

The Facts: How the Proposed Cove Point Gas Plant Would Impact Southern Maryland

Virginia-based Dominion Resources is proposing a \$3.8 billion industrial project to transform Cove Point from a largely dormant natural gas import facility to a massive industrial export complex. By comparison, the cost of the Cove Point expansion would roughly equal the cost of building 12 Raven's football stadiums, or cost more than the Wilson Bridge, spanning the Potomac south of D.C. **Yet, Dominion does not want the federal government to conduct a customary and comprehensive Environmental Impact Statement (EIS).**

BACKGROUND: The "boom" in natural gas production in the U.S. has driven the price of gas to near historic lows. To drive up profits, the gas industry is looking to export natural gas overseas where prices are much higher. Through a web of pipelines, processing plants, and tankers, Cove Point would send gas from the Marcellus shale in Appalachia to international customers in India and Japan.¹ The result would be higher prices for domestic consumers and industries, and serious impacts on the health and safety of local communities in Calvert County.

Traffic Congestion and Roadway Safety

- X The construction of the facility would have a negative impact on local traffic flow. The volume of traffic in peak hours will increase substantially on all main roads near the facility. Traffic on Solomons Island Rd. will increase over 50% in both morning and evening peak hours. Traffic on the most affected road, MD 497, or Cove Point Rd., will increase by 89%.²
- X Increased heavy truck traffic correlates with increased traffic accidents, and has the potential to delay the response times of emergency vehicles. Dominion has proposed to help with some road improvement projects. However, increased emergency response times are common in rural areas that experience a "boom" in construction due to fossil fuel development.³



Increased Noise Pollution

- X The constant noise from the facility's onsite compressor, liquefaction plant, and power plant will be so loud that it will have to be mitigated by a "sound wall," which Dominion would construct on the western and southern sides of the LNG terminal. The sound barrier will be approximately three quarters of a mile long and as tall as a six-story building.⁴
- X The proposed sound wall will be the tallest human-made structure in Calvert County: it will be as long as and half the height of the Governor Thomas Johnson Bridge which connects St. Mary's County with Solomons.

Safety Hazards and Local Emergency Response

- X Dominion will maintain permanent new stockpiles of toxic and potentially explosive chemicals on-site, including propane, ethane, acid-gases, and cancer-causing benzene. According to federal officials, the proximity of the storage tanks containing these volatile chemicals could potentially trigger a "fireball" near populated areas and just three miles from the Calvert Cliffs nuclear plant.
- X Cove Point is also located within three miles of five elementary and middle schools, a preschool, state parks, a land trust, and thousands of residential homes. Emergency response plans from any potential disaster at Cove Point, natural or human-caused, have yet to be presented to the community in a public forum.

Impacts on Ground Water and Aquifers

- X Currently, Cove Point's existing import terminal draws on average of 40,000 gallons of water every day from an onsite well. With the development of the new export facility, onsite water usage will increase by more than 500%. The new facility will require 210,000 gallons of fresh water every day, which will be drawn from the Lower Patapsco aquifer.⁵ How this will affect local residents is still undetermined.
- X During construction, Dominion will need to make a one-time 300,000 gallon water withdrawal for pressure testing of the facility, drawing down even more local fresh water for industrial use.⁶

Dangerous Air Pollution and Toxic Chemicals

- X If approved, Cove Point's proposed new onsite liquefaction facility would require a full utility-scale power plant (130 MW) constructed on site. It would require compressors and storage tanks that would emit additional air pollutants like nitrogen oxide and volatile organic compounds,⁷ thus adding ozone pollution to an area of Maryland already struggling to meet health-protective federal air pollution standards.
- X Maryland already has the additional burden of having the highest premature deaths due to air pollution of any other state in the country, according to a report by MIT.⁸
- X These additional air pollutants could result in a wide range of local environmental and health impacts. Ozone pollution, for example, has been linked to increased respiratory and cardiovascular diseases, especially in children, the elderly, and other vulnerable populations.⁹

Offsite Construction Areas

- X Dominion's three-year construction project would require two brand new offsite construction areas, one in Lusby and one in Solomons. In Lusby, Dominion would clear over 90 acres of forest, which would not only serve as a construction staging area, but would have temporary offices and a parking lot for 1,700 cars.¹⁰
- X Offsite Area B, in Solomons, would be used as a barging area to transport materials from the Patuxent River to Cove Point. During construction, almost 50 barges will unload construction equipment and 150 truck trips from Offsite B to Cove point will be required. These trucks will be making trips during the day, from 7 am until 7 pm, every week for at least three years.¹¹
- X This heavy industrial construction activity would obstruct the aesthetics, environment and historic charm that makes Solomons Island a popular tourist attraction in Southern Maryland.

Impacts on Local Rivers and the Chesapeake Bay

- X LNG exports would draw at least 85 additional 1,000-foot-long tankers into the Chesapeake Bay each year.¹² In addition to carrying volatile, potentially explosive liquid fuel, these tankers would worsen local air quality and dump billions of gallons of dirty ballast wastewater into the nearby Atlantic waters and Bay each year.¹³
- X Each tanker carries between 16 and 25 million gallons of oxygen-deficient ballast water.¹⁴ That much ballast water discharged into the Chesapeake Bay at least 85 times a year could have a significant effect on marine life in the area, which many local businesses rely on, creating significant impacts on the local economy.
- X Ballast water could also be a significant threat to human health. Ballast water drawn from places like India and Japan has been known to contain toxigenic strains of cholera and other diseases, toxic algae, and radioactive ocean water as a result of the crippled Fukushima Nuclear Power Plant.¹⁵
- X The industrial build-out at Cove Point would also require the clearing of forests¹⁶ and threaten the network of rivers and wetlands that attract tourists and support rare species of plants, animals, and migratory birds.
- X Construction of the facility alone will permanently bury just over 1,000 feet of local waterways.¹⁷

Climate Change Pollution

- X The liquefaction facility itself will emit over 3.3 million tons of greenhouse gas emissions every year, making that facility the fourth largest climate polluter in Maryland.¹⁸
- X However, given the energy-intensive process of extracting, transporting, and processing gas for export, Cove Point would trigger more greenhouse gas emissions than any other single source of climate pollution in Maryland. Over 22 million additional tons of heat-trapping greenhouse gases would be released if Cove Point moves forward as proposed – an amount equal to all of the emissions of Maryland's seven coal-fired power plants combined.¹⁹

Take action and urge Governor O'Malley to demand a full environmental impact statement from the federal government before any construction is allowed at Cove Point. Southern Maryland can and should lead the charge to stop the fast-tracking of construction and permitting for Dominion's project and ensure that the local community and the environment are safer and healthier for future generations.



Go to
www.chesapeakeclimate.org/covepoint
for more information about these
efforts.

OR

Contact Leslie Morrison:
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¹ “Dominion Cove Point Liquefaction Project Moving Forward, Cements Front-Runner Status” Dominion News, 1 Apr. 2013.

² Table 5-46. Dominion Cove Point LNG, LP (“DCP”) 2013 FERC *Certificate for Public Convenience and Necessity Application*, Resource Report 5 – Socioeconomics, page 5-35.

³ *The Social Costs of Fracking*, Food and Water Watch (2013).

⁴ Dominion Cove Point LNG, LP (“DCP”) 2013 Federal Energy Regulatory Commission *Application for Authority to Construct, Modify, and Operate Facilities used for the Export of Natural Gas Under Section 3 of the Natural Gas Act*, page 25.

⁵ Dominion Cove Point LNG, LP (“DCP”) 2013 FERC *Certificate for Public Convenience and Necessity Application*, Resource Report 2 – Water Use and Quality, page 2-5.

⁶ Dominion Cove Point LNG, LP (“DCP”) 2013 FERC *Certificate for Public Convenience and Necessity Application*, Resource Report 2 – Water Use and Quality, page 2-27.

⁷ Dominion’s 2013 Maryland Public Service Commission (PSC) *Certificate for Public Convenience and Necessity Application*, Resource Report 9 – Air & Noise Quality.

⁸ Caiazza, Fabio, Akshay Ashok, Ian A. Waitz, Steve H.L. Yim, and Steven R.H. Barrett, “Air pollution and early deaths in the United States. Part I: Quantifying the impact of major sectors in 2005.” *Atmospheric Environment* 79 (Nov. 2013): 199-208.

⁹ “Carbon Pollution and Climate Change: Information Sheet.” Physicians for Social Responsibility, 2013.

¹⁰ Dominion Cove Point LNG, LP (“DCP”) 2013 FERC *Certificate for Public Convenience and Necessity Application*, Resource Report 1 – General Project Description, page 1-16.

¹¹ Dominion Cove Point LNG, LP (“DCP”) 2013 FERC *Certificate for Public Convenience and Necessity Application*, Resource Report 9 – Air and Noise Quality, page 1-15.

¹² Dominion Cove Point LNG, LP (“DCP”) 2013 FERC *Certificate for Public Convenience and Necessity Application*, Resource Report 2 – Water Use and Quality, page 2-24.

¹³ Based on (Typical mid-size 138,000 m³ LNG carriers transporting about 65,115 tons of LNG, or 3.1 bcf of natural gas per voyage [Chandra, Vivek. *Fundamentals of Natural Gas: An International Perspective*. Tulsa, OK: PennWell, 2006. Page 60.] – Cove Point has applied to export 5.75 million metric tons of LNG per year.

¹⁴ Dominion Cove Point LNG, LP (“DCP”) 2013 FERC *Certificate for Public Convenience and Necessity Application*, Resource Report 9 – Air and Noise Quality, page 9-45.

¹⁵ Mario N. Tamburri, University of Maryland Center for Environmental Science, Chesapeake Biological Laboratory, “Dominion Cove Point LNG, LP, Cove Point Liquefaction Project, Docket CP13-113; Comments on Negative Impacts on Shipping Activities,” 11 Nov. 2013.

¹⁶ Appendix A-1 of Dominion’s 2013 Maryland PSC *Certificate for Public Convenience and Necessity Application*, Resource Report 9 – Air & Noise Quality.

¹⁷ Dominion Cove Point LNG, LP (“DCP”) 2013 FERC *Certificate for Public Convenience and Necessity Application*, Resource Report 2 – Water Use and Quality, page 2-13.

¹⁸ Table 9-20 of Dominion’s 2013 FERC *Certificate for Public Convenience and Necessity Application*, Resource Report 9 – Air and Noise Quality, page 9-31.

¹⁹ Based on a lifecycle analysis of LNG that includes a range of leakage rates from a low of 1.4% (U.S. Environmental Protection Agency. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2011*. Rep. no. EPA 430-R-13-001. 12 Apr. 2013.) to a high of 7.9% (Howarth, Robert W., Renee Santoro, and Anthony Ingraffea. “Methane and the Greenhouse-gas Footprint of Natural Gas from Shale Formations: A Letter.” *Climate Change* 106 (2011): 679-90.) as well as export-related emissions from liquefaction (Table 9-18 of Dominion’s 2013 Maryland PSC *Certificate for Public Convenience and Necessity Application*, Resource Report 9 – Air & Noise Quality), tanker transport, and re-gasification. (Jaramillo, Paulina, W. M. Griffin, and H. S. Matthews. “Comparative Life Cycle Carbon Emissions of LNG Versus Coal and Gas for Electricity Generation.” *Environmental Science & Technology* 17th ser. 1.41 (2007): 6290-296.) The lifecycle greenhouse intensity from coal was derived by modifying a Worldwatch Institute study (Worldwatch Institute. *Comparing Lifecycle Greenhouse from Natural Gas and Coal*. 25 Aug. 2011.) to scale up the upstream coal methane emissions from a 100-year time frame to a 20-year timeframe