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Testimony

of Ross Eisenberg
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Energy and Resources Policy
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before the Senate Committee on Energy and Natural Resources

on "S. 33, the LNG Permitting Certainty and Transparency Act"

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Good morning, Chairman Murkowski, Ranking Member Cantwell and members of the Senate Committee on Energy and Natural Resources. My name is Ross Eisenberg, and I am vice president of energy and resources policy at the National Association of Manufacturers (NAM). I am pleased to share the NAM's views on S. 33, the LNG Permitting Certainty and Transparency Act, a bill the NAM supports.

The NAM is the nation's largest industrial trade association, representing nearly 14,000 small, medium and large manufacturers in every industrial sector and in all 50 states. Manufacturers are major energy consumers, using one-third of the energy consumed in the United States. For manufacturers, natural gas is a critical component of an "all-of-the-above" energy strategy that embraces all forms of domestic energy production, including oil, gas, coal, nuclear, energy efficiency, alternative fuels and renewable energy sources.

Two years ago, I had the privilege of appearing before this Committee to discuss the potential opportunities for manufacturers that have resulted from the nation's newfound abundance of natural gas, including the potential for liquefied natural gas (LNG) exports. At the time, the Department of Energy (DOE) had placed all LNG export license applications on hold while it commissioned a study of the potential macroeconomic impacts of exporting LNG—a study that forecasted the U.S. to gain net economic benefits from allowing LNG exports.[1] The NAM urged the Committee that the free market will find equilibrium, and that exports of LNG should be governed by principles of free trade and open markets. The NAM also urged the DOE to provide LNG license applicants an up-or-down decision as expeditiously as possible, to avoid market-distorting barriers to trade. Some witnesses at the hearing took an opposing view, calling into question the

[1] http://energy.gov/sites/prod/files/2013/04/f0/nera_lng_report.pdf.

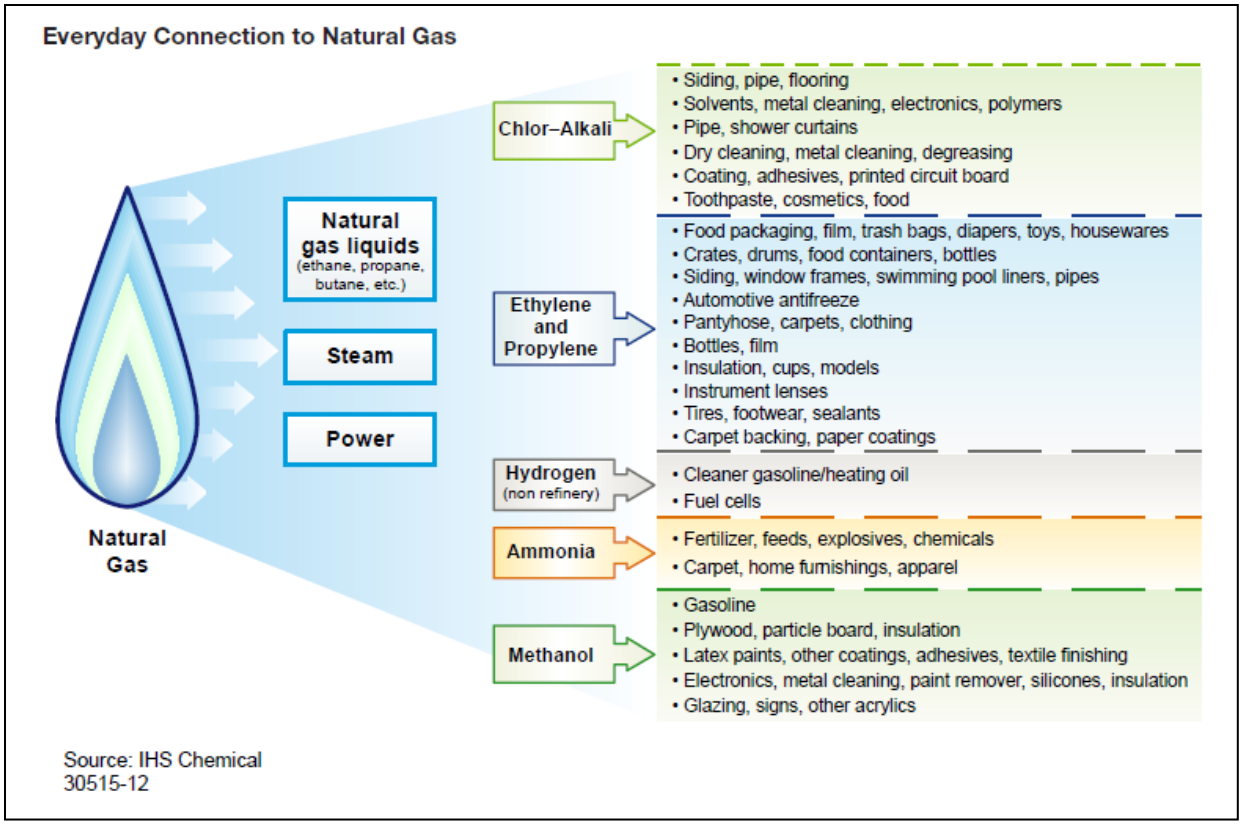
validity of the DOE study's findings and warning of constrained natural gas supplies, "unfettered" LNG exports, and skyrocketing natural gas prices.

Fast-forward to today, and the doomsday predictions have not come true. Proven natural gas reserves increased by 10 percent in 2013, setting a new record of 354 trillion cubic feet. The DOE began issuing export licenses and took steps to update its regulations with the goal of reducing delay. We do not have anything resembling unfettered LNG exports, as only five projects (of 37) are under construction. The overwhelming numbers of economists who have looked at the issue (including the DOE itself) have all repeatedly concluded that LNG exports and a strong domestic manufacturing sector can coexist. The Henry Hub spot price for natural gas today stands at $2.94, a full 36 cents *lower* than the price of natural gas the day of the hearing I appeared at in 2013.

Throughout this debate, the nation's natural gas boom has sparked a manufacturing comeback. According to global research firm IHS Global Insight, the full value chain that is associated with the revolution in unconventional oil and natural gas supported 2.1 million jobs and contributed $283 billion to U.S. gross domestic product (GDP).[2] By 2025, IHS predicts these numbers to grow to 3.9 million jobs and $533 billion in GDP. Manufacturers will benefit too: PricewaterhouseCoopers (PwC) predicted that by 2040, the shale gas boom could create 1.41 million new manufacturing jobs in the U.S. and generate annual cost savings for manufacturers of $34.1 billion due to lower energy and feedstock costs.[3]

The American Chemistry Council reports that the chemical industry alone has announced 215 new projects representing $135 billion in capital investment, much of it geared toward export markets.[4] These energy related chemicals are the primary building blocks for a wide range of manufacturing sectors, including but not limited to fertilizer, plastics, rubber, building and construction, paint and coatings, automotive, and electronics. PwC found a consistent rise in the number of U.S. manufacturers including shale gas in their public filings with the Securities and Exchange Commission, from just one in 2009, to 29 in 2011 and 40 in 2013.

[2] http://www.nam.org/Newsroom/Press-Releases/2013/09/Manufacturers--Shale-Production-Driving-Manufacturing-Renaissance/.
[3] http://www.pwc.com/us/en/industrial-products/publications/shale-gas-transforming-manufacturing.jhtml.
[4] http://www.americanchemistry.com/Media/PressReleasesTranscripts/ACC-news-releases/Lower-Oil-Prices-Recovery-of-End-Use-Markets-Puts-Wind-Back-in-the-Sails-of-American-Chemistry.html.



Both IHS and PwC make these positive projections for manufacturers with the assumption that LNG will be exported. And just as an abundant domestic supply of natural gas provides opportunities for manufacturers to increase their competitiveness, construction and operation of major natural gas-related infrastructure—such as pipelines and LNG export terminals—provide major opportunities for manufacturers up and down the supply chain. Manufacturers in Arkansas, California, Colorado, Iowa, Louisiana, Maryland, Minnesota, Nevada, New York, Ohio, Oklahoma, Pennsylvania, Texas, Utah, Virginia and others are already taking part in the supply chain to support the LNG export terminals under construction. Dominion's Cove Point LNG facility is creating 4,000 jobs in Maryland construction and will create another 14,600 jobs in manufacturing, service and other sectors across the supply chain.[5] Cheniere's $12 Billion Sabine Pass project, under construction since mid-2012, is believed to be the largest capital project in Louisiana state history. The project at peak construction is expected to support the livelihoods of up to 18,300 Louisiana residents and an average of nearly 6,400 Louisiana workers over 8 years. To put this contribution in perspective, there are 14 parishes in the state of Louisiana that have fewer than 6,400 residents employed. The project's supply chain includes 54

[5] http://www.nationaljournal.com/sponsored-content/api/energy-tomorrow/u-s-rep-hoyer-maryland-cove-point-facility-is-necessary-step-in-creating-well-paying-jobs-20141223.

manufacturers in 17 states. Many other manufacturers across the U.S. have made investments in their own businesses to position themselves to participate in LNG export projects.

One of these manufacturers is Chart Industries, an NAM member who testified on our behalf before the House Ways and Means Committee in 2014. Chart is an Ohio-based manufacturer with facilities in Georgia, Louisiana, Minnesota, Oklahoma, Texas and Wisconsin. Chart plays a vital role in the LNG supply chain, producing highly engineered equipment for applications from liquefaction to end use. Approval of pending LNG export terminals would place Chart in a position to create jobs in the U.S. If Chart is selected to supply equipment for just one average-sized export terminal, it would support hundreds of jobs at Chart facilities, and further create hundreds of jobs with Chart suppliers in other communities around the U.S. In recent years, Chart has invested tens of millions of dollars to expand its facilities in various American communities to be prepared for these opportunities.

Chart is one of many manufacturers who would benefit from supply chain opportunities from LNG export terminals. These are major infrastructure projects: each LNG export terminal may cost as much as $10 billion to construct. Each project would create thousands (and in some cases tens of thousands) of jobs and generate billions of dollars in economic benefits. Manufacturers across the country would create jobs making compressors, heat exchangers, storage tanks, pipes, valves and other components of these state-of-the-art infrastructure projects.

To date, the DOE has received 37 applications to export LNG to non-FTA countries, representing 38.07 billion cubic feet per day (Bcf/d) of natural gas. Only five have received final approval from DOE: Sabine Pass in Louisiana, Freeport LNG in Texas, a Freeport LNG expansion, Carib Energy Solutions in Florida, and Cameron LNG in Louisiana. Four others have received conditional approval from DOE: Lake Charles Liquefaction in Louisiana, Jordan Cove Energy Project in Oregon, Cove Point LNG in Maryland, and Oregon LNG in Warrenton, Oregon.

Until late 2014, the remaining LNG export applicants would have been forced to wait for conditional approval as the DOE moved through applications in chronological order based on the date filed, a process that was improving by mid-2014 but remained very slow. On August 15, 2014, the DOE modified its regulations and stopped issuing conditional approvals, choosing instead to wait until applicants had completed the National Environmental Policy Act (NEPA)

environmental review process, after which the DOE would issue a final approval. The DOE stated that the new procedures would make the Department "better able to ensure prompt action on applications that are otherwise ready to proceed, and "would improve the quality of information on which DOE bases its decisions."[6]

The NAM participated in the DOE's rulemaking to modify its LNG export licensing procedures. Although we were disappointed that the DOE did not accept all of our suggestions on ways to improve the licensing process, we applaud the DOE for taking a hard look at the inefficiencies with its own procedures and trying to fix them. Our view was the same then as it is now: if the new procedures serve to clear the logjam for these license decisions and truly speeds up the process, then the regulations will have served their purpose. If they merely shift the delay from the front end of the permitting process to the back end, then the problem is not solved.

The Cameron LNG and Carib Energy final approvals came quickly and were the first issued under the new DOE procedures, as both of these projects had completed their NEPA review and obtained Federal Energy Regulatory Commission (FERC) approval. That was a positive sign. However, FERC completed its environmental reviews for Dominion's Cove Point LNG on May 15, 2014 and Cheniere's Corpus Christi LNG in December 2014. FERC authorized construction on Cove Point LNG on September 29, 2014. Both projects are "on the clock" with the DOE under its new procedures, and neither has received a final decision yet from the DOE. For Cove Point—a project that received conditional approval in September 2013—we are now approaching the end of the fourth month of deliberations on a final license. Given that the DOE was marching through conditional approvals every two months under the old procedures, the extended delay for Cove Point is troubling. After all, the DOE promised that the new process would ensure prompt action on applications that are otherwise ready to proceed.

The NAM therefore believes S. 33, the LNG Permitting Certainty and Transparency Act, is timely and warranted. S. 33 ensures that the free hand of the marketplace, rather than bureaucratic inertia, governs international trade by providing a 45-day deadline on the DOE to approve or deny pending LNG export applications. It does not impact the economic, environmental or safety studies that the Federal Energy Regulatory Commission (FERC) and other agencies are required to conduct, nor does it remove any other regulatory requirement. It would provide a clear resolution to the outstanding questions surrounding

[6] 79 Fed. Reg. 48,133 (Aug. 15, 2014).

regulatory approval of the infrastructure necessary to allow the export of a product—a principle that domestic manufacturers support.

In addition to providing a measure of certainty to the LNG export licensing process, S. 33 protects against running afoul of our international obligations under the World Trade Organization (WTO). In December 2013, former WTO Appellate Body Chairman James Bacchus authored a report for the NAM concluding that prolonged delays by the DOE to issue licenses to export LNG to foreign countries would likely constitute, in and of itself, a violation of our international obligations under the WTO.[7] As a member of the WTO, the United States is bound to comply with trade rules contained in WTO agreements that we helped develop. If the United States is going to continue to lead the world in pursuing a rules-based international system, we should not ourselves be in violation of the very same commitments we ask others to respect. It was the expert opinion of Chairman Bacchus—the "judge" for WTO disputes who authored a significant body of applicable case law—that we could find ourselves in violation simply from prolonged delay.

Some opponents of S. 33 cite a need for a long, drawn-out "national interest" determination phase conducted by the DOE following the completion of the NEPA process, implying that special attention must be given to the economic implications of each terminal. Not only does this argument disregard continuing macroeconomic studies of LNG exports commissioned by the DOE,[8] it would upend NEPA itself, which was designed "to balance environmental, economic, and social objectives in pursuit of NEPA's goal of 'productive harmony' between humans and the human environment."[9] Environmental reviews must look not only at environmental impacts but also economic impacts, so that a proper balancing and cost-benefit analysis can take place. The regulations implementing NEPA require agencies to "identify environmental effects and values in adequate detail so they can be compared to economic and technical analyses."[10] Agencies are required to assess a project's "effects," which in turn are defined specifically to include economic impacts, whether direct, indirect, or cumulative.[11] In compliance with the law, FERC's environmental reviews for each of the completed LNG export applications have included a detailed socioeconomic

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[7] Bacchus, J. and Jeong, R., *LNG and Coal: Unreasonable Delays in Approving Exports Likely Violate International Treaty Obligations*, November 2013, *available at* http://www.nam.org/~/media/9CCC6B36723C4AEDB37F78C19EBE8971.ashx.

[8] 2012 study available at http://energy.gov/fe/services/natural-gas-regulation/lng-export-study and 2014 study available at http://www.eia.gov/analysis/requests/fe/.

[9] http://www.whitehouse.gov/administration/eop/ceq/about (citing 42 U.S.C. § 4331(a)).

[10] 40 C.F.R. § 1501.2.

[11] *Id.* at § 1508.8.

analysis that examines impacts on the local, regional and national economy. For each, FERC prepares draft and final environmental review documents, and takes public comments—a process the opponents of S. 33 have all participated in. The final NEPA reviews are also subject to judicial review. In short, NEPA was designed to provide the sort of detailed economic impact analysis sought by these opponents of S. 33, making a second such examination unnecessary. Moreover, as the DOE stated in its modified regulations for the processing of export licenses, the new process will allow the Department to conduct the national interest determination throughout the review process, so that it does not have to start from scratch once the NEPA process is complete. The 45-day deadline put in place by S. 33 for a final DOE license decision is more than reasonable under the circumstances.

Developers looking to build an LNG export facility must subject themselves to running a gauntlet of a long, complex, and multifaceted permitting process. Applicants not only must apply to the DOE for an export license, but also must engage in an environmental review of their project under NEPA, led by FERC. Compliance with NEPA requires that the project developer first acquire land and begin design and engineering plans, a two-year time commitment. The NEPA review process requires the input of up to 20 federal and state agencies coordinated by FERC that have a say in the review. During the course of the NEPA review, applicants must obtain, among other things, a dredge-and-fill permit from the Army Corps of Engineers (with input from EPA), a Waterway Suitability Assessment from the U.S. Coast Guard, air permits from EPA and state agencies, and the usual state and local permits for construction and related activities. Detailed project engineering design work and project study is required for compliance with NEPA, requiring tens of millions of dollars in up-front capital and a significant commitment in time. Once developers successfully navigate all of these obstacles, they must then seek out long-term contracts and financing for the project.

This amounts to a daunting set of regulatory hurdles for LNG export project applicants. At a minimum, manufacturers should be able to rely on some amount of certainty that once they have received all of their permits and approvals, the DOE will quickly decide on a final license to export. S. 33 provides this certainty while ensuring that all environmental laws will be complied with to their fullest extent. Manufacturers support S. 33 and urge the Committee to approve this legislation.