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

LNG Development Company, LLC (d/b/a Oregon LNG) FE Docket No. 12-77-LNG

MOTION FOR LEAVE TO INTERVENE AND PROTEST OF THE AMERICAN PUBLIC GAS ASSOCIATION

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Pursuant to Sections 590.303 and 590.304 of the Administrative Procedures with Respect

to the Import and Export of Natural Gas,¹ the American Public Gas Association ("APGA") files

this motion to intervene and protest in the above captioned proceeding. In support, APGA states

the following:

I. COMMUNICATIONS

Any communications regarding this pleading or this proceeding should be addressed to:

David Schryver Executive Vice President American Public Gas Association Suite C-4 201 Massachusetts Avenue, NE Washington, DC 20002 <u>dschryver@apga.org</u>

William T. Miller Miller, Balis & O'Neil, P.C. Twelfth Floor 1015 Fifteenth Street, N.W. Washington, D.C. 20005 Telephone: (202) 296-2960 wmiller@mbolaw.com

¹ 10 C.F. R. §§ 590.303, 590.304 (2012).

II. INTERVENTION

APGA is the national, non-profit association of publicly-owned natural gas distribution systems, with some 700 members in 36 states. Overall, there are some 950 publicly-owned systems in the United States. Publicly-owned gas systems are not-for-profit retail distribution entities that are owned by, and accountable to, the citizens they serve. They include municipal gas distribution systems, public utility districts, county districts, and other public agencies that have natural gas distribution facilities. APGA members purchase interstate natural gas transportation services, usually as captive customers of a single interstate pipeline, at rates and under terms and conditions that are regulated by the Federal Energy Regulatory Commission ("FERC"). APGA's members are active participants in the domestic market for natural gas where they secure the supplies of natural gas to serve their end users.

On March 16, 2012, LNG Development Company, LLC, d/b/a Oregon LNG ("Oregon LNG") filed an application in FE Docket No. 12-77-LNG seeking long-term, multi-contract authorization to export approximately 1.3 billion cubic feet per day ("Bcf/d") of domestic natural gas as liquefied natural gas ("LNG") by vessel ("Application"). Oregon LNG seeks authorization to export LNG from a yet to be developed LNG export terminal in Clatsop County, Oregon to any country with which the United States does not have a Free Trade Agreement requiring the national treatment for trade in natural gas and LNG, that has or in the future develops the capacity to import LNG, and with which trade is not prohibited by U.S. law or policy ("non-FTA Nations").

APGA has a direct and substantial interest in this proceeding that cannot be adequately represented by any other party. APGA respectfully submits that good cause exists to grant its motion to intervene.

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III. PROTEST

Oregon LNG's request for authority to export domestic² LNG to non-FTA Nations is inconsistent with the public interest and should be denied. Earlier this year, the U.S. Energy Information Administration ("EIA") released a report on the effect of LNG exports in response to a U.S. Department of Energy Office of Fossil Energy ("DOE/FE") inquiry.³ The EIA Export Report concludes that exporting domestic LNG will significantly increase domestic natural gas prices. In addition, EIA recently issued the full version of its Annual Energy Outlook 2012 ("*AEO2012*"), which reduces somewhat the level of estimated technically recoverable natural gas in the United States. These new assessments undermine the basis for Oregon LNG's application, which is premised on the assumption that vast recoverable reserves will keep domestic gas prices low despite LNG exports.

Instead, it appears likely that exports will lead to potentially significant price increases that will jeopardize the viability of natural gas as a "bridge-fuel" in the transition away from carbon-intensive and otherwise environmentally problematic coal-fired electric generation. Inflated natural gas prices will also inhibit efforts to foster natural gas as a transportation fuel, which is important to wean the U.S. from its historic, dangerous dependence on foreign oil. Furthermore, high natural gas prices and resulting increases in the price of electricity will reverse the nascent trend toward renewed domestic manufacturing before it gains momentum.

Eventually, Oregon LNG's plan to export LNG will not prove economically viable. Economically recoverable domestic natural gas may prove less robust than the revised

² Although a portion of the natural gas exported by Oregon LNG may be produced in Canada, it will be commingled with U.S. produced natural gas in the domestic market prior to export. Therefore, Oregon LNG's application should be considered a request for authority to export domestic natural gas.

³ Effect of Increased Natural Gas Exports on Domestic Energy Markets, U.S. Energy Information Administration (January 2012) ("EIA Export Report").

projections, especially given associated environmental costs and concerns regarding the longterm productivity of shale gas wells. These matters aside, foreign alternatives will one day remove the price arbitrage opportunity that Oregon LNG seeks to take advantage of, as natural gas reserves from shale formations and export capacity expand around the world.

A. Background

Domestic, non-conventional natural gas production has increased dramatically in a few short years, upending the business model of would-be LNG importers, including Oregon LNG. In 2008, Oregon LNG applied for authorization from the FERC to construct and operate an LNG terminal as an import facility in the same location as its proposed export facility in Clatsop County, Oregon.⁴ When Oregon LNG planned its import terminal, it gambled on long-term natural gas supply trends. Its bet did not pan out, as evidenced by the current application. Oregon LNG submitted its application in the instant proceeding in a bid to salvage its recent investments.

So far, nineteen companies have applied to export domestic LNG from the contiguous United States to FTA and Non-FTA nations based on the promise of huge unconventional domestic gas reserves.⁵ Most of those nineteen applicants own or are affiliated with companies that own existing or previously planned LNG import terminals. The total export capacity applied for to date is 27.58 Bcf/d and 21.06 Bcf/d to FTA and Non-FTA nations, respectively.⁶ Total marketed natural gas production was approximately 66 Bcf/d in the U.S. in 2011;⁷ therefore,

⁶ Id.

⁴ LNG Development Co., LLC, Application for Authorization to Site, Construct and Operate LNG Import Facilities, Docket No. CP09-6-000 (Oct. 10, 2008).

⁵ Summary: Long-Term Applications Received by DOE/FE to Export Domestically Produced LNG from the Lower-48 States (as of October 12, 2012), available at <u>http://fossil.energy.gov/programs/gasregulation/reports/Long_Term_LNG_Export_10-12-12.pdf</u>

⁷ EIA Export Report at 1.

based on current marketed production, the total applied for export capacity would result in roughly 41% of current marketed production leaving the country. The combined volume of requested export authority is substantial by any measure.

DOE/FE previously granted Oregon LNG authority to export 9.6 million metric tons per year of LNG to any nation that has, or develops, the capacity to import LNG and with which the United States has, or enters into, a Free Trade Agreement requiring national treatment for trade in natural gas ("FTA Nations").⁸ The DOE/FE granted this authority pursuant to NGA section 3(c), which provides that applications to export shall be "deemed to be consistent with the public interest" and must be "granted without modification or delay."⁹ Pursuant to this mandate, the DOE/FE did not have discretion to consider the serious policy implications of granting this export authority and stated that its order "should not be read to indicate DOE's views" regarding the policy arguments raised in Oregon LNG's application.¹⁰

Despite the earlier, automatic grant of export authority, the DOE/FE has a duty to ensure that the application before it in the instant proceeding for broader export authority is not inconsistent with the public interest pursuant to NGA section 3(a).¹¹ APGA respectfully submits that Oregon LNG's proposal to export domestic LNG to non-FTA Nations is inconsistent with the public interest because it will increase domestic natural gas and electricity prices and will limit natural gas supply at a time when the nation has an opportunity to forge a path toward energy independence. Ultimately, exports by Oregon LNG will fail to compete with natural gas

⁸ LNG Development Co., LLC, FE Docket No. 12-48-LNG, DOE/FE Order No. 3100.

⁹ 15 U.S.C. § 717b(c) (2012).

¹⁰ Order No. 3100 at 4.

¹¹ 15 U.S.C. § 717b(a) (2012).

exports by other nations, saddling Clatsop County, Oregon with an underutilized white elephant LNG terminal.

B. Exports Will Increase Domestic Natural Gas Prices

The "public interest analysis of export applications" should be "focused on *domestic* need for natural gas," threats to *domestic* supply, and "other factors to the extent they are shown to be relevant."¹² Relatively low and stable domestic natural gas prices make natural gas competitive against coal and fuel oil and viable as a transportation fuel. The DOE/FE should not pursue policies that directly increase natural gas commodity prices for American consumers, thereby making natural gas less competitive in this country as a replacement for foreign-sourced fuels or for fuels that are less clean and more carbon-intensive.

i. Oregon LNG's Application Does Not Accurately Forecast the Impact of Exports on Domestic Prices

Oregon LNG commissioned a study by Navigant Consulting, Inc. to gauge the impact of its planned exports on domestic natural gas prices.¹³ The Navigant Study analyzed three scenarios. First, Navigant considered a "Reference Case," which accounts for the two approved export terminals in the contiguous United States and Canada with 2.0 Bcf/d in exports from the Sabine Pass export terminal in Louisiana and 0.8 Bcf/d in exports from the Kitimat export terminal in British Columbia. Second, the Navigant Study considered the effect of 1.0 Bcf/d of incremental exports from the Oregon LNG facility in addition to the exports considered in the Reference Case. Third, the Navigant Study considered an "Aggregate Export Case," which assumes 2.0 Bcf/d in additional exports from the Gulf Coast and 1 Bcf/d in exports from the

¹² Sabine Pass Liquefaction, LLC, Opinion and Order Denying Request for Review Under Section 3(c) of the Natural Gas Act, October 21, 2010, FE Docket No. 10-111-LNG.

¹³ Application at Appendix A, *LNG Development Co., LLC*, Navigant Consulting, Inc. (Apr. 13, 2012)("Navigant Study").

Atlantic Coast. The total volume of exports considered in the Aggregate Export Case comes to 6.8 Bcf/d for North America.

The Navigant Study failed to consider the cumulative impact of actual proposed exports.¹⁴ The total amount of export authority requested from the United States is far more significant than the 6.8 Bcf/d relied upon by Navigant in its Aggregate Export Case for both the U.S. and Canada. As indicated above, the total export capacity applied for to date from the contiguous United States is 27.58 Bcf/d and 21.6 Bcf/d to FTA and Non-FTA nations, respectively.¹⁵ In addition, Navigant factored in the proposed Kitimat LNG export facility but failed to include two other proposed export facilities in British Columbia and a proposed expansion at the Kitimat export facility.¹⁶ In this instance, the proposed Canadian facilities are particularly relevant because they would also export gas from Western Canada to Asian markets via the Pacific. The Navigant Study cannot be used to accurately gauge the impact of exports on domestic natural gas prices because it fails to account for the full scope of planned exports from the United States or from Canada.¹⁷

The Navigant Study submitted in the instant docket also failed to consider the possibility of another LNG terminal on the Oregon Coast, even though Jordan Cove Energy Project, L.P.

¹⁴ See Sabine Pass Liquefaction, LLC, FE Docket No. 10-111-LNG, Order No. 2961 at 33.

¹⁵ Summary: Long-Term Applications Received by DOE/FE to Export Domestically Produced LNG from the Lower-48 States (as of Oct. 12, 2012).

¹⁶ Evaluating the Prospects for Increased Exports of Liquefied Natural Gas from the United States, Brookings Institution, at 2 (January 2012) ("Brookings Report") ("According to FERC, there are currently three Canadian export facilities under consideration in British Columbia: a proposed 1.4 bcf/day terminal at Kitimat (initial production would start at 0.7 bcf/day), which received a 20-year export license in October 2011; a proposed 0.25 bcf/day facility at Douglas Island; and a potential 1 bcf/day facility at Prince Rupert Island"). In addition, there are now plans to export natural gas from a facility in Nova Scotia. See, Gary Park, Canada LNG Export Plans Shift to Country's East Coast, Gas Daily (Oct. 25, 2012).

¹⁷ The Navigant Study disregards the high volume of pending export applications on the assumption that domestic and international natural gas markets can only bear exports from North America at or around the 6.8 Bcf/d - the volume selected for Navigant's Aggregate Export Case. As further discussed below, authorizing large volumes of exports and approving numerous LNG export plans will lead to the initial overdevelopment of export facilities and their subsequent underutilization.

hired Navigant to do a similar price study just a few months prior for its proposed exports from a terminal near Coos Bay, Oregon in FE Docket No. 12-32-LNG. In addition, the Navigant Study also failed to consider the full 1.3 Bcf/d in export authority that Oregon LNG requested.

The Navigant Study also premised its price projections on ample volumes of technically recoverable natural gas, disregarding the fact that the EIA reduced its estimate of unproved technically recoverable gas in *AEO2012*. EIA now estimates that the "unproved technically recoverable gas in *AEO2012*. EIA now estimates that the "unproved technically recoverable resource (TRR) of shale gas for the United States is 482 trillion cubic feet."¹⁸ This number is "substantially below the estimate of 827 trillion cubic feet in *AEO2011*."¹⁹ This reduction "largely reflects a decrease in the estimate for the Marcellus Shale, from 410 trillion cubic feet to 141 trillion cubic feet," a reduction of over 65%.²⁰ EIA revised its Marcellus Shale estimates due to a U.S. Geological Survey ("USGS") report that concluded that there is only 84 trillion cubic feet of "undiscovered, technically recoverable natural gas" in the Marcellus Shale formation,²¹ and due to improved data from producers as drilling has expanded in the Marcellus area.²² Oregon LNG's application casts doubt on the EIA's reduced shale gas TRR and suggested that the EIA would increase its projection in the full version of the *AEO2012*.²³ The EIA, however, stuck with its reduced projection in the full version of the *AEO2012* published in June 2012.²⁴

¹⁸ EIA, Annual Energy Outlook 2012 Early Release at 9 (Jan. 2012) ("Early Release *AEO2012*").

¹⁹ Id.

²⁰ Id.

²¹ Assessment of Undiscovered Oil and Gas Resources of the Devonian Marcellus Shale of the Appalachian Basin Province, United States Geological Survey (Aug. 23, 2011).

²² Early Release *AEO2012* at 9.

²³ Application at 11, fn. 18.

²⁴ *AEO2012* at 57.

Not only did Navigant ignore the true volume of pending exports and rely on outdated estimates of technically recoverable natural gas, the Navigant Study filed by Oregon LNG in this proceeding failed to adequately account for future demand for natural gas. The study by Navigant that Jordan Cove included with its application in FE Docket No. 12-32-LNG included a Greenhouse Gas Demand Case, which took into account likely future efforts to curb greenhouse gas emissions that will increase demand for natural gas. The Navigant Study filed with Oregon LNG's application in the instant proceeding failed to include this analysis. Instead, in each of its three scenarios, Navigant relies on a prediction that domestic natural gas demand will barely increase each year.²⁵

Oregon LNG admits that its exports will increase domestic natural gas prices, but denies that the increases will be significant. The Navigant Study predicts lower Henry Hub prices in 2025 under all of its scenarios, including its Aggregate Export scenario, than the EIA predicted in its Annual Energy Outlook.²⁶ Navigant highlights this fact in its executive summary, stating that "the OLNG Export Case price forecast at Henry Hub is actually <u>below</u> the EIA's Annual Energy Outlook 2012 Reference Case forecast that includes no LNG exports."²⁷ Rather than a point to emphasize, this disconnect between the EIA's analysis and the Navigant Study should prompt the DOE/FE to take a harder look at the assumptions underlying Navigant and Oregon LNG's conclusions.

²⁵ Navigant Study at 49, table 11.

²⁶ Navigant Study at 50, Table 10 (predicting \$5.20 and \$5.06 natural gas at the Henry Hub in 2025 under its Aggregate and OLNG scenarios, respectively); Early Release AEO2012 at 13 (predicting \$5.23 natural gas at the Henry Hub in 2025).

²⁷ Navigant Study at 2 (emphasis in the original).

DOE/FE's previous decision in the *Sabine Pass Liquefaction, LLC* proceeding, Docket No. 10-111-LNG, accepted the applicant's projections regarding natural gas supplies and the impact of exports without conducting an independent analysis. That will no longer suffice in light of more recent EIA studies. Specifically, DOE/FE must consider the EIA Export Report, which presumably it requested due to a lack of thorough and independent price impact data in pending LNG export proceedings.

ii. EIA Export Report

As requested by the DOE/FE, EIA analyzed four scenarios of export-related increases in natural gas demand:

- 6 Bcf/d phased in at a rate of 1 Bcf/d per year (low/slow scenario),
- 6 Bcf/d phased in at a rate of 3 Bcf/d per year (low/rapid scenario),
- 12 Bcf/d phased in at a rate of 1 Bcf/d per year (high/slow scenario), and
- 12 Bcf/d phased in at a rate of 3 Bcf/d per year (high/rapid scenario).²⁸

In addition, DOE/FE requested that EIA consider the four scenarios of increased natural gas exports in the context of four cases from the EIA's then current *AEO2011* that reflect projected domestic natural gas supply situations and growth rates for the U.S. economy:

- the *AEO2011* Reference case,
- the High Shale Estimated Ultimate Recovery ("EUR") case (reflecting more optimistic assumptions about domestic natural gas supply prospects, with the EUR per shale gas well for new, undrilled wells assumed to be 50 percent higher than in the Reference case),
- the Low Shale EUR case (reflecting less optimistic assumptions about domestic natural gas supply prospects, with the EUR per shale gas well for new, undrilled wells assumed to be 50 percent lower than in the Reference case), and

²⁸ EIA Export Report at 1.

• the High Economic Growth case (assuming the U.S. gross domestic product will grow at an average annual rate of 3.2 percent from 2009 to 2035, compared to 2.7 percent in the Reference case, which increases domestic energy demand).²⁹

In contrast, the Navigant Study considers only one volume of future aggregate exports, 6.8 Bcf/d, from both the United States and Canada, which is near EIA's "low" export scenario from just the United States. In addition, the Navigant Study simply plugs this 6.8 Bcf/d volume in as the export capacity through 2045 without analyzing the potential effect of divergent growth rates in export capacity or an expansion of export capacity over that time period. In the Navigant Study, there is no accounting for the slow or rapid development of export capabilities. Even more deficiently, the Navigant Study fails to sufficiently consider the potential effects of different gas reserve scenarios, economic growth trends or possible green house gas regulations.

Under every scenario, EIA forecasts that exports will increase domestic natural gas prices. According to EIA, "[I]arger export levels lead to larger domestic price increases."³⁰ EIA also concluded that "rapid increases in export levels lead to large initial price increases," but that slower increases in export levels will, "eventually produce higher average prices during the decade between 2025 and 2035."³¹

Even under the "low/slow" baseline scenario, EIA projects that wellhead price impacts will peak at about 14% in 2022 before moderating to just under 10% around 2026.³² Under the low/rapid baseline scenario EIA projects that wellhead prices will be approximately 18% higher in 2016 than they otherwise would be, but that impact will also moderate to just under 10% by

²⁹ Id.

³⁰ EIA Export Report at 6.

³¹ *Id.*

 $^{^{32}}$ *Id.* at 8.

2026.³³ In fact, under all of the "low" scenarios accounting for different economic and shale reserve conditions, EIA predicts price impacts well above 10% that then moderate.³⁴

EIA projects that prices will increase by 36% to 54% by 2018 under the "high/rapid scenario," depending on natural gas supplies and economic growth. Given the number of export applications that DOE/FE has received to date and the total export capacity requested of 14 Bcf/d and 13.71 Bcf/d to FTA and Non-FTA nations, respectively, it appears that "high/rapid" was the most realistic scenario considered by EIA.

In addition, it may be that the Low Shale EUR case reflecting less optimistic assumptions about domestic natural gas supply prospects than the *AEO2011* Reference Case may be the more accurate scenario considered in the EIA Export Report, given the *AEO2012* overview report. Under the high/rapid scenario in the Low Shale EUR case, EIA projects that exports could increase natural gas prices by 54% in 2018.³⁵ Even under the slow/low scenario in the Low Shale EUR case, EIA projects that projects that exports will increase domestic wellhead prices by 20% in 2020.³⁶

Even these projections may not accurately predict the full scope of price increases resulting from unchecked LNG exports because the EIA Export Report very conservatively assumes that domestic prices will only be affected by domestic supply/demand factors but will not be affected by prices in the global market, contrary to the experience in the oil industry. The EIA Export Report also fails to consider several factors that may further limit economically

³⁶ Id.

³³ Id.

³⁴ *Id.* at 9.

³⁵ *Id.*

recoverable domestic gas supplies and increase domestic natural gas demand in the near future, such as increased regulation of hydraulic fracturing and pending coal plant retirements.

iii. Effect of High Prices

Oregon LNG predicts a future with abundant domestic natural gas production and relatively stagnant demand, leaving nothing to do with the increased production but export it as LNG. Current low natural gas prices, however, give the U.S. an opportunity to wean itself off of carbon-intensive coal and expensive foreign oil, to attract renewed domestic manufacturing, and to stimulate displacement of gasoline by CNG-fueled vehicles. Increased prices due to exports jeopardize each of these prospects and ultimately our national security and national wellbeing. Estimates of domestic natural gas resources are still markedly higher than just a few years ago, but given revised supply projections, U.S. policy makers cannot take current low prices for granted.

Inflated prices will decrease the viability of natural gas as a bridge-fuel from carbonintensive coal. Current low prices make natural gas-fired electricity generation an economically sound alternative to coal-fired generation. Sustained low prices may encourage this transition by private initiative regardless of increased environmental regulations as investors find natural gas competitive with coal. If exports inflate natural gas prices, the economics turn against cleaner burning natural gas.³⁷

In addition, pending environmental regulations will soon force coal retirements, and further greenhouse gas regulation may cause additional retirements in the future. If natural gas prices remain low, the U.S. may be able to transition away from carbon intensive coal without causing electricity prices to increase significantly. If natural gas prices are high, however,

³⁷ EIA Export Report at 17.

electricity prices will spike as relatively cheap coal-fired generators are forced to retire for regulatory reasons. Spiking electricity rates will have rippling effects on the U.S. economy.

This transition is already underway. In addition to market forces favoring new natural gas generators over coal, earlier this year EPA proposed new standards for carbon dioxide emissions from new electric generators that should effectively eliminate the construction of new coal burning plants.³⁸ Despite these trends and the prospect of further greenhouse gas regulations, Oregon LNG justifies its export plans by claiming that there is a "growing dependence on coal" for power generation.³⁹ If the DOE/FE grants Oregon LNG's application, this may yet be the case. Or, more likely, demand for natural gas for electric generation may prove far less elastic than Oregon LNG predicts, driving up the price for natural gas and for electricity more than Oregon LNG's application suggests because the sector will be unable to switch back to coal once coal burning plants are retired or converted to gas.

Currently, the U.S. imports billions of dollars worth of oil from around the globe, a great deal of which is used for gasoline to fuel vehicles. The replacement of current gasoline-powered fleets with natural gas vehicles (and support infrastructure) would significantly reduce U.S. dependence on foreign oil, and thereby enhance U.S. security and strategic interests and reduce our trade deficit. State governments and businesses are expending substantial resources today to put that infrastructure in place.⁴⁰ For instance, earlier this year, Waste Management Inc. opened

³⁸ "Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units" 77 C.F.R. 22392 (Apr. 13, 2012).

³⁹ Application at 25.

⁴⁰ Officials are planning a series of compressed natural gas ("CNG") filling pumps at existing filling stations across the Pennsylvania US Route 6, stretching 400 miles from New York State near Milford, Pike County, Pa. in the east and through Crawford County, Pa. to the Ohio state line on the west, known as "PA Route 6 CNG Corridor;" at the same time, Chesapeake Energy is converting its vehicles in northeastern Pennsylvania to CNG and working with a local convenience-store chain and transit authority to foster further CNG integration. Eric Hrin, *Pennsylvania Looks to CNG*, The Daily Review Online (May 26, 2011) available at

several CNG filling stations in Washington State and one in Portland, Oregon as it converts its own fleet to CNG.⁴¹ Gasoline powered vehicles are not the only modes of transportation that business are interested in transitioning to natural gas, a company in Canada is investing in locomotives powered by LNG.⁴² Yet Oregon LNG assumes that there will be virtually no growth in demand for natural gas a transportation fuel.⁴³ If large volumes of exports are approved, raising domestic natural gas prices, this prediction may come true, at the expense of recent investments to expand natural gas as a transportation fuel.

Earlier this year, in his State of the Union Address, President Obama spoke of "an America that attracts a new generation of high-tech manufacturing and high-paying jobs - a future where we're in control of our own energy, and our security and prosperity aren't so tied to unstable parts of the world," and "an economy built on American manufacturing, American energy."⁴⁴ Low natural gas prices in the U.S. provide the path forward. Lower energy prices are spurring a nascent return to American manufacturing. Oregon LNG's application cites the jobs its export plans may create.⁴⁵ Oregon LNG does not acknowledge, however, the many jobs in other sectors of our economy that may be destroyed if the DOE/FE sanctions further natural gas

http://thedailyreview.com/news/pennsylvania-looks-to-cng-1.1135267; *see also*, Texas S.B. 20 (On July 15, 2011, the governor of Texas signed S.B. 20, supporting a network of natural gas-refueling stations along the Texas Triangle between Dallas/Ft. Worth, San Antonio, and Houston. The new legislation will lay a foundation for wider-scale deployment of heavy-duty, mid- and light-duty natural gas vehicles ("NGVs") in the Texas market).

⁴¹ See Press Release, Waste Management Adds 13 Compressed Natural Gas Fueling Stations in First-Half of 2012 (Aug. 1, 2012) available at: <u>http://www.wm.com/about/press-room/pdfs/WM_Adds_CNG_Fueling_Stations.pdf</u>

⁴² Rodney White, *Canadian Firm Initiates Experiments with LNG-Powered Locomotives*, Gas Daily (Oct. 2, 2012).

⁴³ Application at 22 (citing EIA statistics that project very little growth in overall energy consumption by the transportation sector but that do not address natural gas consumption by the transportation sector).

⁴⁴ President Barack Obama, State of the Union Address (Jan. 24, 2011), transcript available at: http://www.whitehouse.gov/state-of-the-union-2012.

⁴⁵ Application at 27.

exports and predicted increases in natural gas prices occur along with increased price volatility.⁴⁶ Economic data demonstrate that when domestic energy prices increase, the country loses manufacturing jobs, particularly in the fertilizer, plastics, chemicals, and steel industries.⁴⁷

Low natural gas prices make efforts to transition away from coal and foreign oil and to resuscitate American manufacturing economically viable. LNG exports will drive up domestic natural gas prices, as the EIA has determined, thereby undermining these national priorities. The DOE should not pursue an export policy that undermines the efficient, domestic use of a domestic fuel stock and America's first and best opportunity to move toward energy independence by decreasing reliance on foreign oil.

C. Oregon LNG's Exports Will Not Prove Economical

Oregon LNG's export plans likely will prove uneconomical. Currently, there are significant disparities between domestic natural gas commodity prices and prices in some nations that rely on LNG imports. These disparities provide Oregon LNG and other would-be exporters with appealing arbitrage opportunities in the short-term, but they may not last. Gas rich shale deposits are a global phenomenon that is just now beginning to be tapped. As other nations develop their resources and export capacity and as U.S. natural gas prices increase due to the very exports Oregon LNG proposes, international and domestic prices will converge, leaving the U.S. with the worst of all worlds, i.e., higher domestic prices that thwart energy independence

⁴⁶ Evaluating the Prospects for Increased Exports of Liquefied Natural Gas from the United States, Brookings Institution, at 18 (January 2012) ("Brookings Report")("The industrial sector is highly price-sensitive with respect to energy inputs."); Leticia Vasquez, Methanol Resurgence Seen Lifting Gas Demand, Gas Daily (Aug. 1, 2012) (reporting that the resurgence in domestic methanol production from natural gas "hinge[s] partly on whether liquefied natural gas projects move forward" because competitive methanol production requires gas prices below \$5 per MMbtu.).

⁴⁷ U.S. House Committee on Natural Resources Democrats, *Drill Here, Sell There, Pay More: The Painful Price of Exporting Natural Gas* (March 2012) available at http://democrats.naturalresources.house.gov/reports/drill-here-sell-there-pay-more

and that undermine the competitiveness of the manufacturing sector that relies heavily on natural gas as a process fuel.

Shale gas formations are not isolated to the United States – this is not a U.S.

phenomenon; it is a world-wide phenomenon.⁴⁸ The State Department launched the Global Shale Gas Initiative ("GSGI") in April 2010 in order to help countries identify and develop their unconventional natural gas resources.⁴⁹ To date, partnerships under GSGI have been announced with China, Jordan, India, and Poland.⁵⁰ The big energy players, including ExxonMobil, Chevron, Shell, BP, etc. are spending billions of dollars world-wide to pursue shale gas plays.⁵¹

The United States is at the forefront technologically of the development of shale gas reserves. A recent study by MIT concludes that the U.S. should export its technology and

¹⁸ E.g., Dallas Parker, Shale Gas: Global Game Changer, Oil and Gas Financial Journal (Feb. 8, 2011); Vello A. Kuuskra and Scott A. Stevens, Worldwide Gas Shales and Unconventional Gas: A Status Report, ("The final segment of this 'paradigm shift' - the worldwide pursuit of gas shales and unconventional gas - has only just begun, with Australia, China and Europe in the lead. Europe's gas shale geology is challenging, but its resource endowment and potential are large.") available at: http://www.rpsea.org/attachments/articles/239/KuuskraaHandoutPaperExpandedPresentWorldwideGasShalesPr

(Reporting on President Obama's pledge to share U.S. shale gas extraction expertise and technology on a recent trip to Warsaw); *see also, Energy in Poland: Fracking Heaven*, The Economist (June 23, 2011).

esentation.pdf. Debajyoti Chakraborty, *Asia's First Shale Gas Pool Found Near Durgapur*, Times of India Online, (January 26, 2011); Hillary Heuler, *Shale Gas in Poland Sparks Hope of Wealth, Energy Security*, Voice of America Online (June 11, 2011) (Reporting on efforts by U.S. and other western gas companies to develop gas from shale deposits); Mark Summor, *The Shale Gas Run Spreads Worldwide*, IPS, Deccan Herald (Aug. 1, 2011)("Recent discoveries of deeply buried oil shale layers containing natural gas or oil are being reported in Australia, Canada, Venezuela, Russia, Ukraine, Poland, France, India, China, North Africa and the Middle East. Taken together, say some energy analysts, these 'plays' could become a game-changer, making Australia and Canada into new Saudi Arabias").

⁴⁹ See http://www.state.gov/s/ciea/gsgi/.

⁵⁰ Id. see also, Rakteem Katakey, India Signs Accord with US to Assess Shale-Gas Reserves, Bloomberg News (November 8, 2010) (The US signed a memorandum of understanding with India to help it asses its shale gas reserves and prepare for its first shale gas auction at the end of this year.); Kate Andersen Brower and Catherine Dodge, Obama Says US, Poland Will Cooperate on Economy, Energy, Bloomberg News (May 28, 2011).

⁵¹ Ken Silverstein, *Big Oil Betting on Shale Gas*, EnergyBiz (July 31, 2011).

expertise.⁵² According to MIT, the development of international non-conventional natural gas reserves will create a more liquid market with less disparity between prices around the globe.⁵³ The U.S. should follow this strategy, instead of spending billions of dollars to build facilities in order to export a commodity that will likely be abundant world-wide before the LNG export facilities can even be completed.

In particular, Oregon LNG will have to compete with export facilities on Canada's Pacific Coast that will export directly from British Columbia without the added cost of shipping Canadian gas to Clatsop County, Oregon via the proposed Oregon Pipeline.⁵⁴ Even at today's low domestic prices, Canadian produced gas in British Columbia is still cheaper than Canadian produced natural gas in the U.S.⁵⁵ Whether Oregon LNG exports Canadian sourced natural gas or natural gas produced in the Western United States, it will find itself at a disadvantage compared to Canadian exporters in British Columbia.

Canada and the U.S. are not alone in developing LNG export capacity; investors in Australia hope to overtake Qatar as the world's largest exporter of LNG.⁵⁶ Qatar meanwhile has a moratorium on further developing its vast reserves of natural gas; natural gas is largely a by-product of liquids production in Qatar and sells for far less than even today's U.S. prices.⁵⁷

LNG itself is at a disadvantage compared to pipelines due to higher fixed costs. For example, Oregon LNG estimates it will incur direct construction costs of \$6.32 billion for its

⁵² MIT Energy Initiative, *The Future of Natural Gas*, at 14 (2011).

⁵³ Id.

⁵⁴ See Application at 10.

⁵⁵ Gas Daily Price Guide, Oct. 2012.

⁵⁶ Ross Kelly, Strong Australian dollar to help build cheap LNG export terminals, says Origin Energy CEO, The Australian (April 28, 2011) available at http://www.theaustralian.com.au/business/mining-energy/strongaustralian-dollar-to-help-build-cheap-lng-export-terminals-says-origin-energy-ceo/story-e6frg9ef-1226046219296.

⁵⁷ Brookings Report at 23.

proposed terminal and related pipeline facilities, not including real estate payments.⁵⁸ The cost of liquefaction, transportation and regasification processes and facilities must be acknowledged when considering the economic wisdom of LNG projects. The Brookings Institution estimates that current price spreads between the U.S. and potential export markets must remain intact for at least 10-12 years in order for investors to recoup the pre-planning and facility construction costs associated with an LNG terminal.⁵⁹ Beyond that, domestic prices must still be low enough to overcome foreign competition and the higher fixed cost of liquefaction, transport by vessel and regasification.

Oregon LNG knows there are limits on the profitability of exporting LNG. The Navigant Study estimates that the United States and Canada can only export a combined 6.8 Bcf/d before the economics turn against exports. If the DOE approves anywhere close to the 21.06 Bcf/d in pending export applications to Non-FTA nations, it will set off an export boom that will inevitably result in a bust. Oregon LNG is willing to gamble that its proposed export facility will be one of the lucky winners among dozens of projects in the U.S. and Canada, but the DOE/FE should hesitate before approving an export plan that will drive up domestic natural gas prices, then fail to remain profitable, potentially destabilizing domestic natural gas prices, and eventually leaving the Oregon Coast with an abandoned facility.

The U.S. has an opportunity not even imagined 2 or 3 years ago to transition away from our reliance on coal-fired electricity generation, without risking price shocks, and finally make real progress towards energy independence. All of this, however, depends on relatively low and stable natural gas prices (which sharply contrasts with the history of natural gas price volatility). DOE/FE should not turn a blind eye and allow the same businesses that gambled and lost on

⁵⁸ Application at 27.

⁵⁹ Brookings Report at 29.

projections of the need for future natural gas imports to now potentially squander our Nation's future on what will likely turn out to be another failed venture as natural gas production and export capacity develop throughout the world.

IV. CONCLUSION

WHEREFORE, based on the foregoing, APGA respectfully requests that the DOE/FE (1) grant its motion to intervene in this proceeding with all rights appurtenant to that status, and (2) deny, as inconsistent with the public interest, Oregon LNG's application for export authority to non-FTA Nations.

Respectfully submitted,

AMERICAN PUBLIC GAS ASSOCIATION

By Willer T. miller

William T. Miller Justin R. Cockrell Miller, Balis & O'Neil, P.C. Twelfth Floor 1015 Fifteenth Street, N.W. Washington, DC 20005

Its Attorneys

November 2, 2012

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

LNG Development Company, LLC

FE Docket No. 12-77-LNG

VERIFICATION

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WASHINGTON	§
	§
DISTRICT OF COLUMBIA	§

Pursuant to 10 C.F.R. § 590.103(b) (2012), William T. Miller, being duly sworn, affirms that he is authorized to execute this verification, that he has read the foregoing document, and that all facts stated herein are true and correct to the best of his knowledge, information, and belief.

Ville T. Mulle

William T. Miller Miller, Balis & O'Neil, P.C. Twelfth Floor 1015 Fifteenth Street, N.W. Washington, DC 20005 Telephone: (202) 296-2960 Fax: (202) 296-0166 Email: wtmiller@mbolaw.com

Subscribed and sworn to before me this 2^{nd} day of November, 2012.

Notary Public LESLIE K. NELSON-WALSKI

My Commission Expires: Notary Public, District of Columbia My Commission Expires May 31, 2015

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

LNG Development Company, LLC

FE Docket No. 12-77-LNG

CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

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Pursuant to 10 C.F.R. § 590.103(b) (2012), I, William T. Miller, hereby certify that I am a duly authorized representative of the American Public Gas Association, and that I am authorized to sign and file with the Department of Energy, Office of Fossil Energy, on behalf of the American Public Gas Association, the foregoing document and in the above-captioned proceeding.

Dated at Washington, D.C., this 2nd day of November, 2012.

With T. Mulle

William T. Miller Miller, Balis & O'Neil, P.C. Twelfth Floor 1015 Fifteenth Street, N.W. Washington, DC 20005 Telephone: (202) 296-2960 Fax: (202)-296-0166 Email: wtmiller@mbolaw.com

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon on the applicant and on DOE/FE for inclusion in the FE docket in the proceeding in accordance with 10 C.F.R. § 590.107(b) (2012).

Dated at Washington, D.C., this 6th day of November, 2012.

By:

Justin R. Cockrell Miller, Balis & O'Neil, P.C. Twelfth Floor 1015 Fifteenth Street, N.W. Washington, D.C. 20005 (202) 296-2960