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**UNITED STATES OF AMERICA
BEFORE THE
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY**

Cameron LNG, LLC

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FE Docket No. 11-162-LNG

**REPLY COMMENTS OF CAMERON LNG, LLC ON
LNG EXPORT STUDIES**

February 25, 2013

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Pursuant to the Department of Energy (“DOE”) Office of Fossil Energy’s (“FE”) “Notice of Availability of 2012 LNG Export Study and Request for Comments,” 77 Fed. Reg. 73627 (Dec. 11, 2012), Cameron LNG, LLC (“Cameron LNG”) hereby submits reply comments relating to the two-part LNG export cumulative impact study (“LNG Export Study”) commissioned by DOE to inform DOE’s decisions on applications seeking authorization to export LNG to non-Free Trade Agreement (“non-FTA”) countries.¹

I. IT IS TIME FOR DOE/FE TO ACT ON THE PENDING NON-FTA APPLICATIONS

Since last year, DOE/FE has placed a *de facto* moratorium on the approval of natural gas export permits to non-free trade agreement countries. During that time, DOE/FE has conducted its two-part LNG Export Study and others such as the Brookings Institution, the Baker Institute, and Deloitte have conducted further studies that all have reiterated the basic conclusion that LNG exports will not significantly affect natural gas prices in the United States.

¹ The LNG Export Study is comprised of two parts. The first part, published in January 2012, was performed by the Energy Information Administration (“EIA”) and assessed how DOE-specified export volume scenarios could affect domestic energy markets, focusing on consumption, production, and prices (“EIA Study”). Energy Information Administration, *Effect of Increased Natural Gas Exports on Domestic Energy Markets* (Jan. 2012). The second part, performed by NERA Economic Consulting (“NERA”) and published in December 2012, evaluated the macroeconomic impact of LNG exports on the U.S. economy (“NERA Study”). NERA Economic Consulting, *Macroeconomic Impacts of Increased LNG Exports From the United States* (Dec. 2012).

With the conclusion of the current comment period on the LNG Export Study, it is time for the DOE/FE's moratorium to come to an end. DOE/FE is now equipped with relevant and recent data to fulfill its obligation under Section 3 of the Natural Gas Act.

In applying this statute, DOE/FE has consistently found that Section 3(a) creates a rebuttable presumption that proposed exports of natural gas are in the public interest. For that reason, DOE/FE must grant the export application unless opponents of an export authorization establish an affirmative showing based on evidence in the record that the export would be inconsistent with the public interest.²

DOE has issued a set of Policy Guidelines setting out the criteria that it employs in evaluating applications for natural gas imports.³ While nominally applicable to natural gas import cases, the DOE has found that the same policies apply to natural gas export applications.⁴ The goals of the Policy Guidelines are to minimize federal control and involvement in energy markets and to promote a balanced and diverse energy resource system. The Guidelines provide that:

The market, not government, should determine the price and other contract terms of imported [or exported] natural gas. The federal government's primary responsibility in authorizing imports [or exports] will be to evaluate the need for the gas and whether the import [or export] arrangement will provide the gas on a competitively priced basis for the duration of the contract while minimizing regulatory impediments to a freely operating market.⁵

Historically, the DOE also has been guided by DOE Delegation Order No. 0204-111

("Delegation Order"). The Delegation Order stated that exports of natural gas are to be regulated

² Order No. 1473 at 13 n.42 (citing *Panhandle Producers and Royalty Owners Ass'n v. ERA*, 822 F.2d 1105, 1111 (D.C. Cir. 1987)); *see also Sabine Pass Liquefaction, LLC*, DOE Order No. 2961 (2011).

³ *Policy Guidelines and Delegation Orders Relating to the Regulation of Imported Natural Gas*, 49 Fed. Reg. 6684 (Feb. 22, 1984) ("Policy Guidelines").

⁴ *Phillips Alaska Natural Gas Corp. and Marathon Oil Co.*, DOE Order No. 1473 (1999).

⁵ *Policy Guidelines and Delegation Orders Relating to the Regulation of Imported Natural Gas*, 49 Fed. Reg. 6684 (Feb. 22, 1984) ("Policy Guidelines").

primarily “based on a consideration of the domestic need for the gas to be exported and such other matters [found] in the circumstances of a particular case to be appropriate.”⁶

Both the Policy Guidelines and the principles underlying the Delegation Order presume that competitive markets largely free of governmentally-imposed restrictions will benefit the public:

The government, while ensuring that the public interest is adequately protected, should not interfere with buyers’ and sellers’ negotiation of the commercial aspects of import [and export] arrangements. The thrust of this policy is to allow the commercial parties to structure more freely their trade arrangements, tailoring them to the markets served.⁷

DOE has noted in recent orders that its “review of export applications in decisions under current delegated authority has continued to focus on the domestic need for the natural gas proposed to be exported; whether the proposed exports pose a threat to the security of domestic natural gas supplies; and any other issue determined to be appropriate, including whether the arrangement is consistent with DOE’s policy of promoting competition in the marketplace by allowing commercial parties to freely negotiate their own trade arrangements.”⁸

According to written testimony submitted for a hearing before the Senate Energy and Natural Resources Committee on November 8, 2011, a “wide range of criteria are considered as part of DOE’s public interest review process, including:

- Domestic need for the natural gas proposed for export
- Adequacy of domestic natural gas supply
- U.S. energy security
- Impact on the U.S. economy (GDP), consumers, and industry
- Jobs creation
- U.S. balance of trade

⁶ *Department of Energy*, Delegation Order No. 0204-111 (Feb. 22, 1982).

⁷ Policy Guidelines at 6685.

⁸ *Sabine Pass Liquefaction, LLC*, Order No. 2961 at 29 (2011).

- *International considerations*
- Environmental considerations
- *Consistency with DOE's long-standing policy of promoting competition in the marketplace through free negotiation of trade arrangements*
- Other issues raised by commenters and/or interveners deemed relevant to the proceeding.”⁹

As shown below and discussed in Cameron LNG's submissions in this docket, the Cameron LNG Project meets the criteria for a finding that it is in the public interest.

II. THE LNG EXPORT STUDY SUPPORTS A DETERMINATION THAT THE CAMERON LNG PROJECT IS IN THE PUBLIC INTEREST

DOE/FE has completed its economic analysis of LNG exports, as set forth in the two-part LNG Export Study. The LNG Export Study is the fruit of a deliberate, thoughtful process on a variety of economic issues relating to LNG exports. The LNG Export Study shows that LNG exports result in net economic benefits for the U.S. economy and are therefore consistent with the public interest as required under Section 3 of the Natural Gas Act. Now, at the conclusion of this study, DOE/FE has more than enough information to make substantive determinations on the pending non-FTA export applications.

NERA analyzed the impact of LNG exports on the U.S. economy under a wide range of different assumptions about levels of export, global market conditions, and the cost of producing natural gas in the United States. The various scenarios that NERA developed and analyzed ranged from normal economic conditions to several variations of “stress cases,” including those with high costs of producing natural gas in the United States and markedly increased demand for

⁹ Statement of Christopher Smith, Deputy Assistant Secretary for Oil and Natural Gas, Office of Fossil Energy, U.S. Dep't of Energy, Before the Committee on Energy and Natural Resources, U.S. Senate, “The Department of Energy's Role in Liquefied Natural Gas Export Applications” (Nov. 8, 2011) (emphasis added).

U.S. LNG in foreign markets. Export limits were set at levels that ranged from no exports to unconstrained exports for each of the scenarios.¹⁰

NERA's conclusions clearly affirm net economic benefits to the United States from LNG exports:

Across all these scenarios, the U.S. was projected to gain net economic benefits from allowing LNG exports. Moreover, for every one of the market scenarios examined, net economic benefits increased as the level of LNG exports increased. In particular, scenarios with unlimited exports always had higher net economic benefits than corresponding cases with limited exports.

In all of these cases, benefits that come from export expansion more than outweigh the losses from reduced capital and wage income to U.S. consumers, and hence LNG exports have net economic benefits in spite of higher domestic natural gas prices. This is exactly the outcome that economic theory describes when barriers to trade are removed.¹¹

NERA also explained that domestic prices are unlikely to rise to a significant degree due to economic pressures from competing suppliers around the globe.¹² In particular, the NERA Study concluded that these economic pressures will keep prices below the upper ranges of what were seen in the earlier EIA Study, which had not accounted for global market response to rising LNG prices.¹³

The NERA Study also concluded that with respect to domestic, energy-intensive manufacturing sectors neither their output nor their employment would be significantly affected: "In no scenario are energy-intensive industries as a whole projected to have a loss in employment or output greater than 1% in any year, which is less than normal rates of turnover for employees in the relevant industries."¹⁴

¹⁰ See NERA Study at 1.

¹¹ NERA Study at 1 (emphasis added).

¹² NERA Study at 2; *see also id.* at 6.

¹³ NERA Study at 9-12.

¹⁴ NERA Study at 12.

As Cameron LNG shows below, criticisms of the study do not withstand scrutiny. The LNG Export Study, and in particular the NERA Study, is sound and shows that LNG exports are consistent with the public interest. DOE/FE should therefore turn to addressing those pending applications that have the greatest chance of becoming market reality.

III. DOE/FE SHOULD FOCUS ITS RESOURCES ON THE APPLICATIONS THAT CAN DEMONSTRATE AN ABILITY TO REACH MARKET REALITY

Given the conclusions of the LNG Export Study, and the other information provided in the pending applications such as that of Cameron LNG, DOE/FE is now in a position to begin making substantive determination on those applications. Prompt action is essential to permit the United States to press its current competitive advantage.

DOE has stated it will generally act first upon applications for which the applicants have commenced the pre-filing process at FERC and in the order in which the DOE received non-FTA export applications. However, there are additional important attributes that fall within DOE/FE's public interest review criteria and that would be sensible and objective for the DOE to consider in addition to simply reviewing applications in the order they were submitted.

Cameron LNG believes that DOE/FE should approve all LNG export applications that satisfy the public interest standard. However, in light of natural gas competition abroad, there is a limited window of opportunity for projects to be economically feasible, which will close fairly quickly. In fact, it is likely that a U.S. LNG export project would need to be operational by 2017 or early 2018 to capture any advantage currently held by the United States over new international capacity. As Dr. Daniel Yergin recently testified to the House Subcommittee on Energy and Power:

Many LNG projects for the United States have been announced. These would be expensive facilities to build—\$10 billion or more. Only a handful, in our view, are likely to end up being financed and built. The reason is both cost and the scale of global competition. Currently, 95 million tons of new annual capacity

around the world are either under construction or have been committed, which is equivalent to fully a third of existing capacity. *Capacity in the U.S. that might be coming into a market late in this decade or early in the next will have to compete with new supply from existing exporters, such as Australia, and the new sources, such as off-shore East Africa and the Eastern Mediterranean.* Moreover, western Canada is likely to become a major exporter of LNG to the main markets in Asia. This competition will create a global market offset on how many projects are actually built.¹⁵

In light of these global market realities, Cameron LNG believes that DOE/FE should focus its resources on the applications that can demonstrate an ability to reach market reality and where the United States could reap economic benefits the soonest. To identify those projects that have satisfied the greatest number of commercial and regulatory hurdles (and therefore are further along in the permitting and development process), DOE/FE should first review those projects that:

- (1) Have completed FERC's NEPA pre-filing process **and have filed formal applications** under Part 153 of FERC's regulations for LNG export facilities with capacity sufficient to meet the requested non-FTA export volumes;
- (2) Minimize environmental concerns and thus hurdles by constructing their LNG export facilities on sites that **already have operational LNG import facilities**; and
- (3) **Have in place commercial development agreements with customers and/or customer off-take agreements** sufficient to assure that the LNG export facilities can rapidly commence construction once regulatory approval is received.

In addition, DOE/FE may also wish to take into account such considerations as **the level of government and community support, the involvement of well capitalized sponsors, and the geopolitical benefits** of the project.

¹⁵ Yergin, Daniel, "Testimony submitted for Hearings on 'America's Energy Security and Innovation,'" Subcommittee of Energy and Power of the House Energy and Commerce Committee (Feb. 5, 2013) ("Yergin Testimony") (emphasis added). Dr. Yergin is Vice Chairman of IHS and founder of IHS Cambridge Energy Research Associates and serves on the U.S. Secretary of Energy Advisory Board.

IV. THE CAMERON LNG PROJECT IS WELL POSITIONED TO BECOME REALITY

The Cameron LNG Project is particularly well situated among the applications pending before the DOE. As shown in the figure on page 9, the Cameron LNG Project is one of the few pending projects that meet all of the criteria described above.

Projects such as the Cameron liquefaction project that are in the DOE's approval queue have been waiting for over a year for their LNG export permit. Prompt and definitive action by the United States would send an important signal that would benefit mutual interests in economic and energy security as well as the strategic relationship between countries. Cameron LNG, along with its international partners Mitsubishi Corporation, Mitsui & Co., Ltd., and GDF Suez S.A., have all the attributes that would provide benefits to the United States and help support America's trading partners. As an integral part of its public interest review, DOE/FE should consider the additional attributes that make a project ripe for approval now.

Cameron LNG has Completed the FERC NEPA Pre-filing Process and Has Filed Its FERC Application

Cameron LNG has completed the FERC's National Environmental Policy Act (NEPA) pre-filing process and filed its application under Section 3 of the Natural Gas Act and Part 153 of FERC's rules on December 7, 2012, in FERC Docket No. CP13-25.

Under FERC's regulations, no less than six months prior to filing an application for approval to site, construct, and operate LNG export facilities under section 3 of the Natural Gas Act, a project sponsor must engage in FERC's NEPA pre-filing review process.¹⁶ The NEPA pre-filing process is not perfunctory. Its purpose is to allow FERC Staff and other stakeholders an initial review of the project, particularly with respect to environmental and engineering issues, prior to a formal application being filed. A project sponsor is required to submit public drafts of

¹⁶ 18 C.F.R. § 157.21 (2012).

Progress Comparison
U.S. LNG EXPORT PROJECTS AWAITING DOE NON-FTA APPROVAL
Current as of 2/22/13

DOE Queue	Filing Party / Project Location	Non-FTA Amounts	DOE Non-FTA Application Filing	FERC Approved Pre-Filing Process	Completed FERC Pre-Filing	FERC Application Filed	Announced Customer(s) ^[1]	Existing LNG Terminal
1 and 4	Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC - Freeport LNG Terminal, Freeport (TX) - 2 applications filed at DOE	1.4 Bcf/d + 1.4 Bcf/d (but FERC application covers only 1.8 Bcf/d)	12/17/2010	✓ 1/5/2011	✓	✓ 8/31/12	✓	✓
2	Lake Charles Exports, LLC - Trunkline LNG Terminal, Lake Charles (LA)	2.0 Bcf/d	5/6/2011	✓ 4/6/2012	not complete ^[2]	no		✓
3	Dominion Cove Point LNG, LP - Cove Point LNG Terminal, Lusby (MD)	1.0 Bcf/d	10/3/2011	✓ 6/26/2012	not complete ^[2]	no	✓	✓
5	Cameron LNG, LLC - Cameron LNG Terminal, Hackberry (LA)	1.7 Bcf/d	12/21/2011	✓ 5/9/2012	✓	✓ 12/7/12	✓	✓
6	Jordan Cove Energy Project, L.P. - Coos Bay (OR)	0.8 Bcf/d	3/23/2012	✓ 3/6/2012	not complete ^[2]	no		no
7	LNG Development Company, LLC (d/b/a Oregon LNG) - Astoria (OR)	1.25 Bcf/d	7/16/2012	✓ 7/16/2012	not complete ^[2]	no		no
8	Cheniere Marketing, LLC - Corpus Christi Project, San Patricio County (TX)	2.1 Bcf/d	8/31/2012	✓ 12/22/2011	✓	✓ 8/31/12		no
9	Excelerate Liquefaction Solutions I, LLC - Lavaca Bay (TX)	1.33 Bcf/d	10/5/2012	✓ 11/20/2012	not complete ^[2] (earliest 5/20/2013)	no		floating
10	Carib Energy (USA) LLC - Cargo Loading Ports in (FL, MS, GA, LA, TX)	0.01 Bcf/d	10/20/2011	not yet started	not yet started	no		container
11	Gulf Coast LNG Export, LLC - Brownsville (TX)	2.8 Bcf/d	1/10/2012	not yet started	not yet started	no		no
12	Southern LNG Company, L.L.C. - Elba Island LNG Terminal (GA)	0.5 Bcf/d	8/31/2012	not yet started	not yet started	no	✓	✓
13	Gulf LNG Liquefaction Company, LLC - Gulf LNG Terminal, Jackson (MS)	1.5 Bcf/d	8/31/2012	not yet started	not yet started	no		✓
14	CE FLNG, LLC - Plaquemines Parish (LA)	1.07 Bcf/d	9/21/2012	not yet started	not yet started	no		floating
15	Golden Pass Projects LLC - Golden Pass LNG Terminal, Brownsville (TX)	2.0 Bcf/d	10/26/2012	not yet started	not yet started	no		✓
16	Pangea LNG (North America) Holdings, LLC - Ingleside (TX)	1.09 Bcf/d	12/19/2012	not yet started	not yet started	no		onshore & floating

Notes: [1] Public announcement available describing commercial development agreements and/or customer agreements for the capacity.
[2] FERC's Pre-filing process runs for a mandatory minimum of six-months, but can take longer if more information is needed.

all the environmental resources reports that it intends to submit with its formal application. FERC and cooperating agencies review the draft reports and identify issues that it feels are not adequately addressed. The project sponsor is required to respond to FERC's information requests in writing. There can be several rounds of requests. In addition, during the pre-filing process, FERC and the project sponsor will hold numerous "scoping meetings" within the vicinity of the proposed facilities, which are open for public comment, so that interested stakeholders can air their views and identify issues to FERC. Only after FERC is satisfied that the project sponsor has adequately responded to the issues identified will FERC indicate to the project sponsor that it is appropriate to file a formal application. Although the NEPA pre-filing process has a minimum duration of six months, in practice this process can last significantly longer as FERC and the project sponsor exchange requests and information. For other LNG export projects, the period of time between the initiation of the NEPA pre-filing process and the filing of the FERC application was over 18 months.

Therefore, completing the NEPA pre-filing process and filing a formal application with FERC is a significant milestone for projects to reach, as the Cameron LNG Project has done. In a February 2013 publication, Wood MacKenzie, the international energy consulting firm, projected that Cameron LNG was one of only two pending LNG export projects that would receive FERC authorization before the end of 2013.¹⁷

Using Cameron LNG's Existing Site Minimizes or Eliminates Environmental Concerns Regarding Siting

Because the Cameron LNG Project is being proposed at the same location as Cameron LNG's existing LNG regasification terminal, environmental impacts are minimized or eliminated, in contrast to a greenfield project. Locating the Cameron LNG Project at the selected

¹⁷ Wood Mackenzie Limited, *Regional Gas and Power Service Insight: US LNG Export Approval Process And Project Implications*, at 1, 4 (Feb. 2013).

site allows Cameron LNG to utilize certain existing facilities at the Cameron LNG terminal—such as the LNG storage tanks, the marine facilities, the regasification/export capabilities, access to existing pipelines, and administrative and maintenance facilities. This reduces the overall footprint by more than 100 acres as compared to a greenfield development. The land for the proposed project site lies to the north of the existing terminal in an area that is almost entirely—93%—within previously disturbed habitats and dredge spoil placement.

Additionally, Cameron LNG is tailoring construction procedures to reduce unwanted effects and will implement wetlands mitigation. Significantly, as part of its mitigation efforts, Cameron LNG will create marsh habitat in an area that historically contained estuarine marsh but had degraded into open water due to subsidence, saltwater intrusion, and erosion. To date, Cameron LNG has created over 1,000 acres of new wetlands with a goal of creating an additional 3,000 acres of upper wetland. Thus, the net effects on coastal resources are expected to be significantly positive due to the mitigation that Cameron LNG will implement. Thus, the Cameron LNG Project will not be subject to the same environmental challenges as those projects that do not yet have a terminal footprint.

Agreements with Experienced Customer-Partners

The Cameron LNG Project has experienced commercial partners who have been involved in LNG projects around the world. The project has commercial development agreements signed with Mitsubishi Corporation, Mitsui & Co. Ltd., and an affiliate of GDF SUEZ S.A. that allocate the off-take of the entire LNG output of the Cameron facility. The commercial development agreements bind the parties to fund all development expenses, including design, permitting, and engineering, as well as to negotiate 20-year tolling agreements, based on agreed-upon terms outlined in the commercial development agreements.

Strong National, Regional, and Local Support

The Cameron LNG Project has strong support from Governor Jindal of Louisiana, the area's Congressional delegation, including both U.S. Senators, and the region's state and local officials and community leaders. The Cameron LNG Project enjoys strong community support and Louisiana officials recognize the economic and social benefits that our project brings to region including creating local jobs and supporting small businesses. Over the last ten years, Cameron LNG has established a track record of operating its facilities in a safe, reliable and environmentally responsible manner. Cameron LNG and its employees support the local communities through charitable contributions and volunteerism that support organizations, education, safety and the environment. These efforts continue to help local community groups to preserve and enhance local wetlands, improve fisheries and protect bird habitats.

When the Cameron LNG Project was announced in early 2012, Louisiana Governor Bobby Jindal said,

Sempra's decision to move forward in developing a new LNG export terminal in Louisiana is great news for our state and our people. With expanded natural gas production from the Haynesville Shale and other shale plays, companies are recognizing what a great place Louisiana is for energy investments because of our abundant, reliable supply of natural gas and because of our strong business climate. Facilities like this will help support thousands of jobs in the energy industry across our state and will ensure quality jobs for Louisiana families for years to come.

In addition to Governor Jindal's support, the area's Congressional delegation including Senators Landrieu and Vitter, Members of the Louisiana State Legislature, local officials, and community leaders support the Cameron LNG Project and the economic benefits it would bring to the region.

Well Capitalized Sponsors

Currently, there are three U.S. projects that involve LNG exports to companies in Japan, including the Cameron LNG Project. Cameron LNG and its project partners are also working with the Japan Bank for International Cooperation (JBIC) to provide funding for the Cameron LNG Project. JBIC's potential funding of the project further signals Japan's demand for the natural gas supply, the commercial viability of the Cameron LNG Project, and the Japanese government's efforts to foster U.S. LNG supplies to Japan.¹⁸ The Cameron LNG Project offers a competitive alternative to oil-indexed natural gas prices and will improve Japan's and European countries' energy security and introduce a Henry Hub gas index cost of LNG into the LNG value chain for those countries.

Geopolitical Benefits

The Cameron LNG Project will yield geopolitical benefits including providing supply to Japanese utilities. The United States has been a world leader with respect to promoting free trade among nations and has consistently urged other countries to open their borders to allow access to U.S. products and services in a fair and competitive environment.

Moreover, the NERA Study notes that Japan and Korea depend almost entirely upon LNG imports to meet their natural gas demand and are very dependent upon reliable sources of LNG.¹⁹ This dependence would become even more acute if Japan were to implement a long-term or permanent policy to rely less on nuclear power generation and toward greater reliance on natural gas-fired generation. As Dr. Yergin testified to the House earlier this month:

While markets and economics will eventually determine the realistic scale of U.S. exports, one also has to take into account wider considerations in assessing policy regarding future LNG exports. For decades, the United States has made the free

¹⁸ There have been some reports that indicate that at least one other project may be considering JBIC as a source of funding as well.

¹⁹ NERA Study at 17.

flow of energy supplies one of the cornerstones of foreign policy. It is a principle we have urged on many other nations. How can the United States, on one hand, say to a close ally like Japan, suffering energy shortages from Fukushima, please reduce your oil imports from Iran, and yet turn around and, on the other, say new natural gas exports to Japan are prohibited?²⁰

The United States, and the Cameron LNG Project in particular, can aid in this transition by providing a secure source of supply at a delivered cost substantially below prices Japan currently pays for LNG supplies.

To that end, on February 6, 2013, Tokyo Electric Power Company (TEPCO) announced publicly in Tokyo it is finalizing agreements to purchase LNG from Mitsui and Mitsubishi originating from the Cameron liquefaction project. TEPCO is the largest buyer of LNG in Japan (24 Mtpa or 3.5 Bcf/d) and the second largest LNG buyer in the world. This will be TEPCO's first long-term purchase of LNG based on a natural gas index and not a higher oil-linked price, which is an important policy matter for Japan in addition to security of supply.

Given the involvement of GDF Suez in the Cameron LNG Project, natural gas markets in Europe can be expected to realize similar benefits.

Cameron LNG estimates that the Cameron LNG Project's customers will export an average of approximately \$8.6 billion of LNG per year.²¹ In addition, oil and condensate production associated with the Cameron LNG Project is expected to average \$2.2 billion per year, bringing the average total trade balance benefits to \$10.8 billion per year in 2011 dollars. This will have a positive and significant impact on the balance of trade that the United States has with its international trading partners.

In addition to having a beneficial impact on the U.S. trade deficit by leveling the balance of payments between the United States and the rest of the world, LNG exports also will enhance

²⁰ Yergin Testimony.

²¹ This assumes that the Project's tolling customers will sell LNG at a price equal to 70% of the oil price forecasts in the AEO 2011, as stated in 2011 dollars.

the diversity of global supply and contribute to the security interests of the United States and its allies. The export of domestically produced LNG will promote liberalization of the global gas market by fostering increased liquidity and trade at prices established by market forces.

Finally, the United States has a strong interest in encouraging the world's major energy consumers to take advantage of a global increase in natural gas supply to reduce greenhouse gas emissions.

V. REPLY TO COMMENTS ON THE LNG EXPORT STUDY

The NERA Study concluded that in all cases considered there is a net economic benefit to the U.S. economy from LNG exports. The NERA Study is one more piece of evidence showing that LNG exports are in the public interest. As shown below, criticisms of the study do not withstand scrutiny.

Scope of LNG Export Study

The scope of the LNG Export Study was adequate for its intended purpose. DOE/FE described the purpose of the LNG Study as follows:

The purpose of the LNG Export Study was to evaluate the cumulative economic impact of the *Sabine Pass* authorization and any future requests for authority to export LNG. . . .

DOE designed the scope of the first part of the LNG Export Study, performed by EIA, to understand the implications of additional natural gas demand (as exports) on domestic energy markets under various scenarios. The scenarios established were not forecasts of either the ultimate level, or rates of increase, of exports; instead, these scenarios were established to set a wide range of potential LNG export scenarios, as assessed by DOE at that time.

However, the EIA analysis did not address the macroeconomic impacts of natural gas exports on the U.S. economy. In particular, given its domestic focus, EIA's National Energy Modeling System does not account for the impact of energy price changes on the global utilization pattern for existing capacity or the siting of new capacity inside or outside of the United States in energy-intensive industries.

Therefore, DOE commissioned NERA to conduct such an analysis. The NERA macroeconomic analysis includes a feasibility analysis of exporting the specified

quantities of natural gas used in the EIA analysis, as well as a range of additional global scenarios for natural gas supply and demand, including cases with no export constraints.²²

Many of the commenters demand too much from the NERA Study, proposing artificial criteria and setting up a straw man. For example, commenters criticize the fact that the NERA Study does not take into account certain international trade policy issues and the possible environmental effects indirectly caused by LNG exports. However, as described by DOE/FE, the scope of the study was to estimate the aggregate macroeconomic effects of exports, not to address every potential merit and demerit of LNG exportation.

Similarly, the NERA Study should not have to address every conceivable hypothetical, such as unknown tax credit legislation and hydraulic fracturing regulations. These events are unknowable at present and there is no meaningful way to choose among inchoate possibilities.

The LNG Export Study had one goal—to determine the general macroeconomic effects of LNG exports on the U.S. economy. The LNG Export Study is part of a broader public interest analysis that DOE/FE will conduct on the individual projects. Of course, DOE/FE will ultimately evaluate every pending LNG export application on its own merits, and the findings of the LNG Export Study will be supplemented by data submitted by applicants and other interested parties with respect to individual export projects.

Data

The NERA Study was intended to supplement and complement the EIA Study.²³ Therefore, NERA's use of Annual Energy Outlook 2011 data was proper and necessary in order

²² Notice of Availability of 2012 LNG Export Study and Request for Comments, 77 Fed. Reg. 73627, 73628 (Dec. 11, 2012).

²³ Notice of Availability of 2012 LNG Export Study and Request for Comments, 77 Fed. Reg. 73627, 73628 (Dec. 11, 2012).

to align results with the EIA Study. This could not have been accomplished if NERA had used different data.

By insisting that NERA use the most recent data available today, opponents of the NERA Study appear to envision a never-ending process that can never be sufficiently current or sufficiently comprehensive. Opponents do not explain how using later data would result in a study that could be compared to the EIA Study. If NERA were to have done so, such a study would have been open to the criticism that it could not be meaningfully compared to the EIA Study. At some point, the data used has to stop being a moving target. The NERA Study made the only appropriate choice.

Demand Issues

Some commenters attempt to refute the NERA Study's assertion that global markets will constrain rising prices of U.S. natural gas through decreased demand by asserting that foreign purchasers of LNG will be locked into long-term contracts. However, commenters miss the point. Global market participants will be able to take into account the effects of known long-term contracts, which will be announced many months, if not years, in advance. The global market is made up of many highly experienced market participants, and those participants are in the best position to gauge whether and when to enter into any particular transaction given supply and demand constraints and the degree of flexibility and optionality needed in their contracts.

Critics do not substantiate the assertion that the NERA Study's demand elasticities skewed results. To the extent that the NERA Study averaged global demand elasticities, opponents of the NERA Study do not show that the results would have been dramatically different, if at all. Therefore, this complaint regarding the NERA Study is bald assertion with no evidence to back it up.

Supply

There is unlikely to be the type of supply delay raised by critics, which they argued would cause prices to rise as supply lagged demand. Natural gas producers have knowledge of all of the proposed LNG terminals, their location, and their capacity as well as increased demand due to new manufacturing plants, which are all on public record. Therefore, producers will not be surprised and will have ample notice of export and other demand well in advance of realization and therefore will be able to bring production online to meet it on a timely basis in the location where it is needed.

Effects on Manufacturing

The export volumes assumed in the comments of LNG export opponents, i.e., the total of all of the pending applications at DOE, is simply not plausible and cannot be used as the amount used to test price effects. This type of approach, without reference to the negative effect on global demand from rising prices, was the limitation in the EIA Study and the reason why DOE/FE commissioned the NERA Study.

Contrary to the assertion that LNG exports will cause volatility, increased exports will increase production, which will increase price stability. The natural gas industry has recognized that the current price of natural gas is not sufficient to encourage additional production. According to many commenters, price volatility, described as the boom and bust phenomenon, was a major component of historic problems faced by the manufacturing sector with respect to reliance on natural gas.²⁴

Some commenters appear to characterize natural gas supply as a zero-sum game between exporters and manufacturers. Yet it is clear that supply resources are sufficient for both—and at reasonable and stable prices.

²⁴ See, e.g., Dow Chemical Company Comments at 25-26.

Contrary to commenter assertions, NERA was not required to analyze every industry and sector on an individual, granular basis. As admitted by commenters, each industry may itself be composed of dozens of different business models.²⁵ It would be infeasible to address each individually. Moreover, commenters did not provide alternative data to show that the NERA Study's conclusions were incorrect.

Criticisms of the NERA Study's conclusions regarding employment effects are also incorrect. In fact, employment benefits are likely understated in the NERA Study. The NERA Study's conclusion that LNG exports are not likely to affect the overall level of employment²⁶ is the direct result of an employment rate assumption in the NERA model, i.e., "full employment in the labor market."²⁷ The result of this assumption is that any increase in employment in one part of the economy necessarily results in a decrease in other parts of the economy.²⁸ While generally this is a standard model assumption, here it results in a conservative employment result. The economy has seen full employment in the past for only brief periods, and the economy is not currently near full employment. Thus, LNG exports are likely to have greater positive effects on employment than what may be indicated from the NERA Study, with a timely increase in high-paying construction jobs soon after terminals are approved and, in the long term, jobs associated with increased natural gas production.

Effects on Consumers

The NERA Study shows effects on consumers will be minimal and will be offset by benefits spread throughout the economy. Besides creating high-paying jobs, expansion of LNG exports creates two additional sources of income for the U.S. economy and its consumers. First,

²⁵ See *id.* at 28.

²⁶ NERA Study at 2.

²⁷ NERA Study at 110.

²⁸ NERA Study at 110.

additional income comes to the U.S. economy from selling LNG globally at prices higher than what could be obtained in the United States. Second, U.S. households benefit from higher natural gas income or rents. This income comes to U.S. consumers through their investment in resource companies, such as in retirement plans. Of course, those gains will over time work themselves broadly throughout the economy. The benefits that come from increased exports more than outweigh the losses from reduced income to U.S. consumers from slightly higher natural gas prices within the United States. The net result is a benefit to economy as a whole.²⁹

Peer Review

Some commenters have argued that the NERA Study should be subject to peer review under OMB's "Final Information Quality Bulletin for Peer Review." However, the peer review process described therein is expressly not applicable to permit proceedings, such as the instant proceeding.³⁰ Therefore, the public comment period that DOE/FE has undertaken is more than adequate for DOE/FE to obtain constructive review of the LNG Export Study.

VI. CONCLUSION

The LNG Export Study has shown that LNG exports will provide a net benefit to the U.S. economy. Given the conclusions of the LNG Export Study, and the other information provided in the pending applications such as that of Cameron LNG, DOE/FE is now in a position to begin making substantive determination on those applications. It must do so promptly, as time for the United States to press its current advantage is limited as other countries learn how to access their own natural gas reserves. Consequently, DOE/FE should focus its resources on the applications that can demonstrate an ability to reach market reality at the earliest opportunity, as discussed herein.

²⁹ NERA Study at 7-9.

³⁰ Office of Management and Budget, "Final Information Quality Bulletin for Peer Review" at 32 (Dec. 16, 2004).

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that, in accordance with 10 C.F.R. § 590.107 (2012), I caused a copy of the foregoing to be served on the following this 25th day of February, 2013:

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