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Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street NE, Room 1A Washington, DC 20426

# **Re:** Comments to the Federal Energy Regulatory Commission on the Scope of the Environmental Impact Statement for the Proposed Atlantic Coast Pipeline (PF15-6-000)

Dear Secretary Bose:

On behalf of the Chesapeake Climate Action Network (CCAN), I submit the following comments on the scope of the environmental issues that should be addressed during the development of the Environmental Impact Statement (EIS) for the proposed Atlantic Coast Pipeline (ACP) project, PF15-6-000.

CCAN is a grassroots, nonprofit organization dedicated to fighting climate change and all of the harms that fossil-fuel infrastructure causes in Virginia, Maryland, and Washington, DC and to securing policies that will put us on a path to climate stability. One of the primary tools that CCAN uses to fight climate change is building, educating, and mobilizing a powerful grassroots movement to push for a societal switch away from dirty fossil-fuel energy and towards clean energy. In support of its mission, CCAN has opposed projects that would contribute to climate change and harm the public.

We have more than 30,000 supporters throughout the Commonwealth and maintain an office in Richmond. Supporters of CCAN live, exercise, work, raise children, garden, and recreate on a regular basis along the route of the proposed ACP.

Under the National Environmental Policy Act (NEPA), FERC is required take into account the environmental impacts that could result from an action whenever it considers whether to approve proposals such as the ACP. FERC has announced its intention to prepare an EIS for the project and has identified nine environmental issues it will address in the EIS.<sup>1</sup> Missing from these

<sup>&</sup>lt;sup>1</sup> The EIS will discuss the impacts that could occur as a result of the construction and operation of the ACP under the following headings: (a) geology and soils; (b) land use; (c) water resources, fisheries, and wetlands; (d) cultural resources; (e) vegetation and wildlife; (f) air quality and noise; (g) endangered and threatened species; (h) socioeconomics; and (i) public safety. Fed. Energy Regulatory Comm'n, Docket Nos. PF15-5-000 & PF15-6-000, Notice of Intent to

issues, however, is the requirement that FERC take into account the effects of climate change. These comments argue that FERC must take climate change into account, and provide specific recommendations about how to do so.

### I. FERC Must Assess Climate Change and Greenhouse Gas Impacts

Virginia is one of the most vulnerable states in the country to global warming, and this project would only make matters worse. The East Coast of the United States is threatened by an Atlantic Ocean that is rising three to four times faster than the global average, and it is rising particularly fast in coastal Virginia. By the year 2100, sea level rise in Virginia is projected to be as much as seven feet or more, substantially higher than global projections. This rapid sea-level rise places much of Tidewater Virginia second only to New Orleans and Louisiana's Gulf Coast as the largest population center at greatest risk of flooding and largely disappearing.

## (a) Federal Law Requires FERC to Address Climate Change Impacts

The National Environmental Policy Act (NEPA)<sup>2</sup> and its implementing regulations<sup>3</sup> require agencies to consider a full range of environmental impacts, including "ecological . . ., aesthetic, historic, [and] cultural" impacts, "whether direct, indirect, or cumulative."<sup>4</sup> The Council on Environmental Quality (CEQ) is currently writing guidance that directs federal agencies to consider the effects of greenhouse gas (GHG) emissions and climate change in their NEPA reviews. As the CEQ explained in an earlier draft of that guidance, requiring agencies to address climate change is "not a 'new' component of NEPA analysis, but rather . . . a potentially important factor to be consider the impacts that the proposed project will have on climate change as well as the impacts that a changing climate will have on the proposed project.

### (b) FERC Should Consider Cumulative Impacts of Direct Greenhouse Gas Emissions

In conducting its NEPA review, FERC should consider the cumulative impacts of the Project's direct GHG emissions. Direct emissions may include but are not limited to carbon dioxide (CO2) and nitrous oxide emissions from compressor engines, line heaters, and generators; fugitive methane emissions from natural gas production, processing, and piping;<sup>6</sup> and black carbon

Prepare an Environmental Impact Statement for the Planned Supply Header Project and Atlantic Coast Pipeline Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings (Feb. 27, 2015).

<sup>&</sup>lt;sup>2</sup> 42 U.S.C. §§ 4321- 4370f (2006).

<sup>&</sup>lt;sup>3</sup> 40 C.F.R. §§ 1500- 08 (2010).

<sup>&</sup>lt;sup>4</sup> 40 C.F.R. § 1508.8 (2010).

<sup>&</sup>lt;sup>5</sup> COUNCIL ON ENVTL. QUALITY, Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions p.11 (Feb. 18, 2010).

<sup>&</sup>lt;sup>6</sup> "The U.S. natural gas transmission network contains more than 279,000 pipeline miles. Along this network, compressor stations are one of the largest sources of fugitive emissions, producing an estimated 50.7 billion cubic feet (Bcf) of methane emissions annually from leaking compressors and other equipment components such as valves, flanges, connections, and open-

emissions from diesel vehicles and equipment. Nitrous oxide is 298 times more warming than CO2 over a hundred-year period.<sup>7</sup> In its most recent Fifth Assessment Report (AR5), the definitive scientific body known as the Intergovernmental Panel on Climate Change (IPCC) estimated that methane has 36 times the global warming potential (GWP) of CO2 over a 100-year time frame and at least 86 times the GWP of CO2 over a 20-year time frame.<sup>8</sup> Black carbon is estimated to be 2,200 times more warming than CO2 over a 20-year time period.<sup>9</sup> Current estimates vary about the quantities of methane leaked into the atmosphere during the natural gas lifecycle, but some estimates range from 1.4 to over 15 percent of the total produced gas.<sup>10</sup> Such estimates indicate that the GHG lifecycle emissions of natural gas can be equal to or greater than the lifecycle GHG emissions of coal for electricity. FERC must take these emissions into account when conducting the EIS.

Furthermore, FERC *must* use the proper GWP for methane. In its 2014 Environmental Assessment for the Cove Point liquefied natural gas export facility, for example, FERC stated that methane has a GWP of 25.<sup>11</sup> This number is outdated. In the IPCC's AR5, published in 2013, the scientific body reported that methane has a GWP of 34 over a 100-year timeframe and 86 over a 20-year timeframe, when climate-carbon feedbacks are incorporated.<sup>12</sup> FERC must use this updated GWP for methane when assessing the climate impacts of the proposed pipeline.

### (c) FERC Should Consider Indirect Effects of Approving the Pipeline

<sup>7</sup> See ENVTL. PROTECTION AGENCY, Overview of Greenhouse Gases: Nitrous Oxide,

http://www.climatechange2013.org/images/report/WG1AR5\_Chapter08\_FINAL.pdf.

http://www.catf.us/resources/publications/files/CATF- BC- DPF- Climate.pdf.

ended lines." ENVTL. PROTECTION AGENCY, *Lessons Learned from Natural Gas STAR Partners* 1 (Oct. 2003), available at <u>http://www.epa.gov/gasstar/documents/ll\_dimcompstat.pdf</u>.

http://www.epa.gov/climatechange/ghgemissions/gases/n2o.html (last visited Apr. 27, 2015).

<sup>&</sup>lt;sup>8</sup> IPCC, Climate Change 2013: Physical Science Basis, Anthropogenic and Natural Radiative Forcing 714 (2013), available at

<sup>&</sup>lt;sup>9</sup> See L. Bruce Hill, CLEAN AIR TASK FORCE, The Carbon Dioxide - Equivalent Benefits of Reducing Black Carbon Emissions from U.S. Class 8 Trucks Using Diesel Particulate Filters: A Preliminary Analysis 3 (2009), available at

<sup>&</sup>lt;sup>10</sup> EPA's Inventory of Greenhouse Gas Emissions and Sinks uses a "bottom-up" method based on engineering estimates of emissions from particular pieces of equipment or events multiplied by estimate of the census of such events. Many of these studies have estimated total lifecycle leak rates around 1.4 percent. *See, e.g.*, Jeffrey Logan et al., JOINT INST. FOR STRATEGIC ANALYSIS, *Natural Gas and the Transformation of the U.S. Energy Sector* 5 (2012), *available at* <u>http://www.nrel.gov/docs/fy13osti/55538.pdf</u>. The academic literature published in 2014 on methane leakage over the natural gas lifecycle showed leakage rate measurements well in excess of 15 percent in some parts of the country. A review and short summary of those studies are available at <u>http://chesapeakeclimate.org/wp/wp-content/uploads/2015/01/2014-methaneleakage-studies.pdf</u>.

<sup>&</sup>lt;sup>11</sup> Environmental Assessment for Dominion Cove Point LNG, LP Docket No. CP13-113-000, p.99 (May 2014).

<sup>&</sup>lt;sup>12</sup> IPCC, Climate Change 2013: Physical Science Basis, Anthropogenic and Natural Radiative Forcing 714 (2013), available at

http://www.climatechange2013.org/images/report/WG1AR5\_Chapter08\_FINAL.pdf.

We also urge FERC to expand the scope of analysis to include indirect effects related to gas drilling, processing, and combustion. This project, and others like it, fit into a larger picture of exploding shale gas development in the Marcellus Shale region. The increased development is not limited to the drilling of wells. FERC has reported that 5.6 billion cubic feet per day of pipeline capacity was constructed in the Northeast in 2008 and 2009, and an additional 1.2 billion cubic feet per day will have been constructed in the region by January 2011.<sup>13</sup> According to FERC, "[m]uch of the new pipeline capacity in the area is targeted at improving the access of shale gas to markets."<sup>14</sup> Thus, the proposed project is both a product of the development of the Marcellus Shale and a likely catalyst for further gas development. It is therefore appropriate to consider the extent to which implementation of the proposed project, combined with implementation of other similar pipelines regionally and nationally, could increase the demand for domestic natural gas extraction.

### (d) Other Climate Factors to Consider

Carbon sequestration in forest cover is a critical mechanism in combating climate change. Forests serve as carbon sinks, removing excess carbon dioxide from the atmosphere and storing the compound over several decades. Dominion's project will disturb 12,972 acres of land, crossing cross the Monongahela and George Washington National Forests in West Virginia and Virginia. This impact must be addressed in the EIS.

The construction of the project will require a large amount of fossil fuel to power construction equipment. The EIS must explore what impact construction vehicle emissions will have on the climate.

### II. Conclusion

We believe that if FERC fully considers the severe environmental, health, and safety impacts of this pipeline proposal, the results will show that a massive new conduit for fracked gas is not in our public interest. On behalf of our supporters throughout Virginia, we thank you for the opportunity to provide these scoping comments and look forward to reviewing the EIS.

Sincerely,

An You

Anne Havemann General Counsel Chesapeake Climate Action Network

<sup>&</sup>lt;sup>13</sup> FED. ENERGY REGULATORY COMM'N, WINTER 2010-11 ENERGY MARKET ASSESSMENT 10 (Oct. 21, 2010), <u>http://www.ferc.gov/market- oversight/mkt- views/2010/10- 21- 10.pdf</u>. <sup>14</sup> Id.