Dominion Transmission, Inc.
707 East Main Street, Richmond, VA 23219

January 10, 2017

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: Atlantic Coast Pipeline, LLC & Dominion Transmission, Inc.
Atlantic Coast Pipeline & Supply Header Projects
Docket Nos. CP15-554-000, CP15-554-001, & CP15-555-000
Supplemental Information

Dear Secretary Bose:

On September 18, 2015, Atlantic Coast Pipeline, LLC (Atlantic) and Dominion Transmission, Inc. (DTI) filed abbreviated applications (Applications), under the above referenced dockets CP15-554-000 and CP15-555-000, for the Atlantic Coast Pipeline and Supply Header Projects (Projects) pursuant to Section 7(c) of the Natural Gas Act, as amended, and Part 157 of the Rules and Regulations of the Federal Energy Regulatory Commission (Commission or FERC). Additionally, on March 14, 2016, Atlantic filed an Amendment to its pending Application, under the above referenced docket CP15-554-001.

DTI, on behalf of Atlantic and itself, hereby submits supplemental information. This submission consists of the following documents:

- Supplemental Information – January 10, 2017
- Appendix A – Nonjurisdictional Facilities Figures
- Appendix B – HDD Design Report
- Appendix C – Revised Site Specific Geohazard Mitigation Design Drawings
- Appendix D – Revised Compressor Station Plot Plans (Contains Critical Energy Infrastructure Information – Do Not Release)
- Appendix E – Archaeological Survey Reports (Contains Privileged Information – Do Not Release)
- Appendix F – Aboveground Structures Cultural Resources Survey Reports
- Appendix G – Restoration and Rehabilitation Plan
- Appendix H – Forest Fragmentation Analysis Update
- Appendix I – North Carolina Fish and Non-Fish Aquatics Collection and Relocation Protocol for Instream Construction Activities
- Appendix J – Correspondence for the Atlantic Coast Pipeline
- Appendix K – Correspondence for the Supply Header Project

DTI requests that, pursuant to 18 C.F.R. § 388.112, the information filed in Appendix E be treated as privileged and confidential, and that this information not be released to the public. This information is labeled "Contains Privileged Information – Do Not Release" and contains the locations of archaeological resources, which are customarily treated as privileged and confidential.

DTI requests that, pursuant to 18 C.F.R. § 388.112, the information filed in Appendix D be treated as Critical Energy Infrastructure Information (CEII), and that this information not be released to the public. This information is labeled "Contains Critical Energy Infrastructure Information – Do Not Release" and contains information that is customarily treated as CEII.

If you have any questions, please contact me at 866-319-3382.

Respectfully submitted,

Angela M. Woolard

Angela M. Woolard
Regulatory and Certificates Analyst III

cc: Mr. Kevin Bowman, FERC
Service List

encl(s)/

ATLANTIC COAST PIPELINE, LLC
ATLANTIC COAST PIPELINE
Docket Nos. CP15-554-000 & CP15-554-001

and

DOMINION TRANSMISSION, INC.
SUPPLY HEADER PROJECT
Docket No. CP15-555-000

Supplemental Information
January 10, 2017

Prepared by

ERM

January 10, 2017

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SUPPLY HEADER PROJECT – Docket No. CP15-555-000

1.0 PROJECT DESCRIPTION AND ENGINEERING DATA

1.1 Update on Nonjurisdictional Facilities

Atlantic identified nonjurisdictional facilities associated with the proposed aboveground facilities for the ACP in Section 1.11.1.7 of Resource Report 1, which was filed with FERC Application on September 18, 2015 (FERC Accession Number 20150918-5212). An update of nonjurisdictional facilities at Compressor Station 1 was filed with FERC on June 17, 2016 (FERC Accession Number 20160617-5151). As a result of ongoing engineering and design work, Atlantic is updating its description of the following nonjurisdictional facilities:

- Compressor Station 1:
  - The relocation of the storage lines within the compressor station footprint is now considered jurisdictional and will be completed as part of the ACP.
- Compressor Station 3:
  - The electric distribution line route has been updated and the length has been reduced to 1.5 miles.
  - Water and sewer lines will not be installed; a well and septic system will be installed instead.
- Northampton Office Building:
  - The electric distribution line has been slightly increased to approximately 0.1 mile.
  - Water and sewer lines will not be installed; a well and septic system will be installed instead.
- Fayetteville M&R Station:
  - The electric distribution line route has been updated and the length has increased to 0.9 mile.
- Smithfield Office Building:
  - A sewer line will not be installed; a septic system will be installed instead.

In addition, DTI is adding a 0.2 mile electric distribution line as a nonjurisdictional facility at the Mockingbird Hill Compressor Station. Updated maps depicting the proposed nonjurisdictional facilities are provided in Appendix A.

1.2 Allegheny Trail Reroute

The proposed route for the ACP pipeline where it crosses Seneca State Forest in West Virginia would collocate with an approximately 0.8 mile section of the existing Allegheny Trail. Atlantic is working closely with Seneca State Forest and the West Virginia Scenic Trails Association to identify potential ways to reduce possible impact to the trail and trail users as a

result of the proposed pipeline corridor and trail overlap. The Curator of the Allegheny Trail Coalition suggested two possible reroutes of the overlapped section of trail that would result in the proposed pipeline route crossing the (relocated) Allegheny Trail at a perpendicular angle and therefore avoiding a prolonged collocation with the trail.

To facilitate further planning, Atlantic has retained the services of Tri-State Company (Tri-State), an outdoor trail design and construction company that is routinely used by the State of West Virginia for hiking trail design and maintenance. While Tri-State will be reimbursed for its work by Atlantic, it will receive direction from the State of West Virginia for work on a trail reroute. Currently, Tri-State is in the process of field assessing, reviewing, and revising as necessary a potential trail reroute in the area, and is expected to be completed with this phase soon. Once final routing is completed, Tri-State will prepare a proposal indicating the preferred trail reroute location and the amount and type of work that will be required (e.g., tree clearing, trail grubbing, rock removal, step construction) for trail relocation in this area. The proposal will be submitted to the State of West Virginia for review and approval. Once the trail reroute receives final approval by the State of West Virginia for implementation, Atlantic will submit the reroute to the FERC for consideration in its project environmental review process.

1.3 HDD Design Report

Appendix B contains an updated HDD Design Report, Revision 2, which includes a new HDD for the crossing of Interstate 79 by the AP-1 mainline in West Virginia. The remainder of the report has not changed since the version filed on October 17, 2016 (FERC Accession Number 20161017-5045).

1.4 Site-Specific Designs for Hazardous Steep Slopes identified by the Forest Service

Atlantic has revised the site specific geohazards mitigation design drawings developed for the two steep slope sites requested by the U.S. Forest Service located along the AP-1 mainline from MPs 73.20 to 73.50 (Monongahela National Forest) and MPs 84.95 to 85.05 (George Washington National Forest). An update to the drawings is included in Appendix C.

1.5 Updated Aboveground Facility Plot Plans

As a result of ongoing engineering and design work, DTI has revised the plot plans for the JB Tonkin, Crayne, and Mockingbird Hill Compressor Stations. A copy of the revised plans is included in Appendix D; the plans are marked "Contains Critical Energy Infrsructure Information – Do Not Release".

2.0 ENVIRONMENTAL AND CULTURAL RESOURCES

2.1 Cultural Resource Surveys and Reports

Atlantic and DTI are conducting field surveys for archaeological sites, historic architectural sites, and other cultural resources. With this filing, Atlantic is submitting copies of the following reports:

a. Archaeological Site Testing Report for Virginia – Fall 2015 through Summer 2016;

b. Archaeological Site Testing Report for North Carolina – Fall 2015 through Summer 2016;

c. Cemetery Delineation Reports for West Virginia, Virginia, and North Carolina;

d. Geomorphological Investigations Report for Archaeological Sites in Virginia;

e. Addendum Aboveground Structures Survey Report for West Virginia;

f. Addendum Aboveground Structures Survey Report for Virginia; and

g. Addendum Aboveground Structures Survey Report for North Carolina.

DTI is submitting the following report:

h. Addendum Archaeological Survey Report for Pennsylvania.

Because items a, b, c, d, and h contain location information for archaeological sites, they are being filed under separate cover in Appendix E, which is marked "Contains Privileged Information – Do Not Release". The remaining reports are included in Appendix F.

2.2 Pollinator Initiative Update

Atlantic and DTI filed an update to the *Restoration and Rehabilitation Plan* for the ACP and SHP on July 18, 2016 (FERC Accession Number 20160718-5164). An additional update to this plan, which includes information about pollinator habitat planting, is provided as Appendix G.

2.3 Forest Fragmentation Analysis Update

In the response to Question 13 of FERC's October 26, 2016 Environmental Information Request (response filed on November 9, 2016; FERC Accession Number 20161109-5138), Atlantic and DTI committed to proving an updated forest fragmentation analysis for the Projects. As part of this analysis, Atlantic and DTI reviewed the State/Commonwealth data sets identified in the FERC's request. The VDCR Virginia Natural Landscape Assessment data set represents forested areas which have been given quality values based on a number of assumptions. In addition to forested areas, it also includes marshes, dunes, and beaches where the acreage meets the analysis requirements for ecological core areas. The West Virginia state forest fragmentation data produced by the Natural Resource Analysis Center at West Virginia University provides data showing forest quality based on existing fragmentation, so an analysis of forest fragmentation using different parameters has already been done on this data set. North Carolina does not have a forest specific data set.

The State/Commonwealth data sets identified in FERC's request are not consistent with each other and do not represent the forest on the landscape. Therefore, they are not appropriate to use to analyze impacts of fragmentation from the ACP and SHP. The U.S. Geological Survey's National Gap Analysis Program (GAP) data layer is a standardized data set often used to assess vegetation impacts in NEPA review documents, and is the most appropriate public data set to analyze forest fragmentation impacts for projects affecting multiple states. Atlantic and

DTI utilized this data set to prepare an updated analysis. To complete this analysis, interior forest blocks were manually created in a GIS using the criteria specified in FERC's request. The results of the analysis are included in Appendix H. In addition to this analysis, Atlantic and DTI will prepare an additional updated analysis, in accordance with FERC staff recommendation No. 37 in the Draft Environmental Impact Statement for the ACP and SHP, using aerial photography interpretation of forested land cover types. Atlantic and DTI anticipate filing this additional updated analysis in February 2017.

Fragmentation refers to the breaking up of contiguous areas of vegetation communities into smaller patches. Fragment size plays a crucial role in landscape function and many ecosystem interactions, including the distribution of plants and animals, fire regime, vegetation structure, and wildlife habitat. Reducing the size of contiguous patches of suitable habitat can indirectly reduce the effectiveness of that habitat for individual species beyond the removal of habitat. Some species require large, un-fragmented blocks of habitat, and fragmentation can lead to reduced habitat quality. In the permanent, maintained easement, there will be a permanent conversion of forested land to scrub/shrub and/or non-woody herbaceous species. Impacts on forest dwelling species include temporary and permanent habitat loss, fragmentation of habitat, and the addition of edge-type habitat. Locally, species composition could change as habitats are converted from forested to scrub/shrub or herbaceous, and edges are created along the new pipeline corridors.

Fragmentation has been shown to be a primary factor in the decline of neotropical migrant birds and can negatively impact habitat specialist species, while having a positive or neutral effect on habitat generalist species (Graham, 2002). An important impact of fragmentation, aside from breaking up blocks of vegetation, is an increase in edge effects. Edge effects result when two different vegetation types are adjacent to each other. Edge effects can encompass a multitude of impacts including: an alteration in nutrient flows/cycling; an increase in the rate of invasion by invasive species and pathogens; a lowering of the carrying capacity of a habitat patch; and disruptions in meta-population dynamics (Saunders et al., 1991). Invasive species may displace native wildlife by altering sheltering habitats and food sources such as plant communities and insect populations, respectively (Graham, 2002).

Edge effects tend to be more pronounced with increasing differences in the two adjacent habitat types (e.g., mature forest adjacent to grassland). The creation of edges in forests influences microclimatic factors such as temperature, wind, humidity, and light, and could lead to a change in plant species composition within the adjacent uncut or un-manipulated habitat, or increase the rate of invasion by invasive species and forest pathogens (Murcia, 1995). Compared to the interior of a forest, areas near edges receive more direct solar radiation during the day, lose more long-wave radiation at night, have lower humidity, and have less protection from wind. Increased sunlight and wind can desiccate vegetation by increasing evapotranspiration, affect which plant species survive (typically favoring shade-intolerant species), and dry out soil. Edge effects are typically more pronounced in forest and woodland vegetation communities than shrub-steppe or grassland communities due to the greater typical vegetation height and structural complexity in forested ecosystems.

The Projects will cause permanent fragmentation and edge effects only in forested areas, since the vegetation in non-forested areas will not be modified permanently. The edge effect on forested habitat in temporary workspace and additional temporary workspace could last several

decades. In the maintained pipeline easement, the impact on forested habitat will be permanent. In areas where the proposed pipeline corridors are adjacent to existing rights-of-way, clearing will result in moving an existing edge outward, rather than creating newly fragmented forested habitat.

Habitat fragmentation can result in increased predation and can alter wildlife use of these forests, in particular by habitat specialist species, such as the magnolia warbler and cerulean warbler (Graham, 2002). Edge habitats often have different microclimates than interior forests; drier and warmer conditions occur due to lack of shade and more solar radiation. This can alter the insect community, affecting the type or amount of food available to forest interior species. In addition, brown-headed cowbirds - brood parasites which lay their eggs in the nests of other host species, usually at the host brood's expense - are commonly found in edge habitats like those created by utility corridors. Most open land and edge species have some strategies to counter cowbirds, but interior forest birds do not (Olcott, 2006). Cowbirds can reduce reproductive success for interior forest bird species utilizing edge habitats or smaller forest fragments for nesting (Graham, 2002).

Utility corridors can create a barrier to wildlife movement for some species and a travel corridor for other species (Graham, 2002). Corridor widths and vegetative characteristics can have varying effects on different species. Abrupt vegetation transitions often cause the greatest barriers, while a forest to shrub to grassland transition can have minimal to no effect on transiting species (Graham, 2002). Transitions can also create connections between habitats where species such as cowbirds or other invasive species can travel to gain access into other habitats more easily (Askins, 1994).

During the routing process, the right-of-way was co-located where possible to minimize increased edge effects and impacts on interior forest. In addition, when reviewing and selecting alternate routes, Atlantic and DTI considered overall impacts to resources, (such as waterbodies, wetlands, forested areas, listed species, and landowners) to determine the least environmentally impactful route.

Atlantic and DTI are in the process of working with State/Commonwealth and Federal agencies to mitigate for impacts on interior forest. Mitigation measures for impacts on forested habitats used by migratory birds will be included in the Migratory Bird Plan for the Projects. A Habitat Equivalency Analysis will be conducted to determine appropriate mitigation for forest habitat impacts. Mitigation measures for Myotid bat species in West Virginia will be included in the West Virginia Myotid Bat Conservation Plan as part of the Biological Assessment for the Projects. Specific impacts on other federally listed species from forest fragmentation are also discussed in the Biological Assessment.

References:

Askins, R.A. 1994. Open Corridors in a Heavily Forested Landscape: Impact on Shrubland and Forest-Interior Birds. Wildlife Society Bulletin, 22:339-347.

Graham, K.L. 2002. *Human Influences on Forest Wildlife Habitat*. In Wear, D.N., and Greis, J.G., eds. Southern Forest Resource Assessment. General Technical Report SRS-53. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 635 pp.

Murcia, C. 1995. Edge Effects in Fragmented Forests: Implications for Conservation. Trends in Ecology and Evolution. 10(2): 58 – 62.

Olcott, S., ed. 2006. West Virginia Songbird Forest Management Guidelines. Available online at: http://www.wvdnr.gov/wildlife/PDFFiles/WVSongbirdbook.pdf. Accessed August 2015.

Saunders, D.A., R.J. Hobbs, and C.R. Margules. 1991. Biological Consequences of Ecosystem Fragmentation: A Review. Conservation Biology, 5(1): 18 - 32.

2.4 North Carolina Aquatic Species Removal Plan

Atlantic has developed and will implement a *North Carolina Fish and Non-Fish Aquatics Collection and Relocation Protocol for Instream Construction Activities*, which describes proposed fish collection efforts to safely remove fish and non-fish aquatics (e.g., crayfish, mussels, and amphibians) from areas where injury or mortality is likely to occur in streams crossed by the ACP in North Carolina. A copy of the protocol is included in Appendix I.

3.0 AGENCY CORRESPONDENCE

Atlantic and DTI submitted summaries of agency contacts and copies of select correspondence with agencies in Appendices 1H and 1I of Resource Report 1, which were filed with the FERC Application on September 18, 2015 (FERC Accession Number 20150918-5212). Updated summaries of agency contacts and copies of correspondence were also provided with supplemental filings or data responses on October 30, November 13, and December 15, 2015, and January 13, January 29, March 24, April 15, May 13, June 17, July 1, July 18, July 29, August 15, September 1, September 15, September 30, October 17, October 20, October 31, November 17, and December 1, 2016 (FERC Accession Numbers 20151030-5363, 20151113-5192, 20151215-5252, 20160113-5231, 20160129-5227, 20160324-5120, 20160415-5014, 20160513-5223, 20160617-5151, 20160701-5255, 20160718-5164, 20160729-5256, 20160816-5051, 20160901-5260, 20160915-5216, 20160930-5310, 20161017-5045, 20161020-5049, 20161031-5198, 20161117-5168, and 20161201-5309, respectively). A summary of recent agency contacts and copies of correspondence for the ACP are provided in Appendix J. A recent agency letter for the SHP is provided in Appendix K.