UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

In The Matter Of:	)	
	)	
SABINE PASS LIQUEFACTION, LLC	)	Docket No. 10 - ___ - LNG
	)	

APPLICATION OF SABINE PASS LIQUEFACTION, LLC FOR LONG-TERM AUTHORIZATION TO EXPORT LIQUEFIED NATURAL GAS

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Pursuant to Section 3 of the Natural Gas Act ("NGA")[1] and Part 590 of the Department of Energy's ("DOE") regulations,[2] Sabine Pass Liquefaction, LLC ("Sabine Pass") hereby requests that DOE, Office of Fossil Energy ("FE"), grant long-term, multi-contract authorization for Sabine Pass to engage in exports of up to 16 million metric tons per annum ("mtpa") of liquefied natural gas ("LNG")[3] for a 20-year period, commencing the earlier of the date of first export or five years from the date of issuance of the authorization requested herein. Sabine Pass is seeking authorization to export LNG from the Sabine Pass LNG Terminal[4] to any country with which the United States does not have a free trade agreement ("FTA") requiring the national treatment for trade in natural gas and LNG that has, or in the future develops, the capacity to import LNG and with which trade is not prohibited by U.S. law or policy.

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1 Natural Gas Act, 15 U.S.C. § 717b (2010).

2 10 C.F.R. Part 590 (2010).

3 Sixteen mtpa of LNG is the equivalent of approximately 2.2 billion cubic feet per day ("Bcf/d") on average over a one year period or approximately 2,310,000 decatherms per day of energy equivalent. Actual annual export will vary due to ambient temperatures, equipment availability and performance, as well as commercial drivers.

4 The Sabine Pass LNG Terminal is an existing LNG import facility located in Cameron Parish, Louisiana that is owned by Sabine Pass's affiliate, Sabine Pass LNG, L.P. ("Sabine Pass LNG").

This Application is for the second part of the two-phased export authorization sought by Sabine Pass in conjunction with the development of the Sabine Pass Liquefaction Project.[5] Sabine Pass filed an application for the first part of the two-phased export authorization on August 11, 2010 in Docket No. 10-85-LNG. In that application, Sabine Pass sought long-term, multi-contract authorization to engage in exports of up 16 mtpa of LNG to any nation that currently has, or develops, the capacity to import LNG and with which the United States currently has, or in the future enters into, an FTA requiring the national treatment for trade in natural gas and LNG ("FTA Countries"). On September 7, 2010, FE granted Sabine Pass authorization to export domestically produced LNG to FTA Countries. Through this Application, Sabine Pass seeks long-term, multi-contract approval to export LNG to applicable countries not otherwise authorized pursuant to DOE/FE Order No. 2833.[6] Those countries are categorized, for purposes of this Application, as countries that hold membership in the World Trade Organization ("WTO Countries")[7] and those countries that do not hold membership in the WTO ("non-WTO Countries").

Sabine Pass respectfully requests that FE review its request for authorization to export LNG to WTO Countries under the same standard of review applicable to exports to FTA Countries found in the Energy Policy Act of 1992.[8] Pursuant to that Act, which amended Section 3 of the NGA, applications to export LNG from or to nations with which the United

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5 The Liquefaction Project is being developed to liquefy domestic supplies of natural gas delivered to the Sabine Pass LNG Terminal for export to foreign markets.

6 *Sabine Pass Liquefaction, LLC*, FE Docket No. 10-85-LNG, Order No. 2833 (Sept. 7, 2010).

7 As discussed further herein, the WTO is the only international organization dealing with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably, and freely as possible. At the center of the WTO is its multilateral trading system that functions by seeking consensus between member nations. The majority of the world's trading nations, including the United States, are WTO Countries. A list of WTO Countries is included in Exhibit B.

8 Pub. L. No. 102-486, §201, 106 Stat. 2776, 2866 (1992) (codified as amended at 15 U.S.C. § 717b(c)).

States has an FTA are deemed to be in the public interest and must be granted without modification or delay.[9] Current U.S. trade policy, as well as international obligations under the WTO, require that FE authorize the export of LNG to WTO Countries and prohibit FE from restricting exports through discretionary or non-automatic authorization requirements, such as the public interest standard of Section 3 of the NGA.

Sabine Pass also is seeking export authorization to all non-WTO Countries that have, or in the future develop, the capacity to import LNG and with which trade is not prohibited by U.S. law or policy. Under applicable law and precedent, this aspect of Sabine Pass's Application must be reviewed pursuant to the public interest standard of Section 3 of the NGA, which creates a statutory presumption in favor of approval of exports.[10]

Sabine Pass respectfully requests that the DOE/FE issue (i) an order pursuant to the Energy Policy Act of 1992's standard by no later than September 22, 2010 for authorization to export LNG to WTO Countries; and (ii) an order pursuant to the NGA's Section 3 public interest standard on an expedited basis by no later than December 2010 for authorization to export LNG to non-WTO Countries.

In support of its Application, Sabine Pass states as follows:

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[9] *See id*. *See also Sabine Pass Liquefaction, LLC*, FE Docket No. 10-85-LNG, Order No. 2833 (Sept. 7, 2010); *Phibro LLC*, FE Docket No. 10-60-NG, Order No. 2803, at 2 (June 16, 2010); *Applied LNG Technologies USA, L.L.C.*, FE Docket No. 10-03-LNG, Order No. 2747, at 2 (Jan. 29, 2010).

[10] *See* 15 U.S.C. §717b(a). In *Panhandle Producers and Royalty Owners Ass'n v. ERA*, 822 F.2d 1105, 1111 (D.C. Circ. 1987) [hereinafter *PPROA v. ERA*], the D.C. Circuit Court of Appeals found that Section 3 of the NGA "requires an affirmative showing of inconsistency with the public interest to deny an application" and that a "presumption favoring … authorization … is completely consistent with, if not mandated by, the statutory directive." *See also Indep. Petroleum Asso'n v. ERA*, 870 F.2d 168, 172 (5th Cir. 1989) (confirming that the burden of proof falls on the party challenging a Section 3 application as inconsistent with the public interest); *Panhandle and Royalty Owners Asso'n v. ERA*, 847 F.2d 1168, 1176 (5th Cir. 1988) (agreeing with the D.C. Circuit holding in *PPROA v. ERA*).

I. DESCRIPTION OF THE APPLICANT

The exact legal name of Sabine Pass is Sabine Pass Liquefaction, LLC. Sabine Pass, which has its principal place of business in Houston, Texas, is an indirect subsidiary of Cheniere Energy, Inc. ("Cheniere Energy"). Cheniere Energy is a Delaware corporation with its primary place of business in Houston, Texas. Cheniere Energy is a developer of LNG terminals and natural gas pipelines on the Gulf Coast, including the Sabine Pass LNG Terminal. Sabine Pass is authorized to do business in the States of Texas and Louisiana.

II. COMMUNICATIONS AND CORRESPONDENCE

All correspondence and communications concerning this Application, including all service of pleadings and notices, should be directed to the following persons:[11]

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Pursuant to Section 590.103(b) of the DOE regulations,[12] Sabine Pass hereby certifies that the persons listed above and the undersigned are the duly authorized representatives of Sabine Pass.

III. EXECUTIVE SUMMARY

Sabine Pass is herein seeking multi-contract, long-term authorization to export domestic natural gas supplies as LNG to those countries which both have, or in the future develop, the

[11] Sabine Pass requests waiver of Section 590.202(a) of DOE's regulations, 10 C.F.R. § 590.202(a), to the extent necessary to include outside counsel on the official service list in this proceeding.

[12] 10 C.F.R. § 590.103(b).

capacity to import LNG and with which trade is not prohibited by U.S. law or policy. Those countries for which export authorization is requested herein fall into two categories: (i) WTO Countries (which must be reviewed pursuant to the standard articulated in the Energy Policy Act of 1992, *i.e.*, without modification or delay); and (ii) non-WTO Countries (which must be reviewed pursuant to the public interest standard articulated in Section 3 of the NGA).

It would be inconsistent with U.S. obligations under WTO Agreements[13] to restrict exports of natural gas or LNG to other WTO Countries except in certain narrow circumstances because the U.S. has undertaken commitments not to restrict such exports to other WTO Countries, whether directly or indirectly, through quantitative measures or other administrative measures. It would be a further violation of the most-favored-nation ("MFN") obligations under WTO Agreements for the U.S. to grant applications for exports to countries with which the U.S. has FTAs while denying applications for exports to other WTO Countries with which the United States does not have separate FTAs. Like existing FTAs to which the United States is a party and that provide for the national treatment for trade in natural gas and LNG, the WTO Agreements provide all WTO Countries MFN status as well as national treatment of each others' goods and services. The U.S. has committed in its schedule of commitments to afford MFN treatment to all WTO Countries with respect to imports and exports of all products not

[13] The WTO oversees about 60 different agreements which have the status of international legal texts (collectively, "WTO Agreements"). Foremost is the Agreement Establishing the WTO ("WTO Agreement"), which serves as an umbrella agreement. Annexed to the WTO Agreement are the agreements on goods, services and intellectual property, dispute resolution, trade policy review mechanism and the plurilateral agreements. Of relevance to the export contemplated in this Application is Annex 1A to the WTO Agreement, which consists of the Multilateral Agreements on Trade in Goods, which includes the General Agreement on Tariffs and Trade ("GATT"). GATT follows a three part outline: (i) broad principles (such as trade liberalization and the permitted exceptions); (ii) extra agreements and annexes dealing with the special requirements of specific sectors or issues; and (iii) detailed and lengthy schedules of commitments made by individual countries allowing specific foreign products access to their markets (these take the form of binding commitments on tariffs for goods in general). *See* http://www.wto.int/. *See also* Exhibit B, Stewart and Stewart, *A Review of Int'l Trade-Related Legal Obligations and Policy Considerations Governing U.S. Export Licenses for Liquefied Natural Gas* (Aug. 23, 2010) [hereinafter *A Review of Int'l Trade-Related Legal Obligations*].

specifically exempted from such commitments, and LNG is not exempted.[14] Thus, it is a logical corollary that for purposes of evaluating the export of LNG to WTO Countries, those countries must be treated in the same manner as FTA Countries. For this reason, Sabine Pass asks that FE grant its request for export authorization to WTO Countries without modification or delay, rather than awaiting completion of the more detailed public interest analysis required for the grant of export authorization to non-WTO Countries.

Notwithstanding the foregoing, Sabine Pass submits that the export authorization sought herein (both for WTO Countries and non-WTO Countries) is not inconsistent with the public interest. U.S. international trade law and general U.S. trade policy strongly support exportation of domestic natural gas. Moreover, DOE has a longstanding policy that the public interest is best served by the principles of free trade and limited government involvement, which supports exportation consistent with market demands. The Sabine Pass Liquefaction Project will make the Sabine Pass LNG Terminal the first LNG facility in the world designed to be bi-directional (*i.e.*, can both liquefy for export, and import to regasify, simultaneously). In this regard, operation of the Sabine Pass LNG Terminal and Liquefaction Project will be strictly driven by market forces.

The current supply/demand balance of natural gas in the United States clearly evidences that Sabine Pass's request for authorization to export domestic natural gas production is in the public interest. Natural gas production in the United States has been steadily increasing in recent years while domestic demand since 2008 has experienced a significant decrease. In many instances, low market prices have resulted in producers laying down rigs, deferring completion of drilled wells, and shelving plans for future investment in natural gas producing basins.

[14] *See* Marrakesh Protocol to the General Agreement on Tariffs and Trade 1994, Schedule XX - United States of America, Part I, Section II, 54 at HTS 2711.11.00 "Liquefied Natural Gas".

Market price volatility also has forced the periodic shut-in of actively producing wells in marginal gas-producing fields. It stands to reason that the ability to export domestic gas as LNG will greatly expand the market scope and access for domestic natural gas producers and, thus, serve to encourage domestic production at times when U.S. market prices might not otherwise do so. The flexibility offered to capacity holders in the Liquefaction Project will allow them to reduce their export nominations if market prices indicate that the natural gas is needed in the United States, and to fully reverse the capacity into import mode to supply gas during times of domestic need. Such reduced export quantities and/or import quantities would become available to supply domestic markets and thereby serve to moderate U.S. gas price volatility and keep prices to U.S. natural gas consumers at reasonable levels both during periods of weak domestic demand (*i.e.*, when the Terminal would operate in export mode) and during periods of high domestic demand (*i.e.*, when the Terminal would operate in import mode).

Furthermore, the current Administration's National Export Initiative ("NEI") demonstrates an international trade policy objective toward increasing exports and promoting U.S. products overseas to benefit the domestic economy.[15] The Sabine Pass Liquefaction Project has received significant support from the Louisiana federal and state delegations, as well as local government, because of its quantifiable benefits to both the U.S. and Louisiana economies.[16]

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[15] The NEI is designed to reduce barriers to trade and promote U.S. exports. The goal is to double U.S. exports over the next five years to create jobs and boost the economy. *See* Exec. Order No. 13,534, 75 Fed. Reg. 12,433 (Mar. 16, 2010), *available at* http://www.whitehouse.gov/the-press-office/executive-order-national-export-initiative ("A critical component of stimulating economic growth in the United States is ensuring that U.S. businesses can actively participate in international markets by increasing their exports of goods, services, and agricultural products. Improved export performance will, in turn, create good high-paying jobs.").

[16] U.S. Senators Mary Landrieu and David Vitter, as well as U.S. Representatives Rodney Alexander, Charles Boustany Jr., MD, Charlie Melancon, Steve Scalise, Bill Cassidy, MD, John Fleming, MD and Anh Cao have expressed their support for the Liquefaction Project citing both the NEI and the significant new employment and investment opportunities for the Northern Louisiana region to be provided by the Liquefaction Project. Similarly, Lieutenant Governor Scott Angelle, Louisiana State Senators Willie Mount and Dan Morrish, Louisiana State Representatives Mike Danahay, A.B. Franklin, Brett Geymann, John Guinn, Chuck Kleckley and Jonathan Perry have expressed support for the Liquefaction Project. At the local level, the Cameron Parish

Approximately 3,000 jobs will be created directly through the design, engineering and construction of the Liquefaction Project, which translates into approximately $1 billion in wages to U.S. workers. Moreover, the national economy will benefit from the Project's role in supporting the exploration and production ("E&P") chain for natural gas extraction. This indirect stimulus will have far reaching economic impacts due to the wages, taxes and lease payments involved in the natural gas supply chain. This economic activity, in turn, will ripple through the U.S. economy, causing additional economic activity and benefits.

Finally, the Sabine Pass Liquefaction Project is uniquely positioned to advance the security interests of the U.S. and its allies through a more proactive role in the international natural gas market. The exportation of LNG not only will have a direct beneficial impact on the U.S. trade deficit, but also will enhance the diversity of global natural gas supply, reduce the reliance of the U.S. on international petroleum markets, promote economic development in emerging economies, deepen ties with longstanding allies, and advance on a global level the principles of liberalized markets.

More specifically, the Sabine Pass Liquefaction Project will have two beneficial impacts on the U.S. trade deficit. The direct value of the exported LNG product at current prices is estimated to be $5 billion on an annual basis.[17] Furthermore, the expansion of U.S. natural gas productive capacity through LNG exports will spur additional production of hydrocarbon liquids such as ethane, propane and condensate derived from field lease separators and natural gas processing plants in association with natural gas field development. Export authorization will enable an estimated 46.7 million barrels per year, or 128,000 barrels per day ("b/d"), of

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Police Jury and the West Cameron Port Harbor & Terminal District support the Liquefaction Project as it will result in significant new employment and investment opportunities for the Cameron Parish community. *See* Exhibit C, Letters of Support.

[17] Calculation assumes average exports of 2 Bcf/d at gas price of approximately $5.50, plus liquefaction costs.

additional natural gas liquids ("NGLs") to be produced from liquids-rich gas formations in the Gulf Coast region.[18] These additional NGLs will be available either for export or to reduce current U.S. oil product imports, yielding an estimated $1.7 billion improvement to the U.S. balance of trade.[19]

The export of approximately 16 mtpa of LNG in tandem with increased U.S. petroleum product production therefore will yield an estimated $6.7 billion net improvement to the U.S. balance of trade. According to the United States Department of Commerce, Bureau of Economic Analysis, in 2009, the total U.S. trade deficit was $380.7 billion, more than half of which was the direct result of a negative balance of trade in petroleum products.[20] Given the substantial impact the United States's negative trade balance in petroleum products has on its overall trade deficit and balance of payments, approving Sabine Pass's request to export LNG will have a significant positive impact on reducing that deficit. Moreover, LNG exports will directly support initiatives underway by the current Administration to advance investment in energy infrastructure in Caribbean and Central/South American nations in an effort to promote energy efficiency, renewable energy, cleaner fossil fuels, and modernized energy infrastructure.

In sum, the export of domestic natural gas supplies as LNG, as proposed herein by Sabine Pass, will result in tangible benefits for the State of Louisiana, the Gulf Coast region and the broader interest of the U.S., including but not limited to:

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[18] *See* Exhibit E, Advanced Resources International, Inc. ("ARI"), *Domestic Hydrocarbon Liquids Production from Gas Shales and Other Unconventional Gas Resources*, Aug. 27, 2010, at 6 [hereinafter *ARI Liquids Report*].

[19] This figure is based on estimates of feed gas composition of 1,092 Btu/Scf and 2.31 Gal/Mcf as representative of 2 Bcf/d of additional gas produced in Texas, Oklahoma and Louisiana. NGL composition is assumed to be equal to 1.67 Gal/Mcf, and condensate equal to 0.42 Gal/Mcf. Valuations are based on forward propane, ethane, butane and natural gasoline product pricing in January 2011 through December 2011 at Mt. Belvieu as of August 18, 2010.

[20] *See* Bureau of Economic Analysis ("BEA"), *2009 Trade Gap is $380.7 Billion*, Feb. 10, 2010, http://www.bea.gov/newsreleases/international/trade/2010/pdf/trad1209annual_fax.pdf.

- Stimulate the Louisiana state, regional and national economies through job creation, increased economic activity and tax revenues, including the direct creation or continuation of approximately 3,000 engineering and construction jobs during the design and construction of the Liquefaction Project and, indirectly, 30,000-50,000 permanent jobs in the E&P sector;

- Promote domestic production of petroleum and reduced reliance on foreign sources of oil;

- Further the President's NEI, by improving U.S. balance of payments through the exportation of approximately 2 Bcf/d of natural gas valued at approximately $5 billion and the displacement of $1.7 billion in NGL imports;

- Raise domestic natural gas productive capacity and promote stability in domestic natural gas pricing;

- Promote the liberalization of global natural gas trade through the fostering of a global, liquid, natural gas market;

- Advance national security and the security of U.S. allies through diversification of global natural gas supplies; and

- Increase economic trade and ties with foreign nations, including neighboring trade partners in the Americas, and displace environmentally damaging fuels in those countries.

IV. BACKGROUND

Through this Application, Sabine Pass seeks the second part of the two-phased export authorization sought in conjunction with the development of the Sabine Pass Liquefaction Project. Sabine Pass currently holds long-term, multi-contract authorization to export up to 16 mtpa of domestically produced LNG volumes to FTA Countries.[21] The term of the authorization granted in Order No. 2833 is for 30 years, commencing on the date of first export, with such first export to occur no later than ten years following issuance of such authorization.

[21] *See supra* note 6. At the time that Order No. 2833 was issued, and as of the date of this Application, the countries with an existing FTA in place requiring the national treatment for trade in natural gas and LNG include: Australia, Bahrain, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Chile, Morocco, Canada, Mexico, Oman, Peru, Singapore, Israel and Jordan.

As indicated above, the Liquefaction Project is being developed to liquefy domestic supplies of natural gas for export to foreign markets. The Liquefaction Project will be located at the existing Sabine Pass LNG Terminal in Cameron Parish, Louisiana, which is owned by Sabine Pass LNG. The Federal Energy Regulatory Commission ("FERC") authorized Sabine Pass LNG to site, construct and operate the Sabine Pass LNG Terminal as an LNG import, storage and vaporization terminal with total send-out capacity of 4 Bcf/d in Docket Nos. CP04-47-000 and CP05-396-000.[22] Phase I of the Sabine Pass LNG Terminal, consisting of 2.6 Bcf/d of send-out capacity, was placed in commercial operation in 2008. Phase II, consisting of an additional 1.4 Bcf/d of capacity, was placed in commercial operation in 2009. In addition, FERC authorized Sabine Pass LNG to operate the Sabine Pass LNG Terminal for the additional purpose of exporting foreign-sourced LNG in Docket Nos. CP04-47-001 and CP05-396-001.[23]

The Sabine Pass LNG Terminal, via its direct pipeline interconnections, including an interconnect with the Creole Trail Pipeline system, is able to deliver natural gas to ten interstate pipelines and one intrastate pipeline system.[24] The Creole Trail Pipeline system is owned by Sabine Pass's affiliate, Cheniere Creole Trail Pipeline, L.P. ("Creole Trail Pipeline"). Creole Trail Pipeline was issued a certificate of public convenience and necessity by FERC for the Creole Trail Pipeline system on June 15, 2006 in Docket No. CP05-357-000, as amended.[25] As

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[22] *See Sabine Pass LNG, L.P., Order Granting Authority Under Section 3 of the Natural Gas Act and Issuing Certificates*, 109 FERC ¶ 61,324 (2004) (Phase I); and *Sabine Pass LNG, L.P., Order Granting Authority Under Section 3 of the Natural Gas Act*, 115 FERC ¶ 61,330 (2006) (Phase II).

[23] *See Sabine Pass LNG, L.P., Order Amending Section 3 Authorizations*, 127 FERC ¶ 61,200 (2009).

[24] Downstream interstate pipeline systems connected to the Sabine Pass LNG Terminal include the following: Florida Gas Transmission Company, LLC ("Florida Gas"), Tennessee Gas Pipeline Company ("Tennessee Gas"), Trunkline Gas Company ("Trunkline"), Texas Gas Transmission, LLC ("Texas Gas"), Texas Eastern Transmission, LP ("Texas Eastern"), ANR Pipeline Company ("ANR"), Natural Gas Pipeline Company of America ("Natural"), Columbia Gulf Transmission Company ("Columbia Gulf"), Sabine Pipe Line, LLC and Transcontinental Gas Pipe Line Company, LLC ("Transco"). Intrastate pipeline systems connected to the Sabine Pass LNG Terminal include Bridgeline Holdings, LP.

[25] *Creole Trail LNG, L.P. and Cheniere Creole Trail Pipeline, L.P.*, 115 FERC ¶ 61,331 (2006).

constructed, the Creole Trail Pipeline system consists of approximately 94 miles of 42-inch-diameter pipeline. It currently terminates in Gillis, Louisiana.[26]

Sabine Pass and Sabine Pass LNG currently are undergoing the FERC's mandatory National Environmental Policy Act ("NEPA")[27] pre-filing review process for the Sabine Pass Liquefaction Project in Docket No. PF10-24-000.[28] Sabine Pass and Sabine Pass LNG anticipate filing a formal application pursuant to Section 3 of the NGA no later than February 2011 and will respectfully request that FERC issue an Order authorizing the siting, construction and operation of the Liquefaction Project no later than December 2011. Sabine Pass and Sabine Pass LNG anticipate filing with FERC a request for authorization to commence construction of the Liquefaction Project by January 2012, for an in-service date in 2015.

V. AUTHORIZATION REQUESTED

Sabine Pass requests long-term, multi-contract authorization to export up to 16 mtpa of domestically produced LNG from the Sabine Pass LNG Terminal to any country with which the United States does not have an FTA requiring the national treatment for trade in natural gas and LNG that has, or in the future develops, the capacity to import LNG and with which trade is not prohibited by U.S. law or policy.[29] Sabine Pass requests this authorization for a 20-year term commencing the earlier of the date of first export or five years from the date of issuance of the authorization requested herein.

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[26] The remaining portions of the Creole Trail Pipeline system (Segments 3B and 3C), which will extend to Eunice, Louisiana, and the proposed Creole Trail LNG Terminal facilities (authorized by FERC in Docket No. CP05-360-000) have not yet been constructed.

[27] 42 U.S.C. § 4321 (1970).

[28] FERC initiated the NEPA pre-filing review process on August 4, 2010.

[29] In any given year, Sabine Pass expects to export a maximum of 16 mtpa (or the equivalent of 2.2 Bcf/d over a year) of domestically produced LNG from the Sabine Pass LNG Terminal. Such export may be to FTA Countries pursuant to the authorization granted in Order No. 2833 or to WTO/non-WTO Countries with which trade is not prohibited by U.S. law or policy pursuant to the authorization sought herein. In this regard, 16 mtpa is the cumulative volume that will be exported from the Sabine Pass LNG Terminal annually.

Those countries for which export authorization is requested herein fall into two categories: (i) WTO Countries (which must be reviewed pursuant to the standard articulated in the Energy Policy Act of 1992, *i.e.*, without modification or delay); and (ii) non-WTO Countries (which must be reviewed pursuant to the public interest standard articulated in Section 3 of the NGA). Sabine Pass respectfully asks that FE grant its request for export authorization to WTO Countries without modification or delay, rather than awaiting completion of the more detailed public interest analysis required for the grant of export authorization to non-WTO Countries.

Sabine Pass requests authorization to export LNG acting on its own behalf or as agent for others. In this regard, Sabine Pass envisions that in most instances, when engaging in liquefaction and export transactions, it will take title to the gas at a point upstream of the Sabine Pass LNG Terminal.[30] Once the gas has been processed, title to the gas will be transferred back to the customer at the outlet of the Liquefaction Project at the flange of the LNG vessel as the LNG is loaded for export. In certain other instances, a customer may prefer to retain title to its gas as the gas is processed and exported, and make other arrangements to satisfy its fuel gas requirements. In this instance, since Sabine Pass will not hold title to the gas at the time of export, it will act as agent for the owner of the gas in the export transaction.

Sabine Pass does not contemplate entering into any long-term gas supply or long-term export contracts in conjunction with the LNG export authorization requested herein. Rather, Sabine Pass will enter into LNG Processing Service agreements, as discussed in Section VIII below. These LNG Processing Service agreements will grant to each customer, on a monthly

[30] Title will pass to Sabine Pass to help facilitate satisfaction of customer fuel gas requirements for processing operations and to provide Sabine Pass the commercial flexibility to buy and sell gas to accommodate production variances under processing agreements during the month. Moreover, to the extent Sabine Pass must obtain gas supplies in the market for a customer's account, under the FERC's "shipper must have title" policy, the entity that holds title to the gas also must be the capacity holder on the interstate pipeline at the time the gas is transported. Accordingly, to facilitate delivery of such gas supplies to the Project, Sabine Pass will hold title to the gas and will enter into transportation arrangements as required.

basis, the right to make nominations to (i) liquefy and load cargoes for export; (ii) nominate the delivery of cargoes to Sabine Pass for import and regasification, or (iii) elect not to load any cargoes. The LNG Processing Service agreements essentially will serve a similar function to that traditionally served by long-term supply agreements in demonstrating the security of the supply underlying a request for long-term export authorization. Accordingly, Sabine Pass will file these agreements in lieu of traditional supply contracts following execution of such agreements.[31]

In this regard, Sabine Pass is seeking waiver of certain elements of Section 590.202(b) of the DOE regulations to the extent these regulations require information concerning the source and security of the natural gas supply to be exported and other transaction-specific information. As discussed in Section VII herein, the market for natural gas supplies in the United States is vast and liquid. It has evolved to a point where buyers and sellers no longer enter into the types of long-term gas purchase and sales arrangements that were common at the time the DOE regulations requiring the filing of transaction-specific information were promulgated. Accordingly, granting waiver of the requirement to identify the source and security of the particular gas supply underlying these transactions is appropriate in light of current market circumstances and practices.

Finally, Sabine Pass requests that, pursuant to Section 590.402 of the DOE regulations,[32] the Assistant Secretary issue a conditional order authorizing the export of domestically produced LNG as requested herein, conditioned on completion of the environmental review of the

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[31] *See, e.g., Yukon Pac. Corp.*, ERA Docket No. 87-68-LNG, Order No. 350 (Nov. 16, 1989); *Distrigas Corp.*, FE Docket No. 95-100-LNG, Order No. 1115, at 3 (Nov. 7, 1995) (allowing contracts to be subsequently filed following grant of DOE export authorization).

[32] 10 C.F.R. § 590.402.

Liquefaction Project by FERC.[33] DOE routinely issues conditional orders subject to satisfactory environmental review in similar circumstances.[34]

VI. DESCRIPTION OF LIQUEFACTION PROJECT

The Liquefaction Project, to be located at the existing Sabine Pass LNG Terminal in Cameron Parish, Louisiana, is being developed to liquefy domestic supplies of natural gas for export to foreign markets. The Liquefaction Project will include four ConocoPhillips Optimized Cascade[SM] LNG Trains, each with a nominal liquefaction capacity of approximately 4.00 mtpa. The Liquefaction Project will be developed in two stages, with two LNG Trains constructed in each stage. Natural gas will be liquefied and stored in the LNG storage tanks at the Sabine Pass LNG Terminal.[35] LNG will be exported from the Sabine Pass LNG Terminal via LNG carriers that will arrive at the site by marine transit through the Sabine Pass Channel. This enhanced facility will be operated as a bi-directional terminal and will have the capability both to liquefy for export, and to import and regasify, simultaneously. This dual capability will not result in an increase in the number of ship transits presently authorized for the Sabine Pass LNG Terminal,[36] since the total amount of LNG processed either by liquefying natural gas or vaporizing LNG will not exceed an average of 4.0 Bcf/d.

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[33] In promulgating its regulations setting forth the administrative procedures for the import and export of natural gas, DOE indicated that issuance of a conditional decision is appropriate when the application at issue involves, for example, the importation of LNG into new terminal facilities. In such a case, DOE reviews the application to determine if the proposed importation is in the public interest based on the considerations within DOE's jurisdiction, while, concurrently, FERC must review other aspects of the proposed importation such as siting, construction and operation of the LNG receiving terminal facilities. *See Import and Export of Natural Gas*, 46 Fed. Reg. 44,696, at 44,700 (Sept. 4, 1981).

[34] *See, e.g., Rochester Gas and Electric Corp.*, FE Docket No. 90-05-NG, Order No. 503 (May 16, 1991).

[35] Additionally, in conjunction with the Liquefaction Project, a sixth LNG storage tank, which already has been authorized by FERC, will be constructed to handle the additional storage requirements that could arise. The new LNG storage tank, as previously authorized, is a single containment, top entry tank with a nominal working volume of approximately 160,000 m^3.

[36] The Sabine Pass LNG Terminal is capable of unloading approximately 400 ships per year, or an average of just over one ship every day.

VII. EXPORT SOURCES

The gas supply underlying the exports contemplated in this Application will come from the interstate grid at different liquidity points. The pipeline infrastructure connected to the Sabine Pass LNG Terminal allows Sabine Pass and its customers to purchase gas for export from any point on the U.S. interstate pipeline system; however, the historically prolific Gulf Coast Texas and Louisiana onshore gas fields, the gas fields in the Permian, Anadarko, and Hugoton basins, and the emerging unconventional gas fields in the Barnett, Haynesville, Eagle Ford, Fayetteville, Woodford, and Bossier basins represent the most likely sources of physical supply. This supply can be sourced in large volumes in the spot market, or pursuant to long-term arrangements, for the account of Sabine Pass or third-party customers. Given the large size of the reserves in these fields and, in particular, the well documented increase in production associated with the emerging unconventional resources, the proposed exports are not anticipated to have any meaningful impact on the availability or pricing of domestic natural gas.

With the deregulation of the natural gas industry, which culminated with FERC's landmark Order 636,[37] the market for buying and selling natural gas in the United States has matured to the point that most large purchasers and sellers no longer enter into long-term supply agreements. Instead, they rely on the liquidity of the market to ensure supply at the market price. Also, market participants have focused their capital on contracting for transportation capacity on a long-term basis, reasoning that gas will always be available to them provided that their capacity terminates at a point of sufficient liquidity. In the case of purchasers (such as gas utilities, power

[37] *Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation and Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol*, Order No. 636**,** FERC Stats. & Regs. ¶ 30,939, *order on reh'g*, Order No. 636-A**,** FERC Stats. & Regs. ¶ 30,950, *order on reh'g*, Order No. 636-B, 61 FERC ¶ 61,272 (1992), *order on reh'g*, 62 FERC ¶ 61,007 (1993), *aff'd in part and remanded in part sub nom*., *United Distribution Cos. v. FERC*, 88 F.3d 1105 (D.C. Cir. 1996), *order on remand*, Order No. 636-C, 78 FERC ¶ 61,186 (1997).

generators and industrial consumers), this means purchasing transportation capacity from supply basins or major liquidity points to points of consumption. In the case of producers, this means purchasing transportation from the point of production to a point of sufficient demand. The former model was the rule for many years following deregulation, and is exemplified by the Transco system, in which the bulk of the capacity is held by northeastern utilities that own firm transportation rights on the Gulf Coast and supply is delivered into the feeder systems in Texas and Louisiana. Recently, however, producers have begun to purchase transportation capacity to ensure sufficient markets for their production. The Rockies Express Pipeline, LLC, in which major Rockies basin producers purchased long-haul firm pipeline capacity in order to reach liquid markets in the eastern and midwestern U.S., exemplifies this type of transportation transaction.

In and around the western half of Louisiana, a significant amount of new natural gas production is being routed to markets via both old and new pipeline capacity. Historically, gas produced in Texas has flowed across the Texas-Louisiana border in the major interstate pipeline systems of Transco, Texas Eastern, Florida Gas, Natural, Trunkline, Gulf South Pipeline Company, LP, Tennessee Gas, ANR, Texas Gas, Columbia Gulf, Southern Natural Gas Company, and several other interstate pipelines originating in Louisiana. These interstate systems receive gas directly at the wellhead, from processing plants, or from intrastate pipelines and gathering systems for delivery out of state. In addition, a multitude of new pipelines and gathering systems in this region have been developed in response to new production in the Barnett and Haynesville shale plays, the Cotton Valley and Bossier Sand tight gas plays, and other production areas. This abundance of new capacity is greatly facilitated by the existing pipeline regulatory framework which ensures open, transparent access for all users.

This well developed and extensive fabric of pipelines has created the world's largest, most liquid complex of natural gas market centers in the world, exemplified primarily by the Henry Hub. Platt's Gas Daily, a key reporter of information for daily gas prices in the United States, lists prices for 19 separate market centers in Louisiana and another 14 in Texas, which on a combined basis roughly equal the number of market centers for which Platt's reports prices across the rest of the United States. This physical liquidity is enhanced by fifty-five basis swaps that are cleared on the New York Mercantile Exchange ("NYMEX") for physical transactions across the U.S. and Canada.[38]

Transactional liquidity for daily, monthly, balance of month, and seasonal delivery periods is now at a level that ensures the quantity of gas demanded at virtually every point throughout the U.S., but particularly in Texas and Louisiana, will be met directly by supply being transported within a pipe, or moved to that pipe from another pipe, at a market clearing price. When demand rises, generally due to extraordinary weather conditions, prices rise in response to attract additional supplies from other pipelines, from storage, or from users that turn back gas into the market. Over time, this price-response mechanism ensures that supply and demand clear at a price sufficient to attract investment in the exploration segment, if demand is greater than supply. Alternatively, if drilling has created excess supply, prices fall to retard new supplies from reaching the market. In this manner, the market ensures that there is sufficient supply to meet demand.

In sum, the natural gas to be exported will be purchased in a market that has sufficient liquidity to accommodate a wide range of sales arrangements beyond long-term physical sales. It is impossible to envision all of the potential sales arrangements and transactions that customers

[38] NYMEX also clears more than 100 other natural gas financial products, in addition to basis swaps.

may enter into. The supply/demand equilibrium and competitive nature of the U.S. gas market will serve to ensure that domestic demand will not be subordinate to exports of gas.

VIII. COMMERCIAL/CONTRACT TERMS

Sabine Pass currently is engaged in commercial discussions with forty-five end user counterparties and five producer counterparties. Sabine Pass has entered into confidentiality agreements with thirty of these parties, and is in the process of negotiating memoranda of understanding ("MOUs") for the purchase of capacity in the Liquefaction Project. The MOUs are non-binding, but serve as an agreed framework between the parties to help guide the negotiation of definitive commercial agreements. Sabine Pass anticipates entering into definitive commercial agreements with various counterparties for each stage of the Project,[39] with a minimum contract quantity equivalent to approximately one cargo loading per month.

The service that is being offered by Sabine Pass is an "LNG Processing Service". The LNG Processing Service will be different from those services offered by conventional LNG projects in that Sabine Pass will earn its return from the processing fee, not from the difference between the price of LNG sold and the cost of gas purchased (or produced, as is the case in many countries). Therefore, the decision by any customer to liquefy gas will be driven by market economics. Sabine Pass will grant to each customer the right to make monthly nominations to load its contract quantity of cargoes; elect not to load any cargoes; or nominate the delivery of cargoes to Sabine Pass for regasification. Therefore, the service is bi-directional – both exports and imports of natural gas are contemplated under the relevant agreements.

In addition, Sabine Pass will provide its customers with the right to source their own feed gas for the facility. In the case that a customer nominates LNG exports, Sabine Pass will notify

[39] The first stage will result in the construction of the first two liquefaction trains ("Stage 1"), while the second stage would result in the construction of the second two trains ("Stage 2").

the customer of the amount of feed and fuel gas that will be required to be delivered to Sabine Pass, in order to provide the service. Alternatively, if the customer has nominated LNG cargo imports, Sabine Pass will notify the customer of the quantity of gas it will be required to receive from Sabine Pass during the course of the month. Gas delivery and receipt schedules will be based upon the profile of cargo loadings or unloadings during the month, and the amount of storage available between cargo operations.

Feed gas and fuel gas that is procured in the domestic market by the Liquefaction Project's customers will be delivered to Sabine Pass. Sabine Pass will process the feed gas quantity into LNG, and then deliver that LNG to each customer in exchange for the feed gas that is delivered. Sabine Pass also will provide an option to its customers to nominate a third party to procure domestic gas on their behalf for delivery to Sabine Pass, or to request that Sabine Pass source domestic gas on their behalf. In the first instance, when gas is sourced by a third party, title to the domestic gas will be transferred to Sabine Pass upon delivery at the Sabine Pass LNG Terminal. Title to the LNG then will be transferred to the customer upon loading for the export. In the second instance, when gas is sourced by Sabine Pass, Sabine Pass will hold title to the gas and then title will be transferred to the customer upon loading for the export.

Because the U.S. natural gas market principally operates on terms of either daily or monthly delivery schedules, and the greatest liquidity for financial hedges is found in the monthly market, it is important to receive natural gas from all customers on a consistent, ratable basis during the course of an entire calendar month in order to simplify hedging of natural gas purchases with NYMEX contracts against sales obligations in foreign countries. Therefore, the LNG Processing Service offered by Sabine Pass is being designed in such a way that all customers will deliver the aggregate export quantity (plus fuel) on a consistent basis through the

course of a calendar month, even though each individual customer will load cargoes of LNG on a discrete calendar date during that month. If the Liquefaction Project's customers elect not to liquefy domestic gas, but to import cargoes of LNG instead, the process will work in reverse. Sabine Pass will receive cargoes of LNG, store and subsequently vaporize and redeliver the regasified natural gas to them in downstream interstate pipelines.

Once Sabine Pass has completed the aggregation of customer interests and specific counterparty requests for the Liquefaction Project, Sabine Pass will begin the process of negotiating definitive agreements with each of the counterparties that entered into an MOU, or a subset if Sabine Pass aggregates too much demand during the MOU stage for the first stage of construction. The structure of the definitive agreements will be in two parts. Sabine Pass envisions a set of general terms and conditions applicable to all customers, and a separate service agreement specifically applicable to each customer. In addition, operations and marine manuals will be written in cooperation with the customers to set forth procedures for monthly volumetric nominations and annual planning, as well as to describe marine operations.

Sabine Pass currently is working with customers that would provide their own shipping to load cargoes of LNG produced at the Sabine Pass LNG Terminal. Sabine Pass has offered to deliver LNG to its customers on a free on-board ("FOB") basis,[40] without destination restrictions provided that the ultimate destination must be within the scope of export authorization granted by DOE. Therefore, no cargo of LNG will have a set destination until the capacity holder determines where the cargo will be delivered. Sabine Pass does not anticipate that it will enter

[40] In FOB transactions, title, risk of loss, and responsibility for transportation pass to the buyer at the loading point of the seller's facilities (in this case, at the outlet of the Liquefaction Project at the flange of the LNG vessel as the LNG is loaded for export).

into shipping arrangements in order to sell LNG to purchasers in foreign countries on a delivery ex-ship ("DES") basis;[41] however, Sabine Pass anticipates that its customers may do so.

The commercial model being developed for the Liquefaction Project is unusual for the LNG industry. In a conventional project, the LNG production facility is but one element of an integrated value chain which runs from the upstream supply field to the end-destination market. The conventional LNG chain typically relies on dedicated supplies and end markets, and does not contemplate diversion of cargoes except under extreme circumstances. This model has been altered slightly in some projects, depending upon the needs and circumstances of stakeholders in a respective project's value chain, but only in the recent past have LNG production facilities without destination restrictions (*i.e.*, FOB) been developed.[42]

What is unique about the Liquefaction Project is that its natural gas supply exists in an independent economy. Unlike many LNG-producing countries, the value of natural gas in the United States is a function of the many supply and demand variables that make up the market price on any given day. In contrast to a conventional liquefaction project, in which otherwise stranded gas is monetized through LNG contracts, the value of natural gas in the United States is altered very little by the existence of the Liquefaction Project. The capacity holders will purchase natural gas at the U.S. market price for delivery to Sabine Pass for liquefaction and later export. If the marginal cost of purchasing U.S. natural gas, liquefying it, and transporting the resulting LNG to a destination market is higher than another competing source of supply, the capacity holder may forego its nomination rights for that month. Furthermore, if the value of

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[41] In DES transactions, the seller does not pass title or risk of loss until delivered at the buyer's facilities. Additionally, sellers in DES transactions typically exercise a significant degree of control over annual take quantities (*i.e.*, buyers must take, without significant flexibility) and restrict buyer's rights to divert cargoes to other markets, due to logistics constraints of the seller's transportation fleet and also due to the fact that the cost of shipping is being borne by the seller and recovered through the sale of the delivered product.

[42] For example, the Segas LNG facility in Damietta, Egypt; the IDKU LNG Port in Egypt; and the EG LNG project in Bioko Island, Republic of Equatorial Guinea.

delivering LNG to the U.S. is greater than the U.S. natural gas market price, capacity holders may elect instead to purchase cargoes abroad for delivery, regasification, and later sale in the U.S. gas market. As a result, natural gas delivered to, or received from, the Sabine Pass LNG Terminal into the downstream market should always be competitively priced relative to the broader market.

The combination of the very large, liquid U.S. natural gas market and the commercial flexibility being offered to capacity holders makes the Sabine Pass facilities more like a bi-directional pipeline (from a commercial perspective) than a liquefaction project. This bi-directional pipeline links the U.S. natural gas supply basins to any point in the world that is in need of natural gas, and is paying prices above U.S. market prices plus the costs of liquefaction and delivery. The market for natural gas in the U.S. has matured to the point that it is no longer relevant to count molecules to determine whether supply is needed during a specific timeframe; prices will adjust to supply and demand conditions to ensure balance. Buyers and sellers no longer contract on a long-term basis; the market ensures liquidity through time. The new model that has sprung forth from this regulatory environment is more focused on the capacity to move natural gas to the relevant markets than on the quantities of natural gas available. The Liquefaction Project builds on this model to provide capacity to transport LNG to or from the United States, on the basis of market-based signals of over supply or excess demand.

IX. APPLICABLE LEGAL STANDARD

A. WTO Countries

U.S. international legal obligations under the WTO Agreements prohibit the restriction of exports of LNG made effective through discretionary or non-automatic export licensing requirements. In this regard, applications for exports of LNG to any WTO Country must be

granted under the same standard applicable to applications for export of LNG to FTA countries (*i.e.*, without modification or delay).

a. U.S. Obligations Under the WTO Agreement Prevent DOE from Restricting LNG Exports by Denying Applications for LNG Exports Destined For Other WTO Countries

As part of the Energy Policy Act of 1992, Congress added a new provision to the NGA dealing with imports and exports of natural gas to countries with which the U.S. has entered into certain trade agreements. It states that where an FTA exists that provides for national treatment for trade in natural gas, the export authorization application is deemed to be in the public interest and will be granted without modification or delay. Specifically, Section 717b(c) provides:

> **(c) Expedited application and approval process**
> For purposes of [15 U.S.C. § 717b(a)], the importation of the natural gas referred to in [15 U.S.C. § 717b(b)], or the exportation of natural gas to a nation with which there is in effect a free trade agreement requiring national treatment for trade in natural gas, shall be deemed to be consistent with the public interest, and applications for such importation or exportation shall be granted without modification or delay.[43]

Sabine Pass respectfully submits that it would be inconsistent with U.S. obligations under the WTO Agreements to grant applications for export to countries with which the U.S. has FTAs while denying or treating in any discriminatory manner applications for exports to WTO Countries with which the U.S. does not have a separate FTA. In this regard, every WTO Country should be treated as an FTA Country.

The legislative history surrounding the inclusion of section 717b(c) relies upon a rationale that extends to all WTO Countries. The original language in H.R. 776, which became the Energy Policy Act of 1992, focused on imports from Canada. In the House Report of the Committee of Energy and Commerce that accompanies H.R. 776, the Committee acknowledged

[43] 15 U.S.C. § 717b(c).

that the existing FTA prohibited differential treatment of Canadian and U.S. natural gas when it stated that "[b]ecause of the 1988 Canadian Free Trade Agreement, old distinctions between Canadian and U.S. gas are illegal in any event."[44] Although this comment was made with respect to a specific FTA and in reference to what is now 15 U.S.C. § 717b(c), this same logic applies to all WTO Countries that have committed, by virtue of their WTO accession, to MFN and national treatment of each others' goods and services.[45] The U.S. has specifically committed to afford MFN treatment to all WTO Countries in its schedule of commitments.[46] As discussed in more detail below, it therefore would be inconsistent with U.S. commitments under the WTO Agreements to potentially restrain exports to WTO Countries under Section 3 of the NGA.

(1) LNG is Subject to the WTO Agreement Provisions on Trade in Goods

Annex 1 to the WTO Agreement is divided into three sections covering trade in goods, trade in services and trade-related aspects of intellectual property rights. Annex 1A consists of the Multilateral Agreements on Trade in Goods, which includes GATT. Like other energy products, natural gas is a commodity or "good" and, thus, a WTO Country's trade in natural gas is covered by the obligations contained in Annex 1A.[47] Moreover, the U.S. has specifically

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[44] H.R. Rep. No. 102-474, pt. 1, at 136 (1992).

[45] GATT Articles I and III, in WTO, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations, at 424, 427 (1999).

[46] Marrakesh Protocol, *supra* note 14.

[47] According to Director-General Pascal Lamy, existing WTO rules governing trade in goods apply to energy goods:

> So the rules of the WTO do not deal with energy as a distinct sector. Yet since our basic rules are applicable to all forms of trade, they also apply to trade in energy goods and services. And these rules can be enforced through the WTO dispute settlement mechanism even if they were not negotiated with energy in mind.

See generally Pascal Lamy, Director-General, WTO, Speech at the 20th World Energy Congress (Nov. 15, 2007), http://www.wto.org/english/news_e/sppl_e/sppl80_e.htm.

committed to afford MFN treatment with respect to LNG to all WTO Countries in its schedule of commitments.[48]

Section 3 of the NGA establishes a discretionary or non-automatic export authorization requirement that is arguably inconsistent with U.S. obligations under GATT Articles XI:1 and XIII:1, which impose disciplines on the use of export restrictions if such restrictions are not otherwise waived or justified by exceptions in other GATT articles. A "waiver" under GATT Article XXV releasing a WTO Member from its obligations and disciplines is available only in "exceptional circumstances" and requires a vote of approval by the WTO Countries acting jointly.[49] A review of all publicly available WTO documents indicates, however, that the U.S. has never submitted a request for waiver nor received a waiver with respect to its GATT obligations regarding exports of natural gas. Thus, the U.S. cannot rely upon a waiver under GATT Article XXV to impose export restrictions on natural gas that otherwise would be inconsistent with its GATT obligations.

There also are certain exemptions justifying various actions of WTO Countries that otherwise would be inconsistent with the disciplines of their GATT obligations. Such actions are

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[48] *See supra* note 14.

[49] Under GATT Article XXV, WTO Countries can request a waiver of obligations in "exceptional circumstances" not elsewhere provided for in the WTO Agreement. Such a waiver would require a specific request by the United States for waiver of the GATT obligations and disciplines on the use of export restrictions based on such "exceptional circumstances" and a two-thirds vote of approval by the WTO Countries acting jointly as the CONTRACTING PARTIES.

> XXV: 5. "In exceptional circumstances not elsewhere provided for in this Agreement, the CONTRACTING PARTIES may waive an obligation imposed upon a contracting party by this Agreement; *Provided* that any such decision shall be approved by a two-thirds majority of the votes cast and that such majority shall comprise more than half of the contracting parties."

GATT Article XXV, in WTO, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations, at 460-61 (1999); WTO Agreement Article IX:3, *in* WTO, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations, at 9 (1999); Understanding in Respect of Waivers of Obligations under the General Agreement on Tariffs and Trade 1994, *in* WTO, The Legal Texts: *Id*. at 29.

justified by the exceptions contained in Articles XI:2(a) (critical shortages),[50] XX(g) (conservation of natural resources),[51] XX(i) (government stabilization plan),[52] XX(j) (short supply),[53] XXI (national security),[54] or XXIV:5(b) (free trade agreements).[55] None of these exemptions are applicable in this case.

(2) The WTO Agreement Generally Prohibits Export Restrictions on Trade in Goods Destined for Other WTO Countries

In recognition of the fact that export restrictions can be highly distortive to trade, and the desire of the WTO Countries to allow such measures only very rarely, GATT Article XI:1 prohibits WTO Countries from instituting or maintaining export bans or restrictions (other than duties, taxes or other charges) on any product destined for another WTO Country that is made effective through export licenses or other measures:

> No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for

[50] The critical shortages exemption allows export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party. *See* Exhibit B, *A Review of Int'l Trade-Related Legal Obligations*, at 25-26.

[51] The conservation of natural resources exemption allows export restrictions relating to the conservation of exhaustible natural resources that are made effective in conjunction with restrictions on domestic production or consumption. *See id.* at 26-28.

[52] The government stabilization plan exemption allows export restrictions when domestic prices for materials are held below the world price as part of a government stabilization plan. *See* Exhibit B, at 29.

[53] The short supply exemption allows the adoption of measures essential to the acquisition or distribution of products in general or local short supply. *See id.* at 29-32.

[54] The national security exemption allows WTO Countries to take broad actions for the protection of essential security interests (i) relating to fissionable materials or the materials from which they are derived; (ii) relating to the traffic in arms, ammunition and implements of war and to such traffic in other goods and materials as is carried on directly or indirectly for the purpose of supplying a military establishment; (iii) taken in time of war of other emergency in international relations. *See id.* at 32-33.

[55] The WTO Agreement specifically allows WTO Countries to enter into FTAs. However, those FTAs cannot be used to raise barriers to trade with WTO Countries that do not have an FTA. *See id.* at 45-47.

> export of any product destined for the territory of any other contracting party.[56]

The term "restriction" in Article XI:1 has been interpreted broadly to cover not just blanket prohibitions or precise numerical limits but also the imposition of limitations or limiting conditions on exportation that generate a disincentive to export not only due to their effect on trade volumes but also by creating uncertainties affecting investment plans, by restricting market access, or by increasing transaction costs to make exportation prohibitively costly.[57]

While an automatic authorization requirement would be permissible, a discretionary or non-automatic export authorization requirement has long been considered to be a restriction prohibited by Article XI:1.[58] For example, a WTO panel in *India – Autos* found that a "trade balancing condition" on import licenses, that limited the value of imports an importer could make to the value of its exports, was a restriction on importation contrary to Article XI:1.[59] Likewise, a GATT panel in *Japan – Semi-Conductors* agreed with the United States's complaint that Japan's export license procedures, which led to delays of up to three months in the issuance of licenses for semi-conductors due to the monitoring of costs and export prices, were non-

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[56] GATT Article XI:1, *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS, at 437 (1999) (emphasis added).

[57] Panel Report, *Colombia – Ports of Entry*, WT/DS366/R, adopted May 20, 2009, paras. 7.233-41, 7.244, *citing* Panel Report, *India – Autos*, paras. 7.269-70, Panel Report, *India – Quantitative Restrictions*, para. 5.128, Panel Report, *Brazil – Retreaded Tyres*, para. 7.371, Panel Report, *Dominican Republic – Import and Sale of Cigarettes*, paras. 7.252, 7.258; *see also* Panel Report, *Korea – Various Measures on Beef*, WT/DS161/R, WT/DS169/R, para. 778.

[58] See Panel Report, *India – Quantitative Restrictions*, WT/DS90/R, adopted Sept. 22, 1999, paras. 5.129-30 (finding discretionary import licensing system to be a restriction prohibited by Article XI:1); GATT Panel Report, *Japan – Trade in Semi-Conductors*, BISD 30S/129, adopted May 4, 1988, para. 118 (finding discretionary export licensing system to be restriction prohibited by Article XI:1); GATT Panel Report, *EEC – Quantitative Restrictions Against Imports of Certain Products from Hong Kong*, BISD 30S/129, adopted July 12, 1983, at ¶¶ 8, 31, 34; GATT Panel Report, *EEC – Programme of Minimum Import Prices, Licenses and Surety Deposits for Certain Processed Fruits and Vegetables*, BISD 25S/68, adopted Oct. 18, 1978, ¶ 4.1 (finding that an automatic licensing requirement was not a restriction within the meaning of Article XI:1).

[59] Panel Report, *India – Autos*, WT/DS146/R, WT/DS175/R, adopted April 5, 2002, ¶¶ 7.268, 7.278, 7.281.

automatic and constituted a restriction on the exportation of those products contrary to Article XI:1.[60]

Thus, the public interest standard in Section 3 of the NGA has a potentially limiting effect on exportation by creating serious uncertainties affecting exporters' investment plans and by negatively affecting their competitive opportunities.[61] The DOE's discretion also could affect other WTO Countries' access to adequate U.S. supplies of natural gas at fair prices if the U.S. export restriction would thereby affect world market prices in natural gas. Indeed, for similar reasons, the United States is currently challenging China's non-automatic export licensing for certain key raw materials as being contrary to GATT Article XI:1 and China's commitments with respect to the elimination of export restrictions in its Working Party Report and Accession Protocol.[62] For the foregoing reasons, exports of domestically produced LNG to WTO Countries should be subject to an automatic export authorization process and thus should be granted under the same standard of review applicable to applications for export of LNG to FTA Countries.

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[60] GATT Panel Report, *Japan – Trade in Semi-Conductors*, BISD 35S/116, adopted May 4, 1988, ¶¶ 118, 132(b), citing GATT Panel Report, *EEC – Programme of Minimum Import Prices, Licenses and Surety Deposits for Certain Processed Fruits and Vegetables*, BISD 25S/68, adopted Oct. 18, 1978, ¶ 4.1. The GATT Panel in Japan – Trade in Semi-Conductors "noted that the CONTRACTING PARTIES had found in a previous case that automatic licensing did not constitute a restriction within the meaning of Article XI:1 and that an import license issued on the fifth working day following the day on which the license application was lodged could be deemed to have been automatically granted (BISD 25S/95)."

[61] *See* Panel Report, *Colombia – Ports of Entry*, ¶¶ 7.240, 7.250-57, 7.275.

[62] *See* U.S. First Written Submission in *China -- Raw Materials Exports*, WT/DS394, DS395, DS398, at ¶¶ 331-42 (June 1, 2010). During China's accession process, certain members of the Working Party noted the limited scope of the exceptions to Article XI:

> Certain members of the Working Party noted the conditions in the GATT 1994 in regard to non-automatic licensing and export restrictions. They pointed out that export prohibitions, restrictions and non-automatic licensing could only temporarily be applied under Article XI of the GATT 1994 to prevent or relieve critical shortages of foodstuffs or other products essential to an exporting WTO Member. Article XX of the GATT 1994 also allowed for restrictive export measures, but only if such measures were made effective in conjunction with restrictions on domestic production or consumption. These members noted that some of the criteria of the Foreign Trade Law referred to above did not at present meet the specific conditions laid down in Articles XI and XX of the GATT 1994.
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> WT/ACC/CHN/49, ¶ 160 (Oct. 1, 2001).

B. Non-WTO Countries

Pursuant to Section 3 of the NGA, FE is required to authorize exports to a foreign country unless there is a finding that such exports "will not be consistent with the public interest."[63] Specifically, Section 717b(a) of the NGA states in relevant part:

> **(a) Mandatory authorization order**
> After six months from June 21, 1938, no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the Commission authorizing it to do so. The Commission shall issue such order upon application, unless, after opportunity for hearing, it finds that the proposed exportation or importation will not be consistent with the public interest.[64]

Section 717b(a) thus creates a statutory presumption in favor of approval of this Application which opponents bear the burden of overcoming.[65] Further, in evaluating an export application, FE applies the principles described in DOE Delegation Order No. 0204-111, which focuses primarily on domestic need for the gas to be exported, and the Secretary's natural gas policy guidelines ("Policy Guidelines"),[66] which presume the normal functioning of the competitive market will benefit the public. In the past, FE also has considered other factors to the extent they are shown to be relevant to the public interest determination for export authorization, including local interests, international effects and the environment.[67]

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63 15 U.S.C. § 717b(a).

64 *Id*. (emphasis added).

65 *See supra* note 10.

66 Policy Guidelines and Delegation Orders Relating to the Regulation of Imported Natural Gas, 49 Fed. Reg. 6,684 (Feb. 22, 1984) [hereinafter *Policy Guidelines*].

67 In DOE Opinion and Order No. 2500, which granted Conocophillips Alaska Natural Gas Corporation and Marathon Oil Company authorization to export LNG from Alaska, for example, DOE considered the regional need for the gas by reviewing the natural gas supply and demand projections submitted, cited or relied on by the parties in the proceeding and determined that there was a reasonable basis for concluding that local supplies were adequate to support the proposed export as well as to meet local demand requirements during the term of the proposed blanket authorization. *ConocoPhillips Alaska Natural Gas Corp.*, FE Docket No. 07-02-LNG, Order No. 2500, at 47 (June 3, 2008). In addition, DOE found that (1) local interests would be well served by a grant of the requested authorization because the continued operation of the applicant's liquefaction plant

In the context of the instant Application and existing natural gas market conditions, the longstanding principles of minimizing federal control and involvement in natural gas markets articulated in the Policy Guidelines are particularly relevant.[68] The Policy Guidelines emphasize free market principles and promote limited government involvement in federal natural gas regulation:

> The market, not government, should determine the price and other contract terms for imported [and exported] gas. U.S. buyers [and sellers] should have full freedom - along with the responsibility - for negotiating the terms of trade arrangements with foreign sellers [and buyers].
>
> 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.[69]

The Policy Guidelines also provide some insight into the public interest standard for evaluating potential import and export applications. In this regard, they state that the "policy cornerstone of the public interest standard is competition."[70] Competitive import/export arrangements are therefore an essential element of the public interest and, so long as the sales agreements are set in terms that are consistent with market demands, they should be considered

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provided significant benefits to the local economy, (2) exportation of LNG would help to improve the United States's balance of payments with Pacific Rim countries during the term of the proposed blanket authorization; and (3) there was no significant environmental impact. *See id.* at 57-58. *See also Cheniere Marketing, Inc.*, FE Docket No. 08-77-LNG, Order No. 2651, at 14 (June 8, 2009) (explaining that, consistent with the *Policy Guidelines* and applicable precedent, the DOE considers the potential effects of proposed exports on aspects of the public interest other than domestic need, including international effects and the environment).

[68] While the *Policy Guidelines* deal specifically with imports, the principles are applicable to exports as well. *See Phillips Alaska Natural Gas Corp. and Marathon Oil Co.*, FE Docket No. 96-99-LNG, Order No. 1473, at 14 (Apr. 2, 1999).

[69] *Policy Guidelines*, *supra* note 66, at 6685.

[70] *Id*. at 6687.

to "largely" meet the public interest standard.[71] The guidelines continue by saying that "[t]his policy approach presumes that buyers and sellers, if allowed to negotiate free of constraining governmental limits, will construct competitive import [and export] agreements that will be responsive to market forces over time."[72]

To date, FE orders granting authorization to export natural gas continue to reflect and reinforce the principles laid out in the Policy Guidelines by emphasizing the ideas of free trade and limited government involvement.[73] For example, natural gas has been exported from Alaska to Japan for over 40 years.[74] Authorization for this export was expanded to include all Pacific Rim countries, or more specifically, "any destination point for the delivery of liquefied natural gas on or abutting the Pacific Ocean in a country with which trade is not prohibited by United States law."[75] The DOE also allowed export of Alaskan natural gas to Russia in 2007.[76] Additionally, the DOE issued multiple authorizations for exports of foreign-sourced natural gas (*i.e.*, natural gas that is first imported into the U.S. and then exported) to "any country with the capacity to import ocean-going LNG and with which trade is not prohibited by U.S. law or policy."[77] In granting these authorizations, DOE has determined that exports will be good for the regional economies, help foster healthy competition, mitigate trade imbalances with the foreign

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71 *Id.* at 6687.

72 *Id.* at 6687 (with reference to "exports" inserted to reflect DOE policy that "the principles are applicable to exports as well" as enunciated in *Phillips Alaska*, Order No. 1473, at 14).

73 *See, e.g.*, *Phillips Alaska*, Order No. 1473, at 51 (stating that the public interest is generally best served by a free trade policy); *ConocoPhillips*, Order No. 2500, at 44-45 (stating that DOE's general policy is to minimize federal government involvement and allow commercial parties to freely negotiate their own trade arrangements).

74 *See Phillips Petroleum Co. and Marathon Oil Co.*, 37 F.P.C. ¶ 777 (1967).

75 *ConocoPhillips*, Order No. 2500, at 66.

76 *See id*. at 9 (stating that there has been an export from the Kenai, Alaska LNG facility to Russia to condition the Sakhalin LNG facility); *see also Phillips Alaska Natural Gas Corp. and Marathon Oil Co.*, FE Docket No. 99-110-LNG, Order No. 1580, at 7 (Apr. 10, 2000) (granting two-year blanket authorization to export up to 10 Btus of LNG from Kenai, Alaska to "international markets").

77 *See, e.g.*, *ConocoPhillips Co.*, FE Docket No. 09-92-LNG, Order No. 2731, at 11 (Nov. 30, 2009).

recipients, and encourage efficient management of our natural resources.[78] As discussed below, the export of domestically produced LNG as proposed herein meets these markers of the public interest.

X. PUBLIC INTEREST

The Sabine Pass Liquefaction Project has been proposed due to the improved outlook for domestic natural gas production, owing to drilling productivity gains that have enabled rapid growth in supplies from unconventional, and particularly shale, gas-bearing formations in the United States. Improvements in drilling and extraction technologies have coincided with rapid diffusion in the natural gas industry's understanding of the unconventional resource base and best practices in drilling and resource development. These changes have rendered obsolete once prominent fears of declining future domestic natural gas production.

Authorization for export of natural gas as LNG will provide a market solution to allow the further deliberate development of these emerging sources of domestic natural gas and will result in the following benefits, all of which are consistent with the public interest:

- Stimulate the Louisiana state, regional and national economies through job creation, increased economic activity and tax revenues, including the direct creation or continuation of approximately 3,000 engineering and construction jobs during the design and construction of the Liquefaction Project and, indirectly, 30,000-50,000 permanent jobs in the E&P sector;

- Promote domestic production of petroleum and reduced reliance on foreign sources of oil;

- Further the President's NEI, by improving U.S. balance of payments through the exportation of approximately 2 Bcf/d of natural gas valued at approximately $5 billion and the displacement of $1.7 billion in NGL imports;

- Raise domestic natural gas productive capacity and promote stability in domestic natural gas pricing;

[78] *See, e.g.*, *ConocoPhillips*, Order No. 2500, at 55-58; *Phillips Alaska*, Order No. 1473, at 47-56.

- Promote the liberalization of global natural gas trade through the fostering of a global, liquid, natural gas market;

- Advance national security and the security of U.S. allies through diversification of global natural gas supplies; and

- Increase economic trade and ties with foreign nations, including neighboring trade partners in the Americas, and displace environmentally damaging fuels in those countries.

A. Analysis of Domestic Need for Gas to be Exported

In support of this Application, Sabine Pass commissioned reports by ARI and Navigant Consulting, Inc. ("NCI") to assess domestic need for the natural gas to be exported from the Liquefaction Project. The first ARI report, *U.S. Natural Gas Resources and Productive Capacity* ("ARI Resource Report"), was commissioned to evaluate the scope of natural gas resources in the United States and their potential for future recovery. A second report from ARI, *Domestic Hydrocarbon Liquids Production from Gas Shales and Other Unconventional Gas Resources* ("ARI Liquids Report"), was commissioned to evaluate the potential increase in petroleum liquids production associated with certain unconventional formations due to the Sabine Pass export project. The NCI report, *Market Analysis for Sabine Pass LNG Export Project* ("NCI Report"), was commissioned to evaluate the market price impact of LNG exports from the Sabine Pass LNG Terminal under several future U.S. demand scenarios.[79] Both the ARI Resource Report and the NCI Report, as well as publicly available information, indicate that the United States has significant natural gas resources available at prices that are sufficient to meet projected domestic needs and 16 mtpa of exports over the 20-year period covered in Sabine Pass's request for export authority.

[79] ARI is a geological and engineering consulting firm which specializes in unconventional hydrocarbon geology, and has played an instrumental role over the last three decades in advancing the industry's and DOE's own understanding of the domestic unconventional resource base. NCI is an international consultant to the energy and utility industry. The ARI Resource Report, ARI Liquids Report and NCI Report are submitted herewith as Exhibits D, E and F, respectively.

1. *National Interest*

DOE Delegation Order No. 0204-111 designates "domestic need for the natural gas proposed to be exported as the only explicit criterion that must be considered in determining the public interest."[80] The Liquefaction Project is therefore in the public interest because (i) it does not impinge on domestic needs for natural gas; and (ii) it supports and encourages the continued development of natural gas resources during times when domestic prices of natural gas are depressed, thereby ensuring that domestic supplies will be available throughout demand cycles.

Sabine Pass proposes that a national perspective represents the most appropriate measure for evaluation of domestic need due to the location of the facility in southwest Louisiana. The Gulf Coast region is not only the largest source of domestic natural gas production but, due to its prolific network of long-haul interstate pipelines and storage, also represents a transit point linking major supply basins to most United States consuming regions.

The Sabine Pass LNG Terminal via its direct pipeline interconnections, including its interconnect with the Creole Trail Pipeline, can deliver to and potentially receive natural gas from eleven interstate and intrastate pipeline systems. These pipelines will allow Sabine Pass and its customers to purchase and receive gas from the historically prolific Gulf Coast Texas and Louisiana onshore gas fields; the gas fields in the Permian, Anadarko and Hugoton basins; and the rapidly growing unconventional gas fields in the Barnett, Haynesville, Eagle Ford, Fayetteville, Woodford and Bossier basins.[81] These interstate pipelines also deliver supplies to downstream markets in the Southeast, Northeast, Appalachia and Midwest regions of the United

[80] *Phillips Alaska*, Order No. 1473, at 14.

[81] *See supra* note 24.

States. These areas comprised a total 16.48 Tcf of demand in 2009, representing 79.6% of U.S. total natural gas consumption of 20.68 Tcf.[82]

2. *National Supply – Overview*

Domestic gas production has been on an upward trend in recent years as rapid growth in supply from unconventional basins has more than compensated for declines in conventional onshore and offshore formations. Since 2005, when horizontal drilling began in earnest in the Barnett Shale formation in north-central Texas, U.S. dry gas production has grown 16.1%, to 20.96 Tcf (57.4 Bcf/d) in 2009, representing the highest U.S. production levels since 1973.[83]

Preliminary data point to continued growth in domestic production in 2010[84] despite a significant drop in U.S. natural gas drilling activity from peak levels in 2008.[85] EIA estimates U.S. dry gas production totaled 1.84 Tcf (59.3 Bcf/d) in May 2010, a 1.9 Bcf/d increase compared to May 2009 dry production of 1.78 Tcf (57.4 Bcf/d).[86] Increased drilling productivity in certain prolific shale formations, particularly the Marcellus and Haynesville shales, has enabled domestic production to continue expanding despite a reduction in industry upstream development.

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82 U.S. Energy Information Administration ("EIA"), DOE, *Annual Energy Outlook 2010*, at Table 117 (May 11, 2010) [hereinafter *AEO 2010*], *available at* http://www.eia.doe.gov/oiaf/aeo/supplement/suptab_117.xls. Calculations represent demand in New England, mid-Atlantic, East North Central, West North Central, South Atlantic, East South Central and West South Central census divisions.

83 See EIA, *Natural Gas Gross Withdrawals and Production* (July 29, 2010), http://www.eia.gov/dnav/ng/ng_prod_sum_dcu_NUS_a.htm.

84 Lower 48 states wellhead natural gas production increased in the five consecutive months, from December 2009 to May 2010, according to EIA's Form 914 Survey of US natural gas producers. http://www.eia.doe.gov/oil_gas/natural_gas/data_publications/eia914/eia914.html.

85 There were 973 rigs drilling for natural gas in the U.S. as of the week ended August 27, 2010, 39% below peak drilling levels of 1,606 rigs for the week ended September 12, 2008. Baker Hughes, *North America Rotary Rig Count* (Aug. 27, 2010), http://files.shareholder.com/downloads/BHI/913806705x0x398363/6B3854F8-8C97-4753-8965-A8429E063801/US_Rig_Report_082710.xls.

86 *See* EIA, *U.S. Dry Natural Gas Production* (Aug. 30, 2010), http://www.eia.gov/dnav/ng/hist/n9070us2m.htm.

The robust potential for future United States natural gas supply has been reflected in other recent industry evaluations. The Potential Gas Committee of the Colorado School of Mines ("Potential Gas Committee") in June 2009 raised its estimates of the U.S. technically recoverable gas resource base by 515 Tcf (+39%) to 1,836 Tcf at year-end 2008.[87] Including 238 Tcf of established proved domestic natural gas reserves, the Potential Gas Committee determined that the United States possesses future available gas supply of 2,074 Tcf,[88] the highest resource evaluation in the group's 44-year history and over 90 years of domestic market needs, based on 2009 consumption levels.[89]

In its recently published study, *The Future of Natural Gas* ("MIT Report"), the Massachusetts Institute of Technology estimates that the United States has a mean recoverable resource base of approximately 2,100 Tcf.[90] This estimate includes 650 Tcf of recoverable shale resources, "approximately 400 Tcf [of which] could be economically developed with a gas price at or below $6/MMBtu at the well-head."[91] According to the MIT Report's mean resource estimate, United States gas production will rise by 40% between 2005 and 2050.

In addition, the ARI Resource Report provides an independent analysis of the unconventional natural gas resource base in the United States to supplement publicly available information on conventional onshore and offshore gas resources. ARI estimates that the United States possesses technically recoverable natural gas resources totaling 2,585 Tcf, including 2,286

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87 *See* Press Release, Potential Gas Committee, Potential Gas Committee Reports Unprecedented Increase In Magnitude of U.S. Natural Gas Resource Base, at 2 (June 18, 2009), http://www.aga.org/NR/rdonlyres/65B2FD7E-A208-4687-9B4B-6EC079DA673D/0/0906PGCPRESS.PDF.

88 *Id*.

89 U.S. natural gas demand totaled 22.8 Tcf in 2009. EIA, *Natural Gas Consumption by End Use* (July 29, 2010), http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm.

90 MIT Energy Initiative, MIT, *The Future of Natural Gas*, at 9 (2010) [hereinafter *MIT Report*], http://web.mit.edu/mitei/research/studies/naturalgas.html.

91 *Id*. at xii.

Tcf in the Lower 48 region and 299 Tcf located in Alaska.[92] Of this total, 246 Tcf represent proved natural gas reserves and 2,238 Tcf comprise undiscovered or inferred resources.[93] Unconventional gas-bearing formations account for 53% (or 1,373 Tcf) of technically recoverable domestic gas resources and include 700 Tcf of recoverable reserves from shale formations, 567 Tcf from tight sandstones, and 106 Tcf from coalbed formations.[94]

The ARI Resource Report notes that assessments of the domestic natural gas resource base are not static and have expanded over time due to improvements in oilfield service technologies such as horizontal drilling, multi-well pad drilling, and improved fracturing and stimulation of tight gas formations.[95] ARI projects that technology gains will continue to drive production costs lower and augment recoverable natural gas reserves in the future. Remaining recoverable domestic shale gas resources, for example, are projected to increase 18.9% by 2035 to 853 Tcf from their assessment of 711 Tcf at the start of 2009, a time span which matches Sabine Pass's requested period for export authorization.[96]

3. *National Natural Gas Demand*

The outlook for natural gas demand in the United States has dimmed considerably over the last decade as a consequence of persistent market price volatility, as well as structural changes afoot in the domestic economy. In its 1999 study on the United States's natural gas market, the National Petroleum Council estimated that domestic consumption of natural gas would grow to 29.0 Tcf (79.5 Bcf/d) in 2010, a 31.8% increase from 22.0 Tcf (60.2 Bcf/d) of

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92 Exhibit D, ARI, *U.S. Natural Gas Resources and Productive Capacity* (Aug. 26, 2010), at 8 [hereinafter *ARI Resource Report*].

93 *Id.*

94 *Id.*

95 *See id.* at 9, 35-38.

96 *Id.*

domestic demand in 1998.[97] Instead, the EIA, in its most recent short-term market assessment, predicts U.S. natural gas consumption of 23.68 Tcf (64.9 Bcf/d) in 2010, or growth of only 7.6% from the 1998 benchmark.[98] U.S. demand in 2009 of 22.81 Tcf in fact was 2.2% lower than the 23.33 Tcf consumed at the start of the decade, according to EIA data.[99] Moreover, the 29 Tcf domestic natural gas market once envisioned by the National Petroleum Council has been indefinitely postponed based on evolving market conditions. In its Annual Energy Outlook 2010 ("AEO 2010"), EIA predicts long-term annual gas demand growth of only 0.2%, with the domestic market expected to reach 24.86 Tcf (68.1 Bcf/d) in 2035.[100]

Structural factors have contributed to these more conservative estimates of future demand growth. The composition of U.S. economic activity in time has gravitated toward less energy-dependent activities such as services and health care at the expense of manufacturing-based activity.[101] Furthermore, improved technology and efficiency standards have lead to sharp reductions in energy usage in consumer products that directly, or through reduced electricity usage, indirectly impact U.S. natural gas consumption. According to Department of Energy Secretary Stephen Chu, "… the improvement in the efficiency of refrigerators alone since the 1970s is responsible for energy savings today greater than all non-hydro renewable power generation. During that time, the inflation adjusted cost of refrigerators dropped by about half

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97 1 National Petroleum Council, *Meeting the Challenges of the Nation's Growing Natural Gas Demand Summary Report* 33 (Dec. 1999), http://www.npc.org/.

98 *See* EIA, *Short Term Energy Outlook*, at 4 (Aug. 10, 2010), http://www.eia.doe.gov/emeu/steo/pub/steo_full.pdf.

99 EIA, *Natural Gas Consumption by End Use*, supra note 89.

100 *See AEO 2010*, at Table 13, *available at* http://www.eia.doe.gov/oiaf/aeo/excel/aeotab_13.xls.

101 In 1950, the manufacturing share of the U.S. economy amounted to 27% of nominal U.S. GDP, but only 12.1% by 2007. *See* William Strauss, *Is U.S. Manufacturing Disappearing?*, Federal Reserve Bank of Chicago, Aug. 19, 2010, http://midwest.chicagofedblogs.org/archives/2010/08/bill_strauss_mf.html.

while energy consumption was simultaneously reduced by more than 75 percent."[102] Dr. Chu further noted that appliance standards issued in the last 16 months alone will further reduce energy use and save American consumers more than $250 billion over the next 20 years.[103] This same trend of increased efficiency through technology gains is evident in industrial applications of natural gas. The new generation of combined-cycle natural gas power plants, for example, consume much less natural gas per unit of electricity output than their older steam-based counterparts.[104] Consequently, electricity output from domestic gas-fired power plants has been expanding at approximately twice the rate of growth in demand for natural gas to fuel these units.[105] The result of these trends is that meeting the future economic needs of the U.S. economy will require relatively less natural gas, and energy in general, than in the past.

a. Industrial Sector

The most significant change in the outlook for U.S. natural gas consumption has occurred in the industrial sector. Consumption of natural gas by U.S. industrial end-users has steadily declined over the last decade, from a peak of 8.51 Tcf (23.3 Bcf/d) in 1997 to 6.14 Tcf (16.8 Bcf/d) in 2009.[106]

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[102] Hearing on National Energy Policies Before the Subcomm. on Energy and Water Development of the S. Comm. on Appropriations, 111th Cong. 2-3 (2010) (testimony of Hon. Steven Chu, Secretary, DOE).

[103] *Id*. at 3.

[104] Combined-cycle plants, by reusing waste heat to generate electricity, can achieve thermal efficiencies of up to 60% compared to only 33-35% thermal efficiency in conventional steam boilers. *See* NaturalGas.org, http://www.naturalgas.org/overview/uses_eletrical.asp.

[105] Electricity output from U.S. natural gas-fueled power plants has increased 65.4% over the last decade, to 920.4 million megawatt hours in 2009 from 556.4 million megawatt hours in 1999, while natural gas consumption for electricity has increased 33.5% over this same period, to 7.1 Tcf in 2009 from 5.3 Tcf in 1999. *See* EIA, Table 1.1, Net Generation by Energy Source, http://www.eia.doe.gov/cneaf/electricity/epm/epmxlfile1_1.xls. *See also* EIA, Table 2.4.A, Natural Gas Consumption for Electric Generation by Sector, http://www.eia.doe.gov/cneaf/electricity/epm/epmxlfile2_4_a.xls.

[106] *See* EIA, *U.S. Natural Gas Industrial Consumption* (July 29, 2010), http://www.eia.gov/dnav/ng/hist/n3035us2a.htm.

The reduction in industrial gas consumption has resulted, in part, from frequent volatility in domestic natural gas prices over the last decade and structural factors which have discouraged growth in manufacturing. Price volatility also has encouraged many domestic manufacturers to adopt upgrades of facilities to curb natural gas use and boost their competitiveness, reducing natural gas use in the existing industrial base. Other structural factors, such as increasing economic globalization, have incentivized manufacturers to relocate energy-intensive industries to other regions of the world with lower commodity prices and/or more favorable operating conditions.

The recent decline in domestic and global economic output has further exacerbated this trend of reduced consumption. EIA, in its AEO 2010, projects U.S. industrial sector demand to total 6.72 Tcf (18.4 Bcf/d) in 2035, effectively flat consumption compared to 6.65 Tcf (18.2 Bcf/d) consumed in 2008 at the onset of the U.S. economic recession.[107]

b. Residential and Commercial Sectors

Other sectors of the domestic economy have experienced structural changes that have dampened the potential for future growth in natural gas consumption. The EIA has documented that gas demand per U.S. residential household has been in decline since the 1990s, down 22% on a weather-adjusted basis from 1990 to 2009, due to efficiency gains in heating furnaces, improvements in insulation and building construction codes, population shift towards warmer regions, higher commodity prices, and an increase in the share of natural gas customers who do not use natural gas as their primary space-heating fuel.[108] EIA is forecasting effectively no growth in future residential sector consumption of natural gas as customer growth is offset by

[107] *See AEO 2010*, Table 13, *supra* note 100.

[108] EIA, *Trends in U.S. Residential Natural Gas Consumption*, at 1 (June 2010), http://www.eia.gov/pub/oil_gas/natural_gas/feature_articles/2010/ngtrendsresidcon/ngtrendsresidcon.pdf.

these efficiency gains. U.S. residential natural gas demand is forecast at 4.87 Tcf (13.3 Bcf/d) in 2035, approximately the same level as in 2008.[109] Commercial sector natural gas use also is projected to see modest annual growth of 0.6% in the AEO 2010, reaching 3.69 Tcf (10.1 Bcf/d) in 2035 from 3.12 Tcf (8.55 Bcf/d) in 2008.[110]

c. Electricity Sector

The electric generating sector has been the only domestic natural gas consuming sector to experience consistent growth in recent years. Natural gas consumption for electricity generation totaled 6.89 Tcf in 2009, a 32.3% gain from 5.21 Tcf used in 2000. The outlook for future demand is uncertain however, due primarily to economic headwinds caused by the U.S. recession and increased competition from other sources of electric generation.

EIA in its AEO 2010 Reference Case forecast predicts that U.S. gas demand by the electric power sector will decline to 4.82 Tcf (13.2 Bcf/d) in 2014 from 6.86 Tcf (18.8 Bcf/d) in 2009. Rapid near-term installation of renewable sources of power and new coal-fired plant competition are expected to reduce near-term natural gas demand. Installed U.S. renewable power generation is on pace to double by 2012 from current levels,[111] while projects totaling an additional 21.3 gigawatts of new coal-fired power generation capacity are scheduled to start operations from 2009 through 2013.[112] The EIA assumes that gas-fired electric generation will be the marginal supply of future generation, and that coal will be cheaper and thus tend to have a greater share of baseload generation.

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[109] *See AEO 2010*, Table 13, *supra* note 100.

[110] *Id.*

[111] Testimony of Steven Chu, *supra* note 102, at 1.

[112] EIA, *Electric Power Annual 2008*, at 20 (Oct. 22, 2010), http://www.eia.doe.gov/cneaf/electricity/epa/epa.pdf.

Electric generation demand resumes its growth trajectory after 2014. Natural gas use in the electricity sector is projected to grow 0.4% annually over the long-term AEO 2010 forecast, to 7.42 Tcf (20.3 Bcf/d) in 2035 from 6.86 Tcf (18.8 Bcf/d) in 2009.

The EIA's outlook for electric sector gas demand reflects the market impacts of current laws and regulations. Changes in public policy intended to reduce future greenhouse gas ("GHG") emissions would likely influence natural gas use for electricity generation, though the impact would vary considerably depending on the particular regulatory structure which is ultimately adopted.

The MIT Report, for example, concludes that pricing carbon and removing subsidies for all sources of electric generation would increase future natural gas demand in the power sector over the long term.[113] Conversely, the EIA determined that the extension of certain federal regulations and subsidies which favor low- and carbon-free sources of generation would reduce future natural gas demand in the sector.[114] Under the Extended Policies case of the AEO 2010, the extension of federal tax credits for renewable generation sources through 2035 would spur more rapid growth in renewable generation, accounting for 61-65% of the growth in future U.S. electric generating capacity compared to 45% under the Reference Case.[115] The EIA projects that U.S. electricity generation from natural gas would fall 16.2% by 2035 as a result, to 915.2 billion kilowatt hours in 2035 in the Extended Policies case from 1,093.2 billion kilowatt hours in 2035 under the Reference Case.[116] The MIT Report also supports that carbon constraints would spur more investment in intermittent renewable resources which would have a deleterious

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[113] *MIT Report*, *supra* note 90, at xiii.

[114] *See AEO 2010*, at 25-27, *available at* http://www.eia.doe.gov/oiaf/aeo/no_sunset.html (discussing No Sunset and Extended Policies cases).

[115] *Id.*

[116] *See id.* at 26, Figure 12, *available at* http://www.eia.doe.gov/oiaf/aeo/excel/figure12_data.xls.

impact on natural gas demand in the short term.[117] The range of these potential outcomes underscores the potential uncertainty of future gas demand in the electric power sector.

d. Transportation Sector

Natural gas consumed for residential and commercial transportation accounts for a small portion of domestic demand. In 2008, 28.2 Bcf of natural gas was used in the U.S. for vehicle fuel, or 0.1% of the total U.S. gas market of 23.2 Tcf.[118] From this small base, EIA in its AEO 2010 forecast anticipates that transportation sector demand will grow 5.9% annually to 0.19 Tcf (0.5 Bcf/d) in 2035.[119]

e. National Demand Outlook Market Study

In addition to publicly available information and forecasts, Sabine Pass commissioned the NCI Report to assess the potential demand impact on U.S. natural gas markets under several potential regulatory scenarios, including environmental restrictions on GHG emissions. NCI's Gas Pipeline Consumption Model ("GPCM") subsequently was utilized to measure the market pricing impact of LNG exports from the Sabine Pass LNG Terminal at these respective demand levels.

Two future demand cases were developed for consideration by NCI: One case assuming *status quo* energy policy laws ("GHG As Is Case"), and a second "stress case" in which new regulations and policies are adopted that promote the future use of natural gas in the United States ("GHG Plus Case").

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[117] *MIT Report*, *supra* note 90, at xiv.

[118] EIA, *Gas Consumption by End Use*, *supra* note 89.

[119] *AEO 2010*, Table 13, *supra* note 100.

(1) GHG As Is Case

The GHG As Is Case assumes no future regulations are imposed on GHG emissions from the status quo, and is represented in NCI's modeling of the AEO 2010 Reference Case for future U.S. natural gas demand in the electricity sector.[120]

(2) GHG Plus Case

The GHG Plus Case was designed to maximize penetration of natural gas in the domestic transportation and electric-generating sectors. The GHG Plus Case is based on NCI's own Spring 2010 forecast of future electric sector demand, and assumes (i) adoption at the state and federal level of a carbon tax on GHG emissions and (ii) the adoption of extensive financial incentives for the conversion of the domestic commercial truck fleet to natural gas vehicles ("NGVs").

(a) Carbon Tax

The GHG Plus Case assumes the start of a national carbon tax on GHG emissions starting in 2015 at $20.10 per ton ($1.26 per MMBtu),[121] increasing to $54.40 per ton ($3.41 per MMBtu) in 2035, based on the U.S. Environmental Protection Agency's ("EPA") recent analysis of the proposed American Power Act of 2010.[122] The addition of a carbon tax is assumed by NCI to reduce coal-fired generation output in the United States by 1.0% per year starting in 2015 and continuing through 2035, to be replaced by an equivalent quantity of natural gas required for substitution power supplies.[123]

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[120] *See* Section X.A.3.c above for discussion of the *AEO 2010* Reference Case for future U.S. natural gas demand in the electricity sector.

[121] Assumes 125 lbs per MMBtu.

[122] EPA's analysis is available at http://www.epa.gov/climatechange/economics/economicanalyses.html#apa2010. *See also American Power Act*, S. Discussion Draft, 111th Cong. (2010), http://lieberman.senate.gov/assets/pdf/APA_full.pdf.

[123] Exhibit F, NCI, *Market Analysis for Sabine Pass LNG Export Project* (Aug. 2010), at 15 [hereinafter *NCI Report*].

(b) Proliferation of Natural Gas Vehicles

The GHG Plus Case also assumes that incentives are adopted at the federal level to promote the conversion of heavy-duty commercial trucks to NGVs and to expand construction of natural gas-fueling infrastructure. NCI derived the policy incentives and market impacts related to NGVs from the "Reference Case 2027 Phaseout with Expanded Market Potential" ("Reference Case 2027") natural gas market scenario developed by EIA as a modification to its Reference Case in the AEO 2010.[124] The Reference Case 2027 assumes financial subsidies would be adopted which effectively equalize the purchasing costs of new heavy-duty NGVs relative to diesel-powered counterparts, and that new tax incentives would be created for natural gas refueling stations of $100,000 per facility and for natural gas transportation fuel of $0.50 per gallon of gasoline equivalent.[125] These incentives, according to EIA's scenario, are assumed to begin in 2011 and be phased out in 2027.

(3) Market Demand Impacts

Outputs from NCI's GPCM model demonstrate that impacts on future demand between the GHG As Is Case and GHG Plus Case are concentrated in the electricity-generating and transportation sectors. Under the GHG Plus case, domestic natural gas demand in the electricity sector would grow at a 2.4% annual rate from 2010 to 2035,[126] compared to EIA's estimate of 0.4% annual growth in long-term sector demand based on current federal and state regulatory policies.[127] Under the GHG Plus Case, domestic demand for natural gas to generate power would see incremental growth in a range from 6.3 Bcf/d in 2015 to 13.1 Bcf/d in 2035, compared

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[124] *AEO 2010*, at 42-46, *available at* http://www.eia.doe.gov/oiaf/aeo/natgas_fuel.html.

[125] Without incentives, EIA estimates heavy-duty NGVs are from $17,000 to $60,000 more expensive than their diesel counterparts, depending on the vehicle class size. *See id.*

[126] *NCI Report*, *supra* note 123, at 28.

[127] *See AEO 2010*, *supra* note 100, at Table 13.

to the GHG As Is Case, owing to the advent of carbon pricing and further restrictions in state and federal law on future GHG emissions.[128] Demand from the electricity sector in the GHG Plus Case would reach 33.5 Bcf/d in 2035, compared to 20.4 Bcf/d by 2035 under the GHG As Is case.[129]

In the transportation sector, the impacts of federal subsidies promoting natural gas fuel use are not apparent until the latter half of the long-term forecast period. Reflecting outcomes in the EIA Reference Case 2027, domestic demand for natural gas in the transportation sector would total 0.7 Bcf/d in 2020 under the GHG Plus Case,[130] a negligible gain compared to the status quo forecast for 0.2 Bcf/d demand in 2020 under the GHG As Is Case.[131] By 2035, subsidies under the Reference Case 2027 would promote deeper fuel penetration in the transportation sector, resulting in NGV sector consumption of 4.7 Bcf/d in 2035 under the GHG Plus Case compared to 0.5 Bcf/d in 2035 under status quo law.[132] In aggregate, NCI projects that total U.S. natural gas consumption would grow to 83.1 Bcf/d by 2035 under the GHG Plus Case, compared to 68.9 Bcf/d under the GHG As Is case.[133]

(4) Natural Gas Pricing Impacts

The two future demand scenarios designed for the U.S. natural gas market were subsequently inputted into NCI's GPCM model, in order to establish baselines for future U.S. natural gas prices. The baseline pricing cases were then compared to the market price impacts of adding 1 Bcf/d to 2 Bcf/d of liquefaction capacity at the Sabine Pass LNG Terminal under both

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128 *See NCI Report*, *supra* note 123, at 17 (Figure 9).

129 *See id.* at 36, 40.

130 *See id.* at 40.

131 See *id.* at 36.

132 *See id.* at 28.

133 *See id.* at 36, 40.

the GHG As Is Case and GHG Plus Cases. These combined five scenarios all assume that other parameters in NCI's Spring 2010 forecast remain constant.

NCI's forecast of future domestic natural gas production is based on its 2008 study of the subject prepared for the American Clean Skies Foundation, with some updates as knowledge of the U.S. shale resource base has expanded.[134] NCI estimates maximum recoverable reserves from U.S. shale resources to be 842 Tcf, while maximum recoverable reserves for all U.S. gas formations total 2,247 Tcf.[135]

Under the GHG As Is Case, U.S. gas production is projected to grow to 66.2 Bcf/d in 2035 from estimated production of 56.0 Bcf/d in 2010.[136] This compares to estimated domestic production of 75.2 Bcf/d in 2035 under the GHG Plus demand scenario.[137] Much of the difference in estimated U.S. gas production results from variance in shale resource recovery. In the GHG Plus Case, U.S. shale production would total 33.6 Bcf/d in 2035 compared to 29.4 Bcf/d in the GHG As Is Case.[138]

Modeling the GHG As-Is Case and assuming no exports of LNG from the Sabine Pass Liquefaction Project, NCI projects that Henry Hub forward prices would rise from $3.29/MMBtu in 2015 to $6.97 per MMBtu in 2035. Under the GHG Plus Case and assuming no LNG exports from Sabine Pass, Henry Hub forward prices would average $4.50 in 2015 and steadily rise to $11.43 per MMBtu by 2035.[139]

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134 NCI, *North American Natural Gas Supply Assessment*, at 5-6 (July 4, 2008), http://www.cleanskies.org/pdf/navigant-natural-gas-supply-0708.pdf.

135 *See* NCI Report, *supra* note 123, at 10.

136 *Id.* at 42.

137 *Id.* at 45

138 *Id.* at 19 (Figure 11), 29 (Figure 21).

139 *See id.* at 47.

Under the GHG As Is case, the addition of 1.0 Bcf/d of LNG exports to the GHG As-Is Case increases Henry Hub forward prices by only $0.20 per MMBtu (6.1%) in 2015, and by only slightly more, $0.23 per MMBtu (3.3%), in 2035, compared to the no-export GHG As-Is Case. Replacing the 1.0 Bcfd with 2.0 Bcf/d of liquefaction exports increases Henry Hub prices by $0.35 per MMBtu (10.6%) in 2015 and $0.49 per MMBtu (7.0%) in 2035, compared to the no-export GHG As-Is Case.[140]

The addition of 2.0 Bcf/d of LNG exports from the Sabine Pass Liquefaction Project to the GHG Plus Case moves Henry Hub forward prices by $0.52 per MMBtu (4.0%) in 2015, and $0.90 per MMBtu (7.9%) in 2035, compared to the no-export GHG Plus Case. Significantly, the analysis shows that, on a percentage basis, the increases in price associated with the addition of liquefaction demand are similar across all cases. In the lower demand GHG As-Is Case, the percentage increases in prices are very similar to the price increases in the high demand cases. The test cases in both demand scenarios consistently produce single-digit-percentage increases in future natural gas prices, and demonstrate that the impact of LNG exports from the Sabine Pass Liquefaction Project is negligible on future U.S. natural gas market prices.

Furthermore, it must be emphasized that actual market price impacts of the Sabine Pass Liquefaction Project are expected to be more conservative relative to results generated by NCI's modeling. Under NCI's modeling assumptions, LNG exports are "force fed" through the GPCM model at effective 100% utilization rates. The actual price impact is expected to be lower given that (i) the liquefaction units, once operational, will require normal seasonal maintenance that will reduce periodically operational availability, (ii) Sabine Pass anticipates a tariff structure that creates no contractual compulsion to export LNG if global and domestic market conditions do

[140] *Id.*

not provide for profitable activity (if natural gas costs rise because of LNG exports, the price pressure will reduce the incentive to purchase natural gas for export), (iii) a phased-in approach will be required over a minimum of three calendar years to construct the full 16 mtpa of liquefaction capacity, further diluting the Project's market influence as stated in the NCI Report, and (iv) NCI has applied relatively conservative assumptions behind the potential for future domestic resource recovery. Thus, the market impacts of LNG exports as established under the NCI scenarios represent a maximalist perspective on future outcomes.

4. *Supply-Demand Balance Demonstrates the Lack of Regional/National Need*

It is evident from the current supply/demand balance of natural gas in the United States that the request for authorization to export domestic natural gas production is in the public interest. U.S. natural gas production has been steadily increasing in recent years while domestic demand since 2008 has experienced a significant retrenchment owing to the global recession. Robust supply and a dimmed outlook for market growth have led to historically low prices, prompting domestic producers to slow drilling, defer completions of recently drilled wells and reduce plans for future investments in natural gas producing basins.[141] Market price volatility during this period also has forced the periodic shut-in of actively producing wells in marginal gas-producing fields, suggesting that domestic natural gas productive capacity has exceeded the ability of the United States market to absorb incremental supplies.[142] The ability to export domestic gas as LNG will greatly expand the market scope and access for domestic natural gas

[141] Three of the four articles on the cover of the August 4, 2010 edition of Gas Daily concern the impact on producers and production of the current over supply situation: *Chesapeake lays it down until prices pass $6*; *Prices prompt Petrohawk to trim shale spending* and *Analysts ponder long-term impact of low prices*. Platts Gas Daily, Aug. 4, 2010, at 1.

[142] Jim Magill, Platts Gas Daily, *One-third of wells on Wyoming state land shut in,* Oct. 28, 2009 ("More than a third of all oil and gas wells operating on Wyoming state lands have been shut in, primarily in response to low wellhead prices"). *See a*lso Natural Gas Intelligence, *Encana Shuts in Gas Wells on Low Prices*, June 22, 2009 ("Because of low natural gas prices EnCana Corp. has shut in some wells in both the United States and Canada").

producers and thus serve to encourage domestic production at times when U.S. market prices might not otherwise do so. Such production will be available to supply domestic markets and thereby serve to moderate U.S. gas price volatility and keep prices to U.S. natural gas consumers at reasonable levels.

The ARI Resource Report further establishes that U.S. natural gas resources well exceed future domestic needs, and that, absent a sustained downturn in prices, surplus productive capacity will remain a fixture of the U.S. natural gas market. In the ARI Resource Report, the firm examines its unconventional gas resource assessment in the context of the EIA's latest demand Reference Case in AEO 2010 for the U.S. natural gas market through 2035.[143] Using the AEO 2010 reference outputs and holding all other variables constant, ARI used its Technology Model for Unconventional Gas Supply to re-assess the outlook for domestic unconventional gas productive capacity given EIA's projected track for future U.S. natural gas prices.[144] This substitution is appropriate given that EIA historically has underestimated the future contributions of unconventional gas, and particularly shale gas, to domestic markets.[145] These underestimation issues remain a concern in EIA's AEO 2010 forecast, which appears 4.7 Bcf/d too conservative in its estimate of current U.S. shale gas production.[146]

Assuming the same natural gas price outlook as generated by AEO 2010, ARI estimates U.S. unconventional gas productive capacity will grow to 69.0 Bcf/d in 2035 from 36.3 Bcf/d in

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143 *See AEO 2010, available at* http://www.eia.doe.gov/oiaf/aeo/pdf/0383(2010).pdf.

144 *AEO 2010* estimates U.S. natural gas prices will rise from $4.50/MMBtu to $6.64/MMBtu through 2020, while long-term prices are projected to increase from $6.74/MMBtu to $8.88/MMBtu between 2021 and 2035. *AEO 2010*, Table 13, *supra* note 100.

145 NCI, *North American Natural Gas Supply Assessment*, *supra* note 134, at 5-6.

146 *AEO 2010* projects U.S. shale gas production of 2.75 Tcf (7.5 Bcf/d) in 2010. *See AEO 2010*, at Table 14, *available at* http://www.eia.doe.gov/oiaf/aeo/excel/aeotab_14.xls. However, ARI notes that preliminary U.S. shale gas production totals 12.2 Bcf/d in 2010. *ARI Resource Report*, *supra* note 92, at 6.

2010.[147] Natural gas produced from shales account for 26.9 Bcf/d, or 82.3% of the 32.7 Bcf/d in projected growth in domestic productive capacity from unconventional geologic formations over the 25-year timeframe.[148] ARI subsequently merged its unconventional productive capacity findings with the AEO 2010's projections for conventional domestic dry production, including the estimated full start of a 4.5 Bcf/d pipeline from Alaska's North Slope to the Lower 48 states in 2024, and concluded that U.S. dry natural gas productive capacity would grow to 92.7 Bcf/d in 2035 from 58.6 Bcf/d in 2010, given the future market price track presented in the AEO 2010 report.[149] This growth in domestic productive capacity would well exceed expectations for future U.S. demand, projected by EIA in AEO 2010 to grow to 68.1 Bcf/d in 2035 from 64.7 Bcf/d in 2010.[150] Under the modified supply case presented by ARI, domestic natural gas productive capacity would exceed projected U.S. demand by 11.0 Bcf/d in 2015, 19.9 Bcf/d in 2025, and 28.7 Bcf/d in 2035, assuming timely completion of the North Slope pipeline to the Lower 48.[151] Notably, in each case domestic surplus productive capacity would well exceed the 16 mtpa requested by Sabine Pass for export authority over the course of the 20-year period (2015-2035) covered in the ARI forecast, even given the assumption of delay or cancellation of an Alaska pipeline to the Lower 48 region.[152]

ARI's estimate of potentially 92.7 Bcf/d in future U.S. natural gas productive capacity stands in contrast to estimates by NCI of gas production of up to 75.6 Bcf/d in 2035 under its

147 *ARI Resource Report*, *supra* note 92, at 23.

148 *Id.* at 27.

149 *Id.* at 23-24.

150 *Id.* at 24.

151 *Id.*

152 *Id.*

GHG Plus, High Export demand scenario.[153] The differences between the ARI and NCI forecasts represent dissimilar comparisons of future domestic production given the different burdens in modeling price-responsive supply by the two consultants. In the case of ARI, a given future price track was pre-assumed to determine future natural gas productive capacity, while NCI's models predict actual U.S. gas production at prevailing market prices, given the assumed interaction of marginal supply and demand economics at a given future point.

The NCI supply outlook also reflects relatively conservative assumptions on future recovery from domestic shale gas resources compared to the ARI Resource Report. NCI assumes that no new economically recoverable reserves will be discovered in future U.S. unconventional basins, while ARI assumes that future resources will be discovered and that further gains can be expected in technology and drilling practices applied to recover potential reserves. Furthermore, NCI's GPCM modeling does not assign weight to the additional value created from producing NGLs from certain shale formations, a factor that is given consideration in ARI's forecasting and would, all else being equal, yield a more robust future outlook for shale gas production.

Significantly, both consultants have concluded that the potential for future recovery of U.S. gas production is more robust than presented in prevailing EIA forecasts. In the ARI Resource Report, this relatively bullish outlook is manifest in the creation of excess productive capacity, while NCI's modeling yields significantly greater production from domestic shale formations in the future at relatively lower prices than assumed by EIA. Both reports conclude that U.S. natural gas resources are sufficient to meet all future demand scenarios under

[153] *NCI Report*, *supra* note 123, at 46.

consideration and, therefore, the exporting of up to 2 Bcf/d of natural gas as LNG will not be inconsistent with the public interest.

The ARI Resource Report, NCI Report, and other publicly available information demonstrate that the United States has sufficient natural gas resources available at modest prices to meet projected domestic demand over the 20-year period requested by Sabine Pass in this Application. Even if state and federal policymakers opt to deliberately stimulate future domestic gas demand, the U.S. natural gas resource base is more than sufficient to accommodate incremental market growth as well as the Liquefaction Project proposed herein. Further, these reports establish that the availability of new natural gas reserves is likely to continue expanding into the future as new unconventional formations are discovered and the oil and gas industry continues to improve drilling and extraction techniques.

B. Other Public Interest Considerations

1. *Benefits to U.S., Regional and Local Economies*

The Sabine Pass Liquefaction Project will stimulate the local, regional, and national economies through job creation, increased economic activity and tax revenues. Much of the technology, equipment, and material needed to construct the Liquefaction Project can be obtained from U.S. sources. The manufacturing and supply of the required materials will result in an investment of over $400 million per LNG train, which equates to over $1.6 billion in U.S. sourced materials for the Liquefaction Project as a whole. The Louisiana state and Gulf Coast regional economies will benefit from an immediate boost during the construction and operation of the Liquefaction Project. Moreover, the national economy will benefit indirectly from the Liquefaction Project's role in supporting the E&P chain for natural gas extraction.[154] This

[154] Natural gas production activity is reported in a total 32 U.S. states. *See* EIA, *Natural Gas Gross Withdrawals and Production*, *supra* note 83.

indirect stimulus will have a profound multiplier effect due to the wages, taxes and lease payments involved in the natural gas supply chain. Additionally, the creation of jobs that will occur as a result of the Liquefaction Project will further the current Administration's national economic policies as articulated by the President in the State of the Union address in January 2010.[155] In this regard, the Liquefaction Project will help to reduce barriers to trade and promote U.S. businesses with the goal of increasing exports, thereby creating jobs and boosting the economy.

Given the magnitude of the economic benefits associated with its construction and operation, the Liquefaction Project has received significant support from a broad spectrum of local, state and federal officeholders in the state of Louisiana, including the entire congressional delegation from the state.[156] In this regard, the need for LNG export facilities in the United States, and in Louisiana in particular, has been recognized by U.S. Senator Mary Landrieu:

> The United States is currently experiencing a natural gas revolution that will open up new markets here at home and abroad…. In northwest Louisiana alone, the Haynesville Shale reserve has 251 trillion cubic feet of recoverable natural gas, almost 11 times the amount consumed by Americans last year. Accessing this growing supply of natural gas and building the means to deliver it to consumers will stabilize prices and allow the U.S. to become a major exporter of natural gas. This project by Cheniere Energy at Sabine Pass is a key piece of that puzzle. The result will be more jobs for Louisianians, a stronger economy and more secure energy future of America.[157]

a. Direct Benefits

The Liquefaction Project will provide a stable source of income and employment to the Louisiana and Gulf Coast communities. Approximately 3,000 jobs will be created or sustained

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[155] *See* NEI, *supra* note 15.

[156] *See supra* note 16.

[157] Press Release, U.S. Senator Mary Landrieu, Landrieu Welcomes Changes to Sabine Pass to Allow Exportation of Natural Gas (June 4, 2010), http://landrieu.senate.gov/mediacenter/pressreleases/06-04-2010-2.cfm.

directly through the design, engineering and construction of the Liquefaction Project, which translates into approximately $1 billion in wages to U.S. workers over a six-year period.[158] A peak labor force of approximately 2,750 craft workers will be required on site to construct Stage 1, generating estimated wages of $350 million. An additional 250 workers in managerial staff also will be required to supervise the construction of Stage 1, creating an additional $170 million in wages.

Stage 2 is anticipated to generate an additional $300 million in craft labor wages and $150 million in managerial staff wages. Sabine Pass estimates that approximately 150 to 250 full-time positions will be required to maintain and operate the Liquefaction Project.

Most of the construction workforce will come directly from southern Louisiana and southeastern Texas, providing a direct stimulus to those areas. The Liquefaction Project will provide a lifeline to the southwestern Louisiana area, particularly Cameron Parish, which was decimated by Hurricanes Ike and Rita and has yet to fully recover. The positive economic impact also will reach other areas of Louisiana and the Gulf Coast which recently have suffered a downturn as a result of the deepwater drilling moratorium in the Gulf of Mexico. Once constructed and operational, the state and local economies will derive significant tax revenues from the Liquefaction Project, including tax revenues on NGLs, increased natural gas production, labor, pipelines, and other related infrastructure construction.

b. Indirect Benefits

The Sabine Pass LNG Liquefaction Project will play an influential role in contributing to the growth of natural gas production in the U.S. The natural gas supply chain has very significant multiplier effects on the U.S. economy due to the large number of high-wage jobs

[158] Estimated construction work force numbers and payroll have been provided by Sabine Pass's engineering, procurement and construction contractor, Bechtel Corporation, and include current staff working on the Liquefaction Project for front end engineering and design.

paid directly by the natural gas industry, as well as royalty and lease payments made to landowners in association with natural gas production. The direct expenditures associated with the Liquefaction Project and indirect benefits made available by increased U.S. gas production and associated liquids will ripple through the U.S. economy and generate further economic activity as businesses and workers spend additional money. In this regard, there will be significant employment and income impacts on local businesses such as restaurants, service companies, retailers and hotels, while the additional U.S. natural gas productive capacity made available by LNG exports will generate benefits on a national scale. The Liquefaction Project also may spur the creation of new value-added businesses associated with the liquefaction and export processes.

The magnitude of economic activity that can be generated by the Liquefaction Project across multiple sectors is difficult to appreciate in the abstract. As a point of reference, a number of economic impact studies have been conducted to assess the economic benefits of shale gas development in several basins, including the Barnett shale in Texas, the Haynesville shale in Louisiana, and the Marcellus shale in West Virginia and Pennsylvania, and are further discussed herein. Each of these studies analyzed the direct and indirect economic impact of natural gas development activity in these respective producing basins, and found that for every dollar spent directly by the gas industry, more than one dollar of indirect economic activity was generated as a consequence.[159]

The impact on the State of Louisiana economy from Haynesville shale extraction has been significant. A 2008 survey of seven of the 17 firms drilling in the shale (which represent 72% of the leased acreage), shows that annual business sales increased by $2.4 billion,

[159] See Nat'l Energy Tech. Laboratory ("NETL"), DOE, *Projecting the Economic Impact of Marcellus Shale Gas Development in West Virginia*, Mar. 31, 2010, at 23, http://www.netl.doe.gov/energy-analyses/pubs/WVMarcellusEconomics3.pdf.

household earnings increased by $3.9 billion, tax revenues increased by $153.3 million, and an additional 32,742 new jobs were created that year due to Haynesville shale development.[160] The volume of gas produced in 2008 from the Haynesville shale averaged 146 MMcf/d.[161]

The Barnett shale also has been a major engine for growth in the North Texas region. Natural gas development in the Barnet shale region in 2008 resulted in: 111,131 permanent jobs, $3.3 billion in retail sales, $6.55 billion in personal income and $11 billion in gross product, for total annual expenditures of $29.5 billion in North Texas.[162] The Barnett shale produced an average of 4.4 Bcf/d in 2008.[163]

The economic impacts associated with drilling activity in the Marcellus shale have provided a significant boost to the Appalachian region in recent years. In 2009, Marcellus shale development created an estimated total value-added benefit of $4.36 billion in West Virginia and Pennsylvania,[164] including approximately $600 million in state and local taxes and 53,000 new regional jobs. In West Virginia, Marcellus shale development in 2009 yielded value-added benefits of approximately $561 million to the state economy, including $199 million in taxes and 4,858 additional jobs.[165] In Pennsylvania, value added to the state economy by Marcellus development was estimated at $3.8 billion in 2009, consisting of more than $400 million in state

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[160] Loren C. Scott & Associates, *The Economic Impact of the Haynesville Shale on the Louisiana Economy in 2008*, Apr. 2009, at 21-22, http://dnr.louisiana.gov/haynesvilleshale/loren-scott-impact2008.pdf.

[161] *See* Lippman Consulting, Monthly Major Shale Production Report, updated Aug. 10, 2010, *available by subscription at* http://www.lippmanconsulting.com.

[162] The Perryman Group, *An Enduring Resource: A Perspective on the Past, Present and Future Contribution of the Barnett Shale to the Economy of Fort Worth and the Surrounding Area*, Mar. 2009, at 32, http://groundwork.iogcc.org/sites/default/files/2009_eco_report.pdf.

[163] *See* Lippman Consulting, Monthly Major Shale Production Report, updated Aug. 10, 2010, *available by subscription at* http://www.lippmanconsulting.com.

[164] Value added is defined as the sum of direct, indirect and induced economic impacts, minus intermediate capital and labor expenses.

[165] NETL, *Projecting the Economic Impact of Marcellus Shale Gas Development in West Virginia*, *supra* note 159, at 25.

and local taxes, and employment in excess of 48,000 jobs.[166] The Marcellus shale produced an average of 244 MMcf/d in 2009.[167]

These surveys of economic impacts in emerging shale plays establish that E&P development has a significant multiplier effect which yields numerous benefits for state and regional economies. By promoting increased drilling activity, the Liquefaction Project will foster additional investments in U.S. gas-producing basins and thereby expand economic activity in the broader U.S. economy. These and other surveys suggest that, in the aggregate, the Liquefaction Project will support additional employment of between 30,000 and 50,000 new U.S. jobs associated with natural gas upstream development.[168]

2. *International Considerations*

U.S. international trade law, general U.S. trade policy and DOE's longstanding policy that the public interest is best served by the principles of free trade all strongly support exportation of domestically produced LNG. Not only will the exportation of LNG have a beneficial impact on the U.S. trade deficit by leveling the balance of payments between the U.S. and the rest of the world, but it also will enhance the diversity of global supply and contribute to the security interests of the U.S. and its allies.[169] Furthermore, the exportation of LNG will

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[166] Timothy Considine, Ph.D., M.B.A., Robert Watson, Ph.D., P.E., Rebecca Entler & Jeffrey Sparks, The Penn. State Univ. Dep't of Energy & Mineral Eng'g, *An Emerging Giant: Prospects and Economic Impacts of Developing the Marcellus Shale Natural Gas Play*, July 24, 2009, at ii, http://www.alleghenyconference.org/PDFs/PELMisc/PSUStudyMarcellusShale072409.pdf.

[167] Lippman Consulting, Inc., *Monthly Major Shale Production Report*, Aug. 10, 2010, *available by subscription at* http://www.lippmanconsulting.com.

[168] Calculations assume a *pro rata* share of employment created by 2 Bcf/d of additional U.S. production capacity. *See* Nick Snow, *Boost in Marcellus shale jobs, economy expected, study says*, Oil and Gas Journal, Aug. 2, 2010. pp 42-44. In the high development case, the Marcellus shale is forecast to produce 18 Bcf/d and 280,000 jobs, or 15,555 jobs per 1 Bcf/d of production. In the low development case, the Marcellus shale is forecast to produce 4 Bcf/d and 100,000 new jobs, or 25,000 jobs per 1 Bcf/d of production.

[169] *See MIT Report*, *supra* note 90, at xv.

advance initiatives underway by the current Administration to promote investment in energy infrastructure in neighboring Caribbean and Central/South America nations.

a. Balance of Payments

Allowing for the exportation of LNG will have a beneficial impact for the United States on its balance of payments with the rest of the world, thereby reducing the overall U.S. trade deficit. According to the U.S. Department of Commerce, Bureau of Economic Analysis, in 2009 the total U.S. trade deficit was $380.7 billion (comprised of approximately $1.5 trillion in exports minus approximately $1.9 trillion in imports).[170] Significantly, of that $380.7 billion deficit, more than half (over $204 billion) was the direct result of a negative balance of trade in petroleum products.[171] Given the substantial impact the United States's negative trade balance in petroleum products has on its overall trade deficit and balance of payments, approving Sabine Pass's request to export LNG will have a significant positive impact on reducing that deficit.

More specifically, Sabine Pass estimates that it will export approximately $5 billion of LNG on an annual basis. In addition, LNG exports will allow U.S. natural gas productive capacity to expand, thereby enabling additional production of NGLs such as ethane, propane and condensate derived in association with natural gas processing and field production. According to the ARI Liquids Report, LNG exports from the Gulf Coast will particularly benefit NGL production from several liquids-rich unconventional formations in the region, including the Barnett shale, the Eagle Ford shale and the Granite Wash tight sands. Furthermore, ARI found that an increase of 2 Bcf/d of LNG exports will yield an estimated 46.7 million barrels per year, or 128,000 b/d, of additional NGLs by 2020 due to increased productive capacity in the Gulf

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[170] *See* BEA, *2009 Trade Gap*, *supra* note 20.

[171] *See* BEA, U.S. Dep't of Commerce, *U.S. Int'l Trade in Goods and Services*, Feb. 10, 2010, at 11, http://www.bea.gov/newsreleases/international/trade/2010/pdf/trad1209.pdf.

Coast region.[172] This incremental liquids production would be available either for export or to reduce current U.S. oil product imports, resulting in a further $1.7 billion improvement to the U.S. balance of payments.[173] The export of approximately 16 mtpa of LNG in tandem with displacement of 46.7 million barrels of annual oil product would therefore yield an approximate $6.7 billion improvement to the U.S. balance of trade.[174] Notably, in 2009, the U.S. only exported a total of $49 billion worth of petroleum products.[175] Accordingly, Sabine Pass estimates that approval of its request will result in a significant net benefit to the U.S. trade deficit and balance of payments over the period of the authorization. These types of potential benefits to the U.S. trade deficit and balance of payments have been expressly recognized by DOE in its prior decisions, when it approved other requests to export LNG from the United States.[176] DOE's prior conclusions are equally applicable here.

b. Geopolitical Benefits

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. LNG exports also will advance national security interests as well as the security interests of U.S. allies through the diversification of global natural gas supplies. The current natural gas trade has developed regionally with three primary markets: North America, Europe and Asia. There is

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172 *See ARI Liquids Report*, *supra* note 18, at 6.

173 *See supra* note 19.

174 *See ARI Liquids Report*, *supra* note 18, at 6.

175 *See* BEA, *U.S. Int'l Trade*, *supra* note 171, at 11.

176 *See, e.g.*, *ConocoPhillips*, Order No. 2731, at 10 ("exportation of LNG will help to improve the United States's balance of payments with destination countries"); *Cheniere*, Order No. 2651, at 14 ("I find that mitigation of balance of payment issues may result from a grant of the application [to export LNG]"); *Freeport LNG Dev., L.P.*, FE Docket No. 08-70-LNG, Order No. 2644, at 12 ("mitigation of balance of payments issues to the benefit of United States interests will result from a grant of the application [to export LNG]"); *ConocoPhillips*, Order No. 2500, at 58 ("we find that mitigation of balance of payment issues may result from a grant of the instant application [to export LNG]").

substantial trade within these markets, but limited trade between the markets. The pricing structure within each market is significantly different. In North America, natural gas is traded in a highly liquid and competitive market and prices are very transparent. The European and Asian markets are dominated by natural gas price linkage to the valuation of competing crude oil products. LNG contracts for these markets also are predominantly indexed to crude oil. By introducing market-based price structures, Sabine Pass increases the potential for global decoupling of oil-parity pricing. This will provide significant benefits worldwide because, as stated in the MIT Report, "[a]n interconnected delivery system combined with price competition are essential feature of a 'liquid' market."[177] The Sabine Pass Liquefaction Project can serve as a catalyst for this interconnection.

Natural gas is poised to grow as an energy source globally. Energy and security have historically been linked and this relationship is likely to tighten. On April 8, 2010, in addressing the North Atlantic Treaty Organization ("NATO"), the President said lack of international energy security was a 21st century asymmetric threat for all to address.[178] He suggested that the European Union ("EU") make an effort collectively within the EU and reiterated that diversity in sources of energy supply was good for all parties. He also pledged cooperation and support with regard to that issue. Energy security is not a new issue for NATO. Its economic committee has, for years, had regular briefings on the topic as well as on industrial planning and energy security. The U.S. government and NATO have stressed that planning in response to terrorism is an area where energy security plays an integral role. The U.S. government has expressed concerns over structural difficulties that inhibit a common position within the EU on energy security

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[177] *MIT Report*, *supra* note 90, at 70.

[178] Press Release, The White House, Press Gaggle by Nat'l Security Advisor Gen. Jim Jones and NSC Chief of Staff Denis McDonough Aboard Air Force One (Apr. 9, 2010), http://www.whitehouse.gov/the-press-office/press-gaggle-national-security-advisor-general-jim-jones-and-nsc-chief-staff-denis-.

cooperation. Exports of U.S. natural gas will play a significant role in reducing the influence of Eurasian/MidEastern price cartels on NATO allies and other U.S. trading partners. Exports of U.S. natural gas could provide the catalyst that helps assure energy security within NATO.

As a related matter, a global, liquid natural gas market is beneficial to U.S. and global economic interests and, at the same time, advances security interests through diversity of supply and resilience to disruptions.[179] To this end, the importance of the Sabine Pass Liquefaction Project has been recognized by multiple European utilities with interest in it due to the competitive pricing structure of U.S. natural gas markets and the security and diversity of supply offered by liberalized market policies. The gas supply available to Europe is restricted to a small group of supplying countries. Even though the amount of supply from the Sabine Pass Liquefaction Project will be an estimated 3% of the global LNG export capacity of 498 mtpa by 2015,[180] the entrance of the United States into the global LNG market as a supplier will significantly diversify the global gas market. Further, the U.S. provides a stable trading partner for European utilities and other international customers. This has important security implications because "[t]he U.S., with its unique international security responsibilities, can be constrained in pursuing collective action if its allies are limited by energy security vulnerabilities."[181]

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[179] *MIT Report*, *supra* note 90, at xv ("Greater international market liquidity would be beneficial to U.S. interests. U.S. prices for natural gas would be lower than under current regional markets, leading to more gas use in the U.S. Greater market liquidity would also contribute to security by enhancing diversity of global supply and resilience to supply disruptions for the U.S. and its allies. These factors moderate security concerns about import dependence."). *See also id.* at xvii ("For reasons of both economy and global security, the U.S. should pursue policies that encourage an efficient integrated global gas market with transparency and diversity of supply, and governed by economic considerations.").

[180] Currently, the global LNG export capacity is 262 mtpa. By 2015, LNG Reports expects this to grow by 90%. *See* LNGReports, *World LNG Export and Import Markets to 2015* (Jan. 7, 2010), http://www.lngreports.com/reports.php?reportid=309.

[181] *MIT Report*, *supra* note 90, at 71.

c. Economic Trade and Ties with Neighboring Countries in the Americas

The United States has long recognized as a matter of policy that increased economic trade and ties with its proximate hemispheric neighbors in the Americas serve the national interest. In the case of the Caribbean and Central America, these goals are expressed in the trade programs known collectively as the Caribbean Basin Initiative ("CBI"), which are designed to facilitate the economic development and export diversification of the Caribbean Basin economies. Initially launched in 1983 through the Caribbean Basin Economic Recovery Act ("CBERA")[182] and substantially expanded in 2000 through the U.S.-Caribbean Basin Trade Partnership Act ("CBTPA"),[183] the CBI currently provides 18 beneficiary countries with duty-free access to the U.S. market for most goods. Authorization to export LNG to these participating countries will support those established policy goals. As to the Western Hemisphere as a whole, it has long been a tenet of U.S. foreign policy that healthy economies in the region contribute to improved relations, increased stability, and two-way trade, as well as a reduction of incentives for transnational crimes, illegal immigration and the drug trade. The ability to access an environmentally cleaner, more economical and efficient fuel supply is a proven factor in promoting economic growth. If the source of that fuel is in the U.S., then both the U.S. and its neighbors' economies will benefit mutually.

Furthermore, LNG exports will directly advance initiatives underway by the current Administration to promote investment in energy infrastructure in Caribbean and South American nations. This effort is manifest in the Energy and Climate Partnership of the Americas ("ECPA"), a set of voluntary initiatives which promote energy efficiency, renewable energy,

[182] Caribbean Basin Economic Recovery Act, Pub. L. No. 98-67, §§ 201-231, 97 Stat. 369, 384-398 (1983) (codified as amended in scattered sections of 19 U.S.C. and 26 U.S.C.).

[183] Caribbean Basin Trade Partnership Act, Pub. L. No. 106-200, §§ 201-213, 114 Stat. 251, 275-288 (2000) (codified in scattered sections of 19 U.S.C.).

cleaner fossil fuels, and modernized energy infrastructure. President Obama endorsed the goals of the EPCA in his address to the Summit of the Americas in April 2009, and invited countries of the Western Hemisphere to join the partnership.[184] Secretary of State Hillary Rodham Clinton underscored the United States's commitment to help governments achieve low-carbon economic growth, and highlighted new initiatives that the Department of State is sponsoring under ECPA to expand energy and climate cooperation in the Americas.[185]

The promotion of hemispheric natural gas usage via LNG exports will advance the policy goals established under the EPCA. Many countries in the Caribbean and Central America lack access to indigenous natural gas resources, and as a result are highly dependant on imported petroleum products to fuel electric generation and manufacturing activities. Countries in the Latin American region consume approximately 2.3 million b/d of petroleum products in stationary demand sources, including 0.9 million b/d for power generation, 0.6 million b/d in manufacturing and 0.8 million b/d for use in the residential and commercial sectors.[186] These sources of petroleum demand represent viable candidates for conversion to cleaner-burning natural gas, totaling potentially 12 Bcf/d of switchable use if reliable natural gas supplies were made available and related infrastructure developed in the region. Given that natural gas combustion emits approximately 30% less carbon dioxide than petroleum,[187] substituting natural gas for petroleum will reduce the carbon intensity of these economies.

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[184] Press Release, The White House, The United States and the 2009 Summit of the Americas: Securing Our Citizens' Future (Apr. 19, 2009), http://www.whitehouse.gov/the-press-office/united-states-and-2009-summit-americas-securing-our-citizens-future.

[185] Press Release, U.S. Dep't of State, Secretary Clinton Announces New Initiatives Under the Energy and Climate Partnership of the Americas (Apr. 15, 2010), http://www.state.gov/r/pa/prs/ps/2010/04/140288.htm.

[186] PIRA Energy Group, *The Potential for Natural Gas Substitution*, Jan. 12, 2010, at 5.

[187] *See* American Clean Skies Foundation, http://www.cleanskies.org/resources-natgas-basics.html.

Initiatives are afoot in several countries in the Americas to establish local markets for natural gas through the importation of LNG. Brazil currently imports LNG via two LNG receiving terminals located offshore Rio de Janiero and Pecem. The Dominican Republic and Puerto Rico are also current importers of LNG. El Salvador is planning its first LNG receiving terminal at the Port of La Union to supply a 525 MW combined-cycle power plant under development at the site. The government of Jamaica has issued a tender for bids to construct a floating LNG regasification unit off its southern coast. Other neighboring countries such as Colombia, Panama and Costa Rica also are considering LNG as an option to meet future growth in energy demand. The authority to export domestically produced natural gas to these hemispheric allies will bolster their efforts to modernize their economies and transition away from more carbon-intensive fuels.

3. *Environmental Impacts*

The Liquefaction Project will have minimal environmental impacts given that all facilities will be located within the previously authorized footprint of the existing Sabine Pass LNG Terminal. The FERC conducted an environmental review of the Sabine Pass LNG Terminal site in connection with authorization of the siting, construction and operation of the Terminal in Docket Nos. CP04-47-000 and Docket No. CP05-396-000.[188] Any additional environmental impacts associated with construction and operation of the Liquefaction Project will be reviewed by the FERC and the applicable state and federal permitting agencies (*e.g.*, United States Army Corps of Engineers and Louisiana Department of Natural Resources, among others) as part of the permitting process for the Liquefaction Project. In this regard, on August 4,

[188] *See* underlying applications filed in Docket Nos. CP04-47-000 and CP05-396-000 for a description of the location, size and environmental characteristics of the Sabine Pass LNG Terminal site. *See also* Final Environmental Impact Statement and the Environmental Assessment prepared by the FERC Staff in Docket Nos. CP04-47-000 and CP05-396-000.

2010, FERC initiated the NEPA pre-filing review process for the Sabine Pass Liquefaction Project in Docket No. PF10-24-000. Sabine Pass will keep DOE/FE apprised of the progress of the environmental review conducted by FERC.

XI. ENVIRONMENTAL IMPACT

As discussed above, the potential environmental impacts of the Sabine Pass Liquefaction Project will be reviewed by FERC under NEPA. In this regard, Sabine Pass has requested that the Assistant Secretary issue a conditional order authorizing the export of domestically produced LNG, conditioned on completion of the environmental review of the Liquefaction Project by FERC.

XII. RELATED AUTHORIZATIONS

The siting, construction and operation of the Liquefaction Project is subject to approval by FERC pursuant to Section 3 of the NGA. In this regard, Sabine Pass and Sabine Pass LNG currently are undergoing the FERC's mandatory NEPA pre-filing review process for the Sabine Pass Liquefaction Project in Docket No. PF10-24-000.[189] Sabine Pass and Sabine Pass LNG anticipate filing a formal application with FERC no later than February 2011 and will request that FERC issue authorization of the siting, construction and operation of the Liquefaction Project by December 2011.

XIII. REQUEST FOR EXPEDITED APPROVAL

Sabine Pass respectfully requests that the DOE/FE issue (i) an order pursuant to the Energy Policy Act of 1992's standard by no later than September 22, 2010 for authorization to export LNG to WTO Countries; and (ii) an order pursuant to the NGA's Section 3 public interest standard by no later than December 2010 for authorization to export LNG to non-WTO

[189] *See supra* note 28.

Countries. Granting these authorizations in the timeframe indicated is critical to the feasibility of the Liquefaction Project. As discussed in Section VIII, Sabine Pass is in the process of aggregating customer interests and requests so that it may soon begin negotiating commercial agreements. As is customary, these commercial arrangements are contingent on Sabine Pass obtaining the necessary regulatory authorizations for the Liquefaction Project. Approval of this Application in the timeframe indicated will positively impact potential exporters' willingness to undertake exporting LNG and help facilitate and expedite investment in the necessary infrastructure.

XIV. EXHIBITS

The following appendices are attached hereto and incorporated by reference herein:

Exhibit A:	Opinion of Counsel
Exhibit B:	*A Review of International Trade-Related Legal Obligations and Policy Considerations Governing U.S. Export Licenses for Liquefied Natural Gas*, prepared by Stewart and Stewart (Aug. 23, 2010)
Exhibit C:	Letters of Support: Letter from Cameron Parish Planning and Development (Jun. 29, 2010); Letter from Louisiana State Senator Willie L. Mount, et al. (Jul. 1, 2010); Letter from Louisiana State Representative Jonathan Perry (Jul. 15, 2010); Letter from Lieutenant Governor Scott A. Angelle (Jul. 21, 2010); Letter from U.S. Senator Mary Landrieu, et al. (Jul. 26, 2010)
Exhibit D:	*U.S. Natural Gas Resources and Productive Capacity*, prepared by Advanced Resources International, Inc. (Aug. 26, 2010)
Exhibit E:	*Domestic Hydrocarbon Liquids Production from Gas Shales and Other Unconventional Gas Resources*, prepared by Advanced Resources International, Inc. (Aug. 27, 2010)
Exhibit F:	*Market Analysis for Sabine Pass LNG Export Project*, prepared by Navigant Consulting, Inc. (Aug. 23, 2010)

XV. CONCLUSION

For the foregoing reasons, Sabine Pass respectfully requests that DOE/FE determine that Sabine Pass's request for long-term, multi-contract authorization as discussed herein to enable it to export domestically produced LNG from the Sabine Pass LNG Terminal to any country with which the United States does not have a Free Trade Agreement requiring the national treatment for trade in natural gas and LNG that has the capacity to import LNG and with which trade is not prohibited by U.S. law or policy, is not inconsistent with the public interest. Sabine Pass respectfully requests that the DOE/FE issue (i) an order pursuant to the Energy Policy Act of 1992's standard by no later than September 22, 2010 for authorization to export LNG to WTO Countries; and (ii) an order pursuant to the NGA's Section 3 public interest standard by no later than December 2010 for authorization to export LNG to non-WTO Countries.

Respectfully submitted,

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