battlefield resources.

We offer the following as recommendations to be considered by DEQ and the SCC in the review of this application:

1. DHR recommends selection of the I-66 Hybrid Alternative to minimize potential impacts to recorded significant historic resources.
2. The Madison Alternative appears to have the most overall potential for negative impact to recorded historic resources and is not recommended.
3. Comprehensive archaeological and architectural surveys in accordance with DHR guidelines by qualified professionals prior to construction of any SCC-approved alternative.
4. Evaluation of all identified resources for listing in the VLR/NRHP.
5. Assessment of potential direct and indirect impacts to all VLR/NRHP-eligible resources.
6. Avoidance, minimization, and/or mitigation of moderate to severe impacts to VLR/NRHP-eligible resources by Dominion in consultation with DHR and other stakeholders.

Thank you for the opportunity to review this application. If you have any questions concerning these comments, please contact me at roger.kirchen@dhr.virginia.gov.

Sincerely,



Roger W. Kirchen, Director
Review and Compliance Division

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ATTACHMENT 1 – Carver Alternative
 December 18, 2015
 DHR File No. 2014-0713

DHR ID #	Resource Name/Address	VLR/NRHP Status	Segments/ Substation - Distance	Dutton Recommended Impacts – Oct. 2015	DHR Recommended Impacts – Dec. 2015
233-0002	St. Paul's Episcopal Church	VLR/NRHP-Listed	0.2-miles	Minimal	Minimal
233-0006	Old Town Hall and Haymarket School	VLR/NRHP-Listed	0.4-miles	Minimal	None
030-5152	Buckland Mills Battlefield	VLR/NRHP-Eligible	Within ROW (study area and POTNR)	Minimal	Moderate
030-5610/ 030-1016	Thoroughfare Gap Battlefield	Unevaluated/ VLR-NRHP-listed	Within ROW (POTNR)	Minimal	Minimal
076-0271	Manassas National Battlefield Park Historic District & Expansion	VLR/NRHP-Listed	0.1-miles	Minimal	Minimal
076-5036	Manassas Station Operations Battlefield (Bristoe Station)	VLR/NRHP-Eligible	Within ROW	None	Minimal
076-5190	Second Battle of Manassas	Unevaluated	Within ROW	Moderate	Moderate
076-0122	Woodlawn	VLR/NRHP-Eligible	0.16-miles	None	None
076-0147	Monroe House	Demolished	0.2-miles	None	None
233-0005	Haymarket Post Office	VLR/NRHP-Eligible	0.4-miles	None	None
233-0008	Winterham	VLR/NRHP-Eligible	0.3-miles	None	None
233-5015	Masonic Temple	VLR/NRHP-Eligible	0.4-miles	None	None
44PW1636	20 th Century Domestic	Not eligible	Within ROW	TBD	TBD
44PW1853	Historic	Unevaluated	Within ROW	TBD	TBD
44PW1854	Prehistoric	Unevaluated	Within ROW	TBD	TBD

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ATTACHMENT 2 – I-66 Hybrid Alternative
 December 18, 2015
 DHR File No. 2014-0713

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DHR ID #	Resource Name/Address	VLR/NRHP Status	Proposed Alt. - Distance	Dutton Recommended Impacts – Oct. 2015	DHR Recommended Impacts – Nov. 2015
233-0002	St. Paul's Episcopal Church	VLR/NRHP-Listed	0.4-miles (underground)	None	None
233-0006	Old Town Hall and Haymarket School	VLR/NRHP-Listed	0.2-miles (underground)	None	None
030-5152	Buckland Mills Battlefield	VLR/NRHP-Eligible	Within ROW (underground)	None	Minimal
030-5610/030-1016	Thoroughfare Gap Battlefield	Unevaluated/VLR-NRHP-listed	Within ROW (underground)	None	None
076-0271	Manassas National Battlefield District & Expansion	VLR/NRHP-Listed	0.1-miles	Minimal	Minimal
076-5036	Manassas Station Operations Battlefield (Bristoe Station)	VLR/NRHP-Eligible	Within ROW (study area)	None	Minimal
076-5190	Second Battle of Manassas	Unevaluated	Within ROW (POTNR)	Moderate	Moderate
076-5381	Gainesville District School	VLR/NRHP-Eligible	0.1-miles (underground)	None	Minimal
076-0147	Monroe House	Demolished	0.1-miles (underground)	None	None
233-0005	Haymarket Post Office	VLR/NRHP-Eligible	0.2-miles (underground)	None	None
233-5015	Masonic Temple	VLR/NRHP-Eligible	0.3-miles (underground)	None	None
233-0008	Winterham	VLR/NRHP-Eligible	0.2-miles (underground)	None	None
44PW0986	Historic, Domestic	Not eligible	Within ROW	TBD	TBD
44PW1121	Historic, Domestic	Unevaluated	Within ROW	TBD	TBD

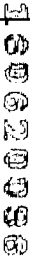
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ATTACHMENT 3 – I-66 Overhead Alternative
 December 18, 2015
 DHR File No. 2014-0713

DHR ID #	Resource Name/Address	VLR/NRHP Status	Proposed Alt. - Distance	Dutton Recommended Impacts – Oct. 2015	DHR Recommended Impacts – Nov. 2015
233-0002	St. Paul's Episcopal Church	VLR/NRHP-Listed	0.4-miles	None	None
233-0006	Old Town Hall and Haymarket School	VLR/NRHP-Listed	0.2-miles	Minimal	None
030-5152	Buckland Mills Battlefield	VLR/NRHP-Eligible	Within ROW (POTNR)	Minimal	Moderate
030-5610/030-1016	Thoroughfare Gap Battlefield	Unevaluated/VLR-NRHP-listed	Within ROW (study area)	Minimal	Minimal
076-0271	Manassas National Battlefield Park Historic District & Expansion	VLR/NRHP-Listed	0.1-miles	Minimal	Minimal
076-5036	Manassas Station Operations Battlefield (Bristoe Station)	VLR/NRHP-Eligible	Within ROW (study area)	None	Minimal
076-5190	Second Battle of Manassas	Unevaluated	Within ROW (study area and POTNR)	Moderate	Moderate
076-0147	Monroe House	Demolished	0.1-miles	None	None
076-5381	Gainesville District School	VLR/NRHP-Eligible	0.1-miles	Minimal	Minimal
233-0005	Haymarket Post Office	VLR/NRHP-Eligible	0.2-miles	Minimal	None
233-0008	Winterham	VLR/NRHP-Eligible	0.2-miles	None	None
233-5015	Masonic Temple	VLR/NRHP-Eligible	0.3-miles	None	None
44PW0985	Historic Quarry	Not eligible	Within ROW	TBD	TBD
44PW0986	Historic Domestic	Not eligible	Within ROW	TBD	TBD
44PW1121	Historic Domestic	Unevaluated	Within ROW	TBD	TBD

ATTACHMENT 4 – Madison Alternative
 December 18, 2015
 DHR File No. 2014-0713

DHR ID #	Resource Name/Address	VLR/NRHP Status	Proposed Alt. - Distance	Dutton Recommended Impacts – Oct. 2015	DHR Recommended Impacts – Nov. 2015
076-0313	Buckland Historic District and Expansion	VLR/NRHP-Listed	0.75-miles	Minimal	None
233-0002	St. Paul's Episcopal Church	VLR/NRHP-Listed	0.4-miles	Minimal	Minimal
233-0006	Old Town Hall and Haymarket School	VLR/NRHP-Listed	0.45-miles	Minimal	None
030-5152	Buckland Mills Battlefield	VLR/NRHP-Eligible	Within ROW (study area and POTNR)	Minimal	Moderate
030-5610/030-1016	Thoroughfare Gap Battlefield	Unevaluated/VLR-NRHP-listed	Within ROW (POTNR)	Minimal	Minimal
076-0271	Manassas National Battlefield Park Historic District & Expansion	VLR/NRHP-Listed	0.1-miles	Minimal	Minimal
076-5036	Manassas Station Operations Battlefield (Bristoe Station)	VLR/NRHP-Eligible	Within ROW (study area)	None	Minimal
076-5190	Second Battle of Manassas	Unevaluated	Within ROW (study area and POTNR)	Moderate	Moderate
076-0147	Monroe House	Demolished	0.1-miles	None	None
076-0122	Woodlawn	VLR/NRHP-Eligible	0.1-miles	Minimal	Moderate
233-0008	Winterham	VLR/NRHP-Eligible	0.4-miles	None	None
44PW1498	20 th Century Domestic	Unevaluated	Within ROW	TBD	TBD
44PW1582	Possible Civil War Camp	Unevaluated	Within ROW	TBD	TBD
44PW1963	Antebellum Scatter	Unevaluated	Within ROW	TBD	TBD



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ATTACHMENT 5 – Railroad Alternative
 December 18, 2015
 DHR File No. 2014-0713

DHR ID #	Resource Name/Address	VLR/NRHP Status	Proposed Alt. - Distance	Dutton Recommended Impacts – Oct. 2015	DHR Recommended Impacts – Nov. 2015
233-0002	St. Paul's Episcopal Church	VLR/NRHP-Listed	0.17-miles	Minimal	Minimal
233-0006	Old Town Hall and Haymarket School	VLR/NRHP-Listed	0.34-miles	Minimal	None
030-5152	Buckland Mills Battlefield	VLR/NRHP-Eligible	Within ROW (POTNR)	Minimal	Moderate
030-5610/030-1016	Thoroughfare Gap Battlefield	Unevaluated/VLR-NRHP-listed	Within ROW (POTNR)	Minimal	Minimal
076-0271	Manassas National Battlefield Park Historic District & Expansion	VLR/NRHP-Listed	0.1-miles	Minimal	Minimal
076-5036	Manassas Station Operations Battlefield (Bristoe Station)	VLR/NRHP-Eligible	Within ROW (study area)	None	Minimal
076-5190	Second Battle of Manassas	Unevaluated	Within ROW (study area and POTNR)	Moderate	Moderate
076-0122	Woodlawn	VLR/NRHP-Eligible	0.75-miles	None	None
076-0147	Monroe House	Demolished	0.1-miles	None	None
076-5381	Gainesville District School	VLR/NRHP-Eligible	0.35-miles	None	None
233-0005	Haymarket Post Office	VLR/NRHP-Eligible	0.4-miles	None	None
233-0008	Winterham	VLR/NRHP-Eligible	0.27-miles	None	None
233-5015	Masonic Temple	VLR/NRHP-Eligible	0.3-miles	None	None
44PW0893	Native American Prehistoric	Unevaluated	Within ROW	TBD	TBD
44PW1853	Historic	Unevaluated	Within ROW	TBD	TBD
44PW1854	Prehistoric/unknown	Unevaluated	Within ROW	TBD	TBD

PRINCE WILLIAM COUNTY: A VISION FOR THE FUTURE

The Comprehensive Plan for Prince William County contains a clear strategy for responsible, fiscally-sound growth to produce a vibrant, prosperous, stable, “livable” community. The Plan encourages new opportunities for high-end housing and targeted economic development that will strengthen the County’s tax base and balance existing housing and economic activities. It seeks to ensure a high quality of life for all County residents and heighten the County’s image by:

- Providing large amounts of open space, particularly in preservation and conservation areas.
- Encouraging higher land use densities at transit locations.
- Maintaining planned levels of residential and non-residential development.
- Providing adequate and affordable public services to meet the needs of current and future residents, and meeting established levels of service.
- Improving the design of sites and buildings.

The goals, policies, and action strategies in the Comprehensive Plan have been shaped by citizen preferences, the County’s Strategic Plan, sound planning principles, and a need to balance the competing demands for development and the preservation of the County’s distinct, irreplaceable character. The following four general goals for the future development of Prince William County represent the vision within which the Comprehensive Plan was crafted:

- **Strong economic growth**
 - ◆ New and expanded employment opportunities.
 - ◆ An improved County tax base – higher ratio of jobs to houses, non-residential uses to residential uses.
 - ◆ Higher-income professional jobs and higher-income housing.
 - ◆ Greater number of targeted industries, and the development and expansion of certain existing County-based companies.
 - ◆ Public and private investment to encourage quality economic growth.
- **Affordable, practical, and fiscally sound residential and economic development**
 - ◆ Infill development, mixed-use, and development of already developed areas within the development densities indicated in the Long-Range Land Use Plan, to maximize efficiency of existing infrastructure.
 - ◆ Updated levels of public service standards.
 - ◆ Capital Improvements Program and operating budget reflective of Comprehensive Plan policies and action strategies.
- **Prince William County as an attractive, “livable” community**
 - ◆ Good community design to ensure a high quality of life for County residents and to attract targeted businesses.

PRINCE WILLIAM COUNTY 2008 COMPREHENSIVE PLAN

From the Piedmont to the Potomac

- ◆ Preservation of areas of rural character and significant cultural/historical resources.
 - ◆ Revitalization of older commercial and residential areas of the County.
 - ◆ Sound environmental quality.
 - ◆ A variety of land use types and densities, to make the County an interesting place to live or visit.
- **Cost-effective and Plan-based transportation systems**
 - ◆ Roadway widths and locations determined by existing and planned densities.
 - ◆ Major new roadways to serve development.
 - ◆ Regional mass transportation “hubs” to develop at high-density mixed-use with transit-oriented land uses.

THE COMPREHENSIVE PLAN

A comprehensive plan is a general guide to the location, character, and extent of proposed or anticipated land use, including public facilities. It provides guidance for land use development decisions made by the Planning Commission and the Board of County Supervisors.

Section 15.2-2223 of the Virginia Code requires every governing body to adopt a comprehensive plan for the physical development of the territory within its jurisdiction. The Code further requires that comprehensive plans be reviewed every five years, to ensure that the plan is responsive to current circumstances and that its goals are still supported by the citizenry.

Each comprehensive plan is based on an analysis of current land use and future growth and the facilities needed to serve existing and future residents – such as roads, parks, water and sewer systems, schools, fire stations, police facilities, and libraries.

The Prince William Board of County Supervisors first adopted a Comprehensive Plan in 1974. New plans or amendments to an existing plan were adopted by the Board in 1982, 1986, 1989, 1990, 1998, and 2003.

The Comprehensive Plan is prepared and then recommended by the Prince William County Planning Commission at a public hearing or hearings, and forwarded to the Board of County Supervisors for public hearing and adoption.

The Comprehensive Plan can be obtained at the County’s Planning Office or on the County’s web site.

The Prince William County Comprehensive Plan contains chapters outlining goals, policies, and action strategies for the following:

- Community Design
- Cultural Resources
- Economic Development

- Environment
- Fire and Rescue
- Housing
- Libraries
- Long-Range Land Use
- Parks and Open Space
- Police
- Potable Water
- Sanitary Sewer
- Schools
- Telecommunications
- Transportation
- Sector Plans

The Comprehensive Plan also contains a series of sector plans for specific areas. The Comprehensive Plan contains a variety of land use categories within two general land use areas; the Development Area and the Rural Area (often referred to as the “Rural Crescent”)

The Development Area is that portion of Prince William County that has already been developed or is expected to be developed at residential densities greater than those in the remainder of the County. It also contains established commercial, office, and industrial areas, as well as undeveloped or under-developed land expected to meet the County’s projected growth, both residential and tax base-enhancing economic activities. The Development Area is divided into urban, suburban, and semi-rural sub-areas. The Comprehensive Plan encourages infill of the Development Area, to maximize the opportunities to provide public services in a cost-efficient manner and to provide an environmentally sound development pattern. Both public water and sewer would be provided in the Development Area.

The Rural Area is that portion of Prince William County containing agricultural, open space, forestry, and large-lot residential land uses, as well as two federal parks. Large-lot residential clusters, providing large tracts of permanent open space, are an alternative residential pattern permitted in the Rural Area. The Rural Area designation helps preserve the County’s agricultural economy and resources, the quality of the groundwater supply, and the present open space and rural character of Prince William County. The Rural Area may be served by public water facilities but not by public sewer facilities, except under the emergency conditions identified in the Sewer Plan or to serve specific public facilities. Designation of the Rural Area and application of the development goals, policies, and action strategies for it are intended to help avoid the negative economic, social, and environmental characteristics of sprawl development.

BACKGROUND

The 2008 Comprehensive Plan was developed through a process of making an overall technical update of the plan with a primary focus on incorporating mandatory changes needed to keep the plan valid, such as demographics and associated impacts on level of service standards, and to





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make corrections and updates to the goals and action strategies throughout the plan to accommodate changed circumstances. More substantive incremental changes will then be made after adoption of the 2008 plan, based on a particular subject area as prioritized by the Planning Commission.

LEVEL OF SERVICE (LOS) STANDARDS

Six of the Comprehensive Plan chapters address facilities and services provided by the County to its residents and businesses: Fire and Rescue, Libraries, Parks and Open Space, Police, Schools, and Transportation. The agencies responsible for these services have established level of service (LOS) standards by which each agency measures the quality of the service it provides. The standards are derived from government requirements (such as classroom size), professional or industry standards (such as those provided by the Institute of Transportation Engineers for road capacity and traffic movement), and from citizen surveys and citizen expectations. These standards are regularly updated as circumstances and new data warrant.

The Comprehensive Plan appropriately establishes the relationship between the demand for public services created by new development and the County's fiscal ability to provide those services at the LOS standards set forth in the Plan. The Virginia Code provides for conditional zoning ("proffers"), voluntarily made by rezoning applicants, to mitigate the service effects of new development. The LOS standards provide an objective justification for mitigation requests. While the County is still responsible for funding service operations, proffers provide a valuable source of capital funding that relates new service demands to service costs.

CURRENT CONDITIONS

Prince William County is the third most populous jurisdiction in Virginia. In December 2006 the population was estimated to be 378,455. This figure represents roughly a 34.8 percent growth since the 2000 population of 280,813. The County has projected a 2030 population of 555,012.

One of the most significant concerns regarding preparation of the Comprehensive Plan was the cost of providing quality County services – particularly schools and roads – to a burgeoning population. In (2007) dollars, for example, each new elementary school is estimated to cost \$22.6 million to construct (including land costs); middle schools each cost \$43.7 million; and high schools \$89.6 million. Each lane mile of road is estimated to cost \$4.6 million. County revenues – so heavily dependent upon residential tax dollars to support the annual capital and operating budgets – are severely stretched to plan and program public services and facilities to existing residents.

To meet citizen demands for quality services, for an appropriate linkage between development and those services, and for managed growth, the Comprehensive Plan continues the limits on the amount of new residential development established in the 1998 Comprehensive Plan. The 1998 Comprehensive Plan lowered density levels in some land use classifications and designated the Rural Area for 10-acre residential lots and rural clusters. The intent of this change was to lessen the demand for new services so that the County could concentrate its spending to catch up with

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existing infrastructure demand and to fully utilize the existing infrastructure within the Development Area.

TIMING AND DENSITY OF DEVELOPMENT

The Comprehensive Plan land use classifications have been mapped on the Long-Range Land Use Plan Map.

Within each land use classification, there is a range of density or intensity. All areas with the same land use classification, however, are not equal in terms of their location or the time frame within which their development is appropriate. Currently, some areas are more readily accessed by transportation, more readily connected to the sewer system, closer to schools and thus better able to accommodate – at established levels of service – a higher level of density or intensity. Within the Development Area different density or intensity levels are appropriate in different locations, as reflected on the Long-Range Land Use Plan Map.

As utility and facility networks are expanded and levels of service increased, consistent with the Comprehensive Plan, potential density and intensity will increase accordingly but always within the established density or intensity ranges set forth by the Comprehensive Plan. Encouraging more intense uses in areas already well serviced – and infill of well-serviced areas already substantially developed, but still within the maximum density established in the Long-Range Land Use Plan – will discourage leap-frog development, land speculation, and sprawl development extended into areas of the County poorly serviced, while allowing the County to better focus limited fiscal resources.

The criteria below are intended to aid in the determination of whether a proposed project is appropriately timed and has a density of development relative to the available infrastructure. These criteria are consistent with the goals, objectives, policies, and action strategies of the individual chapters of the Comprehensive Plan, with the Comprehensive Plan as a whole, and with the use of the "proffer" approach to conditional zoning as practiced in Prince William County. The criteria are not presented in order of importance.

1. Public Services

What are the current level of service (LOS) standards in a given area and how do they compare to the LOS standards established in the Fire and Rescue, Library, Parks and Open Space, Police and Schools Plan chapters of the Comprehensive Plan? Does the development proposal adequately achieve the intended level of service standards, or does the development need to be delayed or reduced in density until the appropriate levels of service are achieved in the area?

2. Transportation

Proposed development can have numerous effects on the County's transportation system. Transportation impact mitigation measures should be incorporated into the approved Transportation Impact Analysis (TIA) that accompanies appropriate Comprehensive Plan

amendment, rezoning, and special use permit requests. In addition, the following criteria shall – at a minimum – be considered in determining timing and an appropriate density or intensity of development:

- **Residential Site Location.** If the development is a residential project, is the site close to or within walking distance of existing or planned employment areas? Is the site close to or within walking distance to shopping and services? Will the development provide effective pedestrian access between the residential project and nearby employment and/or commercial and service areas and/or public buildings and facilities?
- **Proximity to Existing/Programmed Transportation Facilities.** Is the site in the general and reasonable vicinity of an arterial or collector road that is improved or funded for improvement to the standards identified in the Transportation Plan, as reflected by the Capital Improvements Program (CIP) or the Virginia Six-Year Transportation Plan?
- **Existing or Planned Capacity of the Transportation Facilities.** Does the impacted transportation system have the capacity to absorb the trips generated by the development proposal without degrading the adopted level of service? If not, are on-site and off-site measures proposed to offset the impacts?
- **Transportation Systems Management.** Does the development proposal address a broad range of programs and techniques to increase the efficiency of the transportation system? (Examples include participation in a transportation funding district, vanpooling, staggered work hours, employer-assisted transit use incentives, shuttle services, pedestrian access between the residential and/or non-residential development and public transportation, etc.)
- **Transit.** Is the project in the urban portions of the Development Area and within walking distance of transit services or a Transit Corridor? Is effective pedestrian access provided between the project and transit service(s)? Does the project account for an on-site commuter parking area or are other transit facilities being provided?
- **Non-motorized Facilities.** Non-motorized facilities include items such as trails, sidewalks, and bikeways. Does the project provide internal non-motorized facilities? Does the project link to external non-motorized facilities and contribute to Countywide non-motorized facilities, in accordance with the Transportation Plan?

3. Environmental Resources

The Zoning Ordinance contains a provision for developer-submitted environmental constraints analyses with rezoning and/or special use permit applications. The purpose of these analyses is to determine areas of a site unsuited for development and that will be provided as preservation or conservation areas. Items for consideration in determining

appropriate density of development should include – but not be limited to the following objectives:

- Reducing surface runoff.
- Reducing erosion potential.
- Increasing pollutant removal potential.
- Managing soil nutrients.
- Controlling toxic substances.
- Minimizing stormwater runoff and mitigating the impact of such runoff through the use of low-impact design techniques.
- Protecting federal or state rare, threatened, or endangered species, or species of special concern, identified by the U.S. Fish and Wildlife Service or the Virginia Department of Conservation and Recreation.
- Protecting habitat function.
- Avoiding direct disturbance of aquatic habitats.
- Protecting aquatic habitats.
- Preserving tree coverage.
- Clustering of residential units resulting in densities no greater than that possible under conventional development standards to further valuable environmental objectives.
- Preserving and conserving open space and areas, including woodland conservation areas, that will remain in their natural state or otherwise undisturbed by development.

4. Mixed-Use Projects and Planned Developments

Mixed-use projects – including town centers – are planned developments that encourage and accommodate a mix of land uses. These projects include an appropriate mix of commercial, office, and residential development. They provide an efficient development pattern that can foster economic development, provide diversity in land use, and reduce the number and the length of automobile trips. These projects are encouraged in appropriate locations in Prince William County, as shown on the Long-Range Land Use Plan Map. The increased efficiency of such projects warrants consideration for encouraging their creation.

The Prince William County Zoning Ordinance contains development regulations for a variety of planned development districts, including those for town centers. A Master Zoning Plan (MZIP), in accordance with the Zoning Ordinance, is adopted for each district that generally outlines the location and extent of densities, intensities, public facilities, and open space. These mixed-use projects and planned developments are appropriate only in the Development Area and should be carefully considered in terms of timing and density of development in relation to the area's infrastructure.

5. Cultural Resources

Development proposals that impact significant cultural resources are to be evaluated with regard to provision of long-term measures to protect the integrity of such resources.

Development should preserve, renovate, or otherwise restore an archaeological site, historic site, historic structure, or viewshed.

6. Planning and Design

The consistency of a project with the existing and planned land uses is greatly influenced by its design. The Community Design Plan provides more specific guidance regarding those features necessary to create desirable, visually pleasing, and economically sustainable communities. A proposal for a Comprehensive Plan amendment, rezoning, special use permit, and site or subdivision plan should be in concert with the Community Design Plan.

7. Economic Development

Development proposals that provide for increased targeted employment opportunities, the development and expansion of existing local businesses, and serve to diversify the County's economy are to be encouraged. The Comprehensive Plan encourages economic development in centers consisting of mixed-use projects, planned developments, and improvements that focus public capital improvements in those centers – including the existing residential communities which support them – so that they remain viable, visually pleasing, and prosperous.

8. Phasing for REC, CEC, and RCC Projects

Proposed development in areas planned for Regional Employment Center (REC), Community Employment Center (CEC), and Regional Commercial Center (RCC) shall include a phasing plan that ensures development in accordance with the purpose and intent of that land use classification. The REC district, for example, allows employment, retail, and residential uses; phasing in this classification should address the timing of each of these elements relative to each other. The phasing plan should consist of a general development plan or Master Zoning Plan (MZP) and a table that identifies when (sequencing) – and in general, where – primary and secondary uses shall be developed. Each general development plan or MZP and table shall include an inventory of primary and secondary uses, as defined in the Long-Range Land Use Plan.

9. Zoning Text Amendments

The Zoning Ordinance includes a residential density and/or non-residential floor area ratio (FAR) requirement for each zoning district. Whenever a new district is added or an existing district is amended, those density and intensity ranges should be evaluated under the relevant Comprehensive Plan components, including those reflected and/or referenced above.

In summary, the criteria used for determining appropriate timing and density of development are intended to:



- Set forth, or reference, Comprehensive Plan components, including standards, levels of service, and other facets of development. These criteria should be uniformly used when evaluating rezoning, special use permit and/or Comprehensive Plan Amendment applications;
- Allow for more exact development intensities or densities to be identified within established ranges, and
- Respect the basic development potential of land as reflected by the Comprehensive Plan.

COUNTY POLICY GUIDANCE

Prince William County's major policy documents include the Comprehensive Plan, the Strategic Plan, the Principles of Sound Financial Management, and the Constrained Long-Range Transportation Plan. In addition, the County has, with adoption of the 2003 Comprehensive Plan, prepared an Infrastructure and Facilities Plan (IFP). The Comprehensive Plan and the Strategic Plan contain goals and strategies that reinforce the linkage between the two documents and to the County's various implementation plans.

The Prince William County Strategic Plan is a document designed to establish a blueprint for achieving the community's long-term vision. As such, it sets out a limited number of the community's high-priority goals in four-year increments. In doing so, the Strategic Plan provides crucial policy guidance for service delivery and resource allocation decisions. The Strategic Plan can be obtained from the Office of Executive Management and the County's web site.

The Principles of Sound Financial Management, established by the Board of County Supervisors, provides policy guidance for the County's financial decisions. Prince William County has a long-standing commitment to sound financial management. These principles were first adopted in 1988 and receive regular updates to ensure their continued usefulness for decision-making. The sound financial management of the County's resources is achieved by following the consistent and coordinated approach provided by this policy document. These principles include policy statements on such issues as the County's Capital Improvements Plan (CIP), the Annual Fiscal Plan, and debt management. The Principles of Sound Financial Management can be obtained from the County's Finance Department and the County's web site.

The Constrained Long-Range Transportation Plan (CLRP), adopted by the Metropolitan Washington Council of Governments (MWCOG), is a 25-year multi-modal transportation plan for the Washington, DC metropolitan area. Federal law requires that this plan be "constrained" in two ways: first, by being fiscally realistic, with all projects in the plan having funding sources identified for their implementation; and second, by conforming in its entirety with emissions budgets established by the EPA. The CLRP can be obtained from MWCOG.

The Infrastructure and Facilities Plan (IFP) is included as an appendix in the appropriate chapters of the CIP and includes information regarding suggested public facilities on a 20-year horizon. The Comprehensive Plan, the Strategic Plan, and the Facilities Master Plan, which are County Implementation Plans (see Figure 1), will provide input to the IFP. The IFP will be

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regularly updated, as the planned facilities may change based on changing community goals, service-delivery, or land use and/or demographic patterns. The IFP is contained within the County's Capital Improvements Program, from the Office of Executive Management and the County's web site.

COUNTY IMPLEMENTATION PLANS

The policy documents described above guide the Board of County Supervisors' operating and capital decisions. Those decisions are detailed in the documents described below. In addition, County policy also contributes to the development of the Virginia Transportation Development Plan, which specifies what primary and secondary roads the Commonwealth will construct.

- **The Capital Improvements Program (CIP)** – The CIP specifies the capital infrastructure and facilities projects that are firmly scheduled for funding over a six-year period, in order to: achieve the community's long-range vision; achieve the 20-year goals of the Comprehensive Plan and the shorter-term goals of the Strategic Plan, and maintain or enhance the County's capital assets and delivery of services. In addition, the CIP describes funding mechanisms for these projects, including debt financing, cash-to-capital, and the use of proffers. The CIP can be obtained from the Office of Executive Management and the County's web site.
- **Annual Fiscal Plan** – Each year, the Board of County Supervisors adopts an annual budget for all County government operations. The budget is based on estimates of projected expenditures for County programs as well as the means of paying for those expenditures (revenues). Program expenditures are determined based on "outcome budgeting" – on achieving desired outcomes, outputs, service quality, and efficiencies (Prince William County's "family" of performance measures) for each activity in each agency of County government. The Board of County Supervisors makes budget decisions based on its established policy guidance; (e.g., Strategic Plan, Comprehensive Plan, and the service level targets found in agency program budgets). Outcome budgets also allow citizens to see the County's future direction and what their tax dollars are really buying. The annual budget can be obtained from the Office of Executive Management and the County's web site.
- **Five-Year Budget Plan** – This Plan forecasts the revenue and expenditures (both capital and operating) of the County for five years. As such, it assists the Board and the community in gauging the multi-year impacts of fiscal decisions and in weighing the corresponding implications of tax rates and other revenue sources. The County's Five-Year Budget Plan is combined with the Five-Year Budget Plan prepared by the Prince William County schools to provide a total picture of the General Fund requirements for the upcoming five-year period. The Five-Year Plan can be found in the County's annual budget and can be obtained from the County's web site.
- **Policy Guide for Monetary Contributions** – The Policy Guide provides guidance for monetary proffers during the rezoning process. Specific sections include Transportation, Schools, Police, Parks, Libraries, and Fire and Rescue. Each section of the Policy Guide outlines the corresponding service needs, level-of-service (LOS) measures, a cost per capita/student, and assignment of value for single-family,



townhouse, and multi-family dwellings or per non-residential square foot. The guide was adopted as a supplement to the Comprehensive Plan and is, on the request of the Board of County Supervisors, updated periodically. The Policy Guide can be obtained from the Planning Office and the County's web site.

- **Information Technology (IT) Plan** – The purpose of the IT strategic plan is to align the County's technology investments with its overall strategic plan. The IT strategic plan provides a "roadmap" to position the County to deliver services to citizens in support of its goals, objectives, and direction. Technology has the potential to revolutionize the way government conducts its business and serves its citizens. It is, therefore, critical for the County government to plan technology investments to maximize and optimize those investments and to leverage technology in ways that will create more effective and efficient government. The Technology Plan can be obtained from the Office of Information Technology and the County's web site.
- **Facilities Master Plan** – The Facilities Master Plan is a tool for projecting and managing the need for County facilities over the next ten years. Service delivery trends, technology, and demographics are constantly changing, resulting in changes to the County's facilities objectives. The purpose of the Master Plan is to define the future space needs of the County showing expansion for staff and equipment. The scope of the Plan includes Human Services, Administrative, Judicial, and Public Safety space needs. The Plan may be obtained from the County's Public Works Department and the County's web site.
- **Virginia Six-Year Transportation Plan** – The Virginia Department of Transportation (VDOT) Six-Year Transportation Plan for primary roads (with identification numbers less than 600 like Rt. 234) and secondary roads (with identification numbers 600 or above). The Transportation Development Plan is adopted by the Commonwealth Transportation Board (CTB). The Chairman of the Prince William Board of County Supervisors traditionally testifies during the CTB public hearings as to Prince William County's priorities. The Plan can be obtained from VDOT.
- **Zoning Ordinance** – This ordinance, adopted pursuant to the Virginia Code, is for the general purpose of promoting the health, safety, and general welfare of the public; providing for development of new community centers with adequate highway, utility, health, educational, and recreational facilities; recognizing and providing for the needs of agriculture, industry, and business; providing that the growth of the community be consistent with the efficient and economical use of public funds; and implementing the intent, goals, policies, and action strategies of the adopted comprehensive plan. The intent of the Zoning Ordinance is to provide for adequate light, air, convenience of access, and safety from fire, flood, and other dangers; reduce or prevent congestion; facilitate the provision of adequate public facilities; and provide other elements of sound community planning. The Zoning Ordinance can be obtained from the Planning Office and the County's web site.
- **Design and Construction Standards Manual (DCSM)** – The DCSM sets forth the engineering and development standards for new construction of required public improvements, as well as for protection and enhancement of the environment. It also

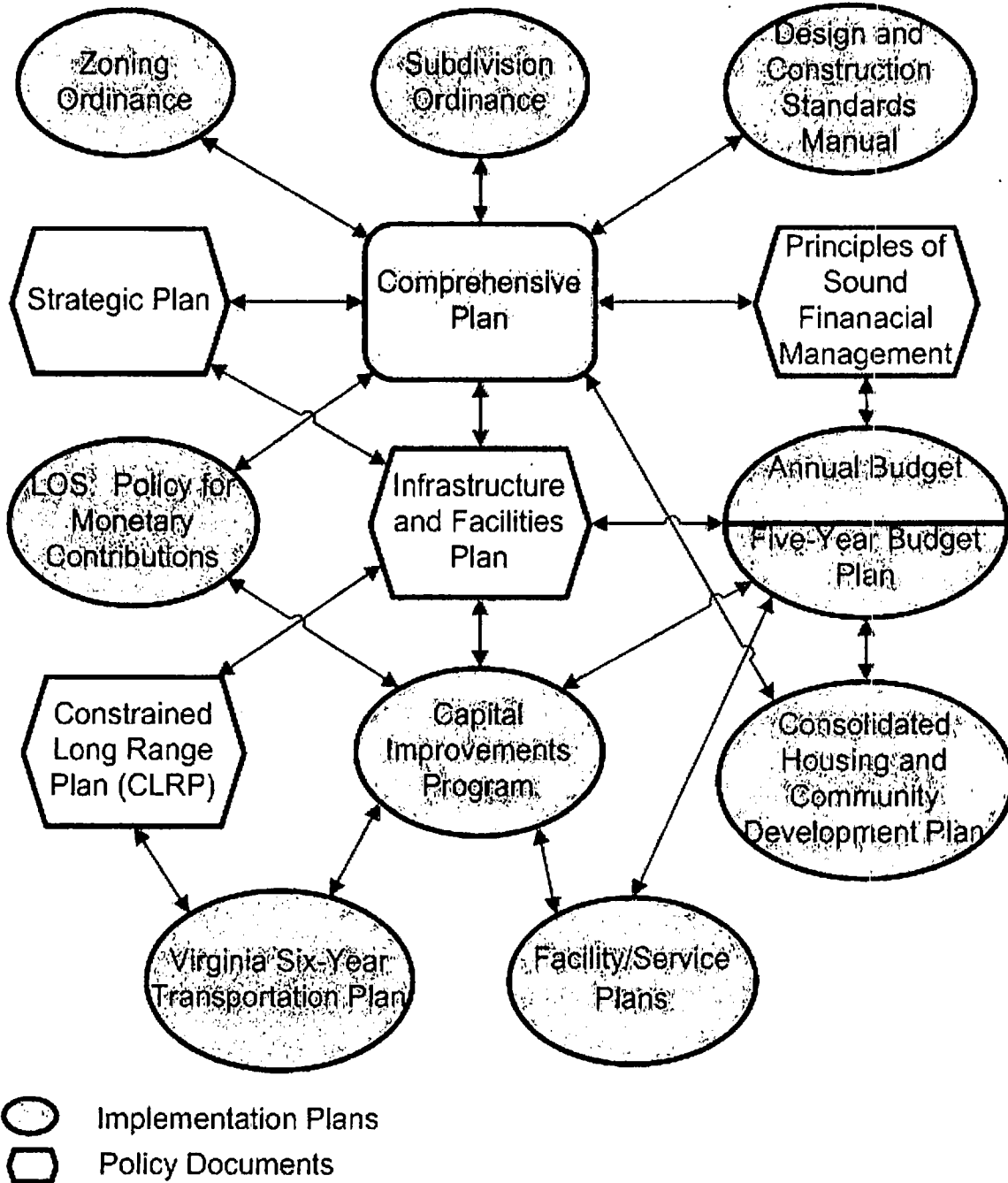
effectuates and supplements the requirements of the Comprehensive Plan and the Zoning Ordinance, as well as other state and federal regulations. The DCSM can be obtained from the Planning Office and the County's web site.

- **Subdivision Ordinance** – The purpose of the Subdivision Ordinance is to implement the County Comprehensive Plan, to encourage the orderly subdivision of land, to improve the public health, safety, convenience, and welfare of the citizens of the County, to ensure that the County land records remain clear, and that certain basic requirements are met for development of building lots, and to provide for the construction of required public improvements. The Ordinance can be obtained from the Planning Office and the County's web site.
- **Consolidated Housing and Community Development Plan:** This plan, as approved by the Board of County Supervisors, is prepared by the Office of Housing and Community Development (OHCD) and outlines the vision for providing decent housing, a suitable living environment, and expanded economic opportunities for low- and moderate-income households. The Plan is required by the U.S. Department of Housing and Urban Development in order for the County to receive Community Development Block Grants, HOME Investment Partnership funds, Emergency Shelter Grants, and American Dream Down Payment Initiative funding. It is a five-year plan that is the basis for annual funding allocations, described in one-year Action Plans, which identify the specific programs and activities to be undertaken annually with federal funds. OHCD also prepares the Action Plans, which are approved by the Board. The Consolidated Housing and Community Development Plan is updated every five (5) years. The Consolidated Housing Plan and the Action Plans can be obtained from the Office of Housing and Community Development and the County's web site.

The diagram (Figure 1) on the following page graphically illustrates the basic linkage, or interrelationship, among these various policy documents and the implementation procedures and plans that carry out these adopted County policies.

Figure 1

LINKAGES



PRINCE WILLIAM COUNTY 2008 COMPREHENSIVE PLAN

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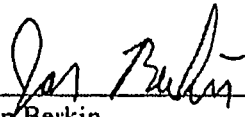
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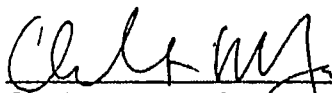
Virginia Electric and Power Company
Case No. PUE-2015-00107
Virginia State Corporation Commission Staff
Second Set

The following response to Question No. 22 of the Second Set of Interrogatories and Requests for Production of Documents Propounded by the Virginia State Corporation Commission Staff received on March 22, 2016 has been prepared under my supervision as it pertains to transmission line siting.



Jon Berkin
Routing Specialist
Natural Resource Group, LLC

The following response to Question No. 22 of the Second Set of Interrogatories and Requests for Production of Documents Propounded by the Virginia State Corporation Commission Staff received on March 22, 2016 has been prepared under my supervision as it pertains to legal matters.



Charlotte P. McAfee
Senior Counsel
Dominion Resources Services, Inc.

Question No. 22

Please reference Table 4-1 on pages 60-65 of the Environmental Routing Study in Volume 2 of the Application. The I-66 Overhead Alternative and I-66 Hybrid Alternative indicate impacts to the various residential types, but the visual impacts are not quantified for pre- and post-construction. Please provide the matrix analysis of the long term visual impacts, after construction is completed, by residential type.

Response:

The Company objects to this request as vague and overly broad to extent it requests “the matrix analysis” without definition or specificity. Notwithstanding and subject to the foregoing objection, the Company provides the following response.

Dominion Virginia Power considered two key factors that affect the evaluation of visual impacts: the magnitude of change and the sensitivity of affected resources to that change. The sensitivity to change and the factors affecting the magnitude of change to a resource are defined below.

Magnitude

Dominion Virginia Power considered the following factors when classifying the magnitude of visual or aesthetic change:

- Compatibility of the Project with the surrounding landscape: How well the proposed development fits with its surroundings.
- Scale of the development: How large the development is relative to its surroundings.

Dominion Virginia Power classified the magnitude of change as follows:

- Large: Notable change in overall aesthetic character over an extensive area and/or very intensive change over a more limited area.
- Intermediate: Moderate changes to a local area.
- Small: Changes to specific landscape elements.
- Negligible: No substantial changes to the baseline condition.

Sensitivity

Dominion Virginia Power considered the following factors when classifying the sensitivity of affected resources to changes in the visual environment:

- Existing quality of natural and cultural resources
- Importance and rarity of the affected area’s distinctive landscape elements and/or overall aesthetic character
- Ability of the affected area to accommodate change

Dominion Virginia Power classified the degree of sensitivity as follows:

- High: important landscape elements and/or the overall aesthetic character are particularly distinctive, and/or incompatible with even small changes;
- Medium: moderately valued overall aesthetic character that can accommodate some level of change; and
- Low: less valued (typically heavily developed) overall aesthetic character that is able to accommodate extensive change.

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Impact

Dominion Virginia Power defines the significance of visual impacts as a product of the sensitivity of affected resources and the magnitude of change associated with the Project. Table 1 shows these significance thresholds.

Table 1				
Significance Thresholds of Potential Visual Impacts				
		Sensitivity to Change		
		Low	Medium	High
Magnitude of Change	Negligible	No Impact	Negligible Impact	Negligible Impact
	Small	Slight Impact	Slight/Moderate Impact	Moderate Impact
	Intermediate	Slight/Moderate Impact	Moderate Impact	Moderate/Significant Impact
	Large	Moderate Impact	Moderate/Significant Impact	Significant Impact

Dominion Virginia Power defined the significance thresholds for visual impacts as follows.

- **Significant:** The Project would cause significant degradation of existing aesthetic character.
- **Moderate:** The Project would cause noticeable (but less than significant) degradation of existing aesthetic character.
- **Slight:** The Project would cause a barely noticeable degradation of existing aesthetic character.
- **Negligible:** The Project does not affect existing aesthetic character.

Analysis

The project area is heavily developed and possesses extensive existing infrastructure features. These features dominate the viewshed, both locally and at the landscape level. Several recent and ongoing transportation and other development projects are also present, including overpass and interchange (local) improvements, and improvements along longer stretches of I-66 (landscape). The presence of these features and projects, as well as the overall developed and built character of the landscape, indicates that the Project area would not be particularly sensitive to changes in aesthetic conditions. Dominion Virginia Power therefore identified the project area as having “low” sensitivity to changes in the visual environment.

The Project is expected to create only minor changes in aesthetic conditions. The local viewshed is dominated by both horizontal features (e.g., I-66 and sound walls) and vertical features (e.g.,



road signs, interstate and off-ramp lights), which are generally compatible with linear infrastructure such as an electric transmission line. Nonetheless, because the transmission line structures (for an overhead line) would be taller than some existing landscape features, Dominion Virginia Power determined that the Project would have an “intermediate” impact magnitude. As a result, the Project would have an overall “moderate” level of visual impact. Table 2 identifies the expected sensitivity, magnitude, and visual impacts from the Project on residences along the two I-66 alternatives.

Table 2				
Visual Impact Analysis Matrix for the Haymarket 230 kV Transmission Line Project				
	I-66 Hybrid Alternative Route		Proposed Route (I-66 Overhead)	
	Sensitivity	Magnitude	Sensitivity	Magnitude
Residences within 500 feet	Low	Negligible	Low	Small
<i>Impact Level</i>	Negligible Impact		Slight Impact	
Residences within 200 feet	Low	Negligible	Low	Small
<i>Impact Level</i>	Negligible Impact		Slight Impact	
Residences within 100 feet	Low	Negligible	Low	Intermediate
<i>Impact Level</i>	Negligible Impact		Slight/Moderate Impact	

In the context of the overhead and hybrid route alternatives along I-66, the level of adverse impact depends largely on how visually compatible the Project is with existing aesthetic conditions. Given the extensive development within the immediate project area, including residential, commercial, utility, and rail and road transportation infrastructure, Dominion Virginia Power believes the Project would not substantially contrast with existing aesthetic conditions. Although the Proposed Route (I-66 Overhead) would have a “slight/moderate” visual impact on the closest residences, it would be generally visually compatible with the existing landscape. Because the I-66 Hybrid Alternative Route would be buried near residences, it would have a negligible visual impact.