To Whom It May Concern –

Please see attached comments on the DOE/FE LNG Export Study.

Thank you,

Sean Dixon  
Coastal Policy Attorney  
Clean Ocean Action  
Policy@CleanOceanAction.org  
18 Hartshorne Dr  
Highlands, NJ 07732  
(p) 732.872.0111  (f) 732.872.8041

2013 Waves of Action to #Rebuild our Shores  
www.ForTheShore.org
RE: Notice of availability of 2012 LNG Export Study and request for comments.

January 24, 2013

To whom it may concern:

Clean Ocean Action is hereby submitting comments on the cumulative impact study made available by the Office of Fossil Energy (FE) of the Department of Energy (DOE) in a Federal Register Notice published on December 11, 2012.¹

The 2012 Liquefied Natural Gas (LNG) Export Study (hereafter “the Study”), which consists of two parts commissioned to inform DOE’s decisions on applications seeking authorization to export LNG from the lower-48 states to non-free trade agreement (FTA) countries, will be the basis of fifteen currently pending export applications, and any future export applications.² These comments are meant to inform the DOE’s review of the Study as well as those fifteen pending LNG export applications.³

¹ Notice of availability of 2012 LNG Export Study and request for comments, Department of Energy, 77 F.R. 73627 (December 11, 2011) (“Study Notice”).
² According to the public notice, the LNG Export Study consisted of two parts: “The first part, performed by the Energy Information Administration (EIA) and originally published in January 2012, assessed how specified scenarios of increased natural gas exports could affect domestic energy markets. The second part, performed by NERA Economic Consulting (NERA) under contract to DOE, evaluated the macro-economic impact of LNG exports on the U.S. economy using a general equilibrium macroeconomic model of the U.S. economy with an emphasis on the energy sector and natural gas in particular.”
Clean Ocean Action (COA) is a regional, broad-based coalition of conservation, environmental, fishing, boating, diving, student, surfing, women’s, business, service, and community groups with a mission to improve and protect the water quality of the marine waters of the New Jersey/New York coast. COA has worked on a number of liquefied natural gas issues, ranging from import terminals to export policy and energy markets. These comments are submitted on behalf of COA’s organization, citizen, and business members across the region’s clean ocean economy.

According to the DOE/FE’s most recent summary of LNG export applications, almost 30 billion cubic feet (Bcf) per day of LNG has already been approved for export. Another 26 Bcf per day of authorizations are under review – 22.6 Bcf of which are applications to export LNG to nations with which the United States does not have a Free Trade Agreement. This 22.6 Bcf per day export request (from sixteen companies) is the impetus for these comments, DOE/FE’s Study, and the present “public interest” discussion. In total, if the liquefaction capacity comes online, and if all pending export authorizations are granted and fully exploited, the DOE/FE will be allowing over 56 Bcf per day to be exported from the U.S. – almost 90% of the daily nation-wide U.S. ‘dry production’ of natural gas.

Export Authorization Requirements

I. Exports Under the Natural Gas Act

Pursuant to section 3 of the Natural Gas Act (NGA), 15 U.S.C. 717b, exports of natural gas, including LNG, must be authorized by the DOE. The DOE has delegated authority to regulate the exports of natural gas, which includes LNG, to the FE Assistant Secretary.

Under the Natural Gas Act (NGA), no entity “shall export any natural gas from the United States to a foreign country ... without first having secured an order” from DOE/FE authorizing it to do so. In examining such applications, the Department of Energy (DOE) analysis is different depending on which country the LNG exports are destined for. If an application is seeking to export gas to a nation with which the United States does not have a free trade agreement (“non-FTA” nations) with, the DOE/FE “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.” This section creates a “rebuttable presumption that a proposed export of natural gas is in the public interest, and requires DOE to grant an export application unless DOE finds that the record in the proceeding of the application overcomes that presumption.”

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4 Applications Received by DOE/FE to Export Domestically Produced LNG from the Lower-48 States (as of January 11, 2013). Available at www.fossil.energy.gov/programs/gasregulation/reports/summary_lng_applications.pdf.
5 Id.
7 Study Notice, 77 F.R. at 73628.
8 Redelegation Order No. 00-002.04E (issued April 29, 2011), Study Notice, 77 F.R. at 73628, n. 2.
10 Id.
After the Energy Policy Act of 1992 was enacted, the DOE/FE review of export applications to nations with which the United States has a free-trade agreement was simplified. Under the NGA, such applications are “deemed to be consistent with the public interest, and applications for such importation or exportation shall be granted without modification or delay.” When such an application is made, the DOE/FE “does not conduct a public interest analysis of those applications and cannot condition them by the insertion of terms which otherwise might be considered necessary or appropriate.”

II. Cumulative Review Need

On May 20, 2011, in Sabine Pass Liquefaction, LLC, Opinion and Order No. 2961 (“Sabine Pass”), DOE/FE conditionally authorized Sabine Pass Liquefaction, LLC to export 2.2 Bcf per day to non-FTA nations. Because this is the only export application to non-FTA nations approved by DOE/FE, the discussion therein on the standard to be used for determining whether exports are in the public interest is directly applicable to this present review.

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

On energy security, the DOE noted that no “adequacy of domestic natural gas supplies” issues arose if Sabine Pass exports are allowed; on prices it noted that small exports wouldn’t raise them; on freely-negotiated contacts, the agency said there would be no other industries affected significantly. All of these considerations are a factor in the present LNG export public interest determination because the scales of all of these analyses have changed.

After Sabine Pass, “in anticipation of additional applications, DOE … stated that it would evaluate the cumulative impact of the Sabine Pass authorization and any future export authorizations when considering subsequent applications for such authority.” After approving one project, this new approach was – ostensibly – taken to “ensure that authorizations to export LNG do not subsequently lead to a reduction in the supply of natural gas needed to meet essential domestic needs.”

Given that, if all outstanding applications are approved, exports to non-FTA nations alone could divert 40% of daily U.S. dry natural gas production to overseas uses instead of essential domestic uses, a new DOE/FE’s approach is needed.

12 15 U.S.C. § 717b(c) (2006). There are twenty nations with free-trade agreements or agreements that, for the purposes of LNG exports are considered to fall within this category: Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, Singapore, and South Korea. DOE Testimony, supra note 8, at 3.
13 Id.
15 Sabine Pass, at 29.
16 Study Notice, 77 F.R. at 73628.
17 Study Notice, 77 F.R. at 73628, citing Order No. 2961, supra note 14, at 32.
According to the DOE/FE, with “the 15 proceedings identified above … seeking authorization to export LNG from the lower-48 states to non-FTA nations” a cumulative-impact analysis was required — this took the form of the Study.  

“The purpose of the LNG Export Study was to evaluate the cumulative economic impact of the Sabine Pass authorization and any future requests for authority to export LNG.” At the time of the study request, the DOE notes, the “approximate volume under consideration for export from these companies was equivalent to approximately another 6 Bcf/day of natural gas.”

The Study, commissioned by the DOE/FE, consists “of two separate parts[] of the economic impacts of granting these types of applications.” The first part, by the U.S. Energy Information Administration (EIA) analyzed potential LNG export scenarios; the second, by NERA Economic Consulting, is described by the DOE as an analysis of “the macroeconomic impact of LNG exports on the U.S. economy using a general equilibrium macroeconomic model of the U.S. economy with an emphasis on the energy sector and natural gas in particular.”

**Economic, Environmental, and Public Interest Analysis**

According to the DOE/FE, these “comments must be limited to the results and conclusions of [the Study] on the factors evaluated … [including] the impact of LNG exports on: domestic energy consumption, production, and prices, and particularly the macroeconomic factors identified in the NERA analysis, including Gross Domestic Product (GDP), welfare analysis, consumption, U.S. economic sector analysis, and U.S. LNG export feasibility analysis, and any other factors included in the analyses.”

In order to “inform DOE in its public interest determinations,” these factors, and the feasibility of the Study’s scenarios, are discussed below.

I. **DOE/FE Public Interest Determinations & the Study**

Several key assumptions and conclusions made by EIA and NERA call into question the findings reached in the Study, and would make DOE/FE reliance thereupon arbitrary.

1. **Export limits:** the DOE/FE notes that “Export limits were set at levels that ranged from zero to unlimited in each of the scenarios.” This assumption, and the NERA analysis based thereon, fails to take into account the environmental impacts of new LNG export facilities, the economic impacts on other sectors like coal, oil, and nuclear, and the distributed social costs that would be borne by everyone in the nation if natural gas was unavailable for cooking, heating, CNG vehicles, manufacturing, or electric generation.

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18 Study Notice, 77 F.R. at 73628.  
19 Id.  
20 Id.  
21 Id.  
22 Id.  
23 Study Notice, 77 F.R. at 73629.  
24 Id.  
25 Id.  
26 Study Notice, 77 F.R. at 73628.
Until those costs are included in the analysis of unlimited exports, reliance on the NERA conclusions would be arbitrary.

2. **Data Sources:** As noted by the DOE/FE, at the time these studies were commissioned, the “approximate volume under consideration for export from these companies was equivalent to approximately another 6 Bcf/day of natural gas.”\(^\text{27}\) Even so, the latest data should always be used to make broad public-interest determinations that could affect the energy future of the nation – especially when new data fundamentally would affect conclusions.

The NERA analysis uses EIA’s 2011 Energy Outlook. In 2012, with the publication of the EIA’s newer data, the natural gas outlook for the nation changed. The EIA’s new outlook showed projected increases in domestic demand for gas, reduced imports, and lower wellhead gas prices. Each of these changes from 2011 directly affect NERA’s conclusions. With higher demand, and lower prices, projected effects of exports on domestic prices and utilization would be exacerbated – potentially affecting the “net” benefit analysis. This oversight is, at a minimum, something that should be remedied before the DOE relies on the outcome of the report. The DOE shouldn’t write off this oversight as a case of “new data will always be available” – here, NERA used 2012 data in other reports released before this report release, but somehow failed to do so in for this report.

The EIA part of the Study similarly relies on too little information. The EIA only considered exports of 6 and 12 Bcf/d even though the DOE has already approved almost 30 Bcf/d (through *Sabine Pass* and to FTA nations) – fully five times the low estimates of the EIA report.

The DOE/FE has never said it is considering limitations on exports – and, indeed, asked NERA to analyze the U.S. economy in a state of unlimited exports – so it would be arbitrary to rely on economic outlooks that may fall 80% short of the mark. If the DOE/FE were considering limits on LNG exports, a whole new study would be needed as neither the EIA or NERA report makes any conclusions on limitations.

The DOE regulations pertaining to export application procedures state that applicants must certify that they are capable of exporting the LNG they applied for.\(^\text{28}\) The agency cannot, therefore, make an unsupported assumption that not all of these exports will actually occur, such that economic impact and public interest determinations may be based on smaller amounts of exports than have already been authorized. To do so would be arbitrary and contrary to the DOE’s own regulations.

3. **Jobs:** One of the “Key Findings,” of the NERA report was that “LNG exports are not likely to affect the overall level of employment in the U.S.”\(^\text{29}\) The DOE/FE summary of the Study’s findings also highlight this conclusion: “LNG exports are not likely to affect the overall level of employment in the U.S ... In no scenario is the shift in employment out of any industry projected to be larger than normal rates of turnover of employees in those industries.”\(^\text{30}\)

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\(^{27}\) Id.

\(^{28}\) 10 C.F.R. § 590.202(c).


\(^{30}\) Study Notice, 77 F.R. at 73629.
The conclusion (that the Study shows exports will not affect jobs) is wrong for three main reasons. First, the NERA report states that it’s underlying NewERA model assumption on jobs is that unemployment is zero – that is, that everyone who wants a job can find one. This assumption is reckless in that our current economic state – under which the DOE/FE public interest must be made, has a non-zero unemployment rate. Second, NERA’s results demonstrate that manufacturing, agriculture, and other sectors of the U.S. economy would suffer substantial losses - methodology used to estimate job losses in other NERA reports, if applied in this case, would show average losses of wages equivalent to up to 270,000 jobs lost per year. Third, the report does not analyze job losses over the long-term; many of the jobs that might be created in the short-term (for construction of export capacity) wouldn’t exist 3 months later, 6 months later, or a year later. The jobs lost from LNG exports (caused by rising gas costs), on the other hand, are long-term positions which would be permanently lost.

In sum, this report cannot causally-link employment with exports, and, if NERA did look at long-term employment, its own analyses would show up to 270,000 jobs lost. On the matter of jobs – and the public interest determinations made based upon jobs – this report shows significant job losses, not the “not likely to affect employment” outcome that the DOE/FE summarizes.

4. **Domestic Benefit**: The NERA report concludes that LNG export revenues will be realized within the U.S. – an assumption that is entirely without basis in fact. Many companies currently approved for exports to FTA nations, many companies waiting for non-FTA nation export authorization, many companies that own onshore and offshore natural gas resource leases, and many companies that own the LNG export facilities themselves are foreign-based corporations. These foreign companies – and indeed many of the domestically-based corporations – are often owned by other foreign entities. In some cases, foreign governments have ownership interests in the companies that have pending DOE/FE export applications.

Where, as the NERA report concludes, there will be loses in industries that rely upon natural gas (like pulp and paper, metals, chemicals, petroleum refining, stone, clay and glass, plastic, and food processing industries), money sent to foreign governments and foreign corporations will not result in a net benefit to the nation – those industries will lose jobs, revenues, and their competitive edge over foreign competitors.31

Until the DOE/FE analyzes how much – if any – of the revenues made from exporting LNG would stay within the domestic economy, reliance on “net benefits” is arbitrary.

5. **Utilities**: According to the NERA report, “Natural gas is also an important fuel for electricity generation, providing about 20% of the fuel inputs to electricity generation. Moreover, in many regions and times of the year natural gas-fired generation sets the price of electricity so that increases in natural gas prices can impact electricity prices. These price increases will also propagate through the economy and affect both household energy bills and costs for businesses.”32

While the Study acknowledges the importance of natural gas to the electric generation sector – and utilities in general – it ends the analysis there. In regions like New England, spot-market

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31 http://www.naturalgas.org/overview/uses_industry.asp.
32 NERA Study, at 13-14.
LNG imports are still considered vital to keeping winter-time energy costs (electricity and heating gas) low. The EIA study concludes that LNG exports – even on the small scales assumed by the EIA – would lead to higher costs and more coal-based generation. These two LNG export outcomes would walk back progress made in keeping energy and heating costs in regions like New England low. The DOE/FE analysis into the public interest must consider these utility-scale and homeowner impacts at a seasonal scale; neither part of the Study does. As such, the DOE/FE should not and cannot make a decision on the public’s interest.

6. **Net Benefits**: The DOE/FE analysis of public interest, if it rests on NERA’s baseless and biased underlying assumptions and false conclusions, would mean that the position of the federal government is such that even if much of the rest of the U.S. economy shrinks, as long as the natural gas industry makes more in profits, it is in the public’s interest (even if that net benefit number is based on outdated data and fails to consider how much of that natural gas profit leaves the U.S. economy). This conclusion simply cannot stand.

NERA acknowledges that “[h]ouseholds with income solely from wages” will not benefit from LNG export. But that group contains most Americans. Only about half of all Americans own any stock, and only a few, generally wealthy, people own a significant amount. That means very few Americans will benefit at all from enriching LNG and gas companies. For most people, LNG exports simply mean declining wages and employment. This conclusion has acknowledged by the author of the NERA study himself (in testimony on other environmental market regulations):

“There are enough hidden differences among recipients of allowances within any identified group that it takes far more to compensate just the losers in a group than to compensate the average. Looking at averages assumes that gainers compensate losers within a group, but that will not occur in practice.”

The DOE/FE notes that “in all of these cases, benefits that come from export expansion more than outweigh the losses from reduced capital and wage income to U.S. consumers, and hence LNG exports have net economic benefits in spite of higher domestic natural gas prices.” Unfortunately, for LNG exports, the “gainers” (exporters and natural gas producers) will not – in practice – compensate the “losers” (households without stocks in these companies, industries that rely on natural gas, electric generation industries, and anyone that relies on electricity).

The DOE/FE notice cites the NERA analysis when it proposes that “through retirement savings an increasingly large number of workers share in the benefits of higher income to natural resource companies whose shares they own” even though this claim is unsubstantiated in the record. The NERA report does also note that “[h]ouseholds with income solely from wages or government transfers, in particular, might not participate in these benefits,” but in the end it attempts to conclude – again, without basis in fact – that while some households “might not participate” in export revenues, so many will that there will be a “net” benefit.

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33 NERA Study, at 8.
35 Study Notice, 77 F.R. at 73628-73629.
36 Study Notice, 77 F.R. at 73629.
37 Study Notice, 77 F.R. at 73629.
II. Environmental Costs

Significantly, a host of environmental impacts are not considered in either report.

Negative economic costs from natural gas industry-caused water pollution, facility (onshore and offshore) construction and operation, and costs from climate, pipeline, flaring, and air pollution are all quantifiable, yet left out of both analyses. As DOE/FE Deputy Assistant Secretary Christopher Smith testified, “[a] wide range of criteria are considered as part of DOE’s public interest review process, including . . . U.S. energy security . . . [i]mpact on the U.S. economy . . . [e]nvironmental considerations . . . [and] [o]ther issues raised by commenters and/or interveners deemed relevant to the proceeding.”

Where, as here, “the record shows that there is a range of values [for these benefits] is certainly not zero.” Therefore, the agency is obligated to consider such a value, or range of values. Since LNG export plainly imposes these significant environmental costs, DOE/FE should calculate and disclose them (accompanied by an explanation of any limitations or uncertainties in each methodology, as necessary). It may not, however, simply ignore them.

The Study, as the DOE/FE notice clearly stated, will be the basis for decisionmaking on whether LNG exports from over a dozen applications will be deemed to be “in the public interest.” The analysis clearly lacks any environmental impact costs assessments or reviews, and doesn’t use these costs in calculating net economic impact. Without this analysis, the DOE review is incomplete (by the Assistant Secretary’s own standard).

III. Public Process Concerns

Beyond the substantive reasons the DOE/FE should find that exports are not in the public interest, the Study, and the way it was commissioned and reviewed, raises significant procedural concerns.

The DOE/FE notice states, at the outset, that “[i]n considering NERA’s findings, commenters are urged to keep in mind that the NERA Study was performed by an independent non-governmental organization under contract to DOE and that its findings are NERA’s own findings, not those of DOE.” This claim, that the NERA study was independent of the DOE for the purposes of this finding, is weakened by the record. On the first page of the NERA study, Dr. Montgomery writes that he is providing a “clean” copy; an admission that implies other draft versions – including draft conclusions and findings – had already been circulated for DOE/FE review.

Questions have been raised by other commenters that the choice of NERA itself for this analysis was biased and unwise. Ties of the main author and the entity itself to the energy interests that would stand to financially gain from a DOE/FE decision that these exports are in the public interest cast a shadow over all of the findings and conclusions presented therein. Until the DOE/FE discloses the funding mechanisms for this study, conflicts of interest are analyzed, and the DOE/FE’s involvement in guiding the report strategy is disclosed, no DOE/FE decision should rest on the report.

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38 DOE Testimony, supra note 11.
39 Center for Biological Diversity, 538 F.3d 1172, 1200 (9th Cir. 2008) (citing Office of Management and Budget Circular A-4 as providing that “agencies are to monetize costs and benefits whenever possible.”).
40 See id. at 1203.
41 Study Notice, 77 F.R. at 73628.
42 See comments of Sierra Club, et al, on this docket.
Conclusions

Overall, this study does not show that LNG exports are in the public interest. In fact, these studies should not be relied upon for any DOE/FE decisionmaking. First, the EIA report is outdated and based on such small levels of exports that the DOE has already approved five times more in exports to FTA nations than the report estimates. Second, the NERA study was carried out by an organization with serious energy-market conflicts, assumed full U.S. employment yet made claims that exports caused this underlying state, failed to incorporate environmental costs, failed to incorporate local, seasonal, or microeconomic costs, overlooked foreign investments and ownership issues affecting economic benefits, and, among many other problems, concludes that despite the fact that exports would shrink an entire portion of the U.S. economy – including homes, businesses, and whole industries, the accumulation of wealth by a few natural gas companies would more than make up for it.

It is not in the public’s interest for a dozen companies to realize more profits at the expense of nearly all other sectors of the nation, so the DOE/FE should deny all LNG export applications.

Sincerely,

Sean Dixon
Coastal Policy Attorney
Clean Ocean Action