

**TESTIMONY OF
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PRESIDENT
DOMINION ENERGY**

**BEFORE THE
SUBCOMMITTEE ON ASIA AND THE PACIFIC
COMMITTEE ON FOREIGN AFFAIRS
U.S. HOUSE OF REPRESENTATIVES**

REGARDING THE EXPORT OF LIQUIFIED NATURAL GAS

MAY 29, 2014

Good afternoon Chairman Chabot, Ranking Member Faleomavaega, and members of the Subcommittee. My name is Diane Leopold and I serve as President of Dominion Energy, the business unit of Dominion Resources that houses our natural gas operations, including the Cove Point liquefied natural gas terminal on the Chesapeake Bay in Calvert County, Maryland.

Dominion is a “Fortune 250” company headquartered in Richmond, Virginia. It is one of the nation's largest producers and transporters of energy, with a portfolio of approximately 23,600 megawatts of nuclear, gas, coal, wind, solar, biomass, hydro, and fuel cell power generation; 10,900 miles of natural gas transmission, gathering and storage pipelines; and 6,400 miles of electric transmission lines. Dominion operates one of the nation's largest natural gas storage systems with 947 billion cubic feet of storage capacity; and serves nearly four million electric and gas utility customers in Virginia, North Carolina, Ohio, and West Virginia.

Thank you for this opportunity to appear before the Subcommittee today to discuss an important and positive set of developments for our nation.

Overview

Dominion is proud to be at the forefront of the remarkable turnaround in our nation’s energy fortunes. As recently as 2005, the U.S. Energy Information Administration (EIA) was projecting that by today the United States would be importing as much as 10 billion cubic feet per day (Bcf/d) of natural gas in the form of liquefied natural gas (LNG). By 2025, the EIA projection for LNG imports was approaching 18 Bcf/d, or more than 20 percent of the nation’s natural gas needs. Instead, thanks to remarkable technological advances developed in the U.S., the nation now finds itself with an abundant supply – enough to meet domestic needs for at least the next

century while being able to export a limited amount to important allied nations around the world. The nation's conversion from net importer to net exporter of natural gas is expected to occur by 2016. This is because of the initiation of LNG exports as well as reduced imports from Canada and increased exports to Mexico via pipeline.

This relatively quick turnaround in our nation's natural gas supply picture brings with it major domestic and international implications.

From an economic standpoint, numerous studies have reached similar conclusions in terms of the positive impacts this new activity will have. More than 40 LNG export facilities have been proposed in the United States, although most experts expect the number built and put into service will be not more than a half-dozen – including Dominion's Cove Point facility. Initially, the construction of even a handful of LNG export facilities will create thousands of jobs, not just in the building of the terminals but also in the manufacturing of equipment that will be installed in the plants. For example, our project will install large liquefiers manufactured by the Air Products Company in Pennsylvania and two General Electric Frame 7 power turbines built in South Carolina.

Once operational, the terminals will support tens of thousands of additional jobs throughout the supply chain of producing, processing, and transporting gas to the terminals. Billions of dollars in new tax revenue will flow to federal, state, and local economies. And, the U.S. trade deficit will be reduced by tens of billions of dollars annually.

The potential for geopolitical benefit for the United States and our allies is just as significant. Our nation's strategic position in the world will be strengthened as we shift from being dependent upon others for a growing share of our energy to becoming a major supplier to others. The relationship between energy trade and international affairs was illustrated vividly by a front-page photograph in *The Wall Street Journal* earlier this month showing Russian President Vladimir Putin and Chinese President Xi Jinping toasting a 30-year agreement for Russia to sell \$400 billion worth of natural gas to China starting in 2018. As *The Washington Post* reported about the ceremony, "China's president also called for an Asian security arrangement that would include Russia and Iran and exclude the United States." The United States has the opportunity to counter that kind of alliance by being a source of clean, reliable natural gas for our allies who are urgently in need of such supplies. For us to stand aside would leave our allies no choice but to turn to those who would meet their needs.

I make no pretense about being a foreign affairs expert. However, Dominion's ongoing experience with our export project at the Cove Point facility can provide a real-world example of the kind of opportunity LNG exports can provide to the United States. Please allow me to focus on that Dominion project.

Dominion Cove Point

The Cove Point facility was constructed by a predecessor of Dominion and a partner in the early 1970s as an LNG import terminal. After about two years of receiving shipments of LNG from overseas, imports came to a virtual halt because of changing economic conditions. The Dominion predecessor sold its interest and the plant was essentially mothballed from that time until 1994, when the onshore facilities were reactivated to provide limited storage services for local gas utilities. In 2002, Dominion acquired all of the Cove Point facility and began work to reactivate it as an import terminal as the nation began to look overseas to help meet its growing energy needs. The reactivated terminal received its first LNG shipment in the summer of 2003. At its peak in 2005, Cove Point received about 85 shipments, mostly from Trinidad and Tobago. Based on the projected future demand at that time, Cove Point import capability was then almost doubled in size.

Then everything changed again. Domestic gas production began to climb due to tremendous advances in technology. Prices began to fall. It became clear that LNG imports would likely not be needed in the foreseeable future. Dominion, along with owners of several other LNG import terminals, began to explore the feasibility of adding export capability. In 2011, we began marketing the Dominion Cove Point export project to potential overseas customers. We literally circled the world in looking for customers. We held discussions with numerous parties from across Asia and Europe, ultimately completing agreements with two customers in 2013.

Dominion Cove Point Customer Overview

Sumitomo, a Japanese global trading company and GAIL, one of the largest natural gas companies in India and majority-owned by the government, each signed up for one-half of Cove Point's export output for a period of 20 years. Specifically, each company will have the right to receive a minimum of 2.3 million metric tonnes of LNG annually during that time.

Sumitomo in turn signed offtake agreements with Tokyo Gas and Kansai Electric, the ultimate users of the gas. As you may be aware, Japan's entire fleet of 48 nuclear reactors remains shut down as a result of the Fukushima disaster in 2011. Much of the shortfall in electricity is being made up by generating additional electricity from imported LNG and an increased use of coal. In fact, Japan is also constructing a number of new coal-fired power plants and is today the world's second-largest importer of coal. Although the Japanese government recently announced plans to restart at least some of its idled nuclear reactors, the country is expected to remain the No. 1 importer of LNG globally.

In the case of India, currently the fifth-largest importer of LNG, the additional supply is needed to fuel the country's economic growth. Estimates are that India's natural gas needs will triple by 2022. Currently, almost 70 percent of India's power generation comes from coal, according to the International Energy Agency. It is expected that additional gas-fired generation will offset coal.

Our facility will be able to produce only about 5¼ million tons of LNG a year, which may sound like a lot but is only a sliver of global demand. But that was fine with our business partners. What they told us was they each wanted a stable, secure, reliable source of LNG to help round out their portfolio, not dominate it. They also wanted a market where they could buy gas at a price not linked to oil. That is why they turned to United States and Dominion. This is a very important point. They both see the United States as a good ally and a good trading partner. In fact, GAIL recently announced it expects to sign additional supply contracts this year for more LNG exports from the United States.

The contracts signed with Sumitomo and GAIL are tolling agreements, meaning Dominion will only provide liquefaction service to our customers. We will not sell them gas. Rather, the customers will be responsible for procuring the gas and transporting it to the terminal through the existing pipeline. In fact, both customers have made investments in upstream sources to bolster their security of supply across the value chain. Dominion will liquefy the gas and load it onto the customers' ships for transport to its ultimate destination.

U.S. and Global Competition

Likewise, other energy companies have been marketing U.S. export capacity to consumers around the world. Asia is certainly the frontrunner in the competition to secure contracts with projects for LNG exports from the U.S. To date, 43 applications totaling nearly 40 Bcf/d have been filed with the DOE for a license to export LNG. However, it is likely that only a fraction of those will actually be built. Of the projects that have announced off-take contracts, four expect to deliver LNG to Asia, for about 60 percent of the contracted volumes. A further capacity breakdown of this subset of projects shows that of that 60 percent, Japan will receive 37 percent, India will receive 11 percent, and Korea will receive 11 percent.

Worldwide competition is fierce to supply natural gas to these countries, both using LNG and in the case of India, via pipeline. As I said, our customers have focused on pricing, security and diversity of supply in their buying decisions. Any one of these factors alone will not attract long-term contracts. And pricing includes the mechanism by which a price is reached. Japan, for example, has repeatedly expressed its desire to eventually break the oil-linked pricing that most of its imports are now based on. Exports from the U.S. will generally be tied to lower Henry Hub prices. However, even with construction of the expected handful of U.S. terminals, U.S. exports to Asia will still remain a small portion of those countries' overall supply portfolio.

History has certainly shown how strong the political and economic ties can be when associated with energy supply – some good and some not so good. The countries listed above are strategic allies for U.S. foreign policy. Our ability to provide reliable, long-term supply of energy will only help to strengthen our relationship with these key allies and help insulate them from other energy suppliers who may use their influence in conflict of the best interest of the United States.

Little Price Impact in the United States

There has been a good deal of discussion recently about the impact that LNG exports will have on natural gas prices for American consumers. Some critics have said the export of LNG will lead to customers in the U.S. paying a much higher “world price” for natural gas. That is not a realistic outcome and here is why. As I mentioned, our customers will buy the gas themselves and transport it to Cove Point. The current price per million Btu of gas, or 1 MMBtu, is roughly \$4.50. First you need to add to that the cost of liquefaction, or roughly \$3 per MMBtu. Then add another \$3 or so per MMBtu to ship the gas to Asia and another approximately \$1 to regasify it at its destination. By the time that \$4.50 gas arrives in Japan, for example, the delivered cost is in the range of at least \$11 or \$12 per MMBtu.

The pricing dynamic I just described is entirely different than crude oil, for example, which can be shipped around the world for a small fraction of the price of the actual commodity. In the case of crude there is more of a world price. It is the significant expense of liquefying, transporting, and regasifying natural gas that will serve to prevent the development of a so-called “world price.”

Furthermore, this \$6-\$7 liquefaction and transport cost exists regardless of the price of natural gas sold in the U.S. If the natural gas price increases domestically, there will be plenty of worldwide competition happy to deliver to these markets.

Some have suggested that exporting LNG would amount to giving up America’s competitive energy advantage in manufacturing. Nothing could be further from the truth. For the reasons I just explained, today a U.S. consumer of gas would be paying roughly \$4.50 per MMBtu while its overseas competitor would be paying as much as three times that amount for the same gas. If a company can’t be competitive with that type of advantage perhaps there is some deeper issue with that company’s business model.

Permitting

American consumers also are protected by the dozens of federal, state and local permits needed prior to constructing an LNG export terminal. The two main federal permits come from the U.S.

Department of Energy (DOE) and the Federal Energy Regulatory Commission (FERC). Numerous other agencies participate in the process.

Under the Natural Gas Act, permission to export LNG is granted by the DOE. In order to export to a country with which the U.S. does not have a free trade agreement, DOE must determine that such exports are, on a project by project basis, in the public interest. In the case of Cove Point, we filed for this permit in October of 2011. Just under two years later, in September of 2013, we received conditional approval from DOE.

The other main federal permit needed is from FERC. The Commission has the responsibility of reviewing each project for purposes of environmental impact and safety. In June 2012 we began the pre-filing process at FERC, and filed our formal application in April 2013. As part of FERC's very thorough process we submitted more than 20,000 pages of information on all aspects of the project. On May 15 of this year, FERC staff released its Environmental Assessment (EA) for the project, concluding that approval of the project "would not constitute a major federal action significantly affecting the quality of the human environment." We are now in the middle of a 30-day comment period on the EA. It is our hope that soon after the close of the comment period the FERC will grant permission to begin construction.

Once we receive permission to proceed to construction we will begin work on what will be a \$3.4 billion to \$3.8 billion investment. Construction will take approximately three years and will, at peak, employ a union workforce of about 1,250 workers. We expect to be ready to produce LNG by late 2017. Once operational, Cove Point's annual property tax payment to Calvert County will increase by roughly \$40 million, making Cove Point the largest taxpayer in the county.

Environmental Benefits

I would be remiss if I did not mention one other benefit of LNG exports from the United States. This displacement of coal-fired generation overseas with imported LNG is worth emphasizing. Earlier this year Dominion commissioned ICF International, a highly respected energy and environmental consulting firm, to review the lifecycle Green House Gas (GHG) emissions from LNG. ICF concluded the following: "Based on the best available data and using standard assumptions, exported LNG would have GHG emissions 43 percent to 52 percent lower than coal." In the case of Dominion Cove Point, LNG exports used to displace coal for electricity production could reduce GHG emissions by millions of tons a year.

If the goal is reduce GHG emissions, LNG is one of the ways to get there. In fact, President Obama's own climate action plan released in 2013 stated that "we will promote fuel-switching

from coal to gas for electricity production and encourage the development of a global market for gas.”

Summary

LNG exports from the United States clearly have important and positive implications for the nation economically, environmentally and geopolitically. Good trading partners make good allies and good allies make good trading partners.

We are proud of the fact that Dominion Cove Point is an early mover in expanding U.S. exports. Dominion’s ability to export LNG represents a major opportunity for Maryland and positions Dominion as a major contributor in the effort by the United States to become a net exporter of energy. Thanks to technological advances, the U.S. has enough natural gas to meet not only America’s consumer demand, but also to export some supply in the form of LNG without significant impacts on domestic prices.

It is clear that natural gas is a cleaner, more economical fuel than coal. This means, LNG exports can provide significant global environmental benefits, such as cleaner air. By exporting LNG, the U.S. will be providing the world with increased access to a source of cleaner and reliable energy, without compromising Americans’ ability to utilize this important resource here at home.

LNG exports are consistent with the President’s National Export Initiative to expand exports to create “sustainable economic growth” as well as “good high paying jobs”. LNG exports also support America’s important and vital role as an energy superpower and can support our allies by providing a competitive, reliable and stable energy supply.

Dominion welcomes the release of the federal environmental assessment – an assessment that found the facility can be built and operated safely with no significant environmental impact - the company is poised for an exciting future.

Thank you.

Dominion Cove Point LNG Terminal, Lusby, Maryland

