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December 19, 2011

#### VIA COURIER

Mr. John Anderson Office of Fossil Energy [FE-34] U.S. Department of Energy 1000 Independence Avenue, S.W. Washington, D.C. 20585

In the Matter of Freeport LNG Expansion, L.P. RE:

FLNG Liquefaction, LLC

FE Docket No. 11- /6 / LNG

Application for Long-Term Authorization to Export Liquefied Natural Gas

To Non-Free Trade Agreement Countries

#### Dear Mr. Anderson:

Enclosed for filing on behalf of Freeport LNG Expansion L.P. and FLNG Liquefaction, LLC (collectively, "FLEX"), please find an original and five (5) copies of FLEX's application for long-term, multi-contract authorization to engage in exports up to the equivalent of 1.4 billion cubic feet per day, or 511 billion cubic feet per year of liquefied natural gas ("LNG"). Authorization is sought for a 25-year period, to commence on the date of first export or 8 years from the date of issuance of the authorization requested by this application, whichever is sooner.

FLEX proposes to export LNG from Quintana Island near Freeport, Texas to any country with which the United States does not have a free trade agreement ("FTA") requiring national treatment for trade in natural gas and LNG, which has or in the future develops the capacity to import LNG via ocean-going carrier, and with which trade is not prohibited by U.S. law or policy.

This application is filed separately from FLEX's currently pending application in FE Docket No. 10-161-LNG. It is our understanding that under DOE/FE policy and procedure, FLEX's filing of the attached new application will not delay DOE/FE's processing of, or adversely affect the public interest analysis for FLEX's pending application in FE Docket No. 10-161-LNG. FLEX also understands that this filing will not affect the order in which currently pending applications for long term exports of LNG to non-FTA countries, including FE Docket 10-161-LNG, are processed or decided by DOE/FE. If that is not the case, please do not accept the attached application for filing and instead return the same to me.

Mr. John Anderson December 19, 2011 Page 2

FLEX respectfully requests that DOE/FE issue an order pursuant to Section 3 of the Natural Gas Act, for long-term, multi-contract authorization to export LNG to non-FTA countries.

Respectfully submitted,

Les Lo Baugh (

Freeport LNG Expansion, L.P. FLNG Liquefaction, LLC

LIVO LIQUETACTION,

Enclosure

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



In the Matter of: Freeport LNG Expansion, L.P. FLNG Liquefaction, LLC Docket No. 11-/6/ LNG

# APPLICATION OF FREEPORT LNG EXPANSION, L.P. AND FLNG LIQUEFACTION, LLC FOR LONG-TERM AUTHORIZATION TO EXPORT LIQUEFIED NATURAL GAS TO NON-FREE TRADE AGREEMENT COUNTRIES

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

Freeport LNG Expansion,	L.P
FLNG Liquefaction, LLC	

DOCKET NO. 11-\_\_\_\_LNG

# APPLICATION OF FREEPORT LNG EXPANSION, L.P. AND FLNG LIQUEFACTION, LLC FOR LONG-TERM AUTHORIZATION TO EXPORT LIQUEFIED NATURAL GAS TO NON-FREE TRADE AGREEMENT COUNTRIES

Freeport LNG Expansion, L.P. ("FLNG Expansion") and FLNG Liquefaction, LLC ("FLNG Liquefaction") (collectively, "FLEX") request that the Department of Energy ("DOE") Office of Fossil Energy ("FE"), grant a long-term, multi-contract authorization for FLEX to export up to the equivalent of 1.4 billion cubic feet per day (Bcf/d), or 511 billion cubic feet per year (Bcf/y) of liquefied natural gas ("LNG"). Authorization is sought for a 25-year period, to commence on the date of first export or 8 years from the date of issuance of the authorization requested by this application, whichever is sooner. FLEX proposes to export LNG from Quintana Island near Freeport, Texas, to any country with which the United States does not have a free trade agreement ("FTA") requiring national treatment for trade in natural gas and LNG, which has or in the future develops the capacity to import LNG via ocean-going carrier, and with which trade is not prohibited by U.S. law or policy.

<sup>&</sup>lt;sup>1</sup> 1.4 Bcf/d is equivalent to approximately 1.439 trillion BTUs per day, according to a DOE/FE conversion factor of 1,028 BTUs per cubic foot found at http://www.netl.doe.gov/energy-analyses/energy-calc.html. When operating at full capacity, the Liquefaction Project will consume approximately 0.1 Bcf/d to power the liquefaction facilities, resulting in a total natural gas volume requirement of 1.5 Bcf/d.

This application is filed independent of FLEX's prior separate application filed with DOE/FE under Docket No. 10-161-LNG, which also requested long-term, multi-contract authorization to export LNG to any country which has developed or in the future develops the capacity to import LNG via ocean-going carrier, and with which the United States does not have an FTA requiring national treatment for trade in natural gas and LNG.

This application is submitted pursuant to Section 3 of the Natural Gas Act ("NGA"),<sup>2</sup>
Part 590 of the Regulations of the DOE,<sup>3</sup> and Section 201 of the Energy Policy Act of 1992.<sup>4</sup> In support of this application, applicants respectfully show as follows:

# I. COMMUNICATIONS AND CORRESPONDENCE

Correspondence and communications regarding this application should be addressed to the following:

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II.

#### DESCRIPTION OF THE APPLICANT

The exact legal name of FLNG Expansion is Freeport LNG Expansion, L.P., a Delaware limited partnership and a wholly owned subsidiary of Freeport LNG Development, L.P. ("FLNG Development"). The exact legal name of FLNG Liquefaction is FLNG Liquefaction, LLC, a

<sup>&</sup>lt;sup>2</sup> 15 U.S.C. § 717b (2010).

<sup>3 10</sup> C.F.R. § 590 (2010).

<sup>&</sup>lt;sup>4</sup> Pub. L. No. 102-486, § 201, 106 Stat. 2776. 2866 (1992) (codified as amended at 15 U.S.C. § 717b(c) (2010)).

Delaware limited liability company and a wholly owned subsidiary of FLNG Expansion. The principal place of business for both FLNG Expansion and FLNG Liquefaction is located at 333 Clay Street, Suite 5050, Houston, Texas 77002. FLNG Expansion and FLNG Liquefaction are authorized to do business in the State of Texas.

FLNG Development is a Delaware limited partnership with four limited partners: (1) Freeport LNG Investments, LLLP, a Delaware limited liability limited partnership, which owns a 20% limited partnership interest in FLNG Development; (2) ZHA FLNG Purchaser LLC, a Delaware limited liability company and wholly owned subsidiary of Zachry American Infrastructure, LLC, which owns a 55% limited partnership interest in FLNG Development; (3) Texas LNG Holdings LLC, a Delaware limited liability company and wholly owned subsidiary of The Dow Chemical Company, which owns a 15% limited partnership interest in FLNG Development; and (4) Turbo LNG, LLC, a Delaware limited liability company and wholly owned subsidiary of Osaka Gas Co., Ltd., which owns a 10% limited partnership interest in FLNG Development.

In addition to the limited partners, FLNG Development has one general partner that manages the company, Freeport LNG-GP, Inc., a Delaware corporation, which is owned 50% by an individual, Michael S. Smith, and 50% by ConocoPhillips Company.

On June 18, 2004, the Federal Energy Regulatory Commission ("FERC") issued an order authorizing FLNG Development to site, construct and operate what is now known as Phase I of the Freeport Terminal on Quintana Island, southeast of the City of Freeport in Brazoria County,

Texas.<sup>5</sup> The Phase I facilities, completed in June 2008, include an LNG ship marine terminal and unloading dock, LNG transfer lines and storage tanks, high-pressure vaporizers, and a 9.6-mile send-out pipeline extending to the Stratton Ridge meter station. FERC authorized Phase II, an expansion of the Freeport Terminal's send-out capacity, in an order dated September 26, 2006.<sup>6</sup> On December 9, 2011, FLNG Development applied for an amendment to the September 26, 2006, FERC order seeking authorization to modify the facilities authorized by that order to, among other things, reorient the marine berthing dock, eliminate one of the four authorized LNG unloading arms, and eliminate the authorized vaporization facilities.<sup>7</sup>

On January 15, 2008, the DOE/FE granted FLNG Development blanket authorization to import LNG, in a total amount up to the equivalent of 30 billion cubic feet (Bcf) from various international sources pursuant to transactions that have terms of up to two years, and it authorized a second two-year import term on December 15, 2009.8

In 2009, FLNG Development was authorized by FERC to modify equipment at the Freeport Terminal to enable the loading and export of foreign-sourced LNG.<sup>9</sup> That same year, FLNG Development also received short-term authorization from DOE/FE to export up to 24 Bcf of foreign-sourced LNG to customers in the U.K., Belgium, Spain, France, Italy, Japan, South

<sup>&</sup>lt;sup>5</sup> See Freeport LNG Development, L.P., 107 FERC ¶ 61,278, (2004), order granting rehearing and clarification, 108 FERC ¶ 61,253 (2004), order amending Section 3 authorization, 112 FERC ¶ 61,194 (2005), order issuing authorization, 116 FERC ¶ 61,290 (2006).

<sup>&</sup>lt;sup>6</sup> Freeport LNG Development, L.P., 116 FERC ¶ 61,290, (2006).

<sup>&</sup>lt;sup>7</sup> Freeport LNG Development, L.P., FERC Docket Nos. CP05-361-000, CP05-361-\_\_\_ (Dec. 9, 2011).

<sup>&</sup>lt;sup>8</sup> Freeport LNG Development, L.P., FE Docket No. 07-136-LNG, Order No. 2457 (Jan. 15, 2008); Freeport LNG Development, L.P., FE Docket No. 09-130-LNG, Order No. 2737 (Dec. 15, 2009). 15 U.S.C. §717b. This authority is delegated to the Assistant Secretary for FE pursuant to Redelegation Order No. 00.002.04D (November 6, 2007).

<sup>&</sup>lt;sup>9</sup> Freeport LNG Development, L.P., 127 FERC § 61,105 (May 6, 2009).

Korea, India, China and/or Taiwan.<sup>10</sup> This authorization was later amended to permit export to Canada, Mexico, and any other country with the capacity to import LNG via ocean-going carrier and with which trade is not prohibited by U.S. law or policy.<sup>11</sup> In 2010, FLNG Expansion received short-term authorization to export up to a combined total of 876 Bcf of LNG to Canada and Mexico.<sup>12</sup> In 2011, FLNG Development received a second short-term authorization to export previously imported LNG to any nation with which trade is not prohibited.<sup>13</sup>

On December 17, 2010, FLNG Expansion and FLNG Liquefaction filed two applications to export domestically produced LNG.<sup>14</sup> The first of these applications, which requested long-term authorization to export LNG to free trade agreement countries, was granted by DOE/FE in Order No. 2913 on February 10, 2011. The second application, which requested long-term authorization to export LNG to countries with which the U.S. does not have an FTA, is still pending before DOE/FE.

Although this application requests authorization substantially similar to FLEX's pending application in DOE/FE Docket No. 10-161-LNG, this is a wholly separate application. Demand for liquefaction capacity has been significant since FLEX filed its initial export applications a year ago, and FLEX expects to secure long-term contracts for the liquefaction and export of an additional 1.4 Bcf/d. To support the commercialization and financing necessary for FLEX to

<sup>&</sup>lt;sup>10</sup> Freeport LNG Development, L.P., FE Docket No. 08-70-LNG, Order No. 2644 (May 28, 2009).

<sup>&</sup>lt;sup>11</sup> Freeport LNG Development, L.P., FE Docket No. 08-70-LNG, Order Nos. 2644-A (September 22, 2009) and 2644-B (May 11, 2010).

<sup>&</sup>lt;sup>12</sup> Freeport LNG Expansion, L.P., FE Docket No. 10-150-LNG, Order No. 2884 (Dec. 01, 2010).

<sup>&</sup>lt;sup>13</sup> Freeport LNG Expansion, L.P., FE Docket No. 11-51-LNG, Order No. 2986 (Jul. 19, 2011).

<sup>&</sup>lt;sup>14</sup> Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC, FE Docket 10-160-LNG, Order No. 2913 (Feb. 10, 2011) and Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC, FE Docket 10-161-LNG (Application Pending).

build facilities to meet that demand, FLEX respectfully requests a 25-year, multi-contract authorization to export an additional 1.4 Bcf/d to any country which has developed or in the future develops the capacity to import LNG via ocean-going carrier, and with which the United States does not have an FTA requiring national treatment for trade in natural gas and LNG.

III.

#### **LIQUEFACTION PROJECT DESCRIPTION**

FLEX, through one or more of its subsidiaries, proposes to develop, own and operate natural gas liquefaction facilities to receive and liquefy domestic natural gas for export to foreign markets (the "Liquefaction Project"). The Freeport Terminal presently consists of a marine berth, two 160,000 m<sup>3</sup> full containment LNG storage tanks, LNG vaporization systems, associated utilities and a 9.6-mile pipeline and meter station. The Liquefaction Project facilities will be integrated into the existing Freeport Terminal. FLEX is currently completing the mandatory National Environmental Policy Act ("NEPA") pre-filing review process for the Liquefaction Project. FLEX anticipates filing a formal application with FERC by the end of 2011 requesting that FERC issue an Order authorizing the siting, construction and operation of the Liquefaction Project.

The expanded facility will be designed so that the addition of liquefaction capability will not preclude the Freeport Terminal from operating in vaporization and send-out mode. The proposed Liquefaction Project will also include facilities that were previously authorized by FERC in its order dated September 26, 2006, 15; including a second marine berthing dock and a third LNG storage tank.

IV.

<sup>15</sup> Freeport LNG Development, L.P., 116 FERC § 61,290, Docket No. CP05-361-000 (Sep. 6, 2006).

#### **AUTHORIZATION REQUESTED**

In this application, FLEX requests that DOE/FE grant a long-term, multi-contract authorization for FLEX to export LNG from the Freeport Terminal on Quintana Island, Texas, to any country with which the United States does not have an FTA requiring national treatment for trade in natural gas and LNG, which has developed or in the future develops the capacity to import LNG via ocean-going carrier, and with which trade is not prohibited by U.S. law or policy. FLEX requests this authorization for up to 1.4 Bcf/d, or 511 Bcf/y, of LNG, up to a total of 12.8 Tcf (the "Export Authorization"), over a 25-year term beginning on the date of first export or 8 years from the date of issuance of the authorization requested by this application, whichever is sooner.

Rather than enter into long-term natural gas supply or LNG export contracts, FLEX contemplates that its business model will be based primarily on Liquefaction Tolling Agreements ("LTA"), under which individual customers who hold title to natural gas will have the right to deliver that gas to FLEX and receive LNG. In the current natural gas market, LTAs fulfill the role previously performed by long-term supply contracts, in that they provide stable commercial arrangements between companies involved in natural gas services. The Liquefaction Project will require billions of dollars in capital expenditures on fixed assets, and long-term export authorization is required to attract prospective LTA customers willing to make the large-scale, long-term investments in LNG export arrangements necessary to finance the Liquefaction Project.

FLEX requests long-term, multi-contract authorization to engage in exports of LNG on its own behalf or as agent for others. FLEX contemplates that the title holder at the point of

export<sup>16</sup> may be FLEX or one of FLEX's LTA customers, or another party that has purchased LNG from an LTA customer pursuant to a long-term contract. FLEX requests authorization to register each LNG title holder for whom FLEX seeks to export as agent, and proposes that this registration include a written statement by the title holder acknowledging and agreeing to comply with all applicable requirements included by DOE/FE in FLEX's export authorization, and to include those requirements in any subsequent purchase or sale agreement entered into by that title holder. In addition to its registration of any LNG title holder for whom FLEX seeks to export as agent, FLEX will file under seal with DOE/FE any relevant long-term commercial agreements between FLEX and such LNG title holder, including LTAs, once they have been executed.<sup>17</sup>

FLEX is aware of DOE/FE's desire to ensure that all authorized exports are permitted and lawful under U.S. laws and policies, including the rules, regulations, orders, policies and other determinations of the Office of Foreign Assets Control of the U.S. Department of the Treasury. Each of these goals of DOE can be efficiently and fully achieved through the arrangements proposed by FLEX. Whether FLEX acts on its own behalf or as agent for others, all parties involved in LNG export through the Liquefaction Project will have notice of all requirements in the export authorization order. As a result, DOE/FE will have each of the items

<sup>&</sup>lt;sup>16</sup> LNG exports occur when the LNG is delivered to the flange of the LNG export vessel. *See The Dow Chemical Company*, FE Docket No. 10-57-LNG, Order No. 2859 at p. 7 (Oct. 5, 2010).

<sup>&</sup>lt;sup>17</sup> The practice of filing of contracts after the DOE/FE has granted export authorization is well-established. *See 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); See also Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC, FE Docket No. 10-160-LNG, Order No. 2913 at 9-10 (Feb. 10, 2011).

<sup>&</sup>lt;sup>18</sup> See The Dow Chemical Company, FE Docket No. 10-57-LNG, Order No. 2859 at 7-8 (Oct. 5, 2010).

of information it requires to fulfill its regulatory mandate.<sup>19</sup> This approach is responsive to real world market conditions and is fully compliant with the goals and intent of requirements of the applicable DOE regulations.

The source of natural gas supply for the Export Authorization will be the general United States natural gas market, including natural gas produced from shale deposits. As discussed in Section V below, the domestic market for natural gas is robust and liquid. Service contracts such as LTAs will fulfill the role historically played by long-term supply agreements, and each LTA customer will rely on their own sources within the general United States gas market. As noted above, FLEX has not yet entered into LTAs or other long-term supply or export contracts, but FLEX and its LTA customers will file their commercial arrangements under seal with DOE/FE once they have been executed.<sup>20</sup> DOE/FE has previously found that this commitment conforms to the requirements of 10 C.F.R. § 590.202(b), which calls upon applicants to supply transaction-specific information "to the extent practicable."<sup>21</sup>

Pursuant to NEPA, FERC will be the lead agency for environmental review and DOE will act as a cooperating agency. Such conditional orders are routinely issued by DOE/FE, which may review an application to determine whether a proposed authorization is in the public

<sup>19</sup> Id., at 7.

<sup>&</sup>lt;sup>20</sup> The practice of filing of contracts after the DOE/FE has granted export authorization is well-established. *See 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).

<sup>&</sup>lt;sup>21</sup> Sabine Pass Liquefaction, LLC, FE Docket 10-85-LNG, Order No. 2833 (September 7, 2010). 10 C.F.R. 590.202(b) requests certain information, "to the extent applicable," and "supported to the extent practicable by necessary data or documents," regarding the source and security of the natural gas supply proposed for export, including contract volume and a description of the specific gas reserves supporting the project during the time of the requested export authorization.

interest concurrent with FERC's review of environmental impacts.<sup>22</sup> FLEX requests that DOE/FE authorize the requested export of LNG produced from domestically sourced natural gas conditioned upon completion of applicable environmental review of the Liquefaction Project by FERC.<sup>23</sup>

#### V.

#### **EXPORT SOURCES**

The natural gas supply underlying the proposed exports will come primarily from the highly liquid Texas market, but may draw upon the interconnected general U.S. natural gas market. While some of the proposed export supply may be secured through long-term contracts, large volumes are likely to be acquired on the spot market.<sup>24</sup> Given the size of the traditional natural gas market in close proximity to the Freeport Terminal, and the exponential growth of unconventional resources in the region, a diverse and reliable source of natural gas will be available to support the requested Export Authorization.

Natural gas markets are especially liquid in the Texas and Louisiana producing areas because several key market centers in the area have ready access to incremental gas supplies from a wide variety of sources and readily available price information. The most publicized market hub in North America, the Henry Hub, is located in southern Louisiana. However, the

<sup>&</sup>lt;sup>22</sup> See, e.g. Import and Export of Natural Gas, 46 Fed. Reg. 44,696 at 44,700 (Sep. 4, 1081); Rochester Gas and Electric Corp., FE Docket No. 90-05-NG, Order No. 503 (May 16, 1991).

<sup>&</sup>lt;sup>23</sup> 10 C.F.R. § 590.402 (2010) ("The Assistant Secretary may issue a conditional order at any time during a proceeding prior to issuance of a final opinion and order. The conditional order shall include the basis for not issuing a final opinion and order at that time and a statement of findings and conclusions. The findings and conclusions shall be based solely on the official record of the proceeding.")

<sup>&</sup>lt;sup>24</sup> See, e.g., MIT ENERGY INITIATIVE, MIT STUDY ON THE FUTURE OF NATURAL GAS at 149 (2011) (noting that "a robust spot market has developed in the U.S. and Canada, with a price set by the forces of supply and demand") (hereinafter "MIT REPORT").

Texas natural gas market is one of the largest in the world, and is highly liquid as it is intricately connected to other major U.S. markets by a vast network of pipelines.<sup>25</sup> The Houston Ship Channel and the Katy Hub, each in southeast Texas, provide flexibility to natural gas shippers near the Freeport Terminal. In recent years, several new intrastate natural gas pipelines have been installed to support the expanding development of natural gas resources in the Eagle Ford/Pearsall Shale area that extends from South Texas northeastward toward the Houston area, the Barnett Shale area of the Fort Worth Basin in north Texas, and the Haynesville Shale area extending from the Texas/Louisiana border to northern Louisiana's Perryville area.

Domestic pipeline capacity has grown significantly in recent years, adding more than 80 Bcf/d of capacity between 2005 and 2008—with more than half of that added in 2008 alone.<sup>26</sup> Of the total natural gas pipeline capacity added in the United States in 2008, 4.6 Bcf/d (about 11%), was built by Texas intrastate pipelines such as Energy Transfer Partners LP, Kinder Morgan Energy Partners, L.P., Enbridge Pipelines Company, and Crosstex Energy Services to transport expanding Eagle Ford, Barnett and Haynesville shale formation production to local markets and to interconnections with the interstate natural gas pipeline network.<sup>27</sup> From 2009 to 2011, at least another 3.5 Bcf/d of pipeline capacity was built in Texas.<sup>28</sup> In addition, several major

<sup>&</sup>lt;sup>25</sup> See *Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC*, FE Docket 10-161-LNG, Appendix B: THOMAS CHOI, DALE NESBITT, AND BRAD BARNDS, ANALYSIS OF FREEPORT LNG EXPORT IMPACT ON U.S. MARKETS 6, 15 (Altos Management Partners, Inc. 2010), incorporated by reference (hereinafter "ALTOS REPORT").

<sup>&</sup>lt;sup>26</sup> MIT REPORT, *supra* note 24, at 136 (2011).

EIA, NATURAL GAS PIPELINES IN THE SOUTHWEST REGION, available at http://www.eia.doe.gov/pub/oil\_gas/natural\_gas/analysis\_publications/ngpipeline/southwest.html

See Enterprise Products Partners, L.P., Onshore Natural Gas Pipelines, available at http://www.enterpriseproducts.com/operations/onshorenatgaspipes.shtm; Kinder Morgan, Eagle Ford Shale JV, available at http://www.kindermorgan.com/business/gas pipelines/upstream/eagleford.cfm; Energy Transfer.

interstate pipeline projects were constructed to continue the flow of this natural gas beyond east Texas to interstate pipeline interconnections in Louisiana, Mississippi and Alabama.

Although long-term supply contracts still play a role in the U.S. natural gas market, their price clauses typically reference published spot market prices. This is even reflected in the domestic market where state utility commissions frequently emphasize the desirability of short-term or spot purchases of natural gas and treat utility natural gas purchase contracts of two years or less as long-term contracts. As discussed above, DOE/FE has previously held that a commitment to file commercial arrangements under seal with the DOE/FE conforms to the requirements of 10 C.F.R. § 590.202(b), under which applicants are requested to supply transaction-specific information, such as a description of the specific gas reserves supporting the project, "to the extent practicable."

VI.

#### PUBLIC INTEREST

#### A. Applicable Legal Standard

The DOE/FE has the power to approve or deny applications to export natural gas pursuant to specific authorization in Section 3 of the NGA.<sup>29</sup> The general standards for review of export applications to non-FTA countries are established by Section 3(a), which provides that:

[N]o person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the [Secretary] authorizing

Energy Transfer Partners Announces Expansion of its Eagle Ford Shale Projects, available at http://ir.energytransfer.com/phoenix.zhtml?c=106094&p=irol-newsArticle&ID=1553311&highlight

<sup>&</sup>lt;sup>29</sup> 15 U.S.C. §717b. This authority is delegated to the Assistant Secretary for FE pursuant to Redelegation Order No. 00.002.04D (November 6, 2007)

it to do so. The [Secretary] 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. The [Secretary] may by its order grant such application, in whole or in part, with such modification and upon such terms and conditions as the [Secretary] may find necessary or appropriate, and may from time to time, after opportunity for hearing, and for good cause shown, make such supplemental order in the premises as it may find necessary or appropriate.

In applying this statute, the DOE/FE has consistently ruled that it creates a rebuttable presumption that proposed exports of natural gas are in the public interest. Unless opponents of an export license make an affirmative showing based on evidence in the record that the export would be inconsistent with the public interest, DOE/FE must grant the export application.<sup>30</sup>

In evaluating whether the proposed exportation is within the public interest, DOE/FE applies the principles established by the Policy Guidelines,<sup>31</sup> which promote free and open trade by minimizing federal control and involvement in energy markets, and DOE Delegation Order No. 0204-111, which requires "consideration of the domestic need for the gas to be exported." As DOE/FE stated more recently in Order No. 2961, in which it authorized exports of LNG from the Sabine Pass LNG Terminal to countries with which the United States does not have an FTA:

<sup>30</sup> Order No. 1473, note 42 at 13, citing Panhandle Producers and Royalty Owners Ass'n v. ERA, 822 F.2d 1105, 1111 (D.C. Cir. 1987).

<sup>&</sup>lt;sup>31</sup> Policy Guidelines and Delegation Orders Relating to the Regulation of Imported Natural Gas, 49 Fed. Reg. 6,684 (Feb. 22, 1984).

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

In determining whether a particular application to export is within the public interest, the principal focus of DOE/FE's review is an analysis of the domestic need for natural gas proposed to be exported, and any other factors to the extent they are shown to be relevant to a public interest determination. As discussed below, FLEX's proposed exportation of domestically produced LNG serves the public interest.

#### B. Public Interest Analysis

As a result of technological advances, huge reserves of domestic shale gas that were previously infeasible or uneconomic to develop are now profitably producing natural gas in many regions of the United States. The United States is now estimated to have more natural gas resources than it can use in a century.<sup>32</sup> Large volumes of domestic shale gas reserves and continued low production costs will enable the United States to export LNG while also meeting domestic demand for natural gas for decades to come.

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<sup>&</sup>lt;sup>32</sup> Domestic natural gas reserves, including both Alaska and the Lower 48, are estimated to total about 2,100 Tcf, which is about 92 times the annual U.S. consumption of 22.8 Tcf in 2009. MIT REPORT, *supra* note 24, at 30 (2010).

As U.S. natural gas reserves and production have risen, U.S. natural gas prices have fallen to the point where they are among the lowest in the developed world.<sup>33</sup> In Asia, LNG prices are indexed to crude oil prices and are generally higher than elsewhere in the world.<sup>34</sup> The lack of international natural gas pipelines in the region means that from a practical standpoint the industrialized countries, including Japan, Korea and Taiwan, are dependent upon LNG imports for their natural gas supplies. While Europe receives pipeline gas from various sources (mainly Russia), the long supply chains and relative inflexibility of markets have made diversification of supply a high priority.<sup>35</sup> Competitively priced LNG supplies from the U.S. will play a significant role in this diversification. Domestic natural gas prices in the U.S. are projected to remain low relative to European and Asian markets well into the future, making exports of LNG by vessel a viable long-term opportunity for the United States.

The Liquefaction Project is positioned to provide the Gulf Coast region and the United States with significant economic benefits by increasing domestic natural gas production. The exportation of LNG will also create a material improvement in the United States' balance of trade. These benefits will be obtained with only a minimal effect on domestic natural gas prices. At current and forecasted rates of demand, the United States' natural gas reserves will meet demand for 100 years. The requested Export Authorization will allow the U.S. to benefit now from the natural gas resources that may not otherwise be produced for many decades, if ever.

The public interest will be served by:

<sup>&</sup>lt;sup>33</sup> U.S. ENERGY INFORMATION ADMINISTRATION, NATURAL GAS PRICES FOR INDUSTRY (August 18, 2011) *available at* http://www.eia.gov/emeu/international/ngasprii.html.

MIT REPORT, *supra* note 24, at 147 (2011); *see also* Hong Chou Hui, *The Asian LNG Market Strides Ahead*, PLATTS ASIA LNG (November 2011), *available at* http://www.platts.com/IM.Platts.Content%5Caboutplatts%5Cmediacenter%5CasianIng.pdf

<sup>&</sup>lt;sup>35</sup> MIT REPORT, *supra* note 24, at 152 (2011).

#### • Direct and Indirect Job Creation:

- Construction Jobs: More than 3,000 on-site engineering and construction jobs will be created during the three to four year design and construction period for the additional liquefaction facilities necessary to produce the LNG that is the subject of the Export Authorization. Hundreds of off-site jobs will be created to support the design, fabrication and construction of these facilities...
- Operational Jobs: The ongoing management and operation of the expanded Liquefaction Project will create approximately 20-30 new permanent positions.
- Indirect Job Creation: Between 17,000 and 21,000 new American jobs will be indirectly created by the increase in drilling for and production of natural gas required to support the Export Authorization.<sup>36</sup>

#### • Significant Economic Stimulus:

The total economic benefits of the Export Authorization to the American economy are estimated to be between \$3.6 and \$5.2 billion per year from 2015-2040, or \$90 to \$130 billion over the requested 25-year export term.<sup>37</sup>

#### • Material Improvement in the U.S. Balance of Trade:

 Assuming an average value of \$7 per MMBtu, exporting approximately 1.4 Bcf/d of LNG will improve the United States balance of payments by approximately \$3.9 billion per year, or \$97.5 billion over the requested 25year export term.

# • Significant Environmental Benefits:

- As the cleanest-burning fossil fuel, natural gas significantly reduces total greenhouse gas emissions when used as a substitute for coal or fuel oil.
- o If the projected 1.4 Bcf/d of LNG is exported to countries that use it as a substitute for coal and fuel oil, it will significantly reduce global

<sup>&</sup>lt;sup>36</sup> ALTOS REPORT *supra* note 25, at 12 (2010).

<sup>&</sup>lt;sup>37</sup> Id.

greenhouse emissions over the requested 25-year export term.

# Supports American Energy Security:

- The United States has developed a massive natural gas resource base that
  is sufficient to supply domestic demand for a century, even with
  significant exports of LNG. The Export Authorization will not adversely
  affect U.S. energy security.
- O According to Shale Gas and U.S. National Security, a report published in 2011 by the James A. Baker III Institute for Public Policy at Rice University (the "Baker Institute Report"), "full development of commercial shale gas resources in the United States will have multiple beneficial effects for U.S. energy security and national interests."<sup>38</sup>
- According to The Future of Natural Gas, a report published in 2011 by the Massachusetts Institute of Technology's Energy Initiative (the "MIT Report"), "the U.S. should continue to provide diplomatic and security support for the siting, construction and operation of global natural gas pipelines and LNG facilities that promote its strategic interests in diversity and security of supply and global gas market development."<sup>39</sup>
- The MIT Report concludes that "[t]he U.S. should sustain North American energy market integration and support development of a global "liquid" natural gas market with diversity of supply. A corollary is that the U.S. should not erect barriers to gas imports or exports."<sup>40</sup>

# 1. The Export Authorization Will Have a Minimal Impact on Natural Gas Prices

Deloitte Marketpoint LLC ("DMP") recently published an independent assessment of the

<sup>&</sup>lt;sup>38</sup> KENNETH B. MEDLOCK III, AMY MEYERS JAFFE, & PETER R. HARTLEY, SHALE GAS AND U.S. NATIONAL SECURITY 54 (James A. Baker III Institute for Public Policy, July 2011) (hereinafter, the "Baker Institute Report"), available at http://bakerinstitute.org/publications/EF-pub-DOEShaleGas-07192011.pdf.

<sup>&</sup>lt;sup>39</sup> MIT REPORT, *supra* note 24, at 158 (2011).

<sup>40</sup> Id., at 157.

potential economic impacts of LNG exports from the United States (the "Deloitte Report").<sup>41</sup> Based on its assumption that 6 Bcf/d of LNG exports would be realized from the three Gulf Coast terminals that have applied to DOE/FE for authorization to export LNG, the Deloitte Report concludes that "the magnitude of domestic price increase that results from export of natural gas in the form of LNG is likely quite small."<sup>42</sup> As pointed out in the Deloitte Report, the North American natural gas market is highly integrated and all segments will work together to mitigate price impacts of demand changes from LNG exports like the Export Authorization.<sup>43</sup>

The United States has sufficient natural gas resources available to meet projected domestic needs, as well as supply natural gas for the Export Authorization, without materially increasing prices over the entire 25-year period for which FLEX has requested authorization. LNG exports from the Gulf Coast are expected to begin in 2016, when total domestic demand for LNG is projected to be 26 Tcf/year. LNG exports of 6 Bcf/d (equivalent to 2.2 Tcf/year) represent only an 8% increase in the projected 26 Tcf demand in 2016 when exports are anticipated to commence. The results of the analysis in the DMP Report demonstrate that the magnitude of LNG exports, while substantial on their own, are not very significant relative to the entire U.S. resource base or total U.S. demand.

DOE/FE has recently determined that granting authorization to export LNG is not

<sup>&</sup>lt;sup>41</sup> DELOITTE CENTER FOR ENERGY SOLUTIONS AND DELOITTE MARKETPOINT LLC, MADE IN AMERICA: THE ECONOMIC IMPACT OF LNG EXPORTS FROM THE UNITED STATES (2011) (hereinafter the "DELOITTE REPORT"), available at http://www.deloitte.com/assets/Dcom-

UnitedStates/Local%20Assets/Documents/Energy us er/us er MadeinAmerica LNGPaper 122011.pdf

<sup>42</sup> Id. at 1,

<sup>&</sup>lt;sup>43</sup> *Id.* at 10.

<sup>&</sup>lt;sup>44</sup> U.S. ENERGY INFORMATION ADMINISTRATION, ANNUAL ENERGY OUTLOOK 2011 115, Table A1 (April 26, 2011), available at http://www.eia.gov/forecasts/aeo/pdf/0383%282011%29.pdf (hereinafter "EIA ANNUAL ENERGY OUTLOOK 2011")

inconsistent with the public interest.<sup>45</sup> FLEX is aware that DOE/FE is in the process of evaluating various matters related to long term LNG exports and, in that regard, has commissioned two studies related to domestic natural gas reserves and production. FLEX is confident that the results of those studies will further substantiate the projections cited herein and affirm that the Export Authorization sought by FLEX is in the public interest and should be approved.

In recent years, the domestic natural gas market has been characterized by increased production and relatively flat demand.<sup>46</sup> Total domestic dry production increased by 2.3 Tcf between 2007 and 2010, while total domestic consumption increased only 1.0 Tcf during the same period. Coupled with the dramatic increase in economically recoverable supplies, the domestic price of natural gas has decreased significantly. The average annual Henry Hub spot price for natural gas has dropped from \$8.24 per MMBtu in February 2007 to \$3.34 in November 2011.<sup>47</sup> As of December 15, 2011, the NYMEX futures "strip" over the next 156 months (i.e., through December 2024) reflect Henry Hub prices settling between \$3.13 and \$7.43.<sup>48</sup> The EIA's most recently calculated reference case projects that the annual average Lower 48 wellhead price for natural gas will remain under \$5.00 per MMBtu through at least 2018, rising

<sup>&</sup>lt;sup>45</sup> Sabine Pass Liquefaction, LLC, FE Docket 10-111-LNG, Order No. 2961 (May 20, 2011).

EIA, NATURAL GAS SUMMARY, (Nov. 29, 2011) available at http://www.eia.doe.gov/dnav/ng/ng\_sum\_lsum\_dcu\_nus\_a.htm. Specifically, from 2007 to 2010, domestic dry natural gas production increased from 19.3 Tcf to 21.6 Tcf, domestic consumption increased from 23.1 Tcf to 24.1 Tcf, imported LNG decreased from 771 Bcf to 431 Bcf, and net imports of all natural gas decreased from 3.8 Tcf to 2.6 Tcf.

<sup>&</sup>lt;sup>47</sup> EIA, SHORT-TERM ENERGY OUTLOOK (December 6, 2011) available at http://www.eia.gov/forecasts/steo/report/natgas.cfm

<sup>48</sup> CME Group, Henry Hub Natural Gas Futures (Trade Date Dec. 15, 2011), available at http://www.cmegroup.com/trading/energy/natural-gas/natural-gas\_quotes\_settlements\_futures.html

to only \$9.99 by 2035.49

The U.S. natural gas market is liquid and dynamic. Unlike short-term markets, in which supply and demand are largely fixed, both supply and demand in the U.S. natural gas market are elastic.<sup>50</sup> Over the long term, market participants can adapt to known or announced changes in demand by changing incremental production to meet it. Demand created by the Export Authorization will be fully anticipated by the market — construction of the additional facilities needed to produce the Export Authorization alone will take at least three years, and the project will be backed by long term contracts. Given the public application process and long lead time required to construct an LNG liquefaction plant, exports can be anticipated and producers, midstream players and consumers can act to mitigate the price impact. Producers will anticipate demand growth and bring more supplies online, flows will be adjusted, and consumers will react to price changes resulting from LNG exports.<sup>51</sup> There will be ample notice and time in advance of the exports to make supplies available.<sup>52</sup> Any price impact will be determined by the marginal cost of the supply required to meet the additional demand created by the Export Authorization.

The projected price impact of the incremental demand created by the Export Authorization is small in the Houston Ship Channel market, which is the closest major market to the project, and insignificant in other domestic markets. The Deloitte Report, which assumed 6 Bcf/d of LNG exports, projects a weighted average price impact of \$0.12 per MMBtu on U.S. prices from 2016 to 2035, representing a 1.7% increase in the projected average U.S. citygate gas

<sup>&</sup>lt;sup>49</sup> EIA ANNUAL ENERGY OUTLOOK 2011, supra note 44, at Table 13.

<sup>&</sup>lt;sup>50</sup> DELOITTE REPORT, supra note 41, at 8.

<sup>51</sup> Id. at 2.

<sup>52</sup> Id. at 8.

price of \$7.09MMBtu over that time period.<sup>53</sup> Due to their proximity to the prospective export terminals, the projected increases in Henry Hub and Houston Ship Channel gas prices are \$0.22/MMBtu and \$0.20/MMBtu, respectively, during this period.<sup>54</sup> The projected impacts at downstream markets, such as Illinois, New York and California, are generally only \$0.10/MMBtu or less.<sup>55</sup> To put these price impacts in perspective, consider that between 2007 and 2010, the spot market price for one MMBtu of natural gas moved a daily average of \$0.16 at the Henry Hub, Houston Ship Channel, and Katy Hub.<sup>56</sup>

The price impact of the Export Authorization is so small because the United States' total domestic natural gas reserves are so large and the interstate natural gas pipeline system is highly effective in supporting market liquidity. Total U.S. recoverable reserves are currently estimated to be sufficient to meet domestic demand for the next 100 years. The location of incremental demand can affect the magnitude of the price impact on nearby market hubs and the domestic market in general. As discussed below, Texas is well positioned to supply the additional demand created by the Export Authorization without a material impact on domestic prices at any location.

#### 2. Domestic Natural Gas Supplies and Resource Base

The growth in domestic natural gas production has been made possible by technical advances in horizontal drilling and hydraulic fracturing that allow economical recovery of previously inaccessible reserves. These advances have also prompted a reevaluation of shale-gas

<sup>54</sup> Id.

<sup>&</sup>lt;sup>53</sup> Id.

<sup>55</sup> Id.

<sup>&</sup>lt;sup>56</sup> PLATTS GAS DAILY, DAILY PRICE SURVEY (2007 - 2010). The largest single-day spot market price change was \$1.15 at the Henry Hub, \$1.38 at the Houston Ship Channel, and \$1.39 at the Katy Hub.

plays in the Appalachian basin, the Mid-Continent, the Gulf Coast and Rocky Mountain areas — plays that some believe may make the Unites States "the Saudi Arabia of natural gas." Despite the relative maturity of the United States gas supply, estimates of remaining reserves have continued to grow over time, and have accelerated in recent years.

According to the MIT Report, estimates of remaining recoverable gas resources in the U.S. currently ranging between 1,500 and almost 2,850 Tcf.<sup>58</sup> The EIA's most recent estimate of 2,543 Tcf is more than 113 times overall domestic consumption in 2009.<sup>59</sup> IHS CERA Inc. has reported that "North American discovered natural gas resources have increased by more than 1,800 Tcf over the past three years, bringing the total natural gas resource base to more than 3,000 Tcf, a level that could supply current consumption for well over 100 years." <sup>60</sup> In 2009, Robert A. Hefner also suggested that 3,000 Tcf is a "reasonable estimate" of United States domestic natural gas reserves. <sup>61</sup> Most of the increase in recoverable resources has come from shale gas in the Barnett, Haynesville, South Texas (Eagle Ford), and Marcellus basins. <sup>62</sup>

The Potential Gas Committee's most recent biennial assessment of the nation's natural gas resources concluded that the United States possesses a total resource base of 2,170 Tcf.<sup>63</sup>

<sup>&</sup>lt;sup>57</sup> Joe Kamalick, *Shale Gas can Meet U.S. Needs for 100 Years – Study*, ICIS News (July 30, 2008) *available at* http://www.icis.com/Articles/2008/07/30/9144315/shale-gas-can-meet-us-needs-for-100-years-study.html.

<sup>&</sup>lt;sup>58</sup> MIT REPORT, *supra* note 24, at 30 (2011).

<sup>&</sup>lt;sup>59</sup> EIA ANNUAL ENERGY OUTLOOK 2011, *supra* note 44, at 79.

<sup>&</sup>lt;sup>60</sup> IHS CERA, FUELING NORTH AMERICA'S ENERGY FUTURE (2010), available at http://www.anga.us/media/41065/ihs%20cera%20fueling%20the%20future.pdf

<sup>&</sup>lt;sup>61</sup> ROBERT A. HEFNER III, THE GRAND ENERGY TRANSITION 95-96 (John Wiley & Sons, Inc. 2009).

<sup>&</sup>lt;sup>62</sup> New York Times, *Potential U.S. Natural Gas supplies Have Jumped 3%, Industry Experts Say* (April 27, 2011) available at http://www.nytimes.com/gwire/2011/04/27/27greenwire-potential-us-natural-gas-supplies-have-jumped-37399.html.

<sup>&</sup>lt;sup>63</sup> Potential Gas Committee Reports Substantial Increase In Magnitude of U.S. Natural Gas Resource Base, Colorado School of Mines Press Release (April 17, 2011).

This was the highest resource valuation in the Committee's 46-year history. Of the seven geographic areas analyzed in the Committee report, "the Gulf Coast, including the Gulf of Mexico continental shelf, slope and deepwater, remains the country's richest resource area" 64

The United States produces substantial quantities of natural gas from multiple sources. Production from unconventional natural gas resources, specifically shale gas, has increased to 3.1 Tcf in 2009 from 1.3 Tcf in 2007.<sup>65</sup> The Annual Energy Outlook 2011, prepared by the U.S. Energy Information Administration ("EIA"), forecasts shale gas production to increase to 7.2 Tcf by 2015 and 12.25 Tcf by 2035, representing a fourfold increase from 2009-2035.<sup>66</sup> The EIA forecasts that U.S. gas production will increase to approximately 27 Tcf in 2035, an average annual growth rate of 0.9%.<sup>67</sup> Numerous other public and private forecasts of U.S. natural gas production project similar increases. The MIT Report forecasts that total domestic gas production may grow by up to 45% through 2050, with shale gas expected to provide the biggest increase in production.<sup>68</sup>

When the technology of horizontal drilling and hydraulic fracturing was brought to bear in the Barnett Shale in 2005, annual domestic natural gas production was 18.9 Tcf.<sup>69</sup> In 2010, total domestic natural gas production was 22.6 Tcf, the second highest annual production in U.S. history, trailing the highest production year on record (1973) by only 0.7 Tcf.<sup>70</sup> The Barnett

<sup>64</sup> Id

<sup>65</sup> EIA, SHALE GAS PRODUCTION, available at http://www.eia.doe.gov/dnav/ng/ng prod shalegas s1 a.htm.

<sup>&</sup>lt;sup>66</sup> EIA ANNUAL ENERGY OUTLOOK 2011, supra note 44, at 143, Table A14 (2011).

<sup>&</sup>lt;sup>67</sup> EIA ANNUAL ENERGY OUTLOOK 2011, supra note 44, at 115, Table A1 (2011).

<sup>&</sup>lt;sup>68</sup> MIT REPORT, *supra* note 24, at 56 (2011).

<sup>&</sup>lt;sup>69</sup> EIA, ANNUAL U.S. NATURAL GAS MARKETED PRODUCTION (Nov. 29, 2011) available at http://www.eia.gov/dnav/ng/hist/n9050us2a.htm.

<sup>&</sup>lt;sup>70</sup> Id.

Shale field in Texas has produced more than 8 Tcf, and continues to produce more than 5 Bcf/d.<sup>71</sup> Production at the top five U.S. shale plays—Marcellus, Haynesville, Woodford, Fayetteville, and Barnett—is expected to grow rapidly over the next decade.<sup>72</sup> The Eagle Ford shale, discovered in 2008, contains an estimated 20.8 Tcf of technically recoverable gas and is an active developing play.<sup>73</sup>

Because the domestic natural gas market is large, well-integrated, and liquid, economic dispatch pressure will raise production in other states to meet demand that otherwise would have been satisfied by flows out of Texas.<sup>74</sup> For example, a reduction of natural gas flows from Texas to the Midwest will prompt increased production out of the Midcontinent basin. Substantial production increases from the Marcellus shale basin in the Northern Appalachian region will compensate for reduced flows from Texas.<sup>75</sup> In fact, according to the Deloitte Report, production increases in Northeastern U.S. gas markets will result in displacement of flows out of the Gulf Coast region.<sup>76</sup> Combined with the growing shale gas production out of Haynesville and Eagle Ford, the Gulf region is projected to continue to have plentiful production and remain

<sup>&</sup>lt;sup>71</sup> Star-Telegram, *Barnett Shale natural gas field passes a milestone* (Nov. 1, 2010) *available at* http://www.star-telegram.com/2010/11/01/2595223/barnett-shale-natural-gas-field.html; *see also* Star-Telegram, *Has the Barnett Shale left its best days behind?* (Nov. 12, 2011) *available at* http://www.star-telegram.com/2011/11/12/3519847/has-the-barnett-shale-left-its.html.

<sup>&</sup>lt;sup>72</sup> ALTOS REPORT, supra note 25, at 8.

<sup>&</sup>lt;sup>73</sup> EIA, REVIEW OF EMERGING RESOURCES: U.S. SHALE GAS AND SHALE OIL PLAYS 29-30 (July 2011) *available at* ftp://ftp.eia.doe.gov/natgas/usshaleplays.pdf.

<sup>&</sup>lt;sup>74</sup> Economic dispatch describes the method of operating gas production and pipeline facilities to optimize efficient, low-cost production of natural gas to reliably serve demand, while taking into account the operational limits of production and pipeline facilities.

<sup>&</sup>lt;sup>75</sup> ALTOS REPORT supra note 25, at 8 (2010).

<sup>&</sup>lt;sup>76</sup> DELOITTE REPORT, *supra* note 41, at 6 ("The expected result is displacement of volumes from the Gulf with would depress prices in the Gulf region.")

one of the lowest cost regions in North America.<sup>77</sup>

Based on the analysis previously conducted by Altos, and the numerous other public and private studies of U.S. natural gas production, FLEX anticipates that much of the 1.5 Bcf/d of feed gas that would meet demand created by the Export Authorization will be incremental production within Texas, largely from the South Texas (Eagle Ford) shale. In addition, some gas produced in Texas that would otherwise have been conveyed out of the state will be routed to the Liquefaction Project to support the Export Authorization. To put the Export Authorization volumes in context, total volume produced in Texas or flowing through Texas from other states is projected to be roughly 18 Bcf/d over the term of the requested authorization. Texas is well positioned to absorb the increased demand from the Export Authorization without materially impacting the availability of gas supply within Texas or elsewhere in the United States.

#### 3. Domestic Natural Gas Demand

The nature of the natural gas market has changed dramatically in recent years. A decade ago, conventional wisdom held that the United States' per capita energy consumption would continue to rise, and that domestic gas supplies were in decline and inadequate to meet near-term future demand. FERC and the DOE/FE processed a flood of LNG import authorization requests for projects designed to meet a perceived need for foreign LNG supplies. However, experience has proven those assumptions obsolete. The EIA's most recently calculated reference case projects that the energy intensity of the U.S. economy, measured as primary energy use (in Btu)

<sup>77</sup> Id

<sup>&</sup>lt;sup>78</sup> ALTOS REPORT, *supra* note 25, at 8, 10 (2010).

<sup>&</sup>lt;sup>79</sup> ALTOS REPORT *supra* note 25, at 11 (2010).

<sup>&</sup>lt;sup>80</sup> ALTOS REPORT supra note 25, at 6 (2010).

per dollar of GDP (in 2005 dollars), declines 1.9% year over year between 2009 and 2035.81

The continued growth of energy-efficiency measures has effectively dampened the perperson demand curve for energy and reduced the pressure on natural gas demand. Utility regulatory commissions across the country have succeeded with various programs encouraging consumers to adopt energy-efficiency measures. Some states, such as California, have achieved a near-flat per capita energy demand during the last decade. The federal government, which is the largest consumer of energy in the United States, has also begun to aggressively reduce its own energy consumption by employing energy efficiency measures and encouraging the development of alternative energy resources.

The United States consumed 24.1 Tcf of natural gas in 2010, but the EIA projects this number will rise to only 26.6 Tcf in 2035. Assuming that the United States has 2,543 Tcf of recoverable reserves as projected by the EIA, its supply is sufficient to meet all domestic demand at current rates for over 100 years. The Export Authorization is projected to require about 13.7 Tcf of natural gas over its 25-year term, which represents 0.48% to 0.91% of total estimated U.S. recoverable reserves, even assuming that no new gas reserves are identified.

Considering the size of natural gas resources discovered in the U.S. and the determination to develop large scale renewable energy sources, the natural gas produced and exported under the Export Authorization will not be needed for decades, if ever. For example, methane

EIA, ANNUAL ENERGY OUTLOOK 2011 62 (2011), available at http://www.eia.gov/forecasts/aeo/pdf/0383%282011%29.pdf.

<sup>&</sup>lt;sup>82</sup> EIA, ANNUAL U.S. NATURAL GAS TOTAL CONSUMPTION, (Nov. 29, 2010) available at http://www.eia.doe.gov/dnav/ng/hist/n9140us2a.htm; EIA ANNUAL ENERGY OUTLOOK 2011, *supra* note 44 at 99, Table 16 (2011).

<sup>83</sup> MIT REPORT, *supra* note 24, at 30 (2011).

<sup>84 13.7</sup> Tcf represents the total of 1.5 Bcf/d over 25 years.

hydrates, though still at an early stage of development as an energy resource, may represent a significant long-term resource option. According to the MIT Report, while methane hydrates are unlikely to reach commercial viability for global markets for at least 15 to 20 years, an estimated 100,000 Tcf may be technically recoverable from high-saturation gas hydrate deposits."85

The growth of alternative energy has also reduced the demand for fossil-fuel-generated power. Across the country, utility commissions have promoted renewable energy projects by adopting renewable-energy portfolio standards. These vary from state to state, but the trend is significant and appears to be increasing. California, for example, will require 33% of electricity sold in the state to come from renewable energy sources by 2020. There is even discussion at the federal level for establishing a national minimum alternative-energy requirement.

Technology has also steadily improved. Wind turbines are remarkably more efficient and more environmentally friendly than a decade ago. The United States is now beginning to harvest its offshore wind resources, as evidenced by the recent FERC approval of a major offshore wind project on the East Coast. Solar photovoltaic cells have more than doubled in efficiency in the last couple of years and continue to improve. Concentrated solar techniques are also now being employed on a utility scale. Some states are implementing feed-in tariffs to further encourage alternative energy development. Stimulus programs administered by DOE and Treasury pursuant to the American Recovery and Reinvestment Act have provided billions of dollars for

<sup>85</sup> MIT REPORT, *supra* note 24, at 45, 47 (2011).

<sup>&</sup>lt;sup>86</sup> See, e.g., EIA ANNUAL ENERGY OUTLOOK 2011, supra note 44, at 8-9 (2011) available at http://www.eia.gov/forecasts/aeo/pdf/0383%282011%29.pdf.

<sup>&</sup>lt;sup>87</sup> See Cal. Pub. UTILITIES COMM., CPUC Applauds 33 Percent Renewable Energy Bill Signing, available at http://docs.cpuc.ca.gov/PUBLISHED/NEWS RELEASE/133440.htm.

the development of alternative energy technology, complementing private investment.<sup>88</sup> This enormous influx of capital for alternative energy development will further increase the near-term and long-term contributions of alternative energy and equivalently further reduce future U.S. demand for fossil fuel supplies, including natural gas.

Although these measures are desirable, it is also true that they exert downward pressure on the demand curve for natural gas. Downward pressure on demand is not conducive to the development of natural gas supplies, resulting in idle rigs, shut-ins of productive wells, and deployment of capital to other ends.

In conjunction with renewable energy resources such as wind and solar, alternative energy sources are likely to replace the natural gas reserves used to meet demand created by Export Authorization. As a result, it is reasonable to expect that the 13.7 Tcf of gas required to supply the Export Authorization over the next 25 years will never be needed in the United States and may never be otherwise produced. The economic benefits to the United States derived from the Export Authorization may not be a question of "now or later," but rather "now or never."

## 4. Benefits to Local, Regional and National Economy

The Export Authorization allows the United States to realize the economic benefits of natural gas resources that would not otherwise be realized for decades to come, if ever. The Export Authorization will stimulate the local, regional, and national economies by creating jobs, growing the tax base, and increasing overall economic activity. Since the Liquefaction Project's capacity will develop in stages, the economic impact may phase in as the market develops for total potential LNG production.

<sup>&</sup>lt;sup>88</sup> A complete list of funding made available under the American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5 (2009) may be found at http://energy.gov/downloads/recovery-act-recipient-data.

It is estimated that the additional Export Authorization for the Liquefaction Project will result in the creation of between 17,000 and 21,000 new jobs and provide a total incremental economic benefit of between \$3.6 and \$5.2 billion per year. <sup>89</sup>

The design, engineering, and construction of the additional Liquefaction Project facilities required to support the Export Authorization will provide an immediate boost to the local and regional economies. Between 2012 and 2014, FLEX estimates that over \$100 million will be spent on professional services associated with the Liquefaction Project, such as engineering and legal consultants. After construction begins on the additional facilities, which is projected to occur in 2014, total direct expenditures will exceed \$3 billion, directly creating over 3,000 onsite design and construction jobs. Hundreds of additional off-site U.S. jobs will be created indirectly by the need to support the design, fabrication and construction of the additional facilities.

The additional liquefaction facilities are expected to be phased into operation from 2017 to 2018, which will require FLEX to increase its permanent staff by 20 to 30 employees. This staffing increase will be dwarfed by the total number of new jobs created by the increased production of natural gas required for the Export Authorization. Producing the 1.5 Bcf/d of natural gas required for the Export Authorization will require direct expenditures of approximately \$2.7 billion per year for exploration, drilling, and production. Assuming that 6.2 to 7.7 jobs are created for every \$1 million spent, the Liquefaction Project is expected to generate between 17,000 and 21,000 jobs. 91

<sup>&</sup>lt;sup>89</sup> ALTOS REPORT, *supra* note 25, at 5, 12 (2010).

<sup>90</sup> Id. at 12.

<sup>&</sup>lt;sup>91</sup> Baumann, Robert H., D.E. Dismukes, D.V. Mesyanzhinov, and A.G. Pulsipher, *Analysis of the Economic Impact Associated with Oil and Gas Activities on State Leases*, LOUISIANA STATE UNIVERSITY CENTER FOR ENERGY

Job creation will start several years before the initial production of the Export Authorization volumes in 2017, and it is reasonable to expect significant economic benefits to be realized as soon as 2014. When fully operational, the additional Liquefaction Project facilities will provide substantial tax revenue to state and local government, not only from taxes on natural gas itself but also increased economic activity related to exploration, production, and infrastructure construction. Such increased economic activity can be expected to spill over into other areas of the local economy, resulting in employment and income impacts on local business such as restaurants, retailers, hotels, and other service-providers, as well as providing additional resources for community services, such as health care, education, and charities. Additional benefits will spread throughout the United States.

The report previously generated by Altos analyzing the economic impacts of producing the gas necessary to supply the Liquefaction Project utilized a credible range of economic multipliers from 1.34 to 1.90.<sup>93</sup> In other words, for every dollar of direct natural gas expenditure, one can reasonably expect between \$1.34 and \$1.90 of gross economic benefit. Applying these

STUDIES (2002); Snead, Mark C., The Economic Impact of Oil and Gas Production and Drilling on the Oklahoma Economy, Oklahoma State University (2002); Considine, Timothy J., The Economic Impacts of the Marcellus Shale: Implications for New York, Pennsylvania and West Virginia, A Report to the American Petroleum

INSTITUTE (2010).

<sup>&</sup>lt;sup>92</sup> See, e.g., Timothy Considine, Ph.D., M.B.A., Roben Watson, Ph.D., P.E., Rebecca Entler & Jeffrey Sparks, An Emerging Giant: Prospects and Economic Impacts of Developing the Marcellus Shale Natural Gas Play, THE PENN. STATE UNIV. DEP'T OF ENERGY & MINERAL ENG'G 18, 23 (2009), available at http://www.alleghenyconference.org/PDFs/PELMisc/PSUStudyMarcellusShale072409.pdf.

<sup>&</sup>lt;sup>93</sup> Robert H. Bauman, D.E. Dismukes, D.V. Mesyanzhinov, & A.G. Pulsipher, *Analysis of the Economic Impact Associated With Oil and Gas Activities on State Leases*, LOUISIANA STATE UNIVERSITY CENTER FOR ENERGY STUDIES (2002); Mark C. Snead, *The Economic Impact of Oil and Gas Production and Drilling on the Oklahoma Economy*, OKLAHOMA STATE UNIVERSITY (2002); Timothy J. Considine, *The Economic Impacts of the Marcellus Shale: Implications for New York, Pennsylvania, and West Virginia*, A REPORT TO THE AMERICAN PETROLEUM INSTITUTE (2010).

multipliers to the estimated \$2.7 billion of annual direct expenditures required to produce the source gas, the Export Authorization is expected to generate an annual economic benefit of between \$3.6 and \$5.2 billion. By creating new demand for incremental production of natural gas, the Export Authorization will play an essential role in spurring investment and technological development throughout the exploration and production supply chain. The indirect benefits associated with the Export Authorization include high-wage jobs created by the natural gas industry, royalty and lease payments paid to landowners, an expansion of the United States' natural gas production infrastructure, and substantial additional revenue to the federal and state treasuries via increased tax revenue. This multiplier effect will create improvements across the entire domestic economy.

The economic multiplier effect is borne out in numerous studies analyzing the economic benefits of shale gas development. A study analyzing the economic impact of the Eagle Ford shale by The University of Texas at San Antonio found that since 2008, when the Eagle Ford was first discovered, Eagle Ford shale activity has accounted for roughly 6% of the gross regional product for the play's 24 county area. The UTSA Study determined that in 2009, the Eagle Ford supported 12,601 jobs and added \$2.9 billion in total economic output. To put in perspective the rapid growth of this shale gas play since 2009, only 19 Bcf of natural gas was produced in the Eagle Ford in 2009. Since then, natural gas production in the Eagle Ford has continued to rise, amounting to 108 Bcf in 2010 and 139 Bcf through August 2011. Through October 2011, 3,477 drilling permits were issued in the Eagle Ford, an increase of 3,357 since

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<sup>&</sup>lt;sup>94</sup> Economic Impact of the Eagle Ford Shale, UTSA Center for Community and Business Research, at 4 ("UTSA Study"), available at http://ccbr.iedtexas.org/index.php/Our-Projects/economic-impact-of-the-eagle-ford-shale.html.
<sup>95</sup> Id. at 10.

2009.96

A Pennsylvania State University study analyzing the economic impact of the Marcellus shale gas industry in Pennsylvania estimated that the Marcellus gas industry provided a direct economic stimulus of \$2.18 billion dollars to the local economy and a total economic benefit of more than \$4.2 billion.<sup>97</sup> Other natural gas studies have used economic multipliers as high as 1.94.<sup>98</sup> A National Energy Technology Laboratory study analyzing the economic impact of Marcellus shale gas development found that in 2009, Marcellus shale gas drilling activity in West Virginia contributed almost 5,000 jobs and \$989 million in gross economic output.<sup>99</sup> A study analyzing the economic impact of Barnett shale found that the total effects of Barnett shale activity included \$11.0 billion in annual output and 111,131 jobs.<sup>100</sup> The Export Authorization can be expected to have a significant economic impact, yielding numerous benefits for local and regional economies, as well as the U.S. economy at large.

#### 5. Balance of Trade

The Export Authorization, once approved, will increase LNG exports by \$3.9 billion per year, equivalent to 1.5% of the 2010 U.S. trade deficit for petroleum goods - a significant

Railroad Commission of Texas, Eagle Ford Information (Dec. 7, 2011) available at http://www.rrc.state.tx.us/eagleford/eagleford\_dp\_issued.pdf;

http://www.rrc.state.tx.us/eagleford/eaglefordproduction.pdf

<sup>&</sup>lt;sup>97</sup> Considine et al., supra note 92, at 23.

<sup>98</sup> Id.

<sup>&</sup>lt;sup>99</sup> National Energy Technology Laboratory, *Projecting the Economic Impact of Marcellus Shale Gas Development in West Virginia* at vi (2010), *available at* http://www.netl.doe.gov/energy-analyses/pubs/WVMarcellusEconomics3.pdf.

<sup>&</sup>lt;sup>100</sup> See 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 at 32 (2009), available at http://groundwork.iogcc.orgisitesldcfaultlfiles/2009 eco report.pdf.

beneficial impact on the United States' overall balance of trade. 101

Increasing exports to address the United States' trade imbalance is a critical element of the U.S. Government's concerted effort to speed up the economic recovery, and granting FLEX's application to export LNG is consistent with this goal. On March 11, 2010, the President created the National Export Initiative (the "NEI") by Executive Order. The purpose of the NEI is to "enhance and coordinate Federal efforts to facilitate the creation of jobs in the United States through the promotion of exports. Underpinning this policy is the fact that "[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." Exports, the NEI explains, "create good high-paying jobs."

The Export Authorization will meaningfully impact the trade imbalance for the petroleum products sector—an area where trade is heavily skewed towards imports. According to the U.S. Department of Commerce, the total U.S. trade deficit was \$500 billion in 2010. Although the United States exported a total of \$1.84 trillion in goods and services last year, it imported over \$2.34 trillion during that same period. The United States imported over \$336 billion in

Assumes export of 1.4 Bcf/d LNG valued at \$7.50 per Mcf. In 2010, the petroleum products trade deficit was \$265 billion. BUREAU OF ECONOMIC ANALYSIS, U.S. DEPARTMENT OF COMMERCE, U.S. International Trade in Goods and Services Annual Revision for 2010, at Exhibit 8, available at http://www.bea.gov/newsreleases/international/trade/2011/pdf/trad1311.pdf

<sup>&</sup>lt;sup>102</sup> National Export Initiative, Exec. Order 13,534, 75 C.F.R. 12433 (March 16, 2010); *available at* http://edocket.access.gpo.gov/2010/pdf/2010-5837.pdf.

<sup>&</sup>lt;sup>103</sup> *Id*.

<sup>&</sup>lt;sup>104</sup> Id.

<sup>105</sup> Id

<sup>&</sup>lt;sup>106</sup> BUREAU OF ECONOMIC ANALYSIS, U.S. DEPARTMENT OF COMMERCE, U.S. International Trade in Goods and Services 1 (2010); available at http://www.bea.gov/newsreleases/international/trade/2011/pdf/trad1311.pdf.

<sup>107</sup> Id.

petroleum products in 2009, but exported a mere \$71 billion, resulting in a net trade deficit of \$265 billion for petroleum products alone. Put simply, over half of America's total trade deficit is attributable to the nation's negative balance of trade in petroleum products alone.

The Export Authorization would materially advance the federal government's objective of promoting U.S. exports. In the U.S. Government's first progress report on the NEI, issued July 7, 2010, a 17% increase in exports was reported for the first four months of 2010 as compared to the same period from the previous year. The first NEI Progress Report identified specific accomplishments, such as trade agreements designed to add \$1 billion to pork and poultry exports, deemed to have a significant impact on the trade balance. While significant, this represents a mere quarter of the export growth that would result from the Export Authorization. Against this backdrop, approval of the Export Authorization will be one of the most significant export and export-related job creation catalysts.

As demonstrated by the NEI and other public positions taken by the U.S. Government, it is the policy of the federal government to reduce barriers to trade and to better balance trade and capital flows. Accordingly, in a prior Order authorizing FLNG Development to re-export imported LNG, DOE/FE expressly found that such exports would result in "mitigation of balance of payment issues to the benefit of the United States interests."

<sup>108</sup> Id. at Exhibit 8.

<sup>&</sup>lt;sup>109</sup>President Obama Provides Progress Report on National Export Initiative, Announces Members of the President's Export Council, White House Press Release (July 7, 2010); available at http://www.whitehouse.gov/the-press-office/president-obama-provides-progress-report-national-export-initiative-announces-membe.

Progress Report on the National Export Initiative , July 7, 2010; available at http://www.whitehouse.gov/sites/default/files/exports\_progress\_report.pdf.

<sup>&</sup>lt;sup>111</sup> See Howard Schneider and Scott Wilson, The "G-2." U.S and China, Will be the Center of the G-20 Debates in Seoul, THE WASHINGTON POST (Nov. 10, 2010).

<sup>112</sup> Freeport LNG Development, L.P., FE Docket No. 08-70-LNG, Order No. 2644 at 12.

## Global Environmental Benefits

Because it is the cleanest-burning fossil fuel, natural gas offers a number of environmental benefits compared to oil and coal. The combustion of natural gas results in less pollution than the combustion of other fuels. Compared to the average air emissions from coal-fired generation, power plants that burn natural gas produce half as much carbon dioxide, less than a third of the nitrogen oxides, and one percent of the sulfur oxides. Natural gas also produces about 25-30% less CO<sub>2</sub> than gasoline and diesel and virtually none of the other pollutants. Natural gas is not a significant contributor to either acid rain or smog formation, unlike petroleum products and coal.

Not only is natural gas a cleaner fuel, but as the U.S. Energy Information Administration has noted, new natural-gas-fired plants are much cheaper to build than new renewable or nuclear plants. As more and more nations look for alternative sources of power generation beyond coal or oil — and move to regulate or tax greenhouse gases — demand for LNG will continue to grow worldwide. Opening new overseas markets for natural gas will require plants, like the

<sup>&</sup>lt;sup>113</sup> See ROBERT A. HEFNER III, THE GRAND ENERGY TRANSITION 49 (John Wiley & Sons, Inc. 2009). ("[Natural gas] is a green fuel. Its use eliminates most all the toxic emissions and carbon particulates that come along with coal and oil use, while significantly reducing CO<sub>2</sub> emissions.") and at 77-107 (discussing the abundance of natural gas).

EIA, NATURAL GAS 1998: ISSUES AND TRENDS at 50 (1998), available at http://www.eia.doe.gov/oil gas/natural gas/analysis publications/natural gas 1998 issues and trends/it98.html.

EPA, AIR EMISSIONS, available at http://www.epa.gov/cleanenergy/energy-and-you/affect/air-emissions.html.

<sup>&</sup>lt;sup>116</sup> HEFNER, supra note 113, at 209.

EIA, NATURAL GAS 1998: ISSUES AND TRENDS, at 54 (1998), available at http://www.eia.doe.gov/oil\_gas/natural\_gas/analysis\_publications/natural\_gas\_1998\_issues\_and\_trends/it98.html.

EIA. ANNUAL ENERGY OUTLOOK 2011, supra note 44, at 40.

<sup>&</sup>lt;sup>119</sup> See, e.g., IPCC FOURTH ASSESSMENT REPORT: CLIMATE CHANGE 2007: WORKING GROUP III: MITIGATION OF CLIMATE CHANGE § 4.2.3 ("Increased use of natural gas has recently occurred throughout the Asian region . . . . A liquefied natural gas (LNG) market has recently emerged in the region, dominated by Japan, South Korea and Spain

Liquefaction Project, that are equipped to liquefy large amounts of the gas in a safe and environmentally friendly manner. The LNG industry has a proven environmental safety record with 40 years of shipping LNG over the Atlantic, Pacific and Indian Oceans with no major incidents involving LNG ships or their cargo. Moreover, "LNG tankers are generally less polluting than other shipping vessels because they burn natural gas in addition to fuel oil for propulsion." Thus, the Export Authorization will offer significant environmental benefits by supplying cleaner energy to help meet increased global demand.

## 7. National Security Benefits

The United States has developed massive natural gas reserves that are sufficient to meet all domestic demand for decades, even with significant exports of LNG. As a result, the LNG exports associated with the Export Authorization will not degrade U.S energy security. Further, by promoting a global, liquid, and robust market for natural gas, the United States will increase economic trade and ties with foreign nations by providing them with access to a reliable supply of alternative clean fuel.

<sup>....&</sup>quot;); HEFNER, *supra* note 113, at 214 (noting that "Singapore is leading the way by fueling more than 80 percent of its power generation with natural gas") and at 215 ( "[Natural gas] power generation, supplemented with wind and solar, can solve [China's] demand for cleaner power and quickly begin to reverse China's environmental degradation, while lowering forecast CO<sub>2</sub> emissions substantially, as well as reducing the true costs of energy consumption.").

DOE, FOSSIL ENERGY, LNGSafety de Security, available at http://www.fossil.energy.gov/programs/oilgas/storage/lng/feature/howsafeisit.html; see also SANDIA NAT'L LABS., GUIDANCE ON RISK ANALYSIS AND SAFETY IMPLICATIONS OF A LARGE LIQUEFIED NATURAL GAS (LNG) SPILL OVER WATER at 14 (2004) ("Risks from accidental LNG spills, such as from collisions and groundings, are small and manageable with safety policies and practices."), available current http://www.fossil.energy.gov/programs/oilgas/storage/lng/sandia lng 1204.pdf.

<sup>&</sup>lt;sup>121</sup> Michelle Michot Foss, Ph.D., *Introduction to LNG*, THE UNIVERSITY OF TEXAS AT AUSTIN 23 (2007), *available at* http://www.beg.utexas.edu/energyecon/lng/documents/CEE INTRODUCTION TO LNG FINAL.pdf.

The United States is recognized as a stable and reliable trading partner. Its participation in creating a liquid, global market for natural gas would promote the security interests of all nations involved. For example, almost half the natural gas currently imported into the European Union is conveyed via pipeline from Russia and North Africa, and its dependence on long supply chains creates significant security concerns for America's allies. 122

According to the Baker Institute Report, "full development of commercial shale gas resources in the United States will have multiple beneficial effects for U.S. energy security and national interests." Full and timely development of U.S. shale gas resources will create greater competition among suppliers in global markets, and keep U.S. and international prices for natural gas from rising substantially. Increased competition among world natural gas suppliers "reduces the threat that a Gas-OPEC can be formed", and "will trim the petro-power of energy production countries such as Russia, Iran, and Venezuela to assert themselves using an "energy" weapon or "energy diplomacy" to counter U.S. interests abroad." The Baker Institute Report concludes that United States will need to adopt policies that ensure shale gas exploration can proceed steadily and predictably, and that ensure that shale gas can play a significant role in the U.S. and global energy mix, thereby contributing to greater diversification of global energy supplies and to the long-term national interests of the United States. The Export Authorization is directly supportive of those policy objectives.

The MIT Report makes the following conclusions regarding the impact of U.S. exports on domestic and global security interests:

<sup>&</sup>lt;sup>122</sup> MIT REPORT, *supra* note 24, at 152 (2011).

<sup>&</sup>lt;sup>123</sup> BAKER INSTITUTE REPORT, *supra* note 38, at 54.

<sup>124</sup> Id.

<sup>&</sup>lt;sup>125</sup> Id,

- "...even though the U.S. is not significantly dependent on imports, American security interests can be strongly affected by the energy supply concerns of its allies."
- "Overall, a global 'liquid' natural gas market is beneficial to U.S. and global economic interests and, at the same time, advances security interests though diversity of supply and resilience to disruptions."
- "U.S. freedom of action in foreign policy is tied to global energy supply." Developing a large and flexible export capability will increase the United States' foreign policy options.

By promoting a global, liquid, and robust market for natural gas, the United States will increase economic trade and ties with foreign nations. Beyond the more general security benefits, the Export Authorization offers a potential security advantage for the United States by selling into the international market with market-based pricing structures that will offset those that may seek to monopolize the natural gas industry.

#### VII.

# **ENVIRONMENTAL IMPACT**

FERC has already authorized the Phase II expansion of the Freeport Terminal. The Liquefaction Project improvements, including those required to support the Export Authorization, will be contained within the previously authorized operational area of the Freeport Terminal on Quintana Island. The potential air impacts of the Liquefaction Project, including the facilites required to support the Export Authorization, will be reviewed by the Texas Commission on Environmental Quality ("TCEQ") and the Environmental Protection

<sup>126</sup> Id. at 155 (2011).

Agency ("EPA"). Other environmental impacts of the Liquefaction Project will be reviewed by FERC under NEPA. FERC authorization will be conditioned upon issuance of air quality permits from TCEQ and EPA. Accordingly, FLEX requests that DOE/FE issue a conditional order authorizing export of domestically produced LNG pending completion of FERC's environmental review.

#### VIII.

## REPORTING REQUIREMENTS

For all imports and exports made pursuant to the authorization requested herein, FLEX will undertake to file reports with the DOE/FE in the month following the close of each calendar quarter indicating by month whether exports have occurred, and if so, the details of each transaction, including the total volumes of exports in Mcf and the average price for exports per MMBtu at the international border. The reports shall include the name of the seller, the name of the purchaser, the estimated or actual duration of the agreements, the name of the U.S. transporter(s), the point of exit, whether the sales are made on an interruptible or firm basis, and, if applicable, the per unit (MMBtu) demand/commodity/reservation charge breakdown of the contract price. FLEX will notify the DOE/FE in writing of the date of the first delivery of natural gas exported under the requested authorization within two weeks of such delivery.

FLEX's reporting contact is:

Veronica Cantu Freeport LNG Expansion, L.P. 333 Clay St., Suite 5050 Houston, Texas 77002 Tel (713) 333-4246

<sup>&</sup>lt;sup>127</sup> See Procedural Order Eliminating Quarterly Reporting Requirement and Amending Monthly Reporting Requirement for Natural Gas and LNG Import/Export Holders, FE Docket No. 08-01-PO, DOE/FE Order No. 2464 (Feb. 6, 2008).

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#### IX.

## APPENDICES

Appendix A: Opinion of Counsel.

Appendix B: Verification and Certification

## X.

# **CONCLUSION**

FLEX requests long-term, multi-contract authorization to export up to 1.4 Bcf/d, or 511 Bcf/y of LNG, up to a total of 12.8 Tcf over the requested 25-year term, from the Freeport Terminal to any country with which the United States does not have an FTA requiring national treatment for trade in natural gas and LNG, which has or in the future develops the capacity to import LNG via ocean-going carrier, and with which trade is not prohibited by U.S. law or policy. The Export Authorization sought by FLEX is not inconsistent with the public interest. FLEX requests authorization to export LNG on its own behalf or as agent for others, and FLEX requests that it be authorized to register each LNG title holder for whom FLEX seeks to export as agent.

Based on the reasoning provided in this application, FLEX respectfully requests that the DOE/FE determine that FLEX's request for long-term, multi-contract authorization to export natural gas to non-FTA countries is not inconsistent with the public interest. Accordingly, FLEX requests that DOE/FE issue an order pursuant to Section 3(a) of the Natural Gas Act for authorization to export LNG to non-FTA countries.

Respectfully submitted,

Les Lo Baugh

Attorneys for

Freeport LNG Expansion, L.P.

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FLNG Liquefaction, LLC

December 17, 2010

APPENDIX A

# Brownstein | Hyatt Farber | Schreck

December 19, 2011

Mr. John Anderson Office of Fossil Energy [FE-34] U.S. Department of Energy 1000 Independence Avenue, S.W. Washington, D.C. 20585 Les Lo Baugh 310.500.4638 tel 310.500.4602 fax LLoBaugh@bhfs.com

RE: Freeport LNG Expansion, L.P.

FLNG Liquefaction, LLC FE Docket 11- -LNG

Application for Long-Term Authorization to Export Liquefied Natural Gas

To Non-Free Trade Agreement Countries

#### Dear Sir:

This opinion is submitted pursuant to Section 590.202(c) of the U.S. Department of Energy's regulations. I have examined the Amended and Restated Articles of Incorporation of both Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC and other authorities as necessary, and have concluded that the proposed exportation of liquefied natural gas from the United States, as described in the application for long-term authorization to export to non-Free Trade Act countries to which this Opinion of Counsel is attached as Appendix A, is within the corporate powers of both Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC.

Respectfully submitted,

Les Lo Baugh

APPENDIX B

# VERIFICATION and CERTIFIED STATEMENT

County of Los Angeles

State of California

I, Les LoBaugh, being duly sworn on his oath, do hereby affirm that I am a duly authorized representative of Freeport LNG Expansion, L.P. and FLNG Liquefaction LLC; that I am familiar with the contents of this application; and that the matters set forth therein are true and correct to the best of my knowledge, information and belief.

Les LoBaugh

Sworn to and subscribed before me, a Notary Public, in and for the State of California, this 19th day of December, 2011.

Vilma Capili, Notary Public

VILMA B. CAPILI
Commission # 1910290
Notary Public - California
Los Angeles Gounty
My Comm. Expires Oct 24, 2014

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