

156 FERC ¶ 61,019
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Cheryl A. LaFleur, Tony Clark,
and Colette D. Honorable.

Freeport LNG Development, L.P.
FLNG Liquefaction, LLC
FLNG Liquefaction 2, LLC
FLNG Liquefaction 3, LLC

Docket No. CP15-518-000

ORDER AMENDING SECTION 3 AUTHORIZATION

(Issued July 7, 2016)

1. On June 15, 2015, Freeport LNG Development, L.P. (Freeport LNG) and FLNG Liquefaction, LLC, FLNG Liquefaction 2, LLC, and FLNG Liquefaction 3, LLC (collectively, Freeport Liquefaction) filed an application seeking amendment of Freeport Liquefaction's authorization under section 3 of the Natural Gas Act (NGA)¹ and Part 153 of the Commission's regulations² to operate facilities to produce liquefied natural gas (LNG) for export from Freeport LNG's terminal near the city of Freeport, in Brazoria County, Texas. More specifically, Freeport Liquefaction seeks to increase its authorized maximum peak day LNG production level from 1.8 billion cubic feet (Bcf) per day to 2.14 Bcf per day, reflecting its facilities' actual capabilities. The applicants do not propose any new facilities or construction activities.

2. For the reasons discussed below, the Commission will grant the requested authorization, subject to conditions described herein.

¹ 15 U.S.C. § 717b(a) (2012).

² 18 C.F.R. pt. 153 (2015).

I. Background and Proposal

3. In June 2004, the Commission authorized the siting, construction, and operation of Freeport LNG's terminal for the importation of natural gas.³ The Commission issued an order in September 2006 authorizing expansion of the LNG terminal and an increase in its send-out capacity from 1.5 Bcf per day to 4.0 Bcf per day.⁴ In May 2009, the Commission issued an order that authorized the use of the terminal facilities for the receipt and storage of foreign-sourced LNG and the reloading of such LNG onto ships for delivery to other countries.⁵

4. In 2014, the Commission authorized the construction and operation of liquefaction and other facilities and use of the Freeport LNG terminal to export domestic natural gas (Liquefaction Project).⁶ The facilities authorized as part of the Liquefaction Project included three LNG trains, each of which Freeport Liquefaction estimated would be capable of producing a nominal 4.4 million metric tons per annum of LNG, for a total liquefaction capacity of approximately 1.8 Bcf per day, or 657 Bcf per year, of natural gas.⁷

³ *Freeport LNG Development, L.P.*, 107 FERC ¶ 61,278, *order on reh'g*, 108 FERC ¶ 61,253 (2004). On August 17, 2005, the Commission issued an order authorizing Freeport LNG to increase the diameter of its send-out pipeline. *Freeport LNG Development L.P.*, 112 FERC ¶ 61,194 (2005).

⁴ *Freeport LNG Development L.P.*, 116 FERC ¶ 61,290 (2006). The facilities authorized by the 2006 included an additional marine berthing dock and facilities to transfer LNG from ships to the terminal, and an additional LNG storage tank.

⁵ *Freeport LNG Development L.P.*, 127 FERC ¶ 61,105 (2009).

⁶ *Freeport LNG Development, L.P.*, 148 FERC ¶ 61,076, *order denying reh'g*, 149 FERC ¶ 61,119 (2014).

⁷ *Id.* P 17. In 2013, the Department of Energy's Office of Fossil Energy (DOE/FE) issued orders that conditionally authorized Freeport LNG to export up to a total of 1.8 Bcf per day of LNG by vessel to countries with which the United States has not entered into Free Trade Agreements (FTA). DOE/FE Order No. 3282 issued May 17, 2013 in FE Docket No. 10-161-LNG; Order No. 3357 issued November 15, 2013 in FE Docket No. 11-161-LNG. DOE/FE had previously authorized Freeport LNG to export up to a total of 2.8 Bcf per day of LNG to FTA countries. DOE/FE Order No. 2913 issued on February 10, 2011 in DOE/FE Docket No. 10-160-LNG; Order No. 3066 issued on February 11, 2012 in DOE/FE Docket No. 12-06-LNG.

5. In the instant application, the applicants explain that in preparing the estimates in the application for the Liquefaction Project, they used very conservative design and operating assumptions, and that the application, therefore, reflected a very conservative estimate of the nominal production capacity of the liquefaction trains.⁸

6. The applicants state that they now have more precise information regarding the expected composition of inlet gas from terminal users, advanced optimized engineering design detail from its engineering, procurement, and construction contractor, and more detailed performance information from other vendors, detailing the equipment specifications applicable to the Liquefaction Project.⁹ Based on this information, the applicants state that they have determined that the existing facilities are capable of producing more LNG than initially estimated. The applicants therefore seek amendment of their existing section 3 authorization to increase the nameplate capacity of the Liquefaction Project from 1.8 Bcf per day (657 Bcf per year) to 2.14 Bcf per day (782 Bcf per year). They state that the proposal requires no additional construction or modification of the facilities authorized in the 2014 order, and that the Liquefaction Project can achieve the higher LNG production levels while remaining in full compliance with applicable air emission and other regulatory requirements.¹⁰ They further indicate that the proposed maximum liquefaction capacity would be accomplished with no change to the ranges of process flow parameters previously analyzed.

II. Notice, Intervention, and Protest

7. Notice of the application was published in the *Federal Register* on July 2, 2015, with interventions and protests due on or before July 15, 2015.¹¹ The Sierra Club filed a timely, unopposed motion to intervene. Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure.¹²

8. Sierra Club's motion to intervene included a protest and comments. These comments were addressed in the Environmental Assessment (EA) prepared by Commission staff regarding the application and are discussed further below.

⁸ Freeport Liquefaction June 15, 2015 Application For Limited Amendment to Authorization Granted Under Section 3 of the Natural Gas Act (Application), at 4.

⁹ *Id.*

¹⁰ *Id.* at 3-4.

¹¹ 80 Fed. Reg. 38,193.

¹² 18 C.F.R. § 385.214(b)(2)(iii) (2015).

III. Discussion

9. Because the applicants propose to operate the Freeport LNG terminal to liquefy for export natural gas at levels above those previously authorized, the proposal requires Commission approval under section 3(a) of the NGA,¹³ which provides that an application shall be approved if the proposal “will not be inconsistent with the public interest,” subject to “such terms and conditions as the Commission may find necessary or appropriate.”¹⁴

10. Sierra Club contends that the Commission should deny the applicants’ request for authorization to liquefy more domestic gas for export because exports cause harm by raising domestic gas prices and eliminating domestic jobs. Sierra Club also asserts that the proposal will harm most U.S. families while providing benefits only to shareholders in natural gas industry companies.

11. We decline to address these claims by Sierra Club as they concern impacts associated with the exportation of the commodity natural gas. As discussed in the 2014 order that approved the Liquefaction Project,¹⁵ the Department of Energy (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

¹³ 15 U.S.C. § 717b(a) (2012). 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) (2012). In reference to regulating the imports or exports of natural gas, the 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 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.

¹⁴ 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).

¹⁵ *Freeport LNG Development, L.P.*, 148 FERC ¶ 61,076, at PP 30-34 (2014). *See also Sabine Pass Liquefaction, LLC*, 146 FERC ¶ 61,117, *reh’g denied*, 148 FERC ¶ 61,200 (2014).

natural gas that involves the construction of new domestic facilities, the place of entry for imports or exit for exports. However, DOE has not delegated to the Commission any authority to approve or disapprove the import or export of the commodity itself.¹⁶ Thus, the issue of whether the export of LNG will cause economic harm is beyond the Commission's purview.¹⁷ Our authorization alone will not enable the export of any additional volumes of LNG.

12. In view of the above considerations, we limit our review to the proposal before the Commission and the potential impacts associated with the request for amendment of the existing section 3 authorization to increase the previously-authorized liquefaction facilities' maximum authorized LNG production capacity from 1.8 Bcf per day to 2.14 Bcf per day. As noted, the proposed change does not involve the construction of new facilities or the modification of previously authorized facilities.

13. The Commission recognizes that an accurate calculation of a given set of facilities' liquefaction capacity may not be possible at the time an initial application for construction is filed, but believes it is appropriate for the ultimate authorization to reflect the maximum or peak capacity at optimal conditions, as such a level represents the actual potential production of LNG.¹⁸ Based on the applicants' revised engineering analysis of the Liquefaction Project, the maximum LNG production capacity of its facilities is

¹⁶ See Order Approving Point of Entry for Importation of Natural Gas, *National Steel Corp.*, 45 FERC ¶ 61,100, at 61,333 (1988), which states: "The [Office of Fossil Energy], pursuant to its exclusive jurisdiction, has approved the importation with respect to every aspect of it except the point of importation. . . . The Commission's authority in this matter is limited to consideration of the place of importation, which necessarily includes the technical and environmental aspects of any related facilities."

¹⁷ Sierra Club raised these same concerns in DOE's proceeding on Freeport Liquefaction's application for export authorization proceeding, and DOE/FE considered Sierra Club's arguments in its orders that found that Freeport Liquefaction's requested export authorization will not be inconsistent with the public interest. DOE/FE concluded that, on balance, the potential negative impacts of Freeport Liquefaction's proposed exports "are outweighed by the likely net economic benefits and by other non-economic or indirect benefits," and attached terms and conditions to its authorization "to ensure that the authorization issued by this Order is not inconsistent with the public interest" DOE/FE Order No. 3357 issued November 15, 2013 in FE Docket No. 11-161-LNG at 73-140; 148-157; 154.

¹⁸ See, e.g., *Sabine Pass Liquefaction, LLC*, 146 FERC ¶ 61,117 at P 12 (approving request to increase authorized LNG production capacity to 20 million tons per year, or 2.76 Bcf per day, based on more detailed engineering analysis).

approximately 2.14 Bcf per day. Further, as discussed below, the EA for the proposal supports a finding that production at that level will not result in any significant adverse environmental impacts. We therefore find that the proposal is not inconsistent with the public interest and will grant the application in order to ensure better utilization of the existing liquefaction facilities and capacity.

IV. Environmental Review

14. To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA),¹⁹ our staff prepared an EA for Freeport Liquefaction's proposal. The EA finds that the proposal would not affect geology, soils, water resources, wetlands, vegetation, fisheries, wildlife, threatened and endangered species, land use, recreation, visual resources, cultural resources, noise, safety, or socioeconomics. The analysis in the EA also addresses air quality, cumulative impacts, and alternatives, and concludes that approval of the proposal would not constitute a major federal action significantly affecting the quality of the human environment. On March 31, 2016, the EA was placed in the public record of this proceeding.

15. In comments filed on April 26 and 27, 2016, Sierra Club argues that the EA fails: (1) to properly compare the potential increase in air pollution emissions with a no-action alternative; (2) to address emissions of air pollutants removed from the additional feed gas; (3) to take a hard look at increased vessel traffic from the terminal to transport the additional LNG that will be exported; and (4) to consider indirect effects on gas production and use resulting from the proposed increased in liquefaction of domestic gas for export and from LNG export projects cumulatively. Sierra Club also asserts that the Commission should have prepared an Environmental Impact Statement (EIS) instead of an EA. These arguments are addressed below.

A. Air Pollution Emissions and No-Action Alternative

16. Sierra Club asserts that the Commission failed to properly analyze air emissions as required by NEPA. In particular, Sierra Club states that Freeport Liquefaction's proposal is premised on a change in facts from those used to prepare the Liquefaction Project EIS, and therefore the Commission must take a hard look at the difference between the action and no-action alternatives.²⁰

¹⁹ 42 U.S.C. §§ 4321 *et. seq.* (2012).

²⁰ Sierra Club's April 27, 2016 Comments, at 3.

17. Commission staff's EA considers the potential for increased air emissions as a result of Freeport Liquefaction's proposal. The EA concludes that operating at the higher maximum design capacity in a particular year, as proposed, would not alter the previous air quality modeling analysis discussed in the EIS that was prepared for the Liquefaction Project.²¹ 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), and because modeling was performed on continuous operation of the liquefaction trains 1-3,²² mobile sources, and other emissions sources.²³ Thus, impacts associated with the increase in authorized liquefaction capacity being approved here were captured in the earlier modeling and considered in authorizing the project.

18. Because Commission staff's analysis of potential emission levels from the proposed Liquefaction Project assumed continuous operation of the liquefaction trains and found that emissions from continuous operation would not have significant impacts, it was not necessary to reanalyze those effects in preparing the EA in this proceeding. Further, the EA considered the no-action alternative, and did not find it preferable since it would prevent full utilization of the existing liquefaction facilities' capacity and therefore would not meet the objectives of the proposal.

19. Sierra Club further claims that the EA in this proceeding should have remedied the prior failure of the EIS for the Liquefaction Project to quantify the emissions associated with the amount of electricity required by the project instead of comparing the emissions per megawatt hour of power output of both electric and gas combustion liquefaction designs.

20. We continue to believe that emissions per megawatt hour is an appropriate metric to assess potential emissions, as the liquefaction facilities may not operate at 100 percent load for the full year. In addition, these emissions were identified in the EIS for the Liquefaction Project for informational purposes only, as the electrical grid and generation facilities are not subject to the Commission's jurisdiction.

²¹ Liquefaction Project EIS at section 4.11. As Sierra Club notes in its comments, the EA mistakenly cited "Liquefaction Project EA, page 2-60" for the modeling analysis.

²² Page 3 of the EA mistakenly referred to liquefaction trains 1-4; the proposed and authorized Liquefaction Project has three liquefaction trains.

²³ *Id.*

B. Emissions from Feed Gas

21. Sierra Club challenges the EA's conclusion that the proposal will not increase air emissions "because it will not require changes in operating load, fuel consumption, or fuel specification."²⁴ Sierra Club asserts that many of the emissions from the pretreatment facility are not the result of fuel consumption (e.g., emissions from gas removed from feedstock), and questions how removing impurities from 19 percent more gas would not lead to a corresponding increase in emissions.²⁵

22. While additional feed gas may be supplied to the Liquefaction Project as a result of increasing the maximum authorized liquefaction capacity to reflect actual capacity, the maximum LNG production level can be achieved while remaining in full compliance with applicable air emission requirements and within currently permitted levels.²⁶ Freeport Liquefaction has also indicated that emissions from pretreatment and liquefaction of the additional capacity would not exceed the levels identified in the Liquefaction EIS.

²⁴ Sierra Club's April 27, 2016 Comments, at 4.

²⁵ *Id.*

²⁶ Applicable air emission requirements are set forth in Freeport LNG's air permits, which were issued by the Texas Commission on Environmental Quality (TCEQ), as follows: On July 16, 2014, TCEQ issued Air Quality Permit No. 100114, Prevention of Significant Deterioration (PSD) Permit No. PSDTX1282, and Nonattainment Permit No. N150 to authorize the construction and operation of Freeport LNG's proposed Liquefaction Plant in Quintana, Brazoria County, Texas. On July 16, 2014, TCEQ also issued Air Quality Permit No. 104840, PSD Permit No. PSDTX1302, and Nonattainment Permit No. N170 to authorize the construction and operation of Freeport LNG's proposed Pretreatment Plant located in Oyster Creek, Brazoria County, Texas. On December 17, 2014, Freeport LNG filed requests for alteration of its air quality permits with TCEQ, seeking an alteration to de-aggregate these permits for purposes of Federal air quality applicability, minor New Source Review permitting, and air quality impacts analysis such that each site will be treated by the TCEQ as a separate source going forward, for all purposes, including NSR permitting and, specifically, the nonattainment review aspects of the permit review of these permits. TCEQ approved these alterations on March 24, 2015, and the PSD permit number for each plant has been voided because PSD review is no longer applicable. In addition, the Nonattainment Permit number for the Liquefaction Plant has been voided because Nonattainment review is no longer applicable to the Liquefaction Plant.

C. Shipping Vessels

23. Sierra Club requests clarification of Commission staff's conclusion in the EA that approving a 19-percent increase in the maximum authorized liquefaction capacity would not result in increased shipping traffic to and from the LNG terminal. Sierra Club asserts that the Commission must assess the increase in shipping vessels that will result from granting the application, even if the total shipping vessels will still be less than the 250 ships estimated during the proceeding on the Liquefaction Project.

24. The Final General Conformity Analysis for the Liquefaction Project analyzed the emission impacts of 250 ships,²⁷ and the EIS in that proceeding analyzed the traffic, noise, and emission impacts of up to 400 vessels per year.²⁸ Based on the applicants' statement that granting its request to increase the maximum authorized liquefaction capacity will not result in more than 250 ships being needed to export the domestic LNG,²⁹ the EA for the current proposal appropriately concludes that implementation would not cause a change in total facility and marine emissions from those previously studied.

D. Indirect and Cumulative Indirect Impacts

25. Sierra Club contends that increasing the authorized maximum production capacity of the Liquefaction Project will cause an increase in environmental impacts from induced gas production and pipeline transportation.³⁰ Sierra Club also asserts that the Commission must consider cumulative indirect impacts from all export projects on gas production.³¹ The EA did not address these arguments because the reasons for not analyzing induced production and cumulative induced production impacts were considered and discussed in the EIS for the Liquefaction Project,³² the order approving

²⁷ September 15, 2014 General Conformity Determination, Docket Nos. CP12-509-000 & CP12-29-000.

²⁸ *Freeport LNG Development L.P.*, 116 FERC ¶ 61,290 at P 7; Liquefaction Project EIS at 4-217, 237.

²⁹ Freeport Liquefaction's October 27, 2015 Response to October 15, 2015 Environmental Additional Information Request, at 4.

³⁰ Sierra Club's April 27, 2016 Comments, at 3.

³¹ *Id.* at 9.

³² Liquefaction Project EIS, at sections 4.2.1 and 4.12.

the project,³³ and the order denying rehearing.³⁴ In its comments on the EA in this proceeding, Sierra Club again asserts that there are reliable materials demonstrating that LNG exports induce additional natural gas production and that there are available tools to predict where production increases will occur.³⁵

26. The Council on Environmental Quality's (CEQ) regulations direct federal agencies to examine the indirect impacts of proposed actions.³⁶ Indirect impacts are defined as those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems."³⁷ Accordingly, to determine whether an impact should be studied as an indirect impact, the Commission must determine whether it: (1) is caused by the proposed action; and (2) is reasonably foreseeable.

27. With respect to causation, "NEPA requires 'a reasonably close causal relationship' between the environmental effect and the alleged cause"³⁸ in order "to make an agency responsible for a particular effect under NEPA."³⁹ As the Supreme Court explained, "a 'but for' causal relationship is insufficient [to establish cause for purposes of NEPA]."⁴⁰

³³ *Freeport LNG Development, L.P.*, 148 FERC ¶ 61,076, at PP 77-78.

³⁴ *Freeport LNG Development, L.P.*, 149 FERC ¶ 61,119, at PP 13-31 (2014).

³⁵ Sierra club cites U.S. Department of Energy, *Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States* (August 2014), <http://energy.gov/sites/prod/files/2014/08/f18/Addendum.pdf> ("DOE Addendum"), the U.S. Energy Information Administration's (EIA) National Energy Modeling System (NEMS), and Deloitte Marketpoint's World Gas Model, as well as other studies. These studies are unhelpful to Commission staff's analysis for the reasons discussed in the Order Denying Rehearing. *See Freeport LNG Development, L.P.*, 149 FERC ¶ 61,119 at PP 13-31.

³⁶ *See* 40 C.F.R. § 1508.25(c) (2015).

³⁷ *See* 40 C.F.R. § 1508.8(b) (2015).

³⁸ *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004) (quoting *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1983)).

³⁹ *Id.*

⁴⁰ *Id.*

Thus, “[s]ome effects that are ‘caused by’ a change in the physical environment in the sense of ‘but for’ causation,” will not fall within NEPA if the causal chain is too attenuated.⁴¹ Further, the Court has stated that “where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant ‘cause’ of the effect.”⁴²

28. An effect is “reasonably foreseeable” if it is “sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.”⁴³ NEPA requires “reasonable forecasting,” but an agency is not required “to engage in speculative analysis” or “to do the impractical, if not enough information is available to permit meaningful consideration.”⁴⁴

29. The Commission does not have jurisdiction over natural gas production. The potential impacts of natural gas production, with the exception of greenhouse gas and climate change, would be localized. Each locale includes unique conditions and environmental resources. Production activities are thus regulated at a state and local level. In addition, deep underground injection and disposal of wastewaters and liquids are subject to regulation by the Environmental Protection Agency (EPA) under the Safe Drinking Water Act, as well as air emissions under the Clean Air Act. On public lands, federal agencies are responsible for the enforcement of regulations that apply to natural gas wells.

30. As we have previously concluded in natural gas infrastructure proceedings, the environmental effects resulting from natural gas production are generally neither caused by a natural gas infrastructure project nor are they reasonably foreseeable consequences of our approval of an infrastructure project, as contemplated by the CEQ regulations.⁴⁵ A causal relationship sufficient to warrant Commission analysis of non-jurisdictional

⁴¹ *Metro. Edison Co.*, 460 U.S. at 774.

⁴² *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752 at 770.

⁴³ *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992). *See also City of Shoreacres v. Waterworth*, 420 F.3d 440, 453 (5th Cir. 2005).

⁴⁴ *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1078 (9th Cir. 2011).

⁴⁵ *See, e.g., Central New York Oil and Gas Co., LLC*, 137 FERC ¶ 61,121, at PP 81-101 (2011), *order on reh’g*, 138 FERC ¶ 61,104, at PP 33-49 (2012), *petition for review dismissed sub nom. Coalition for Responsible Growth v. FERC*, 485 Fed. Appx. 472, 474-75 (2012) (unpublished opinion).

activities and facilities as an indirect impact would only exist if the proposed project would transport or induce new production from a specified production area and that production would not occur in the absence of the proposed project (i.e., there will be no other way to move the gas).⁴⁶ To date, the Commission has not been presented with a proposed project that the record shows will cause the predictable development of gas reserves. In fact, the opposite causal relationship is more likely, i.e., once production begins in an area, shippers or end users will support the development of infrastructure to move the produced gas to market. It would make little economic sense to undertake construction of an infrastructure project in the hope that production might later be determined to be economically feasible and that the producers will choose the previously-constructed facilities as best suited for moving their gas to market.

31. Even accepting, *arguendo*, that a specific infrastructure project will cause natural gas production, we have found that the potential environmental impacts resulting from such production are not reasonably foreseeable. As we have explained, the Commission generally does not have sufficient information to determine the origin of the gas that will be exported. It is the states, rather than the Commission, that have jurisdiction over the production of natural gas and thus would be most likely to have the information necessary to reasonably foresee future production. We are aware of no forecasts by such entities, making it impossible for the Commission to meaningfully predict production-related impacts, many of which are highly localized. Thus, even if the Commission knows the general source area of gas likely to be exported from a particular terminal, a meaningful analysis of production impacts would require more detailed information regarding the number, location, and timing of wells, roads, gathering lines, and other appurtenant facilities, as well as details about production methods, which can vary per producer and depending on the applicable regulations in the various states. Accordingly, the impacts of natural gas production are not reasonably foreseeable because they are “so

⁴⁶ See *c.f.* *Sylvester v. U.S. Army Corps of Eng'rs*, 884 F.2d 394, 400 (9th Cir. 1989) (upholding the environmental review of a golf course that excluded the impacts of an adjoining resort complex). See also *Morongo Band of Mission Indians v. F.A.A.*, 161 F.3d 569, 580 (9th Cir. 1998) (concluding that increased air traffic resulting from airport plan was not an indirect, “growth-inducing” impact); *City of Carmel-by-the-Sea v. United States Dept. of Transp.*, 123 F.3d 1142, 1162 (9th Cir. 1997) (acknowledging that existing development led to planned freeway, rather than the reverse, notwithstanding the project’s potential to induce additional development).

nebulous” that we “cannot forecast [their] likely effects” in the context of an environmental analysis of the impacts related to a proposed interstate natural gas pipeline.⁴⁷

32. Here, the potential environmental impacts associated with additional natural gas production are not sufficiently causally related to Freeport Liquefaction’s proposal to warrant a detailed analysis, nor are the potential environmental impacts reasonably foreseeable, as contemplated by the CEQ regulations. The proposal to increase the authorized maximum capacity of the existing liquefaction facilities at the Freeport LNG terminal does not depend on additional shale gas production, and no specific production area has been identified as a source of natural gas for the projects. There is no showing that there is a sufficient causal link between authorization of additional capacity and any additional production. Given that it is not known whether the additional authorized capacity will use natural gas derived from new production, and that the amount, timing, and location of any development activity is also unknown, the impact from induced natural gas production is not an indirect effect of the projects. Recent opinions by the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) affirm the Commission’s findings on similar issues raised in previous LNG export proceedings that NEPA does not require the Commission to analyze the indirect impacts from the export of natural gas, including induced production.⁴⁸ Moreover, the D.C. Circuit found that with respect to the arguments that focused on induced production from the projects’ operations, the “Commission reasonably explained that the asserted linkage was too attenuated to be weighed” in its NEPA analyses.⁴⁹

33. Nonetheless, we note that, although we are not required by NEPA to study in this case the impacts of upstream production, a number of federal agencies have examined the potential environmental issues associated with unconventional natural gas production in order to provide the public with a more complete understanding of the potential impacts. The DOE has concluded that such production, when conforming to regulatory requirements, implementing best management practices, and administering pollution

⁴⁷ *Habitat Educ. Ctr.*, 609 F.3d 897, 902 (7th Cir. 2010) (finding that impacts that cannot be described with specific specificity to make their consideration meaningful need not be included in the environmental analysis).

⁴⁸ *Freeport LNG Development, L.P.*, 148 FERC ¶ 61,076, *reh’g denied* 149 FERC ¶ 61,119 (2014), *aff’d sub nom Sierra Club and Galveston Baykeeper v. FERC*, No. 14-1275 (D.C. Cir. filed June 28, 2016); and *Sabine Pass Liquefaction, LLC*, 146 FERC ¶ 61,117, *reh’g denied*, 148 FERC ¶ 61,200 (2014), *aff’d sub nom. Sierra Club v. FERC*, No. 14-1249 (D.C. Cir. filed June 28, 2016).

⁴⁹ *Id.*

prevention concepts may have temporary minor impacts to water resources.⁵⁰ The EPA has reached a similar conclusion.⁵¹

E. Environmental Impact Statement

34. Sierra Club argues that an EIS is required here because there is a “substantial question” as to whether the proposed project will have significant impacts.⁵² Sierra Club states that by failing to consider the effects of increased impurities removed from feed gas, the indirect effects on gas production and energy use, or the cumulative effects of this project together with other projects, the EA fails to support the conclusion that the proposal’s impacts will not be significant.⁵³

⁵⁰ See U.S. Department of Energy, *Addendum to Environmental Review Documents Concerning Exports of Natural Gas From The United States*, at 19 (August 2014), <http://energy.gov/sites/prod/files/2014/08/f18/Addendum.pdf>. We note that while DOE’s Addendum included a broad analysis of the types of resources from which additional production would occur, it did not specifically analyze impacts from the Freeport Liquefaction Project. Moreover, the DOE Addendum states that by preparing the study, DOE “... is going beyond what NEPA [the National Environmental Policy Act] requires. While DOE has made broad projections about the types of resources from which additional production may come, it cannot meaningfully estimate where, when, or by what method any additional natural gas would be produced. Therefore, DOE cannot meaningfully analyze the specific environmental impacts of such production, which are nearly all local or regional in nature.”⁵⁰

⁵¹ See EPA, *Draft Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources*, at ES-6, http://cfpub.epa.gov/ncea/hfstudy/recorddisplay.cfm?deid=244651#_ga=1.161236345.552502682.1445635975. See also Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands, 80 Fed. Reg. 16128, (Mar. 26, 2015) (Bureau of Land Management promulgates regulations for hydraulic fracturing on Federal and Indian lands to “provide significant benefits to all Americans by avoiding potential damages to water quality, the environment, and public health”).

⁵² Sierra Club’s April 27, 2016 Comments, at 9 (citing *Klamath Siskiyou Wildlands Ctr. V. Boody*, 468 F.3d 549, 561-62 (9th Cir. 2006)).

⁵³ Sierra Club’s April 27, 2016 Comments, at 9.

35. NEPA requires preparation of an EIS where the proposed major federal action “significantly [affects] the quality of the human environment.”⁵⁴ For the reasons discussed above, indirect and cumulative indirect effects on gas production and energy use are not relevant to our analysis of the current proposal. Furthermore, as explained in the EA, the effects from any additional feed gas supplied as a result of the instant proposal were fully analyzed in the EA for the Liquefaction Project.⁵⁵ Moreover, because the proposal does not require the construction of new facilities or the modification of previously-authorized facilities, and would not operate outside the range of feed gas composition cases previously analyzed, the EA concludes that the amendment will not affect the following resources: ground water, springs, or aquifers; wetlands or waterbodies; surface water, water intakes, or sources water protection areas; cultural; forested lands and vegetation; residential or commercial areas; wildlife including federally threatened and/or endangered species; geologic resources; soils; public safety; noise; and state or national parks, forests, recreation areas, or refuge areas.⁵⁶ Accordingly, an EIS is not required.

36. Based on the analysis in the EA, we conclude that if operated in accordance with Freeport Liquefaction’s application and the environmental and engineering conditions imposed by the Commission’s prior orders authorizing the construction and operation of the liquefaction and other facilities at the Freeport LNG terminal, our approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

37. The Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application, and exhibits thereto, and all comments and upon consideration of the record,

⁵⁴ 42 U.S.C. § 4332(C) (2012).

⁵⁵ EA at 4.

⁵⁶ EA at 4.

The Commission Orders:

(A) The authorized maximum LNG production capacity of the Liquefaction Project is increased from 1.8 Bcf per day to 2.14 Bcf per day to reflect the facilities' actual capabilities.

(B) In all other respects, the authorizations granted in the order authorizing the Liquefaction Project shall remain in full force and effect.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.