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November 12, 2013

Mr. John Anderson U.S. Department of Energy Office of Fossil Energy Docket Room 3F-056, FE-50 Forrestal Building 1000 Independence Avenue, S.W. Washington, D.C. 20585

Re: Delfin LNG LLC

FE Docket No. 13-147LNG

Application for Long-Term Authorization to Export LNG

To Non-Free Trade Agreement Countries

Dear Mr. Anderson:

Delfin LNG LLC (Delfin) hereby submits for filing with the U.S. Department of Energy, Office of Fossil Energy (DOE/FE), its application for long-term, multi-contract authorization to export domestically produced liquefied natural gas (LNG). Delfin requests this authority to export LNG of up to the equivalent of 1.8 billion cubic feet (Bcf) of natural gas per day or 657.5 Bcf per year (approximately 13 million metric tons per annum of LNG) from its planned, floating liquefaction project to be located in the West Cameron Block 167 in the Gulf of Mexico. The requested export authority would permit Delfin itself or acting as an agent for others to export LNG to any country which has or in the future develops the capacity to import LNG via ocean-going carrier and with which the United States does not prohibit trade but also does not have a Free Trade Agreement. Delfin requests authorization for exports over a twenty year period, commencing on the earlier of the date of first export or seven years from the date the requested authorization is granted.

Pursuant to 10 C.F.R. § 590.103(c), a signed opinion of legal counsel that the proposed export is within Delfin's corporate powers is attached hereto in Appendix B. Delfin is submitting this filing electronically, as well as sending a hard copy via messenger. A check in the amount of \$50.00 is enclosed in payment of the applicable filing fee as required by 10 C.F.R. § 590.207. Please contact me if you have any questions regarding this application.

Respectfully submitted,

J. Patrick Nevins

Hogan Lovells US LLP

Partner

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D (202) 637-6441

Counsel to Delfin LNG LLC

**Enclosures** 

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

In the Matter of	]	FE Docket No.
	]	
Delfin LNG LLC	1	13 - 147 - LNG

#### APPLICATION OF DELFIN LNG LLC FOR LONG-TERM AUTHORIZATION TO EXPORT LNG TO NON-FREE TRADE AGREEMENT COUNTRIES

Pursuant to Section 3 of the Natural Gas Act (NGA) 1/ and Part 590 of the regulations of the Department of Energy (DOE), 2/ Delfin LNG LLC (Delfin) hereby files this application (Application) with the DOE, Office of Fossil Energy, (DOE/FE) for long-term, multi-contract authorization to engage in exports of domestically produced liquefied natural gas (LNG) of up to the equivalent of 1.8 billion cubic feet (Bcf) of natural gas per day or 657.5 Bcf per year (approximately 13 million metric tons per annum (mtpa) of LNG). Delfin requests authorization to export the LNG over a twenty year term commencing on the date of the first LNG export or seven years from the date that the authorization is issued, whichever is sooner. Delfin proposes to export the LNG from its planned, newly constructed floating liquefaction project to be located in West Cameron Block 167 ("WC 167") of the Gulf of Mexico, offshore Cameron Parish, Louisiana, near the terminus of an existing thirty-mile pipeline. The authorization requested here would allow Delfin to export the LNG to any country that has or in the future develops the capacity to import LNG via ocean-going carrier and with which the United States does not have a Free Trade Agreement but does not prohibit trade. Delfin is requesting this authorization for itself as well as to allow it to act as agent on behalf of other entities who themselves hold title to the LNG, after registering each such entity with DOE/FE.

<sup>&</sup>lt;u>1</u>/ 15 U.S.C. § 717 (b).

<sup>2/ 10</sup> C.F.R. Part 590 (2013).

This Application represents the second part of Delfin's two-part request for DOE/FE authorization to export domestic natural gas in the form of LNG from its liquefaction project. On October 7, 2013, Delfin filed in FE Docket No. 13-129-LNG its application requesting long-term, multi-contract authorization to export domestically produced LNG to any country (1) with which the United States has, or in the future enters into, an FTA requiring national treatment for trade in natural gas or its legal equivalent and (2) which has or in the future develops the capacity to import LNG via ocean-going carrier. Through the combination of its two applications, Delfin requests authorization to export domestic natural gas as LNG to any country with which trade is not prohibited by U.S. law or policy. Delfin requests authorization for the same volumes of up to the equivalent of 1.8 Bcf of natural gas per day or 657.5 Bcf per year in each application: the volumes to be exported under the two requested authorizations are *not* additive.

In support of this Application, Delfin respectfully submits as follows:

#### I. DESCRIPTION OF THE APPLICANT

The exact legal name of Delfin is Delfin LNG LLC. Delfin is a limited liability company organized and existing under the laws of the State of Louisiana with its principal place of business at:

Toombs, Hall & Foster, LLP 5949 Sherry Lane, Suite 950 Dallas, Texas 75225

Delfin has been formed for purposes of owning this project. The company currently is a wholly-owned subsidiary of Fairwood Peninsula Energy LLC ("Fairwood Peninsula"), a Delaware-registered limited liability company, formed by a group of experienced oil and gas and project management executives from both the Fairwood Group, based in India and Singapore, and the U.S.-based Peninsula Group. Fairwood Peninsula is owned by FWNR Energy Holdings (USA) Corporation ("Fairwood USA") and the Peninsula Group.

Fairwood USA is a Delaware-registered corporation formed for purposes of holding assets in the United States, and is a subsidiary of Fairwood Welbeck Natural Resources Pte. Ltd. ("FWNRL"). FWNRL is a company organized and existing under the laws of the Singapore with its principal place of business at 112 Middle Road, #07-03 Midland House, Singapore 188970. FWNRL is engaged in developing natural gas activities within the U.S. and Asia, including natural gas production and LNG liquefaction within the U.S. and regasification facilities and offtake contracts in Asia. FWNRL, in turn, is part of the Fairwood Group, an India-based group of companies with investments in energy, transportation and urbanization, with offices in six countries that has completed projects with a value of over \$3 billion, is currently working on other projects valued at approximately \$800 million, and has a further approximately \$2 billion of projects under consideration.

The Peninsula Group is a privately owned, Texas-based group of companies with interests in land development, construction projects and oil and gas. The Peninsula Group has completed projects in these areas worth over \$500 million.

Principals of FWNRL and of the Peninsula Group have been working on the development of the LNG export project described herein for over three years. They are engaged in advanced negotiations with major strategic partners that are likely to participate in the project and to obtain equity in Delfin in the future. Delfin will notify the DOE/FE of future changes in its ownership structure when they occur.

#### II. COMMUNICATIONS AND CORRESPONDENCE

The names, titles and mailing addresses of the persons to whom correspondence and communications concerning this Application, including all service of pleadings and notices, are to be addressed are:

J. Patrick Nevins Hogan Lovells USA LLP 555 Thirteenth Street, NW Washington, D.C. 20004 Telephone: (202) 637-6441

Email: Patrick.Nevins@hoganlovells.com

and

Randy Foster Toombs, Hall & Foster, LLP 5949 Sherry Lane, Suite 950 Dallas, Texas 75225 Telephone: 214-369-5695

Email: RF@THFCPA.com

These persons are designated to receive service on behalf of Delfin and should be placed on the official service list for this proceeding.

#### III. DESCRIPTION OF THE DELFIN PROJECT

Delfin's request for LNG export authorization here is part of its plan to develop, own and operate a floating liquefaction facility in WC 167 of the Gulf of Mexico, offshore Cameron Parish, Louisiana. The facility will be a "deepwater port" within the meaning of the Deepwater Port Act (DWPA). 3/ As such, the facility shall require a license to be issued by the Department of Transportation's Marine Administration (MARAD), working in conjunction with the U.S. Coast Guard.

Liquefaction at the new Delfin deepwater port will utilize floating liquefaction and storage vessels (FLNGV) to be moored near an existing platform located in WC 167, approximately 30 miles off-shore Cameron Parish, Louisiana. The platform is the terminus and metering point of the existing Enbridge Offshore Pipelines (UTOS) ("UTOS") natural gas pipeline system, and is connected to the shore via an existing 42-inch diameter, 30-mile long gas pipeline. The pipeline system commenced operation in 1978 and previously

<sup>3/ 33</sup> U.S.C. § 1501 *et seq.* The DWPA authorizes the ownership, construction and operation of marine terminals in federal waters of the Outer Continental Shelf. The DWPA originally applied only to oil import terminals, but was amended in 2002 to include LNG import terminals. Section 312 of the Coast Guard and Maritime Transportation Act of 2012 (H.R. 2838) further amended the DWPA to include facilities for the export of oil and natural gas.

was utilized for the purpose of transporting off-shore natural gas production to onshore connections with Transcontinental Gas Pipe Line (Transco), Natural Gas Pipeline Company of America (NGPL), and ANR Pipeline Company (ANR), as well as to nearby gas processing plants. Given the significantly decreased flow volumes from off-shore production over the years, this gas pipeline could no longer be economically operated for that original purpose. As a result, the Federal Energy Regulatory Commission (FERC) in 2011 authorized the pipeline to abandon its services and certificates while deferring the final disposition of its facilities. 4/ The system has been idled since that time and is currently filled with nitrogen.

FWNRL entered into an agreement with the owner of UTOS on August 14, 2013, that provides it, subject to the satisfaction of certain conditions including regulatory approvals, the exclusive right to acquire the pipeline system. FWNRL will contribute the UTOS system once it is acquired to Delfin. The agreement sets forth a three-stage process for the acquisition of UTOS. The first stage (which is now underway) required an initial payment and provides for preliminary feasibility assessments and certain meetings and filings with regulatory agencies. The second stage requires an additional payment by FWNRL, more advanced due diligence activities, and the negotiation of a contemplated sales and purchase agreement. The third and final stage involves the final purchase payment and the closing of the transaction, subject to requisite regulatory approvals. 5/

Delfin intends to recommission and to reverse the flow on the existing 42-inch pipeline for purposes of delivering feed gas to its project. The existing pipeline is

<sup>4/</sup> Enbridge Offshore Pipelines (UTOS) LLC, 136 FERC ¶ 62,269 (2011).

Delfin and the pipeline owner consider the terms of their agreement to be confidential. The agreement contains commercially valuable and proprietary information the disclosure of which would cause competitive and financial harm to the parties. Accordingly, Delfin submitted the agreement under seal for purposes of review by DOE/FE along with its prior, FTA application in FE Docket No. 13-129-LNG, while requesting that that agreement be treated and maintained as confidential to the greatest extent permitted by law, in accordance with 10 C.F.R. § 1004.11 (2013). Delfin has summarized the material terms of the agreement for the public record above.

anticipated to have capacity to transport up to 1.8 Bcf per day from the Louisiana coastline to the new deepwater port facility near the existing WC 167 platform. Following the reactivation of its previous on-shore interconnections with major interstate pipelines (Transco, NGPL and ANR) and modification to reverse flow, the pipeline will provide access for Delfin's project to the domestic natural gas interstate pipeline system. A map showing the location of WC 167 and the existing pipeline is attached as Appendix C.

Delfin's planned liquefaction will be provided on FLNGVs that will be moored at purpose-built single point moorings located as near the terminus of the existing pipeline in WC 167 as operationally and safely possible (expected to be within approximately 2000 feet). The FLNGVs will have the capability to export LNG to off-taking LNG carriers utilizing a proven ship-to-ship, side transfer process. The precise location and spacing of the FLNGV's around the existing WC 167 platform will depend on further detailed design work, as well as consultation with MARAD and the Coast Guard. Delfin has begun the process of consultation with MARAD and the Coast Guard concerning the licensing of its planned deep water port.

Delfin also has retained the engineering firm of Moffatt and Nichol to prepare its marine studies, including evaluation of the location, metocean analysis, navigation assessment, development of the mooring lay-out, and dynamic mooring analysis. Moffatt and Nichol is a leading global infrastructure advisor that, for decades, has been an industry-leading consultancy addressing the offshore and near-shore marine terminal needs of the oil and gas industry. 6/ While the final design remains under development, a simplified presentation of the basic site plan for the Delfin mooring system, as well as a conceptual depiction of a vessel attached to a tower mooring, is included in Appendix D.

The Delfin floating liquefaction project, as currently planned, will be constructed in four trains. Delfin has entered into a memorandum of understanding with one of the world's

<sup>6/</sup> Moffatt and Nichol offers a full range of engineering consulting services for the design and construction management of LNG facilities. Its engineers and scientists have participated in nearly every aspect of planning and engineering of LNG facilities -- from pre-FEED and FEED engineering to vessel traffic analysis, dredging and structural design. The firm has provided these services for more than twenty major LNG projects throughout Asia, Africa, Canada, Mexico, and the United States.

leading midstream LNG companies to provide at least the first two FLNGVs. The focus of the MOU is to develop fast track, modular, mid-scale liquefaction solutions of approximately 2.5 million mtpa per train based on existing technology and using completed Front-End Engineering and Designs.

Delfin anticipates that its third and fourth trains will be provided by new-build FLNGV(s) ordered and constructed for purposes of this project. Delfin is in engaged in advanced discussions with one of the world's largest ship builders, and a particular leader in LNG carriers, concerning these later trains. Delfin anticipates contracting with the ship-builder for the construction of a new FLNGV(s) for its third and fourth trains, which will provide liquefaction capacity of 4.0 million mtpa each, bringing the project's total capacity to approximately 13 million mtpa.

Delfin will proceed with the commissioning of its four trains scheduled and sequenced as appropriate to meet contracted customer demand. The FLNGVs will be constructed in the controlled environment of a shipyard and fast track option are available, allowing Delfin to avoid much of the long lead time of land-based LNG export projects. Accordingly, Delfin anticipates that, subject to all regulatory approvals, it will begin operation of at least its first train in 2017 and its second train in 2018. Delfin anticipates beginning operation of its third and fourth trains in 2019 and 2021, following the longer period needed for construction of the new-build FLNGV(s).

Delfin plans to export domestically produced natural gas, sourced from both conventional and non-conventional production, available from the interstate pipeline grid and delivered through the connection to its dedicated, existing pipeline to the new deepwater port in WC 167. Delfin's connection through its dedicated pipeline with the interstate pipeline systems will provide access to abundant and diverse domestic supplies across the US including Texas and Louisiana, where significant volumes of gas are currently being flared at zero value, specifically in the nearby Eagle Ford Shale.

Delfin is engaged in commercial negotiations with numerous potential customers. Based

on those discussions, Delfin anticipates that it will contract some of its capacity (in particular, portions of its first and possibly second trains) with customers located in countries with which the U.S. has an FTA already in place. Delfin also expects, however, to contract with companies seeking to export LNG to nations that do not currently have an FTA in place with the U.S. To maximize its ability to market the project, and to provide the project's full economic benefit to all the stakeholders, Delfin needs to expand its potential customer pool in this way. For that reason, Delfin respectfully requests this authorization to export LNG to non-FTA countries.

#### IV. REQUESTED AUTHORIZATION

Delfin proposes to engage in the export of LNG of up to the equivalent of 1.8 Bcf of natural gas per day or 657.5 Bcf per year (approximately 13 million mtpa of LNG) 7/ from its new deep water port to be located in WC 167 of the Gulf of Mexico, offshore Cameron Parish, Louisiana. As noted above, Delfin previously requested in FE Docket No. 13-129-LNG the long-term, multi-contract authorization to export those volumes of domestically produced LNG to any country that has or in the future develops the capacity to import LNG via ocean-going carrier and with which the United States has, or in the future enters into, an FTA requiring national treatment for trade in natural gas or its legal equivalent. Here, Delfin requests authorization to export these same volumes of LNG to any country with which the United States does not have a Free Trade Agreement but does not prohibit trade.

Delfin anticipates entering into one or more long-term (more than two years and up to 20 years) contractual agreements with customers for natural gas liquefaction and LNG

Z/ Section 590.202(b)(1) of the DOE's regulations requires that applications for export or import authority set forth "the volumes of natural gas involved, expressed either in Mcf or Bcf and their Bcf equivalents." DOE/FE recently reaffirmed its intention to authorize LNG export in annual quantities equivalent to natural gas volumes set forth in volumetric units (typically Bcf). In recent orders authorizing LNG exports to FTA countries, DOE/FE has authorized levels set forth in Bcf of natural gas. *E.g.*, Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC, DOE/FE Order No. 3282, at pages 119-120 (May 17, 2013). Delfin similarly requests authorization for the amount of natural gas of up to equivalent of 657.5 Bcf per year. For purposes of conversion of its planned 13 million mtpa of liquefaction capacity, Delfin has utilized a conversion factor of 50.58 Bcf per metric ton of LNG, but the actual conversion factor will depend on the composition of the natural gas and other conditions.

export services. Long-term authorization by DOE/FE to export LNG is required for contracts with potential customers. Consistent with the terms of prior DOE/FE orders, Delfin will file under seal all relevant long-term commercial agreements with its customers once they are executed.

Delfin requests long-term, multi-contract authorization for the export of domestically produced LNG for a term of twenty years commencing on the date of the first LNG export of each train or seven years 8/ from the date that the authorization is issued, whichever is sooner. In light of the planned phased development of its project (with successive trains expected to become operational from 2017 through 2021), Delfin respectfully requests that the "date of first export" for purposes of the beginning of its export authorization be determined on a train-specific basis. For example, exports from the first train, if placed in operation in 2017 as planned, would extend for twenty years from that first export from Delfin's facility; but if the third train were placed in operation in 2020, exports from it also would be authorized for twenty years from the start of *that train's* export operations (rather than only approximately seventeen years, based on the original date of first export). Delfin submits that this phased approach, while not previously adopted by DOE/FE, will facilitate the orderly, phased development of its facility and its customer contracting. 9/

The structure of the contracts between Delfin and its customers is not yet definitely known. Depending on that structure, either Delfin or its customer may own the LNG at the time of export. Accordingly, Delfin requests authorization to export LNG both on its own

B/ Delfin anticipates commencing exports in 2017, but proposes that the requested authorization commence within seven years of the date of authorization in recognition of the planned phasing of its project, as well as to allow for some potential delay in that schedule. DOE/FE has authorized similar conditions in previous export orders. For instance, in each of its recent orders authorizing LNG exports to non-FTA countries, DOE/FE concluded that a seven-year operations commencement date is a reasonable limitation. Freeport LNG, Order No. 3282 at page 115; Lake Charles Exports, LLC, DOE/FE Order No. 3324 at page 128 (Aug. 7, 2013); Dominion Cove Point LNG, LP, DOE/FE Order No. 3331 at 145 (Sept. 11, 2013).

<sup>9/</sup> Of course, the export authorization for all trains would commence no later than seven years from the date of the Order authorizing the exports. Thus, for example, were the requested order issued sometime in 2014, the authorization for all Delfin's trains would commence no later than that same date in 2021. So, if Delfin's fourth train were placed in-service after that date, the export authorization for volumes exported from that train would still be less than the full twenty years.

behalf and acting as an agent for other entities who themselves hold title to the LNG. Consistent with the terms established by DOE/FE for an LNG terminal operator receiving export authorization in its role as agent for others, 10/ Delfin will register each LNG title holder for whom Delfin seeks to export LNG with DOE/FE. As required in prior DOE/FE orders, the registration will include a written statement by the title holder acknowledging and agreeing to comply with all applicable requirements included in Delfin's export authorization and to include those requirements in any subsequent purchase or sale agreement entered into for the exported LNG by that title holder.

Delfin respectfully submits that, for the reasons detailed below, its planned export of natural gas to non-free trade countries is "not inconsistent with the public interest."

Accordingly, DEO/FE should grant the requested authorization.

#### V. CONSISTENCY WITH THE PUBLIC INTEREST

#### A. The Applicable Legal Standard

Section 3(a) of the NGA, 15 USC 717b(a), sets forth the following statutory standard for the review of this Application:

[N]o person shall export 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 of Energy 11/] authorizing it to do so. The [Secretary] shall issue such order upon application, unless after opportunity for hearing, [he] finds that the proposed exportation or importation will not be consistent with the public interest. The [Secretary] may by [the Secretary's] 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.

This provision establishes a rebuttal presumption that a proposed export of natural gas is in the public interest. The DOE/FE must grant an export application unless opposing parties (if any)

<sup>10/</sup> See, e.g., Freeport LNG Development, LP, DOE/FE Order No. 2913 (February 10, 2011); Gulf Coast LNG Export, LLC, DOE/FE Order No. 3163 (October 16, 2012).

<sup>11/</sup> The Secretary's authority was established by the DOE Organization Act of 1977, which transferred jurisdiction over gas import and export authorizations from the Federal Power Commission.

overcome that presumption by making an affirmative showing of inconsistency with the public interest. 12/

While section 3(a) establishes a broad public interest standard and a presumption favoring export authorizations, the statute does not define "public interest" or identify the criteria that must be considered. In its prior decisions, however, DOE/FE has identified a range of factors that it evaluates when reviewing an application for export authorization. These factors include economic impacts, international impacts, security of natural gas supply, and environmental impacts, among others. 13/ DOE/FE also has explained that its review of export applications focuses on: (i) the domestic need for the natural gas proposed to be exported, (ii) whether the proposed exports pose a threat to the security of domestic natural gas supplies, (iii) whether the arrangement is consistent with DOE/FE's policy of promoting market competition, and (iv) any other factors bearing on the public interest. 14/

The nation's policy of promoting market competition in natural gas is reflected in the DOE/FE policy guidelines for implementing NGA Section 3 established in 1984, <u>15</u>/ which the agency has continued to rely upon in each of its recent decisions evaluating the public interest in LNG exports. <u>16</u>/ The Policy Guidelines were "designed to establish natural gas trade on a

<sup>12/</sup> E.g., Phillips Alaska Natural Gas Corp. and Marathon Oil Co., DOE/FE Order No. 1473 at page 13 (April 2, 1999), citing Panhandle Producers and Royalty Owners Assoc. v. ERA, 822 F.2d 1105, 1111 (D.C. Cir. 1987); Sabine Pass Liquefaction LLC, DOE/FE Order No. 2961 at page 28 (May 20, 2011); Freeport LNG, Order No. 3282 at page 6; Lake Charles Exports, Order No. 3324 at page 7; Dominion Cove Point LNG, Order No. 3331 at 7.

<sup>13/</sup> Freeport LNG, Order No. 3282 at page 6; <u>Lake Charles Exports</u>, Order No. 3324 at page 7; <u>Dominion Cove Point LNG</u>, Order No. 3331 at page 7.

<sup>&</sup>lt;u>14/</u> <u>Sabine Pass Liquefaction</u>, Order No. 2961 at page 29; <u>Freeport LNG</u>, Order No. 3282 at page 7; <u>Lake Charles Exports</u>, Order No. 3324 at page 8; <u>Dominion Cove Point LNG</u>, Order No. 3331 at pages 8-9.

<sup>&</sup>quot;New Policy Guidelines and Delegation Orders Relating to the Regulation of Natural Gas," 49 Fed. Reg. 6684-01 (Feb. 22, 1984)(hereinafter the "Policy Guidelines"),

<sup>16/</sup> Freeport LNG, Order No. 3282 at page 6; Lake Charles Exports, Order No. 3324 at page 7; Dominion Cove Point LNG, Order No. 3331 at page 7. As DOE/FE held in each of those orders, while the Policy Guidelines are nominally applicable to natural gas import cases, the same policies should be applied to natural gas export applications.

market-competitive basis and to provide immediate as well as long-term benefits to the American economy from this trade." 17/ The Guidelines provide that:

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

[T]he guidelines establish a regulatory framework for buyers and sellers to negotiate contracts based on traditional competitive and market considerations, with minimal regulatory constraints and conditions. 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 [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....

\* \* \*

The policy cornerstone of the public interest standard [of NGA Section 3] is competition. Competitive import [export] arrangements are an essential element of the public interest, and natural gas imported [exported] under arrangements that provide for the sale of gas in volumes and at prices responsive to market demands largely meets the public interest test....

This policy approach presumes that buyers and sellers, if allowed to negotiate free of constraining governmental limits, will construct competitive import [export] agreements that will be responsive to market forces over time. The specific commercial terms and conditions of a particular arrangement should be negotiated by the parties pursuant to discrete requirements of the buyer's [and seller's] market and not directed by government regulators.18/

DOE/FE recently has explained that it "continues to subscribe to the principle set forth in our 1984 Policy Guidelines that, under most circumstances, the market is the most efficient means of allocating natural gas supplies." 19/ The agency has promoted the competitive, free-trade policies embodied in the Policy Guidelines in its decisions to date authorizing LNG exports

<sup>17/</sup> Policy Guidelines at 6684.

<sup>18/</sup> Id. at 6685 and 6687. The parenthetical references to exports are added in the above quotation to reflect the applicability of the Policy Guidelines to exports. See note 16, supra.

<sup>19/</sup> Freeport LNG, Order No. 3282 at page 112; <u>Lake Charles Exports</u>, Order No. 3324 at page 125; <u>Dominion Cove Point LNG</u>, Order No. 3331 at page 141.

to non-FTA nations in each of the four recent cases where it has considered the issue. It should continue to follow this course in approving Delfin's application here.

#### B. <u>Delfin's Proposed LNG Exports Will Promote the Public Interest</u>

Granting Delfin's requested authorization to allow LNG exports will be consistent with, and indeed advance, the public interest. Allowing Delfin and its customers to freely negotiate contracts to respond to market conditions and utilize Delfin's planned deep water port in WC 167 for LNG exports will be consistent with the pro-competition focus of the Policy Guidelines. And North American gas reserves are more than adequate to satisfy U.S. demand, even under the most aggressive demand projections including a large domestic LNG export industry. The exports proposed by Delfin could not possibly pose a threat to domestic gas supply security. Indeed, by providing a steady, incremental demand for gas, LNG exports from the Delfin facility will help support natural supply development, with resulting economic and employment benefits. Other benefits of LNG exports include reducing the U.S. trade imbalance, complying with the Nation's long-standing support of free-trade, and promoting positive consequences in international relations.

The general benefits of LNG exports are well known to DOE/FE. Faced with the prospect (and, now, the reality) of numerous LNG export proposals, DEO/FE undertook an indepth two party study of the cumulative economic impact of LNG exports. The first part of the study was conducted by the Energy Information Agency (EIA) and evaluated the potential impact of additional LNG exports on domestic energy consumption, production and prices under several export scenarios. The second part of the study, performed by NERA Economic Consulting (NERA), assessed the potential macroeconomic impact of LNG exports using its energy-economy model. The two studies, as well as the results of the extensive notice and comment process undertaken by DOE/FE seeking public comments on them, are summarized

in detail in each of the recent DOE/FE orders authorizing LNG exports to non-FTA countries. 20/ As DOE/FE has summarized, two of the key findings of the NERA study are the following:

- Across all the scenarios studied, NERA projected that the United States would gain net economic benefits from allowing LNG exports. For every market scenario examined, net economic benefits increased as the level of LNG exports increased. Scenarios with unlimited exports had higher net economic benefits than corresponding cases with limited exports. In all cases, the benefits that come from export expansion outweigh the losses from reduced capital and wage income to U.S. consumers, and hence LNG exports have net economic benefits in spite of higher domestic natural gas prices.
- U.S. natural gas prices would increase if the United States exports LNG. However, the global market limits how high U.S. natural gas prices can rise under pressure of LNG exports because importers will not purchase U.S. exports if U.S. wellhead price rises above the cost of competing supplies. Natural gas price changes attributable to LNG exports remain in a relatively narrow range across the entire range of scenarios. 21/

DOE/FE has held that the NERA study is fundamentally sound and supports the proposition that proposed exports of LNG are not inconsistent with the public interest. 22/ Moreover, NERA's fundamental findings that the United States will benefit from the export of domestically produced LNG are confirmed by numerous other persuasive studies, including but not limited to: Charles Ebinger *et. al.*, "Liquid Markets: Assessing the case for U.S. Exports of Liquefied Natural Gas," Brookings Institution (May 2012)(hereinafter, "Ebinger/Brookings"); Michael Levi, "A Strategy for U.S. Natural Gas Exports," The Hamilton Project, Brookings Institution (June 2012) (hereinafter, "Levi/Brookings"); Kenneth B. Medlock II, Ph.D., "U.S. LNG Exports: Truth and Consequences," Energy Forum at the James A. Baker Institute for Public Policy, Rice University (August 2012)(hereinafter, "Medlock/Baker"); Deloitte, "Exploring the

<sup>&</sup>lt;u>20/</u> <u>Freeport LNG</u>, Order No. 3282 at pages 30-109; <u>Lake Charles Exports</u>, Order No. 3324 at pages 42-121; <u>Dominion Cove Point LNG</u>, Order No. 3331 at pages 56-134.

<sup>&</sup>lt;u>21/</u> Freeport LNG, Order No. 3282 at pages 40-41; <u>Lake Charles Exports</u>, Order No. 3324 at pages 52-53; <u>Dominion Cove Point LNG</u>, Order No. 3331 at pages 66-67. These findings are also set forth in the Executive Summary of NERA Study itself at pages 1-2.

<sup>&</sup>lt;u>22/</u> <u>Freeport LNG</u>, Order No. 3282 at page 110; <u>Lake Charles Exports</u>, Order No. 3324 at p. 123; <u>Dominion Cove Point LNG</u>, Order No. 3331 at page 140.

American Renaissance: Global Impacts of LNG Exports from the United States" (October 2012) (hereinafter "Deloitte"); ICF International, "U.S. LNG Exports: Impacts on Energy Markets and the Economy" (May 2013) (hereinafter "ICF").23/ Delfin hereby incorporates these studies into the record here as supporting of the public interest supporting its proposed LNG exports.

The public and political appreciation for the benefits of LNG exports is growing. For instance, the Energy and Commerce Subcommittee on Energy and Power of the House of Representatives recently hosted a forum entitled "Geopolitical Implications and Mutual Benefits of U.S. LNG Exports." In announcing the summit, full committee Chairman Fred Upton explained: "Innovative technological advancements have dramatically changed the energy landscape of America, and this new energy reality has game-changing potential both domestically and abroad. Such a summit with our global friends would have been unthinkable just a few short years ago. Our natural gas boom is creating jobs and revitalizing manufacturing here at home, but it also offers an opportunity for us to help our allies and trading partners fuel their economy and reduce the world's reliance on unstable regions of the world." 24/ At that forum, representatives from several foreign countries and the Commonwealth of Puerto Rico expressed international perspectives on U.S. LNG exports, the current policies governing these exports, and the potential impacts increasing exports would have on global markets.

Given the extensive evidence of the benefits of LNG exports as demonstrated by the studies noted above and previously recognized by DOE/FE itself in its previous orders, Delfin is not submitting any additional studies of its own. Delfin instead will note some of the unique,

<sup>23/</sup> These studies are all publicly available: Edinger/Brookings at <a href="http://www.brookings.edu/~/media/Research/Files/Reports/2012/5/02%20lng%20exports%20ebinger/050">http://www.brookings.edu/~/media/Research/Files/Reports/2012/5/02%20lng%20exports%20ebinger/050</a>
2 lng exports ebinger.pdf; Levi/Brookings at <a href="http://www.brookings.edu/research/papers/2012/06/13-exports-levi">http://www.brookings.edu/research/papers/2012/06/13-exports-levi</a>; Medlock/Baker at <a href="http://bakerinstitute.org/publications/US%20LNG%20Exports%20-%20Truth%20and%20Consequence%20Final\_Aug12-1.pdf">http://bakerinstitute.org/publications/US%20LNG%20Exports%20-%20Truth%20and%20Consequence%20Final\_Aug12-1.pdf</a>; Deloitte at <a href="http://www.deloitte.com/assets/Doom-">http://www.deloitte.com/assets/Doom-</a>

<sup>&</sup>lt;u>UnitedStates/Local%20Assets/Documents/Energy us er/us er GlobalImpactUSLNGExports American Renaissance Jan2013.pdf;</u> ICF at <a href="http://www.api.org/~/media/Files/Policy/LNG-Exports/API-LNG-Export-Report-by-ICF.pdf">http://www.api.org/~/media/Files/Policy/LNG-Exports/API-LNG-Export-Report-by-ICF.pdf</a>.

<sup>24/</sup> See <a href="http://energycommerce.house.gov/event/geopolitical-implications-and-mutual-benefits-us-lng-exports">http://energycommerce.house.gov/event/geopolitical-implications-and-mutual-benefits-us-lng-exports</a>

public interest benefits of its project and then summarize more general factors showing the public interest in LNG exports.

#### 1. Unique Benefits of Delfin's Project

Unlike most of the projects with LNG export applications pending before DOE/FE,

Delfin's project will be located off-shore. The off-shore location enables Delfin to avoid certain environmental and land-owner concerns that frequently arise concerning shore-based facilities.

The off-shore location also avoids seaway congestion by limiting the number of LNG tankers entering our crowded port terminal system: an issue which may prove problematic for some of the proposed terminals on the nearby Gulf coast. Moreover, Delfin's FLNGVs will be powered and mobile, so that they can move away from the mooring location to escape an expected hurricane or other storm that could pose a threat or cause interruptions in service from damaged facilities of fixed, on-short LNG terminals. Furthermore, Delfin's liquefaction trains on the FLNGVs will be constructed in the controlled environment of a shipyard, a significant advantage over the potentially challenging construction environment of other projects. The controlled construction environment also will result in improved quality controls and promote increased safety in operations.

Delfin's first two FLNGVs will be converted using existing LNG carriers incorporating proven technology with gas as the only fuel for power generation and propulsion. The liquefaction trains are modular, proven designs and the Front End Engineering Design for the conversion of the initial FLNGs is complete. The vessels will meet or exceed all environmental and certification standards. Delfin expects to be among the most environmentally friendly LNG liquefaction facilities in the world, burning only natural gas and using air cooling and closed loop cooling, with no sea-water used, for all systems. Delfin's approach provides certainty, cost advantages, and relatively speedy construction time – allowing it to place its first train into operation in 2017.

In addition to converting existing carriers into FLNGVs, Delfin also will utilize existing American gas infrastructure. The use of the existing UTOS gas pipeline both avoids the need for new construction (with the attendant environmental issues) and provides a new use for infrastructure that was otherwise slated for abandonment. Existing gas processing facilities located near where UTOS comes ashore will both provide ready processing capability for the LNG feed gas and create an important new use for existing facilities that are currently significantly under-utilized as a result of declining Gulf production in the area. Thus, Delfin's project will stimulate not only new production in the area but also utilize processing services, resulting in economic benefits to the Louisiana coast region.

#### 2. Projected Gas Supplies Are More Than Sufficient To Support Exports

The main focus of the DOE/FE's public interest analysis for gas export authorizations traditionally has been the projected domestic need for the gas. DOE has historically determined whether there is a domestic need for the gas proposed for export by comparing the total volume of natural gas reserves expected to be available to produce with the expected gas demands during the proposed period of exports. 25/ In light of the dramatic recent successes of domestic gas exploration and production, such an analysis clearly demonstrates that sufficient reserves now exist to satisfy domestic demand as well as the proposed LNG exports.

In its recent orders approving LNG exports to non-free trade countries, DOE/FE consistently has found that adequate natural gas supplies exist to meet demand associated with those authorizations. All available data continues to confirm this conclusion. As both DOE/FE and the leader of the NERA study have explained, using more recent data than that available at the time of that study only strengthens NERA's conclusions concerning the benefits to the economy of LNG exports. While EIA's projected gas consumption for 2035 increased by 6 Bcf

<sup>&</sup>lt;u>25</u>/ E.g., <u>Yukon Pacific Corp.</u>, ERA Docket No. 87-68-LNG, Order No. 350 (Nov. 16, 1989); <u>Phillips Alaska</u>, Order No. 1473, <u>supra.</u>; <u>Conoco Phillips Alaska Natural Gas Corp. and Marathon Oil Co.</u>, Order No. 2500 at 43 (June 3, 2008).

per day between the 2011 Annual Energy Outlook ("AEO") utilized by NERA and the 2013 AEO (from 72.7 to 78.7 Bcf per day), the projected 2035 production increased by more than twice that amount (from 72.1 to 85.9 Bcf per day), while the projected 2035 Henry Hub price declined from \$7.07/MMBtu to \$6.32/MMBtu. 26/ "The implication of the latest EIA projections is that a greater quantity of natural gas is projected to be available at a lower cost than estimated just two years ago." 27/ Thus, as the leader of the NERA study explained in Congressional testimony:

The current natural gas outlook has changed dramatically for the better since 2011. According to the U.S. Energy Information Administration's current projection, in every future year more natural gas will be available for the same price than it projected in its 2011 forecast. Our analyses show clearly that the net benefits to the U.S. would be larger if more natural gas were available for domestic use at the same level of LNG exports. Hence, if we used the current EIA projections which include greater natural gas supply at every price, we would find even larger net benefits. 28/

DOE/FE has recognized in its recent orders that proved reserves of domestic natural have been increasing dramatically. Specifically, those orders explain that EIA's estimates of proved reserves increased from 177,427 Bcf in 2000 to 304,625 Bcf in 2010, a 72 percent increase, compared to increased production of 16 percent over that period. 29/ Once again,

See <u>Freeport LNG</u>, Order No. 3282 at pages 62-63; <u>Lake Charles Exports</u>, Order No. 3324 at pages 74-75; <u>Dominion Cove Point LNG</u>, Order No. 3331 at pages 88-89.

<sup>&</sup>lt;u>27/</u> Freeport LNG, Order No. 3282 at page 81; <u>Lake Charles Exports</u>, Order No. 3324 at page 93; <u>Dominion Cove Point LNG</u>, Order No. 3331 at page 106.

<sup>28/</sup> Prepared Testimony of W. David Montgomery, Senior Vice President of NERA Economic Consulting, Submitted to the Committee on Foreign Affairs, Subcommittee on Terrorism, Nonproliferation, and Trade, U.S. House of Representatives, Natural Gas Exports: Economic and Geopolitical Opportunities, April 25, 2013 (hereinafter, "Montgomery Testimony"), available at: <a href="http://docs.house.gov/meetings/FA/FA18/20130425/100776/HHRG-113-FA18-Wstate-MontgomeryW-20130425.pdf">http://docs.house.gov/meetings/FA/FA18/20130425/100776/HHRG-113-FA18-Wstate-MontgomeryW-20130425.pdf</a>

<sup>&</sup>lt;u>29</u>/ <u>Freeport LNG</u>, Order No. 3282 at page 82; <u>Lake Charles Exports</u>, Order No. 3324 at page 94; <u>Dominion Cove Point LNG</u>, Order No. 3331 at page 107.

more recent data only further strengthens the conclusion. ElA's calculation of proved reserves of dry natural gas increased by another 10 percent from 2010 to 2011, to 334,067 Bcf. 30/

EIA's estimates of the nation's technically recoverable reserves ("TRR") have also skyrocketed over the past decade, with some relatively minor fluctuation in the most recent years as EIA continues to refine its estimates of shale resources. DOE/FE's recent LNG export orders have recognized the estimated TRR of 2,335 Tcf set forth in AEO 2013. 31/ This latest EIA reserve estimate compares to EIA's 2005 TRR estimate of about 1,600 Tcf 32/ -- just over 70 percent of the current level. Similarly, the latest study by the Potential Gas Committee of the Colorado School of Mines estimated that the recoverable natural gas resource in North America is 2,384 Tcf, compared to its 2004 estimate of just 1,119 Tcf – an astounding more than doubling of the estimate.33/ The most recent estimates of TRR equate to over 90 years of supply at the 2012 domestic consumption level of 25.63 Tcf.

The tremendous success of the American development of shale gas reserves cannot be questioned. As Dr. Daniel Yergin (a leading expert on energy markets and a member of the Secretary of Energy's Advisory Board) has explained: "Our view is that, owing to the very large [natural gas] resource base, the market in the U.S. is demand-constrained, rather than supply-constrained. Larger markets – whether they be in electric power, industrial consumption,

<sup>30/</sup> EIA, *U.S. Crude Oil and Natural Gas Proved Reserves*, Table 11 (Dry Natural Gas Proved Reserves) (Aug. 2, 2013), available at <a href="http://www.eia.gov/naturalgas/crudeoilreserves/?src=Natural-f4">http://www.eia.gov/naturalgas/crudeoilreserves/?src=Natural-f4</a>

<sup>31/</sup> Freeport LNG, Order No. 3282 at page 82; <u>Lake Charles Exports</u>, Order No. 3324 at page 95; <u>Dominion Cove Point LNG</u>, Order No. 3331 at page 108.

<sup>32/</sup> See Newell, EIA, Shale Gas and the Outlook for U.S. Natural Gas Markets and Global Gas Resources, presentation to the Organization for Economic Cooperation and Development (OECD), June 21, 2011, available at <a href="http://www.eia.gov/pressroom/presentations/newell\_06212011.pdf">http://www.eia.gov/pressroom/presentations/newell\_06212011.pdf</a> (comparing 2005 AEO to 2011 AEO).

<sup>&</sup>lt;u>33</u>/ Potential Gas Committee press release, April 9, 2013, and summary of the report, available at http://potentialgas.org/ and http://potentialgas.org/download/pgc-press-release-april-2013-slides.pdf

transportation or exports – are required to maintain the investment flow into the development of the resources." 34/

Importantly, increased demand for gas to be exported as LNG will stimulate additional natural gas production. ICF International has studied this issue in depth and concluded that 79-88% of LNG export volumes will be offset by increasing domestic natural gas production. 35/
This increased gas production will have the added benefit of increased associated natural gas liquids ("NGL"). ICF estimated that LNG exports will increase NGL volumes by 2035 by 138,000 barrels per day (for a low LNG export case of 4 Bcf per day) to 550,000 barrels per day (in the high, 16 Bcf per day export case). 36/ The increased gas and NGL production are important public benefits of LNG exports.

All available evidence and projections show that current gas reserves are ample to support all expected demand, including LNG exports, at least through 2040. Accordingly, there is no "domestic need" for the gas that Delfin proposes to export. Certainly, the proposed exports do not pose any possible threat to the security of domestic natural gas supplies. Therefore, Delfin's proposal is consistent with the public interest.

#### 3. Any Effect of Delfin's LNG Exports On Domestic Prices Would Be Minor

The Policy Guidelines establish that the federal government's policy is not to manipulate energy prices by approving or disapproving import or export applications. Rather, the Nation's policy is that markets, and not the government, should allocate resources and set prices, and that free trade in natural gas on a market-competitive basis benefits consumers and promotes

<sup>&</sup>lt;u>34/</u> Prepared Testimony of Dr. Daniel Yergin, Submitted to the Energy and Commerce Committee, Subcommittee on Energy and Power Foreign Affairs, for Hearings on "America's Energy Security and Innovation," February 5, 2013 (hereinafter "Yergin testimony"), available at: <a href="http://danielyergin.com/danielyergin-testimony/">http://danielyergin.com/danielyergin-testimony/</a>

<sup>35/</sup> The ICF study is cited above at [note 23]. See also the ICF International presentation, summarizing the study, provided to the U.S. House of Representatives LNG Working Group at page 5 (May 15, 2013), available at: <a href="http://www.api.org/~/media/Files/Policy/LNG-Exports/ICF-Key-Findings-for-API.pdf">http://www.api.org/~/media/Files/Policy/LNG-Exports/ICF-Key-Findings-for-API.pdf</a>

<sup>&</sup>lt;u>36</u>/ *Id*.

the public interest. Nevertheless, DEO/FE has explained that it views very seriously the economic impacts of higher natural gas prices and any potential increases in gas price volatility that could result from LNG exports.

Economic analysis by the Baker Institute at Rice University concluded:

[T]he more salient question for U.S. policymakers regards the U.S. price response to U.S. LNG exports. This question is best answered in understanding the elasticity of the domestic supply curve. In particular, we estimate that domestic elasticity of supply is roughly 1.52 between a price of \$4 and \$6 per mcf, which represents a five-fold increase since the emergence of shale gas. In other words, a one percent increase in price will result in a one-and-a-half increase in domestic production. This means that the export of LNG in any reasonable volume from the U.S. should not have a significant impact on price at the margin. 37/

The EIA and NERA studies commissioned by DOE/FE confirmed that the impact of LNG exports on domestic gas prices will be relatively minor. As noted above, the key conclusion as explained in the NERA Study was:

U.S. natural gas prices increase when the U.S. exports. But the global market limits how high U.S. natural gas prices can raise under pressure of LNG exports because importers will not purchase U.S. exports if U.S. wellhead price rises above the cost of competing supplies. In particular, the U.S. natural gas price does not become linked to oil prices in any of the cases examined. Natural gas price changes attributable to LNG exports remain in a relatively narrow range across the entire range of scenarios. 38/

Moreover, it is important to recognize, as NERA did, that more significant price impacts (at the high end of the "narrow range") occur "only under conditions of ample U.S. supplies and low domestic natural gas prices, with smaller price increases when U.S. supplies are more costly and domestic prices higher." 39/ This conclusion makes sense, of course: LNG exports from this country will be significant only if domestic prices remain low compared to elsewhere in the

<sup>37/</sup> Medlock / Baker at page 33.

<sup>38/</sup> NERA Study, Executive Summary, page 2.

<sup>39/</sup> Id.

world. If domestic gas prices increase too much, LNG exports will no longer be economically attractive.

Other economic studies of the likely price effects of LNG exports have reached conclusions generally similar to NERA's. The recent ICF study includes a comparison of various studies of the price impact of LNG exports and explains that the variation in results generally is caused by different assumptions about the price elasticity of domestic gas supply. 40/ With any reasonable assumptions, however, the expected price effect of even very significant LNG exports is modest.

When assessing the impact of any projected cost increases from LNG exports, one must recognize the historically low gas prices constituting the current base line. Historical price data from before the shale boom emphasize the current low price environment: annual average Henry Hub spot prices per MMBtu were \$7.91 in 2005, \$6.62 in 2006, \$6.20 in 2007, and \$8.25 in 2008.41/ At that time, expectations were that gas prices would continue to rise. Thus, the EIA as recently as its 2009 AEO reference case projected that prices would be \$6.96 in 2010, \$7.77 in 2020, and \$9.68 in 2030 (adjusted to 2010 dollars for purposes of comparison). 42/ In comparison, the 2013 AEO, even with its assumptions of much greater gas demand including from LNG exports, projects a price in 2035 of just \$6.32 (in 2011\$).

Gas consumers have enjoyed tremendous savings as a result of the success of the shale gas revolution. For instance, the EIA recently announced, based data from the 2010 Manufacturing Energy Consumption Survey, that the average natural gas price paid by manufacturers decreased by 36% in between 2006 and 2010 from \$7.59 to \$4.83 per million

<sup>40/</sup> ICF at pages 99-105.

<sup>41/</sup> Platt's Inside FERC.

<sup>42/</sup> Annual Energy Outlook 2009 with Projections to 2030, Table 13, U.S. Energy Information Administration, available at <a href="http://www.eia.gov/oiaf/archive/aeo07/aeoref\_tab.html">http://www.eia.gov/oiaf/archive/aeo07/aeoref\_tab.html</a>.

Btu, adding that natural gas prices have fallen further since that survey was conducted. 43/ And the American Gas Association has found that all natural gas consumers have benefited from lower gas prices, calculating as an illustration that the bills of northern residential natural gas consumers in January 2011 would have been some 40 to 70 percent higher (roughly \$97 to \$125 more for the month) had they reflected the higher prices from the supply-constrained January of 2006. 44/

Incremental demand from new uses like LNG exports is needed to spur on the production boom that has so benefitted consumers. Even if LNG exports increase gas prices marginally, U.S. gas prices will remain attractively priced, and far below the levels expected prior to the shale revolution. And, of course, American manufacturers and other consumers will continue to enjoy the competitive advantage of inexpensive domestic supplies, as overseas consumers of US-sourced LNG will necessarily bear the significant added costs associated with liquefaction, tanker transportation and regasification.

With respect to the related concern of potential increases in natural gas volatility, DOE/FE has consistently explained that it is not persuaded that LNG exports will substantially increase volatility. 45/ Delfin believes that DOE/FE has correctly analyzed this issue. Indeed, the new baseload demand associated with LNG export projects actually should reduce price volatility.

EIA, Cost of Natural Gas Used in Manufacturing Sector Has Fallen," released Sept. 13, 2013, available at: http://www.eia.gov/consumption/manufacturing/reports/2010/ng\_cost/?src=Natural-f1

<sup>44/</sup> American Gas Association, "THE POSITIVE NATURAL GAS SUPPLY SITUATION BENEFITS CONSUMERS – A LOOK AT JANUARY, 2011" (March 8, 2011), available at: <a href="http://www.aga.org/kc/analyses-and-statistics/studies/demand/Documents/EA1102Positive-Gas-Supply-Situation-Benefits-Consumers.pdf">http://www.aga.org/kc/analyses-and-statistics/studies/demand/Documents/EA1102Positive-Gas-Supply-Situation-Benefits-Consumers.pdf</a>

<sup>&</sup>lt;u>45</u>/ <u>Freeport LNG</u>, Order No. 3282 at page 99; <u>Lake Charles Exports</u>, Order No. 3324 at page 112; <u>Dominion Cove Point LNG</u>, Order No. 3331 at page 125.

#### 4. LNG Exports Will Significantly Benefit America

The NERA study decisively concluded that LNG exports will be a net benefit to the U.S. economy, regardless of the supply and demand scenario studied and regardless of the level of exports.

Across all the scenarios that we examined in which the global market would take exports from the U.S., there were net economic benefits to the U.S. from allowing LNG exports. Moreover, for every one of the market scenarios examined, net economic benefits increased as the level of LNG exports increased. In particular, scenarios with unlimited exports always had higher net economic benefits than corresponding cases with limited exports. 46/

DOE/FE has held that the conclusion of the study it sponsored that the U.S. will experience net economic benefits from LNG exports is "fundamentally sound and supports the proposition that the proposed exports will not be inconsistent with the public interest." 47/ This conclusion remains true regardless of the level of exports. Indeed, when testifying to Congress on this issue, the leader of the NERA study repeated the conclusion quoted above at the opening of his Congressional testimony and then added: "There was no 'sweet spot,' and no point where any 'balance' was required to gain the greatest benefits." 48/

The fundamental conclusion that LNG exports will benefit the nation has been confirmed by other studies, including those by the Brookings Institute and ICF. ICF quantified the likely benefits and found even stronger support for LNG exports than indicated in the NERA study. ICF projected an increase in gross domestic product (GDP, in 2010 dollars) ranging from \$15.6 to \$22.8 billion assuming just 4 Bcf per day of exports, and up to \$50.3 to \$73.6 billion with 16 Bcf per day of exports. 49/ Furthermore, ICF estimated net job gains of 73,100 to 145,100 in

<sup>46/</sup> NERA Study, Executive Summary, page 1.

<sup>&</sup>lt;u>47/</u> <u>Freeport LNG, Order No. 3282 at page 110; Lake Charles Exports, Order No. 3324 at page 123; Dominion Cove Point LNG, Order No. 3331 at page 140.</u>

<sup>48/</sup> Montgomery Congressional Testimony, note 28 supra. at page 3.

<sup>49/</sup> ICF at page 2.

the low export case and up to 220,100 to 452,300 in the high export case. <u>50</u>/ In each case, both the GDP expansion and the job growth increase with more exports.

The increased jobs associated with LNG exports certainly are an important part of the public interest consideration, and supportive of the Administration's 2010 National Export Initiative (NEI). 51/ The NEI is intended "to improve conditions that directly affect the private sector's ability to export. The NEI will help meet [the] Administration's goal of doubling exports over the next 5 years by working to remove trade barriers abroad, by helping firms -- especially small businesses -- overcome the hurdles to entering new export markets, by assisting with financing, and in general by pursuing a Government-wide approach to export advocacy abroad, among other steps." 52/ In announcing the NEI, President Obama explained:

Creating jobs in the United States and ensuring a return to sustainable economic growth is the top priority for my Administration. 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. 53/

The International Trade Administration of the Department of Commerce issued a report as an "analytical complement to the NEI, demonstrating the fundamental role that exports already play in the U.S. economy." <u>54</u>/ That report found that in 2008 (the most recent year studied), exports represented 12.7% of the U.S. GDP and supported jobs for other 10 million Americans. <u>55</u>/ The total value of American exports that year was about \$1,693 billion and supported nearly 10.3 million jobs – meaning that each \$1 billion of exports supported about

<sup>&</sup>lt;u>50</u>/ *Id*.

<sup>51/</sup> NEI, Executive Order No. 13534, 75 Fed. Reg. 12433 (March 11, 2010).

<sup>52/</sup> NEI, Section 1.

<sup>53/</sup> Id.

<sup>&</sup>lt;u>54/</u> International Trade Administration, Department of Commerce, "Exports Support American Jobs" (2010), available at: http://trade.gov/publications/pdfs/exports-support-american-jobs.pdf

<sup>55/</sup> Id. at page 1.

6,000 jobs. <u>56</u>/ The importance of exports to the U.S. economy continues to grow, as exports as a share of U.S. GDP were a record 13.9 percent in both 2011 and 2012. <u>57</u>/ The advent of LNG exports worth billions of dollars will add tens of thousands of additional jobs to the U.S. economy.

Furthermore, LNG exports also will help realign the U.S. balance of trade. The U.S. has experienced large balance of trade deficits for more than decade (although the rise in U.S. exports in recent years has somewhat realigned the trade balance). In 2012, the U.S. trade deficit was \$541.5 billion (an improvement of \$19.5 billion compared to 2011). Authorizing the export of LNG will help redress this balance, by allowing the U.S. to export some of its abundant and valuable natural gas.

Beyond these economic factors, allowing LNG exports will have positive international consequences, as DOE/FE has previously recognized. 58/ "[T]o the extent U.S. exports can counteract concentration within global LNG markets, thereby diversifying international supply options and improving energy security for many of this country's allies and trading partners, authorizing U.S. exports may advance the public interest for reasons that are distinct from and additional to the economic benefits." 59/ Export of LNG from the U.S. has the potential to fundamentally alter the world's energy and economic map and benefit the Nation's allies around the globe. Asian LNG prices have been more than four-times the U.S. prices, driven by Japan's need for power fuel following the shut-down of most of its nuclear plant and growing economies elsewhere, as well as the traditional oil-linked LNG prices. High gas prices in Europe

<sup>56/</sup> Id., Appendix A.

<sup>57/</sup> Statement from U.S. Deputy Secretary of Commerce Rebecca Blank on Record International Trade in Goods and Services in 2012, submitted Feb. 12, 2013, available at: <a href="http://www.commerce.gov/news/press-releases/2013/02/08/statement-us-deputy-secretary-commerce-rebecca-blank-record-international february in the secretary statement from U.S. Deputy Secretary of Commerce Rebecca Blank on Record International Trade in Goods and Services in 2012, submitted Feb. 12, 2013, available at: <a href="http://www.commerce.gov/news/press-releases/2013/02/08/statement-us-deputy-secretary-commerce-rebecca-blank-record-international february in the secretary february in the secretary february in the secretary february febr

<sup>&</sup>lt;u>58</u>/ <u>Freeport LNG</u>, Order No. 3282 at page 111; <u>Lake Charles Exports</u>, Order No. 3324 at page 124; Dominion Cove Point LNG, Order No. 3331 at page 140".

<sup>59/</sup> Id.

(compared to the U.S. though not Asia) threaten the Continent's economic recovery after the financial crisis, and have caused a shift to coal (including that exported from the U.S.) for power generation, retarding progress there on reducing greenhouse gas emissions. Closer to the U.S., export of LNG to Caribbean nations could reduce reliance on more expensive, and carbon-intensive, fuel oil and diesel. Increased access to U.S. gas would not only provide new supplies to America's allies around the world, it would also position the country as an alternative to traditional suppliers in Russia and the Middle East.

The international and geopolitical benefits of increased U.S. domestic gas production — which will be fostered by LNG exports — are further explained in the report by the James A. Baker III Institute for Public Policy at Rice University. 60/ That report highlights the broad effects that new shale discoveries are having on our Nation's energy security, and explains the added security and stability that increased American natural gas reserves will bring around the world, lessening the entanglements that our dependence on foreign energy sources brings. The report also details the numerous benefits that shale gas will have on a global scale, from eliminating demand for imports of foreign LNG to the U.S., to reducing the possibility of a "natural gas OPEC," weakening the energy stranglehold held by certain countries, and helping curb America's dependence on Middle East oil.

Conversely, any American limitations on LNG exports could cause foreign relations problems. As Dr. Yergin observed in Congressional testimony:

While markets and economics will eventually determine the realistic scale of U.S. exports, one also has to take into account wider considerations in assessing policy regarding future LNG exports. For decades, the United States has made the free flow of energy supplies one of the cornerstones of foreign policy. It is a principle we have urged on many other nations. How can the United States, on the one hand, say to a close ally like Japan, suffering energy shortages from Fukashima, please reduce your

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<sup>60/ &</sup>quot;Shale Gas and U.S. National Security," Medlock, Myers Jaffe, and Hartley, published by the James A. Baker III Institute for Public Policy (July 19, 2011), available at: http://www.bakerinstitute.org/publications/EF-pub-DOEShaleGas-07192011.pdf

oil imports from Iran, and yet turn around and, on the other, say new natural gas exports to Japan are prohibited. 61/

Moreover, any limitation on the level of LNG exports wound run counter not only to the competitive framework of DOE/FE's Policy Guidelines but U.S. trade policy. Imposing restrictions on trade in natural gas would be contrary to the United States' longstanding policy and international trade rules disfavoring export restraints (see the General Agreement on Tariffs and Trade, Article XI). Indeed, the U.S. has led the way in challenging export restraints when adopted by other nations. For instance, in 2012, the World Trade Organization agreed with the United States' challenge to China's export restraints on several industrial raw materials: a victory heralded by U.S. Trade Representative Ron Kirk's proclamation that "The Obama Administration will continue to ensure that China and every other country play by the rules so that U.S. workers and companies can compete and succeed on a level playing field." 62/ Later in 2012, the United States challenged China's export restrictions on rare earths, with Ambassador Kirk decrying export restraints "resulting in massive distortions and harmful disruptions in supply chains for these materials throughout the global marketplace." 63/ Thus, were DOE/FE to impose quantitative limits on LNG exports, it would not only hurt the US economically, it would undermine the country's own international trade policies and perhaps also violate its international obligations.

The National Association of Manufacturers (the largest manufacturing association in the country) recognized this point in their initial comments to DOE/FE on the NERA study, explaining:

<sup>61/</sup> Yergin Testimony at page 7.

<sup>62/ &</sup>quot;U.S. Trade Representative Ron Kirk Announces U.S. Victory in Challenge to China's Raw Materials Export Restraints," January 2012 press release, available at: <a href="http://www.ustr.gov/about-us/press-office/press-releases/2012/january/us-trade-representative-ron-kirk-announces-us-vict">http://www.ustr.gov/about-us/press-office/press-releases/2012/january/us-trade-representative-ron-kirk-announces-us-vict</a>

<sup>&</sup>quot;United States Challenges China's Export Restraints on Rare Earths," March 2012 press release, available at: <a href="http://www.ustr.gov/about-us/press-office/press-releases/2012/march/united-states-challenges-china%E2%80%99s-export-restraints-r">http://www.ustr.gov/about-us/press-office/press-releases/2012/march/united-states-challenges-china%E2%80%99s-export-restraints-r</a>

With 95 percent of the world's consumers outside the United States, export bans on any product, including LNG, can be expected to have far-reaching negative effects, including on domestic economic opportunities, employment and ultimately economic growth....

The United States' ability to challenge other countries' existing exports restraints on agricultural, forestry, mineral and ferrous scrap products – just to name a few – will be virtually non-existent if the United States itself begins imposing its own export restrictions. Even worse, as the world's largest economy and largest trading country, U.S. actions are often replicated by our trading partners to our own dismay. If the U.S. were to go down the path of export restrictions, even more countries would quickly follow suit and could easily limit U.S. access to other key natural resources or inputs that are not readily available in the United States. 64/

Finally, exporting LNG also will have significant environmental benefits because natural gas is a much cleaner-burning fuel than other fossil fuels. The Environmental Protection Agency has estimated that compared to the average air emissions from coal-fired generation, natural gas-fired generation produces half as much carbon dioxide, less than a third as much nitrogen oxides, and one percent as much sulfur oxides. 65/ Energy Secretary Moniz reportedly has recognized how the natural gas boom has helped reduce America's greenhouse gas emissions, noting that about half of the progress that has been made toward reducing greenhouse gases to 17 percent below 2005 levels by 2020 has been due to substitution of gas for coal in electric generation. 66/ LNG exports from the U.S. may similarly substitute for coal, or fuel oil, usage overseas, thereby sharing the environmental benefits of natural gas with other nations in the quest to reduce global greenhouse gas emissions.

<sup>64/</sup> Comments of Ross Eisenberg, Vice President, Energy and Resources Policy, on behalf of the National Association of Manufacturers filed with DOE/FE on Jan. 24, 2013, and available at: <a href="http://www.fossil.energy.gov/programs/gasregulation/authorizations/export\_study/ross\_eisenberg\_em01\_24\_13.pdf">http://www.fossil.energy.gov/programs/gasregulation/authorizations/export\_study/ross\_eisenberg\_em01\_24\_13.pdf</a>

<sup>65/</sup> See http://www.epa.gov/cleanenergy/energy-and-you/affect/air-emissions.html

<sup>66/</sup> See "Energy secretary: Natural gas helps battle climate change – for now," By Ben Geman, The Hill (08/01/13), available at: <a href="http://thehill.com/blogs/e2-wire/e2-wire/315009-energy-secretary-natural-gas-helps-battle-climate-change-for-now">http://thehill.com/blogs/e2-wire/e2-wire/315009-energy-secretary-natural-gas-helps-battle-climate-change-for-now</a> (quoting Secretary Moniz's comments to reporters).

#### 5. Conclusion: the Requested Authorization Should Be Granted

Given the ample domestic natural gas supply, the economic and other benefits of LNG exports, and the nation's free-trade policies, the DOE/FE has no reason to restrict, by regulatory fiat, the level of LNG exports. Of course, not all projects that receive export authorizations will actually be built. EIA's latest International Energy Outlook projects that LNG will account for a growing share of world natural gas trade, more than doubling from about 10 trillion cubic feet in 2010 to around 20 trillion cubic feet in 2040 (in the Reference Case). 67/ Yet, there is strong competition to serve this growing market, not only among the myriad of proposed export projects in the United States but further among suppliers in Australia, Canada, east Africa, the eastern Mediterranean, the Middle East, and elsewhere.

Given this competition, the speed with which DOE/FE processes and approves non-FTA export authorizations like this one is crucial. As the White Paper entitled "The Narrowing Window: America's Opportunity To Join The Global Gas Trade," issued by Senator Lisa Murkowski explained:

The analytical debate about whether exports are in the national interest is settled.... The risks of building out LNG capacity are manageable, particularly for the government, while the potential gains to the nation's economy are enormous....

The window for the United States to join the global gas trade will not be open indefinitely. In fact, it is narrowing, and there is the real possibility that the nation will miss out on a historic opportunity. 68/

For all the reasons set forth above, Delfin submits that its proposed export of LNG is "not inconsistent with" the public interest. Moreover, while recognizing the many other export

<sup>67/</sup> EIA, 2013 International Energy Outlook, released July 25, 2013, available at: http://www.eia.gov/forecasts/ieo/more highlights.cfm

<sup>68/ &</sup>quot;The Narrowing Window: America's Opportunity To Join The Global Gas Trade," issued by Senator Lisa Murkowski, at page 14 (Aug. 6, 2013), available at: <a href="http://www.energy.senate.gov/public/index.cfm/files/serve?File\_id=986351eb-316d-4dc9-9d1a-b75abcf4b5fc">http://www.energy.senate.gov/public/index.cfm/files/serve?File\_id=986351eb-316d-4dc9-9d1a-b75abcf4b5fc</a>

applications previously filed with DOE/FE, Delfin respectfully urges DOE/FE to grant this application as soon as possible.

#### VI. ENVIRONMENTAL IMPACT

Delfin plans to file an application with MARAD and the Coast Guard for the necessary licensing of its deepwater port and authorization for the facilities to allow for the liquefaction of domestically produced natural gas and export of LNG from the offshore facilities. Those facilities will be designed to minimize or mitigate any environmental or other adverse impacts. The authorization requested here, as a practical matter, will not be actionable until MARAD grants Delfin authorization for the facilities needed for the liquefaction of natural gas and the export of LNG.

An environmental review under the National Environmental Policy Act ("NEPA") will be completed by MARAD and the Coast Guard, together with the participation of DOE and other consulting agencies, prior to granting the required authorizations. Accordingly, consistent with the approach taken with prior (FERC-jurisdictional) non-FTA export authorizations, Delfin requests that DOE/FE issue a conditional order authoring the export of LNG, conditioned on completion of the environmental review by MARAD and the Coast Guard.

#### VII. APPENDICES

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

Appendix A: Verification

Appendix B: Opinion of Counsel

Appendix C: Map of Existing Pipeline and the WC 167 Area

Appendix D: Conceptual Site Plan and Depiction of Mooring System

#### VIII. CONCLUSION

Based on the reasons set forth above, Delfin respectfully requests that the DOE/FE grant Delfin authority for its proposal to engage in long-term, multi-contract exports of domestically produced LNG for a term of twenty years for up to the equivalent of 1.8 Bcf of natural gas per day or 657.5 Bcf per year (approximately 13 million mtpa of LNG) to any country which has or in the future develops the capacity to import LNG via ocean-going carrier and with which the U.S. has not entered into an FTA or the legal equivalent but also does not prohibit trade.

Respectfully submitted,

Frederick Jones
Founder Director

Fairwood Welbeck Natural Resources Pte. Ltd. 112 Middle Road, #07-03 Midland House

Singapore 188970

Telephone: +65 63384608 Email: f.jones@iegag.com

Dated: November 12, 2013

### **APPENDIX A**

#### **VERIFICATION**

STATE OF TEXAS	
COUNTY OF KERR	,

William R. Nichols, being first duly sworn on his oath deposes and says: that he is a Member of Fairwood Peninsula Energy, LLC. and an Authorized Representative of Delfin LNG LLC; that he is duly authorized to make this Verification; that he has read the foregoing submittal and is familiar with the contents thereof; that all the statements and matters contained therein are true and correct to the best of his information, knowledge and belief; and that he is authorized to execute and file the same with the U.S. Department of Energy.

Min

Sworn to and subscribed before me this 22 day of October, 2013

BILL O. BULL
MY COMMISSION EXPIRES
July 23, 2015

**Notary Public** 

In and For Kerr County, Texas

# APPENDIX B

#### THOMPSON & KNIGHT LLP

ATTORNEYS AND COUNSELORS

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October 6, 2013

Office of Fuels Program, Fossil Energy U.S. Department of Energy Docket Room 3F-056, FE-50, Forrestal Building 1000 Independence Avenue SW. Washington, DC 20585

#### Ladies and Gentlemen:

We have acted as special counsel for Delfin LNG LLC, a Louisiana limited liability company (the "Company"), and are furnishing this opinion letter pursuant to 10 C.F.R. 590.202(c) of the Department of Energy administrative procedures for purposes of complying with the requirements of the Company's application seeking authorization to export natural gas out of the United States (the "Application").

In connection with this opinion letter, we have examined the following:

- (i) a certified copy of the articles of organization of the Company, certified as being complete, true and correct by the Secretary of State of the State of Louisiana;
- (ii) a certified copy of the certificate of formation of Fairwood Peninsula Energy, LLC, a Delaware limited liability company and the sole member of the Company (the "Sole Member"), certified as being complete, true and correct by the Secretary of State of the State of Delaware;
- (iii) a certified copy of the limited liability company agreement of the Company, certified as being complete, true and correct by the Sole Member; and
- (iv) a certified copy of the resolutions of the Sole Member authorizing (a) the execution and delivery of the Application and (b) the export of domestically produced natural gas by the Company pursuant to the filing of the Application, certified as being complete, true and correct by the Sole Member.

In rendering the opinions expressed below, we have assumed:

- (i) The genuineness of all signatures.
- (ii) The authenticity of the originals of the documents submitted to us.

(iii) The conformity to authentic originals of any documents submitted to us as copies.

We have not independently established the validity of the foregoing assumptions.

Based upon the foregoing, and subject to the qualifications and limitations herein set forth, we are of the opinion that:

- 1. The Company is a limited liability company that is validly existing and in good standing under the laws of its state of organization.
- 2. The Company (i) has the requisite limited liability company power and authority to execute and deliver the Application and, pursuant to the filing of the Application, export domestically produced natural gas and (ii) has taken all limited liability company action necessary to authorize the execution and delivery of the Application and export domestically produced gas upon the filing of the Application.

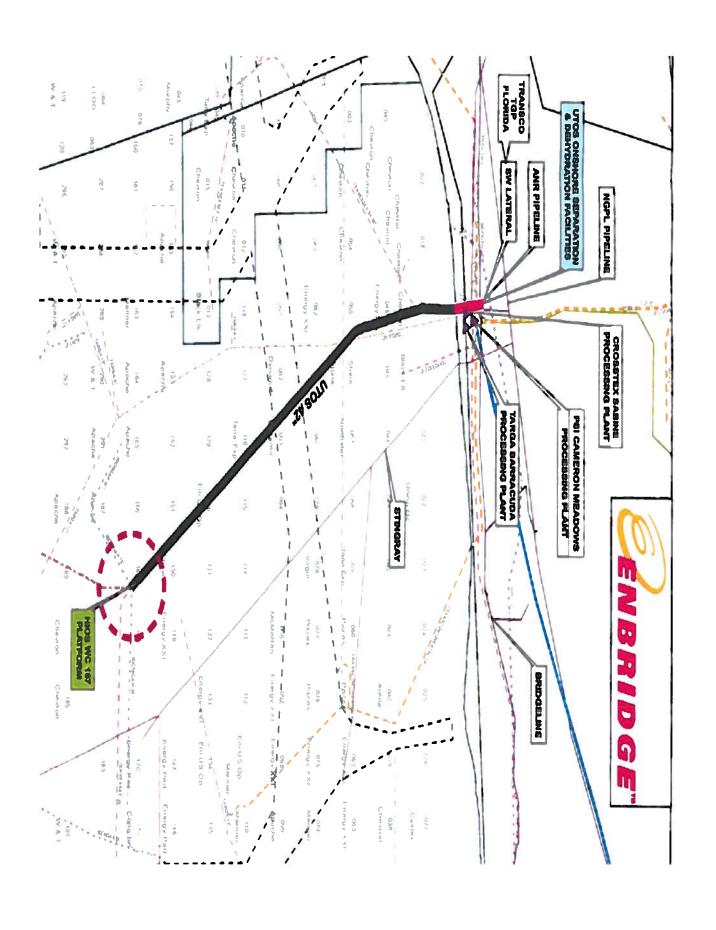
This opinion letter has been prepared, and is to be understood, in accordance with customary practice of lawyers who regularly give and lawyers who regularly advise recipients regarding opinions of this kind, is limited to the matters expressly stated herein and is provided solely for purposes of complying with the requirements of the Application, and no opinions may be inferred or implied beyond the matters expressly stated herein. The opinions expressed herein are rendered and speak only as of the date hereof and we specifically disclaim any responsibility to update such opinions subsequent to the date hereof or to advise you of subsequent developments affecting such opinions. This letter may be relied upon only by the addressee hereof. Without our prior written consent, this letter may not be quoted in whole or in part or otherwise used or referred to in connection with any other transactions and may not be furnished to or filed with any governmental agency or other person or entity.

Respectfully submitted,

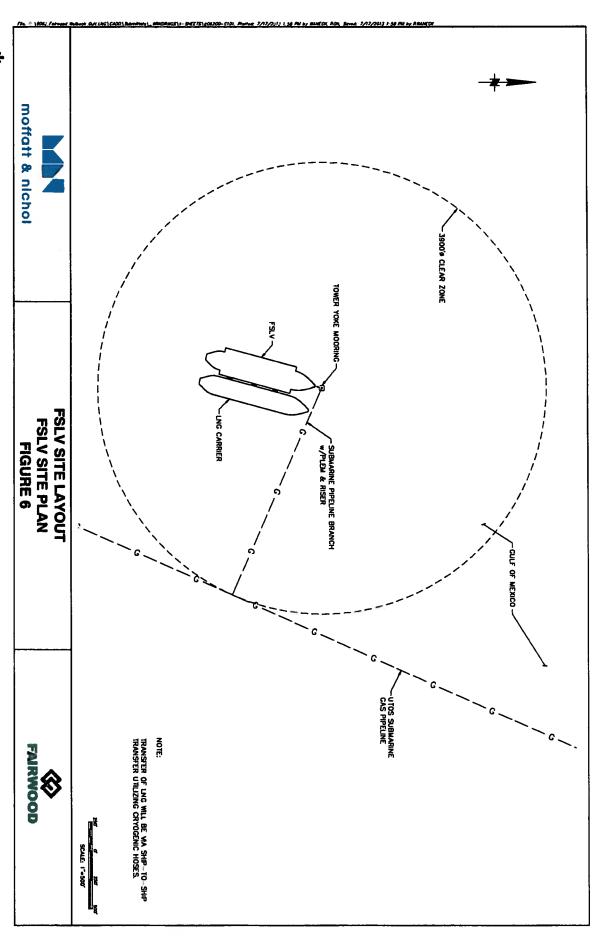
Thompson & Knight LLP

DP/BS/HI/X

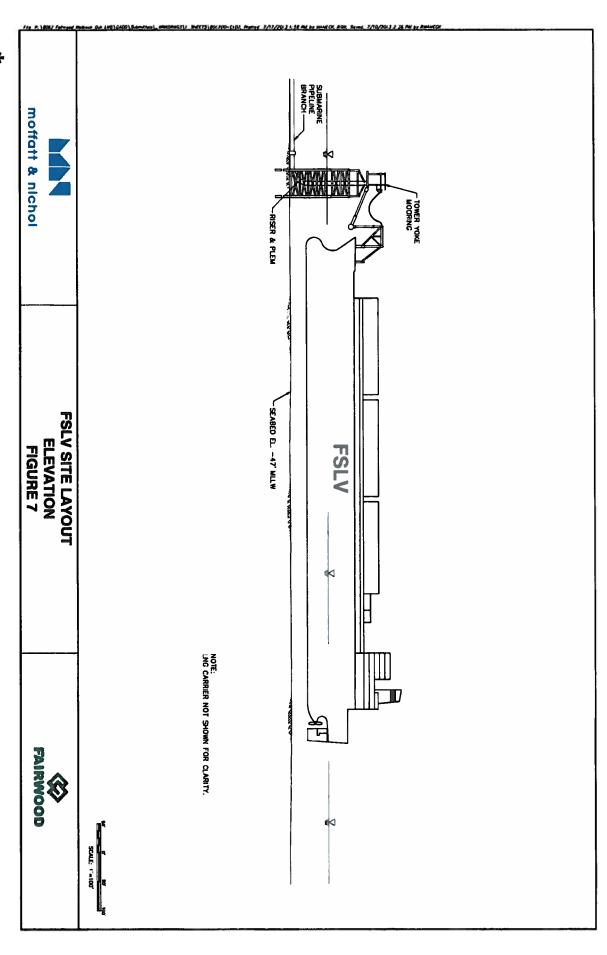
### APPENDIX C



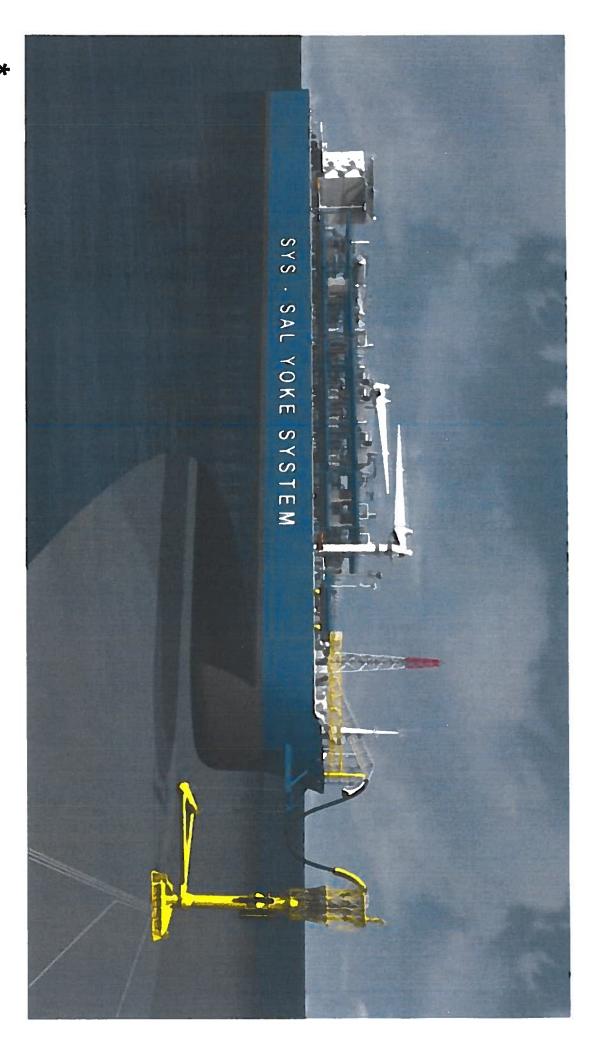
## APPENDIX D



\* Final Design Under Development



\* Final Design Under Development



\* Final Design Under Development