

146 FERC ¶ 61,117
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Acting Chairman;
Philip D. Moeller, John R. Norris,
and Tony Clark.

Sabine Pass Liquefaction, LLC
Sabine Pass LNG, L.P.

Docket No. CP14-12-000

ORDER AMENDING SECTION 3 AUTHORIZATION

(Issued February 20, 2014)

1. On October 25, 2013, Sabine Pass Liquefaction, LLC (Sabine Liquefaction) and Sabine Pass LNG, L.P. (Sabine Pass LNG) (collectively, Sabine Pass)¹ filed an application to amend the order issued in *Sabine Pass Liquefaction, LLC*, on April 16, 2012.² The 2012 Order authorized Sabine Pass under section 3 of the Natural Gas Act (NGA) and the Commission's regulations³ to site, construct, and operate facilities for the liquefaction and export of domestically-produced natural gas at the existing Sabine Pass Liquefied Natural Gas (LNG) terminal (Liquefaction Project). In this proceeding, Sabine Pass seeks approval of an increase of the Liquefaction Project's authorized maximum peak day LNG production capacity from approximately 2.2 to approximately 2.76 billion cubic feet (Bcf) per day. This order grants the requested authorization subject to conditions, as discussed below.

¹ Sabine Pass LNG and Sabine Pass Liquefaction are subsidiaries of Cheniere LNG, Inc., which is a subsidiary of Cheniere Energy, Inc.

² *Sabine Pass Liquefaction, LLC and Sabine Pass LNG, L.P.*, 139 FERC ¶ 61,039 (2012) (2012 Order), *reh'g denied*, 140 FERC ¶ 61,076 (2012).

³ 18 C.F.R. Pt. 153 (2013).

I. Background and Proposal

2. In 2004, the Commission authorized Sabine Pass LNG under section 3 of the NGA to site, construct, and operate an LNG terminal to import foreign-sourced LNG.⁴ Subsequently, in 2009, the Commission issued an order amending Sabine Pass LNG's section 3 authorization to allow use of the terminal facilities to export LNG that had been previously imported into the United States and stored at the Sabine Pass LNG terminal in liquid form.⁵

3. The 2012 Order authorized Sabine Pass to site, construct, and operate facilities designed to liquefy domestic natural gas delivered by nearby pipelines, store the LNG in the terminal's storage facilities, and deliver the LNG from the storage tanks into marine vessels for export.⁶ As relevant to this proceeding, the 2012 Order authorized the construction and operation of four LNG process trains in two stages (Trains 1 and 2 in Stage 1 and Trains 3 and 4 in Stage 2) with a total LNG production capacity of 16 million tons per year (mtpa), or 2.2 Bcf per day (approximately 4 mtpa per train).⁷

4. Sabine Pass states that it calculated the original capacity of 4.0 mtpa per LNG train using "conservative" design and operating assumptions provided by its contractor, process licensors, and equipment vendors. Sabine Pass states that this capacity reflects an anticipated average annual capability which may be less than the actual capability of the project in any particular year. Sabine Pass asserts that through the design progression of the Liquefaction Project, it has obtained more precise information detailing the equipment specifications applicable to the project. In addition, Sabine Pass states that it

⁴ *Sabine Pass LNG, L.P.*, 109 FERC ¶ 61,324 (2004). The Sabine Pass LNG terminal is located in Cameron Parish, Louisiana, on the eastern shore of the Sabine Pass Channel, opposite the Town of Sabine Pass, Texas.

⁵ *Sabine Pass LNG, L.P.*, 127 FERC ¶ 61,200 (2009).

⁶ In *Sabine Pass Liquefaction, LLC and Sabine Pass LNG, L.P.*, 144 FERC ¶ 61,099 (2013) (2013 Order), the Commission amended the 2012 Order to authorize certain facility modifications to accelerate construction of the Liquefaction Project (Modification Project).

⁷ On September 30, 2013, Sabine Pass filed an application in Docket No. CP13-552-000 requesting authorization to site, construct, and operate two additional LNG process trains (Trains 5 and 6 in Stage 3) with a combined LNG production capacity of 503 Bcf per year, which is equivalent to approximately 1.38 Bcf per day, or approximately 0.69 Bcf per day per train.

has implemented certain design changes approved through the Commission's implementation plan review process⁸ that result in higher LNG production capability, including: (1) the addition of inlet air humidification to the gas turbines driving the refrigerant compressors, thus increasing the turbines' power at high ambient temperatures to produce more LNG; (2) optimization of refrigerant gas compressors through better definition of certain design characteristics, such as the impeller design, resulting in increased efficiency and higher LNG production; and (3) sizing of piping and equipment to minimize pressure drop and otherwise optimize equipment and systems to perform more efficiently. Sabine Pass asserts that these design changes will remove bottlenecks and result in more LNG production using the same power provided by the turbines.

5. Sabine Pass, therefore, proposes the combined, authorized LNG production capacity for the four LNG trains comprising Stages 1 and 2 of the Liquefaction Project be increased from the currently authorized approximately 16 mtpa, or 2.2 Bcf per day, to approximately 20 mtpa, or 2.76 Bcf per day.⁹ Sabine Pass explains that the proposed increase in the production capacity represents the maximum or peak LNG production and export capability of the trains under optimal operating conditions, such as cooler ambient temperatures that increase turbine power and implementation of enhanced operations and maintenance processes that promote production efficiencies. Sabine Pass states that its proposal requires no additional construction or modification of previously authorized facilities and that the Liquefaction Project can achieve its maximum LNG production level while remaining in full compliance with applicable air emission and other regulatory requirements.¹⁰

⁸ Letter Order Granting Approval to Construct Final Design, *Sabine Pass Liquefaction, LLC and Sabine Pass LNG, L.P.*, Docket No. CP11-72-000 (June 7, 2013).

⁹ The requested increased daily capacity is equivalent to approximately 20 mtpa (1,006 Bcf per year, divided by the currently authorized 803 Bcf per year, times the currently authorized capacity of 16 mtpa, which equals approximately 20 mtpa).

¹⁰ In orders dated September 7, 2010 and May 20, 2011, the Department of Energy's (DOE) Office of Fossil Energy, issued Sabine Pass Liquefaction authorization to export up to 16 mtpa, or 2.2 Bcf per day, to all Free Trade Agreement and non-Free Trade Agreement nations, finding that the potential export of such volumes not inconsistent with the public interest. Sabine Pass acknowledges that it will need to receive additional authorization from DOE to export more than 16 mtpa.

II. Public Notice

6. Notice of Sabine Pass's application was published in the *Federal Register* on November 7, 2013, with interventions and protests due on or before November 14, 2013.¹¹ Chevron U.S.A. Inc. and Sierra Club filed timely, unopposed motions to intervene. Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure.¹²

7. Sierra Club's motion to intervene included a protest and comments. Sabine Pass filed an answer to Sierra Club's protest and comments. Sierra Club filed an answer to Sabine Pass's answer. Answers to protests and answers to answers are not permitted under the Commission's Rules.¹³ Nevertheless, the Commission will accept the answers because they provide information that will assist in our decision making.¹⁴

8. Sierra Club's comments are addressed in the Environmental Assessment (EA) and are discussed further below.

III. Discussion

9. Because the proposal involves the export of natural gas to foreign countries, the amended operation of the previously authorized facilities requires Commission approval under NGA section 3.¹⁵ While section 3(a) provides that an application shall be approved

¹¹ 78 Fed. Reg. 66,909.

¹² 18 C.F.R. § 385.214(b)(2)(iii) (2013).

¹³ 18 C.F.R. § 385.213(a)(2) (2013).

¹⁴ *Id.*

¹⁵ 18 C.F.R. § 153.5 (2013). The regulatory functions of section 3 were transferred to the Secretary of Energy in 1977 pursuant to section 301(b) of the Department of Energy Organization Act. 42 U.S.C. § 7151(b) (2006). In reference to regulating the imports or exports of natural gas, the DOE Secretary subsequently delegated to the Commission the authority to approve or disapprove the construction and operation of particular facilities, the site at which facilities shall be located, and with respect to natural gas that involves the construction of new domestic facilities, the place of entry for imports or exit for exports. The Secretary's current delegation of authority to the Commission relating to import and export facilities was renewed by the Secretary's DOE Delegation Order No. 00-044.00A, effective May 16, 2006. Applications for authorization to import or export natural gas (the commodity) must be submitted to DOE.

if the proposal “will not be inconsistent with the public interest,” section 3 also provides that an application may be approved “in whole or in part, with such modification and upon such terms and conditions as the Commission may find necessary or appropriate.”¹⁶ Section 3(a) also provides that for good cause shown, the Commission may make supplemental orders as it may find “necessary or appropriate.”

10. Sierra Club contends that increased exports of LNG will have economic harms such as raising domestic gas prices, eliminating jobs in manufacturing and other domestic industries, and transferring wealth from working class families to large corporations. As discussed in the 2012 Order, DOE has exclusive jurisdiction over the export of natural gas as a commodity. DOE has delegated to the Commission authority to approve or disapprove the construction and operation of particular facilities, the site at which such facilities will be located, and with respect to natural gas that involves the construction of new domestic facilities, the place of entry for imports or exit for exports. However, the DOE Secretary has not delegated to the Commission any authority to approve or disapprove the import or export of the commodity itself or to consider the type of issues raised by Sierra Club, as part of the Commission’s public interest determination.¹⁷ Thus, the issue of whether the export of LNG will cause economic harm is beyond the Commission’s purview. Our authorization alone will not enable the export of any additional volumes of LNG.

11. Sabine Pass requests that the currently-authorized total LNG production capacity of Stages 1 and 2 of the Liquefaction Project of 2.2 Bcf per day (or 16 mtpa equivalent) be increased to a maximum capacity of approximately 2.76 Bcf per day (or 20 mtpa equivalent). The proposed change does not involve the construction of new facilities or the modification of previously authorized facilities. The proposed LNG production capacity of approximately 2.76 Bcf per day represents the combined, maximum or peak capacity of the four LNG trains based on the final, optimized design of the Liquefaction Project, including the facilities approved through the Commission’s implementation plan review process, rather than conservatively estimated nominal capacity.

12. We recognize that an accurate calculation of the maximum or peak capacity at optimal conditions may not be possible at the time an initial application for construction

¹⁶ For a discussion of the Commission’s authority to condition its approvals of LNG facilities under section 3 of the NGA, *see, e.g., Distrigas Corporation v. FPC*, 495 F.2d 1057, 1063-64 (D.C. Cir. 1974), *cert. denied*, 419 U.S. 834 (1974) and *Dynegy LNG Production Terminal, L.P.*, 97 FERC ¶ 61,231 (2001).

¹⁷ 2012 Order 139 FERC ¶ 61,039 at P 27 (2012) (citing *National Steel Corp.*, 45 FERC ¶ 61,100, at 61,333 (1988)).

is filed. However, we believe that it is appropriate for an ultimate authorization to reflect the maximum or peak capacity at optimal conditions as such a level represents the actual potential production of LNG. Thus, based on Sabine Pass's more detailed engineering analysis of the Liquefaction Project, we find that an increase in the authorized LNG production capacity to a combined maximum of approximately 20 mtpa, or 2.76 Bcf per day, is not inconsistent with the public interest.¹⁸ We note that Sabine Pass's proposal herein is consistent with its requested capacity authorization in the pending application in Docket No. CP13-552-000 to construct and operate Stage 3 of the Liquefaction Project.¹⁹

IV. Environmental Review

13. To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA), our staff prepared an EA for Sabine Pass's proposal. The EA addressed air quality, cumulative impacts, and alternatives. On January 24, 2014, the EA was placed in the public record of this proceeding. Sierra Club's comments were addressed in the EA and are summarized below.

14. Sierra Club contends that changing the authorized maximum production capacity of the Liquefaction Project will cause an increase in environmental impacts from induced gas production and pipeline transportation. As part of its NEPA analysis, the Commission considers the potential environmental impacts of natural gas production and development occurring in the project area as part of the cumulative impacts analysis to the extent that there is meaningful information available to assist the Commission's decision-making process in a particular proceeding.²⁰ With respect to production and development activities that are not within the project area, the Commission will determine whether such activities should be included in the EA or EIS based upon a fact-specific analysis. Council on Environmental Quality (CEQ) regulations require agencies

¹⁸ The annual capacity available for export can never reach 20 mtpa because the facilities are unable to operate at peak capacity every day of the year. Consequently, Sabine Pass has contracted to export only 18 mtpa, subject to receipt of all required export authorizations from DOE. *See* 2013 Order, 144 FERC ¶ 61,099 at P 4.

¹⁹ As noted above, Stage 3 consists of two additional LNG trains with a combined LNG production capacity of 503 Bcf per year, which is equivalent to approximately 1.38 Bcf per day, or approximately 0.69 Bcf per day per train. This is the same LNG production capacity per train that is proposed herein.

²⁰ *See, e.g., Central New York Oil & Gas Company, LLC*, 137 FERC ¶ 61,121 at PP 96-100 (2012); *order on reh'g*, 138 FERC ¶ 61,104 at P 48 (2012); *see also Sabine Pass Liquefaction, LLC*, 140 FERC ¶ 61,076 at P 11 (2012).

to consider environmental effects of proposed actions, including direct and indirect effects, if these effects are “reasonably foreseeable.”²¹ Where appropriate, the Commission will evaluate the specific facts to determine whether natural gas production and development is a “reasonably foreseeable” direct or indirect result of construction and operation of the project under consideration, or whether such activities are too speculative or attenuated to warrant inclusion in the EA or EIS.²²

15. The issue of environmental impacts from induced production and pipeline transportation was addressed in the 2012 Order.²³ The 2012 Order observed that impacts which may result from additional shale gas development are not “reasonably foreseeable” and that such additional development, or any correlative potential impacts, is not an “effect” of the Liquefaction Project for purposes of a cumulative impacts analysis. The 2012 Order pointed out that no specific shale-gas play had been identified and that the Liquefaction Project did not depend on additional shale gas production, which may occur for reasons unrelated to the project and over which the Commission has no control, such as state permitting for additional gas wells.

16. Sierra Club also asserts that the proposal would cause an increase in emissions of air pollutants and greenhouse gases from the Liquefaction Project. Staff’s EA did consider the environmental effect of potential additional production under the amendment. The EA concludes that operating at the “maximum design capacity” in a particular year, as proposed, would not alter any of the design parameters used in the previous air quality modeling analysis discussed in the Liquefaction Project’s EA. The EA makes this determination because there will be no changes to the factors that influence air modeling (e.g., emission rates, air/fuel ratios, exit stack temperatures, and exit flow rates). The modeling was performed based on continuous operation of the gas turbines and other emissions sources operating at 100 percent load for Trains 1-4 at their maximum design capacity. The proposal’s increase in authorized production has already been included in our air modeling which is based on maximum emissions generated from Trains 1-4 operated at maximum capacity. Potential to emit was based on continuous operation (8,760 hours per year) at 100 percent load for Trains 1-4 except for standby engines, for which potential to emit is based on 500 hours per year of operation.²⁴

²¹ 40 C.F.R. § 1508.8 (2013).

²² *Central New York Oil & Gas Company, LLC*, 137 FERC ¶ 61,121 at PP 88-94.

²³ 2012 Order, 139 FERC ¶ 61,039 at PP 94-99.

²⁴ Liquefaction Project EA, at 2-55 through 2-57.

17. Further, the 2012 Order notes that Sabine Pass has obtained all necessary air permits for the Liquefaction Project from the Louisiana Department of Environmental Quality (LDEQ).²⁵ The EA in this proceeding restates that the Liquefaction Project EA analysis demonstrates that the Liquefaction Project will be in compliance with National Ambient Air Quality Standards.²⁶ The Liquefaction Project EA identified the potential annual emissions for criteria pollutants and hazardous air pollutants for both the Liquefaction Project and the existing Sabine Pass LNG Terminal in Table 2.7-7 and for potential annual greenhouse gas emissions in Table 2.7-8.²⁷ The emissions data included in the Liquefaction Project EA were based on Environmental Protection Agency emission factors, applicable federal and/or state regulatory emission limitation, and manufacturer-supplied emissions factors.

18. Sierra Club contends that Sabine Pass's proposal would increase emissions from shipping vessels. The Liquefaction Project EA analyzed emissions in Louisiana and Texas from 400 ships per year (up to 250,000 cubic meters in size) which included LNG carrier cruising, transit hoteling, and unloading. Sabine Pass's request in this application does not require an increase in the number of vessels, dredging to the area to accommodate larger vessels, a relocation of the berthing area, or changes to the loading/unloading rate for the vessels. As stated in the EA, the vessel emissions were previously evaluated, and the request herein will not result in a change in total facility and marine emissions.

19. Sierra Club argues that the Commission's NEPA review should consider connected actions and cumulative impacts in a single environmental document that includes other projects in the area and Sabine Pass's pending applications for interrelated liquefaction and pipeline projects. Sierra Club points out that in Docket No. CP13-552-000, Sabine Pass proposes to site, construct, and operate two additional LNG process trains (Trains 5 and 6) and, in Docket No. CP13-553-000, Cheniere Creole Trail L.P. proposes to construct and operate a compressor station and 104.3 miles of pipeline to

²⁵ On December 6, 2011, LDEQ issued a Title V Permit 0560-00214-V3 and Prevention of Significant Deterioration (PSD) Permit PSD-LA-703(M3) authorizing the continued operation of the Sabine Pass LNG Terminal and the operation of the Liquefaction Project (Trains 1 through 4 and associated equipment). On March 22, 2013, LDEQ issued a modified Title V Permit 0560-00214-V4 and PSD Permit PSD-LA-703(M4) in connection with certain modifications to the Liquefaction Project authorized, in part, by the Commission in the 2013 Order.

²⁶ Liquefaction Project EA, at 2-60.

²⁷ *Id.*, at 2-55 through 2-57.

deliver natural gas to the Liquefaction Project. The Commission is aware of these pending applications but has not completed its environmental review of the proposed facilities. As stated in the EA, Sabine Pass's request here does not involve any new construction or modification of existing facilities. Consequently, the request in this application would not contribute to any cumulative impacts. The 2012 Order acknowledged the possibility of other LNG projects in the Gulf Coast area but could not meaningfully analyze the potential environmental impact of possible future projects.²⁸

20. Based on the analysis in the EA, we have determined that if Sabine Pass operates the Liquefaction Project in accordance with its application and supplements, approval of Sabine Pass's proposal herein would not constitute a major federal action significantly affecting the quality of the human environment.

21. At a hearing held on February 20, 2014, the Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application(s), as supplemented, and exhibits thereto, submitted in support of the authorizations sought herein, and upon consideration of the record,

The Commission orders:

(A) The authorized LNG production capacity of the Liquefaction Project's Stages 1 and 2 facilities granted in the 2012 Order is amended, as discussed in the body of this order.

(B) In all other respects, the authorizations granted in the 2012 Order shall remain in full force and effect.

(C) Sabine Pass shall notify the Commission's environmental staff by telephone, e-mail, and/or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Sabine

²⁸ 2012 Order, 139 FERC ¶ 61,039 at PP 88-91. The order did note that the Freeport LNG proposal in Texas would use mostly electric-driven equipment and thus would be unlikely to contribute additional significant quantities of greenhouse emissions and would be outside of the air quality control region in which Sabine Pass is located. The order also observed that the proposed Cheniere Corpus Christi LNG facility would be located outside of the same air quality control region as the Sabine Pass LNG terminal.

Pass. Sabine Pass shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.