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May 27, 2014

VIA EMAIL

U.S. Department of Energy (FE-34)
Office of Oil and Gas Global Security and Supply
Office of Fossil Energy
P.O. Box 44375
Washington, D.C. 20026-4375

Re: FE Docket No. 13-147-LNG: In the Matter of Delfin LNG, LLC

Dear Sir/Madam:

This firm represents V4EI, LLC ("V4EI). On behalf of V4EI, enclosed for filing please find V4EI's Motion in Opposition to the Application of Delfin LNG, LLC for Long-Term Authorization to Export LNG to Non-Free Trade Agreement Companies. Kindly return a date-stamped copy of the foregoing to indicate receipt.

Please feel free to contact me at the above number if you have any questions in this matter.

Very truly yours,

C. Baird Brown

CBB/kms
Enclosure

cc: J. Patrick Nevins, Esquire
Randy Foster, Esquire

Established 1849

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

In the Matter of	**)**	
	)	**FE Docket No. 13-147-LNG**
DELFIN LNG, LLC	**)**	

MOTION IN OPPOSITION TO THE APPLICATION OF DELFIN LNG LLC FOR LONG-TERM AUTHORIZATION TO EXPORT LNG TO NON-FREE TRADE AGREEMENT COUNTRIES

Introduction

V4EI, LLC, ("V4EI") hereby moves to intervene in this proceeding, or in the alternative, submits the following in protest to the Application of Delfin LNG, LLC ("Delfin") for long-term authorization to export liquefied natural gas ("Delfin Application").

Pursuant to Section 3 of the Natural Gas Act, 15 U.S.C. § 717b ("NGA") and 10 C.F.R. Part 590, Delfin has requested that Department of Energy, Office of Fossil Energy ("DOE/FE") grant Delfin long-term authorization to export domestically produced liquefied natural gas ("LNG") in an amount up to the equivalent of approximately 1.8 billion standard cubic feet ("Bcf") of natural gas per day for a period of twenty years to any country with which trade is not prohibited by U.S. law or policy, and that has, or in the future develops, the capacity to import LNG and with which the United States does not have a free trade agreement ("non-FTA LNG Export Authorization").

The requested export authorization would not be consistent with the public interest under Section 3(a) and the core consumer protection mandate of the NGA. As detailed below, the application would, individually and in connection with other approved and pending applications, (i) raise the prices of natural gas and electricity to United States consumers, both on a long term basis and with particular adverse effects on a regional and seasonal basis, (ii) expose United States consumers unnecessarily to a volatile, oligopolistic and inefficient international natural gas market, (iii) exert a depressive effect on the United States manufacturing sector; (iv) result in adverse health effects from increased coal-related emissions; and (v) promote long term commitments of United States natural resources to countries that are hostile to the interests of the United States thereby increasing risk to the security of supply for US natural resources.

Moreover, the application fails to establish an adequate record for determining the public interest. The application's deficiencies result in large measure from Delfin's reliance on the form and reasoning of several recent approvals of applications for non-FTA LNG Export Authorizations issued by the DOE/FE. The DOE/FE has ignored the policy underlying the NGA, has relied on internal policy guidance intended for imports, and has relied on economic studies which do not address the issues raised by its own policy guidance in lieu of insisting on an adequate factual record. For these and additional reasons expressed below, DOE/FE should *deny* authorization and reject Delfin's application.

Service on V4EI

Pursuant to 10 C.F.R. § 590.303, V4EI identifies the following persons for the official service list:

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V4EI's Claim of Interest

V4EI (an acronym for Veterans for Energy Independence) is a limited liability company with members who are military veterans who served in United States foreign conflicts. V4EI's members have many direct interests in the instant application. In the first place, many of V4EI's members are consumers of natural gas who are adversely affected by any increase in the domestic price of that resource. This is particularly true with regard to natural gas usage in the winter months and during other times of high domestic demand. They suffered from severe price shocks (resulting in highly burdensome utility bills) during the prior winter and that is even before the significant increase in incremental demand associated with LNG exports. As concluded in the various economic studies on which Delfin relies, LNG exports will raise

domestic natural gas prices, meaning that approval of the instant application would have a direct adverse effect on all of V4EI's members in this regard.[1]

All of V4EI's members are also consumers of electricity and would be independently adversely affected in that capacity. This is because natural gas sets the price for many US electricity markets in many daytime hours.[2] In other words, increased demand from LNG exports will increase not only the consumer price of natural gas, but also the consumer price of electricity, resulting in a separate, direct adverse effect on V4EI members. This winter price spikes for natural gas resulted in unprecedented high prices for electricity particularly in the Mid-Atlantic states and New England (again even before the significant increase in demand associated with LNG exports).

Further harm to V4EI members stems from the fact that those who are active military reserve members would likely be called to additional service at greatly increased risk to personal safety in the event that the United States is further drawn into foreign conflict. DOE has failed to consider the foreign policy consequences of LNG exports and has not engaged the Secretary of State or the Department of Defense to review the national security implications of the proposed exports.[3] Such consultation is strongly encouraged in the DOE Organization Act.[4] To the extent that this failure results in pursuing energy policies that require the projection of military power, or otherwise increases the risk of US involvement in additional hydrocarbon conflicts, V4EI's members are directly placed at risk.

V4EI members are continuously exposed to mercury, particulate, sulfur oxides, nitrogen oxides, and other harmful emissions from coal-fired power plants, which have been determined to have a greater negative impact on the surrounding environment than other forms of energy generation such as natural gas.[5] Approval of additional LNG export demands will serve to

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[1] *See infra* Section 4.

[2] *See* U.S. Energy Information Administration, *Electricity Monthly Update, Regional Wholesale Markets: February 2014* (Apr. 22, 2014), http://www.eia.gov/ electricity/monthly/update/wholesale_markets.cfm (hereinafter "EIA February 2014 Update") ("Wholesale electricity prices are closely tied to wholesale natural gas prices in all but the center of the country").

[3] *See infra* Section 8.

[4] DOE Organization Act, § 102(10); 42 U.S.C. § 7112(10); *see infra* Section 8.

[5] *See* Environmental Protection Agency, *Clean Energy—Natural Gas—Environmental Impacts—Air Emissions* (Sep. 25, 2013), http://www.epa.gov/cleanenergy/energy-and-you/affect/natural-gas.html ("At the power plant, the burning of natural gas produces nitrogen oxides and carbon dioxide, but in lower quantities than burning coal or oil…Emissions of sulfur dioxide and mercury compounds from burning natural gas are negligible. The average emissions rates in the United States from natural gas-fired generation are: 1135 lbs/MWh of carbon dioxide, 0.1

postpone the displacement of such plants with cleaner types of plants[6] that produce less harmful air emissions and thereby prolong the harmful impacts to V4EI members stemming from continued operation of these coal-fired plants.

Finally, V4EI's members include veterans who seek jobs, or better jobs, in the United States. In particular, those veterans known as Gulf War II era veterans suffer unemployment of 9%.[7] Approval of the type of unlimited export authorization threatened here will hamper U.S. economic expansion,[8] making it more difficult for these members to find the jobs they seek. The increased oil and gas production suggested by the Delfin Application will not benefit these V4EI members because they are not resource owners and they will only be damaged by the negative impact of higher natural gas and electricity prices limiting domestic manufacturing facility expansion.[9]

1. The Public Interest Standard and the Purpose of the NGA

The standard governing DOE/FE's review of an application for non-FTA LNG Export Authorization is found in NGA Section 3(a).

> [N]o person shall export any natural gas from the United States to a foreign country…without first having secured an order of [DOE/FE] authorizing it to do so. [DOE/FE] 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*.[10]

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lbs/MWh of sulfur dioxide, and 1.7 lbs/MWh of nitrogen oxides. Compared to the average air emissions from coal-fired generation, natural gas produces half as much carbon dioxide, less than a third as much nitrogen oxides, and one percent as much sulfur oxides at the power plant.").

[6] *See* Mark Chediak & Harry R. Weber, *The Polar Vortex Emboldens Industry to Push Old Coal Plants*, Bloomberg (Mar. 10, 2014), *available at* http://www.bloomberg.com/news/2014-03-09/polar-vortex-emboldens-industry-to-push-old-coal-plants.html ("Masses of arctic air rolling down from the North Pole have driven electricity prices to more than 10 times last year's average in many parts of the country and have threatened some cities with winter blackouts. They've also emboldened energy companies to call for extending the lives of older and dirtier coal plants…Despite a concerted campaign by environmentalists and public health experts to stanch its use, coal, the most plentiful and cheapest fuel in the world, is proving globally resilient. In the U.S., rising natural gas prices are prodding utilities to switch back to coal at levels not seen since 2011. ").

[7] U.S. Dept. of Labor, Bureau of Labor Statistics, *Employment Situation of Veterans – 2013* (Mar. 20, 2014), *available at* http://www.bls.gov/news.release/vet.nr0.htm.

[8] *See infra* Section 4.

[9] *See infra* Section 4.

[10] 15 U.S.C. § 717b(a) (emphasis added).

Although the meaning of "consistent with the public interest" is not specifically defined in the NGA, the Supreme Court has declared that "public interest" under the NGA is to be determined, by the act's statutory purpose.[11] And, that purpose is quite clear—the NGA is a consumer protection statute. The provisions of the NGA are "plainly designed to protect the consumer interests against exploitation at the hands of private natural gas companies."[12] Congress passed the NGA to "afford consumers a complete, permanent and effective bond of protection from excessive rates and charges."[13] Accordingly, DOE/FE is "*bound* under [NGA Section 3] to protect the American consumer" when determining whether to issue non-FTA LNG Export Authorization.[14] In other words, consistency with the public interest under the NGA is measured by whether American consumers are getting a fair and reasonable price, and their interest in "orderly production of plentiful supplies of . . . natural gas at just and reasonable rates" should not be sacrificed in favor of increased profits for natural gas companies seeking to increase prices through LNG exports.[15]

Against this statutory backdrop, Delfin argues that its application is not inconsistent with the public interest.[16] In support, Delfin relies primarily on two recent LNG export studies commissioned by the DOE/FE including a limited assessment by the Energy Information Administration[17] ("EIA Study"), and a macroeconomic study conducted by NERA Economic Consulting[18] ("NERA Study," and together with the EIA Study, the "DOE Studies", and together with other studies cited in the Delfin Application including "Liquid Markets: Assessing the case for U.S. Exports of Liquefied Natural Gas", Brookings Institution, "A Strategy for U.S. Natural Gas Exports", the Brookings Institution, "U.S. LNG Exports: Truth and Consequences", James. A. Baker Institute for Public Policy, "Exploring the American Renaissance: Global Impacts of

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[11] *NAACP v. FPC*, 425 U.S. 662, 669 (1976) ("This Court's cases have consistently held that the use of the words "public interest" in a regulatory statute is not a broad license to promote the general public welfare. Rather, the words take meaning from the purposes of the regulatory legislation…Thus, in order to give content and meaning to the words "public interest" as used in the [NGA], it is necessary to look to the purposes for which the Act[] [was] adopted.")

[12] *Fed. Power Common v. Hope Natural Gas Co.*, 320 U.S. 591, 612, 64 S. Ct. 281, 292, 88 L. Ed. 333 (1944).

[13] *Atlantic Refining Co. v. Public Serv. Common*, 360 U.S. 378, 388 (1959).

[14] *West Virginia Public Services Commission v. DOE*, 681 F.2d. 847, 866 (D.C. Cir. 1982) (emphasis added).

[15] *NAACP*, 425 U.S. at 670; *see also United Gas Pipe Line Co. v. McCombs*, 442 U.S. 529, 536 (1979).

[16] Delfin Application at 10.

[17] U.S. Energy Information Administration, *Effect of Increased Natural Gas Exports on Domestic Energy Markets* (Jan. 2012), *available at* http://www.eia.gov/analysis/requests/fe/pdf/fe_lng.pdf.

[18] NERA Economic Consulting, *Macroeconomic Impacts of LNG Exports from the United States* (Dec. 3, 2012), *available at* http://energy.gov/sites/prod/files/2013/04/f0/nera_lng_report.pdf.

LNG Exports form the United States", Deloitte, "U.S. LNG Exports: Impacts on Energy Markets and the Economy", ICF International, the "LNG Export Studies"). Delfin also relies on DOE's Policy Guidelines and Delegation Orders Relating to the Regulation of Imported Natural Gas[19] ("1984 Guidelines"). DOE/FE has relied on the DOE Studies and 1984 Guidelines in support of its prior non-FTA LNG Export Authorization orders.[20] However, as described further below, the 1984 Guidelines were never intended to deal with natural gas *exports*, and DOE/FE has misinterpreted and failed to follow critical portions of DOE's guidance. It follows that the 1984 Guidelines do not provide an adequate basis to establish the parameters and goals of the LNG Export Studies. Because the 1984 Guidelines as misapplied to exports are not consistent with the statutory mandate of the NGA to protect consumers, reliance on the LNG Export Studies, which are based on that guidance, fails to serve the purposes of the NGA. The misapplication of 1994 Guidelines only works to "frustrate the congressional policy underlying [the NGA]."[21]

2. The 1984 Guidelines

For nearly 40 years following the enactment of the NGA, the Federal Power Commission ("FPC") used its authority under the NGA to act as a traditional regulator. While the initial focus was primarily on interstate pipelines, following the Supreme Court's decision in *Phillips Petroleum Co. v. Wisconsin*,[22] the FPC was required to regulate wellhead prices for gas in interstate commerce as well. The FPC implemented a series of regulatory regimes including individual wellhead pricing and regional pricing,[23] but regulation led to reduced production and shortages with resulting high prices in states with no natural gas resources.[24] The FPC's approach to import contracts was similar, and similar results ensued, with consumer prices being held high by high-priced long-term import contracts.[25]

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[19] 49 Fed. Reg. 6684 (Feb. 22, 1984).
[20] *See, e.g.*, Order Conditionally Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Freeport LNG Terminal on Quintana Island, Texas to Non-Free Trade Agreement Nations, DOE/FE Order No. 3282 at 6-7, 12, 30-49, 110, 112 (May 17, 2013) ("Freeport Order"); Order Conditionally Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Cameron LNG Terminal in Cameron Parish, Louisiana, to Non-Free Trade Agreement Nations, DOE/FE Order No. 3391 at 7, 14, 23-42, 130, 132 (Feb. 11, 2014) ("Cameron Order").
[21] *ATF v. FLORA*, 464 U.S. 89, 97 (1983).
[22] 374 U.S. 672 (1954).
[23] NaturalGas.org, *The History of Regulation*, http://naturalgas.org/regulation/history/.
[24] *Id.*
[25] *Id.*

FERC, which replaced the FPC as the regulator of natural gas and electric power under the Department of Energy Reorganization Act in 1977,[26] began a process of deregulating wellhead gas prices as contemplated by the Natural Gas Policy Act.[27] This process lead to adoption of FERC Order 436 in 1985, which permitted pipelines to unbundle transportation from commodity gas, and eventually to FERC Order 636 in 1992 which mandated unbundling and freed most commodity gas prices, while the pipeline monopolies remained regulated.

Against this background, DOE, which was assigned the FPC's duties for import and export approvals under Section 3 of the NGA, undertook a complete evaluation of its *import* approval policy.[28] That review centered around the "market-oriented" policy position of the Administration, that "imported gas should be regulated by the market, with the government's role limited to foreign and trade policy, broad economic considerations, and national security concerns."[29] DOE's objective was to "bring about natural gas import arrangements that [were] based on buyer-seller agreements and responsive to market conditions."[30] DOE held two public conferences in 1983 to obtain public comment on how best to implement these policies.[31] The first focused on how best to implement a "market-oriented, flexible pricing system for imports" in response to uniform border prices on gas imports from Mexico and Canada that were "priced higher than supply, demand and completing (sic) oil prices would permit in a free market."[32] The second public conference focused on whether gas import approval applicants should be required "to show that the contract contains a pricing mechanism that would allow gas to be sold in the market at a [competitive price.]"[33]

Shortly thereafter, DOE both delegated its approval authority to the Economic Regulatory Administration and adopted the 1984 Guidelines to guide consideration of import applications.[34] The goal of the 1984 Guidelines, said DOE, "conforms with the goal of the President's 1983 National Energy Policy Plan '* * * to foster an adequate supply of energy at reasonable

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[26] Pub. L. No. 95-91, 91 Stat. 565 (1977).
[27] Pub. L. No. 95-621, 92 Stat. 3350 (1978).
[28] *See* 48 Fed. Reg. 34501.
[29] *Id.*
[30] *Id.*
[31] *See id.*; 47 Fed. Reg. 57756.
[32] *Id.* at 57757.
[33] 48 Fed. Reg. 34501 at 34502.
[34] *See* 1984 Guidelines at 1.

costs.'"[35] The 1984 Guidelines concluded that a competitive gas supply market would best serve domestic consumers, and that permitting imports would, other things being equal, increase domestic supply competition:

> The Market, not the government, should determine the price and other contract terms of imported gas. U.S. buyers should have full freedom—along with responsibility—for negotiating the terms of trade arrangements with foreign sellers. The federal government's primary responsibility in authorizing imports should be to evaluate the need for gas and whether the import arrangement will provide gas on a competitively prices [sic] basis for the duration of the contract while minimizing regulatory impediments to a freely operating market. In addition the government must determine that the U.S. does not become unduly dependent on unreliable supplies.[36]

(This statement is hereafter referred to as the "Competition Conclusion.")

In addition to competiveness of supply, the 1984 Guidelines list several other factors that the Economic Regulatory Administration was required to consider. These are reflected in the following statements:

- National energy requirements will also be a factor,…as the energy security of the nation remains a policy consideration.[37]

- The security of gas supply and its transportation to the U.S. border remain important components of the public interest, especially those under long-term arrangements.[38]

[35] *Id.* at 3.
[36] *Id.*
[37] *Id.* at 8.
[38] *Id.* at 10.

- In addition to the above considerations, the Administrator will consider international trade policy, foreign policy, and national security interests that may bear on an import authorization.[39]

- [T]he Department of State will be consulted in accordance with section 102(10) of the DOE Organization Act.[40]

The 1984 Guidelines also include an extensive discussion of contract structure. DOE determined that consumers had suffered from long-term uncompetitive import contracts that kept consumer prices high after wholesale spot prices had tumbled. They required that applicants to import natural gas disclose the terms of their proposed contracts in their applications and enunciated guidelines as to acceptable contract terms that would assure competitive pricing over the life of the contract.[41] DOE concluded that principles of respect for international contracts in United States law would prevent ERA from simply abrogating uncompetitive international contracts,[42] but encouraged gas importers to voluntarily reform them:

> U.S. Companies that import natural gas under arrangements that are not fully consistent with these policies and the provisions of Delegation Order No. 0204 – 111 are encouraged to negotiate changes to such arrangements to bring them into conformity with these policies and provisions. The ERA will give prompt attention to import authorization amendments submitted by importers as a result of these negotiation efforts. To the extent that such amendments bring an import contract into conformity with these guidelines, the will benefit from the presumption that they are in the public interest, and opposing parties will bear the burden to rebut the presumption.[43]

[39] *Id.*
[40] *Id.*
[41] *Id.* at 9-10.
[42] *Id.* at 2.
[43] *Id.* at 12.

DOE properly understood that the impact of imports on consumers could not be evaluated independent of applicants' proposed contractual relationships, and, having concluded that certain features of import contracts were desirable, established a presumption that modification of prior contracts to be consistent with its conclusions would be entitled to a shift in the burden of proof to opponents. However, as discussed further below, DOE/FE has now taken the presumption articulated with respect to these conforming amendments completely out of context and applied it to *de novo export* applications where such a presumption is completely inappropriate. In so doing, it has ignored its obligation to create an adequate record in the current round of export applications.

One final statement in the 1984 Guidelines is worth noting because it goes to the heart of DOE's regulatory mandate:

> Congress did not define the 'public interest,' thus giving broad discretion to the government in establishing criteria that an importer must fail to meet for the government to deny an authorization to import.[44]

While most of the 1984 Guidelines are well considered in the import context, this statement misses the core consumer protection mandate of the NGA as articulated in extensive Supreme Court precedent.

3. Unfettered Natural Gas Exports Will Frustrate the Core Mandate of the NGA.

DOE/FE's first duty in examining this application is to make sure that it is consistent with assuring adequate supplies of energy at a reasonable costs and protecting consumer interests against exploitation at the hands of private natural gas companies.[45] If it is not consistent with these goals of the NGA, DOE/FE should find that it is not in the public interest. The Delfin Application does not adequately address these issues. Instead the application cites the DOE/FE's Completion Conclusion as restated in all of the recent LNG export authorization orders, in which DOE/FE adds "export" and "exported" each place where "import" and "imported" appears in the original, and asserts without any support or discussion that this is good policy guidance for

[44] *Id.* at 9.
[45] *See supra* Section 1.

export applications.[46] It is perfectly clear that while competition on the *supply* side will tend to lower prices, other things being equal, competition on the *demand* side will tend to raise prices. Moreover, the international market in natural gas is not characterized by free competition. It is dominated by major, state-owned suppliers operating in balkanized regional markets where, as discussed below, they have substantial price setting power and the price of the closest substitute product, oil, is manipulated by the OPEC cartel. Accordingly, the probable effect of permitting increased exports is to raise United States prices closer to the higher international levels experienced in Europe and Asia, thereby raising natural gas prices for US consumers. To the extent that Delfin purports to rely on the Competition Conclusion in the export context, the 1984 Guidelines should be given no weight.[47]

Courts that have addressed the 1984 Guidelines, have made clear that the Guidelines are not entitled to the same deference as a formal rulemaking process.[48] Because the 1984 Guidelines represent a policy statement, as opposed to official rulemaking, DOE/FE must "stand ready to hear new argument and to reexamine the basic propositions undergirding the policy."[49] This means that when the DOE/FE applies the 1984 Guidelines to a particular situation, as Delfin has requested here, DOE/FE must be prepared to support the policy rationale underlying the 1984 Guidelines "just as if the policy statement had never been issued."[50] DOE/FE must respond to each argument made by opponents "without relying merely on the force of the guidelines," and proceed as if they were "subject to complete attack."[51] This is particularly true, where, as here, DOE/FE has misapplied the 1984 Guidelines by failing to articulate any

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[46] *See, e.g.*, Freeport Order at 6; Cameron Order at 7 (quoting the Completion Conclusion as follows: "The market, not government, should determine the price and other contract terms of imported [*or exported*] natural gas …. The federal government's primary responsibility in authorizing imports [*or exports*] will be to evaluate the need for the gas and whether the import [*or export*] arrangement will provide the gas on a competitively priced basis for the duration of the contract while minimizing regulatory impediments to a freely operating market." (emphasis added).) DOE/FE's recent LNG export authorization orders all cite to *Phillips Alaska Natural Gas*, DOE/FE Order No. 1473 for the proposition that the import policies of the 1984 Guidelines apply equally to exports. In turn, Order No. 1473 cites only *Yukon Pacific Corp.*, DOE/FE Order No. 350, Order Granting Authorization to Export Liquefied Natural Gas from Alaska, 1 FE ¶ 70,259, at 71,128 (1989) for the same conclusion. However, Order No. 350 makes the assertion without any citation or policy discussion. In short, DOE's oft-relied upon conclusion that the policies of 1984 Guidelines apply equally to import and export authorizations is not grounded in any economic analysis whatsoever.

[47] *See infra* Section 5.

[48] *See, e.g. Bechtel v. F.C.C.*, 10 F.3d 875, 878 (D.C. Cir. 1993).

[49] *Id.*

[50] *Pacific Gas & Elec. Co. v. Federal Power Commission*, 506 F.2d 33, 38 (D.C. Cir. 1974).

[51] *Independent Petroleum Association of America v. ERA*, 870 F.2d 168, 172 (5th Cir. 1989)

justification for applying the Competition Conclusion to exports and has ignored the consumer protection mandate of the NGA.

In the case of the Delfin Application, it is perfectly clear that the supply side of the international market is oligopolistic and many of the dominant players do not necessarily have the United States' best interests at heart. Russia and Qatar, the two largest suppliers, together account for 24 percent of world exports.[52] Russia, the largest single supplier, has clearly shown no hesitancy to manipulate the world market for geopolitical ends.[53] Neither Delfin nor the LNG Export Studies makes any effort to analyze the competitiveness in the international market. The NERA study specifically states that it assumes the market to be "largely competitive," with the exception of "one dominant supplier, Qatar," which it assumes, without explanation, will have level exports independent of United States exports.[54] Several of these gas exporting countries have formed their own natural gas OPEC with the three leading members including Russia, Qatar and Iran.[55]

A recent study for the Institute of Energy Economics at the University of Cologne found that the global gas market is "regionally interlinked but not perfectly integrated."[56] They concluded that the international gas market behaves as an oligopoly with a "competitive fringe" in which Australia, Algeria, Egypt, Indonesia, Malaysia, Nigeria, the Netherlands, Norway, Qatar, Russia and Trinidad and Tobago are able to exercise market power, and most of these countries have almost all of their experts coordinated by one firm or consortium, often a state owned enterprise.[57] They ran two models, one assuming perfect competition and one assuming an oligopoly and found that the oligopoly model accurately predicted world prices, which were more than 50 percent higher in Europe and more than 200 percent higher in Japan and Korea

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[52] U.S. Central Intelligence Agency, *The World Factbook – Country Comparison::Natural Gas-Exports*, https://www.cia.gov/library/publications/the-world-factbook/rankorder/2251rank.html (last visited May 20, 2014).
[53] *See* Louis Basenese, *Dangerous Price Manipulation Rocks Energy Markets*, Wall St. Daily (May 3, 2013), *available at* http://www.wallstreetdaily.com/2013/05/03/energy-price-manipulation/.
[54] NERA Study at 5. Qatar is developing its own US export project at Golden Pass (FE Docket 12-156-LNG).
[55] Robert Tuttle & Yeganeh Salehi, *Iran Burning $7 Billion to Lead Gas OPEC as It Faces Sanctions*, Bloomberg (Nov. 3, 2013) *available at* http://www.bloomberg.com/news/ 2013-11-03/iran-burning-7-billion-seeks-to-lead-gas-opec-facing-u-s-lng.html.
[56] Christian Growitsch, Harald Hecking, & Timo Panke, *Supply Disruptions and Regional Price Effects in a Spatial Oligopoly – An Application to the Global Gas Market*, Institute of Energy Economics at the University of Cologne, 1, (June 2013), *available at* http://www.ewi.uni-koeln.de/fileadmin/user_upload/Publikationen/Working_Paper/EWI_WP__13-08_Supply_disruptions_and_regional_price__effects.pdf.
[57] *Id.* at 6, n.1.

than would be expected in a competitive market.[58] While United States exports may have some modulating effect on world prices, they will not alter the fundamental structure of the market, and the effect of United States exports is more likely to be to raise United States Prices toward current world levels. The lack of efficient competition on the supply side of international markets leaves United States consumers at the mercy of price shocks from the oligopolistic international market. The demand side of the international markets also features major state players, and unrestricted exports will also expose the United States consumers to efforts by countries like China to lock up longer term supplies.[59]

4. The LNG Export Studies Do Not Support a Finding of Public Benefit.

Delfin's principal argument that its application is consistent with the public interest is based on the LNG Export Studies. All of these studies show clearly that exports will raise the price of natural gas, though they differ in the details. NERA shows prices rising up to 20 percent in the next decade while EIA shows a potential 33 percent rise.[60] Other studies place the amount of the price increases substantially higher[61] and some conclude that GNP would fall with increased imports.[62] Delfin and prior DOE/FE orders attempt to ignore this finding by relying on expected increases in United States gross national product. However, these increases would redound to private gas companies and their investors – as the NERA study laconically puts it under the heading "Some groups and industries will experience negative effects of LNG Exports":

> Different socioeconomic groups depend on different sources of income, though through retirement savings an increasingly large number of workers will share in the benefits of higher income to

[58] *Id.* at 39, Appendix C.
[59] *See* EY, *Global LNG: Will New Demand and New Supply Mean New Pricing*?, EY Report, 6 (2013), *available at* http://www.ey.com/Publication/vwLUAssets/Global_LNG_New_pricing_ahead/$FILE/Global_LNG_New_pricing_ahead_DW0240.pdf (hereinafter "EY Report 2013") (discussing long term Chinese natural gas demand under heading "Natural Gas in China: Fueling the Dragon").
[60] NERA Study at 11, fig. 7.
[61] *See, e.g.*, Robert Brooks, *Using GPCM to Model LNG Exports from the US Gulf Coast*, RBAC, Inc. (Mar. 2, 2012), http://www.rbac.com/press/LNG%20Exports%20from%20the%20US.pdf (reporting increases in natural gas prices higher than the highest NERA findings at exports of 6 Bcf/day, the lower level used in the NERA Report); Kemal Sarica & Wallace E. Tyner, *Economic and Environmental Impacts of Increased US Exports of Natural Gas*, Department of Agricultural Economics, Purdue University, ("Sarica, Tyner") 29, http://www.bipac.net/dow/PurdueTynerSaricagasexports.pdf (last visited May 20, 2014) (reporting increases as high as 23% in the next decade).
[62] Sarica, Tyner at 29.

> natural resource companies whose shares they own. Nevertheless, impacts will not be positive for all groups in the economy. Households with incomes solely from wages or transfers, in particular, will not participate in these benefits.[63]

The initial statement above is disingenuous at best. The top 20 percent of United States households hold 95.3 percent of all financial (non-home) wealth as of 2010.[64] That top 20 percent of households also had a mean income of $226,200, not a figure that can meaningfully describe "workers",[65] who greatly need the protection of the NGA. On its face, this is a far cry from protecting consumer interests against exploitation at the hands of private natural gas companies. It turns the NGA on its head.

The Wall Street Journal, in an article titled "U.S. Gas Price Rises – Along With Exports", expounds on the link between increasing exports of refined fuel products and the jump in United States gasoline prices.[66] The article quotes American Automobile Association spokesperson Nancy White:

> Production is going overseas, so that impacts the supply here, and that will drive prices up.[67]

Notwithstanding the United States ban on most exports of crude oil,[68] exports of gasoline and diesel are up 25 percent from the same period a year earlier[69] and United States consumers are paying the price. The risk is that LNG exports will do the same for natural gas prices. If prices go up enough it may serve to make the NERA Study prediction of low exports a reality, but that will be small comfort to United States utility customers, who would experience damaging price increases.

Much in the LNG Export Studies depends on speculative assumptions that are contradicted by current experience. As discussed at length below, various regions of the United

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[63] NERA Study at 8.
[64] G. William Domhoff, *Who Rules America?—Power in America—Wealth, Income, and Power*, 2, *available at* http://www2.ucsc.edu/whorulesamerica/power/wealth.html.
[65] *Id.*
[66] Nicole Friedman, *U.S. Gas Price Rises – Along with Exports*, Wall St. J., April 22, 2014, at C1.
[67] *Id.*
[68] The Energy Policy and Conservation Act of 1975, P.L. 94-163, directs the President to restrict the export of crude oil. 42 U.S.C. § 6212.
[69] Friedman, Wall St. J. at C1.

States have experienced unmet demand for gas in the past few months resulting in huge spikes in the price of both heating fuel and electricity. Consumers have faced increases exceeding 100 percent in many cases. These price increases resulted in large part from inadequate pipeline infrastructure. The result, for purposes of the LNG Export Studies, is that NERA and other study authors do not have an accurate view of the current United States demand, on which to base their projections. Neither the Delfin Application, nor any of the LNG Export Studies addresses the regional or seasonal implications of export policies, even though the 1984 Guidelines suggested that such regional analysis is critical.[70] The bulk of international demand is located in the Northern hemisphere, and exports will result in more extreme coincident peaks during the high demand winter period when natural gas is essential for natural gas and electric home heating.

The LNG Export Studies also ignore substantial economic research demonstrating that commodity exports can actually injure the economy of the exporter. Empirically, substantial increases in commodity exports tend to weaken the manufacturing sector in the exporting country. This "resource curse" results at least in part because the commodity exports raise the exchange rate for the exporting nation's currency (because of demand for that currency to pay for the commodity exports) and makes the manufactured exports of the exporting nation less attractive in international markets. It also results from exposing the economy of the resource exporting nation to volatility in international commodity markets. This effect has been well documented in developing nations, especially in Africa,[71] but afflicts developed nations as well. It was originally observed in the Netherlands in the 1960's and 70's (and was originally christened the "Dutch Disease")[72] and is also a significant current concern in Australia.[73] The

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[70] 1984 Guidelines at 8.

[71] Paul Collier, The Bottom Billion, (Oxford University Press, 2007) (this effect is discussed in Chapter 3, "The Natural Resources Trap").

[72] Macartan Humphreys, Jeffrey D. Sachs, & Joseph E. Stiglitz, *Introduction: What is the Problem with Natural Resource Wealth?*, *in* Escaping the Resource Curse, 5-8 (Macartan Humphreys, Jeffrey D. Sachs, and Joseph E. Stiglitz, Eds., Columbia University Press, 2007) (discussing the relevant effects in the sections titled "Dutch Disease" and "Volatility").

[73] A report prepared by Innovative Energy Consulting Pty Ltd for the DomGas Alliance in November 2012 reaches the following conclusions:

- Access to readily available, low cost gas supplies has, and will increasingly constitute a large competitive advantage for developed and developing nations worldwide. An energy form, gas is by far the cleanest burning fossil fuel and its value is increasing along with global carbon consciousness. The many non-energy uses for gas are also important components of most developed economies; . . .
- History has proven that countries with large resource endowment do not automatically gain an economic competitive advantage over countries that do not have such surplus endowment of

LNG Export Studies make no mention of this experience and the likely resultant impact on energy-intensive manufacturing and jobs in the United States. By contrast, having adequate domestic supplies of competitively priced gas will support United States manufacturing as it seeks to regain its former global reach.

A recent study by the Boston Consulting Group discusses a rising surge in American Exports.[74] The report attributes much of the improvement to lower gas and electricity prices.[75] Discussing the implications of the revolution in fracking, the report states as follows:

> First, natural gas is a key feedstock for chemicals and plastics and is a significant cost in the manufacture of primary metals, paper, synthetic textiles, and nonmetallic mineral products. Second, gas-fired power plants are an important source of electricity in the U.S. So cheap natural gas will contribute to keeping power costs lower for U.S.-based industry. Industrial electricity prices are currently 61 percent higher in France, 92 percent higher in the U.K., 107 percent higher in Germany, 135 percent higher in Japan, and 287 percent higher in Italy. Lower electricity rates add a further cost advantage of several percentage points to energy-intensive U.S.-based industries such as metals and paper.[76]

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resources. Exporting countries have to take the necessary precautions to avoid what are known to economists as the Natural Resource Curse and Dutch Disease. Australia's large LNG export boom, that is well underway, has the capacity to trigger both of these symptoms and the subsequent regrets. Mere "hewers of wood and drawers of water" would remain forever poor if they failed to industrialize. Furthermore sudden shocks to an economic system from export booms are not in a country's best interest; . . .

- Simply exporting gas at the expense of the domestic gas market is rarely, if ever, in the best interest of the exporting country or region and most certainly not for an OECD country. A healthy, growing and vibrant domestic gas market is considered to be a high priority in most large gas producing countries. Net gas exporting countries with developed economies tend to ensure that their domestic gas markets have access to abundant reasonably priced gas supplies regardless of export levels and export prices and this is not the case in Australia at the moment; . . . .

Glen Gill, *Australia Domestic Gas Policy Report*, Innovative Energy Consulting Pty Ltd, 7-8 (Nov. 2012) *available at* http://www.domgas.com.au/pdf/Media_releases/2012/Australia%20Domestic%20Gas%20Policy%20Final%20Report.pdf.

[74] Harold L. Sirkin, Michael Zinser, & Justin Rose, *Made in America, Again: Behind the American Export Surge*, The Boston Consulting Group (Aug. 2013), *available at* https://www.bcgperspectives.com/Images/Behind_the_American_Export_Surge_Aug_2013_tcm80-141739.pdf.

[75] *Id.* at 2.

[76] *Id.* at 8.

The report goes on to estimate that this manufacturing resurgence will create 1.2 million direct factory jobs and another 1.9 million to 3.5 million addition jobs in related services.[77] On the evidence of the applications before the DOE, the entire LNG export industry (as currently proposed in DOE and FERC filings) will create at most 100,000 jobs even counting temporary construction jobs and only a few thousand permanent jobs.[78] Consistent with the Boston Consulting Group findings, Charles River Associates finds that the economic contributions of 5 Bcf/d used in manufacturing substantially outweighs that of 5 Bcf/d of exports. They calculate that

> direct construction employment is significantly higher for the manufacturing sector (104,000 person years) than LNG exports (23,000 person years). The total direct and indirect employment for the manufacturing sector (180,000 annual jobs is more than eight times the total direct and indirect employment from LNG exports (22,000 annual jobs).[79]

Exposing America's manufacturing renaissance to natural gas and electricity price increases associated with oligopolistic foreign LNG markets will put this budding American manufacturing resurgence at risk.

The LNG Export Studies generally discount price volatility. This is in spite of the evidence of substantial volatility in United States prices, including recent extreme regional

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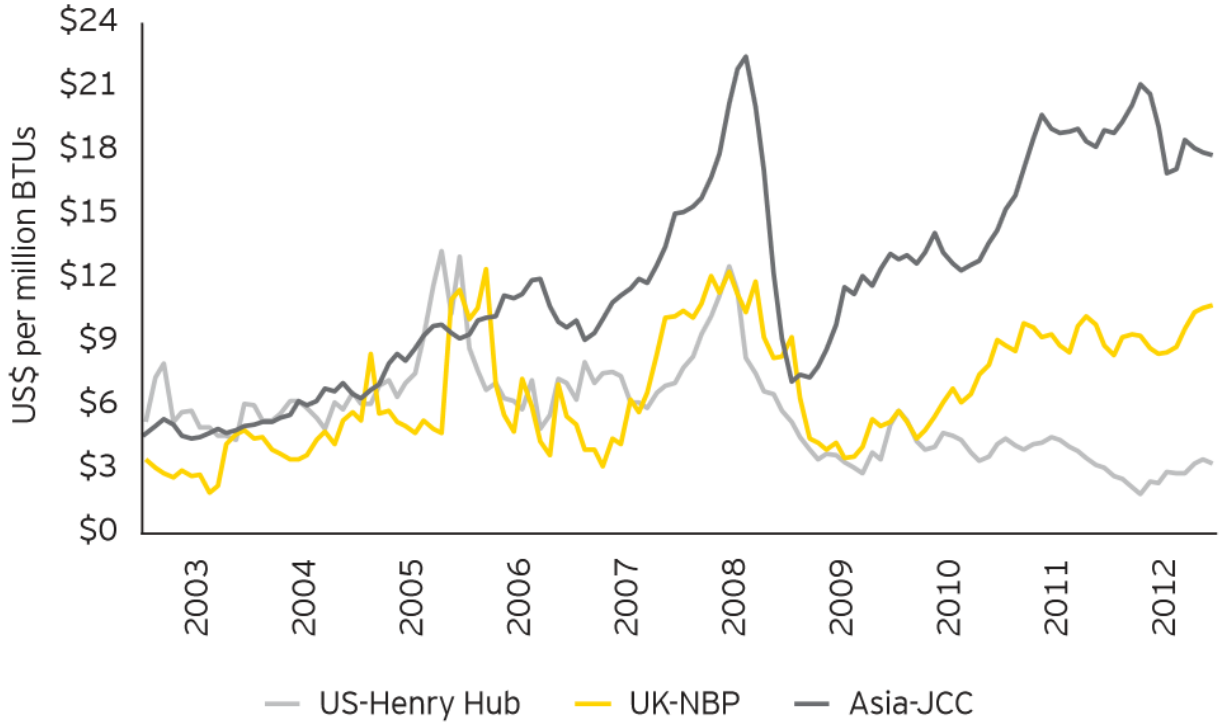
[77] *Id.* at 8.

[78] The applications approved to date and still in the queue take wildly different approaches to estimating job creation including measuring in "job years" for construction and making extravagant unsupported predictions of indirect job creation. Delfin's makes no specific claims about job creation by its projects. Other applications contain widely varying estimates: Lake Charles Terminal claims 75 permanent jobs per Bcf/d, Freeport McMopan claims 78-156 permanent jobs per Bcf/d, Gulf Coast LNG claims 80 per bcf/d. Others contain estimates that are off the map: Southern LNG Company claims 842 permanent jobs per Bcf/d and Pangea (North America) Holdings claims 1,229 permanent jobs per Bcf/d. These latter numbers seem highly implausible in a competitive industry. Assuming, charitably, that there will be 100 new permanent jobs per Bcf/d, 3,600 permanent jobs would be created. A similar survey of claimed construction jobs (in applications where direct and indirect jobs can be separated) shows estimates from just over 1,000 construction jobs per Bcf/d to as high as 2,812 (EOS LNG and Barca LNG). Again, being charitable, 1,500 construction jobs per Bcf/d would result in 54,000 construction jobs. While there would certainly be indirect job creation, no effort has been made by Delfin or other applicants to quantify these effects in meaningful ways. Predictions of upstream job creation should be ignored as there is no evidence presented that exports will result in substantially more production than would result from domestic demand absent the discouragement of high international pricing.

[79] Charles River Associates, *US Manufacturing and LNG Exports: Economic Contributions to the US Economy and Impacts on US Natural Gas Prices*, 2 (Feb. 25, 2013) *available at* http://www.crai.com/uploadedFiles/Publications/CRA_LNG_Study_Feb2013.pdf

volatility.[80] International prices have historically also been highly volatile. The following chart, taken from the EY Report, illustrates the extreme volatility in both United States and world prices.[81]

Figure 4. Global natural gas prices (monthly averages)



Source: US Department of Energy and Thomson/Reuters

In both cases, prices tend to react strongly to shortages, and oversupplies. In part this results from the price linkage between natural gas and oil. Oil, of course has demonstrated extreme volatility due to geopolitical events and the influence of the OPEC cartel. The NERA study downplays this linkage, but without any factual basis. While the linkage is damped by lack of fuel switching infrastructure in some markets and sectors, it is visibly present in the price series.[82]

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[80] EY Report 2013 at 13. *See infra* Section 7.
[81] *See infra* Section 7.
[82] Gail Tverberg, *The Absurdity of US Natural Gas Exports*, Our Finite World (Mar. 31, 2014), http://ourfiniteworld.com/2014/03/31/the-absurdity-of-us-natural-gas-exports/. Note that the relative prices are consistent with the study cited *supra* at n. 58.

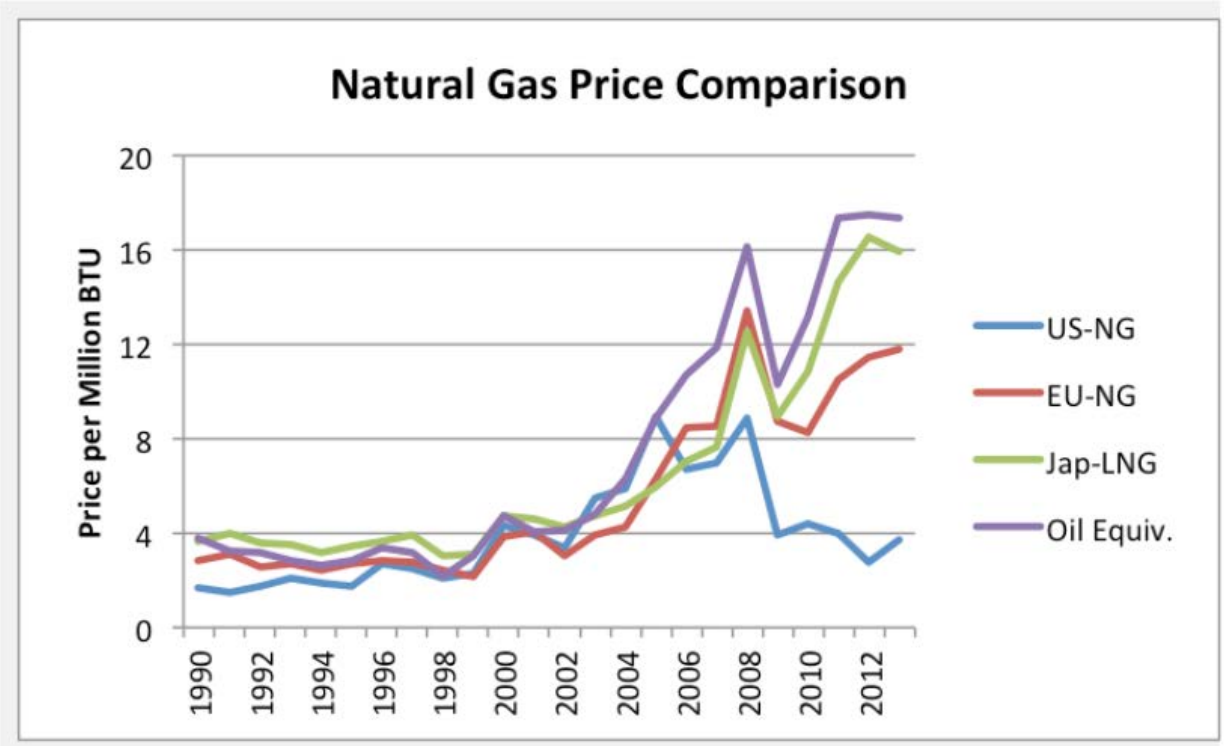

Figure 6. Comparison of natural gas prices based on World Bank "Pink Sheet" data. Also includes Pink Sheet world oil price on similar basis.

Indeed, most natural gas contracts in the Asia Pacific market (currently the highest priced market in the world) are directly linked to oil pricing.[83]

The LNG Export Studies generally ignore any evidence of contracting patterns.[84] Nevertheless, DOE/FE has specifically cited long-term export contracts as damping volatility.[85] However, there is nothing in the Delfin Application, in the Cameron record, or in the LNG Export Studies that provide any evidence for such contracts associated with applications approved by or before the DOE/FE. In the Delfin Application, Delfin requests DOE/FE to permit it to submit contracts after the fact in accordance with DOE/FE's usual practice.[86]

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[83] EY Report 2013 at 14.

[84] An exception is the Deloitte study which chiefly speculates on whether oil-linked contracting patterns will break down under competition. *See generally*, Deloitte Center for Energy Solutions, *Exporting the American Renaissance: Global impacts of LNG exports from the United States*, (2013) *available at* http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Energy_us_er/us_er_GlobalImpactUSLNGExports_AmericanRenaissance_Jan2013.pdf.

[85] *See, e.g.*, Cameron Order at 115; Delfin Application at 23.

[86] Delfin Application at 8.

DOE/FE is deliberately foregoing the opportunity to review the forms of contracts prior to giving twenty year authorizations. DOE/FE has not required such evidence notwithstanding DOE's determination in the 1984 Guidelines that no conclusions can be drawn about applications without understanding the nature of the contracts involved. To the extent that any of the applicants have provided evidence of their contracting patterns, the developers of several export facilities have sold long term options on their export capacity.[87] While the sale of such options may permit applicants to finance construction of their facilities, they permit their primary customers to play the market – exporting when the United States commodity price permits, and selling nothing (or, in some instances, importing) when prices move the other way. This sort of "open market" contract optionality only amplifies volatility. It also leaves applicants or their assignees the ability to enter into long-term contracts of 20-30 years' duration that put United States consumers at risk for lack of adequate supplies at reasonable prices.

The optional nature of the many export contracts signed are likely to impose increased prices on American consumers while the expected physical volumes may fail to flow internationally, thus causing Americans harm without benefit. This option contract construct is substantially different from other exporting markets in which the specific volumes of gas to be exported are known at the commencement of export terminal construction. Permitting the international community to contract long-term for the potential export of US natural gas only ensures higher prices for Americans but does nothing to ensure increased economic activity in the US, a clear violation of the core consumer protection mandate of the Natural Gas Act.

Delfin, DOE/FE in its prior approvals, and the LNG Export Studies each has also ignored the empirical pricing evidence provided by the export application pool. To justify the capital expenditure for a new export facility, the applicant must believe that the United States price plus the cost of transportation to world markets will be less than the relevant international price by enough to provide net revenues that will more than amortize the investment in the terminal. Given the many billions of dollars of costs planned for the proposed terminals and the length of the proposed licenses, the required average net margin per MMBtu of capacity over the period of the license must exceed $6.50 to 7.00.[88] If exports are expected not to be profitable for some

[87] Applicants that have not entered into such contracts are essentially investing in such an option for themselves.
[88] Cheniere Energy, *Cheniere Energy Analyst/Investor Day Presentation*, 85 (Apr. 7, 2014) *available at* *http://media.corporate-ir.net/media_files/IROL/10/101667/ Analyst_Day_Presentation_WEBrev.pdf*.

periods of time during the license period, it implies that the expected margin must be higher. In other words, the sophisticated investors behind the various export terminals strongly disagree with NERA that United States exports will be limited. One possible reason for this could be an expectation that United States prices will remain low. There is no basis for this assumption. The margin calculation above, when compared to the current prices in the Asia-Pacific market, and allowing for transportation to that market, would still support more than a doubling of United States wholesale prices. Calculations by EY support this conclusion. The following table, taken from the EY Report, sets forth the delivered cost to Japan based on various values of natural gas at Henry Hub.[89]

Table 2. US Gulf Coast LNG to Japan

(US$ per million BTUs)						
Henry Hub spot	$2.00	$3.00	$4.00	$5.00	$6.00	$7.00
Energy cost (15%)	$0.30	$0.45	$0.60	$0.75	$0.90	$1.05
Capacity charge	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00
FOB cost	$5.30	$6.45	$7.60	$8.75	$9.90	$11.05
Shipping	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50
CIF cost	$7.80	$8.95	$10.10	$11.25	$12.40	$13.55

Source: Deutsche Bank Markets Research, *Global LNG*, 17 September 2012

More likely, however, these investors believe that world demand will substantially increase,[90] world prices will increase as well, and United States prices could increase by far more than the current spread without making United States exports uneconomic.

[89] EY Report 2013 at 15.

[90] *See, e.g.*, BG Group, *Global LNG Market Overview 2013-14—Global Trade Summary for 2013: LNG Supply Hiatus in Full Effect*, 5 (2014), *available at* http://www.bg-group.com/assets/files/cms/A3319_BG_LNG_flyer_v6.pdf (last visited May 20, 2014) ("In summary, industry performance in 2013 and the outlook for 2014 remains consistent with our long-held view that the global LNG market continues to tighten and indeed remains supply-constrained and tighter for longer than many industry observers assume, until the end of the decade at least.").

5. Delfin Must Create an Adequate Record.

DOE/FE should not approve the Delfin Application without requiring Delfin to create a record that addresses the consumer protection purposes of the NGA, the effect of unfettered competition in markets that are neither transparent nor free of market power, and the false-to-facts assumptions in the studies relied on by Delfin. It should also create a record regarding national energy requirements, the security of the United States' gas supply (especially with respect to long-term contracts), international trade policy, foreign policy and national security interests. The NGA states that DOE "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."[91] As the courts have agreed, this creates a presumption that an application should be granted.[92] However, it does not excuse either Delfin or DOE/FE from creating a record that allows it to determine that the public interest is or is not being served and whether price increases from export demand serve consumer interests. The NGA states that upon review of a DOE order "the findings of the [DOE] as to the facts, if supported by substantial evidence, shall be conclusive."[93] But where the FPC or the ERA has adopted conclusions without factual support, the courts have been quick to strike them down.[94]

DOE/FE has sought to sidestep the evidentiary requirements of the NGA by placing the burden of building the record on opponents of an application. It has done so by applying to *de novo export* applications a presumption that the burden of proof is on opponents of an application that is taken from the statement in the 1984 Guidelines regarding applications to reform long-term import contracts.[95] Delfin asserts this DOE/FE conclusion without support.[96] While this presumption could be viewed as reasonable in its context – a prior considered review by DOE of the effect of long-term import contracts – it clearly has no application to a class of applications to which DOE has given no advance consideration at all. In any event, even in its original context, courts have ruled that this presumption is rebuttable and not determinative. The DC Circuit Court has explained to DOE/FE that this presumption is "highly flexible, creating

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[91] 15 U.S.C. § 717b(a).
[92] *Panhandle Producers & Royalty Owners Ass'n v. ERA*, 822 F.2d 1105, 1111 (D.C. Cir. 1987)
[93] 15 U.S.C. § 717r(b).
[94] *See, e.g., West Virginia*, 681 F.2d at 866.
[95] 1984 Guidelines at 8.
[96] Delfin Application at 9.

only rebuttable presumptions and leaving parties free to assert other factors."[97] Put differently, although DOE/FE may "presume" that an application should be granted, this presumption is not determinative, and DOE/FE retains an independent duty to determine whether an application is, in fact, not contrary to the public interest.[98] As discussed, factual findings relied upon in the DOE/FE's analysis must be "supported by substantial evidence.

Finally, DOE/FE has failed to build an adequate record to support the conclusion that the various LNG export applications *in the aggregate* are in accordance with the public interest. Nearly all of the recent LNG export authorizations, including Delfin's, assert that the volumes of LNG proposed to be exported within the single application are "relatively small," arguing, therefore, that the requested authorization will have "minimal effect, if any, on domestic energy security."[99] This is like saying about each application "this won't hurt much," while subjecting United States consumers to the death of a thousand cuts. Clearly a meaningful export policy must consider the overall effect of all expected exports on United States Consumers.

Total export applications approved or pending before the DOE/FE, which total 36 bcf per day, represent nearly 50% of total US natural gas consumption in 2013.[100] If those applications for 36 bcf/d are permitted to export natural gas for a minimum of twenty years, then the total permitted amount of natural gas would total approximately 263 Tcf of natural gas or approximately 88% of the current proven natural gas reserves in the lower 48 as provided by the EIA.[101] While expectations for natural gas resources are substantially in excess of the current

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[97] *Panhandle Producers*, 822 F.2d at 1110-1111, 1113 (emphasis added, internal quotation marks omitted); 1984 Guidelines at 8-9 (the "guidelines do not establish binding and inflexible rules; rather they set forth certain rebuttable presumptions and contemplate flexible application" of enumerated factors for consideration in the "public interest" analysis "to the facts of individual cases.")

[98] *See* 10 C.F.R. § 590.404.

[99] Delfin Application at 21. *See, e.g.*, Application of Dominion Cove Point LNG, LP for Long-Term Authorization to Export Liquefied Natural Gas, 5, *available at* http://www.fossil.energy.gov/programs/gasregulation/authorizations/2011_applications/11-128-LNG.pdf ("[t]he relatively small amount of LNG exports proposed by DCP could not possibly pose any threat to the security of domestic natural gas supply"); Application of CE FLNG, LLC for Long-Term Multi-Contract Authorizations to Export Liquefied Natural Gas to Free Trade Agreement and Non-Free Trade Agreement Nations, 9, *available at* http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_123lng.pdf; Application of Golden Pass Products LLC for Long-Term Authorization to Export Liquefied Natural Gas to Non-Free Trade Agreement Countries, 20, *available at* http://www.fossil.energy.gov/programs/gasregulation/authorizations/ 2012_applications/12_156_lng.pdf.

[100] U.S. Energy Information Administration, *Natural Gas Consumption by End Use*, (Apr. 30, 2014), http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm.

[101] U.S. Energy Administration, *Natural Gas Reserves Summary as of Dec. 31*, (Apr. 10, 2014), http://www.eia.gov/dnav/ng/ng_enr_sum_a_epg0_r11_bcf_a.htm. *See also* Gail Tverberg, *The Absurdity of US Natural Gas Exports*, Our Finite World (Mar. 31, 2014), http://ourfiniteworld.com/2014/03/31/the-absurdity-of-us-natural-gas-exports/.

proven reserves, those expectations have yet to reach the level of certainty to qualify as proven by the EIA. As a result of the DOE/FE's actions, nearly the entire current proven reserve base of natural gas in the lower 48 states would be effectively first pledged to higher priced international markets. Contrary to Delfin's assertions that natural gas can easily serve all domestic and export needs, the evidence is that approval of the bulk of current applications would collapse domestic supply and violate the core consumer protection mandate of the NGA.

6. National Energy Requirements

If Delfin, and DOE/FE in prior orders, have given short shrift to the purposes of the NGA and the countervailing evidence of harm to the public interest, they have given even less thought to the other factors enumerated in the 1984 Guidelines. DOE identified national energy requirements as the second most crucial factor. The LNG Export Studies generally take a business as usual approach to natural gas usage in the United States. They assume, in other words, that usage will rise in several sectors in response to low gas prices in accordance with the elasticity assumptions built into their models. They do not consider the many federal and state policies, market trends, and current regional shortages that indicate higher demand. For instance, state law targets mandating and incentivizing renewable energy generation are steadily increasing. As more intermittent renewable energy generation is brought online, the need for fast ramping natural gas generation to help balance the intermittency will increase.[102] Further, gas-fired distributed generation deployments, including combined heat and power and microgrids are projected to increase significantly due to growing regulatory and market recognition of the environmental, economic, energy efficiency, security and resiliency benefits of these systems.[103]

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[102] *See* Tamar Wilner, *State RPSs 'To Drive 250 Percent Renewables Growth'*, Wind Power Monthly, July 8, 2010, *available at* http://www.windpowermonthly.com/article/1014902/state-rpss-to-drive-250-percent-renewables-growth ("The analysis by IHS Emerging Energy Research estimates that renewables demand across states with binding RESs – also known as renewable portfolio standards (RPSs) – will grow from a projected 137TWh in 2010 to 479TWh in 2025."). *See also* Scott Institute for Energy Innovation, *Managing Variable Energy Resources to Increase Renewable Electricity's Contribution to the* Grid, Carnegie Mellon University, 17 (May 2013) *available at* http://www.cmu.edu/energy/public-policy/renewable-energy-guide.pdf (noting the role of fast ramping natural gas fired generation in balancing the increase of variable renewable generation).

[103] *See generally* Jenny Heeter and Lori Bird, *Including Alternative Resources in State Renewable Portfolio Standards: Current Design and Implementation Experience*, National Renewable Energy Laboratory (November 2012), *available at* http://www.nrel.gov/docs/fy13osti/55979.pdf (noting that certain states allow for combined heat and power to supply a portion of their Renewable Portfolio Standard mandate due to the energy efficiency of these electrical and thermal resources). *See also*, *Bullish Outlook for Commercial CHP Sector*, Cogeneration and On-site Power Production Magazine (January 3, 2012), *available at* http://www.cospp.com/articles/print/volume-14/issue-2/features/bullish-outlook-for-commercial-chp-sector.html ("A recent report by Pike Research… [finds that] a growing number of commercial users are installing CHP systems as a means of reducing operating costs, improving

Indeed, overall the percentage of natural gas generation in the domestic power supply mix has been increasing since 2004. [104] Further, contrary to the projections by DOE/FE and the LNG Export Studies, planned coal retirements are accelerating[105] and coal-fired generation is

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power reliability and reducing carbon emissions. According to the report, this market for CHP will significantly grow from US$2.2 billion in 2012 to over $11 billion in 2022….But perhaps the outlook for CHP now burns brightest in the US, after President Barack Obama's September 2012 decision to set binding targets for the proliferation of CHP plants by 2020 a move welcomed as a game changer by the cogeneration industry."); Accelerating Investment in Industrial Energy Efficiency, Exec. Order No. 13624, 77 Fed. Reg. 54779 (Aug. 30, 2012) (" Sec. 2. Encouraging Investment in Industrial Efficiency. The Departments of Energy, Commerce, and Agriculture, and the Environmental Protection Agency, in coordination with the National Economic Council, the Domestic Policy Council, the Council on Environmental Quality, and the Office of Science and Technology Policy, shall coordinate policies to encourage investment in industrial efficiency in order to reduce costs for industrial users, improve U.S. competitiveness, create jobs, and reduce harmful air pollution. In doing so, they shall engage States, industrial companies, utility companies, and other stakeholders to accelerate this investment. Specifically, these agencies shall, as appropriate and consistent with applicable law: (a) coordinate and strongly encourage efforts to achieve a national goal of deploying 40 gigawatts of new, cost effective industrial CHP in the United States by the end of 2020; (b) convene stakeholders, through a series of public workshops, to develop and encourage the use of best practice State policies and investment models that address the multiple barriers to investment in industrial energy efficiency and CHP; (c) utilize their respective relevant authorities and resources to encourage investment in industrial energy efficiency and CHP…"); Thomas Overton, *Feds and States Join Forces to Push CHP*, Power (Dec. 3, 2012), *available at* http://www.powermag.com/feds-and-states-join-forces-to-push-chp/ ("Several other states offer low-interest loans or tax credits for CHP. Of the 33 states with renewable portfolio standards, 23 include CHP in one form or another."); S.B. Van Broekhven et al., *Microgrid Study: Energy Security for DoD Installations*, Lincoln Laboratory, Massachusetts Institute of Technology (Jun. 18, 2012), *available at* http://www.serdp.org/content/download/15304/175087/version/3/file/MIT+LL+DoD+Microgrid+Study+TR-1164+18Jun12.pdf; Department of Defense Strategic Environmental Research Program, *DoD Study Finds Microgrids Offer Improved Energy Security for DoD Installations* (Jul. 10, 2012), *available at* http://www.serdp.org/News-and-Events/News-Announcements/Program-News/DoD-study-finds-microgrids-offer-improved-energy-security-for-DoD-installations (noting the MIT analysis confirmed the value of microgrids to DoD. The combination of on-site energy generation and storage, together with a microgrid's ability to manage local energy supply and demand, allow installations to shed non-essential loads and maintain mission-critical loads if the electric grid is disrupted. Further, the report illustrates the largely untapped potential of moving to smarter, next generation microgrids that would accommodate far greater penetration of renewable energy sources, as well as tighter integration with the electrical grid); Navigant Research, *Annual Microgrid Capacity Installations Will Increase Nearly Fivefold by 2020* (Apr. 10, 2014), *available at* http://www.navigantresearch.com/newsroom/annual-microgrid-capacity-installations-will-increase-nearly-fivefold-by-2020 ("North America will continue to be the largest regional market for microgrid installations over the next 6 years, report concludes…'In the United States, in particular, the increasing frequency of severe weather is prompting utilities to reconsider their historic opposition to customer-owned microgrids that can disconnect from the larger grid and continue to function, allowing critical mission functions to stay up and running.' North America is currently the largest region for microgrids today, and will likely continue to be through 2020, according to the report.").

[104] *See* U.S. Energy Information Administration, *Electric Power Monthly*, *Table 1.1 Net Generation by Energy Source for February 2014* (Apr. 22, 2014), www.eia.gov/electricity/monthly/epm_table_grapher. cfm?t=epmt_1_1.

[105] *See generally* U.S. Energy Information Administration, *Today in Energy*, *Annual Energy Outlook 2014 Projects More Coal-fired Power Plant Retirements by 2016 Than Have Been Scheduled* (Feb. 14, 2014), http://www.eia.gov/todayinenergy/detail.cfm?id=15031 ("The Annual Energy Outlook 2014 (AEO2014) Reference Case projects that a total of 60 gigawatts (GW) of capacity will retire by 2020…"). *See also* John Downey, *Duke Energy Eyes Closing More Coal Plants in Response to Dan River Spill*, Charlotte Business Journal (last updated Mar. 19, 2014), *available at* http://www.bizjournals.com/charlotte/blog/power_city/2014/03/duke-energy-eyes-closing-more-coal-plants-in.html?page=all (Noting the newly highlighted coal ash clean-up costs are helping to force more coal plant retirements: "Little noticed as North Carolina and Duke Energy wrangle over coal ash issues is CEO Lynn Good's recent suggestion that Duke may abandon 940 megawatts of coal capacity beyond long-

declining. This is due to a number of factors, including newly implemented emissions and water cooling requirements being imposed by the EPA.[106]

Substantial additional demand can also be expected in two other sectors: transportation and manufacturing. In the transportation sector Environmental Protection Agency Administrator, Gina McCarthy points to initiatives across the United States:

> State governors from both parties are also developing a bipartisan, multistate commitment to purchase thousands of natural gas vehicles. "They recognize the abundance of natural gas, and they are looking for innovative ways to bring that opportunity to 22 states," McCarthy said. "States are incubators of innovation, and they have been for years."[107]

Gulf coast oil rig service operator Harvey Gulf Marine is now deploying a fleet of LNG powered rig tending vessels, and is developing an LNG bunkering facility to serve its fleet.[108] These disruptive technologies and policy initiatives will substantially increase the demand for natural gas in the transportation sector.[109]

The manufacturing sector can also be expected to respond to an adequate supply of energy at reasonable costs with substantial increases in demand. As discussed above, current lower prices are among the factors stimulating growth in manufacturing. The Delfin Application points to President Obama's National Export Initiative (NEI)[110] as support for increased LNG

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planned plant retirements already announced. If that were to happen, it would mark the first time that Duke will shut down what it has considered relatively modern coal units already outfitted with advanced pollution controls… In Good's four-page letter sent last week to Gov. Pat McCrory and John Skvarla, secretary of the N.C. Department of Environment and Natural Resources, she proposed converting ash ponds at two currently operating plants to dry ash storage or shutting down the plants….The letter was a response to demands by the state that Duke provide details on what it intended to do to ensure safe storage of coal ash after a massive spill last month on the Dan River. A pipe under the main coal ash pond at Duke's Dan River Steam Station broke on Feb. 2 and spewed up to 39,000 tons of coal ash into the river.").

[106] *See* U.S. Energy Information Administration, *Assumptions to the Annual Energy Outlook 2013*, 101 (May 2013), *available at* http://www.eia.gov/forecasts/aeo/assumptions/pdf/0554(2013).pdf.

[107] BIC Magazine, *McCarthy: Energy and Environment Are Two Sides of the Same Coin*, (last updated Apr. 30, 2014), http://bicmagazine.com/epa-gina-mccarthy-energy-environment-ceraweek.

[108] NGV Global News, *Harvey Gulf Builds LNG Bunkering Facility for Expanding Fleet of OSVs*, (Jun. 15, 2013), *available at* http://www.ngvglobal.com/harvey-gulf-builds-lng-bunkering-facility-for-expanding-fleet-of-osvs-0615.

[109] TIAX, *U.S. and Canadian Natural Gas Vehicle Market Analysis: Compressed Natural Gas Infrastructure, Final Report*, America's Natural Gas Alliance, http://www.anga.us/media/content/F7D3861D-9ADE-7964-0C27B6F29D0A662B/files/11_1803_anga_module5_cng_dd10.pdf (last visited May 27, 2014).

[110] National Export Initiative, Exec. Order No. 13534, 75 Fed. Reg. 12433 (Mar. 11, 2010).

exports.[111] This reliance is misplaced. The NEI is intended to support exports by small and medium sized businesses. Delfin presents no evidence that any small or medium sized businesses will become an exporter of natural gas. The evidence of the applications submitted thus far to DOE/FE is that the exporters will be major international corporations many of whom may not book profits or pay taxes in the United States on their LNG exports. By contrast reasonably priced natural gas in the United States will benefit a broad array of manufacturing businesses including, particularly. Small to medium sized business that cannot adequately hedge their own supplies, and will benefit an even wider array of businesses including businesses in the services and e-commerce sectors through reduced electricity prices.

7. The Use of Natural Gas in the Electricity Sector

Consumers not only use natural gas directly, but natural gas has been generally growing as a significant source of electricity generation as coal has been declining.[112] Accordingly, stable domestic electricity prices are dependent on the security and stability of our domestic natural gas supply. This linkage is fundamental to accurately assessing domestic natural gas demand and addressing national energy requirements in the public interest review.

In electricity markets, gas-fired generators often set the market clearing prices, and the cost of their fuel is the main component of those prices. In many regions, as the delivered cost of natural gas increases, so do power prices (the delivered cost of natural gas is the actual price paid by a gas end-user, such as a power plant, for the commodity itself and the cost of transporting the commodity from the wellhead to the location of the end-user).[113] Electricity generation has led the steady growth of domestic natural gas demand since 2009 and is expected to continue well into the future. However, while the LNG Export Studies recognize that electricity generation has led to growth in national annual average natural gas demand, they have not addressed the critical effect on electricity markets. In many regions the natural gas pipeline transportation system is insufficient to accommodate the upper ranges of demand. As a result, in times of high demand, the cost of transporting natural gas can rise to several times the commodity cost of the gas itself and the actual delivered cost of gas skyrockets. In the winter of 2013 - 2014 consumers in

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[111] Delfin Application at 25.

[112] *See* U.S. Energy Information Administration, *Electric Power Monthly, Table 1.1 Net Generation by Energy Source for February 2014* (Apr. 22, 2014), www.eia.gov/electricity/monthly/epm_table_grapher. cfm?t=epmt_1_1.

[113] The cost of transporting natural gas and the pricing differential between gas delivery points is sometimes referred to as the "transportation basis or basis."

several regions of the United States experienced extraordinary electricity price spikes resulting from increased domestic natural gas demand and prices. The extreme cold weather[114] saw increased natural gas demand for both heating and electricity generation. For instance, in the economic powerhouse of the Northeast and the Mid-Atlantic,[115] regional natural gas transportation infrastructure was insufficient to deliver the volume of gas required to meet high regional demand.[116] As natural gas end-users demanded more gas deliveries through pipelines that were already at or near full capacity, the price to transport gas increased to several times the commodity cost of the natural gas itself.[117] As the delivered cost of natural gas surged, so did electricity market pricing.[118]

For example, the world's largest organized electricity market – the PJM Regional Transmission Organization located in the Mid-Atlantic – experienced wholesale electricity pricing as high a $1900 / MWh due to the increased natural gas demand and gas prices as high as $140 / MMBtus.[119] By contrast, in recent years PJM experienced electricity pricing averaging well below $50 / MWh reflecting natural gas pricing generally well below $7/MMBtus.[120] The natural gas demand driven run up in electricity prices forced PJM to ask the Federal Energy Regulatory Commission ("FERC") to waive its cap on cost-based electricity price offers, usually

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[114] *See infra* n.

[115] *See* The Atlantic, *The Dozen Regional Powerhouse Driving the U.S. Economy* (March 12, 2014), available at http://www.theatlanticcities.com/jobs-and-economy/2014/03/dozen-regional-powerhouses-driving-us-economy/8575/ (noting the combined Northeast and Mid-Atlantic region and the largest economic region in the country: "Bos-Wash stretches from Boston through New York, Philadelphia and Baltimore to Washington, D.C., a total of 500 miles. It is home to 18 percent of the U.S. population – 56.5 million people. The region generates $3.75 trillion in economic output, meaning that, if Bos-Wash were a separate country, it would be the fourth largest economy in the world, behind only the U.S., China, and Japan and ahead of Germany.").

[116] *See* The Energy Information Administration, *Issues and Trends: Natural Gas* (Feb. 7, 2014), *available at* http://www.eia.gov/naturalgas/issuesandtrends/deliverysystem/2013/ .

[117] *See id*. "During the past two winters, New England natural gas winter prices have risen significantly. The average bidweek natural gas price reached a high of $14.52 per million British thermal units (MMBtu) for December 2013 and more than $20/MMBtu for January 2014…The high winter prices in New England suggest a natural gas delivery system that is stretched significantly."

[118] *See* EIA February 2014 Update.

[119] *PJM Interconnection L.L.C.*, 146 FERC ¶ 61,078 at 40 ("PJM explains that published natural gas prices at two key city gates in the PJM region recently averaged over $120/MMbtu and included prices up to $140/MMbtu").

[120] *See* Monitoring Analytics, *Independent Market Monitor PJM State of the Market Report 2013*, 60 (Mar. 13, 2014), *available at* http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2013.shtml ("PJM Real-Time Energy Market prices increased in 2013 compared to 2012. The system average LMP was 10.4 percent higher in 2013 than in 2012, $36.55 per MWh versus $33.11 per MWh. The loadweighted average LMP was 9.7 percent higher in 2013 than in 2012, $38.66 per MWh versus $35.23 per MWh. PJM Day-Ahead Energy Market Prices increased in 2013 compared to 2012. The system average LMP was 13.3 percent higher in 2013 than in 2012, $37.15 per MWh versus $32.79 per MWh. The loadweighted average LMP was 12.7 percent higher in 2013 than in 2012, $38.93 per MWh versus $34.55 per MWh."), and at 103 (Figure 3-26 Spot average fuel price comparison with fuel delivery charges: 2012 through 2013 ($/MMBtu)).

set at $1,000. FERC approved the wavier recognizing the extreme natural gas prices caused by cold weather-induced gas demand.[121] EIA's February 2014 Electricity Monthly Update captured the nation's recent experience with extreme volatility in natural gas prices and resulting power prices due to natural gas demand vastly exceeding the carrying capacity of our pipeline and storage infrastructure and our continued reliance on imported natural gas:

> Daily wholesale electricity prices in February were considerably lower in eastern and midwestern locations than in January, when 12-month range peak levels were set in New England, New York, the Mid-Atlantic, the Midwest and Louisiana. In New England, ISONE reached $236/MWh on February 28. On February 11, New York (NYISO) hit $227/MWh, the Mid-Atlantic (PJM) rose to $208/MWh and the Midwest (MISO) reached $111/MWh, all peak prices for the month. Though elevated, these prices are significantly lower than the $300/MWh to nearly $700/MWh peaks reached the previous month at those locations. The lower peak electricity prices in February in these areas were largely a result of lower wholesale natural gas prices. In New England, Algonquin prices peaked at $31.50/MMBtu on February 28, down from a $78/MMBtu peak reached in January. In New York, Transco Zone 6-New York prices peaked at just under $25/MMBtu, down from a $121/MMBtu January high. In the Mid-Atlantic, Tetco M-3 prices peaked at $21/MMBtu on February 11, down from a $92/MMBtu peak in January. And in the Midwest, Chicago Citygates prices peaked at $23/MMBtu on February 6, down from a $33/MMBtu peak in January. In Texas and the western U.S., wholesale electricity prices were considerably higher in February than in January and set twelve-month range highs in Texas (ERCOT), the Southwest (Palo Verde), Southern and Northern California and the Northwest (Mid-C). On February 6, monthly peak prices were set in Texas ($185/MWh), the Southwest ($172/MWh), Northern CA

[121] *PJM Interconnection L.L.C.*, 146 FERC ¶ 61,078 at 1.

> ($135/MWh) and Southern CA ($131/MWh) and the Northwest ($218/MWh). The higher peak wholesale electricity prices in Texas and the western U.S. in February reflected sharply higher wholesale natural gas prices in those areas, which were much higher than in January and set new high twelve-month ranges, as well as all-time high prices at several locations in the Rockies and Midwest. As with electricity prices, all peak February prices occurred on February 6. On that day, a large area of cold weather drove a spike in natural gas demand, resulting in a number of critical pipeline notices in the West and Midwest. Pipeline operators struggled to handle the increased demand levels while dealing with pipeline constraints, lower Canadian imports into the Northwest and natural gas storage levels depleted from the long winter. In Texas, prices exceeded $11/MMBtu at the Houston Ship Channel, in Southern CA, SoCal Border prices reached $21/MMBtu, and prices in the Southwest, Northern CA and the Northwest all approached $25/MMBtu.[122]

FERC has recently acted to "improve the coordination and scheduling of natural gas pipeline capacity with electricity markets in light of increased reliance on natural gas by electric generators." In issuing three interrelated orders Acting FERC Chairman Cheryl LA Fleur stated:

> This past winter has highlighted the critical and growing interdependence of natural gas pipelines and electricity markets … today's orders take steps to recognize and address that interdependence to optimize the use of our gas and electric networks for the benefit of all customers.[123]

FERC has recognized, and is moving to address, the critical linkage between the natural gas and power markets. It is important that DOE/FE also assess this linkage to accurately gauge domestic gas demand as a basis for its public interest review. Real world conditions are

[122] *See* EIA February 2014 Update.

[123] Federal Energy Regulatory Commission, *News Release: FERC Proposed Reforms to Improve Gas-Electric Coordination* (Mar. 20, 2014), http://www.ferc.gov/media/news-releases/2014/2014-1/03-20-14-M-1.asp.

highlighting that the LNG Export Studies have significantly underestimated actual seasonal and regional domestic natural gas demand by ignoring regional gas infrastructure limitations. As domestic natural gas transportation infrastructure is expanded, gas demand can be expected to increase as higher delivered volumes of gas priced near commodity cost (without extreme transportation costs) are available to meet the full scope of demand. Presently, given that the conditions creating extreme gas and power prices borne by consumers will likely reoccur, ignoring this linkage runs contrary to the NGA' s consumer protection mandate.

In granting long-term export licenses DOE is supporting the construction of export infrastructure over expansion of domestic gas transportation infrastructure. In the uncertain forward market created by electric deregulation, operators of gas-fired generation are reluctant to enter into long-term fixed natural gas transportation contracts that would support the financing of new gas pipelines. While FERC, not DOE, has jurisdiction over most of the regulatory issues affecting gas pipelines, DOE/FE should consult with FERC to assure that its grant of export applications is not disadvantaging the expansion of transportation infrastructure to meet critical domestic demand.

8. National Security and Foreign Policy Considerations.

Last, but hardly least, the 1984 Guidelines state that the ERA will consider international trade policy, foreign policy and national security interests that bear on an application.[124] In connection, the DOE states that, "the Department of State will be consulted in accordance with Section 102(10) of the DOE Organization Act."[125] That Section actually contemplates broader consultation, as it lists the following as a purpose of the DOE Organization Act:

> [T]o establish and implement through the Department, in coordination with the Secretaries of State, Treasury, and Defense, policies regarding international energy issues that have a direct impact on research, development, utilization, supply, and conservation of energy in the United States and to undertake activities involving the integration of domestic and foreign policy relating to energy, including provision of independent technical

[124] 1984 Guidelines at 10.
[125] *Id.*

> advice to the President on international negotiations involving energy resources, energy technologies, or nuclear weapons issues, except that the Secretary of State shall continue to exercise primary authority for the conduct of foreign policy relating to energy and nuclear nonproliferation, pursuant to policy guidelines established by the President.[126]

In deciding on the seven previously approved applications, there is no evidence that DOE/FE consulted with the State Department, Treasury or the Department of Defense to aid in its consideration of the trade, national security and foreign policy aspects of the public interest determination.

In absence of the inter-agency consultation encouraged by the NGA and of any evidentiary finding, the Delfin Application follows DOE/FE's leap of faith by assuming that exports will benefit our allies. The DOE/FE from its Lake Charles and Cove Point orders states:

> to 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…[127]

Delfin, however, provides no evidence that acting to approve this application will provide our allies with natural gas, counteract concentration within the global natural gas markets or advance the national security and foreign policy components of the public interest. As discussed previously, the export authority requested by this Application is "open market" with high optionality. The exported natural gas will go to the highest bidder, not the bidder aligned with our national security and foreign policy interests. Long-term export contracts with China as are much as an option as contracts with Japan or the Ukraine.

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[126] DOE Organization Act, § 102(10), 42 U.S.C. § 7112(10).

[127] Order Conditionally Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Cove Point LNG Terminal to Non-Free Trade Agreement Nations, DOE/FE Order No. 3331 at 140-141 (Sep. 11, 2013); and Order Conditionally Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Lake Charles Terminal to Non-Free Trade Agreement Nations, DOE/FE Order No. 3324 at 124 (Aug. 7, 2013).

Delfin also provides no evidence that approving its application will do anything to counteract concentration in the volatile, oligopolistic and inefficient international natural gas markets. DOE/FE makes the leap that by diversifying international supply an inefficient and uncertain international market would respond with efficiency and certainty.[128] For this to happen, many of the actors in the international natural gas markets would need to dramatically change their behavior. The international natural gas market (and the market for its competitive substitute, oil) is dominated by state-controlled actors that often exercise significant vertical and horizontal market power. The markets are characterized by bilateral contracts and limited price transparency, and it is common for these states to utilize their market position to pursue political goals that are inconsistent with efficient international markets.[129] The Center for Strategic and International Studies in testimony presented to the House Foreign Affairs Subcommittee on Europe, Eurasia and Emerging Threats in a hearing on the "Emerging Threat of Resource Wars" recognized that international competition for energy resources "without political coercion or non-transparent business practices" is a goal not a common reality.[130] Giving an example of unpredictable market actors, the testimony notes "It is too early to know whether Chinese oil companies and Indian parastatals will transform into international oil companies just as BP, Total, ENI and Statoil did with rather similar origins in state ownership and control. The example of Russia, where majority-state owned and controlled Rosneft and Gazprom dominate its oil and gas industries, suggests this development is not inevitable."[131] Russia's recent threats to utilize the natural gas market to coerce Ukraine are a reminder that state-controlled actors may exercise market power and for strategic rather than economic goals. As another panelist at the same hearing confirmed "We can….expect ongoing state-backed competition for natural resources….[And] use of energy itself as a strategic tool or even as a weapon" by state-controlled actors. [132]

The Delfin application is an example of both the uncertainty that our exports will reach our allies and the difficulty in tracking the various manifestations of international natural gas market power and concentration. Delfin states that it is an indirect subsidiary of Fairwood

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[128] *Id.*
[129] *See supra* at n.56 and accompanying text.
[130] *Emerging Threat of Resource Wars*: *Hearing Before the H. Subcommittee on Europe, Eurasia, and Emerging Threats of the Comm. On Foreign Aff.*, 113 Cong., 5 (Jul. 25, 2013) (hereinafter "Emerging Threat Testimony") (testimony of Edward C. Chow, Senior Fellow, Energy and National Security Program, Center for Strategic and International Studies)
[131] *Id.*
[132] Emerging Threat Testimony at 1-2 (testimony of Neil R. Brown, German Marshall Fund of the United States).

Welbeck Natural Resources Pte. Ltd., a Singapore-based subsidiary of the Fairwood Group, an Indian-based conglomerate.[133]

Given the unspecified, open ended market contracting patterns and a volatile, oligopolistic and inefficient international natural gas market, there is neither any evidence, nor any assurance, that approval of this application will benefit this country's allies in any way. Additionally, without evidentiary review or inter-agency consultation on possible trade, national security and foreign policy implications, DOE/FE has decided to rely on the uncertain international natural gas market for the "limits [on] how high U.S. natural gas prices can rise under pressure of LNG exporters,"[134] raising the specter of having to project military force to protect domestic consumer pricing. Even those supporting LNG exports recognize "Energy translates into conflict. . .Energy has an imposing presence in diverse national security concerns. . .In the extreme, the United States can be compelled into military action to ensure steady [energy] supply lines."[135] Neither Delfin nor DOE/FE in its prior export approvals has substantively addressed the national security and foreign policy aspects of the public interest that are articulated in the 1984 Guidelines. For V4EI, whose members, fellow veterans, and their families and communities, may be directly or indirectly impacted by the need project military force to protect energy interests, this incomplete consideration is unacceptable.

9. Conclusion

DOE should deny Delfin's application for Long-Term Authorization for LNG Export. The requested authorization would *not* be consistent with the public interest and runs wholly contrary to the long-standing purpose of the NGA to protect American consumers from unreasonably high prices that principally serve to increase profits for natural gas companies. Delfin's claim that its application is in the public interest rings hollow in light of the sparse record it has developed on this application, which is entirely devoid of "substantial evidence" on a myriad of relevant factors—including national energy requirements, security of supply, international trade policies, national security interests, foreign policy considerations, and contractual details—all of which are explicitly mentioned in the DOE's 1984 Guidelines as important to a proper public interest analysis. Moreover, Delfin has failed to explain how the

[133] Delfin Application at 2-3.
[134] NERA Study at 6.
[135] Emerging Threat Testimony at 1-2.

pro-competition statements it cherry-picks from this thirty-year old *import* policy statement apply to its requested authorization to *export* into a volatile, oligopolistic, and inefficient international natural gas market - a far cry from the free market assumed by the 1984 Guidelines or the NERA Study. Neither does Delfin's reliance on the LNG Export Studies fix the deficiencies in its application. The LNG Export Studies hinge on a simplistic view of current domestic demand; fail to take into account research demonstrating that commodity exports can actually injure the economy of the exporter; ignore the benefits to the manufacturing sector resulting from access to competitively priced natural gas; disregard the very real impacts of domestic and international price volatility; and ignore the evidence provided by the sophisticated investors who are backing this and other LNG export terminal projects. Perhaps most tellingly, the LNG Export Studies are in agreement that LNG export authorization will cause natural gas prices to rise to the detriment of the American consumer. Under these circumstances, to grant authorization as Delfin has requested would turn the NGA on its head. For these, and the reasons expressed above, V4EI moves to intervene in this proceeding, or in the alternative submits this filing in protest to Delfin's application for Long-Term Authorization for LNG Export.

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

In the Matter of	)	
	)	**FE Docket No. 13-147-LNG**
DELFIN LNG, LLC	)	

CERTIFICATE OF SERVICE

I, C. Baird Brown, duly authorized representative of the V4EI LLC, hereby certify that I caused the above documents to be served on the applicant in accordance with 10 C.F.R. § 590.107, on May 27, 2014 via email and regular U.S. mail.

C. Baird Brown
Drinker Biddle & Reath LLP
One Logan Square, Suite 2000
Philadelphia, PA 19103-6996
Email: Baird.Brown@dbr.com

Dated: May 27, 2014

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

In the Matter of	)	
	)	**FE Docket No. 13-147-LNG**
DELFIN LNG, LLC	)	

CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

Pursuant to C.F.R. § 590.103(b), I, C. Baird Brown, hereby certify that I am a duly authorized representative of the V4EI LLC ("V4EI"), and that I am authorized to sign and file with the Department of Energy, Office of Fossil Energy, on behalf of V4EI, the foregoing documents and in the above captioned proceeding.

C. Baird Brown
Drinker Biddle & Reath LLP
One Logan Square, Suite 2000
Philadelphia, PA 19103-6996
Email: Baird.Brown@dbr.com

Dated: May 27, 2014

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

In the Matter of	)	
	)	**FE Docket No. 13-147-LNG**
DELFIN LNG, LLC	)	

COUNTY OF PHILADELPHIA :
: ss
COMMONWEALTH OF PENNSYLVANIA:

VERIFICATION

Pursuant to C.F.R. § 590.103(b), C. Baird Brown, affirms that he is authorized to execute this verification, that he has read the foregoing document, and that facts stated herein are true and correct to the best of his knowledge, information and belief.

C. Baird Brown
Drinker Biddle & Reath LLP
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Philadelphia, PA 19103-6996
Email: Baird.Brown@dbr.com

Dated: May 27, 2014

Sworn to and subscribed before me
this 27th day of May, 2014

Notary Public

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
MELISSA D. BRONZINI, Notary Public
City of Philadelphia, Phila. County
My Commission Expires September 6, 2016