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AMERICAN COUNCIL
FOR CAPITAL FORMATION

LIQUEFIED NATURAL GAS:
Why Rapid Approval of the Backlog of Export Applications is Important for U.S. Prosperity

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INTRODUCTION

For more than three decades, the American Council for Capital Formation has emphasized that our nation's prosperity and stability depend upon well-planned economic, regulatory, and environmental policies to promote capital formation and higher living standards for all. With this in mind, the ACCF has explored the issue of liquefied natural gas (LNG) exports from a broad economic, trade and geopolitical perspective (Also see *ACCF Center for Policy Research Special Report,* April 2013, "Should Free Trade Principles Apply to U.S. Exports of Liquefied Natural Gas").[1]

Both ACCF research and that of many other organizations, including think tanks, the U.S. Department of Energy (DOE) and economic consulting firms conclude that exporting LNG presents the United States with an opportunity to attain considerable economic benefit in the years to come.

The purpose of this paper is to: (1) briefly review the analysis on the economic impact of LNG exports, (2) discuss the complex application process for getting a permit to export LNG from the U.S., and (3) explain why quick approval of the twenty applications pending before DOE is urgently needed.

As of May 2013, there are 20 applications pending at the Department of Energy and Federal Energy Regulatory Commission to export LNG. **Appendix A** summarizes ACCF's compilation of each LNG export terminal application, detailing the date filed, estimated capacity, significant economic investments that will occur if terminals are approved, estimated direct and indirect jobs created, and reduction in the U.S. trade imbalance. **Appendix B** lists the 63 international LNG export projects planned or under construction today with a combined capacity of 50 billion cubic feet of LNG per day, as outlined in a recent ICF International report.

ECONOMIC ANALYSIS SHOWS POSITIVE IMPACT OF LNG EXPORTS

Multiple economic analyses over the past two years demonstrate the power of allowing U.S. producers to export LNG.[2]

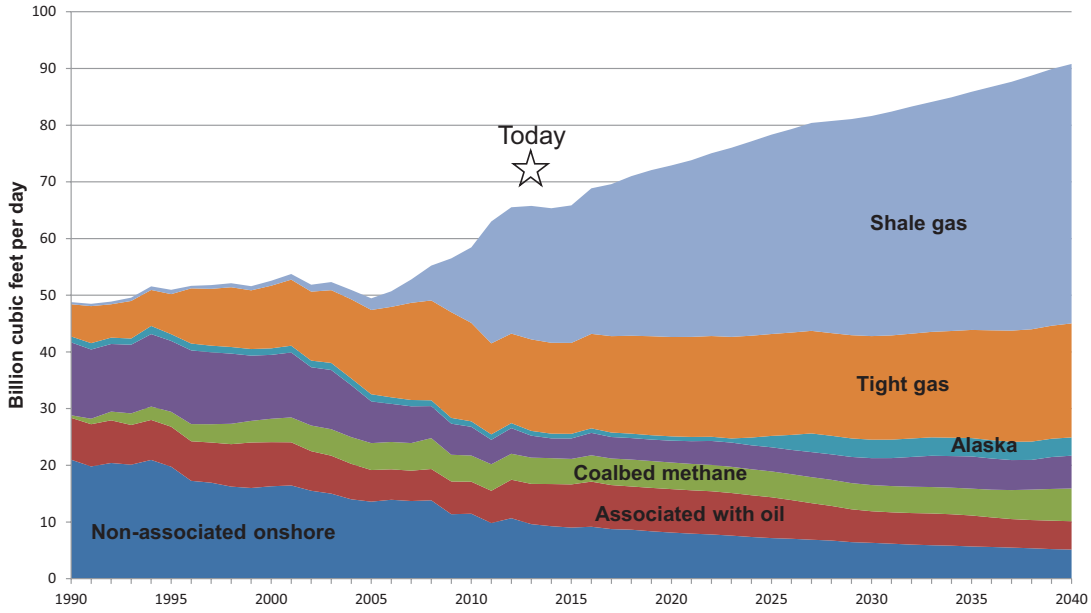
Using various assumptions regarding export levels, global market conditions, and the costs of producing natural gas within the U.S. and also examining alternative scenarios that might affect natural gas supply and demand, the vast majority of these analyses have reached the same fundamental conclusion. As explained in the NERA study commissioned by the U.S. Department of Energy:

> "Across the scenarios, U.S. economic welfare consistently increases as the volume of natural gas exports increased. This includes scenarios in which there are unlimited exports. The reason for this is that even though domestic natural gas prices are pulled up by LNG exports, the value of those exports also rises so that there is a net gain for the U.S. economy measured by a broad metric of economic welfare – or by more common measures such as real household income or real GDP."[3]

Another macroeconomic analysis by ICF International finds that expanded LNG exports would spur significant gains in nationwide employment, GDP and federal tax receipts. The net effects on U.S. employment are anticipated to be positive with net job growth of between 73,100 to 452,300 jobs on average between 2016 and 2035, including all economic multiplier effects.[4] Manufacturing job gains average between 7,800 and 76,800 net jobs between 2016 and 2035, including 1,700-11,400 net job gains in the specific manufacturing sectors that include refining, petrochemicals, and chemicals.

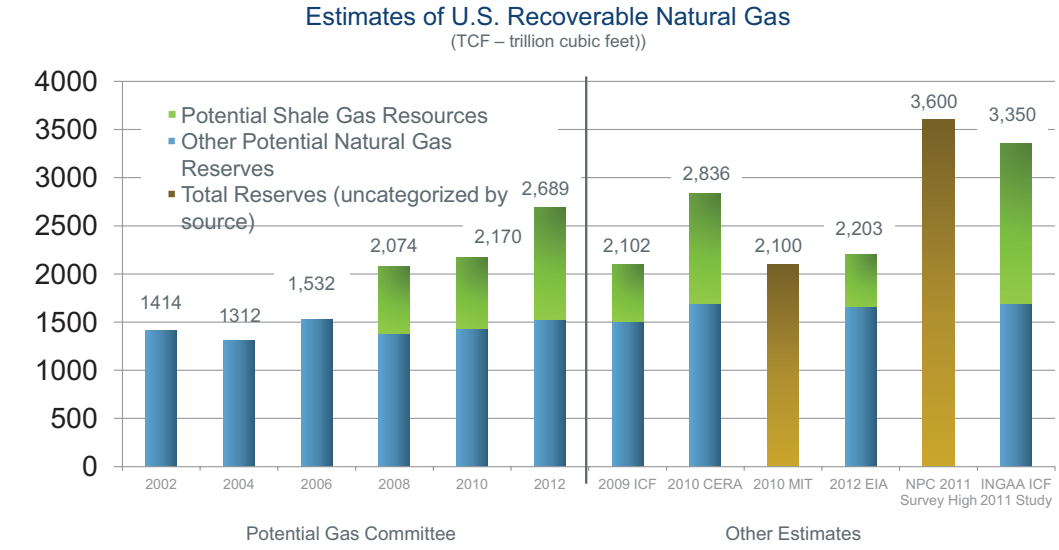
The net effect on U.S. GDP is expected to be positive at about $15.6 to $73.6 billion per year on average between 2016 and 2035, including the impacts of associated liquids production, increases in the petrochemical manufacturing of olefins, and all economic multiplier effects. In addition, the ICF International analysis predicts that LNG exports would have only moderate impacts on domestic natural gas prices. Over the 2016-2035 period, price increases would range from about $0.32 to $1.02 per million British Thermal Units (MMBtu) on average.[5] Given the sharp increases in shale gas production predicted in EIA's 2013 Annual Energy Outlook, it seems quite likely that price changes for natural gas in the U.S. would be small *(see Figure 1 and Figure 2)*.

Figure 1. "Where will the Gas Come From?"



Source: EIA, Annual Energy Outlook 2013, "Natural Gas: Our National Treasure," Jim Tramuto, Southwestern Energy, http://www.fbcconferences.com/e/eia/presentations/j-tramuto.pdf

Figure 2. "Estimated U.S. Recoverable Natural Gas"



Sources:
ICF: As reported in MIT Energy Initiative, 2010, The Future of Natural Gas, interim report ; Table 2.1
EIA: 2012 AEO, June 2012
PGC: Potential Gas Committee's Advance Summary and press release of its biennial assessment; see www.potentialgas.org
CERA: IHS CERA, 2010, Fueling North America's Energy Future: The Unconventional Natural Gas Revolution and the Carbon Agenda
MIT: MIT Energy Initiative, 2010, The Future of Natural Gas, interim report
NPC: Realizing the Potential of North America's Abundant Natural Gas and Oil Resources Johns Hopkins University ; Prudent Development Study 2011

Source: EIA, Annual Energy Outlook 2013, "Natural Gas: Our National Treasure," Jim Tramuto, Southwestern Energy, http://www.fbcconferences.com/e/eia/presentations/j-tramuto.pdf

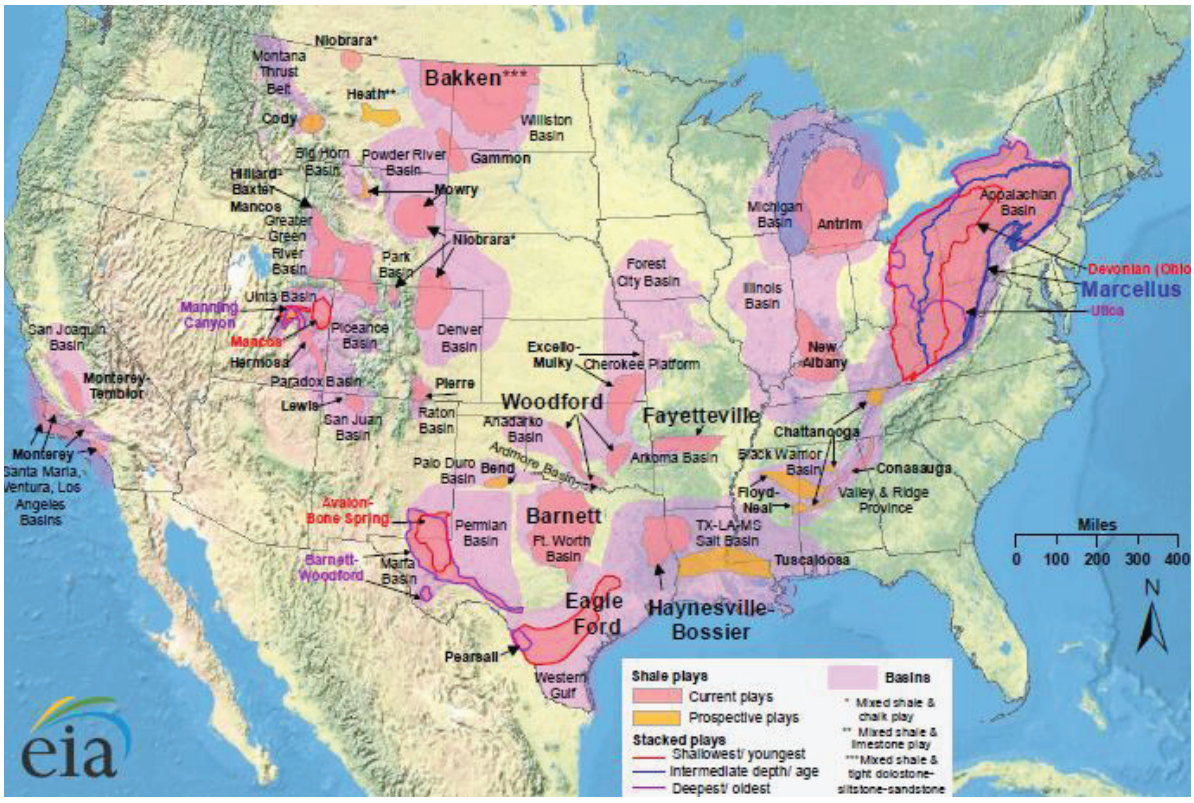
The ICF International analysis also shows that LNG exports would increase government revenues at the federal, state, and local levels due to taxes on GDP gains associated with additional economic activity, as well as additional royalty payments to the government for natural gas production taking place on government lands. State and local taxes (which include severance taxes associated with natural gas production) comprise the largest share of government revenues, with federal taxes making up a smaller portion. In sum, the ICF report concludes, government revenues reach between $6.4-$9.3 billion in the ICF Base Case, $14.3-$20.8 billion in the Middle Exports Case, and $27.9-$40.4 billion annually in the High Exports Case by 2035.[6]

To put the potential economic effects of increased LNG exports from the U.S. in perspective, it is useful to look at the recent impact of increased energy production on U.S. employment. As noted in a report, "The Benefits of Natural Gas Production and Exports for U.S. Small Businesses," by the Small Business & Entrepreneurial Council, while overall U.S jobs in employer firms declined by 3.7 percent from 2005 to 2010, jobs grew by 27.6 percent in the oil and gas extraction sector during the same time period.[7]

During the same period, employment grew by 15.1 percent in the drilling oil and gas wells sector; by 38.5 percent in the support sector for oil and gas operations; by 47 percent in the oil and gas pipeline and related structures construction sector; and by 62 percent in the oil and gas field machinery and equipment manufacturing sector.[8] As the SBEC report notes, expanded energy production over the 2005-2010 period has been a boon to small and midsize enterprises.

The following table *(see Figure 3)* shows the current and prospective shale gas plays in the U.S. and the dozens of states where shale gas would provide economic opportunity. Almost half of the states would gain jobs and income as shale gas plays are brought into production or have increased output from existing plays.

Figure 3. U.S. Shale Plays



Source: EIA, Annual Energy Outlook 2013, "Natural Gas: Our National Treasure," Jim Tramuto, Southwestern Energy, http://www.fbcconferences.com/e/eia/presentations/j-tramuto.pdf

PERMITS TO EXPORT LNG: A LENGTHY AND COSTLY PROCESS

There are currently 20 applications to export LNG pending before the Department of Energy (DOE) and the Federal Energy Regulatory Commission (FERC) *(See Table 1)*. Several of the proposals have been awaiting approval for many months, and in some cases more than two years. To date, the administration has approved just one permit every two years (for a total of two).

Each project can take five years or more to move from approval to export flow. Without a faster approval process, it is unlikely that the U.S. will achieve the economic and job growth benefits that would arise from the higher production of natural gas since other countries may gain market share at our expense.

The following table *(Table 1)* details the backlog of LNG export applications under review at the Department of Energy. **Appendix A,** includes a description of the cost of each project ($3 to $6 billion on average for an export terminal) as well as the direct and indirect jobs, the economic value and government tax receipts that would be added if the project were approved and then construction of the facility commenced.

Table 1: LNG Export Applications Under Review at the U.S. Department of Energy

TERMINAL	LOCATION	CAPACITY	DATE FILED	DATE APPROVED
1. Sabine Pass Liquefaction, LLC	Cameron Parish, LA	2.2 Bcf/d	09/07/10	5/20/11
2. Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC	Quintana Island, TX	1.4 Bcf/d	12/17/10	5/17/13
3. Lake Charles Exports, LLC	Lake Charles, LA	2.0 Bcf/d	5/6/11	**Under Review**
4. Dominion Cove Point LNG, LP	Calvert County, MD	1.0 Bcf/d	10/3/11	**Under Review**
5. Carib Energy (USA) LLC	Southeast Atlantic, Florida and the Gulf Coast, including Texas	0.03 Bcf/d: FTA 0.01 Bcf/d: non-FTA	10/20/11	**Under Review**
6. Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC	Quintana Island, TX	1.4 Bcf/d	12/19/11	**Under Review**
7. Cameron LNG, LLC	Cameron Parrish, LA	1.7 Bcf/d	12/21/11	**Under Review**
8. Gulf Coast LNG Export, LLC	Port of Brownsville, TX	2.8 Bcf/d	1/10/12	**Under Review**
9. Jordan Cove Energy Project, L.P.	Coos Bay, OR	1.2 Bcf/d: FTA 0.8 Bcf/d: non-FTA	3/23/12	**Under Review**
10. LNG Development Company, LLC (d/b/a Oregon LNG)	Warrenton, OR	1.25 Bcf/d	7/16/12	**Under Review**
11. Gulf LNG Liquefaction Company, LLC	Pascagoula, MS	1.5 Bcf/d	8/31/12	**Under Review**
12. Cheniere Marketing, LLC	Port of Corpus Christi, TX	2.1 Bcf/d	8/31/12	**Under Review**
13. Southern LNG Company, L.L.C.	Savannah, GA	0.5 Bcf/d	8/31/12	**Under Review**
14. CE FLNG, LLC	Plaquemines Parish, LA	1.07 Bcf/d	9/21/12	**Under Review**
15. Excelerate Liquefaction Solutions, I, LLC	Calhoun County, TX	1.38 Bcf/d	10/5/12	**Under Review**
16. Golden Pass Products, LLC	Sabine Pass, TX	2.6 Bcf/d	10/26/12	**Under Review**
17. Pangea LNG (North America) Holdings, LLC	Port of Corpus Christi, TX	1.09 Bcf/d	12/19/12	**Under Review**
18. Trunkline LNG Export, LLC	Lake Charles, LA	2.0 Bcf/d	1/10/13	**Under Review**

TERMINAL	LOCATION	CAPACITY	DATE FILED	DATE APPROVED
19. Freeport-McMoRan Energy LLC	Main Pass Energy Hub Deepwater Port, LA	3.22 Bcf/d	2/22/13	**Under Review**
20. Sabine Pass Liquefaction, LLC	-	0.28 Bcf/d	-	**Under Review**
21. Sabine Pass Liquefaction, LLC	-	0.24 Bcf/d	-	**Under Review**
22. Venture Global LNG, LLC	-	0.67 Bcf/d	-	**Under Review**

The path for an LNG export project from application to approval contains multiple steps as a permit moves through the Department of Energy and the Federal Energy Regulatory Commission. DOE authorizes the export of LNG, while FERC – as an environmental and safety regulatory agency – authorizes the construction and operation of the facilities to perform LNG exports.

The eight step process outlined below provides a glimpse into the extensive scope and opportunities for delay created through the application process. In addition, as an application proceeds, DOE, FERC, or any number of other regulatory parties reserves the right to request additional requirements, documentation, modifications, and much more. Furthermore, outside of the federal approval process, companies must contend with legal challenges, state and local siting and compliance, as well as securing necessary capital given likely delays. Even under ideal conditions, reaching the finish line is no small task.

EIGHT STEP APPROVAL PROCESS TO EXPORT LNG FROM THE U.S.

1. FERC Pre-Filing Process Initiated

As a result of Energy Policy Act of 2005, FERC created a pre-filing process for LNG projects, during which the applicant meets with staff of FERC's Office of Energy Projects to explain the proposal and solicit advice. Pre-filing review requires a mandatory six-month pre-filing period during which 13 resource reports are submitted to FERC and reviewed by up to 20 cooperating federal and state agencies. The pre-filing process is designed to engage all stakeholders at the earliest point to identify and resolve potential issues related to the construction and operation of a facility before formally filing an application.

REQUIRED RESOURCE REPORTS:

1. General Project Description
2. Water Use and Quality
3. Fish, Wildlife, and Vegetation
4. Cultural Resources
5. Socioeconomics
6. Geological Resources
7. Soils
8. Land Use, Recreation, and Aesthetics
9. Air and Noise Quality
10. Alternatives
11. Reliability and Safety
12. Polychlorinated Biphenyls (PCB) Contamination
13. Engineering and Design Material

2. National Environmental Policy Act (NEPA) Compliance

Initiation of the NEPA compliance process occurs after all resource reports have been submitted and a complete application is formally submitted to FERC. An Environmental Impact Statement (EIS) is needed for every proposed major federal action that is expected to significantly affect the quality of the environment. If the environmental impacts are uncertain, then an Environmental Assessment (EA) must be prepared to determine if an EIS is needed. This step commences with the acquisition of land and beginning of site design and engineering plans.

3. Application Submission to DOE for License to Export to FTA Countries

Issuance of an export authorization is dependent upon the export being deemed "consistent with the public interest." A LNG export project is deemed consistent with the public interest if a free trade agreement (FTA) exists between the U.S. and the LNG-recipient country. The U.S. currently has FTAs with 18 countries that require national treatment for trade in natural gas.

For export to both FTA and non-FTA countries, the applicant must submit the contract(s) with the identity of the sellers of gas, the markets in which the gas is to be sold, and the terms of the sale agreement(s) along with a start date.

Under current law, DOE is required to quickly approve applications to export LNG to countries with FTAs with the U.S.

4. Application Submission to DOE for License to Export to Non-FTA Countries

This can occur simultaneously with the DOE application for FTA partners, but typically happens a couple months later. LNG exports to non-FTA countries require DOE's Office of Fossil Energy to publish a notice of the application in the Federal Register and seek public comments, protests, and notices of intervention in order to make the public interest determination.

5. FERC Docket Number Issued

This signals completion of the NEPA environmental review process and gives applicants the regulatory certainty that they can obtain the long-term contracts to sell the product and secure financing (approximately $3 to $6 billion) to construct and operate the LNG terminal. Once a company receives its FERC Docket number, it invests a significant amount to take these next steps.

6. Receive DOE Approval for License to Export to Non-FTA Countries

To date, DOE has reviewed these applications in chronological order. The queue is set by the order that applicants filed requests for non-FTA permits with DOE as of December 2012, filtered by those who have also initiated the pre-filing process with FERC. After this group, permits are to be considered in the order they were filed with DOE.

7. Receive Final Approval from FERC to Build and Operate the Project

8. Applicant Files for Request for Authorization

Following construction, the applicant files a request with FERC to commence operation of the facility and awaits approval.

Additional Requirements

It is important to note that throughout the approval process, DOE and FERC may identify other compliance requirements including from the Clean Water Act, the Clean Air Act, the Endangered Species Act, and the National Historic Preservation Act. This may require involvement or approval of other agencies at the federal, state, or local level. LNG export projects may also require compliance with safety and security-related requirements from other agencies, such as the Department of Transportation's Office of Pipeline Safety, the National Fire Protection Association, and the Federal Emergency Management Agency.

Currently, most states implement their own regulatory requirements for oil and gas production with the EPA overseeing that facilities meet national standards for air, dust, and water consumption and treatment. Various state governments, municipalities, river basin commissions and village governments implement additional fees, "green completion stipulations," and compensation requirements. Satisfying these additional requirements and obtaining proper permits may require additional time.

Navigating this bureaucratic path is only part of the path to approval, though. Throughout the above listed process, applicants must consistently raise the financing needed to meet the demands of the application process and, eventually, construct and bring online the facility. In the face of the uncertainty presented by this labyrinthine process – one where the timetables for each step are unclear and the end is often out of sight – securing and holding that capital can become exceedingly difficult. And even after formal federal approval, the process of constructing a facility and bringing it online is rife with additional challenges. Applicants

must also ensure that their sales agreements with purchasers across the world hold given changes to terms from delays that result from permitting, legal challenges, and construction.

In short, not every project on the books is going to be successful. Approving one project at a time, in a piecemeal manner, greatly undermines the odds that our nation will be able to quickly realize benefits from LNG exports.

COST OF DELAY IN GRANTING LNG EXPORT PERMITS

Numerous recent economic analyses make the case that if applications for the export of LNG from the U.S. are not approved swiftly, U.S. companies may lose market share to foreign competition. For example, the ICF analysis concludes that the U.S. faces considerable competition for LNG sales abroad, with at least 63 international LNG export projects planned or under construction, with combined LNG export capacity of 50.5 Bcfd **(see Appendix B)**.

Many of these foreign projects have free-on-board (FOB) costs of $9/MMBtu or less. (FOB costs include the cost of the natural gas feedstock, liquefaction costs, and the costs associated with loading the LNG on ship for transport; however, these costs do not include shipping costs to the destination.)

In addition, uncertainty regarding world economic growth, government policies toward LNG imports and pricing, greenhouse gas (GHG) mitigation goals, subsidization policies for renewables, and development of the world's unconventional natural gas resources make LNG trade forecasting difficult.[9] Given the uncertainties listed above, delay in the approval process for U.S. LNG export projects makes them all the more risky and costly. As a consequence, benefits to the U.S. in terms of jobs and economic growth will be smaller than if permits were approved without delay.

As Professor Richard Schmalensee, Director of the MIT Center for Energy and Environmental Policy Research, noted in the ACCF's recent report on LNG exports:

> "One of the great strengths of the U.S. economy historically has been our flexibility and our ability to react quickly and effectively to changes in the global marketplace. Restricting LNG exports would be resisting what we are good at, which is reacting to change."[10]

CONCLUSIONS

The President and Members of Congress on both sides of the aisle have stated consistently their support for exports. The administration has an opportunity to advance the President's goal to double exports within five years by utilizing one of our most vital and plentiful natural resources in a manner that carries comprehensive benefits for our economy both today and far into the future. DOE should allow free markets to determine how much LNG is exported and allow free trade of this valuable resource to aid our recovering economy. From corn to cars to wheat, exports have proven to be a net positive boost for the U.S. economy and LNG exports shouldn't be treated differently.

APPENDIX A:

LNG Export Application Details including Individual Project Economic Benefits

(AS OF APRIL 2, 2013)

TERMINAL	COMPANY	DATE FILED	TERM	CAPACITY[I]
Lake Charles Terminal[II] Lake Charles, LA	Lake Charles Exports, LLC	5/6/11	25-year period commencing on the earlier date of the first export or 10 years from the date the requested authorization is granted	2.0 billion cubic feet per day (Bcf/d)
Economic Benefits: • Investment of $1.5-$2.0 billion (per train) in LA and US; • Approx. 150 jobs at $100 million in wages to support construction; • $4.5 million construction man hours with wages of $120 million per train; • 200 construction management-related jobs with wages of $140 million; • 60-80 permanent jobs once facility is completed (double if more than one train constructed); • Reduction of US balance of payments by about $4.0 billion annually.[III]				
Cove Point Terminal[IV] Calvert County, MD	Dominion Cove Point LNG, LP	10/3/11	25 year period. Anticipates beginning exports by end of 2016, but proposes that the requested authorization commence within 6 years of the date of authorization to allow for some potential delay in that schedule	1.0 Bcf/d
Economic Benefits: • During construction between 2,700 and 3,400 job years in Calvert Co. as well as 1,000 additional jobs in Maryland, and additional 3,850 to 4,820 jobs in the rest of the Nation; • During operations 2018-2040, the economic activity to result in 320 jobs across the Nation and economic activity associated with the long-term upstream supply of natural gas for exports would result in 18,000 new jobs annually; • During construction in 2015 between $183 and $230 million in "value added" created within Calvert County and an additional $80 to $100 million in the rest of Maryland. Annual activities during operations from 2018 through 2040 are expected to generate an additional $22 million in value added annually for Calvert County, Maryland, and over $47 million for the U.S. in total; • Indirect Economic Stimulus of $44 billion in total value added resulting from upstream expenditures of $32 billion needed to supply the LNG exports over the 25-year period; • Increased Tax and Royalty Revenues: Estimated tax revenues generated during construction in 2014 of $130-$163 million nationally. Total US taxes estimated to increase $11 million per year from 2018-40, not including income taxes, property taxes, or gross receipt taxes. Long-term operation expected to produce up to $40 million per year of property tax revenues. Upstream economic activity associated with gas production to support the LNG exports associated with $25 billion in government royalty and tax revenues to federal, state, and local governments over the 25-year period, with an average of approximately $1 billion in annual revenues. Another $9.8 billion in royalty income over the 25 years will be provided to landowners in the form of mineral leases. • Reduction of US balance of payments by $2.8-$7.1 billion per year.[V]				
Various Terminals FL, AL, MS, GA, LA and TX[VI]	Carib Energy (USA) LLC	10/20/11	25 years commencing on the earlier date of the first export or 5 years from the date the requested authorization is granted	0.03 Bcf/d: FTA[VII] 0.01 Bcf/d: non-FTA[VIII]
Economic Benefits: • Approval encourage development of jobs in Us through transportation companies and sales and administrative staff; • Approval will promote effort to reduce US trade imbalance.[IX]				
Freeport Terminal[X] Quintana Island near Freeport, TX	Freeport LNG Expansion L.P. & FLNG Liquefaction	12/19/11	25-year period commencing on the earlier date of the first export or 8 years from the date the requested authorization is granted	1.4 Bcf/d
Economic Benefits: • 3,000 jobs on site and hundreds off-site during 3-4 year construction period; • 20-30 permanent positions during operation period; • Between 17,000-20,000 indirect U.S. natural gas exploration and production jobs; • Total US economic benefit of $3.6-$5.2 billion per year, or $90-$130 billion over 25-year term; • Reduction of US balance of payments by $3.9 billion per year, or $97.5 billion over 25-year term.[XI]				

TERMINAL	COMPANY	DATE FILED	TERM	CAPACITY[1]
Cameron Parish Terminal[XII] Cameron Parish, LA	Cameron LNG, LLC	12/21/11	20-year period commencing on the earlier date of the first export or 7 years from the date the requested authorization is granted	1.7 Bcf/d

Economic Benefits:

- Capital cost of $4 billion and annual average LNG exports of $8.6 billion;
- Over 1,300 on-site engineering and construction jobs over 4-year period and hundreds of off-site jobs;
- During peak 12-month construction 2,900 jobs directly created jobs, and total of 5,200 direct job years;
- Total economy-wide impact of $7.6 billion and 63,000 jobs per year over 4-year construction period;
- 4,600 jobs in natural gas industry from exploration and production;
- For US economy average of 53,000 jobs during 20-year operation period resulting in total impact during construction and operation periods of $1.1 million job-years;
- Total benefit to US economy of $2 billion per year during construction and $14-$18 billion per year during 20-year term;
- Total increase in US output of $336 billion during 20-year term;
- Reduction of US balance of payments by about $10.8 billion annually.[XIII]

Brownsville Terminal[XIV] Brownsville, TX	Gulf Coast LNG Export LLC	1/10/12	25-year period commencing on the earlier date of the first export or 8 years from the date the requested authorization is granted	2.8 Bcf/d

Economic Benefits:

- 3,000 on-site jobs and hundreds off site during 5-6 year construction period;
- 250 permanent positions during operation period;
- Between 34,000-42,000 indirect U.S. natural gas exploration and production jobs;
- Total US economic benefit of $7.2-$10.4 billion per year, or $90-$130 billion over 25-year term;
- Reduction of US balance of payments by $7.3 billion per year, or $183 billion over 25-year term.[XV]

Jordan Cove Terminal[XVI] Coos Bay, OR	Jordan Cove Energy Project, LP	3/23/12	25-year period commencing on the earlier date of the first export or 7 years from the date the requested authorization is granted	1.2 Bcf/d: FTA 0.8 Bcf/d: non-FTA

Economic Benefits:

- Project construction costs of $4.494 billion-exceeding the sum of construction spending on all similar projects in Oregon over the last five years;
- Of the $4.494 billion in construction spending, $1.366 billion will be spent in Oregon and Washington generating indirect impact on economic output over the four-year construction period of $1.17 billion and the induced output of $973.5 million;
- Net value of construction estimates an increase in the regional GDP of $1.738 billion in total for 2014-2017, averaging $434.6 million a year;
- During construction project will employ 1,768 workers a year, and create 1,530 indirect and 1,838 induced jobs a year and the labor income from the direct and secondary employment will average $182.6 million and $147.4 million a year, respectively, and total $330 million a year with total contribution to labor income from all associated jobs over the 2014-2017 construction period to exceed $1.3 billion;
- Operations will include 99 direct jobs, 51 indirect jobs, 404 other indirect jobs and 182 induced jobs for a total of 736 total jobs in Coos County with total labor income per year will of $32.9 million;
- The direct GDP impact will be $1.29 billion. The portion of the GDP impact attributed to Coos County will be $35 million. The net increase in the GDP of Coos County after the indirect and induced impacts are included will be $1.36 billion (total GDP in Coos County in 2010 was $1.74 billion);
- Downstream impacts of $20 million a year for public K-12 education and of $10 million a year for projects of the Bay Area Urban Renewal Association;
- Project will contribute property taxes of $2.4 million to Coos County and $8.8 million to the three other counties along its route;
- Upstream contributions to the U.S. economy averaging $3.9 billion in direct, indirect and induced annual outputs and creating and supporting an annual average of 20,359 new jobs;
- When the indirect and induced jobs and output are added, the average annual total contribution of the extraction industry will be 16,576 jobs and $3.2 billion in economic output. The same pattern holds for the pipeline and E&D industries, in which the averages will be 158 and 247 direct jobs, 1,461 and 906 total jobs, $107.6 million and $158.8 million in direct output and $305.7 million and $263.8 million in total output, respectively;
- U.S. Rocky Mountain states where a portion of the Jordan Cove exports will be produced will collect state gas severance taxes averaging $59.8 million a year. The job impacts range from 175 to 2,713 and averaging 1,416 jobs a year. The total economic output including indirect and induced outputs will average $147.1 million a year, and range up to $281.7 million;
- Reduction of US balance of payments by $2.1-$4.9 billion per year.[XVII]

TERMINAL	COMPANY	DATE FILED	TERM	CAPACITY[1]
Oregon LNG Terminal[XVIII] Warrenton, OR (Clatsop Co)	LNG Development Co LLC	7/16/12	25-year period commencing on the earlier date of the first export or 8 years from the date the requested authorization is granted	1.25 Bcf/d

Economic Benefits:

- Total terminal construction cost of $6.32 billion, $195 million of which are labor costs and pipeline construction cost of $485 million with $195 million in labor costs;
- From 2014-2018 construction phase will create 3,054 direct-employment jobs, regional indirect economic impact of construction phase of $2.79 billion and 2,579 jobs, and regional induced impact for construction phase of $2.9 billion and 4,805 jobs. Total regional economic impact for 5-year construction period of $12.1 billion and 10,438 jobs;
- Construction phase will generate $219.8 million in additional tax revenue for Oregon;
- Project operation will cost $285 million per year, with exports to total $6.07 billion per year and an additional $165 million from the pipeline. The impact due to indirect and induced output yields additional $124 million in Clatsop Co. and $312 million in region;
- For operations 149 jobs (129 residing in Clatsop Co.). Total value of indirect and induced labor impact for Clatsop Co. of $32 million and 496 new jobs and regionally $102.5 million and 1,591 jobs;
- For Oregon annual income tax revenue during operations phase of $809,011 in direct and $3.76 billion in indirect and induced impact ;
- For Oregon $51.9 million in annual property taxes from terminal and $4.72 million from pipeline. Washington will also receive $194 million in property taxes from pipeline;
- For Oregon $7.96 million in annual corporate tax and $263,570 for Washington;
- For Washington $700 million pipeline expansion will generate 616 direct, 570 indirect, and 669 induced jobs for total of 1,885 jobs over three-year period;
- Reduction of US balance of payments by $2.1-$4.5 billion per year.[XIX]

Corpus Christi Terminal[XX] Corpus Christi, TX	Cheniere Marketing LLC	8/31/12	22-year period commencing on the earlier date of the first export or 8 years from the date the requested authorization is granted	2.1 Bcf/d

Economic Benefits:

- Direct impact to business activity and tax receipts due to the construction and operation over 25-year term $9.9 to $11.2 billion to the regional economy, $19.6 to $23.5 billion to the Texas economy, and $25.5 to $31.1 billion to the U.S. economy;
- Total indirect benefits from natural gas exploration and production investments over 25- year term of $13.8 billion to the regional economy, $101.0 billion to the Texas economy, and $111.4 billion to the U.S. economy;
- Construction and operation over 25-year term will create 39,823-52,613 jobs nationwide, and additional 44,341 jobs indirectly generated from exploration and production;
- Economic benefits due to the construction of new chemical manufacturing facilities supported by exports from the project of $1.1 billion to the regional economy, $2.1 billion to the Texas economy, and $3.0 billion to the U.S. economy. Operation of chemical facilities over 25 years will generate $62.4 billion to the regional economy, $80.2 billion to the Texas economy, and $90.1 billion to the U.S. economy and will indirectly support the creation of 9,836 jobs during the construction of these new chemical facilities, and 34,003 permanent jobs during their operation over 25 years;
- Reduction of US balance of payments by $5.88-$9.52 billion per year.[XXI]

Gulf LNG Terminal[XXII] Pascagoula, MS (Jackson Co)	Gulf LNG Liquefaction Co LLC	8/31/12	20-year period commencing on the earlier date of the first export or 10 years from the date the requested authorization is granted	1.5 Bcf/d

Economic Benefits:

- Construction to cost $6,993.4 million, $1,473.7 million of the construction activities would be spent within a 75-mile radius circle around of Pascagoula, Mississippi and Alabama;
- Operation costs to be $328.3 million annually and customers will spend an $2,542.1 million annually on purchasing natural gas;
- Over six and a half year construction will create 1,813 full-time equivalent jobs in Jackson Co. earning $64.4 million each year on average. The estimated average annual value added of the jobs in Jackson County is $137.3 million. For the region an additional 2,889 full-time equivalent jobs, earning $102.2 million dollars each year, and adding $188.7 million each year on average;
- Operation will create 1,637 new full-time equivalent jobs in Jackson County and employee earnings and value added are $71.7 million higher and $227 million higher, respectively in Jackson Co. In the region there will be 2,678 more full-time equivalent jobs, $118.2 million more employee earnings, and $322.4 million more value added; The increase in jobs in Jackson Co. amounts to 2.5% and 0.4% in the region of the number of jobs in 2010 in each respective location;
- Natural gas purchases will create 23,684 new jobs each year, $1,553 million more employee earnings, and $3,511.7 million more value added than would have been the case absent these natural gas purchases;
- Additional Tax Revenues Generated include $16.0 million in property taxes annually during construction and Mississippi and Alabama would obtain incremental tax revenues (in addition Jackson Co. property taxes) of $138.3 million. Nationally, during construction, federal tax revenues will increase by $1,677.8 million and the state and local tax revenues will increase by $910.1 million. Once in service the facilities will pay $43.5 million in property taxes annually to Jackson Co. and Mississippi and Alabama will obtain incremental tax revenues (separate from the Jackson Co. property taxes) each year of $36.7 million. Nationally, federal tax revenues will increase by $516 million and state and local tax revenues will increase by $318.9 million;
- Reduction of US balance of payments by $5.1 billion per year.[XXIII]

TERMINAL	COMPANY	DATE FILED	TERM	CAPACITY[1]
Elba Island Terminal[XXIV] Savannah, GA (Chatham Co)	Southern LNG Company LLC	8/31/12	20-year period commencing on the earlier date of the first export or 10 years from the date the requested authorization is granted	0.5 Bcf/d

Economic Benefits:

- Construction costs between $1.4 and $2 billion, of that $187.5 million spent in Chatham, Bryan, and Effingham Counties in Georgia. Operation will be $118.6 million annually and customers will spend $820.9 million annually on purchasing natural gas;
- Over two and a half year construction project will create 807 full-time equivalent jobs in Chatham County, earning $30 million each year on average. Estimated average annual value added of the jobs in Chatham County is $64.5 million. For the region project creates additional 1,064 full-time equivalent jobs, earning $39.4 million each year, and adding $69.6 million each year on average;
- Operation of the project will create 421 new full-time equivalent jobs in Chatham County. Employee earnings and value added are $20.7 million higher and $73.2 million higher, respectively, in Chatham County. Regionally each year, there will be 563 more full-time equivalent jobs, $28.3 million more employee earnings, and $77 million more value added. The increase in the number of jobs in Chatham County amounts to 0.2% and 0.3% in the region of the number of jobs in 2010 in each respective location;
- Natural gas purchases will create, each year, 7,648 new jobs, $501.5 million more employee earnings, and $1,134 million more value added;
- Additional Tax Revenues: Project will pay an incremental $10.1 million in property taxes annually during construction. Georgia would obtain incremental tax revenues (in addition to the Chatham County property taxes) of $17.7 million. Nationally, during construction, federal tax revenues will increase by $420 million and the state and local tax revenues will increase by $226.9 million. After project goes in service, facilities will pay $10.5 million in property taxes annually to Chatham County. Georgia will obtain incremental tax revenues (separate from the Chatham County property taxes) each year of $6.3 million. Nationally, federal tax revenues will increase by $169.6 million and state and local tax revenues will increase by $104.6 million;
- Reduction of US balance of payments by $1.7 billion per year.[XXV]

CE FLNG Terminal[XVI] Plaquemines Parish, LA	CE FLNG, LLC	9/21/12	30-year period commencing on the earlier date of the first export or 10 years from the date the requested authorization is granted	1.07 Bcf/d

Economic Benefits:

- 750-1000 construction jobs will be created during construction;
- Further 200 permanent jobs (100 people assigned per vessel), 120 jobs for staff on the carriers, 50 jobs for support staff personnel, as well as various other jobs for support vessels, tugs, etc.[XVII]

ELS Terminal[XVIII] Point Comfort, TX (Calhoun Co)	Excelerate Liquefaction Solutions (LLC)	10/5/12	20-year period commencing on the earlier date of the first export or 7 years from the date the requested authorization is granted	1.38 Bcf/d

Economic Benefits:

- Direct US expenditures of $1.36 billion ($319 million within terminal region, $493 million to other parts of TX, and $522 million to rest of U.S.);
- Construction expenditures of more than $526 million generating $17.2 million in state and local taxes, as well as $32.2 million in total federal tax revenues;
- Operational impacts over 20-year term of more than $870 million generating $26 million in state and local taxes, as well as $40 million in federal taxes;
- Construction-related contribution to total US economic output of $3.32 billion, with tax revenues for state and local authorities of more than $154 million and federal tax revenues of nearly $242 million;
- Operations-related contribution to total US economic output of $2.04 billion, with state and local tax revenues in excess of $74 million and federal taxes of nearly $120 million;
- These estimates are just for Phase 1. For both Phase 1 and Phase 2 of the Project, impacts will be roughly two-thirds greater.
- During Phase 1 of the project 7,122 workers per year for three years. Phase 2 would increase the total number of jobs. Average labor income associated with each of these 7,122 jobs of $64,163. Operation-related employment of an additional 696 workers each year over project term. The average wages of these jobs falling area are higher than the construction related work – $75,833/job.
- Reduction of US balance of payments by $1.35 billion per year.[XXIX]

TERMINAL	COMPANY	DATE FILED	TERM	CAPACITY[1]
Golden Pass LNG Terminal[XXX] (located near Sabine Pass, in Jefferson Co., TX)	Golden Pass Products LLC	10/26/12	25-year period commencing on the earlier date of the first export or 7 years from the date the requested authorization is granted	2.6 Bcf/d
Economic Benefits: • $31 billion in U.S. economic gains (gross product) at local, state and national levels over the life of the project; • $10 billion investment in infrastructure to build the facility would generate estimated $20 billion in national gross product during the five-year construction phase and $11 billion in national gross product from operations, about $460 million annually for the 25-year term; • 324,000 person-years of direct and indirect work over the life of the project; • During five-year construction phase, 45,000 jobs nationally, including about 9,000 construction jobs (3,000 at peak); • Around 3,800 permanent jobs nationwide during the operations phase, including more than 200 jobs at the facility; • Cumulative tax revenues for federal, state and local governments totaling about $4.6 billion over life of project.[XXXI]				
Corpus Christi Terminal[XXXII] Corpus Christi, TX	Pangea LNG (North America) Holdings, LLC[XXXIII]	12/19/12	25-year period commencing on the earlier date of the first export or 7 years from the date the requested authorization is granted	1.09 Bcf/d
Economic Benefits: • Construction spending expected to lead to gains of more than $1.4 billion in gross product and 17,230 person-years of employment in the Corpus Christi area and approximately $2.1 billion in gross product and 25,300 person-years of employment nationally; • Once operational, benefits are anticipated to include $151 million in gross product each year for the Corpus Christi area and $236.9 million nationally, as well as 1,340 permanent jobs in the Corpus Christi area and 2,060 permanent jobs nationally; • Economic activity in the exploration and production industry would yield benefits in gross product of $307.6 million and 3,820 permanent jobs in the Corpus Christi area and $2.5 billion in gross product and 27,800 permanent jobs nationally; • Reduction of US balance of payments by $3.7-$6 billion per year.[XXXIV]				
Lake Charles Terminal[XXXV] Lake Charles, LA	Trunkline LNG Export, LLC[XXXVI]	1/10/13	25-year period commencing on the earlier date of the first export or 10 years from the date the requested authorization is granted	2.0 Bcf/d
Main Pass Energy Hub Deepwater Port[XXXVII] (located 16 miles offshore of LA)	Freeport-McMoran Energy LLC	2/22/13	30-year period commencing on the earlier date of the first export or 10 years from the date the requested authorization is granted	3.22 Bcf/d
Economic Benefits: • 20,140 direct jobs averaging $51 per hour, 33,820 indirect industry support jobs averaging $35.15 per hour and 53,960 economy wide jobs paying an average of $23.07 per hour; • 3,000 to 4,000 jobs during 5-year build phase and additional 250-500 jobs upon full operation; • Economic benefits on a similar level to those expected from other facilities.[XXXVIII]				
Sabine Pass LNG Terminal[XXXIX] Cameron Parish, LA	Sabine Pass Liquefaction, LLC	2/27/13	20-year period commencing on the earlier date of the first export or 8 years from the date the requested authorization is granted	0.28 Bcf/d
	Sabine Pass Liquefaction, LLC[XL] (owned by Cheniere Energy Partners, LP)	4/2/13	20-year period commencing on the earlier date of the first export or 8 years from the date the requested authorization is granted	0.24 Bcf/d
Economic Benefits: • This project would add a fifth and sixth LNG train to the four LNG trains previously authorized on March 8, 2013, being developed at the existing Sabine Pass LNG terminal in Cameron Parish, Louisiana. These additional LNG trains would generate investment of over 800 million in addition to economic benefits cited in the original application.[XLI]				
Venture Global LNG Terminal[XLII] (located along Calcasieu Ship Channel in Cameron Parish, LA)	Venture Global LNG, LLC	5/13/13	25-year period commencing on the earlier date of the first export or 8 years from the date the requested authorization is granted	0.67 Bcf/d
Economic Benefits: • Venture Global asserts that economic benefits detailed in other LNG applications will also result from their project.[XLIII]				
Total of all pending 20 Non-FTA Applications				**25.61 Bcf/d[XLIV]**

APPENDIX B:

International LNG Projects

COUNTRY	LNG PROJECT NAME	PLANNED STARTUP	CAPACITY *(MM TPA*)*	CAPACITY *(BCFD)*
Facilities in Construction Phase				
Algeria	Arzew GL3-Z	2015	4.7	0.63
Algeria	Skikda expansion	2013	4.6	0.61
Angola	Angola LNG	2012	5.2	0.69
Australia	AP LNG (origin)	2016	4.5	0.6
Australia	Gladstone LNG	2015	7.8	1.04
Australia	Gorgon LNG T1-3	2015	15	2
Australia	Ichthys LNG	2016	8.4	1.12
Australia	Pluto LNG	2012	4.8	0.64
Australia	Prelude FLNG	2016	3.5	0.47
Australia	QC LNG	2015	8.5	1.13
Australia	Wheatstone	2016	9	1.2
Indonesia	Donggi Senoro LNG	2015	2	0.27
PNG	PNG LNG	2015	6.6	0.88
Total in Construction Phase			**84.6**	**11.3**
Facilities in Planning Phase				
Angola	Angola LNG T2	2021	5	0.67
Australia	AP LNG (Origin) T2	2017	4.5	0.6
Australia	Arrow	2023	8	1.07
Australia	Bonaparte	2016	2	0.27
Australia	Browse	2016	3.5	0.47
Australia	Fisherman's L.	2023	1.5	0.2
Australia	Gorgon LNG T4	2018	5	0.67
Australia	Pluto LNG T2	2017	4.3	0.57
Australia	Pluto LNG T3	2018	4.3	0.57
Australia	QCLNG Train 3	2017	4.3	0.57
Australia	Scarborough	2022	6	0.8
Australia	Sunrise LNG	2017	3.5	0.47
Australia	Tassie Shoal	2020	3	0.4
Australia	Wheatstone T3	2020	4.5	0.6
Brazil	Santos FLNG	2017	3.5	0.47
Canada	BC LNG Douglas Channel	2017	2	0.27
Canada	Kitimat LNG	2017	10	1.33
Canada	Petronus Prince Rupert	2018	7.5	1
Canada	Shell LNG Canada	2018	4.4	0.59
Eq Guinea	EG LNG T2	2018	4.4	0.59
Indonesia	Abadi FLNG 1	2016	2.5	0.33
Indonesia	Abadi FLNG 2	2019	2.5	0.33

**Denotes million metric tons per annum*

COUNTRY	LNG PROJECT NAME	PLANNED STARTUP	CAPACITY *(MM TPA*)*	CAPACITY *(BCFD)*
Indonesia	Sengkang LNG	2014	2	.27
Indonesia	Sulawesi LNG	2014	2	0.27
Indonesia	Tangguh T3	2019	3.8	0.51
Iran	Iran LNG	2020	10.5	1.4
Iraq	Shell Basra FLNG T1	2022	4.5	0.6
Iraq	Shell Basra FLNG T2	2022	4.5	0.6
Malaysia	Bintulu Trrain 9	2016	2.5	0.33
Malaysia	PFLNG1 (Sarawak)	2015	1.2	0.16
Malaysia	PFLNG1 (Sabah)	2016	1.5	0.2
Mozambique	Mozambique LNG 1,2	2018	9	1.2
Mozambique	Mozambique LNG 3,4	2021	9	1.2
Mozambique	Mozambique LNG 5,6	2024	9	1.2
Mozambique	Mozambique LNG 7,8	2027	9	1.2
Mozambique	Mozambique LNG 9,10	2030	9	1.2
Nigeria	Brass LNG	2016	10	1.33
Nigeria	NLNG Train 7	2021	8.4	1.12
Nigeria	NLNG Train 8	2024	8.4	1.12
Nigeria	Olokola	2022	5	0.67
Norway	Snohvit T2	2018	4.2	0..56
PNG	Gulf LNG Interoil	2022	4	0.53
PNG	PNG LNG t3	2017	3.3	0.44
Qatar	Debottleneck	2021	12	1.6
Russia	Sakhalin 2 T3	2019	5	0.67
Russia	Shtokman (Ph 1)	2022	7.5	1
Russia	Shtokman (other)	2025	12.5	1.67
Russia	Vladivostok	2018	10	1.33
Russia	Yamal LNG	2018	16.5	2.2
Tanzania	Tanzania LNG	2019	8	1.07
Total in Planning Phase			**294.1**	**39.2**
Total in Construction and Planning Phases			**378.7**	**50.5**

**Denotes million metric tons per annum*

Source: "U.S. LNG Exports: Impacts on Energy Markets and the Economy," May 2013: http://www.api.org/news-and-media/news/newsitems/2013/may-2013/~/media/Files/Policy/LNG-Exports/API-LNG-Export-Report-by-ICF.pdf

REFERENCES

[1] "Should Free Trade Principles Apply to U.S. Exports of Liquefied Natural Gas?", April 2013, http://accf.org/news/publication/should-free-trade-principles-apply-to-u-s-exports-of-liquefied-natural-gas

[2] For example, "Macroeconomic Impacts of LNG Exports from the United States," Dec 2012: http://energy.gov/sites/prod/files/2013/04/f0/nera_lng_report.pdf; "Made in America: The economic impact of LNG exports from the United States," 2011: http://www.deloitte.com/view/en_US/us/Services/consulting/9f70dd1cc9324310VgnVCM1000001a56f00aRCRD.htm; "Liquid Markets: Assessing the Case for U.S. Exports of Liquefied Natural Gas," May 2012: http://www.brookings.edu/research/reports/2012/05/02-lng-exports-ebinger; "The Benefits of Natural Gas Production and Exports for U.S. Small Businesses," May 2013: http://www.sbecouncil.org/wp-content/uploads/2013/05/BenefitsofNatGasSBECouncil.pdf; "U.S. LNG Exports: Impacts on Energy Markets and the Economy," May 2013: http://www.api.org/news-and-media/news/newsitems/2013/may-2013/~/media/Files/Policy/LNG-Exports/API-LNG-Export-Report-by-ICF.pdf; "Liquefied Natural Gas Exports: An Opportunity for America" http://www.piie.com/publications/pb/pb13-6.pdf

[3] NERA, on behalf of DOE, "Macroeconomic impacts of LNG Exports from the U.S.", December 2012, page 6

[4] ICF, page 2.

[5] Ibid, page 2.

[6] Ibid, page 11.

[7] Small Business & Entrepreneurship Council (SBEC), "The Benefits of Natural Gas Production and Exports for U.S. Small Businesses," May 2013, page 3 http://www.sbecouncil.org/wp-content/uploads/2013/05/BenefitsofNatGasSBECouncil.pdf;

[8] Ibid

[9] Ibid, pages 2–3.

[10] "Should Free Trade Principles Apply to U.S. Exports of Liquefied Natural Gas?", Page 4, http://accf.org/news/publication/should-free-trade-principles-apply-to-u-s-exports-of-liquefied-natural-gas

Appendix A: LNG Export Application Details including Individual Project Economic Benefits

I See http://www.fossil.energy.gov/programs/gasregulation/authorizations/2011_applications/11_59_lng.pdf.

II See Application of Lake Charles Exports, LLC For Long-Term Authorization To Export Liquefied Natural Gas (http://energy.gov/sites/prod/files/2013/06/f1/summary_lng_applications.pdf).

III Id. at 22-23.

IV See Application Of Dominion Cove Point LNG, LP For Long-Term Authorization To Export Liquefied Natural Gas (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2011_applications/11-128-LNG.pdf).

V Id. at 15-18.

VI See Application Of Carib Energy (USA) LLC For Long-Term Authorization To Export Liquefied Natural Gas To Non-Free-Trade Agreement Countries (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2011_applications/11_141_lng.pdf).

VII FTA- Applications to export to free trade agreement (FTA) countries. The Natural Gas Act, as amended, has deemed FTA exports to be in the public interest and applications shall be authorized without modification or delay.

VIII Non-FTA applications require DOE to post a notice of application in the Federal Register for comments, protests and motions to intervene, and to evaluate the application to make a public interest consistency determination.

IX Id. at 14.

X See Application Of Freeport LNG Expansion, L.P. And FLNG Liquefaction, LLC For Long-Term Authorization To Export Liquefied Natural Gas To Non-Free Trade Agreement Countries (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2011_applications/11_161_lngb.pdf).

XI Id. at 28-35.

XII See Application of Cameron LNG For Long-Term, Multi Contract Authorization To Export Liquefied Natural Gas To Non-Free Trade Agreement Countries (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2011_applications/11_162_lng.pdf).

XIII Id. at 22-27.

XIV See Application Of Gulf Coast LNG Exports, LLC For Long-Term Authorization To Export Liquefied Natural Gas (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_05_lng.pdf).

XV Id. at 23-28.

XVI See Application For Long-Term Authorization To Export Liquefied Natural Gas To Non-Free Trade Agreement Nations (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_32_LNG_Application.pdf).

XVII Id. at 19-26.

XVIII See Application For Long-Term Authorization To Export Liquefied Natural Gas To Non-Free Trade Agreement Nations (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_77_lngamd.pdf).

XIX Id. at 27-35.

[xx] See Application Of Cheniere Marketing, LLC For Long-Term Authorization To Export Liquefied Natural Gas To Non-Free Trade Countries (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_97_lng.pdf).

[xxi] Id. at 34-45.

[xxii] See Application Of Gulf LNG Liquefaction Company, LLC For Long-Term, Multi-Contract Authorization To Export Liquefied Natural Gas To Non-Free Trade Agreement Countries (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_101_lng.pdf).

[xxiii] Id. at 27-32.

[xxiv] See Application Of Southern LNG Company, L.L.C. For Long-Term, Multi-Contract Authorization To Export Liquefied Natural Gas To Non-Free Trade Agreement Countries (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_100_lng.pdf).

[xxv] Id. at 28-33.

[xxvi] See Application Of CE FLNG, LLC For Long-Term Multi-Contract Authorizations To Export Liquefied Natural Gas To Free Trade Agreement And Non-Free Trade Agreement Nations (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_123lng.pdf).

[xxvii] Id. at 14-16.

[xxviii] See Application Of Excelerate Liquefaction Solutions, LLC For Long-Term, Multi-Contract Authorization To Export Liquefied Natural Gas To Non-Free Trade Agreement Countries (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_146_lng_nfta.pdf).

[xxix] Id. at 27-32.

[xxx] See Application of Golden Pass Products LLC For Long-Term Authorization To Export Liquefied Natural Gas To Non-Free Trade Agreement Countries (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_156_lng.pdf).

[xxxi] Id. at 25-36.

[xxxii] See Application Of Cheniere Marketing, LLC For Long-Term Authorization To Export Liquefied Natural Gas To Non-Free Trade Countries (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_97_lng.pdf).

[xxxiii] See Application For Long –Term Multi-Contract Authorization To Export Liquefied Natural Gas To Non-Free Trade Agreement Countries (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_184_lng.pdf).

[xxxiv] Id. at 33-42.

[xxxv] See Application of Lake Charles Exports, LLC For Long-Term Authorization To Export Liquefied Natural Gas (http://energy.gov/sites/prod/files/2013/06/f1/summary_lng_applications.pdf).

[xxxvi] See Application of Trunkline LNG Export, LLC For Long-Term Authorization To Export Liquefied Natural Gas (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2013_applications/13_04_lnga_fta.pdf); Lake Charles Exports, LLC (LCE) and Trunkline LNG Export, LLC (TLNG), the owner of the Lake Charles Terminal, have both filed an application to export up to 2.0 Bcf/d of LNG from the Lake Charles Terminal. The total quantity of combined exports requested between LCE and TLNG does not exceed 2.0 Bcf/d (i.e., both requests are not additive and only 2.0 Bcf/d is included in the bottom-line total of Non-FTA applications).

[xxxvii] See Application Of Freeport-McMoran EnergyLLC For Long-Term, Multi-Contract Authorization To Export Liquefied Natural Gas (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2013_applications/13_26_lng_fta.pdf).

[xxxviii] Id. at 20-25.

[xxxix] See Application of Sabine Pass Liquefaction, LLC For Long-Term Authorization To Export Liquefied Natural Gas (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2013_applications/13_30_lng2.pdf).

[xl] See Application of Sabine Pass Liquefaction, LLC For Long-Term Authorization To Export Liquefied Natural Gas (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2013_applications/13_42_lng.pdf).

[xli] See Sabine Pass Liquefaction, LLC estimates that manufacturing and supply of the required materials result in an investment of over $400 million per LNG train. Application of Sabine Pass Liquefaction, LLC For Long-Term Authorization To Export Liquefied Natural Gas, P. 54. (http://www.fossil.energy.gov/programs/gasregulation/authorizations/Orders_Issued_2010/10_111sabine.pdf).

[xlii] See Application For Long-Term Blanket Authorization To Export Liquefied Natural Gas To Free Trade And Non-Free Trade Agreement Countries (http://www.fossil.energy.gov/programs/gasregulation/authorizations/2013_applications/13_69_lng.pdf).

[xliii] Id. at 17-18.

[xliv] Total of all Non-FTA applications received (29.21 Bcf/d) less the total of the approved applications of Sabine Pass Liquefaction, LLC (2.2 Bcf/d) and Freeport LNG Expansion, LP (1.4 Bcf/d).