

**Statement of  
Christopher Smith  
Principal Deputy Assistant Secretary Office of Fossil Energy  
U.S. Department of Energy**

**Before the**

**Committee on Energy and Natural Resources  
United States Senate**

**How to Harness a Game-Changing Resource for Export, Domestic Consumption, and  
Transportation Fuel**

**June 19, 2014**

Thank you Chair Landrieu, Ranking Member Murkowski, and Members of the Committee. I appreciate the opportunity to be here today to discuss the Department of Energy's (DOE) program regulating the export of liquefied natural gas (LNG).

**Recent Developments in LNG Exports**

The boom in domestic shale gas provides unprecedented opportunities for the United States. Over the last several years, domestic natural gas production has increased significantly, outpacing consumption growth, resulting in declining natural gas and LNG imports. Production growth is primarily due to the development of improved drilling technologies, including the ability to produce natural gas trapped in shale gas geologic formations.

Historically, the DOE has played an important role in the development of technologies that have enabled the United States to expand development of our energy resources. Between 1978 and 1992, public research investments managed by the Department contributed to the development of hydraulic fracturing and extended horizontal lateral drilling technologies that spurred private sector investments and industry innovation, unlocking billions of dollars in economic activity associated with shale gas.

Today, domestic natural gas prices are lower than international prices of delivered LNG to overseas markets. As in the United States, demand for natural gas is growing rapidly in foreign markets. Due primarily to these developments, DOE has received a growing number of applications to export domestically produced natural gas to overseas markets in the form of LNG.

**DOE's Statutory Authority**

DOE's authority to regulate the export of natural gas arises under section 3 of the Natural Gas Act (NGA), 15 U.S.C. § 717b. This authority is vested in the Secretary of Energy and has been delegated to the Assistant Secretary for Fossil Energy.

Section 3(a) of the NGA sets forth the standard for review of most LNG export applications:

[N]o person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the [Secretary of Energy] authorizing it to do so. The [Secretary] shall issue such order upon application, unless after opportunity for hearing, [he] finds that the proposed exportation or importation will not be consistent with the public interest. The [Secretary] may by [the Secretary's] order grant such application, in whole or part, with such modification and upon such terms and conditions as the [Secretary] may find necessary or appropriate.

Section 3(a) thus creates a rebuttable presumption that a proposed export of natural gas is in the public interest. Section 3(a) also authorizes DOE to attach terms or conditions to the order that the Secretary finds are necessary or appropriate to protect the public interest. Under this provision, DOE performs a thorough public interest analysis before acting.

In the Energy Policy Act of 1992, Congress introduced a new section 3(c) to the NGA. Section 3(c) created a different standard of review for applications to export natural gas, including LNG, to those countries with which the United States has in effect a free trade agreement requiring the national treatment for trade in natural gas. Section 3(c) requires such applications to be deemed consistent with the public interest, and requires such applications to be granted without modification or delay.

### **Free Trade Agreement (FTA) Countries**

There are currently 18 countries with which the United States has in place free trade agreements that require national treatment for trade in natural gas for purposes of the Natural Gas Act. These 18 countries include: Australia, Bahrain, Canada, Chile, Colombia, the Dominican Republic, El Salvador, Guatemala, Honduras, Jordan, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, Republic of Korea, and Singapore.

There also are two countries — Israel and Costa Rica — that have free trade agreements with the United States that do not require national treatment for trade in natural gas for purposes of the Natural Gas Act.

Because complete applications under section 3(c) must be granted without modification or delay and are deemed to be in the public interest, DOE does not conduct a public interest analysis of those applications.

### **DOE Process to Review Applications to Export LNG to non-FTA Countries**

DOE's review of applications to export LNG to non-FTA countries is conducted through a public and transparent process. Upon receipt of an application, DOE issues a notice of the application in the *Federal Register*, posts the application and all subsequent pleadings and orders in the proceeding on its website, and invites interested persons to participate in the proceeding by intervening and/or filing comments or protests. Section 3(a) applicants are typically given an

opportunity to respond to any such comments or protests and, after consideration of the evidence that has been introduced into the record, DOE issues an order either granting the application as requested, granting with additional terms or conditions, or denying the application.

Under the Natural Gas Act, DOE's orders are subject to a rehearing process that can be initiated by any party to a proceeding seeking to challenge DOE's determinations. Court review is available as well after the rehearing process is exhausted.

### **Public Interest Criteria for NGA Section 3(a) Applications**

For applications requesting authority to export LNG to countries that do not have free trade agreements requiring national treatment for trade in natural gas, DOE conducts a full public interest review. While section 3(a) of the NGA establishes a broad public interest standard and a presumption favoring export authorizations, the statute neither defines "public interest" nor identifies criteria that must be considered. In prior decisions, however, DOE/FE has identified a range of factors that it evaluates when reviewing an application for export authorization. These factors include economic impacts, international impacts, security of natural gas supply, and environmental impacts, among others. To conduct its review, DOE/FE looks to record evidence developed in the application proceeding. Applicants and interveners are free to raise new issues or concerns relevant to the public interest that may not have been addressed in prior cases.

### **Jurisdiction over the LNG Commodity Export Versus the LNG Export Facility**

DOE exercises export jurisdiction over the commodity (natural gas), whereas other Federal, state, and local organizations have jurisdiction over the facilities used in the import or export of the commodity, depending on the facility location.

The Federal Energy Regulatory Commission (FERC) is responsible for authorizing the siting, construction, expansion, and operation of LNG import and export terminals. FERC may approve those applications in whole or in part with such modifications and upon such terms and conditions as it finds necessary or appropriate.

The U.S. Department of Transportation's Maritime Administration (MARAD) is responsible under the Deepwater Port Act of 1974, as amended, (33 U.S.C. § 1501 *et seq.*) for the licensing system for ownership, construction, operation and decommissioning of deepwater port structures located beyond the U.S. territorial sea, including deepwater LNG export facilities.

### **Sabine Pass Authorization – First Long-Term LNG Export Authorization**

DOE granted the first long-term application to export domestically-produced lower-48 LNG to non-FTA countries to *Sabine Pass Liquefaction, LLC*, (*Sabine Pass*) in DOE/FE Order Nos. 2961 (May 20, 2011), 2961-A (August 7, 2012), and 2961-B (January 25, 2013). The LNG export volume authorized is equivalent to 2.2 billion cubic feet per day (Bcf/d) of natural gas for a period of 20 years. In the first of the *Sabine Pass* orders, DOE stated that it would evaluate the

cumulative impact of the Sabine Pass authorization and any future authorizations for export authority when considering subsequent applications.

## **LNG Export Study**

Following issuance of the *Sabine Pass* order, DOE undertook a two-part study of the cumulative economic impact of LNG exports. The first part of the study was conducted by the Energy Information Administration (EIA) and looked at the potential impact of additional natural gas exports on domestic energy consumption, production, and prices under several prescribed export scenarios. The second part of the study, performed by NERA Economic Consulting under contract to DOE, evaluated the macroeconomic impact of LNG exports on the U.S. economy with an emphasis on the energy sector and natural gas in particular. The NERA study was made available on December 5, 2012.

On December 11, 2012, DOE published in the *Federal Register* a Notice of Availability of the EIA and NERA studies, and inserted both parts of the study into 15 then-pending LNG export application dockets for public comment. An initial round of comments on the study ended on January 24, 2013, and reply comments were due February 25, 2013.

## **Comments to the LNG Study**

In response to the Notice of Availability, DOE received over 188,000 initial comments and approximately 2,700 reply comments. Proponents of LNG exports generally endorsed the results of the two-part study, particularly the conclusion of the NERA study that increasing levels of exports will generate net economic benefits for the United States. On the other hand, comments filed by opponents of LNG exports raised a number of issues, including challenges to the assumptions and economic modeling underlying the two-part study and assertions that the two-part macroeconomic study should have further examined regional, sectoral, or environmental issues.

## **Use of Annual Energy Outlook Projections**

On May 7, 2014, EIA issued its most recent projections for 2035 in the Annual Energy Outlook 2014 Reference Case (AEO 2014). Compared to AEO 2013 Reference Case, total natural gas consumption for 2035 is projected to increase by 4.7 Bcf/d, from 78.7 Bcf/d to 83.4 Bcf/d. However, total domestic dry gas production is projected to rise by 13 Bcf/d of natural gas, from 85.9 Bcf/d to 98.9 Bcf/d (although this increase includes Alaska natural gas production). Projections from the AEO 2014 reflect net LNG exports from the United States in a volume equivalent to 9.2 Bcf/d of natural gas. Of this projected volume, 7.4 Bcf/d are exports from the lower-48 states, 0.4 Bcf/d are imports to the lower-48 states, and 2.2 Bcf/d are exports from Alaska. This estimate compares with projected net LNG imports of 0.4 Bcf/d in the lower-48 for 2035 in the AEO 2011 Reference Case. The 2035 Henry Hub price in the AEO 2014 Early Release Reference Case is \$6.92/MMBtu, down from \$7.31/MMBtu in the AEO 2011 Reference Case (both in 2012 dollars).

In sum, comparing the AEO 2014 Reference Case and AEO 2013 Reference Case projections shows market conditions that continue to accommodate increased exports of natural gas. We also note that EIA's projection in the AEO 2014 Reference Case reflects domestic prices of natural gas that rise due to both increased domestic demand and exports, but that these price increases will be followed by "[a] sustained increase in production ... leading to slower price growth over the rest of the projection period."

### **LNG Export Applications Status**

Consistent with the NGA, as of June 12, 2014, DOE has approved 36 long-term applications to export lower-48 LNG to free trade agreement countries in an amount equivalent to 38.23 billion standard cubic feet per day of natural gas. In addition, DOE has four long-term applications pending to export lower-48 LNG to free trade agreement countries. No worldscale liquefaction facilities in the lower-48 currently exist, one facility is currently under construction, and 26 additional worldscale facilities are proposed to be built.

Most of the applicants seeking authorization to export LNG from proposed facilities to free trade agreement countries have also filed to export LNG to non-free trade agreement countries in the same volume from the same facility to provide optionality on the final destination country. The volumes of the applications to export to free trade agreement countries and non-free trade agreement countries are therefore not additive.

As of June 12, 2014, DOE has granted one final and six conditional long-term authorizations to export lower-48 LNG to non-free trade agreement countries in a total amount equivalent to 9.27 billion standard cubic feet per day of natural gas from six proposed liquefaction facilities. As of June 12, 2014, DOE had 26 applications pending to export LNG equivalent to an additional 26.68 billion standard cubic feet per day of natural gas to non-free trade agreement countries.

### **DOE Path Forward**

Since receiving the first long-term application in 2010 to export LNG to non-FTA countries from the lower-48 states, the DOE has been – and remains – committed to conducting a public interest determination process as required by the Natural Gas Act that is expeditious, judicious, and fair. Throughout this time, the Department has consistently made clear that a close monitoring of market developments plays a critical role in the Department's decision-making process.

On May 29, 2014, in order to reflect changing market dynamics, the Department of Energy proposed to review and make final public interest determinations on non-FTA export applications only after completion of the review required by environmental laws and regulations that are included in the National Environmental Policy Act (NEPA) review, thereby suspending its practice of issuing conditional authorizations. The proposed changes to the manner in which LNG applications are ordered and processed will ensure our process is efficient by prioritizing resources on the more commercially advanced projects, while also providing the Department with more complete information when applications are considered and public interest determinations are made.

In addition, the Department initiated an updated economic study and has released two environmental reports that address the environmental footprint of unconventional natural gas production and the lifecycle greenhouse gas impacts of U.S. LNG exports.

In keeping with the Department's commitment to an open and transparent process, the Department has made the proposed procedural change and environmental reports available for a 45 day public review and comment period.

### **Proposed Procedural Change**

The Department's current practice is to issue conditional authorizations to export LNG to non-FTA countries before project sponsors and the FERC spend significant resources for the review of export facilities required by environmental laws and regulations that are included in the NEPA review. However, market participants have increasingly shown a willingness to dedicate the resources needed for their NEPA review prior to receiving conditional authorizations from the DOE. In response to these and other developments, the Department intends to make final public interest determinations only after a project has completed the NEPA review process, instead of issuing conditional authorizations. By removing the intermediate step of conditional decisions and setting the order of DOE decision-making based on readiness for final action, DOE will prioritize resources on the more commercially advanced projects.

The proposed procedural change will improve the quality of information on which DOE makes its public interest determinations. By considering for approval those projects that are more likely to actually be constructed, DOE will be able to base its decision on a more accurate evaluation of the project's impact on the public interest. DOE will also be better positioned to judge the cumulative market impacts of its authorizations in its public interest review. While it is not assured that all projects for which NEPA review is completed will be financed and constructed, projects that have completed the NEPA review are, generally speaking, more likely to proceed than those that have not.

In response to an evolving market, this proposed change will expedite the regulatory process for applicants, ensure that applications that have completed NEPA review will not be delayed by their position in the current order of precedence, and give the Department a more complete understanding of project impacts.

On June 4, 2014, the the Federal Register Notice was issued for the *Notice of Proposed Procedures for LNG Export Decisions* for a 45 day public review and comment period. During the review period, the Department will continue with evaluations of projects that have already received conditional authorizations and completed their NEPA review. Further, the Department will continue to act on requests for conditional authorization currently under review during the period in which the proposed changes are under consideration.

### **Economic Impact Study**

DOE plans to undertake an economic study in order to gain a better understanding of how potential U.S. LNG exports between 12 and 20 billion cubic feet per day (Bcf/d) could affect the public interest. Using more recent data from sources like the Annual Energy Outlook 2014, the Energy Information Administration (EIA) will update its 2012 LNG Export Study, which principally looked at export cases of 6 and 12 Bcf/d. Following the EIA update, DOE will again contract for an external analysis of the economic impact of this increased range of LNG exports and other effects that LNG exports might have on the U.S. natural gas market. While these studies are underway, the Department will continue to act on applications as stated above. To date, the Department has issued final authorization for export to non-FTA countries at a rate of 2.2 Bcf/d. If at any future time the cumulative export authorizations approach the high end of export cases examined, the Department will conduct additional studies as needed to understand the impact of higher export ranges. At all levels, the cumulative impacts will remain a key criterion in assessing the public interest.

Both the updated EIA study and the planned external analysis of economic impacts will be made available for public comment.

### **Release of Environmental Reports**

To better inform the Department and the public of the environmental impacts of increased LNG exports, the Department elected to prepare two additional reports of environmental issues beyond what is required for NEPA. The first report reviewed unconventional natural gas exploration and production activities and is titled *Draft Addendum To Environmental Review Documents Concerning Exports Of Natural Gas From The United States*. In keeping with the President's Climate Action Plan and the Administration's commitment to mitigate greenhouse gas emissions, the Department completed a second report called *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States*.

On June 4, 2014, both environmental reports were made available for public comment for 45 days, after which the reports and comments received from the public will be considered by the Department in its public interest determinations in connection with applications to export LNG to non-FTA countries.

### **Conclusion**

In conclusion Madam Chair, I would like to emphasize that DOE is committed to moving this process forward as expeditiously as possible. DOE understands the significance of this issue — as well as the importance of getting these decisions right.