Exporting Clean Energy, Importing Prosperity

Surplus natural gas, shipped through the existing Cove Point terminal, can help meet the global demand for cleaner energy and bring $40 million a year in property taxes home to Calvert County.
Calvert County: Sending clean

Dominion Cove Point is uniquely located near the nation’s abundant natural gas supplies to enable the facility to provide cleaner energy to our allies internationally.

The Dominion Cove Point LNG Terminal is one of many export facilities proposed. Cove Point has several advantages to allow Maryland and Calvert County to beat other potential locations in the race to benefit from the emerging export market, including minimizing environmental impacts by using many of the existing on-site infrastructure, building new equipment within existing property boundaries and interconnecting to the existing transmission grid.

Not every approved and proposed LNG facility will be built. Cove Point’s connection to the existing natural gas transmission system network allows Maryland and Calvert County to beat other potential locations in the race to benefit from the emerging export market.
energy to the world

In 2016, production of natural gas will exceed consumption

(31 trillion ft\(^3\) PRODUCED)
(29 trillion ft\(^3\) CONSUMED)

(22 trillion ft\(^3\) CONSUMED)
(18 trillion ft\(^3\) PRODUCED)


(Source: U.S. Energy Information Administration)

“Our energy future is more promising than we’ve ever allowed ourselves to believe. We will probably be ... a net exporter of natural gas in the next three or four years — something that could not be imagined even five, 10 years ago — because of the dynamism and technology that America has produced.” — President Barack Obama, May 30, 2013
Japan and India need more energy from clean sources

Cove Point’s competitive advantage has allowed Dominion to secure contracts already with Japan and India, where replacing coal, oil and solid waste with natural gas will produce cleaner air and dramatically reduce carbon emissions.

Without importing more natural gas, the use of coal in these and other countries will continue to increase.

<table>
<thead>
<tr>
<th>Country</th>
<th>Energy Source</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>India</td>
<td>Coal, Oil &amp; Waste</td>
<td>87%</td>
</tr>
<tr>
<td>Japan</td>
<td>Coal &amp; Oil</td>
<td>65%</td>
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2011 TOTAL ENERGY CONSUMPTION USING OIL, COAL & SOLID WASTE
(Source: U.S. Energy Information Administration)
Maryland and Calvert County can be leaders in improving air quality worldwide.

208 lbs CO²
COAL

117 lbs CO²
NATURAL GAS

6 lbs pollutants
COAL

0.14 lbs pollutants
NATURAL GAS

(Source: U.S. Energy Information Administration)
Similar facilities are required for both import and export.

Just as cooled steam turns back to water, natural gas can be cooled from a vapor to a liquid and converted back again.
We are currently undergoing a thorough and comprehensive Environmental Assessment.

Because facilities, pipelines, storage and an offshore pier are already in place, all that's needed for export is an LNG liquefaction facility and some equipment enhancements.

A comprehensive Environmental Assessment is being conducted by the Federal Energy Regulatory Commission to verify that an export facility can be added to the existing import capability without any significant environmental impacts to the local community.

In short, no stone will be left unturned:

- Facilities, operations & maintenance
- Land use, recreation & aesthetics
- Fish, wildlife & vegetation
- Ship traffic
- Safety & reliability
- Water use & quality
- Air quality
- Noise
- Construction procedures

More than 21,000 pages of detailed studies, reports and other information have already been provided to regulatory agencies.
All new facilities will be within the existing terminal’s footprint

The existing Cove Point natural gas import facility has been in operation since 1976.

**Liquefaction:** Natural gas-fired turbines will drive the main refrigerant compressors to chill the natural gas to minus 260° Fahrenheit, the point at which the gas becomes a liquid.

**Power Production:** The turbines that drive the compressors will also generate heat, which we will capture to generate electric power for the facility.

**Pre-Treatment:** Cove Point will receive “pipeline quality” natural gas that will need to be treated to remove water and other trace impurities.
The future of the Cove Point facility and its 800-acre nature preserve is export.
Export operations will allow Dominion to continue its contribution to the conservation of 800 acres around the terminal that will remain untouched as a nature preserve.

- Sierra Club and the Maryland Conservation Council easement
- Cove Point Fresh Water Marsh Project, winner of several environmental stewardship awards
- Cove Point Beach Association easement

New liquefaction facilities
Protecting water, both onshore and in the Chesapeake Bay

The existing wells at the Cove Point terminal are sufficient to supply the water needed to build and operate the export facility. We will not use water from the Chesapeake Bay.

During the three-year construction period, the project will use a daily average of approximately 40,000 gallons of water from the Lower Patapsco Aquifer, which is more than 1,000 feet below the ground and one of five underground sources near the terminal.

Following construction, Cove Point will use an average of 250,000 gallons of water per day.

**Daily Water Usage**

Calvert County daily water consumption

Cove Point daily water consumption in Calvert County during operation
Same ship traffic and protocol.

We expect about 85 ships a year, about the same number as during the peak of import activity, and well below the 200 allowed by our import permit. They will follow the same strict Coast Guard guidelines that all ships entering the Chesapeake Bay must follow. All ships must show that they have a plan to manage their ballast water – for example, by exchanging their ballast outside the Chesapeake Bay with deep ocean water.

LNG has proven safe for half a century.

LNG, or liquefied natural gas, is natural gas that is cooled to minus 260° Fahrenheit until it becomes a liquid and then safely stored at essentially atmospheric pressure. If spilled, LNG evaporates and quickly dissipates because it is lighter than air. LNG has been safely transported to the United States and around the world for decades with more than 135,000 LNG carrier voyages taking place without major accident or safety or security problems, either in port or at sea.

(Source: The International Group of Liquefied Natural Gas Importers – 2011)
Careful planning to preserve Calvert County’s quality of life
Strategic Traffic Management.

To limit traffic during construction, most workers will park at a temporary off-site location and be shuttled in by bus. Large equipment will be moved to the construction site at night.

Hidden Sound Barriers.

A 60-foot sound barrier similar to those along interstate highways will be built inside the terminal’s fence line to minimize noise from the export operations. The wall will be mostly hidden by existing 70- to 80-foot trees in a forested area about 350 feet deep along Cove Point Road, which will help dampen sound coming from the facility. Temporary sound barriers will be used to mitigate construction noise.

Air Quality Protected.

Two highly efficient, natural gas-fired turbines are needed to compress the natural gas. The heat that is a byproduct of this process will be used to generate the site’s power needs. State-of-the-art environmental controls will be installed to ensure the facility will be in compliance with stringent state and federal clean air regulations.
Exporting energy strengthens America’s position in the world

Large trade deficits mean American workers lose out.

State of Maryland, 2012

$25 billion in IMPORTED goods

$11.7 billion in EXPORTED goods

(Source: U.S. Census Bureau 2012 Economic Census)

American energy exports are changing this imbalance. Cove Point will expand Maryland global exports by up to 50% and shrink the international trade balance by $5 billion a year.

This means more good jobs for Calvert County and Maryland, a stronger U.S. economy and a greater U.S. partnership with countries that need a new source of clean energy.
Welfare-improving for U.S. consumers

“All export scenarios are welfare-improving for U.S. consumers” and increased exports “result in an increase in U.S. households’ real income.”

— U.S. Department of Energy
Helping Calvert County prosper on its terms

To support local schools and other services, Calvert County relies on annual Cove Point property taxes of $15 million today. Yet since 2007, as the U.S. natural gas supply has grown dramatically, imports to the facility have declined by 90 percent.

Exports can ensure a steady revenue stream for the next 30 years of up to $40 million annually in additional local property taxes. That represents an additional 28 percent over current Calvert County property tax collections that can go toward schools and services.

Annual Property Tax Revenue

- Additional: $40 million
- Total Cove Point property tax revenue: $55 million
- Cove Point property tax today: $15 million
- Property tax today without Cove Point: $128 million
- Current Calvert County property tax revenue: $143 million
$40 million in additional annual property taxes.

An additional $23 million in local income taxes.

$2.3 billion in sales revenue for county businesses.

Thousands of new construction jobs and 175 full-time employees.
We want to hear from you.
Please share your ideas, questions and any concerns.

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