

**SUPPLEMENTAL DIRECT TESTIMONY
OF
ELIZABETH P. H. HARPER
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUE-2007-00020**

1 **Q.** Please state your name.

2 A. My name is Elizabeth Harper.

3 **Q.** Did you prefile direct testimony and exhibits on May 4, 2007 in this proceeding
4 about the selection of routes for the proposed transmission lines?

5 A. Yes.

6 **Q.** What is the purpose of this additional testimony?

7 A. Dominion Virginia Power previously submitted Proposed and Alternate Routes to the
8 State Corporation Commission for the proposed Carson-Suffolk-Thrasher 500 kV and
9 230 kV Transmission Lines. Since that time new information concerning routes have
10 come to light and minor changes have been made to both the Proposed and Alternate
11 Routes to reduce the possible impacts of those routes.

12 **Q.** Will you please describe how this came about?

13 A. After the Application was filed, I was in the field gathering additional information about
14 historical resources requested by the Department of Historic Resources and spoke to
15 several of the property owners adjacent to the line. They indicated the proposed line was
16 crossing a residence that did not show on the aerials used for the route selection study.
17 Further investigation confirmed that concern. If possible, realignment in this location
18 was necessary to avoid the home. To ensure that there were no other structures within or

1 adjacent to the Proposed and Alternate Routes, an aerial review of the line was made on
2 June 8, 2007. Stephen Thornhill with Burns & McDonnell Engineering Company, Inc.
3 and Jim Cox, who is the Transmission Project Engineer, accompanied me on a helicopter
4 flight to review the routes.

5 **Q. What was the result of this review?**

6 A. This review resulted primarily in slight realignments to place more distance between the
7 Proposed and Alternate Routes and corresponding homes in the area of these routes.

8 These realignments are reflected on the revised USGS maps originally included in
9 Attachment II.A.2 of the Company's Appendix. For ease of use Exhibit No. EPH
10 Supplemental-1, sheets 1-11 revised, is attached to this Supplemental Testimony.

11 These realignments also required changes to certain aerial maps sponsored by Stephen
12 Thornhill in his Supplement Direct Testimony, Exhibit No. SGT Supplemental-3. Mr.
13 Thornhill made these changes at my direction. Because the changes to the Routes are
14 easier to see on the aerial maps, I will refer to these maps in describing the realignments.

15 **Q. Will you please describe these changes?**

16 A. The realignments, as noted on the following aerial maps of Exhibit No. SGT
17 Supplemental-3, were made for the following reasons:

- 18 • Sheet 1 Revised - Leaving the Carson Substation, the Proposed Route for the 500
19 kV line was corrected to show the line paralleling the existing transmission Line #
20 570 to State Route 605.
- 21 • Sheet 2 Revised - Crossing State Route 35, the Proposed Route for the 500 kV
22 line will follow the existing 500 kV transmission line #562 for an increased

1 distance of approximately 3,200 feet before turning south towards the edge of
2 Cherry Orchard Bog, pushing it further from Route 35 that is a State Scenic Road.

3 • Sheet 4 Revised – The Proposed Route for the 500 kV line does not angle until
4 after crossing State Route 40 to make that crossing more equidistant between the
5 residences. This will move the road crossing approximately 0.1 mile south.

6 • Sheet 5 Revised – The Proposed Route for the 500 kV line continues parallel to
7 the 115 kV line after crossing State Route 604 for an additional 1700± feet. This
8 is part of the realignment on Sheet 6 Revised.

9 • Sheet 6 Revised – The Proposed Route for the 500 kV line has been realigned
10 south of Wakefield to increase the distance between the Parker House that has
11 been identified as a historical resource, and to avoid an existing home adjacent to
12 the south side of the lake. This will move the road crossing on State Route 620
13 approximately 0.1 mile south. After crossing State Route 628, the Proposed
14 Route will continue for distance of 3100± feet before turning east to parallel the
15 existing 115 kV line for a longer distance.

16 • Sheet 8 Revised – The Proposed Route for the 500 kV line has been realigned
17 after crossing the road at Guildfield Corner to avoid a garage that has been built in
18 association with a new home that does not appear on the aerial maps.

19 • Sheet 10 Revised – The Proposed Route for the 500 kV line turns and crosses the
20 existing 115 kV line further west moving the State Route 657 crossing
21 approximately 0.1 mile north. This appeared to have less of an impact to the
22 existing homes built along this road.

- 1 • Sheet 12 Revised – The Proposed Route crosses State Route 688 at the same
2 location but at a more perpendicular angle to increase the distance between the
3 route and homes at this road crossing.
- 4 • Sheet 13 Revised – This map shows a tighter angle on Segment 63 that allows the
5 changes described on Sheet 12 Revised.
- 6 • Sheet 15 Revised – The Alternative Route for the 500 kV line has been slightly
7 realigned in conjunction with the realignment described on Sheet 2 Revised. This
8 will move the road crossing of State Route 627 approximately 0.2 miles north.
- 9 • Sheet 16 Revised – The Alternate Route for the 500 kV line across State Route
10 625 has been shifted approximately 0.2 mile north to increase the buffer between
11 this route and a residence known as Chester that is listed on the Virginia Historic
12 Landmarks Register and the National Register of Historic Places.
- 13 • Sheet 17 Revised – The Alternate Route for the 500 kV line across State Route
14 622 is shifted 0.2 mile east to avoid a mobile home that is located on the north
15 side of that road.
- 16 • Sheet 18 Revised – The Alternate Route for the 500 kV line across State Route
17 628 has been moved approximately 0.1 mile south to increase the distance
18 between the Proposed Route and several homes.
- 19 • Sheet 19 Revised – The Alternate Route for the 500 kV line has been adjusted
20 slightly as a continuation from Sheet 18 Revised. An adjustment has also been
21 made to avoid a structure probably used for a hunting camp at State route 641.

- Sheet 20 Revised – The Alternate Route for the 500 kV line crosses state Route 627 approximately 0.1 mile further south rather than crossing both Route 603 and Route 627 just north of their intersection. This reduces a road crossing and visibility.
- Sheet 21 Revised – The Alternate Route for the 500 kV line has been realigned around the Walters community. The Alternate Route will cross the Blackwater River slightly north of the original crossing to avoid paralleling a stream, will turn south and cross State Route 619 approximately 0.6 mile west of its intersection with U.S. Route 258, then turn southeast to cross U.S. Route 258 approximately 0.2 mile south of that same intersection. This avoids a cluster of homes on the east side of the Route 258 and Route 619 intersection, and moves the route further from the Walters Historic District. This realignment will also change the State Route 611 and State Route 641 road crossings, moving the Route 611 crossing approximately 0.1 mile east and the Route 641 crossing approximately 0.3 mile north.

Q. Will these slight changes in the alignment change any of the information in the Application and Appendix filed for this project?

A. Yes.

- Throughout both documents, the length of the Proposed Route for the 500 kV line was approximately 59.6 miles long. That will change to approximately 60.0 miles long. The length of the Alternate Route being offered was approximately 59.4 miles long. That will change to approximately 59.8 miles long. This change will be reflected in the Application, the Appendix, the DEQ Supplement, and testimonies of Nedwick, Cox, Garrett, and Harper.

- 1 • The data measured for the Alternate Route now includes that part of the Alternate
2 that leaves the Carson Substation in a eastern direction adjacent to the 500 kV
3 Line # 562. That portion of the Alternate was not previously included in the
4 totals. During the route selection it was originally the Proposed Route until we
5 abandoned it due to the homes it has within 60 feet of the proposed right-of-way.
6 Some of the responses in the Appendix originally discuss this portion of the
7 Alternate Route separately.
- 8 • The length of the Proposed Route parallel to the existing Line #562 will change
9 from 1.9 miles to 2.7 miles long.
- 10 • The length of the Proposed Route parallel to the 115 kV lines will change from
11 17.5 miles to 18.8 miles.
- 12 • The length of the Alternate Route parallel to the existing Line #562 will change
13 from 0.4 mile to 5.3 mile.
- 14 • The use of the Alternate Route would require the acquisition of 1055 acres of
15 easement compared to 1077 acres.
- 16 • An additional home has been located outside of Carson Substation that would be
17 within 60 feet of proposed easement of the Alternate Route that parallels the
18 existing Line # 562 as it leaves the substation. That would increase from one to
19 two the number of homes within 60 feet from the edge of the right-of-way.
- 20 • There will be 786± acres of woodlands on the Alternate Route compared to the
21 original figure of 797± acres.

- 1 • There are 81 homes within 500 feet of the Proposed Route compared to the
2 original figure of 110 homes.
- 3 • There are 53 homes within 500 feet of the Alternate Route compared to the
4 original figure of 56.

5 Included with this testimony is a Summary Table of the changes by page of the
6 information previously filed with the Commission as Exhibit No. EPH Supplemental-2.

7 **Q. Are there any changes to Appendix V.A. “Notice”?**

8 A. Yes. Attached as Exhibit No. EPH Supplemental-3 are clean and blackline versions of
9 the relevant changes to the Notice for the Proposed and Alternate Routes.

10 **Q. Are there any changes required for the DEQ Supplement?**

11 A. Only very minor changes were required. As noted in the Summary Table, the mileage
12 will change from 59.6 miles to 60.0 miles and an additional road crossing should be
13 included.

14 **Q. Do you have further changes?**

15 A. No. This completes my testimony.