

Climate Disrupting Pollution from Atlantic Coast and Mountain Valley Pipelines nearly twice that of Virginia power plants and other stationary sources

A new report by the Sierra Club finds that greenhouse gas pollution from the Atlantic Coast and Mountain Valley pipelines would be almost twice the total climate-changing emissions from existing power plants and other stationary sources in Virginia.

The report, prepared by Richard Ball, PhD., a retired US EPA and DOE scientist who served as a lead author on the First and Second Intergovernmental Panel on Climate Change assessments and is the Energy Chair for the Sierra Club Virginia Chapter, estimates total carbon dioxide gas equivalent from each of the two pipelines over the natural gas fuel cycle, including fugitive emissions of methane from fracking in the gas fields, leakage during transmission and storage, and combustion of the delivered gas. It also shows the estimated planetary heating from all four proposed pipelines for Virginia.

Last Friday, the US EPA urged the Federal Energy Regulatory Commission (FERC) to require applicants for new pipelines to assess a project's indirect impacts, including potential increases in gas production and greenhouse gas (GHG) emissions¹. "Our report provides an assessment of the greenhouse gas emissions of the Atlantic Coast and Mountain Valley Pipelines as the EPA suggests," said Dr. Ball. "We urge FERC to consider this report and to require the pipeline developers to address climate concerns in a programmatic environmental impact statement that takes a comprehensive look at impacts from all proposed new or expanded pipelines."

"Statements made by gas industry executives and public officials, including Governor McAuliffe, that natural gas is a clean fuel ignore the significant climate impact of increased reliance on gas," said Kirk Bowers, an organizer for the Sierra Club working with communities opposing the new natural gas pipelines in Virginia and West Virginia.

The report's emission estimates from production and processing operations, including fracking, are based on a 2013 published analysis by Laurenzi and Jersey, researchers with ExxonMobil. Total pipeline emission estimates in the report include production and processing as well transmission and storage, and combustion of the delivered gas.

In addition to emitting large amounts of CO₂ when burned, natural gas is a major contributor to climate change in the extraction and transmission stages, where significant amounts of methane escape from wells and pipeline leaks. Methane is a much more powerful greenhouse gas than CO₂,

¹ FERC Should Review Indirect Impacts, GHG Emissions From NatGas Projects, EPA Says, NGI's Shale Daily, Jan 21, 2016; <http://www.naturalgasintel.com/articles/105081-ferc-should-review-indirect-impacts-ghg-emissions-of-natgas-projects-epa-says>

and these “fugitive emissions” of methane have emerged as an area of serious concern that undercuts the case for natural gas as a cleaner substitute for coal.

“Natural gas only seems like a cheap and easy fix for climate change,” said Glen Besa, Director of the Sierra Club Virginia Chapter, “In reality, methane pollution is a serious problem that makes natural gas a dead-end solution. We have to stop kidding ourselves. Virginia should be investing in wind and solar and energy efficiency, not expanding infrastructure for more fossil fuel burning.”

The lowest estimates of greenhouse gas emissions for Atlantic Coast Pipeline at 40.7 million metric tons per year (MMT/yr) are more than 5 times the annual carbon pollution from Dominion’s Chesterfield Power Station (7.2 MMT/yr), the largest coal fired plant in Virginia, and equal to more than 80% of the total carbon pollution (49.4 MMT) from all 177 stationary sources in the EPA’s 2014 inventory of GHG emissions in Virginia². The larger capacity Mountain Valley Pipeline’s total emissions of 54.3 MMT/yr would be 7.5 times the emissions of Dominion’s Chesterfield Power Station and actually exceed the total 2014 emissions from all of Virginia’s stationary sources as estimated in the EPA’s 2014 inventory.

If both the Atlantic Coast and Mountain Valley pipelines were to be built, their combined climate disrupting pollution would total 192%, of the emissions from Virginia’s existing power plants and other stationary sources. Emissions from the other two proposed pipelines, the WB Xpress and the Appalachian Connector, would nearly double the total emissions from the ACP and MVP for a total of 185 MMT CO_{2eq} at a GWP of 25 in the base case, the ExxonMobil rates, or 3.7 times the EPA GHGRP (stationary source inventory) total for Virginia. These comparisons illustrate the magnitude of the pollution these pipelines would generate; however, actual pollution from these pipelines would also occur in West Virginia where the natural gas is produced by fracking and in North Carolina as well as Virginia where the gas would be burned.

“There are more immediate and familiar concerns with these pipelines including property rights and water pollution,” said Besa, “but climate change impacts should be considered by FERC particularly in light of the recent Paris agreement committing the United States to reducing our total emissions of greenhouse gas pollution.”

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Richard Ball has a Ph.D. in physics and worked on scientific research on the planet Earth and on energy issues for 10 years at the Rand Corp. He has 27 years’ experience working on energy policy and technology analysis, atmospheric science of acid precipitation, and climate science at the U.S.EPA and the U.S. Dept. of Energy, including serving as a lead author on the First and Second IPCC assessments of climate change. Now retired, Dr. Ball serves as volunteer Chair of the Sierra Club Virginia Chapter’s Energy Committee.

² EPA’s “Flight database” from its Greenhouse Gas Reporting system.

