

**REBUTTAL TESTIMONY
OF
JOHN B. BAILEY
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUE-2007-00031**

1 **Q. Please state your name and position with Virginia Electric and Power Company**
2 **("Dominion Virginia Power" or the "Company").**

3 A. My name is John B. Bailey, and I am Coordinator – Siting and Permitting – for the
4 Company.

5 **Q. Did you pre-file direct testimony on April 19, 2007, in this case?**

6 A. Yes.

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

8 A. I will comment on Respondent and Staff testimony concerning the Meadow Brook to
9 Loudoun 500 kV line ("the Project") and its potential effect on the environment, open
10 space easements, agricultural and forestal districts and use of existing rights-of-way.

11 **Q. What key environmental issues were identified in Respondent testimony?**

12 A. Respondent testimony has raised issues that the Project will create impacts on the
13 environment and on wildlife. Many of these issues were identified by the environmental
14 agencies in their comments to DEQ. The key issues expressed by Respondents were that
15 the Project would cause:

- 16 a. increased land disturbance and soil erosion;
17 b. the introduction of invasive exotic species;
18 c. an effect on water quality due to herbicides;
19 d. forest fragmentation;
20 e. decline in bird species;

- f. decline in the wood turtle populations;
- g. avian mortality due to collisions and electrocutions;
- h. impact to threatened and endangered species;
- i. wetlands impacts;
- j. stream/water quality impacts; and
- k. concerns over right-of-way clearing practices.

The Company has sought to address and mitigate such concerns and has done so in a variety of ways.

Q. Is there an overall measure which serves to mitigate many of these potential impacts?

A. Yes. A key factor to point out about the 65-mile Proposed Route is that approximately half of the route (48%, or 31.8 miles) will be completely within a pre-existing electric transmission line right-of-way. The complete eastern portion of the "U" shaped route (22.3 miles) is within an existing 240' wide right-of-way that is already cleared. Of this 22.3 miles, the 7.8 mile portion north of Gainesville Substation (near I-66) is already occupied by one 500 kV line and double circuit 230 kV line. The remaining 14.5 mile portion to the south has a single circuit 500 kV line and will have a new 230 kV line constructed in 2008 (Bristers-Gainesville 230 kV line, Case No. PUE-2006-00048). The remaining 9.5 miles, where the Proposed Route will be located entirely within the existing right-of-way, are portions of the west side of the "U" where the route is within either the Appalachian National Scenic Trail property, within pre-existing open space easements, or in congested areas where residences have been built on both sides of the right-of-way. There will be reduced impacts through use of this existing right-of-way. Moreover, the entire remainder of the route will utilize a portion of and parallel the existing right-of-way and require only minimal additional right-of-way immediately adjacent to existing right-of-way in order to accommodate the additional facilities.

1 Utilizing existing rights-of-way is a key benefit of the Proposed Route. This collocation
2 of facilities is promoted by Virginia Code §§ 56-46.1 and 56-259, FERC Guideline #1,
3 and the Appalachian Trail Conference (“ATC”) Policy on Roads and Utility
4 Developments criteria (Criteria #2), all of which encourage the use of existing rights-of-
5 way.

6 Section 56-46.1 of the Code of Virginia promotes the use of existing rights-of-way in
7 paragraph C where it states “[i]n any hearing the public service company shall provide
8 adequate evidence that existing rights-of-way cannot adequately serve the needs of the
9 company.”

10 Section 56-259 of the Code of Virginia also encourages the use of existing rights-of-way
11 in paragraph C where it states “[p]rior to acquiring any easement of right-of-way, public
12 service corporations will consider the feasibility of locating such facilities on, over, or
13 under existing easements of rights-of-way.”

14 The Federal Energy Regulatory Commission (“FERC”) encourages the use of existing
15 rights-of-way in its “Guidelines for the Protection of Natural, Historic, Scenic and
16 Recreational Values in the Design and Location of Rights-of-Way and Transmission
17 Facilities.” (“FERC Guidelines”). FERC Guideline #1 states

18 To the extent permitted by the property interest involved, rights-of-
19 way should be selected with the purpose of minimizing conflict
20 between the rights-of-way and present and prospective uses of the
21 land on which they are to be located. To this end, existing
22 rights-of-way should be given priority as the locations for
23 additions to existing transmission facilities, and the joint use of
24 existing rights-of-way by different kinds of utility services should
25 be considered.

1 The FERC Guidelines are also incorporated in Section II.A.8 of the Commission's
2 "Guidelines of Minimum Requirements for Transmission Line Applications Filed Under
3 Virginia Code Section 56-46.1 and the Utility Facilities Act.

4 The ATC advocates the use of existing corridors in their Policy on Roads and Utility
5 Developments where they state "any new impacts associated with the proposed
6 development shall coincide with existing major impacts to the Trail experience."

7 **Q. Have other witnesses recognized the benefits of utilizing existing rights-of-way?**

8 A. Yes. Staff witness Wayne McCoy notes the benefit of paralleling existing corridors,
9 especially in areas with significant historic assets. While there will be some impact
10 wherever a line is built, Mr. McCoy recognizes that in this case the impact will be only
11 incremental where an existing transmission line already exists, such as on the Proposed
12 Route.

13 **Q. Is this policy recognized elsewhere?**

14 A. Yes. Other states promote the use of existing rights-of-way. North Carolina allows for
15 upgrades of existing rights-of-way without Public Service Commission review if the
16 upgrade is completely within an existing right-of-way. The Public Service Commission
17 of Maryland promotes the use of existing rights-of-way under their "Alternatives to
18 construction of transmission lines" where they require the utilities to look at existing
19 transmission lines, even lines owned by another utility, to satisfy the need. The Public
20 Utility Commission of Texas's "certification criteria" require that existing rights-of-way
21 be considered in the selection of preferred and alternate routes. A transmission line
22 application in Texas must address whether the route will "utilize existing compatible

1 rights-of-way, including the use of vacant positions on existing multiple-circuit
2 transmission lines” and “whether the routes parallel existing compatible rights-of-way.”

3 All owners of parcels on the Proposed Route presently have an electric transmission line
4 easement on or adjacent to their property and their uses co-exist with this line, whether it
5 is farming, residential or commercial use, or use as a National Park. Although the
6 Proposed Route adds some additional impact, locating the new line within or adjacent to
7 the existing right-of-way is the option that offers the least overall impact of the alternate
8 routes studied.

9 **Q. Please address the issues of land disturbance and erosion control.**

10 A. Some Respondents have argued that Dominion Virginia Power’s proposal will create a
11 significant amount of land disturbance, which will create sedimentation and erosion
12 control problems.

13 Dominion Virginia Power’s Forestry and Construction Departments deal with sediment
14 and erosion control issues on every transmission line Project that the Company constructs.
15 As a regulated utility, Dominion Virginia Power is required to submit General Erosion
16 and Sediment Control Standards & Specifications for annual review and approval by the
17 Virginia Department of Conservation and Recreation. Additionally, each Project that
18 will begin construction in that calendar year is required to have a site-specific erosion and
19 sediment control plan in place. One distinction that sets Dominion Virginia Power’s
20 construction impacts apart from a typical developer is that Dominion Virginia Power’s
21 clearing practices do not include grubbing (removal of the root mass) which occurs for
22 underground utilities and commercial development. Not removing the root mass is a

1 significant step towards minimizing soil disturbance. In addition, the Company strives to
2 limit the acreage purchased, cleared, and land disturbed but, yet, still provide safe
3 National Electric and Safety Code clearances for the equipment, the general public, and
4 our employees.

5 The Company also will maintain compliance with the Virginia Erosion and Sediment
6 Control Handbook identified in the DEQ recommendations from the DEQ Office of
7 Wetlands and Water Protection, the Department of Conservation and Recreation
8 Divisions of Soil and Water Conservation, Chesapeake Bay Local Assistance and
9 Planning and Recreation Resources.

10 Staff witness McCoy and several of the environmental agencies state that sedimentation
11 and erosion controls are of utmost importance to minimize the impacts of construction
12 Projects on aquatic systems. The environmental agencies made the following
13 recommendations:

- 14 a. that the Company have a certified Responsible Land Disturber for the
- 15 Project;
- 16 b. that the Company minimize disturbance of wooded Resource Protection
- 17 Areas;
- 18 c. that the Company use two layer silt fence controls (wire reinforced super
- 19 silt fence) near streams;
- 20 d. that the Company use clear span bridges instead of culverts; and
- 21 e. that the Company use biodegradable matting and re-seed with native
- 22 vegetation to the maximum extent possible.

23 The Company agrees with the Respondents, the agencies, and Staff Witness McCoy that
24 erosion controls are critical to minimizing environmental impacts, and the Company
25 believes that the agency recommendations adequately address sedimentation and erosion

1 control issues, and Dominion Virginia Power accepts the above recommendations with
2 one exception described below.

3 **Q. Please comment on the Department of Game and Inland Fisheries (“DGIF”)**
4 **recommendation to use clear span bridges instead of culverts.**

5 A. The DGIF recommendation for clear span bridges instead of culverts should not be
6 adopted.

7 The DEQ-Office of Wetlands and Water Protection (“OWWP”) specifically addresses the
8 use of culverts during construction in their May 18 and July 23, 2007 comments to the
9 Commission. The DEQ states that “no activity may substantially disrupt the movement
10 of aquatic life” but does allow careful placement of culverts in streams, stating that
11 “culverts placed in streams must be installed to maintain low flow conditions.”

12 Dominion Virginia Power proposes to follow DEQ directions for the placement of
13 culverts in streams.

14 Importantly, while DGIF recommends that all equipment crossings be constructed using
15 clear-span bridges, their comments to the DEQ dated June 19, 2007, do not require the
16 use of clear-span bridges for equipment crossing of streams. The Company believes the
17 Commission should not make this a requirement because impacts to any threatened or
18 endangered species, the movement of aquatic life, and maintenance of low flow
19 conditions will be fully addressed by the DEQ. Properly installed culverts, as described
20 by DEQ, will allow the Company to construct the line and still provide the necessary
21 safeguards for the environment. The Company believes that both options (culverts and
22 bridges) are environmentally acceptable alternatives for stream crossings. Requiring the
23 Company to use only bridges to cross streams can needlessly complicate field work and

1 limit our personnel and contractors. DEQ provides for the option to use properly
2 installed culverts and the Company has successfully and routinely utilized temporary
3 culverts on past projects. The Company requests that this recommendation from DGIF
4 not be made a requirement in the Final Order.

5 **Q. Please address Respondent testimony over invasive species and Dominion Virginia**
6 **Power's position regarding it.**

7 A. Respondent testimony states that the proposed Project will allow the inadvertent
8 introduction of invasive opportunistic plant species.

9 It is appropriate to evaluate the potential for introduction of invasive species in that the
10 creation of any new right-of-way (gas, electric, railroad, etc.) in wooded areas does have
11 the potential for the introduction of undesirable species. This is because all linear utilities
12 manage that right-of-way to keep it open for that specific use and this opening allows for
13 new species to grow. Dominion Virginia Power manages its rights-of-way so that the
14 trees do not become a safety clearance issue with the electric lines, and this cleared
15 right-of-way allows increased sunlight and opportunistic species to thrive where they
16 could not before. The Company's maintenance practices do allow for the retention of
17 sub-canopy growth that will not grow high enough to conflict with safe electrical
18 clearances. On the other hand, while opening a corridor creates an opportunity for
19 invasive species, it also creates an opportunity for rare plants to thrive. Dominion
20 Virginia Power, working with the Virginia Department of Natural Heritage, has identified
21 a number of areas where rare plant colonies thrive within the right-of-way (see discussion
22 under Threatened and Endangered Species).

1 **Q. How does Dominion Virginia Power address the issue of use of herbicides?**

2 A. Our Forestry Department informed me that Dominion Virginia Power promotes a limited
3 use of herbicides in what is called a Selective Vegetation Management Policy for
4 transmission line rights-of-way. The establishment of low growing, diverse, herbaceous
5 cover can be accomplished by using appropriate EPA-approved herbicides and selective
6 methods of application. The combination of herbicides and selective application methods
7 allows the retention of desirable vegetation and the elimination of undesirable, tall,
8 woody plants. The result of selective herbicide applications is increased plant diversity
9 and improved wildlife habitat. Furthermore, there is improved safety and service
10 reliability of the power supply.

11 Licensed contractors perform this work for the Company, and all of their personnel at the
12 job site are either certified applicators or registered technicians with the state in which
13 they are working. Both the Company and our contractors have an excellent history with
14 the use of herbicides in vegetation management.

15 The OWWP recommended that any necessary herbicides be EPA-approved, and
16 Dominion Virginia Power is in agreement with this recommendation.

17 **Q. Please respond to Respondent testimony over forest fragmentation.**

18 A. Respondent testimony states that the forest loss and forest fragmentation will be first
19 order environmental impacts for the Proposed Route. They discuss projects such as roads
20 or power lines as examples of internal fragmentation which create smaller blocks of
21 forested areas.

1 As for fragmentation of habitat, the fragmentation for the Proposed Route occurred in the
2 mid-1970s when the existing line was constructed. Fragmentation for the Alternate
3 Route occurred when the interstate was built. Adding this new line, as Staff Witness
4 McCoy describes in his report, is not a new fragmentation of forest but rather a fringe
5 impact. The benefit of the Proposed Route is that there is an existing line already in place
6 with an existing right-of-way that the Company can either utilize completely for the new
7 line (approximately 31.8 miles or 48% of the route) or overlap portions of the existing
8 right-of-way where we would only need to widen 50-100' for most of the remaining line
9 (approximately 33.7 miles or 52% of the route).

10 The Company believes that both the Proposed Route and Alternate Route minimize the
11 loss and fragmentation of forested habitat when compared to constructing a new line in
12 an undisturbed area where no existing corridor is present, such as the Segment Overhead
13 Route, which the Company considered and rejected.

14 **Q. Please respond to testimony regarding bird species and the wood turtle.**

15 A. Respondent testimony cites a number of bird species that may be impacted along the
16 Proposed Route. The DGIF addressed these issues in its June 19, 2007 comments. The
17 DGIF had three species of particular concern for construction of either the Proposed or
18 Alternate Route. They recommended that the Company either survey for the presence of
19 the Upland Sandpiper, the Loggerhead Shrike, and the Henslow's Sparrow or avoid
20 construction during their nesting season. The Company is in agreement with these
21 recommendations.

1 The DGIF also made a general recommendation to avoid all songbird nesting seasons,
2 which concerns the Company because of the serious adverse impact on construction time
3 for the Proposed Route. The DGIF recommends time of year restrictions for clearing if
4 different threatened or endangered species are found and also, in some cases, if Species
5 of Concern are present. This period is usually during breeding, nesting, or incubation
6 periods for that species. Dominion Virginia Power agrees that this is appropriate in most
7 cases. For instance, in the case of the Loggerhead shrike (listed as a State Threatened
8 Species) the DGIF recommends that the Company refrain from removing potential shrike
9 nesting trees during the breeding season (April 1- July 31), but if that is not possible, to
10 survey the area for the presence of the Loggerhead shrike and if no nesting sites are found,
11 then a time of year restriction will not be necessary. There is a similar recommendation
12 for the Henslow's Sparrow nesting season (April 1- August 31) and for the Upland
13 Sandpiper nesting season (April 1- July 31). However, there is an additional general
14 recommendation to minimize potential adverse impacts upon all songbirds and forest
15 dwelling species, and DGIF recommends that tree clearing activities be minimized and
16 scheduled to take place outside the songbird nesting season (roughly April 15 – August 1).
17 This effectively eliminates up to four months of prime construction time for the Project
18 during each year of construction.

19 Dominion Virginia Power is prepared to accommodate time of year restrictions for
20 clearing activities in those areas where threatened and endangered species are found.
21 However, all clearing and maintenance activities cannot be shut down for almost four
22 months of each year without impacting the schedule of construction and, thereby, the
23 ability to have the line in service prior to the Summer of 2011.

1 The Company remains committed to working with the DGIF and other state and federal
2 agencies to survey for certain species, habitat, wetlands, and cultural resources.

3 Communication between us is important to avoid, minimize, or mitigate impacts that a
4 transmission line may have to an environmentally sensitive area. However, in order to
5 effectively meet and serve the electrical needs of northern Virginia, Dominion Virginia
6 Power cannot agree to a time of year restriction for the Project except to avoid specific
7 threatened and endangered species and some Species of Concern. Dominion Virginia
8 Power is opposed to making this recommendation a requirement.

9 Additional Respondents addressed the potential for the proposed Project to cross the
10 Wood Turtle habitat. The DGIF also supports this concern and has recommended a
11 survey of the approved route be performed prior to construction and that the DGIF be
12 consulted for comments. The Company is in agreement with this recommendation.

13 **Q. Please respond to Respondent testimony regarding avian collisions and related**
14 **issues.**

15 **A.** Respondent testimony cites concern that the proposed Project threatens bird species as a
16 result of collision with the wires or electrocution.

17 The issue of avian interactions with powerlines is not new to Dominion Virginia Power
18 or to the Commission. In fact, the Company was one of the founders, along with the U.S.
19 Fish and Wildlife Service (“USFWS”), of the Edison Electric Institute’s Avian Power
20 Line Interaction Committee (“APLIC”) in 1989 and has continued to maintain a leading
21 role in the task force. APLIC has worked in concert with the USFWS to prevent avian
22 interactions with powerlines.

1 Avian electrocutions occur when contact is made between birds and either two
2 conductors or a conductor and a ground. Electrocutions are typically an issue for
3 energized lines of less than 60 kV (APLIC, 2006). These are, by definition, distribution
4 lines, not the larger and higher voltage-carrying transmission lines. APLIC recommends
5 a 60-inch (5 foot) separation to be "avian safe". The separation of conductors will be a
6 minimum of 31 feet (372 inches) for the Project, significantly exceeding the 60" APLIC
7 recommendation. Dominion Virginia Power is aware of only one raptor electrocution on
8 our transmission line grid, and that was on a line over the James River that also has a
9 distribution line for required aerial navigation lights on the structure. We believe it was
10 the presence of the distribution line that caused the electrocution. Respondent testimony
11 referring to avian electrocutions by "powerlines" is probably referring to distribution
12 lines, not transmission lines.

13 Further, the Company works cooperatively with the USFWS to monitor and report raptor
14 fatalities. In certain distribution line areas where fatalities have occurred, Dominion
15 Virginia Power has added perch guard deterrents to raptor-preferred structures or even
16 added wider spacing between conductors to meet the APLIC "avian safe" guidelines.

17 In summary, transmission line electrocutions are not an issue on the existing line that the
18 new line will adjoin, and the Company does not expect this to be an issue on either the
19 Proposed or Alternate Routes. The agencies did not identify either of these avian
20 interactions as a potential concern. They did identify a number of bird species that the
21 Company should survey for and, if necessary, construct the Project outside of that bird's
22 nesting season. The Company will comply with this mitigation measure.

1 Q. Please respond to issues raised in Respondent testimony regarding threatened and
2 endangered species.

3 A. Respondent testimony expresses concern about the Project's impacts to threatened and
4 endangered species. Many of these same species were listed in the September 20, 2007
5 DEQ Report to the Commission, which recommended the following:

- 6 a. Survey for Upland Sandpiper in Loudoun, Fauquier and Warren Counties.
- 7 b. Avoid construction during Sandpiper nesting (April 1-July 31) or survey
8 during year of construction and coordinate survey protocols with DGIF.
- 9 c. Survey for the Wood Turtle and coordinate with DGIF.
- 10 d. Survey for Loggerhead Shrike in Loudoun, Warren, Rappahannock, and
11 Frederick Counties.
- 12 e. Avoid construction during Shrike nesting (April 1-July 31) or survey
13 during year of construction and coordinate survey protocols with DGIF.
- 14 f. Survey for Henslow's Sparrow in Loudoun and Prince William Counties.
- 15 g. Avoid construction during Sparrow nesting (April 1-August 31) or survey
16 during year of construction and coordinate survey protocols with DGIF.
- 17 h. Avoid clearing during songbird nesting season (April 15-Aug 1).
- 18 i. Increase stream buffer from 100 to 300 feet in areas along
19 Threatened/Endangered species waters and tributaries and in anadromous
20 fish use areas.
- 21 j. Avoid in-stream activities at the Jordan and Rappahannock River
22 crossings during spring spawning and migration season (Feb 15- June 30).
- 23 k. Inventory all conservation sites for rare species and coordinate with DCR
24 for mitigation measures.

25 The Company is in agreement with these mitigation measures with the exception of two
26 DGIF comments recommending avoiding construction during the complete songbird
27 nesting season, as discussed previously, and widening the stream buffers from 100 feet to
28 300 feet. The Company has concerns about both recommendations. DGIF recommended
29 an increase in the Company's standard 100-foot vegetative buffer around streams and
30 wetlands to a 300-foot buffer along threatened and endangered species waters and direct
31 tributaries to those waters. Currently, to preserve the 100-foot buffers, large trees are
32 selectively cut by the Company using chain saws. Small trees, regardless of species, are
33 left in place during construction and permanent vegetation is established uphill. The

1 undesirable species will eventually be cut or treated with herbicide during the first
2 right-of-way maintenance cycle. The large trees that are cut are usually lifted out by
3 track hoes that have a 60-foot reach, which would not be an option with a 300-foot buffer.
4 Instead, they would have to be skidded (dragged) out of the buffer and, in doing so, much
5 of the smaller vegetation that is desirable for sediment and erosion control purposes
6 would be destroyed, thereby defeating the purpose of leaving the buffer in the first place.
7 The Company's experience is that our standard 100-foot buffer found in the Company's
8 state approved General Erosion and Sediment Control Standards & Specifications is
9 sufficient for stream bank protection and erosion and sedimentation control. In those
10 areas where a vegetated buffer is not available, the clearing contractors and construction
11 contractors will install and maintain a silt fence. This was not an issue identified by the
12 OWWP, but it was supported in DEQ's coordinated review as a recommendation from
13 DGIF. Dominion Virginia Power is opposed to making the 300-foot buffer
14 recommendation a requirement, as we believe the 100-foot wide buffer provides ample
15 environmental protection, and there are adverse impacts for both construction and the
16 environment of expanding the buffer.

17 **Q. Please discuss the Company's position regarding rare plant species.**

18 **A.** *Our Environmental Department informed me that Dominion Virginia Power has a*
19 *cooperative program with the Department of Natural Heritage ("DNH") to protect rare*
20 *plant colonies that currently have been identified on certain transmission line rights-of-*
21 *way. These colonies were located by botanists from DNH and the Company through*
22 *three extensive surveys conducted over the past ten years. To date, 119 powerlines have*
23 *been surveyed by the DNH. The surveys demonstrate the value of powerline rights-of-*

1 way as a suitable habitat for rare, light-demanding species. The colonies are there
2 because the right-of-way provides an open canopy required by these plants to survive.
3 These sites have been recorded, marked, and monitored and have specific maintenance
4 practices in an effort to preserve the sites.

5 The current integrated vegetation management practice for rights-of-way that the
6 Company is now employing on the great majority of its lines also has resulted in some of
7 the best habitat in the state for ground-nesting birds and animals. These areas are
8 especially valuable for turkeys, deer, and bobwhite quail. The rights-of-way are now
9 covered with vegetation that is more native and seed-producing. Also, the Company, in
10 concert with USFWS, planted a new right-of-way with warm season grasses native to this
11 area rather than the previously used fescue, which has very little wildlife value. The
12 company has been recognized by and received awards from both the Wild Turkey
13 Federation and Quail Unlimited for its efforts to promote wildlife habitats along its
14 rights-of-way.

15 Dominion Virginia Power also participates in a cooperative program with the DGIF,
16 where the Company reimburses landowners who agree to convert and maintain
17 rights-of-way on their land for the benefit of wildlife. Each landowner's particular plan
18 is designed by wildlife biologists from DGIF and then reimbursed by the Company for up
19 to ten acres at \$250 per acre. This program has been very successful in the state.

20 **Q. Please respond to Respondent testimony over wetland impacts.**

21 A. Concerns were expressed about the level of impact to wetlands that the Project presents.
22 The Company constructs, operates, and maintains transmission lines within our 6,000

1 circuit mile grid in Virginia and portions of North Carolina and West Virginia. We work
2 closely with the US Army Corps of Engineers, DEQ, and the Virginia Marine Resource
3 Commission whenever we cross wetlands or streams in the Commonwealth. Typically,
4 the Company works to minimize any impact to wetlands and this involves “on the
5 ground” wetlands delineations after the route is approved to specifically outline the
6 wetland areas. This information is then overlaid onto the engineering plan and profile so
7 the wetlands and structure locations can be compared. Then we work to move structure
8 foundations outside of the wetlands whenever possible. Additionally, clearing within
9 wetlands areas is performed by hand, and construction access in wetland areas utilizes
10 temporary, removable mats. With all of this effort, the Company typically receives a
11 Nationwide Permit from the Corps or a General Permit from the DEQ because these
12 kinds of construction techniques minimize the impacts to wetland areas.

13 The Company will employ these methods in any wetlands area on the route is approved
14 by the Commission.

15 **Q. What was the concern in Respondent testimony over stream and water quality**
16 **impacts, and what is the Company’s response?**

17 A. The issue of impact to stream water quality was raised in Respondent testimony and by
18 some of the DEQ commenting agencies. Typically construction of a transmission line has
19 minimal impact to stream water quality because the Company usually spans streams and
20 rarely places structures in the stream bottom (the exceptions would be crossing wide
21 rivers and tidal wetland expanses). Strict compliance with sediment and erosion control
22 guidelines is a major first step to protecting water quality.

1 Additionally agency recommendations that the Company is in agreement with included
2 the following:

- 3 • use wire-reinforced silt fence and straw bales along streams;
- 4 • use biodegradable erosion matting and re-seed with native vegetation to
5 the maximum extent possible;
- 6 • Threatened/Endangered species waters and tributaries and in anadromous
7 fish use areas;
- 8 • comply with the Virginia Erosion and Sediment Control Handbook;
- 9 • no machinery may enter surface waters unless authorized; and
- 10 • necessary herbicides shall be EPA approved.

11 **Q. Please summarize your comments on the potential impact on wildlife resources and**
12 **agency recommendations.**

13 A. In summary, there are associated wildlife impacts with both the Proposed and Alternate
14 Routes, and the Commission addresses such issues with virtually every transmission line
15 proposal brought before it. Through our work with the various environmental agencies,
16 utilizing the DEQ coordinated review and adopting most of their recommendations, the
17 Company and the Commission will reasonably minimize the impacts on the Proposed
18 Route or the Alternate Route.

19 Again, one important benefit of the Proposed Route is that it realizes the significant
20 advantage of being completely within or adjacent to an existing electric transmission line
21 right-of-way for 100 percent of the route. This proposed approach is supported by
22 Virginia Code §§ 56-46.1 and 56-259, FERC Guideline #1, and the ATC Policy on Roads
23 and Utility Developments criteria (Criteria #2), as well as the policies of several state
24 public utility commissions, all of which encourage the use of existing rights-of-way.
25 This also is viewed as a benefit of the Proposed Route by Staff Witness McCoy in his
26 report on the environmental aspects of the Project.

1 Collocating the existing and the proposed lines together has the physical benefit of not
2 needing two completely independent 150 foot wide rights-of-way located remotely from
3 one another, and therefore there is the environmental benefit of merging the two impacts
4 adjacent to one another. The Company is not implying that there is no additional impact
5 by collocation of the lines, because there is a widening of the right-of-way in areas and
6 there are additional structures. However, when compared to adding an additional
7 transmission line in an area where none exists today, it is the Commonwealth's policy
8 and the Company's opinion that collocating the new 500 kV line within or adjacent to a
9 right-of-way that presently has an existing transmission line has clear advantages and
10 most reasonably minimizes the environmental impact.

11 A number of agencies have recommended one route over another, but they have done so
12 from their particular perspective, such as OWWP recommending the Alternate Route
13 based on a lower impact on wetland resources. However, the Department of Historic
14 Resources has recommended the Proposed Route based on a lower impact on historic
15 resources. Also, VDOT has discouraged consideration of the Alternate Route. It should
16 be noted that Mr. McCoy, on behalf of the Commission Staff, has performed an
17 independent study of the two routes. He looked at all the competing issues (cultural
18 resources, wetlands, residences, visibility, forest clearing, existing rights-of-way). In his
19 conclusion he found the Proposed Route most reasonably minimizes the impact, and he
20 recommends the Proposed Route.

21 It also should be noted that following Commission approval, the typical process for
22 Dominion Virginia Power's transmission line Projects includes a Joint Application to the

1 US Army Corps of Engineers, the DEQ, and the Virginia Marine Resources Commission.
2 In the preparation of this Joint Permit Application the Company performs additional
3 detailed environmental studies for the agency permits, such as wetlands delineations, rare
4 species surveys, and cultural resources surveys.

5 **Q. Some parties raise questions about open space easements. How did Dominion**
6 **Virginia Power address potential impacts to open space easements during the**
7 **application process?**

8 A. During the routing study performed by Burns & McDonnell, the Dominion Virginia
9 Power and Allegheny Project teams were challenged with routing a transmission line
10 through a part of Virginia that has a significant number of open space easements held by
11 the Virginia Outdoors Foundation (“VOF”) and other entities. After input from the
12 public, area officials, and meeting with the VOF, Dominion Virginia Power’s
13 management stated as a matter of general policy that for this Project the Company would
14 not widen any right-of-way into VOF open space easements that existed at the time of
15 our public meetings in November 2006. The intent was not to widen the footprint of the
16 transmission line corridor into any existing open space easement. In order to add the
17 second line and not widen the right-of-way, the engineering design requires an increase in
18 the height of towers to provide vertical clearances instead of horizontal clearances for the
19 conductors. This is why the structure heights increase in these areas, as depicted in
20 Attachments II.A.3.d and II.A.3.ee, in the portion of the Appendix sponsored by
21 Mr. Allen. The trade-off is increasing tower heights instead of widening the right-of-way
22 and impacting a greater number of acres. Dominion Virginia Power made the decision
23 not to widen the right-of-way into existing open space easements.

1 Rebuttal Attachment JBB-1 is a table depicting the VOF open space easements on the
2 Proposed Route and on the Alternate Route. For Dominion Virginia Power's portion of
3 the Proposed Route, there are eight VOF easements crossed and for the Alternate Route
4 there are six crossed and one parcel owned by VOF. It should be noted that every
5 easement on the Proposed Route was placed on the property after May 1979 when the
6 existing 500 kV line was placed into service. The presence of the existing transmission
7 line easement was not inconsistent with the purpose of the open space easements.

8 **Q. What will be the physical impact of the Project to Agricultural and Forestal**
9 **Districts?**

10 A. In areas where the right-of-way will not be widened into agricultural or forestal districts,
11 the impact on the ground will be removal of one tower with four foundations and
12 replacement with two poles with one foundation each. In areas where the right-of-way is
13 widened by either 50 or 100 feet, there will be an added impact of clearing additional
14 right-of-way, if it is forested, but structure heights will be lower. Agricultural lands
15 under the existing right-of-way and under any additional, new right-of-way will still be
16 available as agricultural land. The Company's decision to propose a route that parallels
17 an existing line already crossing agricultural and forestal districts is, in part, based on
18 collocating facilities where the new Project can use part or all of an existing right-of-way,
19 thus minimizing additional land impact. Compared to an alternative that involves
20 completely new rights-of-way in an area where no existing transmission lines exist, the
21 Company's approach helps minimize overall impact by utilizing existing transmission
22 line easements. This position is supported by the Code of Virginia, FERC Guidelines,
23 and Staff witness McCoy as mentioned above.

1 **Q. What were the key Respondent issues related to farming, and what is Dominion**
2 **Virginia Power's response?**

3 A. Some Respondent testimony argued that the proposed Project will complicate the use of
4 the land for farming, increase tower visibility, and obscure vistas. Additionally,
5 Respondents state that, by implication, Dominion Virginia Power suggests that crops are
6 not to be allowed under power lines and that the new line will permanently take
7 agricultural and forestal lands out of production.

8 It is correct that this Project will increase visibility by adding a second line, but as far as
9 complicating the use of the land for farming in some areas where the Company proposes
10 single pole foundations, the footprint on the land will actually be less. The existing tower
11 has four foundations that encumber an area of approximately 27 feet by 27 feet where the
12 proposed poles will have 5-foot diameter foundations. Adding another line adjacent to
13 the existing line will create another tower footprint that farming activities will have to
14 work around, but multiple transmission lines exist in other areas within our service
15 territory and farming co-exists within these rights-of-way.

16 Farming is specifically allowed within our transmission line easement. Section II.A.6. of
17 the Appendix to the Application describes typical permitted uses of the rights-of-way for
18 overhead transmission lines, and agriculture is the first use listed. Transmission line
19 easements do take forestal land out of production in that the Company will manage that
20 right-of-way such that trees do not become a safety issue with the powerlines.

1 **Q. Respondent testimony cites the Company for allegedly failing to minimize the**
2 **impact to agricultural and forestal districts or consider alternatives to routing**
3 **through these districts. What is the Company's position on this issue?**

4 A. There will be a short-term construction impact to use of the land on whatever route is
5 approved by the Commission and the Company will compensate landowners for any crop
6 damage that occurs. Routing around these districts would involve acquiring completely
7 new rights-of-way off of the existing corridor that the Proposed Route follows. While a
8 route around the agricultural and forestal districts could possibly be developed, this
9 would essentially shift the impacts of a new route to other lands and land uses. The
10 Company believes the Proposed Route, even if it involves modestly widening the existing
11 right-of-way in agricultural and forestal districts, most reasonably minimizes the overall
12 impacts because, again, the Company is able to utilize portions of a right-of-way that
13 already exists on the land, thus minimizing the incremental impacts. The Company did
14 consider other routes away from the agricultural and forestal districts on the Proposed
15 Route such as the Alternate Route along I-66 (see Section II.A.7. in the Application and
16 Mr. Welter's direct testimony) and believes that proposing 100 percent of the new route
17 adjacent to or completely within an existing electric transmission line right-of-way
18 reasonably minimizes the overall impacts when compared to other alternatives.

19 **Q. Respondent testimony states that narrowing the right-of-way and placing a second**
20 **transmission facility on an existing easement does not minimize the impact on**
21 **surrounding open space easements. What is Dominion Virginia Power's position on**
22 **this issue?**

23 A. As I have previously stated, placing the second line without widening the easement
24 requires that the Company construct taller poles, which will increase visibility. This is an
25 example of competing impacts where if the right-of-way were to be widened into the
26 open space easement, lower structures similar to the existing towers could be utilized.

1 This lessens the visual impact, but increases the footprint on the land. After considering
2 the two alternatives, the Company decided that utilizing its existing right-of-way and
3 staying within the existing easement was the alternative that most reasonably minimized
4 the impacts.

5 **Q. Respondent testimony states that approval of the Proposed Route will undo existing**
6 **conservation easements along the route and damage Virginia's overall easement**
7 **program. What is Dominion Virginia Power's position on this issue?**

8 A. Approval of the Proposed Route, the Alternate Route, or any of the preliminary routes
9 considered by the Company would place the new line in the vicinity of open space
10 easements. The Company believes that construction of this line will not adversely affect
11 the existing open space easements along the route. These open space easements were
12 placed on the property after the existing transmission line easements were in place and
13 therefore open space easements and transmission facilities have not been considered
14 mutually exclusive when open space easements have been created in the past. The
15 right-of-way easements for the existing lines allowed for additional lines and ancillary
16 facilities associated with transmission lines and still the open space easements were
17 placed on the land. While individuals may have different views about the open space
18 easements in the context of this Project, Virginia's open space easement program can
19 continue to operate as it has in the past. Once again, the Company is utilizing existing
20 rights-of-way with an existing transmission line, which is clearly the best approach when
21 weighing all of the factors to be considered.

1 Q. Are there any responses you would like to make concerning other Respondent
2 testimony?

3 A. Yes. Power-line Landowners Alliance witness Weddle, on page 5, item 5, states that
4 Dominion Virginia Power is party to a “mega” powerline Project under the Chesapeake
5 Bay, implying that the Company should underground the proposed line to minimize the
6 impacts to the agricultural and forestal districts.

7 Dominion Virginia Power is involved at the starting point of the proposed Mid-Atlantic
8 Power Pathway 500 kV transmission line Project that is being proposed by Pepco
9 Holdings, Inc. The proposed submarine crossing of the Chesapeake Bay is completely
10 outside of the Company’s service territory and is a part of Pepco’s Project. The
11 Company did look at the possibility of undergrounding the Project but could not support
12 that alternative for reasons outlined in the Application, in Mr. Welter’s Routing Study
13 and Environmental Assessment and in Mr. Koonce’s direct testimony.

14 Additionally, in Virginia’s Commitment, LLC’s testimony, Witness Lee has a number of
15 photo attachments, including the attachment on page 5 entitled “Configuration 3A and
16 3B” which is to represent the right-of-way and structure configuration proposed by the
17 Company that would pass through the South Wales subdivision on a 169-foot wide
18 corridor between Hwy 211 and Hwy 229. This is incorrect. The right-of-way within
19 South Wales is and will remain 150-foot wide, and there is no 115 kV line within South
20 Wales as depicted on Configurations 3A and 3B. The double circuit steel pole structure
21 depicted in Configuration 3A would not exist in South Wales, nor would the double
22 circuit lattice tower depicted in Configuration 3B. She identified this as an exhibit for the
23 South Wales area when they are actually exhibits for the route immediately south of

1 South Wales and proceeding to the Remington area of Fauquier County. The correct
2 configuration for portions of the right-of-way in the South Wales area would be found on
3 pages 81 and 108 of the Appendix.

4 **Q. What was the concern in Madison at Greenfields, L.L.C.'s testimony over**
5 **right-of-way clearing practices, and what is Dominion Virginia Power's position?**

6 A. A concern was raised by Mr. Simmons that Dominion Virginia Power did not propose a
7 Project-specific tree clearing plan for the Project. In discussing clearing practices with
8 our Forestry Department, I was informed that the Company typically assigns a forester to
9 survey the route and determine a clearing plan for the clearing contractor. The forester
10 monitors the clearing contractor or contractors through the clearing process to ensure the
11 work is done efficiently and in compliance with all permit language including erosion
12 and sediment control measures, buffers at stream crossings, etc. At the time of clearing,
13 all woody vegetation within the designated right-of-way width is cut off above the
14 ground except for small stems inside the stream buffer areas. This is done to provide
15 temporary access to the full width for the maneuvering of the large equipment required to
16 remove the clearing debris and construct the transmission line. Root systems of the
17 removed vegetation are left in tact and most species sprout quickly during the first
18 growing season after the new line is in service. A selective, species specific, vegetation
19 management program is then implemented targeting only those tall growing tree species
20 that are incompatible with the transmission facilities. Experience has shown that this
21 process results in a dense plant community consisting of native grasses, forbes, and low
22 growing woody species. The full width of the right-of-way must be maintained in order
23 to comply with the provisions of FERC Standard FAC-003-1 which requires each utility
24 to establish its own standard right-of-way widths for each of its transmission voltages

1 (which must be in line with industry-wide practice) and to keep those widths free of
2 vegetation that could pose a threat to the conductors. The Company's present tree
3 clearing plan is in compliance with FERC standards and we believe that this is an area
4 where additional regulation is not warranted.

5 **Q. In the Bates White, LLC Report, which is a part of Staff testimony, there was**
6 **mention of a possible Meadow Brook to Doubs route. Did you look at routing**
7 **impacts of such an alternative?**

8 A. No. This is not the proposed electrical configuration that the Project team identified and,
9 from a routing perspective, it would require completely different assessments of routing
10 possibilities.

11 **Q. What would be involved to perform a routing study for such a Project?**

12 A. The process would involve creating a new study area and looking at alternatives. State
13 and federal agencies would be contacted and public meetings would be held to obtain
14 comments on routing alternatives to Doubs. The route could involve portions of
15 Frederick, Shenandoah, Clark, and Loudoun counties and portions of West Virginia and
16 Maryland, much of which would be in Allegheny's service territory. This routing effort
17 would require approvals by the Virginia State Corporation Commission, the West
18 Virginia Public Service Commission, and the Maryland Public Service Commission. The
19 planning and application process for such a Project would result in a lengthy delay in
20 construction of a new line to meet the needs to be addressed in this case.

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

22 A. Yes, it does.

VOF Easements/Owned Lands that Intersect Dominion Proposed (Southern) Route and I-66 Route (within 200 ft buffer of Dominion data provided in March 2007)

VOF	GSACRES	Locality	updated	powerline route	Original Party	Current Owner	Record Date
vof easement	190.55	Frederick		allegheny	Green, Bryan and Teresa	Green, Bryan and Teresa	10/24/2006
vof easement	304.82	Fauquier		I-66	Selheimer, Charles H. Jr., trustee	The Plains Redevelopment Corp. c/o Earl Douple	7/28/1989
vof easement	44.10	Fauquier		I-66	The Plains Redevelopment Corporation	The Plains Redevelopment Corp. c/o Earl Douple	1/26/2000
vof easement	262.87	Fauquier		I-66	The Plains Redevelopment Corp.	Archwood L.L.C.	2/21/2002
vof easement	433.48	Fauquier		I-66	Green, Henry C. and Harriette	Hardland Farm, LLC (c/o Henry C. Green)	12/12/2003
vof easement	913.85	Fauquier		I-66	Thompson, George R. and Mary Fleming Finlay	Rutledge, LLC c/o George R. Thompson and Mary Fleming Finlay	12/23/2003
vof easement	18.20	Fauquier		I-66	Roland Farms, Inc.	Gabardy, Dale and Robin	1/6/2004
vof owned land	715.58	Fauquier/Pr William		I-66		VOF - Bull Run Mtns	
vof easement	167.03	Fauquier		proposed (southern)	Savage, Carroll J. and Jane McGuire Savage	Hardscrabble, L.P. Mr. Carroll J. Savage	11/30/1999
vof easement	466.22	Rappahannock		proposed (southern)	Pearl, Frank H. and Geryl T.	Pearl, Frank H. and Geryl T. Chancellors Rock Farm, c/o Karl Hoye, Mgr.,	12/29/1999
vof easement	44.23	Rappahannock		proposed (southern)	Warwick, James Lawrence	Warwick, James Lawrence	12/27/2001
vof easement	2,431.91	Rappahannock		proposed (southern)	Eastham, Louise King	Eastham, Louise King	12/28/2004
vof easement	204.83	Fauquier		proposed (southern)	Cool Lawn Farms, LLC	Cool Lawn Farms, LLC c/o Kenneth Smith, Manager	12/29/2004
vof easement	326.46	Rappahannock		proposed (southern)	Eastham, Lindsay Willoughby Green and Heidi DeGroot Eastham	Eastham, Lindsay and Heidi	5/18/2005
vof easement	256.19	Rappahannock		proposed (southern)	Ridder, Marie W. and Albert Andrews, Jr.	Ridder, Marie W. and Albert Andrews, Jr., Trustees of the Marie W. Ridder Revocable Trust	11/4/2005
vof easement	310.74	Rappahannock		proposed (southern)	Koral, Clyde	Koral, Clyde	8/25/2006