

**From:** [Decker, John](#)  
**To:** [LNGStudy](#)  
**Subject:** 2012 LNG Export Study -- Reply Comments  
**Date:** Monday, February 25, 2013 2:18:22 PM  
**Attachments:** [LCE Reply Comments.pdf](#)

---

Please see the attached reply comments of Lake Charles Exports, LLC.

***John S. Decker***

Partner

**Vinson & Elkins LLP**

2200 Pennsylvania Avenue NW, Suite 500 West

Washington, DC 20037

Tel 202.639.6599

Fax 202.879.8899

Cell 202.390.7271

[jdecker@velaw.com](mailto:jdecker@velaw.com)

---

**Treasury Circular 230 Disclosure:** To the extent this communication contains any statement regarding federal taxes, that statement was not written or intended to be used, and it cannot be used, by any person (i) as a basis for avoiding federal tax penalties that may be imposed on that person, or (ii) to promote, market or recommend to another party any transaction or matter addressed herein.

**CONFIDENTIALITY NOTICE:** The information in this email may be confidential and/or privileged. This email is intended to be reviewed by only the individual or organization named above. If you are not the intended recipient or an authorized representative of the intended recipient, you are hereby notified that any review, dissemination or copying of this email and its attachments, if any, or the information contained herein is prohibited. If you have received this email in error, please immediately notify the sender by return email and delete this email from your system.

Thank You.

---

**UNITED STATES OF AMERICA  
BEFORE THE  
DEPARTMENT OF ENERGY**

Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC	)	FE Docket No. 10-161-LNG
Lake Charles Exports, LLC	)	FE Docket No. 11-59-LNG
Dominion Cove Point LNG, LP	)	FE Docket No. 11-128-LNG
Carib Energy (USA) LLC	)	FE Docket No. 11-141-LNG
Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC	)	FE Docket No. 11-161-LNG
Cameron LNG, LLC	)	FE Docket No. 11-162-LNG
Gulf Coast LNG Export, LLC	)	FE Docket No. 12-05-LNG
Jordan Cove Energy Project, L.P. LNG Development Company, LLC (d/b/a/ Oregon LNG))	)	FE Docket No. 12-32-LNG
Cheniere Marketing, LLC	)	FE Docket No. 12-77-LNG
Southern LNG Company, L.L.C.	)	FE Docket No. 12-97-LNG
Gulf LNG Liquefaction Company, LLC	)	FE Docket No. 12-100-LNG
CE FLNG, LLC	)	FE Docket No. 12-101-LNG
Excelerate Liquefaction Solutions I, LLC	)	FE Docket No. 12-123-LNG
Golden Pass Products LLC	)	FE Docket No. 12-146-LNG
Pangea LNG (N. America) Holdings, LLC	)	FE Docket No. 12-156-LNG
Trunkline LNG Export, LLC	)	FE Docket No. 12-184-LNG
	)	FE Docket No. 13-04-LNG

**REPLY COMMENTS ON 2012 LNG EXPORT STUDY FILED ON  
BEHALF OF LAKE CHARLES EXPORTS, LLC**

## Table of Contents

I.	Opponents of exports have not carried their burden of proof.....	5
II.	NERA’s use of data from the Annual Energy Outlook 2011 is not a flaw in the 2012 LNG Export Study .....	5
	A.    NERA’s use of the AEO2011 data was consistent with the EIA’s portion of the 2012 LNG Export Study. ....	6
	B.    Using AEO2013ER data would make the case for LNG exports even stronger. ....	7
	C.    DOE/FE must close the record in order to render a timely decision. ....	11
III.	Higher demand scenarios postulated by opponents of LNG exports are speculative.....	12
IV.	LNG exports will have a minimal impact on manufacturing .....	18
	A.    Opponents of LNG exports have provided no concrete evidence of significant impacts on manufacturing. ....	19
	B.    LNG exports will not significantly increase natural gas prices and will reduce price volatility. ....	21
	C.    LNG exports will increase the supply of critical manufacturing feedstocks. ....	26
V.	Critics of NERA’s assumption of constant employment misunderstand the effect of that assumption .....	27
VI.	Critics of NERA’s assumption of domestic financing misunderstand the benefits of attracting foreign capital .....	30
VII.	Calls for additional “granularity” are misplaced .....	32
VIII.	Arguments regarding non-economic considerations are outside the scope of this notice-and-comment proceeding.....	35
	A.    Comments regarding health, the environment, and the societal effects of LNG exports should be addressed in a NEPA analysis. ....	35
	B.    Evidence regarding the environmental effects of gas production is outside the scope of analysis of LNG exports under NEPA. ....	37
IX.	Additional administrative process is neither necessary nor appropriate.....	39
	A.    DOE/FE uses statutory and longstanding policy criteria in making public interest determinations for LNG export authorizations. ....	41
	B.    DOE/FE has followed its published administrative procedures in processing the pending non-FTA LNG export applications. ....	44
X.	Conclusion .....	45

**UNITED STATES OF AMERICA  
BEFORE THE  
DEPARTMENT OF ENERGY**

Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC	)	FE Docket No. 10-161-LNG
Lake Charles Exports, LLC	)	FE Docket No. 11-59-LNG
Dominion Cove Point LNG, LP	)	FE Docket No. 11-128-LNG
Carib Energy (USA) LLC	)	FE Docket No. 11-141-LNG
Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC	)	FE Docket No. 11-161-LNG
Cameron LNG, LLC	)	FE Docket No. 11-162-LNG
Gulf Coast LNG Export, LLC	)	FE Docket No. 12-05-LNG
Jordan Cove Energy Project, L.P. LNG Development Company, LLC (d/b/a/ Oregon LNG)	)	FE Docket No. 12-32-LNG
Cheniere Marketing, LLC	)	FE Docket No. 12-77-LNG
Southern LNG Company, L.L.C.	)	FE Docket No. 12-97-LNG
Gulf LNG Liquefaction Company, LLC	)	FE Docket No. 12-100-LNG
CE FLNG, LLC	)	FE Docket No. 12-101-LNG
Excelerate Liquefaction Solutions I, LLC	)	FE Docket No. 12-123-LNG
Golden Pass Products LLC	)	FE Docket No. 12-146-LNG
Pangea LNG (N. America) Holdings, LLC	)	FE Docket No. 12-156-LNG
Trunkline LNG Export, LLC	)	FE Docket No. 12-184-LNG
	)	FE Docket No. 13-04-LNG

**REPLY COMMENTS ON 2012 LNG EXPORT STUDY FILED ON  
BEHALF OF LAKE CHARLES EXPORTS, LLC**

Pursuant to the Notice of Availability of 2012 LNG Export Study and Request for Comments,<sup>1</sup> Lake Charles Exports, LLC (“LCE”) hereby submits the following reply comments to the Department of Energy Office of Fossil Energy (“DOE/FE”). While these reply comments will primarily address the incorrect, insufficiently supported, or irrelevant criticisms of the 2012 LNG Export Study,<sup>2</sup> the comments as a whole paint a telling picture. Independent experts, such

---

<sup>1</sup> 2012 LNG Export Study, 77 Fed. Reg. 73,627 (Dec. 11, 2012) (“Notice”).

<sup>2</sup> The 2012 LNG Export Study consists of two studies: an analysis performed by the Energy Information Administration (“EIA”) and originally published in January 2012, entitled *Effect of Increased Natural Gas Exports on Domestic Energy Markets* (“EIA Study”); and an evaluation performed by NERA Economic Consulting (“NERA”), a private contractor retained by DOE, entitled *Macroeconomic Impacts of Increased LNG Exports from the United States* (“NERA Study”), which was released on December 5, 2012.

as the Bipartisan Policy Center, the Baker Institute, and the Brookings Institution,<sup>3</sup> and broad-based manufacturing and business groups, such as the National Association of Manufacturers, the American Chemistry Council, and the US Chamber of Commerce, support allowing energy markets to function freely in order to maximize the benefits to our country of its vast natural gas resources.

Opponents of exports fall into two groups. Environmentalists, led by the Sierra Club, oppose not just exports but natural gas production for any purpose. Their radical position that the US government should discourage all resource extraction<sup>4</sup> is inconsistent with US policy as reflected in existing laws and regulations. The second group, which includes the Dow Chemical Company (“Dow”),<sup>5</sup> CarbonX Energy Company, Inc. (“CarbonX”), Nucor Corporation, and Alcoa Energy, is pursuing a strategy of artificially suppressing demand for natural gas through the regulatory process to increase its own corporate profits. This group’s criticisms of the 2012 LNG Export Study should be viewed in that context.

After receiving reply comments, DOE/FE should act expeditiously to approve LCE’s pending application, which has been pending for more than 21 months. Failure to act expeditiously may cause the United States to forego the economic benefits of exporting LNG and would be contrary to DOE/FE’s obligations under Section 3 of the Natural Gas Act (“NGA”).

---

<sup>3</sup> While the Baker Institute and the Brookings Institution did not file comments, each has published articles supporting LNG exports. See Kenneth B. Medlock III, Baker Institute for Public Policy, US LNG Exports: Truth and Consequence (Aug. 10, 2012) (“Baker Institute Brief”); Charles Ebinger, *et al.*, Brookings, Energy Security Initiative, Liquid Markets: Assessing the Case for US Exports of Liquefied Natural Gas (May 2012) (“Energy Security Brief”); Michael Levi, Brookings, The Hamilton Project, A Strategy for US Natural Gas Exports (Jun. 2012) (“Levi Brief”).

<sup>4</sup> Initial Comments of Sierra Club at 13-24, Doc. No. 189 (filed Jan. 24, 2013) (“Sierra Club Comments”).

<sup>5</sup> While Dow presents a rabid anti-exports case in its comments, DOW Chairman and CEO Andrew Liveris testified before the Senate Energy and Natural Resources Committee, that “a quadruple win,” which includes exports, is possible. As to the level of exports, Liveris said “our numbers suggest somewhere between five and eight bcf per day should be what we see in this first little while.” *Opportunities and Challenges for Natural Gas Before the Sen. Comm. on Energy & Natural Res.*, 113<sup>th</sup> Cong. (2013) (testimony of Andrew N. Liveris, Chairman and Chief Executive Officer, Dow).

## **I. Opponents of exports have not carried their burden of proof.**

Section 3(a) of the NGA “creates a rebuttable presumption that proposed exports of natural gas are in the public interest.”<sup>6</sup> To overcome this rebuttable presumption, an opponent must affirmatively demonstrate that the proposal is inconsistent with the public interest.<sup>7</sup> No commenter has met this burden.

In evaluating the “public interest” the DOE/FE, consistent with its Policy Guidelines and Delegation Orders Relating to the Regulation of Imported Natural Gas, examines whether “domestic supply shortages or domestic security needs overcome the statutory presumption that a proposed export is not inconsistent with the public interest.”<sup>8</sup> Though the comments in opposition to LNG exports include many baseless and extreme statements, no commenter has even suggested that LNG exports will lead to domestic supply shortages.<sup>9</sup> The presumption in favor of granting an authorization remains unchallenged on the key issue of the sufficiency of domestic supply.

## **II. NERA’s use of data from the Annual Energy Outlook 2011 is not a flaw in the 2012 LNG Export Study.**

One of the most common arguments from opponents of LNG exports is that the use of data from the Annual Energy Outlook 2011 (“AEO2011”), rather than a newer version of that

---

<sup>6</sup> *Sabine Pass Liquefaction, LLC*, FE Docket 10-111-LNG, Opinion and Order Denying Request for Review Under Section 3(c) of the NGA (Oct. 21, 2010) (“Sabine Section 3(c) Order”); *see also Panhandle Producers and Royalty Owners Assoc. v. ERA*, 822 F.2d 1105, 1111 (D.C. Cir. 1987) (“A presumption favoring import authorization, then, is completely consistent with, if not mandated by, the statutory directive.”).

<sup>7</sup> Sabine Section 3(c) Order at 5; *see also Phillips Alaska Natural Gas Corp. and Marathon Oil Co.*, DOE/FE Order No. 1473 (Apr. 2, 1999) (“Section 3 creates a statutory presumption in favor of approval of an export application and the Department must grant the requested export [application] unless it determines the presumption is overcome by evidence in the record of the proceeding that the proposed export will not be consistent with the public interest.”).

<sup>8</sup> Sabine Section 3(c) Order at 5; Policy Guidelines and Delegation Orders Relating to the Regulation of Imported Natural Gas, 49 Fed. Reg. 6,684 (Feb. 22, 1984) (“Policy Guidelines”).

<sup>9</sup> The US Chamber of Commerce, however, notes that the US reserve base “is many generations of supply” and “is sufficiently large to allow the market to work to best allocate how development occurs for both domestic use as well as potential exports. Initial Comments of Institute for 21st Century Energy, US Chamber of Commerce at 2, Doc. No. 109 (filed Jan. 24, 2013) (“US Chamber Comments”).

publication, represents a flaw in the study.<sup>10</sup> Opponents of LNG exports who raised this point cherry pick data available in newer editions of the Annual Energy Outlook, including the Annual Energy Outlook 2013 Early Release (“AEO2013ER”). These criticisms are wrong about the need to incorporate more recent data into NERA’s analysis and about the impact of using more recent data.

**A. NERA’s use of the AEO2011 data was consistent with the EIA’s portion of the 2012 LNG Export Study.**

DOE/FE commissioned NERA to evaluate the macroeconomic impacts of LNG exports as a continuation of the EIA Study.<sup>11</sup> EIA’s analysis did not purport to incorporate impacts from the worldwide LNG market on domestic natural gas pricing and macroeconomic effects. Part of NERA’s mandate was to consider these broader economic issues.

EIA began its portion of the study in August 2011 following a request to prepare the report from DOE/FE. The EIA Study was released in January 2012. At that time, the AEO2011 provided the most up-to-date projections of natural gas demand and production. The Annual Energy Outlook 2012 Early Release data did not become available until January 23, 2012 so that EIA was at all times working with the most current data.

Once EIA’s work was complete, NERA was tasked with building on the EIA Study, which means NERA needed to utilize the same baseline data that EIA used. As a result, NERA calibrated its model to match the AEO2011 reference case and the International Energy Outlook

---

<sup>10</sup> See, e.g., Initial Comments of The Aluminum Association, Doc. No. 159 (filed Jan. 29, 2013) (“Aluminum Ass’n Comments”); Initial Comments of American Forest & Paper Association, Doc. No. 329 (filed Jan. 24, 2013) (“American Forest Comments”); Initial Comments of American Public Gas Association, Doc. No. 139 (filed Jan. 24, 2013) (“American Public Gas Ass’n Comments”); Initial Comments of Alcoa, Doc. No. 106 (filed Jan. 24, 2013) (“Alcoa Comments”); Initial Comments of CarbonX Energy Company, Inc. at 33, Doc. No. 107 (filed Jan. 24, 2013) (“CarbonX Comments”); Initial Comments of Citizens Against LNG Inc., Doc. No. 324 (filed Jan. 24, 2013) (“Citizens Against LNG Comments”); Initial Comments of Clean Ocean Action, Doc. No. 162 (filed Jan. 24, 2013) (“Clean Ocean Action Comments”); Initial Comments of Bea Frederickson, Doc. No. 111 (filed Jan. 24, 2013); Initial Comments of Industrial Energy Consumers of America, Doc. No. 106 (filed Jan. 24, 2013) (“IECA Comments”); Initial Comments of Oregon Wild, Doc. No. 248 (filed Jan. 22, 2013) (“Oregon Wild Comments”).

<sup>11</sup> NERA Study at 3.

2011 reference case, also published by the EIA.<sup>12</sup> NERA's decision to use AEO2011 data is justified because consistency with the EIA Study was more important than any minor benefits to be gained from using the AEO2012 data.

**B. Using AEO2013ER data would make the case for LNG exports even stronger.**

If NERA were to update its study using the AEO2013ER data, the net economic benefits of LNG exports would likely appear even greater.<sup>13</sup> Opponents of LNG exports that criticize NERA for not using the most recent data selectively highlight a few instances where the newer data shows increased natural gas demand. What the critics fail to note, however, is that the AEO2013ER data also predicts significantly lower natural gas prices over the long term despite higher production levels (to meet the increased demand) than was the case in AEO2011, which indicates that increased production is possible at a lower price than previously thought. Accordingly, using this newer data would likely yield greater economic benefits than those predicted by NERA.

Opponents of LNG exports seem to believe that NERA's use of AEO2011 data undermines NERA's conclusions. For example, Representative Edward J. Markey notes that the AEO2011 data showed a decrease in natural gas use for power generation between 2010 and 2020, while natural gas use in the sector has actually grown since 2010 and AEO2013ER predicts 11% growth in gas use in the power sector between 2010 and 2020.<sup>14</sup> Similarly, Senator

---

<sup>12</sup> NERA Study at 95.

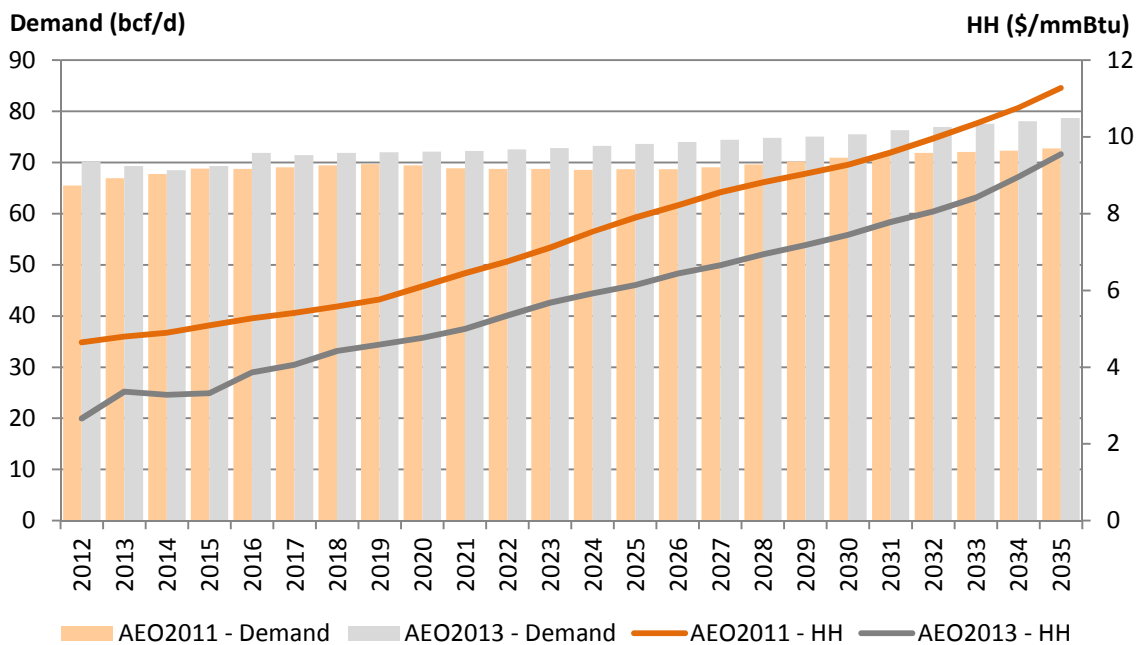
<sup>13</sup> See, e.g., Initial Comments of The Center for Liquefied Natural Gas, Doc. No. 95 (filed Jan. 23, 2013); Initial Comments of Cheniere Energy, Inc., Doc. No. 118 (filed Jan. 24, 2013); Initial Comments of ExxonMobil, Doc. No. 185 (filed Jan. 24, 2013); Initial Comments of Carl G. Foster, Doc. No. 226 (filed Jan. 21, 2013); Initial Comments of Freeport LNG Expansion, L.P. & FLNG Liquefaction, LLC, Doc. No. 128 (filed Jan. 24, 2013); Initial Comments of Golden Pass Products LLC, Doc. No. 180 (filed Jan. 24, 2013); Initial Comments of Southern LNG Company, L.L.C. at 4-9, Doc. No. 113 (filed Jan. 24, 2013) ("Southern LNG Comments"); Initial Comments of Western Energy Alliance, Doc. No. 398 (filed Jan. 24, 2013).

<sup>14</sup> Initial Comments of US Rep. Edward Markey at 2, Doc. No. 6 (filed Dec. 14, 2012) ("Rep. Markey Comments").



Ron Wyden referenced increased consumption numbers for electric generation and overall consumption between AEO2011 and AEO2013ER.<sup>15</sup> The absolute value of this change in demand for electric generation, however, is relatively small. The difference in this demand between the AEO2011 and AEO2013ER projection for 2020 is only 1.39 tcf, or approximately 5 percent of total gas consumption. Representative Markey also points to a higher estimate of industrial and transportation use of natural gas in the AEO2013ER compared to AEO2011.<sup>16</sup> Between AEO2011 and AEO2013ER, though, the change in projected 2020 demand for transportation use is 0.01 tcf, or 0.04% of total demand. Table 1 shows the minimal difference in total demand each year for AEO2011 versus AEO2013ER.

**Table 1 – Natural Gas Demand - AEO2011 Versus AEO2013ER**



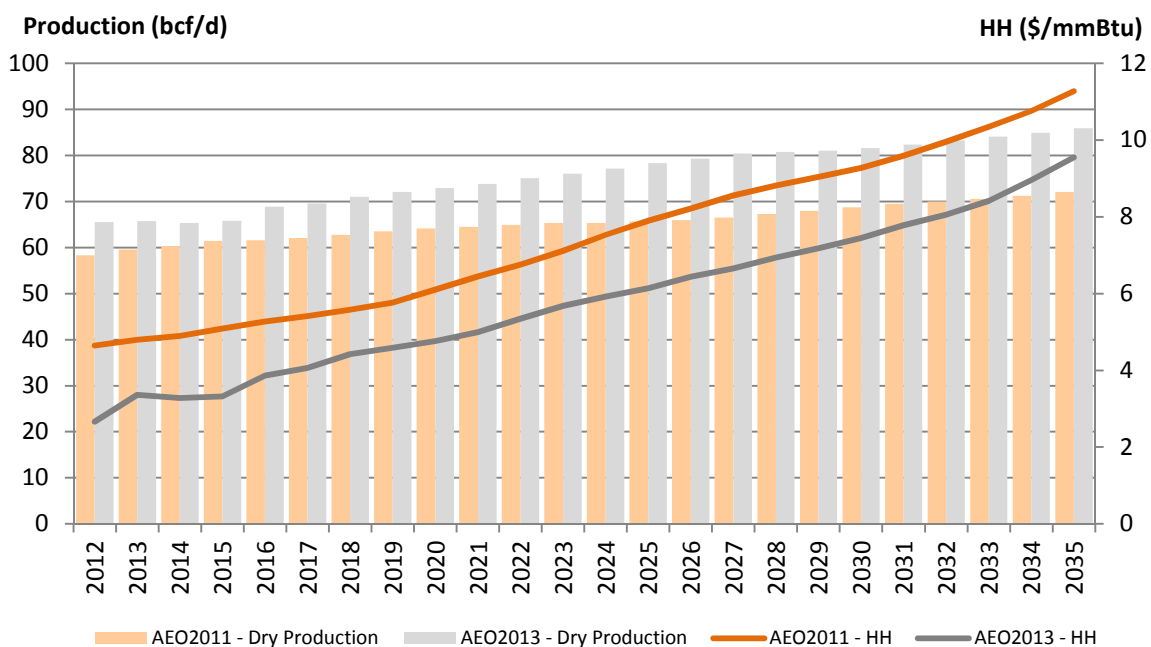
In addition to ignoring the small absolute change in consumption projections, both Representative Markey and Senator Wyden fail to mention the much higher production

<sup>15</sup> Initial Comments of US Sen. Ron Wyden at 1-2, Doc. No. 20 (filed Jan. 10, 2013) (“Sen. Wyden Comments”). Dow makes a similar claim. Initial Comments of Dow Chemical Company at 11, Doc. No. 174 (filed Jan. 24, 2013) (“Dow Comments”).

<sup>16</sup> *Id.*

projections in AEO2013ER compared to AEO2011. AEO2011 projects total gas production of 23.43 tcf in 2020 and 26.32 tcf in 2035, but AEO2013ER projections for the same years are 26.61 tcf and 31.35 tcf, an increase of 14 percent and 19 percent, respectively. By contrast, natural gas demand in 2020 and 2035 increases only 4 percent and 8 percent, respectively, from AEO2011 to AEO2013ER. Thus, the change in natural gas production between AEO2011 and AEO2013ER is much greater than the comparable change in demand, as shown in Table 2.

**Table 2 – Natural Gas Production – AEO2011 Versus AEO2013ER**



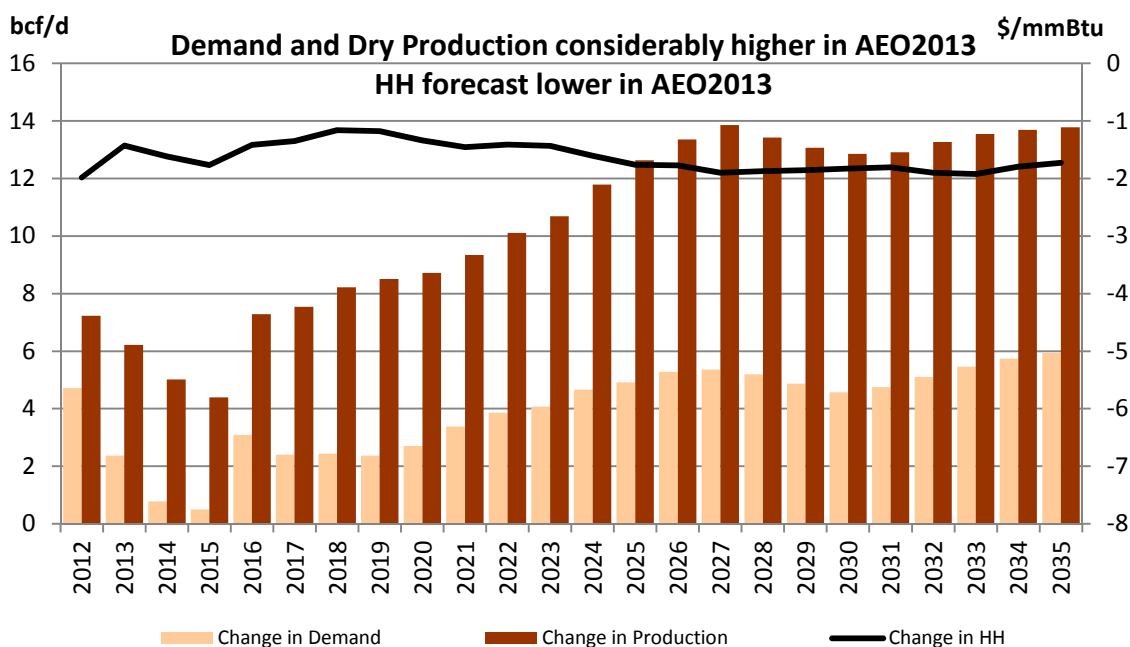
As a result of the increased production projections in AEO2013ER, the projected price for natural gas at the most liquid trading point—Henry Hub—is dramatically lower in AEO2013ER than AEO2011, despite AEO2013ER’s inclusion of LNG export quantities.<sup>17</sup> In 2020, the projected Henry Hub price in AEO2013ER is \$4.13, compared to \$5.05 in AEO2011.<sup>18</sup> In 2035, the prices are \$6.32 for AEO2013ER and \$7.37 for AEO2011. Table 3 shows how increases in

<sup>17</sup> AEO2013ER reference case includes projections of 0.26 tcf and 1.46 tcf of natural gas exports in 2020 and 2035, respectively.

<sup>18</sup> AEO2011 measures prices in 2009 dollars per MMBtu, while AEO2013ER uses 2011 dollars per MMBtu.

natural gas production in AEO2013ER are far greater than increases in demand, as well as showing the drop in Henry Hub prices that is expected to result. If natural gas prices remain low despite increased demand including LNG exports, many of the detrimental effects cited by LNG export opponents would diminish. Manufacturers would continue to have access to low-cost natural gas to support their proposed operations, and consumers would continue to enjoy low price natural gas and electricity.

**Table 3 – AEO2013ER Shows Production Outstripping Demand**



The implications of the later AEO2013ER data, contrary to the claims of Representative Markey, Senator Wyden, Synapse Energy Economics, Inc. (“Synapse”),<sup>19</sup> the Sierra Club, and others, are favorable to LNG exports. The higher demand and supply present in AEO2013ER imply that the natural gas supply curve will be flatter, meaning that “the results of the NERA study could be interpreted as being an upper bound on the adverse impacts and using the

<sup>19</sup> A report by Synapse was included as an exhibit to the Sierra Club Comments. Synapse Energy Economics, Inc., Will LNG Exports Benefit the United States Economy? (Jan. 23, 2013) (attached as Exhibit 5 to Sierra Club Comments) (“Synapse Report”).

AEO2013ER as the baseline may generate even smaller price impacts.”<sup>20</sup> The Center for Liquefied Natural Gas also believes that AEO2013ER data would cause impacts on the US economy to be “even more positive” while any negative impacts from higher energy costs “would be mitigated to a greater degree than in the NERA study.”<sup>21</sup> Navigant Consulting, Inc. (“Navigant”) concurs and states that “the use of a supply forecast more in line with current actual production levels . . . would be expected to result in lower domestic gas prices than estimated in NERA’s analysis . . . which would lead to even higher economic benefits” from LNG exports.<sup>22</sup> Thus, NERA’s use of the AEO2011 data likely results in an understatement of the benefits of LNG exports, rather than constituting a flaw in the 2013 LNG Export Study.

**C. DOE/FE must close the record in order to render a timely decision.**

DOE/FE should reject calls to replicate the NERA Study using the latest EIA data. Extending an already-lengthy administrative proceeding because new data is available at the end of the proceeding would create an endless bureaucratic loop. The Supreme Court has held that the administrative process “always creates a gap between the time the record is closed and the time the administrative decision is promulgated” and that rehearing is not required “because some new circumstance has arisen, some new trend has been observed, or some new fact discovered.”<sup>23</sup> An agency’s obligation to supplement its analysis is subject to a “rule of reason” because “[t]o require otherwise would render agency decisionmaking intractable, always

---

<sup>20</sup> Initial Comments of American Petroleum Institute at 10, Doc. No. 134 (filed Jan. 24, 2013) (“API Comments”).

<sup>21</sup> Initial Comments of The Center for Liquefied Natural Gas at 9, Doc. No. 95 (filed Jan. 23, 2013).

<sup>22</sup> See, e.g., Navigant Consulting, Inc. and Navigant Economics, Navigant Analysis of the Department of Energy’s LNG Export Study at 10 (Jan. 24, 2013) (attached as Appendix A to Southern Comments) (“Navigant Analysis”).

<sup>23</sup> *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 554-555 (1978) (quoting *ICC v. Jersey City*, 322 U.S. 503, 514 (1944)).

awaiting updated information only to find the new information outdated.”<sup>24</sup> DOE/FE must at some point be able to close the sphere of evidence that is the basis for its determinations.

As discussed above, EIA began work on its portion of the 2012 LNG Export Study prior to the release of AEO2012 Early Release, and NERA needed to work from the same data that EIA did to make the overall study consistent. Given the long lead times for EIA and NERA to complete their work, a new early release or full release of AEO data will always issue between when work begins and when it ends. To demand use of newer and newer AEO data would forever delay DOE’s progress. The 2012 LNG Export Study’s use of AEO2011 data is appropriate and consistent with federal law regarding agency proceedings.

### **III. Higher demand scenarios postulated by opponents of LNG exports are speculative.**

Some commenters cite highly speculative demand projections and fault NERA for failing to consider them.<sup>25</sup> These criticisms of the 2013 LNG Export Study do not withstand critical analysis.

Throughout its comments, Dow refers to “approximately 100 capital investments in manufacturing representing some \$95 billion in new spending,” which Dow asserts will increase domestic demand by 6 bcf per day.<sup>26</sup> Dow’s list of projects, however, includes many projects that are merely announced or “under consideration.” Many have start dates far off in the future. Dow provides no assessment of how likely any of the projects are to ever come to fruition. Dow ignores the fact that many of those projects will produce the same end products, meaning that

---

<sup>24</sup> *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 373-74 (1989).

<sup>25</sup> See, e.g., American Public Gas Ass’n Comments; Aluminum Ass’n Comments; Initial Comments of Jannette M. Barth, Pepacton Institute LLC, Doc. No. 9 (filed Dec. 31, 2012); Initial Comments of Carlton Buford, Doc. No. 8 (filed Dec. 26, 2012); IECA Comments; Initial Comments of 45 Individuals, Doc. No. 154 (filed Jan. 15-23, 2013); Initial Comments of Landowners United, Doc. No. 310 (filed Jan. 22, 2013) (“Landowners United Comments”); Initial Comments of Natural Resources Defense Council, Doc. No. 115 (filed Jan. 24, 2013) (“NRDC Comments”); Initial Comments of Nucor Corporation, Doc. No. 91 (filed Jan. 23, 2013) (“Nucor Comments”); Sen. Wyden Comments.

<sup>26</sup> Dow Comments at 10; Representative Markey refers to new projects representing “over \$90 billion in investment and billions of cubic feet of additional future natural gas use.” Rep. Markey Comments at 2.

they may be mutually exclusive. For example, the first 20 projects listed are for ethylene production, mostly in the Gulf Coast region. Dow and Representative Markey cannot seriously contend that the DOE/FE should block production of LNG for export in order to reserve gas resources for petrochemical projects that may never get past the press release stage. Because Dow provides no reasonable basis to believe its assertion that these new investments will add 6 bcf per day of natural gas demand by 2020, Dow's related assertion that the NERA report is flawed for failing to account for this new demand has no merit.

Some commenters fault NERA for not including a potential increase of natural gas demand for transportation fuel.<sup>27</sup> To support this position, Dow cites internal and proprietary data from Wood Mackenzie and IHS CERA—two data sources that are unavailable for public verification.<sup>28</sup> DOE/FE cannot simply take Dow's word about what these projections supposedly show. If the projections are not part of the public record, they can be accorded no weight by DOE/FE in rendering a decision.

CarbonX posits demand for 48 tcf per year of natural gas as transportation fuel, which would be more than double the quantity of dry gas produced in the US for all of 2012. CarbonX's speculation is premised on the federal government deciding to drive installation of natural gas refueling stations in place of the existing 157,000 gasoline stations in the US.<sup>29</sup> In AEO2013ER, which contains the newest projections, the EIA projects 0.22 bcf per day demand for natural gas from the transportation sector in 2020 – one seventh of the demand claimed by Dow and less than 1 percent of the demand proclaimed by CarbonX.<sup>30</sup> Surely, NERA's decision

---

<sup>27</sup> Dow Comments at 11; CarbonX Comments at 14.

<sup>28</sup> *Id.* IHS, of which IHS CERA is a part, has supported LNG exports, however. Bill Holland, *LNG export debate has perception lagging reality: Yergin*, Platts Gas Daily, Feb. 15, 2013, at 4.

<sup>29</sup> CarbonX Comments at 14.

<sup>30</sup> AEO2013ER, Natural Gas Supply, Disposition, and Prices at tbl. 13, Reference case.

to rely on EIA data and to ignore such unsupported assertions of demand is a virtue of the 2013 LNG Export Study rather than a flaw.

Just as DOE/FE should not be swayed by outlandish claims of domestic demand for natural gas, it should not be swayed by arguments that LNG exports up to the full quantity authorized by DOE/FE will ever occur. Dow, for example, notes that NERA did not “consider what would happen if natural gas exports reached levels at or near the authorized levels,” which it puts at 28 bcf per day, with higher levels under consideration.<sup>31</sup> The Sierra Club notes figures of 31.41 bcf per day already authorized to countries with which the US has a free trade agreement (“FTA”) with 24.8 bcf per day of authorizations under consideration to countries with which the US does not have a free trade agreement (“non-FTA”).<sup>32</sup>

These groups fail to acknowledge two key facts: (i) FTA and non-FTA authorizations are not additive and (ii) not every potential export terminal will be built. Because the world LNG market is becoming increasingly liquid, US export projects must have authorization to export to all destinations to which export is lawful in order to be competitive. Because a different statutory standard applies to FTA and non-FTA destinations, these authorizations have been granted separately by DOE/FE. However, they should not be considered additive. It is standard practice for entities considering liquefaction terminals to request authorizations from DOE/FE for their full capacity to FTA countries and for the full capacity to non-FTA countries.

For example, Sabine Pass Liquefaction, LLC (“Sabine Pass”), as the only entity to receive a non-FTA authorization to date, has a non-FTA export license for 2.2 bcf per day of natural gas and an FTA export license for 2.2 bcf per day. Not coincidentally, Sabine Pass’s authorization from the Federal Energy Regulatory Commission (“FERC”) is to construct a

---

<sup>31</sup> Dow Comments at 21.

<sup>32</sup> Sierra Club Comments at 3.

facility capable of liquefying and exporting 2.2 bcf per day of LNG.<sup>33</sup> Similarly, LCE has applied for a non-FTA authorization for 2.0 bcf per day, has received an FTA authorization for 2.0 bcf per day, and is in the pre-filing process at FERC for a liquefaction facility capable of manufacturing LNG equivalent to 2.0 bcf per day of natural gas.<sup>34</sup> The consistency between the non-FTA authorization, FTA authorization, and liquefaction capacity is no coincidence; LNG terminals want to have both FTA and non-FTA authorization to cover the full output of their facilities. Any suggestion that non-FTA and FTA authorizations should be treated as additive as part of any analysis is false.

Similarly, DOE/FE need not assume that all licenses will be used. Because of uncertainty regarding US export policy, applying for an export authorization is among the first things that a project developer does. Application to the DOE/FE precedes detailed engineering, applications to FERC, the negotiation of commercial agreements with offtakers, the negotiation of construction agreements, securing financing, and most other elements of a successful development. As NERA details, many external factors will limit LNG exports. Under no scenario did NERA project that 28 bcf per day of natural gas would be exported. A common sense look at the worldwide LNG market shows NERA's conclusion to be obviously correct. Total LNG trade in 2012 was 32 bcf per day.<sup>35</sup> The market cannot absorb an additional 28 bcf per day of LNG. Even if demand at such a level materialized, competition from projects in other countries—a number of which are currently under construction—would prevent more than a fraction of the incremental supplies from coming from the US.

---

<sup>33</sup> , *Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 2961 at 41 (May 20, 2011); *Sabine Pass Liquefaction, LLC, et al.*, 139 FERC ¶ 61,039 (2012).

<sup>34</sup> *Application of Lake Charles Exports, LLC for Long-Term Authorization to Export Liquefied Natural Gas* at 1, FE Docket No. 11-59-LNG (filed May 6, 2011); Revised Draft Resource Report 1 of Trunkline LNG Company, LLC, et al. at 1-4, FERC Docket No. PF12-8 (filed Jan. 28, 2013).

<sup>35</sup> Tight LNG supplies forecast for another year or two, Dow Jones Newswires, Jan. 24, 2013.



Competition will cause some of the LNG projects to be built while others never are. Navigant, for example, predicts that six to eight bcf per day of export capacity will eventually be built.<sup>36</sup> Those that can provide an attractive package of price, location, build quality, and timeline, among other factors, will find LNG offtakers willing to sign long-term contracts and will be constructed. Others will not. A market-based approach is a better method than DOE/FE fiat for determining which liquefaction facilities should be built and how much liquefaction capacity will be needed.

A number of commenters contend that international LNG prices will not constrain the demand for gas for US LNG exports due to distortions introduced by the LNG contracts.<sup>37</sup> Some commenters, for example, believe that LNG exports involve “take or pay” contracts that will cause exports to continue, even when the pricing is uneconomic.<sup>38</sup> Another variant of this argument, raised by Save Our Supplies, LLC (“SOS”),<sup>39</sup> is that once LNG production facilities are constructed their cost is sunk, so that only the variable costs of LNG production will be taken into account in determining whether to continue exports.<sup>40</sup> As a result, these commenters fault the NERA Study’s conclusion that if US natural gas prices increase, LNG exports will reach an upper limit because selling additional gas into foreign markets will no longer be economic.

---

<sup>36</sup> See, e.g., Navigant Analysis at 5-6.

<sup>37</sup> See, e.g., CarbonX Comments at 20-24, 28-29; NRDC Comments at 8.

<sup>38</sup> Dow Comments at 5, 12, 17; Sierra Club Comments at 13.

<sup>39</sup> The comments of SOS should be rejected because SOS failed to comply with DOE/FE’s filing requirements. 10 C.F.R. § 590.103. Any comment filed with DOE/FE “shall be signed either by the person upon whose behalf the document is filed or by an authorized representative.” (10 C.F.R. § 590.103(b)) SOS did not provide an individual’s signature, or the name of any individual associated with the organization, on either its comments or the cover email through which SOS filed its comments. SOS was first formed as a limited liability company on the afternoon of January 24, 2013 — the deadline for filing initial comments. SOS’s domain (saveoursupplies.org) was also first registered on January 24, 2013. Both of these registrations were conducted through proxies, concealing the identity of the individual or organization that is responsible for SOS’s formation. SOS’s comments violate both the letter of DOE/FE’s filing requirements and the spirit of transparency. As such, DOE/FE should reject SOS’s comments.

<sup>40</sup> Initial Comments of Save Our Supplies at 11-12, 25, Doc. No. 190 (filed Jan. 24, 2013) (“SOS Comments”).

These comments, however, display a misunderstanding of how US LNG export markets will operate. First, they assume that the development of LNG export capacity will all occur at once, under one set of pricing assumptions, and that the participants will then be locked into long-term contracts that will dictate export levels. In fact, due to the limited ability of the global LNG market to absorb large quantities of US exports, the development of US export capability will be spread over more than a decade. If there is an unexpected gas price response during that period, additional export capacity will not be developed.

Moreover, even once the contracts are signed and the capacity is built, export levels will be sensitive to US gas prices. The US will be a truly unique LNG exporter in that the US will not only be an exporter, it will be the world's largest gas market. In every other country where LNG is produced, the gas resources are stranded. Qatar, for example, has more than twice the proven reserves of the United States and a population equivalent to that of Nebraska; there is no other place for Qatar's gas to go. In a place such as Qatar (or Australia or Trinidad or Mozambique) reserves simply will not be developed without a take or pay commitment from the LNG market that goes all the way back to the wellhead.

In the US, in contrast, there will be no reserves dedicated to LNG production and there will be no take or pay commitments to gas producers. Whether nominally styled as LNG purchase agreements (as in the case of Sabine Pass) or LNG tolling service agreements (the more likely format for most of the other projects), the customer is not assuming a take or pay obligation that pertains to gas but is instead committing to pay a reservation fee for facilities. This reservation of liquefaction capability in effect provides an option to acquire gas in the US market for export. If US gas prices are not low enough to compete with stranded gas in Qatar, Australia, Mozambique and elsewhere, the option will not be exercised.

#### **IV. LNG exports will have a minimal impact on manufacturing.**

While trade groups representing major groups of manufacturers have supported LNG exports,<sup>41</sup> a handful of manufacturers make broad and speculative claims about damage to the manufacturing sector caused by LNG exports.<sup>42</sup> One central claim from these commenters is that increases to natural gas prices caused by LNG exports will prevent investment in new manufacturing facilities. Dow, in particular, makes a number of claims regarding the impact of LNG exports on manufacturing without providing much, if any, data to support its argument.<sup>43</sup>

As an initial matter, LNG production is manufacturing. Natural gas must undergo a multi-step process to become LNG. LNG results from the application of labor and capital to natural gas, the very definition of manufacturing.<sup>44</sup> Each liquefaction plant costs several billion dollars to build, even at a facility such as the Lake Charles terminal where LNG storage and ship berthing facilities already exist. LNG production takes gas that is worth a few dollars at the plant inlet and transforms it into a product that is worth multiples of that in international markets. It is not at all clear why US policy should discourage the exportation of gas as LNG, in favor of the exportation of gas in other forms such as nitrogenous fertilizer.<sup>45</sup>

---

<sup>41</sup> See, e.g., Initial Comments of American Fuel & Petrochemical Manufacturers, Doc. No. 332 (filed Jan. 24, 2013); Initial Comments of Caterpillar, Inc., Doc. No. 132 (filed Jan. 24, 2013); Initial Comments of GE Oil & Gas, Doc. No. 175 (filed Jan. 24, 2013); Initial Comments of Manufacture Alabama, Doc. No. 36 (filed Jan. 16, 2013); Initial Comments of National Association of Manufacturers, Doc. No. 116 (filed Jan. 24, 2013).

<sup>42</sup> See, e.g., Alcoa Comments; American Forest Comments; Initial Comments of American Iron and Steel Institute, Doc. No. 130 (filed Jan. 24, 2013) (“American Iron & Steel Comments”); Dow Comments; IECA Comments; Nucor Comments.

<sup>43</sup> As a general matter Dow’s comments are perplexing. Its claims are extreme and its tone is intemperate. Without citation to any data Dow makes dire comments regarding the impact of LNG exports on manufacturing. At the same time Dow’s CEO has publicly acknowledged LNG exports at levels in the range of those projected by NERA can be part of a “quadruple win”, *supra* at note 5.

<sup>44</sup> API Comments at 6.

<sup>45</sup> NERA Study at 69.

**A. Opponents of LNG exports have provided no concrete evidence of significant impacts on manufacturing.**

Claims by opponents of LNG exports that the sky is falling on US manufacturing require some context. The export of LNG from the US implies domestic gas prices at levels that provide US manufacturing a massive competitive advantage in the world market. Of the world's fifteen largest economies, eleven of the fourteen other than the US are LNG importers.<sup>46</sup> If the marginal cost of gas in all of those markets is the world LNG price, while US manufacturers have direct access to gas, US manufacturing has a built-in advantage over our major trading partners and competitors, including China, Japan, Korea, India and the United Kingdom. What these commenters are seeking, then, is not competitive gas prices, but a further subsidy in the form of a prohibition on the use of gas for LNG production that would artificially suppress US gas prices.

For the vast majority of US manufacturing, natural gas prices are not a significant driver of competitiveness, and so the fairly modest price impacts projected by EIA would have no discernible effects. Dow (and NERA for that matter) have therefore focused on the impacts on energy intensive, trade exposed ("EITE") industries. However, Dow never presents any evidence regarding the actual quantifiable effects of natural gas prices on EITE manufacturers. The only source Dow cites is the 2007 Interagency Task Force from the Waxman-Markey legislative debate, which caused Congress to determine that "it was unacceptable to raise energy prices on energy intensive manufacturers."<sup>47</sup>

Natural gas prices in 2007, however, were significantly higher than they are now. According to the EIA monthly natural gas price data, wellhead prices (per thousand cubic feet)

---

<sup>46</sup> International Gas Union, World LNG Report – 2011 at Table 2 (Jun. 2012); The World Bank, "GDP (Current US\$) available at <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD>. And Germany is considering LNG imports. Gas Infrastructure Europe, "LNG Map" (Aug. 2011) available at [http://www.gie.eu/maps\\_data/downloads/2011/GLE\\_LNG\\_August2011\\_MAP.pdf](http://www.gie.eu/maps_data/downloads/2011/GLE_LNG_August2011_MAP.pdf).

<sup>47</sup> Dow Comments at 30. Dow did not provide a citation for this position.

for natural gas in 2007 ranged from a low of \$5.30 to a high of \$6.87 (and went over \$10.00 in 2008), while prices in 2012 ranged from \$1.89 to \$2.89.<sup>48</sup> Manufacturers are operating in a much more favorable market for natural gas than when the Interagency Task Force made the finding noted by Dow.

In contrast to Dow, NERA has actually studied the impact of the projected gas price increases on the EITE sector. NERA notes that the EITE sector represents less than one half of one percent of US employment.<sup>49</sup> NERA projects changes in EITE output ranging from 0.4% to 1.0% in the most extreme case.<sup>50</sup> Notwithstanding Dow's overwrought assertions, the impact of LNG exports on manufacturing will be very narrow and very modest.

The comments suggest that most manufacturers believe that LNG exports will be beneficial to the nation as a whole. The National Association of Manufacturers filed comments in this proceeding opposing "market-distorting barriers to exports of LNG" as part of its broad support for open international trade.<sup>51</sup> Caterpillar, Inc. opposed restricting LNG exports because such restrictions "would discourage US energy exploration and economic growth."<sup>52</sup> Caterpillar also noted that the US has opposed export restrictions in other countries seeking to gain an advantage over US-based industries.<sup>53</sup> The US Chamber of Commerce made similar arguments in its comments, as well as noting the ill effects of past government manipulation of the natural gas market.<sup>54</sup> The American Chemistry Council, a trade association of chemical-related businesses, including Dow, recently affirmed its opposition to any new export bans or

---

<sup>48</sup> Available at [http://www.eia.gov/dnav/ng/ng\\_pri\\_sum\\_dcu\\_nus\\_m.htm](http://www.eia.gov/dnav/ng/ng_pri_sum_dcu_nus_m.htm).

<sup>49</sup> NERA Study at 12.

<sup>50</sup> NERA Study at 64.

<sup>51</sup> Initial Comments of National Association of Manufacturers at 4, Doc. No. 116 (filed Jan. 24, 2013).

<sup>52</sup> Initial Comments of Caterpillar, Inc., Doc. No. 132 (filed Jan. 24, 2013).

<sup>53</sup> *Id.*

<sup>54</sup> US Chamber Comments at 2-3, 4.

restrictions on liquefied natural gas.<sup>55</sup> These commenters, which include groups representing Dow's very industries, recognized what Dow is unable to see – worldwide free trade in all goods, including natural gas, will benefit the US, including manufacturers. To artificially limit that trade is economically harmful.

**B. LNG exports will not significantly increase natural gas prices and will reduce price volatility.**

Certain commenters express concerns that stem from two alleged effects of LNG exports on natural gas markets: (i) natural gas prices will increase and (ii) natural gas price volatility will increase.<sup>56</sup> On the first point, while LNG exports may increase natural gas prices marginally under some scenarios, NERA and others that have examined the issue have determined that such price increases will be limited. The NERA Study concluded that the highest price impact under any scenario would be a natural gas price \$1.11 above the reference case with no LNG exports, while most scenarios saw much lower potential price increases.<sup>57</sup> In only three scenarios did the difference from the baseline exceed \$1.00, and in seven of the scenarios, the price difference was never over \$0.50. As discussed above, EIA lowered the projected prices at Henry Hub from AEO2011 to AEO2013ER even when factoring in exports.

Other sources predict similar price effects from LNG exports. Navigant has predicted minimal price increases as a result of exports, with natural gas prices staying under \$5.00 per MMBtu through around 2020, and with price increases over \$1.00 occurring only in its highest

---

<sup>55</sup> ACC Statement on Energy and Competitiveness (Feb. 6, 2013), *available at* <http://www.americanchemistry.com/Media/PressReleasesTranscripts/ACC-news-releases/ACC-Statement-on-Energy-and-Competitiveness.html>

<sup>56</sup> Dow Comments at 20-26; *see also* Alcoa Comments; American Public Gas Ass'n Comments; Initial Comments of Cascadia Wildlands, Doc. No. 126 (filed Jan. 24, 2013); Initial Comments of Citizen Power, Doc. No. 186 (filed Jan. 24, 2013) ("Citizen Power Comments"); Initial Comments of Clean Line Energy Partners, Doc. No. 198 (filed Jan. 24, 2013); Initial Comments of Food & Water Watch, Doc. No. 112 (filed Jan. 24, 2013); IECA Comments; Landowners United Comments; NRDC Comments; Initial Comments of Rentech Inc., Doc. No. 130 (filed Jan. 24, 2013); SOS Comments.

<sup>57</sup> NERA Study at Figure 29.

demand case.<sup>58</sup> Deloitte projects an impact on US city gate prices that average \$0.15 per MMBtu from 2016 to 2030, an increase of approximately 2 percent.<sup>59</sup>

Some commenters argue that LNG exports will raise natural gas prices, in part, because both natural gas producers and pipeline infrastructure will be unable to scale up in time to meet the demand from LNG exports.<sup>60</sup> Dow posits that exports will require US production to increase over 20 bcf per day by 2020, which Dow claims is unprecedented, with the bulk of the demand increase occurring between 2017 and 2020.<sup>61</sup>

The US has previously accommodated similar build-outs in the industry, both in terms of production increases and infrastructure construction. For example, during the beginning periods of the shale gas revolution, production in various shale plays increased at rates sufficient to meet the demand needs cited by Dow. Table 4 shows the production growth in the Haynesville shale, where, between January 2008 and September 2011, production increased 4.6 bcf per day, in only a single shale play. Excessive development has since led to low gas prices and dropping rig counts.<sup>62</sup> However, if LNG exports were to revive gas demand these rigs could return to full activity and the necessary deliverability could readily be developed. With multiple major shale plays as well as abundant conventional reserves available for further development, increasing production over the next 7 years by an additional 7 bcf per day to accommodate LNG exports (a much more reasonable expectation of LNG export build out than 20 bcf per day) is entirely reasonable.

---

<sup>58</sup> Navigant Consulting, Inc., Southern LNG Export Project Market Analysis Study (attached as Appendix A to the *Application of Southern LNG Company, L.L.C. for Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas to Non-Free Trade Agreement Countries*, FE Docket No. 12-100-LNG (filed August 31, 2012)).

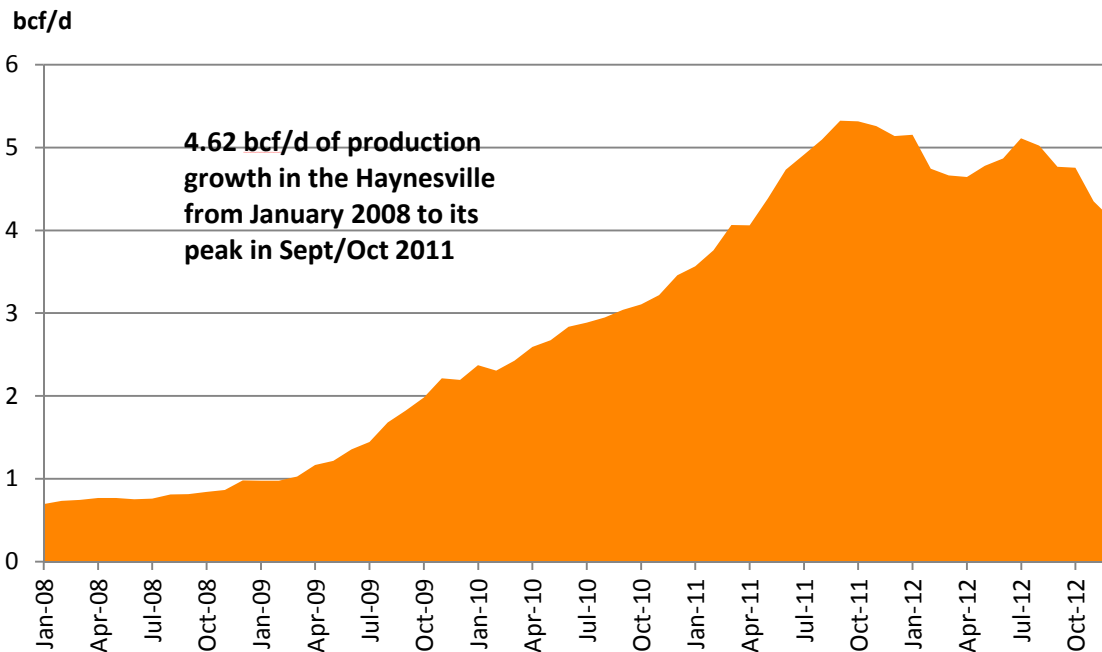
<sup>59</sup> Deloitte Center for Energy Solutions, Exporting the American Renaissance: Global impacts of LNG exports from the United States at 12 (2013).

<sup>60</sup> Dow Comments at 14-18. CarbonX makes a similar argument. CarbonX Comments at 14-15.

<sup>61</sup> Dow Comments at 16.

<sup>62</sup> Baker & Hughes, Inc., "North America Rotary Rig Count (Jan 2000-Current) (Feb. 15, 2013) available at [http://investor.shareholder.com/bhi/rig\\_counts/rc\\_index.cfm?showpage=na](http://investor.shareholder.com/bhi/rig_counts/rc_index.cfm?showpage=na).

**Table 4 – Haynesville Shale Production**



Similarly, the US pipeline industry has proved to be very nimble in reacting to the needs of the market. In part this has entailed repurposing existing pipelines originally constructed to take gas from the Gulf Coast to markets that can now be served by more proximate production. Even where new pipelines are required, FERC permitting generally takes about one year, and construction can generally be completed in a single season.

This contrasts with the lead times for LNG projects. A three-train liquefaction facility, for example, would require two years for permitting<sup>63</sup> and over four years for construction. If new tanks are required, the construction period could be even longer. In short, gas producers will not be blind-sided by LNG-related demand; they will have plenty of lead time.

<sup>63</sup> See Sabine Pass Liquefaction, LLC, *et al.*, Request to Initiate Commission NEPA Pre-Filing Process, FERC Docket No. PF10-24 (filed July 26, 2010); *Sabine Pass Liquefaction, LLC, et al.*, 139 FERC ¶ 61,039 (Order Granting Section 3 Authorization) (issued Apr. 16, 2012), *reh'g denied*, 140 FERC ¶ 61,076 (2012).



In addition to contending that LNG exports will increase gas prices, Dow asserts that natural gas exports will increase price volatility that will harm manufacturing.<sup>64</sup> Dow attempts to connect increasing natural gas price volatility from 2000-2009 with the loss of manufacturing jobs.<sup>65</sup> The fact that two lines can be laid on top of each other on a graph<sup>66</sup> does not establish causation. For the vast majority of the industry represented by Dow's "Manufacturing Jobs" line, natural gas is not a significant input. The decline in manufacturing employment during the first decade of the 21<sup>st</sup> century may have had something to do with the fact that this period included two recessions, dramatically increased labor productivity in the manufacturing sector, and a shift in employment from manufacturing to the service sector.<sup>67</sup>

Not only is Dow wrong about the linkage between gas price volatility and manufacturing employment, but Dow is wrong about the link between LNG exports and gas price volatility. Experts agree that LNG exports will reduce price volatility.<sup>68</sup> The largest price spikes shown on Dow's graph of gas price volatility coincided with severe cold weather or with hurricanes that disabled gas production facilities in the Gulf of Mexico. Table 5 shows spikes in Henry Hub prices and the corresponding change in volume of gas in storage compared to one year prior, with the major cause of each price spike identified. The increased reserve development and infrastructure investment that will occur in response to LNG exports will help to protect against volatility by allowing alternative supply sources or paths should severe weather or a natural disaster cause an imbalance in domestic supply and demand. In the event of a disaster, gas

---

<sup>64</sup> Dow Comments at 23-26

<sup>65</sup> Dow Comments at 24.

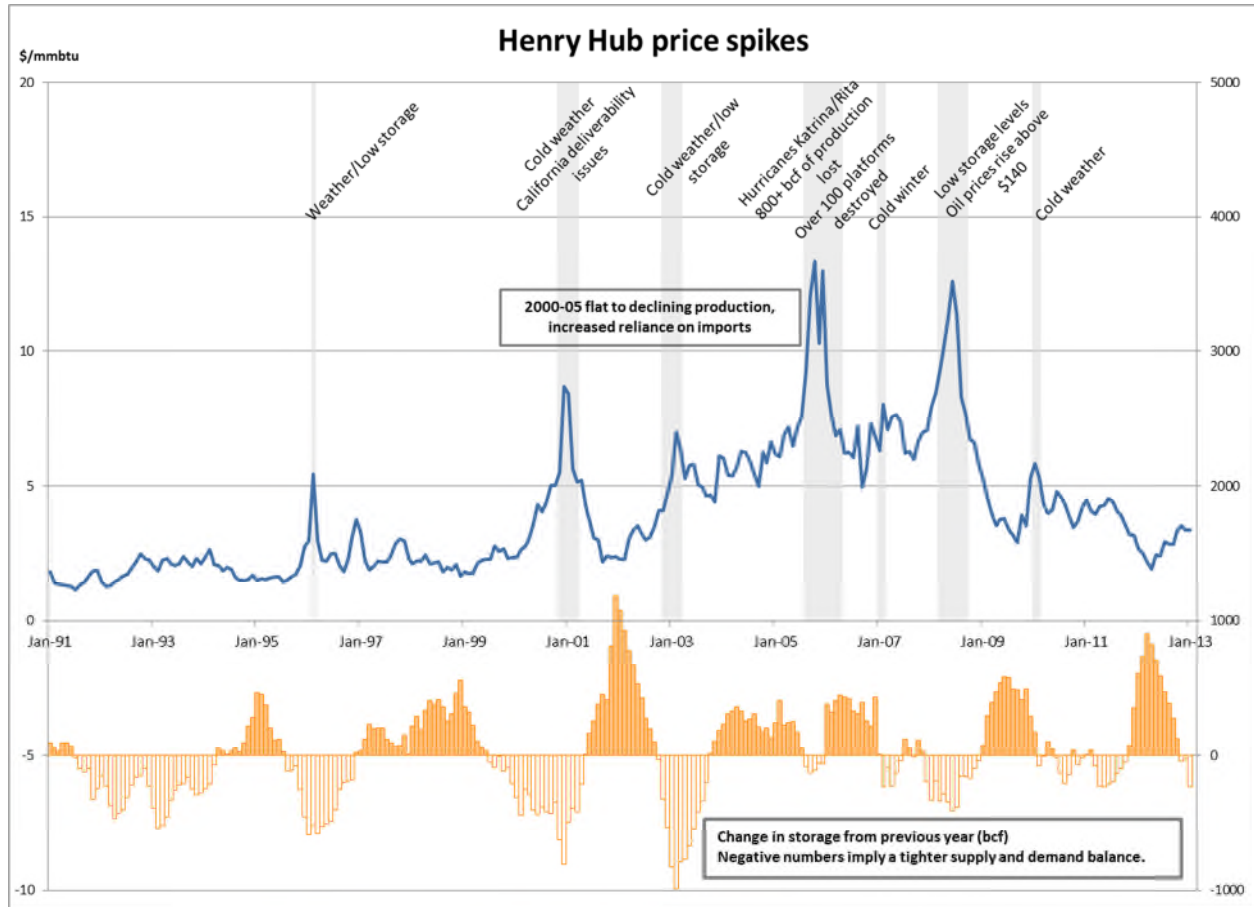
<sup>66</sup> Dow Comments at 24.

<sup>67</sup> Bureau of Labor Statistics, Productivity and Costs by Industry: Manufacturing Industries, 2010 (Mar. 29, 2012).

<sup>68</sup> Levi Brief at 15-16; Energy Security Brief at 35-36.

deliverability that would have gone to exports can readily be diverted to serve the domestic market.

**Table 5:  
Henry Hub Prices and Changes in Gas Storage Volumes**



The nature of US LNG contracts will also serve to reduce price volatility. As described in Section III above, these contracts do not obligate liquefaction customers to take a specific quantity of LNG but instead give customers an option to liquefy gas. Thus, if prices were to increase due to some sudden shift in supply or demand, LNG producers can reduce the quantity of gas they liquefy and can instead sell that gas into the domestic market, reducing domestic price volatility as a result.

Liquefaction facilities have a relatively steady demand that is only minimally subject to weather-related variability or other swings in demand that can cause price shocks. Other analyses have concluded that “no such possibility” of price volatility from LNG exports exists.<sup>69</sup> Liquefaction facilities also have a cap on production. Should an international price or supply shock occur, then, liquefaction facilities will not be able to spike production in response, assuming they are already at or near capacity.<sup>70</sup> Therefore, the US market will be insulated from international supply or price shocks.

**C. LNG exports will increase the supply of critical manufacturing feedstocks.**

A critical point that some of the chemical manufacturers fail to recognize is that LNG exports will increase the supply of ethane, propane, and heavier hydrocarbons, thereby decreasing the price for those inputs. While Dow portrays chemical manufacturing and LNG production as competing uses of gas, they are actually complementary industries. As Dow’s own comments indicate, the chemical industry consumes considerably more liquefied petroleum gas (“LPG”) and natural gas liquids (“NGLs”) than natural gas.<sup>71</sup> Because LNG exports require a gas stream that is almost entirely methane, LPG and NGLs are byproducts of the production of gas for LNG manufacturing.

Chemical manufacturers in particular rely heavily on ethane and other NGLs in the production of ethylene. Ethylene facilities constitute the first twenty new manufacturing projects that Dow listed in its comments.<sup>72</sup> According to the comments submitted by API, new ethylene plants will require approximately 767,000 to 1,127,000 bbls per day of ethane, while US supply

---

<sup>69</sup> Levi Brief at 16.

<sup>70</sup> Energy Security Brief at 36.

<sup>71</sup> Dow Comments at 28.

<sup>72</sup> Dow Comments at Exhibit A.

in 2011 was only 925,950 bbls per day in total.<sup>73</sup> Thus, chemical manufacturers need the new sources of ethane that LNG exports can help supply. API also cites the American Chemistry Council as projecting a combination of ethane utilization and use of natural gas as a feedstock to increase the output of chemical manufacturers by \$70.2 billion over five years.<sup>74</sup> The low prices for ethane, which have been one of the key drivers in spurring development of ethylene facilities, will continue due to LNG exports to the benefit of chemical manufacturers, such as Dow.

V. **Critics of NERA’s assumption of constant employment misunderstand the effect of that assumption.**

The 2012 LNG Export Study utilized a general equilibrium macroeconomic model in which full employment in the US labor market is assumed. Sierra Club claims that “NERA avoided providing employment figures in this report, but the methodology that NERA has used in other studies for that purpose shows major job losses.”<sup>75</sup> Similarly, the Synapse Report paints NERA’s full employment assumption as assuming “everyone who wants a job has one; by definition, LNG exports cannot cause unemployment.”<sup>76</sup> However, by definition, NERA’s assumption of full employment means that LNG exports also cannot cause increased employment.

If a full employment assumption were not a feature of NERA’s model, the 2012 LNG Export Study could recognize new jobs created by LNG exports and the effect that these new jobs will have on the high current domestic unemployment rate. The Synapse Report notes that “[t]he full employment assumption [is] common to most (though not all) CGE models,” but

---

<sup>73</sup> API Comments at 13 (citing ICF International); EIA, *Petroleum and Other Liquids, Supply and Disposition*, Annual 2011 (Sept. 27, 2012), available at [http://www.eia.gov/dnav/pet/PET\\_SUM\\_SND\\_A\\_EPLLE\\_MBBLPD\\_A\\_CUR.htm](http://www.eia.gov/dnav/pet/PET_SUM_SND_A_EPLLE_MBBLPD_A_CUR.htm).

<sup>74</sup> API Comments at 13 (citing American Chemistry Council, Shale Gas, Competitiveness and New US Investment: A Case Study of Eight Manufacturing Industries at 14 (May 2012)).

<sup>75</sup> Sierra Club Comments at 8.

<sup>76</sup> Synapse Report at 1.

argues that this assumption is “appropriate—or at least, introduces only minor distortions—at times of very high employment such as the late 1990s. It is, however, transparently wrong under current conditions, when unemployment rates are high and millions of people who want jobs cannot find them.”<sup>77</sup> Dow also acknowledges, “The [full employment and full labor fungibility/mobility] assumptions are unrealistic, especially given the current state of the US economy.”<sup>78</sup> While these commenters are correct that NERA’s simplifying assumption may be at odds with current expectations, they draw precisely the wrong conclusion from their observation. The NERA model’s labor market is a zero-sum game when, in fact, the current labor market can absorb hundreds of thousands of new jobs without cannibalizing the existing workforce. The model fails to capture the benefits of both temporary and permanent jobs created by LNG exports that will provide work for thousands of unemployed people who want jobs, without taking these people from other jobs as in NERA’s model.<sup>79</sup> These new jobs will consequently increase overall labor income in the US.

LNG exports will create new jobs throughout the energy industry and the industries that support the energy industry with materials, equipment, and labor. These include jobs associated with increased production of natural gas and NGLs, the construction of infrastructure such as new pipelines and liquefaction facilities, and the operation and maintenance of this new and expanded infrastructure.<sup>80</sup> An independent study by the Energy Security Initiative at Brookings noted that, although the effects of LNG exports on job creation are “difficult to quantify,” there is only limited potential for negative employment effects on other industries and greater potential

---

<sup>77</sup> Synapse Report at 15.

<sup>78</sup> Dow Comments at 30.

<sup>79</sup> LNG exports also would not create increased unemployment in the manufacturing sectors, as discussed more fully *supra*, Section IV.

<sup>80</sup> See API Comments at 5-6.

for permanent job creation.<sup>81</sup> Using the EIA Study's increased production estimate and the IHS's current production and employment data, API calculated the additional jobs from increased production of natural gas alone to be approximately 104,962 jobs.<sup>82</sup> The Freeport LNG project would create approximately 1,800 to 2,000 local engineering and construction jobs, hundreds of off-site support jobs, and approximately 160 to 170 new, permanent facility management, operation, and maintenance jobs in Freeport, Texas.<sup>83</sup> The Cove Point Liquefaction project would likely be one of the largest construction projects ever undertaken in Maryland, with total construction costs currently estimated to be in the range of \$2.5 billion to \$3.5 billion,<sup>84</sup> and it would create approximately 3,700 and 4,000 direct jobs during construction, approximately 3,850 to 4,820 indirect jobs during construction, and approximately 130 new, permanent jobs in Maryland.<sup>85</sup> The Jordan Cove project would create an average of 1,768 direct jobs and 3,368 indirect and induced jobs during construction, including approximately \$330 million in wages each year, and 99 new, permanent direct jobs and 637 new, permanent indirect and induced jobs in Coos County, Oregon.<sup>86</sup> The Cameron LNG project would create an average of over 2,300 local engineering and construction jobs over a 56-month period, as well as hundreds of additional off-site jobs to support the design, fabrication and construction of the project.<sup>87</sup> The Oregon LNG project in Warrenton, Oregon would create an average of 10,438 direct, indirect, and induced jobs during construction, including approximately \$847.6 million in

---

<sup>81</sup> Energy Security Brief at 37.

<sup>82</sup> *Id.* at 6 n.14.

<sup>83</sup> Freeport LNG Development, L.P., Application for Certificate Authorization at 3, FERC Docket No. CP12-509 (filed Aug. 31, 2012).

<sup>84</sup> Draft Resource Report 5 of Dominion Cove Point LNG, LP at 3, FERC Docket No. PF12-16 (filed Dec. 6, 2012).

<sup>85</sup> Dominion Cove Point LNG, LP, Application of Long-Term Authorization to Export LNG to Non-Free Trade Agreement Countries at 16, FE Docket No. 11-128-LNG (filed Oct. 3, 2011).

<sup>86</sup> Jordan Cove Energy Project, L.P., Application for Long-Term Authorization to Export Liquefied Natural Gas to Non-Free Trade Agreement Nations, at 21-22, FE Docket No. 12-32-LNG (filed Mar. 23, 2012).

<sup>87</sup> Cameron LNG, LLC Application for Certificate Authorization at 3, FERC Docket No. CP13-25 (filed Dec. 7, 2012).

wages and benefits to US workers, approximately 643 new, permanent direct jobs in Clatsop County, Oregon, including an annual labor income of \$46.5 million, and approximately 948 new, permanent indirect and induced jobs in Oregon and Washington, including an annual labor income of \$56 million.<sup>88</sup> These estimates do not include new jobs created by the construction and maintenance of additional pipeline infrastructure that may be necessary to serve these LNG facilities.

The NERA model's constant full employment assumption fails to account for reduced unemployment and new sources of labor income that would be created by LNG exports. Commenters' claims that LNG exports will reduce labor income for the average wage-earning American and, as a result, depress US consumption and shrink GDP in all areas except for LNG exports depend upon a zero-sum byproduct of the NERA model's full employment assumption.<sup>89</sup> Without this assumption, the net economic benefits from allowing LNG exports would include decreased US unemployment and underemployment rates.

**VI. Critics of NERA's assumption of domestic financing misunderstand the benefits of attracting foreign capital.**

Several commenters argue that the NERA model's assumption that investment in natural gas production and export-related infrastructure will originate from US sources leads the 2012 LNG Export Study to overstate the benefits of LNG exports.<sup>90</sup> NERA noted that its model

assumed that all of the investment in liquefaction facilities and in increased natural gas drilling and extraction come from domestic sources. Macroeconomic effects could be different if these facilities and activities were financed by foreign direct investment

---

<sup>88</sup> LNG Development Company, LLC, Draft Resource Report 1 at 3-4, FERC Docket No. PF12-18 (filed Aug. 13, 2012).

<sup>89</sup> Synapse Report at 1-3, 18; Sierra Club Comments at 6-8; *see also* Alcoa Comments; Citizen Power Comments; Clean Ocean Action Comments; IECA Comments; Oregon Wild Comments; Sen. Wyden Comments.

<sup>90</sup> Barth Comments at 3; Dow Comments at 32-33; Rep. Markey Comments at 6; Sierra Club Comments at 8-9; *see also* American Public Gas Ass'n Comments; Citizens Against LNG Comments; Clean Ocean Action Comments; NRDC Comments.

(“FDI”) that was *additional* to baseline capital flows into the US FDI would largely affect the timing of macroeconomic effects, but quantifying these differences would require consideration of additional scenarios in which the business model was varied.<sup>91</sup>

NERA thus acknowledged the possibility that investment necessary for LNG exports may come from foreign sources. The NERA model’s assumption of domestic investment explicitly fails to capture the macroeconomic benefits that will result from the injection of any foreign investment into natural gas production and infrastructure.

The United States has the leading economy in the world in part because the US is the leading destination of international flows of capital.<sup>92</sup> Each dollar of new foreign investment capital into the US results in an equivalent increase in US GDP. The main positive components of GDP are private consumption, investment, government expenditures, and exports.<sup>93</sup> Any foreign direct investment stemming from the development of a US LNG industry would not decrease domestic capital investment, but would merely free up such domestic capital for other investments. Therefore the total amount of investment in the US would increase, dollar-for-dollar, with foreign investment, increasing US GDP by the same amount. If that foreign investment earns a return and, after taxation by US local, state and federal governments, some of that return is repatriated, this reflects a small countervailing outflow (which seems to be what, for example, Representative Markey is focusing on). Nonetheless, foreign direct investment remains a major net contributor to the US economy. The 2012 LNG Export Study’s simplifying assumption regarding the source of investment in LNG production infrastructure fails to capture

---

<sup>91</sup> NERA Study at 211 (emphasis added).

<sup>92</sup> United Nations Conference on Trade and Development, World Investment Report 2012 at Annex Table I.1 (May 7, 2012).

<sup>93</sup> See US Department of Commerce, Bureau of Economic Analysis, Measuring the Economy: A Primer on GDP and the National Income and Product Accounts at 4 (Sept. 2007).



the benefits of any capital provided from foreign sources and thus understates the impact of such investment on US GDP.

**VII. Calls for additional “granularity” are misplaced.**

Criticisms of the NERA Study for failure to include a sector-by-sector analysis or a region-by-region analyses are baseless because the effects on individual sectors or regions are irrelevant to the overall conclusion. The Sierra Club, for example, faults NERA for failing to “model exports’ impact on each economic sector,”<sup>94</sup> and Dow criticizes the NERA study as “not industry-specific” because it “aggregated sectors.”<sup>95</sup> Representative Markey also criticized NERA for failing to complete a sector-by-sector analysis.<sup>96</sup> The Sierra Club seems to seek a similar analysis, but on a community-by-community basis to assess natural gas production.<sup>97</sup>

NERA concluded that LNG exports would boost US GDP in all scenarios, with more exports resulting in additional GDP benefits. Gas production and LNG exports may benefit gas producing areas more than gas consuming areas, and rural areas more than urban areas. But this fact is irrelevant to DOE/FE’s analysis of the public interest. While Representative Markey may be free to pursue the parochial interests of gas consumers in eastern Massachusetts, the DOE/FE cannot weigh a dollar of GDP from one region more heavily than a dollar of GDP from another region. Thus, a “granular” analysis of the regional distribution of the economic benefits of LNG exports will be of no assistance to the DOE/FE in discerning the public interest.

One main basis the Sierra Club uses to attack the NERA Study is a claim that all elements of GDP, other than LNG exports, decline.<sup>98</sup> Synapse, in its report for the Sierra Club,

---

<sup>94</sup> Sierra Club Comments at 12.

<sup>95</sup> Dow Comments at 26.

<sup>96</sup> Rep. Markey Comments at 5; *see also* Alcoa Comments; Aluminum Ass’n Comments; American Iron & Steel Comments; Barth Comments; IECA Comments; Nucor Comments.

<sup>97</sup> Sierra Club Comments at 24.

<sup>98</sup> Sierra Club Comments at 8.

states that “LNG exports benefit only a very narrow section of the economy, while causing harm to a much broader group.”<sup>99</sup> The Sierra Club’s view of the distribution of the benefits of LNG exports is cartoonish.<sup>100</sup> The Sierra Club sees the benefits of LNG exports as flowing to the underserving shareholders of energy companies, while the detriments accrue to those least able to bear them. Reality is more subtle. The unemployed truck driver who gets a job hauling oil field equipment, or the owner of a small farm who is offered a royalty check, or the municipal employee who is called back to work from furlough when local property tax revenues are boosted by the construction of an LNG plant may all be surprised to find themselves classified by the Sierra Club as undeserving. The shareholders of Dow and Alcoa may be surprised to be numbered among the needy. While the federal government may need to address income inequality, it has better tools than DOE/FE export authority with which to do so, such as a progressive tax system and transfer payments. Seeking to equalize income by suppressing economic activity would be bad policy.

Similarly, the usefulness to DOE/FE of NERA’s conclusion that LNG exports will boost US GDP, with more exports resulting in additional GDP benefits, would not be enhanced by a more detailed analysis of the effect of exports on every sector of the economy. The data underlying NERA’s conclusion show that the economic benefits of LNG exports outweigh any adverse impact that might be felt in other sectors of the economy.<sup>101</sup> It has long been the policy of DOE/FE to avoid making value judgments between different uses of gas and to instead let market forces dictate economic activity.

Moreover, while NERA did not provide an analysis of the potential effects of LNG exports on every sector, it did analyze the effects on sectors on which these impacts could

---

<sup>99</sup> Synapse Report at 6.

<sup>100</sup> Sierra Club Comments at 6 (“LNG export transfers billions from the middle class to gas companies.”)

<sup>101</sup> NERA Study at 55-63.

potentially be material. NERA projected that the electricity and energy-intensive sectors could see maximum losses ranging from 0.2% to 1%, the manufacturing sector could see losses or gains of plus or minus 0.5%, and the services sector would see minimal impact.<sup>102</sup> NERA also examined the effects on energy-intensive sectors in greater detail, finding that the reduction in output from those industries would be less than 1.0%, with certain scenarios showing minimal changes.<sup>103</sup> While NERA did not analyze each individual element of the North American Industry Classification System separately, it did make specific examinations of certain industry sectors likely to be most affected by LNG exports.

While criticizing NERA for failing to examine the impacts on individual energy intensive trade exposed industries, Representative Markey also faulted NERA for its reliance on the Interagency Report prepared in conjunction with the Waxman-Markey climate change legislation.<sup>104</sup> Representative Markey mischaracterizes NERA's use of the Interagency Report, accusing NERA of relying on the report for the conclusion that gas price increases would not affect the EITE sector. Representative Markey points to the finding in the Interagency Report that such industries could see cost increases from climate change legislation, which is why such industries would have received special allowances in the bill.<sup>105</sup> NERA, however, acknowledged this fact and quoted this exact portion of the Interagency Report.<sup>106</sup> NERA did not dismiss the effect of higher prices on those industries that would have received allowances under Waxman-Markey, but instead considered the effects of LNG exports on those industries separate and apart

---

<sup>102</sup> NERA Study at 60.

<sup>103</sup> NERA Study at 64.

<sup>104</sup> Rep. Markey Comments at 3 (citing *The Effects of H.R. 2454 on International Competitiveness and Emission Leakage in Energy-Intensive Trade-Exposed Industries* (Dec. 2, 2009) ("Interagency Report")).

<sup>105</sup> Rep. Markey Comments at 5.

<sup>106</sup> NERA Study at 67.

from other industries.<sup>107</sup> NERA relied on the Interagency Report for the proposition that the effect of higher gas prices would be narrowly confined to the EITE sector. While a limited segment of manufacturing might experience greater effects from higher natural gas prices, those industries are not high value added.<sup>108</sup> NERA closed its analysis on this point with a more telling quote from the Interagency Report, which would also apply to LNG exports:

On the whole, energy expenditures equal only 2 percent of the value of US manufacturing's output (see Figure 1) and three-quarters of all manufacturing output is from industries with energy expenditures below 2 percent of the value of their output. Thus, the vast majority of US industry will be relatively unaffected by a greenhouse gas cap-and-trade program.<sup>109</sup>

The sector-by-sector analysis that these commenters have requested would be of no use to DOE/FE because the conclusion would remain unchanged – however the effects are divided, the benefits of LNG exports will outweigh any harm to other industries. In the end, whether NERA broke the elements of its economic analysis into ten parts or 1,000, the resulting summation of impacts would have been the same – that LNG exports will grow the US economy and be beneficial on the whole.

#### **VIII. Arguments regarding non-economic considerations are outside the scope of this notice-and-comment proceeding.**

##### **A. Comments regarding health, the environment, and the societal effects of LNG exports should be addressed in a NEPA analysis.**

Many organizations and individuals, including the Sierra Club, commented on health, environmental, and societal effects of LNG exports,<sup>110</sup> which are outside the bounds of the 2012

---

<sup>107</sup> NERA Study at 68-70.

<sup>108</sup> NERA Study at 69.

<sup>109</sup> NERA Study at 70 (quoting the Interagency Report at 7).

<sup>110</sup> See, e.g., Initial Comments of Robert Bade, Doc. No. 212 (filed Jan. 20, 2013); Barth Comments; Citizens Against LNG Comments; Initial Comments of Claudia Crane, Doc. No. 110 (filed Jan. 24, 2013); Initial Comments of Gerrit Crouse, Doc. No. 204 (filed Jan. 19, 2013); Initial Comments of Erin Crump, Doc. No. 81 (filed Jan. 23, 2013); Initial Comments of Jennifer Davis, Doc. No. 53 (filed Jan. 21, 2013); Initial Comments of John Detwiler, Doc. No. 131 (filed Jan. 24, 2013); Initial Comments of Environmental Working Group, Doc. No. 125 (filed Jan. 24,

LNG Export Study. The purpose of the 2012 LNG Export Study was not to constitute a full public interest analysis of LNG exports, but to examine the macroeconomic impacts and domestic price impacts of permitting LNG exports. Therefore, comments on topics outside the bounds of the study are irrelevant to this proceeding and should be rejected.

DOE/FE's notice in the Federal Register inviting comment established the proper scope of comments as inviting comments regarding the two-part 2012 LNG Export Study, the first part of which (the EIA Study) "assessed how specified scenarios of increased natural gas exports could affect domestic energy markets" and the second part of which (the NERA Study) "evaluated the macro-economic impact of LNG exports on the US economy using a general equilibrium macroeconomic model of the US economy with an emphasis on the energy sector and natural gas in particular."<sup>111</sup> Many of the issues raised by individual commenters, and the Sierra Club in particular, are irrelevant to the purpose of this portion of the proceeding.

DOE/FE must still render a decision on each individual application after taking comments on the 2012 LNG Export Study. Those individual proceedings are where DOE/FE must determine if an application "will not be consistent with the public interest" as prescribed by Section 3(a) of the Natural Gas Act.<sup>112</sup> In essence, then, DOE/FE has seventeen separate proceedings where evidence regarding the environmental and societal effects of an LNG export proposal will be gathered and incorporated into the public interest assessment.

---

2013); Initial Comments of Richard Horridge, Doc. No. 29 (filed Jan. 16, 2013); Initial Comments of 546 Individuals, Doc. No. 44 (filed Jan. 17, 2013); Initial Comments of 1002 Individuals, Doc. No. 156 (filed Jan. 17-27, 2013); Initial Comments of 77,413 Individuals, Doc. No. 393 (filed Jan. 24, 2013); NRDC Comments; Initial Comments of Oregon Shores Conservation Coalition, Doc. No. 133 (filed Jan. 24, 2013) ("Oregon Shores Comments"); Initial Comments of Hope Punnett, Doc. No. 80 (filed Jan. 23, 2013); Sierra Club Comments; Initial Comments of Mevrian Thomas, Doc. No. 74 (filed Jan. 20, 2013).

<sup>111</sup> See Notice, 77 Fed. Reg. at 73,627.

<sup>112</sup> 15 U.S.C. 717(b)(a) (2012).

As part of DOE/FE's analysis of individual applications, DOE/FE must conduct the required analysis under the National Environmental Policy Act ("NEPA"). Since virtually every application for export authorization relates to a specific LNG production facility subject to the jurisdiction of FERC, in most cases DOE/FE will participate with FERC in the joint development of an environmental impact statement ("EIS") or environmental assessment ("EA"). FERC will serve as the lead agency in the preparation of such an EA or EIS. For example, DOE/FE relied upon the assessment that it prepared jointly with FERC when issuing final approval of Sabine's non-FTA export authorization.<sup>113</sup> That analysis includes sections dedicated to socioeconomics, land use, recreation, and aesthetics.<sup>114</sup> To the extent relevant, then, many of the topics of interest to the Sierra Club and individual commenters raising similar issues will be addressed during the NEPA process.

**B. Evidence regarding the environmental effects of gas production is outside the scope of analysis of LNG exports under NEPA.**

The Sierra Club spends the majority of its pleading arguing that natural gas production will harm communities and that the environmental costs of natural gas production will outweigh the benefits. Not only are these topics beyond the scope of comments on the 2012 LNG export study, as discussed above, but they are also outside the scope of the NEPA process as it pertains to specific LNG exports.

FERC has found consideration of the environmental effects of gas production to be beyond the scope of NEPA analysis for LNG export projects. The Sierra Club's attempt to re-litigate the issue here represents an impermissible collateral attack on FERC's orders. In its order approving the Sabine Pass liquefaction facilities, FERC held that its NEPA analysis cannot include the effects of shale gas development because such effects are not "reasonably

---

<sup>113</sup> Order No. 2961-A, *Sabine Pass Liquefaction, LLC*, Docket No. 10-111-LNG (issued Aug. 7, 2012).

<sup>114</sup> See generally, 18 C.F.R. § 380.12 (2012).

foreseeable” or an “effect” of the liquefaction project under the relevant regulations.<sup>115</sup> FERC noted that Sabine Pass would receive gas at the head of its interconnected pipeline but could not estimate whether that gas had come from existing natural gas production or from new production attributable to the project.<sup>116</sup> Thus, “the factors necessary for a meaningful analysis of when, where, and how shale-gas development will occur are unknown.”<sup>117</sup> Because of the wide variety of sources for gas to feed the project, considering impacts of shale gas development was “simply impractical.”<sup>118</sup>

The Sierra Club, together with others, presented similar arguments in its opposition to construction of a pipeline in Pennsylvania and New York by Central New York Oil and Gas Company, LLC.<sup>119</sup> In *CNYOGC*, the Sierra Club and others argued that FERC needed to consider the environmental impacts of shale gas production as part of the NEPA assessment of an interstate pipeline project. FERC found that there was no causal relationship between the proposed gas pipeline and increased shale gas production, even for a pipeline much closer to the gas production sites than any LNG terminal will be.<sup>120</sup> Similar to the Sabine Pass case, FERC also held that “there is no way to relate any specific production and gathering activities” to the pipeline project, in part because there was no way to know the extent and location of future production.<sup>121</sup> On appeal, the Second Circuit rejected the Sierra Club’s arguments because

---

<sup>115</sup> *Sabine Pass Liquefaction, LLC, et al.*, 139 FERC ¶ 61,039 at P 96 (2012), *reh’g denied*, 140 FERC ¶ 61,076 (2012).

<sup>116</sup> *Id.* at P 98.

<sup>117</sup> *Id.*

<sup>118</sup> *Id.* at P 99.

<sup>119</sup> *Central New York Oil and Gas Co., LLC*, 138 FERC ¶ 61,104 (2012) (“*CNYOGC*”).

<sup>120</sup> *Id.* at P 37.

<sup>121</sup> *Id.* at PP 43, 45.

“FERC reasonably concluded that the impacts of that [Marcellus Shale] development are not sufficiently causally-related to the project to warrant a more in-depth analysis.”<sup>122</sup>

Now, having lost multiple times before FERC and on appeal,<sup>123</sup> the Sierra Club reiterates its claims that DOE/FE must consider the environmental effects of natural gas production as part of an LNG export proceeding. Just as was the case in *Sabine Pass* and *CNYOGC*, however, DOE/FE has no obligation to consider those effects as part of any future NEPA analysis because the timing, location, and nature of any particular gas production is too remote and difficult to predict to be “reasonably foreseeable” as having been caused by an LNG export facility.

Proceedings concerning LNG exports are not the appropriate venue to decide questions regarding health, safety and environmental regulation of gas production. While many other state and federal legislative and regulatory bodies may have a say in where and how natural gas is produced, DOE/FE, as part of the LNG export approval process, has no role to play in that debate. It would be inappropriate for DOE/FE to eliminate a significant market for natural gas, and to block all of the jobs and economic benefits that would result from LNG exports, because of concerns that the agencies responsible for regulation of gas production will not properly discharge their duties.

**IX. Additional administrative process is neither necessary nor appropriate.**

Dow argues that only a “full administrative proceeding by OFE,” “including public hearings,” would allow DOE/FE to “establish the appropriate criteria for making the statutorily

---

<sup>122</sup> *Coalition for Responsible Growth and Resource Conservation v. US Federal Energy Regulatory Comm’n*, No. 12-566-ag, 2012 WL 2097249 (2d Cir. June 12, 2012) (Summary Order).

<sup>123</sup> The Sierra Club attempted to raise similar arguments as part of *Sabine Pass*’s DOE/FE proceeding, but was procedurally barred from doing so due to the Sierra Club’s late intervention. See Order No. 2961-A at 24-26; Order No. 2961-B at 11-24, *Sabine Pass Liquefaction, LLC*, Docket No. 10-111-LNG (issued Jan. 25, 2013).



required public interest determinations for LNG export authorizations.”<sup>124</sup> Dow notes that “[t]his is a matter of critical national significance,” and “[t]he importance and complexity of the issue requires a process that will allow for the reasoned consideration of myriad viewpoints on the question of whether additional exports of natural gas are in the public interest.”<sup>125</sup> Dow therefore suggests “a focused, short term rulemaking.”<sup>126</sup>

Contrary to these claims, a rulemaking proceeding is neither necessary nor appropriate here. An administrative agency is afforded wide latitude in determining what procedures to follow. It is “the very basic tenet of administrative law that agencies should be free to fashion their own rules of procedure.”<sup>127</sup> The Supreme Court has held that, so long as an agency employs the procedures required of it by statute and the Constitution, the Court will not overturn an administrative proceeding “on the basis of the procedural devices employed (or not employed) by the [agency]” or “impose upon the agency [the Court’s] own notion of which procedures are ‘best’ or most likely to further some vague, undefined public good.”<sup>128</sup> DOE/FE has provided statutorily and constitutionally adequate public notice of the individual non-FTA LNG export applications, opportunities for interested parties to publicly participate in those individual proceedings, public notice of the availability of the 2012 LNG Export Study, opportunities for interested parties to publicly comment on the 2012 LNG Export Study, and the inclusion of the 2012 LNG Export Study, public comments, and reply comments in each pending

---

<sup>124</sup> Dow Comments at 3, 42. Senator Wyden similarly implies that DOE/FE needs additional procedures. Sen. Wyden Comments at 5; *see also* NRDC Comments; Clean Ocean Action Comments; Citizens Against LNG Comments; Oregon Shores Comments.

<sup>125</sup> Dow Comments at 3, 42.

<sup>126</sup> *Id.* Before the Senate Energy and Natural Resources Committee, Dow CEO Andrew Liveris testified that there could be a “quadruple win . . . all you have to do is follow the current law, the regulatory regime that exists.” *Opportunities and Challenges for Natural Gas Before the Sen. Comm. on Energy & Natural Res.*, 113<sup>th</sup> Cong. (2013) (testimony of Andrew N. Liveris, Chairman and Chief Executive Officer, Dow).

<sup>127</sup> *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 544 (1978).

<sup>128</sup> *Id.* at 548–49.

application proceeding in which its public interest determinations will be made.<sup>129</sup> No commenter is entitled to different procedures, even if it believes such procedures would be better or would further some public good.

**A. DOE/FE uses statutory and longstanding policy criteria in making public interest determinations for LNG export authorizations.**

DOE/FE has already established the appropriate criteria for making the statutorily required public interest determinations for LNG export authorizations by following the procedures established by law, including the Administrative Procedure Act (“APA”), the DOE Organization Act, NEPA, and the NGA. The DOE regulates the export of natural gas, including LNG, pursuant to Section 3 of the NGA<sup>130</sup> and Section 301(b) of the DOE Organization Act.<sup>131</sup> This regulatory authority is vested in the Secretary of Energy, and it has been delegated to the Assistant Secretary for Fossil Energy.<sup>132</sup>

Section 3(a) of the NGA sets forth the statutory criteria for DOE’s review of LNG export applications to non-FTA countries:

[N]o person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the [Secretary of Energy] authorizing it to do so. The [Secretary] shall issue such order upon application, unless after opportunity for hearing, [he] finds that the proposed exportation or importation will not be consistent with the public interest. The [Secretary] may by [the Secretary’s] order grant such application, in whole or part, with such modification and upon such terms and conditions as the [Secretary] may find necessary or appropriate.

---

<sup>129</sup> See *Notice of Availability of 2012 LNG Export Study and Request for Comments*, 77 Fed. Reg. 73,627, Dec. 11, 2012; Docket Nos. 10-161-LNG, 11-59-LNG, 11-128-LNG, 11-141-LNG, 11-161-LNG, 11-162-LNG, 12-05-LNG, 12-32-LNG, 12-77-LNG, 12-97-LNG, 12-100-LNG, 12-101-LNG, 12-123-LNG, 12-146-LNG, 12-156-LNG.

<sup>130</sup> 15 U.S.C. § 717b.

<sup>131</sup> 42 U.S.C. § 7151.

<sup>132</sup> Redelegation Order No. 00-002.04E (issued April 29, 2011).

Thus, under Section 3(a) of the NGA, applications for export of LNG are presumed to be in the public interest, and DOE/FE is required to authorize an LNG export application unless the Secretary finds this presumption has been overcome after providing the opportunity for a hearing on the application.<sup>133</sup> Where a proceeding presents only issues of law and policy or where a paper hearing provides a sufficient basis for resolving any material issues of fact, a trial-type evidentiary hearing is not required.<sup>134</sup> DOE/FE may also attach any terms and conditions to its authorization that the Secretary finds are necessary or appropriate to protect the public interest.

DOE/FE's more specific policy criteria for making public interest determinations for LNG export authorizations have been established, published, and routinely applied in DOE/FE natural gas import and export authorizations since 1984. These Policy Guidelines were published in the *Federal Register* and set forth a "test" for proposed authorizations that "provide[d] notice of the manner in which the [Secretary] will exercise authority under section 3 of the Natural Gas Act to review natural gas import applications."<sup>135</sup> In 1999, DOE/FE held that these Policy Guidelines also applied to natural gas export applications, even though DOE/FE's then-current Delegation Order "designate[d] domestic need for the natural gas proposed to be exported as the only explicit criterion that must be considered in determining the public

---

<sup>133</sup> DOE/FE has found that in order to overcome this rebuttable presumption, opponents of an export application must make an affirmative showing of inconsistency with the public interest. See Order No. 2961 at 28 & n.38 (citing Order No. 1473, *Phillips Alaska Natural Gas Corp. & Marathon Oil Co.*, 2 FE ¶ 70,317 n.42 (1999), and *Panhandle Producers & Royalty Owners Ass'n v. ERA*, 822 F.2d 1105, 1111 (D.C. Cir. 1987)).

<sup>134</sup> See, e.g., *New Orleans Public Service, Inc. v. Federal Energy Regulatory Comm'n*, 659 F.2d 509 (5th Cir. 1981); *Pennsylvania Gas & Water Co. v. Federal Power Commission*, 463 F.2d 1242, 1251 (D.C. Cir. 1972) (citing *Citizens for Allegan County, Inc. v. Federal Power Comm'n*, 414 F.2d 1125, 1128 & n.5 (D.C. Cir. 1969)). The Federal Energy Regulatory Commission ("FERC") is also required to provide an opportunity for hearing under Section 3(a) of the NGA, but has held that a trial-type hearing requested to "adequately air the issues" is not required "when no material issues of fact have arisen to warrant the Commission's ordering such a hearing." *Sound Energy Solutions*, 107 FERC ¶ 61,263, P 78 (2004). FERC noted, "We routinely decide complex and controversial cases on the basis of the record in a paper hearing and expect to be able to do so here." *Id.*

<sup>135</sup> *New Policy Guidelines and Delegation Orders From Secretary of Energy to Economic Regulatory Administration and Federal Energy Regulatory Commission Relating to the Regulation of Imported Natural Gas*, 49 Fed. Reg. 6684, Feb. 22, 1984.

interest.”<sup>136</sup> Although the Delegation Order cited in Order No. 1473 is no longer in effect, DOE/FE has found that public interest determinations for LNG export authorizations

continue[] to focus on the domestic need for the natural gas proposed to be exported; whether the proposed exports pose a threat to the security of domestic natural gas supplies; and any other issue determined to be appropriate, including whether the arrangement is consistent with DOE’s policy of promoting competition in the marketplace by allowing commercial parties to freely negotiate their own trade arrangements.<sup>137</sup>

DOE/FE is also required to give appropriate consideration to the environmental effects associated with an LNG export application within the procedural framework of NEPA.<sup>138</sup> Construction of LNG export facilities must be approved by FERC, and DOE/FE may participate as a cooperating agency in the NEPA review lead by FERC. DOE/FE must then simply conduct an independent assessment of the results to determine if the DOE/FE proceeding’s record needs to be supplemented in order for DOE/FE to meet its statutory responsibilities under NEPA.<sup>139</sup>

It is unnecessary for DOE/FE to hold a rulemaking or other proceeding to develop the criteria for making its public interest determinations regarding the pending LNG export applications. These criteria have been set forth in the applicable statutes and DOE/FE policy guidelines for decades, and no commenter has shown that the continued use of these criteria would violate DOE/FE’s statutory obligations.

---

<sup>136</sup> Order No. 1473 at 14 (citing Order No. 350, *Yukon Pacific Corp.*, 1 FE ¶ 70,259, p. 71,128 (1989) and Delegation Order No. 0204-111, 49 Fed. Reg. 6690, Feb. 22, 1984).

<sup>137</sup> Order No. 2961 at 29.

<sup>138</sup> 42 U.S.C. §§ 4321 *et seq.* NEPA mandates a process by which federal agencies must take a “hard look at the environmental consequences of proposed actions utilizing public comment and the best available scientific information”; however, it “does not mandate particular results.” *Custer County Action Ass’n v. Garvey*, 256 F.3d 1024, 1034 (10th Cir. 2001) (internal quotation marks and citations omitted). NEPA thus “prohibits uninformed—rather than unwise—agency action.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989).

<sup>139</sup> 40 C.F.R. §§ 1501.6, 1506.3.

**B. DOE/FE has followed its published administrative procedures in processing the pending non-FTA LNG export applications.**

DOE/FE already has regulations setting forth its administrative procedures for processing LNG export applications, which procedures were developed and published in the *Federal Register* pursuant to the requirements of the APA.<sup>140</sup> These administrative procedures include publishing a notice of the LNG export application in the *Federal Register*, posting the application and all relevant filings and orders in the proceeding on the DOE/FE's website, and providing the opportunity for all interested persons to participate in the proceeding by intervening and filing comments or protests. The Secretary may also publish notice in the *Federal Register* of additional procedures and request comments on specific issues of fact, law, or policy relevant to a proceeding.<sup>141</sup>

The Secretary has followed these publicly transparent administrative procedures in processing the pending non-FTA LNG export applications,<sup>142</sup> and Dow has not shown that these procedures are in any way inadequate in providing a forum for “consideration of myriad viewpoints on the question of whether additional exports of natural gas are in the public interest.”<sup>143</sup> DOE/FE has provided the statutorily required opportunity for a hearing in order for it to make the requisite public interest determination under the NGA, so the failure of export opponents to establish an affirmative case for their position more than two years after the initial LNG export application is not a basis for lengthening these proceedings.

---

<sup>140</sup> 10 C.F.R. Part 590 (54 Fed. Reg. 53531, Dec. 29, 1989; 55 Fed. Reg. 14916, Apr. 19, 1990).

<sup>141</sup> 10 C.F.R. §§ 590.205, 590.206.

<sup>142</sup> See *supra*, note 129 and accompanying text.

<sup>143</sup> Dow Comments at 3, 42.

**X. Conclusion**

WHEREFORE, for the reasons set forth above, LCE respectfully request that the DOE/FE promptly conclude its consideration of the 2012 LNG Export Study and issue an order granting LCE long-term authorization as requested to export up to 15 million tons per year (approximately 2 bcf per day or 0.730 tcf per year) of domestic LNG for a term of 25 years to any country with which the United States does not have a free trade agreement requiring the national treatment for trade in natural gas with which trade is not prohibited by United States law or policy.

Respectfully submitted,

Lake Charles Exports, LLC

By: BG LNG Services, LLC  
Its Member

By: /s/ Elizabeth Spomer  
Name: Elizabeth Spomer  
Title: Senior Vice President

Trunkline LNG Holdings, LLC  
Its Member

By: /s/ Michael J. Moran  
Name: Michael J. Moran  
Title: Senior Vice President and  
Chief Commercial Officer

Dated February 25, 2013