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

IN THE MATTER OF:

CHENIERE MARKETING, LLC	**)**	**FE DOCKET NO. 12-97-LNG**

SUPPLEMENT TO APPLICATION OF CHENIERE MARKETING, LLC FOR LONG-TERM AUTHORIZATION TO EXPORT LIQUEFIED NATURAL GAS TO NON-FREE TRADE COUNTRIES

Pursuant to 10 C.F.R. § 590.204(a),[1] Cheniere Marketing, LLC ("CMI") hereby submits this supplement ("Supplement") to its Application for Long-Term Authorization to Export Liquefied Natural Gas to Non-Free Trade Countries ("Application") currently pending before the U.S. Department of Energy's ("DOE") Office of Fossil Energy ("DOE/FE") in the above-captioned proceeding.[2]

In its Application, CMI seeks authorization to export domestically-produced liquefied natural gas ("LNG") in an amount up to the equivalent of 767 billion cubic feet ("Bcf") of natural gas per year for a 22-year term from the proposed Corpus Christi Liquefaction Project ("CCL Project") to be located near Corpus Christi, Texas, to any country with which the United States does not have a free trade agreement ("FTA") requiring the national treatment for trade in natural gas, that has the capacity to import LNG, and with which trade is not prohibited by U.S.

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1 *See* 10 C.F.R. § 590.204(a) (2014) (providing that any person who has submitted an application for authorization to import or export natural gas under Section 3 of the Natural Gas Act ("NGA") "may amend or supplement the application at any time prior to issuance of the Assistant Secretary's final opinion and order resolving the application, and shall amend or supplement the application whenever there are changes in material facts or conditions upon which the proposal is based.").

2 *See* Application of Cheniere Marketing, LLC for Long-Term Authorization to Export Liquefied Natural Gas to Non-Free Trade Countries, *Cheniere Marketing, LLC*, FE Docket No. 12-97-LNG (Aug. 31, 2012), as supplemented on October 10, 2012.

law or policy.[3] Through this Supplement, CMI seeks to augment the record in these proceedings by providing an update to the 2012 study conducted by NERA Economic Consulting ("NERA") on behalf of DOE/FE ("2012 NERA Study"),[4] and also to submit certain letters in support of the Application. In this regard, as detailed in the Application, the CCL Project and the associated LNG exports will result in tremendous economic benefits for the local, state, and national economies. As a result, officials from several cities in the vicinity of the CCL Project, as well as from San Patricio County, have written letters of support urging approval of the Application. In recognition of the tremendous benefits that will flow from approval of the CCL Project and the associated exports, the City of Portland, Texas as well as the City of Corpus Christi, Texas each has passed a Resolution in support of the CCL Project that is included in Exhibit B submitted herewith. As noted in the Resolution of the City of Corpus Christi, in addition to the economic benefits of the CCL Project, including the creation of 2100 local jobs and $240 million in economic activity in the region each year, Cheniere Energy, Inc. was named by the Coastal Bend Bays Foundation as the Corporation of the Year in 2013 for its efforts to restore the Coastal Bend's marsh environment and coastline by working in close cooperation with the State of Texas and the U.S. Army Corps of Engineers.

I. Supplementation Is Appropriate at This Time

Cheniere Energy, Inc. commissioned NERA to update the 2012 NERA Study. NERA's updated report, *Updated Impacts of LNG Exports from the United States* ("2014 NERA Study"),

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[3] DOE/FE previously authorized CMI to export LNG in an amount up to the equivalent of 767 Bcf of natural gas per year for a 25-year term from the CCL Project to countries with which the United States has—or in the future enters into—an FTA requiring the national treatment for trade in natural gas. *Cheniere Marketing, LLC, Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Corpus Christi Liquefaction Project to Free Trade Agreement Nations*, DOE Order No. 3164, FE Docket No. 12-99-LNG (Oct. 16, 2012).

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

is submitted as Exhibit A to this Supplement.[5] Through this Supplement, CMI requests that DOE/FE consider the findings of the 2014 NERA Study (which is attached as Exhibit A to this Supplement) in making a public interest determination on CMI's pending Applications. CMI respectfully submits this Supplement in furtherance of DOE/FE's commitment to consider timely market data in making public interest determinations involving LNG exports.[6] In these regards, the key findings of the 2014 NERA Study are as follows:

- The 2014 NERA Study reinforces NERA's prior findings: LNG exports contribute net benefits to the U.S. economy; those benefits consistently increase as exports increase; and U.S. economic welfare is greatest under scenarios in which unconstrained exports occur.

- Greater LNG exports and domestic demand can be supported in the U.S. natural gas market at lower prices compared to results presented in the 2012 NERA Study.

- Greater economic benefits would result to the United States at a given level of LNG exports compared to the 2012 NERA Study results.

- LNG exports would contribute job gains and reduce near-term unemployment in the U.S. economy.

II. The 2014 NERA Study Demonstrates that LNG Exports are Not Inconsistent with the Public Interest

A. 2014 NERA Study Methodology

The 2014 NERA Study is based on the U.S. Energy Information Administration's ("EIA") *Annual Energy Outlook 2013* ("AEO 2013") and *International Energy Outlook 2013*

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5 NERA, *Updated Impacts of LNG Exports from the United States* (2014).

6 *See U.S. Energy Abundance: Regulatory, Market, and Legal Barriers to Export: Hearing Before the Subcomm. on Energy & Power of the H. Comm. on Energy and Commerce*, 113th Cong. 36 (2012) (statement of Christopher Smith, Acting Ass't Sec'y for Fossil Energy, DOE) ("As further information becomes available at the end of 2013 … the Department will assess the impact of any market developments on subsequent public interest determinations."); *Croley, Smith, and Kiaaina Nominations: Hearing Before the S. Comm. on Energy & Nat. Res.*, 113th Cong. 17 (2013) (statement of Christopher Smith, Acting Ass't Sec'y for Fossil Energy, DOE) ("[I]t's our commitment to make sure that on an ongoing basis we're constantly monitoring the market. We're always looking at incoming data and that at all times, as we go forward, we're using relevant, real time data to make sure that we're making good [decisions].").

("IEO 2013") studies, rather than EIA's *Annual Energy Outlook* 2011 ("AEO 2011") and *International Energy Outlook 2011* that were used in the 2012 NERA Study.[7] In accord with the 2012 NERA Study, a total of sixty-three scenarios were generated to analyze potential U.S. LNG exports calibrated to the U.S. Reference, U.S. High Oil and Gas Resource ("HOGR"), and U.S. Low Oil and Gas Resource ("LOGR") domestic supply scenarios included in the AEO 2013 forecast, in addition to three global natural gas market scenarios.[8] These global scenarios include an "International Reference" case based on the IEO 2013 forecast, an "International Demand Shock" case which assumes greater levels of natural gas demand in Asia caused by the shutdown of nuclear capacity in Japan and South Korea, and an "International Supply/Demand Shock" scenario in which the International Demand Shock scenario was coupled with a supply shock that assumed key LNG exporting regions did not increase their exports above current planned levels.[9] These sixty-three scenarios were analyzed by NERA over five-year intervals between 2018 and 2038.[10] NERA subsequently calibrated its Global Natural Gas Model to determine the price and quantities of LNG that could be profitably exported from the United States based on the particular domestic supply and international market assumptions.[11] The results of these sixty-three scenarios were then pared down to fourteen representative cases[12] and incorporated into NERA's N_{ew}ERA general equilibrium model to evaluate the macroeconomic impacts of

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7 2014 NERA Study, *supra* note 5, at 1.

8 *Id.* at 1, 43. The "U.S. Low Oil and Gas Resource" scenario is comparable to the "Low EUR" scenario presented in the 2012 NERA Study, and the "U.S. High Oil and Gas Resource" scenario is comparable to the "High EUR" scenario presented in the 2012 NERA Study. *See id.* at 58 (stating it is possible to compare the two NERA studies).

9 *Id*. at 1, 28–30.

10 *Id.* at 5.

11 *Id*. at 2, 43.

12 *Id.* at 2, 57. The fourteen scenarios were selected to avoid duplication of results among the sixty-three scenarios that had similar LNG export profiles and would have produced similar macroeconomic impacts. *Id.*

LNG exports on the U.S. economy. The results were compared to cases in each domestic supply scenario that assumed no future LNG exports were to occur from the United States.[13]

The 2014 NERA Study also analyzed the labor market impacts of LNG exports on the U.S. economy by considering how rapidly the economy would recover from the recession.[14] NERA also evaluated the economic implications of LNG exports on particular subsectors of manufacturing industries that significantly rely on natural gas liquids ("NGLs") for feedstock.[15] In this regard, the 2014 NERA Study considered markets for NGLs produced along with methane in wellhead production.[16] Specifically, NERA considered the impact of LNG exports on the supply of ethane and dry natural gas, and the cost implications for three chemical subsectors: Ethylene Chemicals, Gas-Intensive Chemicals, and Remaining Chemicals.[17]

The 2014 NERA Study estimated economic impacts associated with cases in which exports were not constrained at the Low (corresponding to 6 Bcf per day ("Bcf/d") of exports) and High (corresponding to 12 Bcf/d of exports) ranges ascribed in the 2012 NERA Study by using global supply and demand dynamics to determine U.S. LNG exports and prices.[18]

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[13] *Id*. at 39–40.

[14] *Id*. at 5, 114–20. The U.S. economy has been recovering from a recession that began in December 2007 and ended in June 2009. Cong. Budget Office, *The Budget and Economic Outlook: Fiscal Years 2013 to 2023* 35–36 (2013) [hereinafter CBO Outlook]. The unemployment rate is expected to remain high (above 7.5 percent) through 2014 and the end of 2017, when it is projected to fall to 5.5 percent). *Id.* at 5.

[15] 2014 NERA Study, *supra* note 5, at 5.

[16] The 2012 NERA Study evaluated only the economic implications of LNG exports on the supply and market price of pipeline-treated "dry" natural gas. *See* 2012 NERA Study, *supra* note 4, at 115–77.

[17] 2014 NERA Study, *supra* note 5, at 105.

[18] *Id.* at 1 n.2.

B. The 2014 NERA Study Conclusions are Consistent with the 2012 NERA Study

The conclusions in the 2014 NERA Study are consistent with those in the 2012 NERA Study.[19] Even more so, due to EIA's updated assumptions for U.S. natural gas supply in AEO 2013 (as compared to AEO 2011), the 2014 NERA Study supports even greater LNG export potential at lower prices than previously projected.[20]

1. U.S. LNG Exports Levels are Dependent on Domestic and International Market Conditions

The 2014 NERA Study concluded that the United States would be able to market LNG successfully in at least some years in all scenarios analyzed. However, the 2014 NERA Study found a wide range of export levels are possible depending upon the cost and abundance of domestic natural gas supply, variation in global demand and supply conditions for LNG, and the level of competitive pressure and pricing structure in future international natural gas markets.[21]

In the U.S. Reference supply case, the 2014 NERA Study estimates that future U.S. LNG exports could range from 1.73 trillion cubic feet ("Tcf") by 2038 under the International Reference scenario modeled after IEO 2013, to as high as 7.10 Tcf by 2038 in an unconstrained case were an International Supply/Demand Shock to transpire.[22] Under the LOGR scenario, U.S. LNG exports could range from as low as 0.80 Tcf by 2038 under the International Reference scenario, to as high as 3.90 Tcf by 2038 in an unconstrained export case under an International

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[19] *Id*. at 6.

[20] *Id*. at 12–13.

[21] *Id.* at 121. NERA did not analyze cases in which future global natural gas demand would fall below, or future global natural gas supply would exceed, the assumptions of the International Reference case in IEO 2013, as these scenarios would generate less demand for U.S. LNG exports and therefore less variation in macroeconomic impacts for NERA to evaluate. *See id.* at 28 (stating the 2014 NERA Study designed scenarios that favor creating more U.S. LNG export opportunities). However, the possibility for these events transpiring in the future would lead to lower U.S. LNG exports, and therefore greater variation in potential U.S. LNG exports than outlined in the 2014 NERA Study. *Id*.

[22] *Id.* at 45 fig. 24.

Supply/Demand Shock scenario.[23] Less LNG can be competitively exported from the United States under the LOGR scenario because the cost of domestic natural gas development is considerably higher than in the U.S. Reference case. Conversely, U.S. LNG exports would be very competitive on a global scale under the HOGR scenario, owing to the vast domestic natural gas resources that could potentially be recovered at low costs. Under the HOGR scenario, U.S. LNG exports could range from 14.40 Tcf by 2038 under the International Reference case without constraints, to as high as 19.51 Tcf by 2038 under the International Supply/Demand Shock scenario.[24] Even at these high export levels, the domestic wellhead price of natural gas would average below $4 per million Btu ("MMBtu") over the 20-year forecast period, the 2014 NERA Study projected, due to the robust supply projections in the HOGR scenario of AEO 2013 used by NERA to calibrate its supply curves.[25]

The core scenarios of both the 2012 NERA Study and the 2014 NERA Study assume a continuation of imperfect competitive conditions in the global natural gas market, characterized by premium oil-indexed prices paid by buyers in Asia for LNG and restraint by countries with large natural gas resources, such as Qatar and Russia, which choose to limit their natural gas exports in order to support higher global prices. Given the uncertain outlook for future global market conditions, the 2014 NERA Study constructed an alternative scenario in which increased competition leads to a breakdown of traditional natural gas pricing regimes and a transition towards global gas-on-gas competition.[26] In this scenario, the higher level of global competition

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[23] *Id.* at 47 fig. 25.

[24] *Id*. at 48 fig. 26.

[25] *Id*. at 62 fig. 34. Over a 20-year period, NERA estimates prices in the High Oil and Gas Resource scenario would average between $3.20/MMBtu and $3.59/MMBtu depending on potential international demand for U.S. LNG exports. *Id*.

[26] *Id*. at 49.

would eliminate any markup beyond marginal cost that would otherwise accrue to LNG suppliers; and LNG importers could demand price concessions from exporters as an alternative to competitive U.S. LNG exports in order for those exporters to maintain or increase their market share.

The 2014 NERA Study reran three cases in the HOGR scenario (International Reference, International Demand Shock, and International Supply/Demand Shock) without export constraints to evaluate how increased global competition would impact U.S. LNG exports. Under full competition, U.S. LNG exports in the HOGR scenario by 2038 would range from 4.9 Tcf in the International Reference case to 10.1 Tcf by 2038 in the International Supply/Demand Shock scenario,[27] or a decline of between 41% and 63% in a given year compared to those same cases in the HOGR scenario with restricted global competition.[28] These alternative scenarios demonstrate that the response of competitors in the global market, in addition to domestic and international market conditions, would have a significant influence over future LNG exports from the United States.

2. Macroeconomic Impacts of LNG Exports are Positive in All Scenarios

The 2014 NERA Study concluded that in all of the scenarios analyzed, the United States would experience net economic benefits resulting from increased LNG exports relative to a case in which LNG exports do not occur, as measured by a broad metric of economic welfare, real household income, or real gross domestic product ("GDP"). Under the U.S. Reference supply case, U.S. GDP increases could range from $1.5 billion in 2018 to $36 billion in 2038 compared

[27] *Id*. at 51 fig. 27.

[28] *Id*. at 50.

to a future without LNG exports, the 2014 NERA Study concluded.[29] Under the HOGR case, U.S. GDP could increase from $2.5 billion to $20 billion in 2018, and to as much as $86 billion in 2038.[30] Under the LOGR scenario, U.S. GDP increases range from $1.6 billion in 2018 to $10 billion by 2038, the 2014 NERA Study found.[31] Across the scenarios analyzed by the 2014 NERA Study, U.S. economic benefits are strongly correlated with export volumes, and U.S. economic welfare consistently increases as the volume of LNG exports increases.

3. The United States Would Experience Greater Economic Benefits from Unlimited Exports

The 2014 NERA Study estimated economic impacts associated with cases in which exports were not constrained, but rather where LNG exports and prices instead were determined by global supply and demand. In these cases, the 2014 NERA Study showed that net economic benefits to the U.S. increase over the corresponding cases with limited exports, and unlimited exports always create greater benefits than limited exports in comparable scenarios. NERA found that "[e]ven under a scenario in which exports exceed 53 Bcf/d and result in higher prices than in the constrained cases, net economic benefits result from allowing unlimited exports."[32] Even though domestic natural gas prices increase owing to LNG exports, the value of those exports also rises along with wealth transfers from overseas entities received in the form of payments for liquefaction services, so that there is a net overall gain for the U.S. economy. "Even at the very high levels of exports that are projected in the HOGR cases with imperfectly

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29 *Id*. at 122, 94 fig. 51.

30 *Id*.

31 *Id.*

32 *Id*. at 11.

competitive global markets, unlimited exports provide larger benefits to the U.S. economy than any restricted level of exports," the 2014 NERA Study concluded.[33]

4. U.S. LNG Exports Would Not Link U.S. Natural Gas Prices to Global Prices

Consistent with the 2012 NERA Study, the 2014 NERA Study found no evidence that LNG exports would drive U.S. natural gas prices to parity with those paid by importing nations.[34] The cost of natural gas liquefaction and shipping from the United States, plus regasification and transportation costs in importing countries, would maintain a discount in domestic prices relative to higher-priced regions of the world, the 2014 NERA Study concluded.[35] The 2014 NERA Study also found no evidence that U.S. natural gas prices would become linked to the price of oil.[36]

5. U.S. Manufacturing Interests Are Unlikely to be Harmed by LNG Exports

Consistent with the 2012 NERA Study, the 2014 NERA Study found no support for the contention that LNG exports would place U.S. manufacturing interests at a competitive disadvantage compared to a scenario in which no exports occur.[37] While LNG exports may potentially raise domestic natural gas prices at the margin, manufacturing interests would continue to benefit from domestic prices that are lower than their global competitors due to the cost to liquefy and ship LNG exports from the United States, plus the cost to regasify and transport LNG volumes in importing nations.[38] The 2014 NERA Study projects that the 25-year

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[33] *Id*. at 122.

[34] *Id*. at 4, 6.

[35] *Id*. at 121.

[36] *Id*. at 6.

[37] *Id*. at 14, 110–11.

[38] *Id*. at 110–11, 121.

average growth rate between 2013 and 2038 for the energy-intensive sectors ("EIS") would range from 2.43% to 2.45% per annum in the U.S. Reference supply cases.[39] This forecast represents a worst-case decline of 0.02% relative to a projected growth rate in EIS without LNG exports of 2.45%.[40] The growth rate of EIS in the LOGR and HOGR supply scenarios demonstrate similar negligible impacts resulting from LNG exports relative to scenarios under which no U.S. LNG exports would occur. Under an HOGR supply scenario, EIS is forecast to grow at an average rate of 2.66% per annum over 25 years, compared to a range of 2.62% to 2.66% per annum average growth were U.S. LNG exports to transpire under HOGR supply conditions.[41] Under an LOGR supply scenario, EIS is forecast to grow at an average rate of 2.41% per annum over 25 years, compared to a range of 2.37% to 2.39% per annum average growth were U.S. LNG exports to occur under LOGR supply conditions.[42]

Furthermore, the 2014 NERA Study found that certain manufacturing sectors, such as petrochemicals, would benefit from U.S. LNG exports due to the increased supply availability of NGLs such as ethane, propane and butane, among others, used as feedstock by those sectors.[43] Namely, since LNG exports would encourage additional domestic natural gas development, the processing needs for wellhead natural gas production would also increase, resulting in greater NGL supply in the domestic market than would otherwise be made available. The 2014 NERA Study estimates, for example, that the domestic price of ethane, a critical component in the manufacturing of ethylene, would decline between 2.6% and 6.7% in the U.S. Reference supply

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39 *Id*. at 96, 97 fig. 52.

40 *Id*.

41 *Id.* at 97 fig. 52.

42 *Id.*

43 *Id.* at 101–02.

scenario over 20 years, depending on the pace and volume that future LNG exports transpire.[44] As a result, the U.S. ethylene sector is projected by NERA to experience higher growth in a U.S. Reference supply scenario of between 1.37% and 1.49% per annum over 20 years, compared to average growth of 1.37% per annum were LNG exports not to occur.[45] "Thus for NGL-intensive processes, the effect of LNG exports would be beneficial as a result of lower feedstock cost. More exports lead to greater supplies and lower feedstock prices and a greater competitive advantage for those manufacturing processes that rely on NGL feedstock," the 2014 NERA Study concluded.[46]

C. The Outlook for U.S. LNG Exports has Materially Improved Since the 2012 NERA Study

1. The U.S. Natural Gas Market Can Support Greater Exports and Domestic Demand at Lower Prices

The 2014 NERA Study demonstrates that both greater LNG exports and domestic demand can be supported in the U.S. natural gas market compared to results presented in the 2012 NERA Study. The 2014 NERA Study is calibrated to EIA's AEO 2013 forecast, which projects higher domestic natural gas demand than in the AEO 2011 forecast used for the 2012 NERA Study. AEO 2013 forecasts that U.S. natural gas demand per annum will range between 23.78 Tcf and 25.98 Tcf during the period between 2018 and 2033, or between 0.28 Tcf and 0.93 Tcf higher than U.S. natural gas consumption projected in the comparable timeframe presented in AEO 2011.[47] While more domestic demand is incorporated into NERA's modeling of the

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[44] *Id*. at 108.

[45] *Id*. at 110 & fig. 64.

[46] *Id.* at 108.

[47] *Id*. at 59 fig. 31. The AEO 2011 forecasts energy market conditions in the time period through 2035 while AEO 2013 forecasts market conditions through 2040. *Id.* at 58–59. It was therefore not possible to provide comparisons for the year 2038 presented in the 2014 NERA Study. *Id.*

U.S. natural gas market in the 2014 NERA Study, greater LNG exports are consistently achieved across the three U.S. supply scenarios (U.S. Reference, LOGR, and HOGR) at lower prices than the comparable unconstrained export scenarios presented in the 2012 NERA Study.

In the U.S. Reference unconstrained export cases, with the exception of two years, U.S. LNG exports in the 2014 NERA Study are between 0.29 Tcf and 3.51 Tcf per year higher than the U.S. Reference results generated in the 2012 NERA Study.[48] In the LOGR unconstrained export cases, U.S. LNG exports are equivalent to or higher by up to 3.25 Tcf per year compared to the low resource scenario in the 2012 NERA Study.[49] In the HOGR unconstrained export cases, U.S. LNG exports are between 1.71 Tcf and 11.98 Tcf higher in the 2014 NERA Study compared to the high resource scenario in the 2012 NERA Study.[50] These additional LNG exports are achieved in nearly all periods of the three supply scenarios at lower prices than in the 2012 NERA Study. The estimated wellhead price in the U.S. Reference scenario is projected by the 2014 NERA Study to average over 20 years between $0.77 per thousand cubic feet ("Mcf") and $1.26/Mcf lower than in the 2012 NERA Study.[51] The estimated wellhead price in the LOGR scenario is projected by the 2014 NERA Study to average over 20 years between $1.12/Mcf and $1.52/Mcf than in the 2012 NERA Study.[52] The estimated wellhead price in the HOGR scenario is projected by the 2014 NERA Study over 20 years to average between $1.56/Mcf and $1.82/Mcf lower than in the 2012 NERA Study.[53] "These results imply that the

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48 *Id*. at 60 fig. 32.

49 *Id*. at 61 fig. 33.

50 *Id*. at 62 fig. 34.

51 *Id*. at 59, 60 fig. 32.

52 *Id*. at 60, 61 fig .33.

53 *Id*. at 61, 62 fig. 34.

United States can be expected to produce a greater level of LNG exports at a lower price than was estimated in the previous NERA study," the 2014 NERA Study concluded.[54]

2. Economic Benefits to the U.S. Are Greater in the 2014 NERA Study

A comparison of results demonstrates that for a given level of exports, the economic benefits for the United States would be greater in the 2014 NERA Study compared to estimates in the 2012 NERA Study. For cumulative LNG export levels under the U.S. Reference supply scenario, U.S. economic welfare was revised higher by about 0.006% at the lower export levels in the 2014 NERA Study, and higher by about 0.011% at the higher export levels, compared to comparable cumulative LNG exports presented in the 2012 NERA Study.[55] Similarly, U.S. economic welfare was revised higher by about 0.015% and 0.026% at the lower and higher export levels, respectively, observed in the HOGR scenario presented in the 2014 NERA Study compared to similar export levels in the optimistic resource case of the 2012 NERA Study.[56]

The more optimistic outlook embedded in the AEO 2013 natural gas supply projections relative to the AEO 2011 forecast is the key driver behind the higher net benefits observed in the 2014 NERA Study. In general, more robust LNG exports are feasible in a given supply scenario, resulting in greater economic activity in the natural gas sector and a related increase in liquefaction service fees and associated taxes and royalty income, with less of an impact to prices at the margin compared to the 2012 NERA Study. "Our study suggests that for a given level of cumulative LNG exports, the new 2014 NERA study projects net benefits (as represented by the

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54 *Id*. at 12.

55 *Id*. at 13.

56 *Id.*

percentage change in welfare) to be relatively higher than corresponding cases simulated in the 2012 study," the 2014 NERA Study concluded.[57]

3. LNG Exports would Reduce U.S. Unemployment

The 2014 NERA Study's N_{ew}ERA general equilibrium model assumes full employment in the U.S. economy. Given that the U.S. economy is still recovering slowly from the recession and is not expected to return to full employment until 2018, according to the Congressional Budget Office,[58] NERA conducted an analysis in the 2014 NERA Study of the short-term impacts of LNG exports on the U.S. labor market.[59] NERA concluded that in all scenarios analyzed, LNG exports would reduce the rate of U.S. unemployment compared to scenarios in which exports did not transpire, owing to the investment required to construct LNG export terminals, plus investments in natural gas production and infrastructure required to facilitate exports.[60] More specifically, the 2014 NERA Study concluded LNG exports could reduce the average number of unemployed by as many as 45,000 workers between 2013 and 2018, and hasten the return to full employment in the U.S. economy up to one month earlier than a scenario without LNG exports during this five-year period.[61]

III. Conclusions

As discussed herein, the key findings in the 2014 NERA Study not only are consistent with NERA's prior conclusions in the 2012 NERA Study, but also reflect the even more

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57 *Id.*

58 CBO Outlook, *supra* note 14, at 46.

59 2014 NERA Study, *supra* note 5, at 114. NERA analyzed U.S. labor market impacts in the period from 2013 to 2018. *Id*. Consistent with the Congressional Budget Office's forecast for a return to full employment after 2018, NERA assumed the U.S. economy would resemble the full employment conditions of its N_{ew}ERA model in subsequent years. *Id*. at 116.

60 *Id.* at 118.

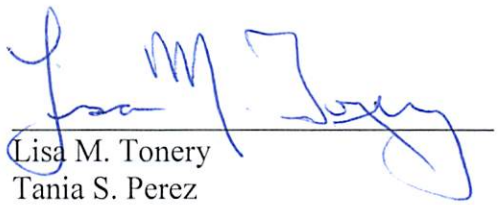
61 *Id.*

favorable market conditions for U.S. LNG exports based on EIA's updated supply forecasts in 2013. In short, the 2014 NERA Study reinforces and bolsters NERA's prior findings, which DOE/FE has relied upon in granting additional LNG export authorizations: LNG exports contribute net benefits to the U.S. economy, those benefits consistently increase as exports increase, and U.S. economic welfare is greatest under scenarios in which unconstrained LNG exports occur. Moreover, the 2014 NERA Study further strengthens the case for LNG exports because, across all supply scenarios considered, NERA finds that greater LNG exports and domestic natural gas demand can be supported at lower future domestic natural gas prices than previously estimated. Finally, the 2014 NERA Study quantifies the job creation benefits associated with LNG exports, an issue that was not within the scope of the 2012 NERA Study, and concludes that LNG exports will reduce unemployment in all scenarios considered. CMI respectfully submits that the 2014 NERA Study further supports a finding that the LNG exports as proposed in the Application are not inconsistent with the public interest.

Furthermore, in its review of the Application, CMI also requests that DOE/FE take into account the tremendous support of the local communities as reflected in the attached letters of support from the following officials urging approval of the Application: Nelda Martinez, Mayor, City of Corpus Christi; Roland C. Mower, CEO, Corpus Christi Regional Economic Development Corporation; Veronica Cortez, Interim City Secretary, City of Gregory; Peter L. Perkins, Mayor, City of Ingleside; and Terry Simpson, County Judge, San Patricio County. In recognition of the tremendous benefits that will flow from approval of the CCL Project and the associated LNG exports, the City of Portland, Texas as well as the City of Corpus Christi, Texas each has passed a Resolution in support of the CCL Project. The letters of support and resolutions are submitted herewith as Exhibit B to this Supplement.

CMI respectfully requests that DOE/FE accept this Supplement to its pending Application, and consider the findings of the 2014 NERA Study and the attached letters of support and resolutions in making a public interest determination on the Application.

Respectfully submitted,



Lisa M. Tonery
Tania S. Perez
Charles R. Scott
Attorneys for Cheniere Marketing, LLC

Fulbright & Jaworski LLP
666 Fifth Avenue
New York, New York 10103
(212) 318-3009

Dated: May 20, 2014

VERIFICATION

State of New York)

County of New York)

BEFORE ME, the undersigned authority, on this day personally appeared Lisa M. Tonery, who, having been by me first duly sworn, on oath says: that she is the Attorney for Cheniere Marketing, LLC, and is duly authorized to make this Verification; that she has read the foregoing instrument; and that the facts therein stated are true and correct to the best of her knowledge, information, and belief.

Lisa M. Tonery

SWORN TO AND SUBSCRIBED before me on the 20th day of May, 2014.

Name: Dionne McCallum-George

Title: Notary Public

My Commission expires:

McCALLUM GEORGE DIONNE
Notary Public, State of New York
No. 01MC6249522
Qualified in Queens County
Commission Expires Oct. 11, 2015

CERTIFICATE OF SERVICE

I hereby certify that I caused the above document to be served on all parties in these dockets in accordance with 10 C.F.R. § 590.107.

Dated at New York, N.Y., this 20th day of May, 2014.

Dionne McCallum-George
Legal Secretary on behalf of
Cheniere Marketing, LLC