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Before the

Committee on Energy and Natural Resources United States Senate

Hearing on S. 33, the LNG Certainty and Transparency Act

January 29, 2015

Thank you Chairman Murkowski, Ranking Member Cantwell, 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), and to answer questions about S. 33, "The LNG Permitting Certainty and Transparency Act."

Recent Developments in LNG Exports

The domestic abundance in 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 imports of natural gas and LNG. 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, 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 (FTA) 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 applications to export LNG to those countries.

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's Office of Fossil Energy (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 State seaward boundaries including deepwater LNG facilities.

When either FERC or MARAD has jurisdiction over a LNG terminal, that agency serves as the lead for completing the review required by environmental laws and regulations that are included in the National Environmental Policy Act (NEPA) review. DOE serves as a cooperating agency for assessing the environmental impact of the proposed action and may adopt the final document to serve as its environmental review.

Summary of DOE Approvals, Studies, and Procedures, 2011–2014

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.

2012 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 of natural gas exports of up to 12 billion cubic feet per day. The second part of the study, performed by NERA Economic Consulting (NERA) 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.

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.

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 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. It should be noted 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." The EIA has announced that the AEO 2015 will be released in March 2015, and DOE will review EIA's updates to natural gas market projections.

Implementation of Procedural Change

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 NEPA review, thereby suspending its practice of issuing conditional authorizations. In keeping with the Department's commitment to an open and transparent process, the Department made the proposed procedural change available for a 45 day public review and comment period.

On August 15, 2014, DOE announced its final revised procedures for LNG export decisions. Since then, DOE has acted and will act on applications in the order they become ready for final agency action. An application is ready for final action when DOE has (1) completed the pertinent NEPA review process, and (2) sufficient information on which to base a public interest determination. By acting only on applications that are ready for final action, DOE has avoided devoting resources to applications that have little prospect of proceeding. These saved resources have been better deployed to providing timely action on applications that are furthest along in the regulatory review process.

In addition, the Department initiated an updated two-part economic study to evaluate the impact of LNG exports beyond the 12 billion cubic feet per day evaluated in the 2012 LNG Export Study. EIA completed the first part of the study evaluating exports in the DOE-prescribed range of 12 to 20 billion cubic feet per day of natural gas in October 2014. The second part of the study is being conducted by outside consultants to evaluate the macroeconomic impacts of U.S. LNG exports on the U.S. economy, using multiple economic indicators, with an emphasis on the energy sector, and natural gas and energy-intensive industries in particular. While these efforts are underway, the Department will continue to act on applications as stated above. If 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, cumulative impacts will remain a key criterion in assessing the public interest.

LNG Export Applications Status

Consistent with the NGA, as of January 21, 2015, DOE has approved 40 long-term applications to export lower-48 LNG to free trade agreement countries in an amount equivalent to 40.26 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 large scale liquefaction facilities in the lower-48 currently exist, three facilities are currently under construction, and 26 additional large scale 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 January 21, 2015, DOE has granted five final long-term authorizations to export lower-48 LNG to non-free trade agreement countries in a total amount equivalent to 5.74 billion standard cubic feet per day of natural gas from four proposed liquefaction facilities. DOE has established a pattern of issuing final LNG decisions promptly after completion of the FERC regulatory process, when FERC has issued its order addressing (to date, denying) rehearing requests. Four of these long-term authorizations have been granted under the revised procedures over the past 4.5 months. As of January 21, 2015, DOE had 32 applications pending to export LNG equivalent to an additional 32.32 billion standard cubic feet per day of natural gas to non-free trade agreement countries.

S. 33, "The LNG Permitting Certainty and Transparency Act"

Under current law and the procedures I have previously described, an LNG export application is ready for final action when DOE has (1) completed the pertinent National Environmental Policy Act review, and (2) sufficient information on which to base a public interest determination. Section 2 of S. 33 would require the Secretary of Energy to issue a final decision on any application for the authorization to export natural gas under section 3(a) of the NGA not later than 45 days after the conclusion of the environmental review required by NEPA. Section 3 of S. 33 would require that exporters of LNG report to DOE the countries to which it has been shipped, and that DOE publish that information on its website.

As described above, DOE's current process is to promptly conduct reviews of final authorizations once FERC has completed its regulatory process. In effect, S. 33 would tie the DOE decision timing to the NEPA process as opposed to the FERC regulatory decision.

The Department has clearly demonstrated a commitment to act expeditiously in its regulatory responsibilities, and as such, we do not believe that S. 33's decision-making timeline is necessary to ensure efficient and responsible action by the DOE. While we understand that the intent of S. 33 is to add greater regulatory assurance to applicants for LNG exports and the Department shares the goals of transparency and certainty of process, we do not believe that S. 33 is necessary to meet these goals.

Conclusion

In conclusion Madam Chairman, I would like to emphasize that DOE is committed to moving the process of making LNG export decisions forward as expeditiously as possible. DOE understands the significance of this issue — as well as the importance of getting these decisions right. I look forward to answering any questions that the members of the committee may have.