

147 FERC ¶ 61,230
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Cameron LNG, LLC	Docket Nos.	CP13-25-000
Cameron Interstate Pipeline, LLC		CP13-27-000

ORDER GRANTING AUTHORIZATION UNDER SECTION 3 OF THE NATURAL
GAS ACT AND ISSUING CERTIFICATES

(Issued June 19, 2014)

1. On December 7, 2012, in Docket No. CP13-25-000, Cameron LNG, LLC (Cameron LNG) filed an application for authorization under section 3 of the Natural Gas Act (NGA)¹ and Part 153 of the Commission's regulations² to site, construct, and operate facilities for the liquefaction and export of domestically-produced natural gas (Liquefaction Project) at its existing liquefied natural gas (LNG) import terminal in Cameron, Louisiana.
2. On December 14, 2012, in Docket No. CP13-27-000, Cameron Interstate Pipeline, LLC (Cameron Interstate) filed an application under NGA section 7(c)³ and Parts 157 and 284 of the Commission's regulations⁴ for a certificate of public convenience and necessity to construct and operate pipeline and compression facilities in Cameron, Calcasieu, and Beauregard Parishes, Louisiana (Pipeline Project). The Pipeline Project will enable Cameron Interstate to transport domestically-produced gas to the Cameron LNG terminal for processing, liquefaction, and export. Cameron Interstate also requests certain waivers of the Commission's regulations.

¹ 15 U.S.C. § 717b (2012).

² 18 C.F.R. pt. 153 (2013).

³ 15 U.S.C. 717f (2012).

⁴ 18 C.F.R. pts. 157 and 284 (2013).

3. For the reasons discussed in this order, we will authorize Cameron LNG's proposals under section 3 to construct and operate the Liquefaction Project. We will also authorize Cameron Interstate's proposals under section 7(c) to construct and operate the Pipeline Project. The authorizations issued to Cameron LNG and Cameron Interstate are subject to conditions discussed herein.

I. Background

4. Cameron LNG and Cameron Interstate are limited liability companies organized under the laws of Delaware. Cameron LNG is a wholly-owned, indirect subsidiary of Sempra Energy. Cameron Interstate is a wholly-owned subsidiary of CamPipe Corporation, which is a wholly owned subsidiary of Sempra Pipelines & Storage, which is a wholly owned subsidiary of Sempra Energy.

5. On September 11, 2003, the Commission issued an order under section 3 of the NGA, authorizing Cameron LNG⁵ to site, construct, and operate an LNG terminal to receive, store, and regasify up to 1.5 billion cubic feet per day (Bcf/d) of foreign-sourced LNG.⁶ This order also included authorization for Cameron LNG to construct and operate a 35.4-mile-long, 36-inch-diameter pipeline from the tailgate of its LNG terminal north to an interconnection with Transcontinental Gas Pipe Line Company, LLC (Transco). Cameron LNG's import terminal facilities were placed into service in July 2009. On January 20, 2011, the Commission issued an order authorizing Cameron LNG to operate the LNG terminal for the additional purpose of exporting LNG that had been previously imported and stored at the Cameron LNG terminal.⁷

⁵ Cameron LNG was formerly known as Hackberry LNG, LLC. On May 12, 2003, Sempra Energy LNG Corporation filed a letter with the Commission, stating that it had acquired Hackberry LNG from Dynegy Midstream Services, Limited Partnership, and had changed Hackberry's name to Cameron LNG, LLC.

⁶ *Cameron LNG*, 104 FERC ¶ 61,269 (2003). In 2007, the Commission granted Cameron LNG section 3(a) authorization to construct an additional storage tank and various other facilities to increase the storage capacity of the terminal. The order also authorized Cameron LNG to increase the natural gas send-out rate of the terminal from 1.5 to 1.8 Bcf/d on an interim basis and ultimately to 2.65 Bcf/d. *Cameron LNG*, 118 FERC ¶ 61,019 (2007). The authorization for 1.8 Bcf/d is still in effect, but the portions of the order authorizing construction of an additional storage tank and the increased send-out rate of 2.65 Bcf/d were vacated in 2012. *Cameron LNG*, 140 FERC ¶ 61,010 (2012).

⁷ *Cameron LNG, LLC*, 134 FERC ¶ 61,049 (2011).

6. On June 27, 2005, the Commission authorized Cameron LNG to abandon, and Cameron Interstate to acquire by intra-corporate transfer, the certificate authorization to construct and operate the 35.4-mile long, 36-inch diameter pipeline.⁸ Subsequent amendments to the certificate authorizations approved thicker walled pipe,⁹ an increase in pipe diameter from 36 inches to 42 inches,¹⁰ and an increase in the maximum authorized firm north-flow capacity of Cameron Interstate's pipeline facilities to 2.35 Bcf/d.¹¹

7. The existing 35.4-mile-long pipeline was designed to provide firm service in a northerly direction from Cameron LNG's terminal. Specifically, the pipeline was designed to receive gas at the southern terminus of the Cameron Interstate system at the point at which Cameron Interstate interconnects with the Cameron LNG terminal and transport that gas to one of the four existing interstate pipeline interconnections with Transco, Florida Gas Transmission Company, LLC (Florida Gas), Texas Eastern Transmission Pipeline, LP (Texas Eastern), and Tennessee Gas Pipeline Company, L.L.C. (Tennessee) at the northern end of Cameron Interstate's pipeline. Cameron Interstate currently has one long-term contract with ENI USA Gas Marketing, LLC (ENI) to transport 0.623 Bcf/d of gas on a firm basis at a negotiated rate in a northerly direction from its receipt point at the Cameron LNG terminal to an interconnection with Transco.

II. Proposals

A. Cameron LNG's Liquefaction Project (Docket No. CP13-25-000)

8. Cameron LNG seeks authorization to add natural gas processing and liquefaction capability to its existing LNG terminal in order to liquefy and export up to approximately 14.95 million metric tons per annum (MTPA),¹² with a maximum operating capacity

⁸ *Cameron LNG, LLC*, 111 FERC ¶ 61,490 (2005).

⁹ *Cameron LNG, LLC*, 115 FERC ¶ 61,229 (2006).

¹⁰ *Cameron Interstate Pipeline, LLC*, 117 FERC ¶ 61,297 (2006).

¹¹ *Cameron Interstate*, Docket Nos. CP05-119-004 and CP05-121-003 (Sept. 5, 2008) (delegated letter order).

¹² On January 17, 2012, the Department of Energy's Office of Fossil Energy (DOE/FE) authorized Cameron LNG to export up to 12 MTPA of domestically produced LNG by vessel to any country with which the United States has, or in the future enters into, a Free Trade Agreement (FTA) requiring national treatment for trade in natural gas. On February 11, 2014, the DOE/FE authorized Cameron LNG to export the same

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equivalent to pipeline receipts of up to 2.33 Bcf/d. Upon placing the proposed facilities into service, the terminal will have the capacity to (i) liquefy domestically-produced natural gas for export, (ii) import LNG and regasify it for delivery to domestic markets, and (iii) import foreign-sourced LNG for subsequent export.¹³

9. Specifically, Cameron LNG proposes to construct and operate facilities related to its proposed liquefaction and export activities, including: three liquefaction trains, each with a liquefaction capacity of approximately 4.99 MTPA; an additional 160,000 cubic meter LNG storage tank (the fourth storage tank at Cameron LNG's terminal); facilities to store refrigerants and condensate products and an associated truck loading/unloading area; a construction dock; and miscellaneous facilities and other minor modifications to existing facilities. Cameron LNG proposes to construct and place the three LNG trains into service in phases, with the first anticipated to be placed in service in 2017, and the second and third in 2018.

10. The Liquefaction Project will have a footprint of approximately 502.2 acres, of which approximately 70.0 acres will be within the existing Cameron LNG terminal. The remainder, approximately 432.2 acres, is an adjacent industrial property north of the terminal. Cameron LNG states that all of the land required for construction will also subsequently be used for the operation of the Liquefaction Project.

11. Cameron LNG states that it has entered into commercial development agreements with three potential customers for all of the capacity of the Liquefaction Project. Cameron LNG asserts that those customers have agreed to share development costs and are expected to execute long term agreements with Cameron LNG to treat, liquefy, store, and load for export natural gas and LNG owned by the customers.

B. Cameron Interstate's Pipeline Project (Docket No. CP 13-27-000)

12. In conjunction with the Liquefaction Project, Cameron Interstate proposes to construct and operate facilities necessary to enable its system to transport approximately 2.35 Bcf/d of domestically-produced natural gas in a southerly direction to Cameron LNG's terminal for processing, liquefaction, and export.¹⁴ Cameron Interstate claims

quantity to any country with which the United States has not entered a FTA requiring national treatment of trade in natural gas.

¹³ Although import and regasification capability will be preserved, Cameron LNG does not intend to provide both liquefaction and regasification services at the same time.

¹⁴ Cameron Interstate's design capacity of 2.35 Bcf/d will remain unchanged after construction of the facilities proposed herein.

that at such time as the proposed facilities are placed into service, Cameron Interstate's existing long-term firm transportation customer, ENI, will turn back all of its firm capacity. Cameron Interstate also states that when the new facilities are placed into service, it will have firm commitments only for north-to-south capacity that supports Cameron LNG's liquefaction and export project. Cameron Interstate states that it would be possible, however, to provide service in the opposite direction (i.e., from a receipt point at the Cameron LNG terminal north to delivery points with interstate pipelines) by displacement.

13. Specifically, Cameron Interstate seeks authorization to construct and operate approximately 21 miles of 42-inch diameter pipeline, parallel to its existing system for 15.5 miles, in order to allow for the flow of gas from various pipeline interconnections to Cameron LNG's terminal. The new pipeline will extend from an existing Cameron Interstate interconnection with Florida Gas in Cameron Parish to the proposed interconnection with Trunkline Gas Pipeline Company, LLC (Trunkline) in Beauregard Parish. Cameron Interstate also seeks authorization to: (1) construct and operate the new Holbrook Compressor Station, located at milepost 8.4, near the central portion of the pipeline, consisting of 12 natural gas-driven compressor units totaling 56,820 horsepower; (2) construct and operate a new interconnection with Trunkline; (3) modify four existing pipeline interconnections to expand the capacity of each interconnection;¹⁵ and (4) construct and operate new metering facilities to deliver gas to the LNG terminal.

14. In its application, Cameron Interstate states that during the non-binding open season conducted from November 1 through November 30, 2012, Cameron Interstate received confidential expressions of interest for 100 percent of the proposed incremental firm transportation capacity for terms of 20 years under a negotiated rate. Cameron Interstate later filed precedent agreements from its binding open season for anchor shippers from August 15 through September 20, 2013, and a binding open season for non-anchor shippers from November 20 through December 10, 2013.¹⁶

15. Cameron Interstate states that it will provide firm and interruptible transportation service on an open-access, nondiscriminatory basis. Cameron Interstate seeks approval of an incremental initial recourse reservation rate of \$2.0141 per MMBtu for firm Pipeline Project transportation service and a recourse rate of \$0.0662 per MMBtu for interruptible transportation service based on the 100 percent load factor derivative of the firm reservation rate. As a result of the addition of compression on its system, Cameron

¹⁵ As noted, Cameron Interstate's system has existing interconnections with Transco, Florida Gas, Texas Eastern, and Tennessee.

¹⁶ Cameron Interstate February 5, 2014 Data Response No. 5.

Interstate also proposes a new incremental fuel rate of 0.40 percent, which will be payable in kind. The estimated cost of the proposed facilities is approximately \$286.5 million.

16. Cameron Interstate requests a temporary waiver of the Commission's prohibition against reservations of future capacity to allow it to enter into a pre-arranged service agreement with Cameron LNG to provide capacity to Cameron LNG during the initial testing, pre-commissioning, and start-up of its three natural gas liquefaction trains. With six months needed to construct each train, the entire testing and commissioning process for the three trains is expected to take 18 months after the Cameron Interstate facilities are placed in service. Once the first train is in service, one-third of the firm capacity on Cameron Interstate would become available to Pipeline Project customers. Similarly, the remainder of the capacity on Cameron Interstate will become available for firm service as each of the other two trains is phased into service.

17. Cameron Interstate also requests waiver of the Commission's regulations to allow it to substitute updated rates based on actual cost and rate information for the estimated pro forma rates proposed herein, as the time for commencement of service approaches.

III. Notice, Interventions, Comments, and Protests

18. Notice of the applications was published in the *Federal Register* on January 7, 2013, with interventions and protests due on or before January 16, 2013.¹⁷ Timely motions to intervene were filed by the Lake Charles Harbor and Terminal District (Port of Lake Charles), and jointly by Sierra Club and Gulf Restoration Network (GRN) (collectively, Sierra Club). Timely, unopposed motions to intervene are automatically granted pursuant to Rule 214 of the Commission's Rules of Practice and Procedure.¹⁸

19. The Port of Lake Charles' motion to intervene included comments in support of the project citing economic benefits. On December 17, 2013, Charles Cutler filed comments in opposition to the project citing adverse economic consequences due to rising gas prices. On February 25, 2013, the Calcasieu Parish Police Jury filed comments in support of the project, also citing economic benefits.

20. Sierra Club's motion to intervene included a protest. Cameron LNG and Cameron Interstate filed a joint answer to Sierra Club's protest, which was followed by another

¹⁷ 78 Fed. Reg. 933 (Jan. 7, 2013).

¹⁸ 18 C.F.R. § 385.214 (2013).

round of answers by Sierra Club and Cameron LNG and Cameron Interstate.¹⁹ Although the Commission's Rules of Practice and Procedure do not permit answers to protests or answers to answers, the Commission finds good cause to waive its rules and accept these pleadings because they provide information that has assisted us in our decision making.²⁰

21. In its protest, Sierra Club argues that Cameron LNG's proposal is not in the public interest because "exports will cause both environmental and economic harm."²¹

IV. Discussion

A. Cameron LNG's Proposed Liquefaction Project (Docket No. CP13-25-000)

22. Because the proposed LNG terminal facilities will be used to export natural gas to foreign countries, the construction and operation of the proposed facilities and site of their location require approval by the Commission under section 3 of the NGA.²² While

¹⁹ Sierra Club filed its motion to intervene on January 16, 2013 and its answer on February 14, 2013. Cameron LNG and Cameron Interstate filed their joint answers on January 31 and on March 1, 2013.

²⁰ 18 C.F.R. § 385.213(a)(2) (2013).

²¹ Sierra Club adds that, because the Commission's environmental analysis will turn on the price impacts analysis contained in the DOE/FE's LNG export cumulative impact study (LNG Export Study), the Commission must withhold a final decision on the project pending full review of the study and the comments submitted on it. *See* Notice of Availability of 2012 LNG Export Study and Request for Comments, 77 Fed. Reg. 73,627 (Dec. 11, 2012) (calling for initial comments to be filed by January 24, 2013, and reply comments by January 25, 2013). While DOE called for comments and reply comments on the study, it did not intend to establish a new proceeding; rather, DOE intended to address the comments and reply comments within each LNG export proceeding. In its February 11, 2014 order authorizing Cameron LNG to export to non-FTA nations, the DOE/FE stated it had "carefully examined the comments and has considered them in its review of [Cameron LNG's] application." DOE/FE Order 3391 at 5.

²² 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, Pub. L. No. 95-91, 42 U.S.C. § 7101 *et. seq.* 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 natural gas import and export facilities and the site at which such facilities shall be located. The most recent delegation

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section 3 provides that an application for the exportation or importation of natural gas shall be approved 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.”²³

23. Section 311(c) of the Energy Policy Act of 2005 (EPA 2005)²⁴ added a new NGA section 3(e)(3) providing that, before January 1, 2015, the Commission shall not condition an order approving an application to site, construct, expand, or operate an LNG terminal on: (1) a requirement that the LNG terminal offer service to customers other than the applicant, or any affiliate of the applicant securing the order; (2) any regulation of the rates, charges, terms, or conditions of service of the LNG terminal; or (3) a requirement to file schedules or contracts related to the rates, charges, terms, or conditions of service of the LNG terminal.

24. In support of its claim that the Liquefaction Project is inconsistent with the public interest, Sierra Club asserts that, contrary to Cameron LNG’s economic arguments in support of its proposal, LNG export will have adverse and wide-ranging effects on the domestic economy, harming domestic consumers, and will not result in jobs creation. Sierra Club states that the Commission should consider how Cameron LNG’s proposal, in addition to all other LNG export proposals, will affect the price of natural gas for domestic customers, as well as how these price increases will harm U.S. workers and the economy.²⁵

25. With respect to environmental harm, Sierra Club asserts that the project will “induce additional natural gas production in the United States, primarily hydraulic

is in DOE Delegation Order No. 00-044.00A, effective May 16, 2006. Applications for authorization to import or export natural gas must be submitted to DOE. The Commission does not authorize importation or exportation of the commodity itself.

²³ 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).

²⁴ Energy Policy Act of 2005, Pub. L. No. 109-58, § 311, 119 Stat. 594 (2005).

²⁵ Sierra Club January 16, 2013 Protest at 54-58, 66-72. To the extent Sierra Club argues price impacts have environmental consequences, those arguments are addressed in the environmental section below. *See id.* at 54 n.182.

fracturing (fracking) of such production, thus causing the many environmental harms associated with such production.”²⁶

26. We decline to address Sierra Club’s economic claims, as they concern impacts associated with the exportation of the commodity natural gas, rather than the proposals before the Commission, that is, the impacts associated with Cameron LNG’s export facilities used to facilitate the exports.

27. Section 3 of the NGA provides, in part, that “no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the Commission authorizing it to do so.” As noted above, in 1977, the Department of Energy Organization Act transferred the regulatory functions of section 3 of the NGA to the Secretary of Energy. Subsequently, the Secretary delegated to the Commission authority to “[a]pprove or disapprove the construction and operation of particular facilities, the site at which such 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...”²⁷

28. However, the Secretary has not delegated to the Commission any authority to approve or disapprove the import or export of the commodity itself.²⁸ Nor is there any indication that the Secretary's delegation authorized the Commission to consider the types of issues raised by Sierra Club as part of the Commission's public interest determination, thus duplicating and possibly contradicting the Secretary's own decisions. Department of Energy/Office of Fossil Energy (DOE/FE), pursuant to its authority under NGA section 3, issued Cameron LNG authorization to export up to 12 MTPA, or 1.7 Bcf/d, of

²⁶ Motion to Intervene and Protest at 6, 23. Sierra Club raises a number of additional environmental issues, including construction and operation impacts to local air and water quality and habitats, as well as increased emissions of greenhouse gases and other toxic pollutants. These issues were addressed in the draft and final EISs, and are discussed below.

²⁷ DOE Delegation Order No. 00-004.00A (effective May 16, 2006).

²⁸ See *supra* note 22. See also *National Steel Corp.*, 45 FERC ¶ 61,100, at 61,332-33 (1988) (observing that DOE, “pursuant to its exclusive jurisdiction, has approved the importation with respect to every aspect of it except the point of importation” and that 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.”).

domestically-produced natural gas by vessel to all FTA and non-FTA nations, finding the potential export of such volumes to be not inconsistent with the public interest.²⁹

29. In conditionally granting Cameron LNG long-term authorization to export LNG, DOE found that there was substantial evidence of economic and other public benefits such that the authorization was not inconsistent with the public interest. We recognize DOE's public interest findings in issuing our order. Among other things, DOE found that exports from Cameron LNG's facility would result in increased production that could be used for domestic requirements if market conditions warrant such use, which would tend to enhance U.S. domestic energy security.³⁰ DOE also found several other tangible economic and public benefits that are likely to follow from the requested authorization, including increased economic activity and job creation, support for continued natural gas exploration, and increased tax revenues.³¹

30. Moreover, Sierra Club's claims with respect to purported adverse impacts of induced natural gas production have no bearing in this proceeding. The Commission's review is limited to the economic and environmental impacts of the proposal before us.³² As explained in more detail below, Sierra Club has not identified any induced production specifically connected to the Cameron LNG proposal.

31. The proposed Liquefaction Project is located on and adjacent to the footprint of the previously-approved and currently-operating Cameron LNG's terminal site. Much of the land in the area was previously disturbed during construction of the terminal and, as a result, we concur with the findings set forth in the EIS that the proposed project's environmental impacts are expected to be relatively small in number and well-defined.

²⁹ See DOE/FE Order Nos. 3059 (2012) (authorizing export to free trade countries) and 3391 (2014) (authorizing export to non-free trade countries).

³⁰ See DOE/FE Order No. 3059 at 20, 127-28.

³¹ *Id.* at 20

³² See *Sabine Pass Liquefaction, LLC and Sabine Pass LNG, L.P.*, 139 FERC ¶ 61,039, n.35 (2012) (scope of Commission's review is "limited to consideration of the impacts related to the place of importation [or export], which necessarily includes the technical and environmental impacts of any related facilities"). Sierra Club's Motion to Intervene at 32-33 also challenges the Commission's findings in the Sabine Pass order with respect to induced production, but we note that this is an impermissible collateral attack on a final order.

32. We conclude in this order that, with the conditions we require, the Liquefaction Project results in only minimal environmental impacts and can be constructed and operated safely. Accordingly, we find that, subject to the conditions imposed in this order, Cameron LNG's proposals are not inconsistent with the public interest.

B. Cameron Interstate's Proposed Pipeline Project (Docket No. CP13-27-000)

33. Since Cameron Interstate's proposed pipeline facilities will be used to transport natural gas in interstate commerce subject to the jurisdiction of the Commission, the construction and operation of the facilities are subject to the requirements of subsections (c) and (e) of section 7 of the NGA.³³

1. Certificate Policy Statement

34. The Certificate Policy Statement provides guidance for evaluating proposals to certificate new construction.³⁴ The Certificate Policy Statement established criteria for determining whether there is a need for a proposed project and whether the proposed project will serve the public interest. The Certificate Policy Statement explained that in deciding whether to authorize the construction of major new natural gas facilities, the Commission balances the public benefits against the potential adverse consequences. The Commission's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain in evaluating new pipeline construction.

35. Under this policy, the threshold requirement for existing pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from the existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any adverse effects the project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the route of a new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, the Commission will evaluate the project by

³³ 15 U.S.C. §§ 717f(c) and 717f(e) (2006).

³⁴ *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), order on *clarification*, 90 FERC ¶ 61,128 (2000), order on *clarification*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

balancing the evidence of public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits outweigh the adverse effects on economic interests will the Commission then proceed to complete the environmental analysis where other interests are considered.

36. During the non-binding open season, Cameron Interstate received confidential expressions of interest for 100 percent of the proposed incremental firm transportation capacity on the proposed facilities. In its application, Cameron Interstate stated that these expressions of interest are sufficient to support all of the modifications and upgrades proposed in its application without subsidization from existing customers.³⁵ Subsequently, Cameron Interstate entered into precedent agreements with anchor shippers and non-anchor shippers for 62 percent of the Pipeline Project capacity. While Cameron Interstate indicates that these shippers have elected to pay negotiated rates, as discussed in more detail below, Cameron Interstate proposes incremental initial recourse rates for the project calculated to recover the costs associated with the Pipeline Project. As the proposed recourse rates exceed Cameron Interstates existing system rates, we find proposed project meets the threshold no-subsidy requirement of the Certificate Policy Statement.

37. Cameron Interstate's proposal also meets the remaining criteria set forth in the Certificate Policy Statement. There will be no adverse effect on existing customers because Cameron Interstate's existing long-term firm transportation customer has elected to turn back all of its firm capacity at such time as the proposed project is placed into service. Therefore, when the new facilities are placed in service, Cameron Interstate will have firm commitments only for north-to-south capacity, reflecting the new transportation contracts that Cameron Interstate will enter into with customers of Cameron LNG's liquefaction and export project. In addition, no pipelines or their captive customers filed adverse comments regarding Cameron Interstate's proposals. Thus, we find that Cameron Interstate's proposed project will not affect its existing customers or other pipelines and their customers.

38. The proposed pipeline expansion will consist of approximately 21 miles of 42-inch-diameter pipeline that will parallel Cameron Interstate's existing pipeline, which is in a pipeline corridor that also contains the LA Storage (formerly Liberty Gas) Pipeline. In areas where the proposed pipeline will abut the existing permanent right-of-way (approximately 15.5 miles), an additional 25-foot-wide permanent easement will be required. In other areas where the pipeline will be slightly offset from the existing permanent right-of-way (approximately 5.3 miles), a 50-foot-wide permanent easement will be required, due to other foreign easements abutting the existing permanent right-of-

³⁵ Cameron Interstate December 14, 2012 Application at 8.

way. A total of approximately 68 acres will be required for a new permanent right-of-way.

39. We find that Cameron Interstate's efforts to route a significant portion of its pipeline along its existing right-of-way have minimized the impacts of the project on landowners and surrounding communities.

40. Cameron Interstate's proposed pipeline will enable it to transport domestically-sourced gas in a southerly direction to the Cameron LNG terminal where the gas will be liquefied for export. Cameron Interstate has entered into binding precedent agreements for 62 percent of the proposed incremental firm transportation capacity of the proposed pipeline for a term of 20 years under a negotiated rate. Based on the benefits the proposed project will provide and the minimal adverse effect on existing customers, other pipelines and their captive customers, landowners and surrounding communities, we find, consistent with the criteria discussed in the Certificate Policy Statement and subject to the environmental discussion below, that the public convenience and necessity requires approval of Cameron Interstate's proposal, as conditioned in this order.

2. Rates

41. Cameron Interstate proposes to offer cost-based incremental firm transportation service under Rate Schedule FT and interruptible transportation service under Rate Schedule IT, at recourse and negotiated rates. The proposed recourse rates for service using the expansion facilities are derived solely from the cost of service associated with the new facilities. All other aspects of Cameron Interstate's facilities, services, tariff, and rates previously authorized by the Commission remain unchanged.³⁶

42. Cameron Interstate's proposed incremental recourse rates reflect a straight fixed variable rate design, and are developed on an annual cost of service of \$56,313,752. Cameron Interstate states that its total return allowance of 10.72 percent is based on the capital structure and rates of return on debt and equity underlying its existing rates.³⁷ Cameron Interstate proposes the same depreciation rate of 2.0 percent for its incremental facilities that was approved by the Commission for its mainline facilities.³⁸ Cameron

³⁶ Cameron Interstate December 14, 2012 Application at 2.

³⁷ Cameron Interstate application at 15. *See Cameron Interstate Pipeline, LLC*, 129 FERC ¶ 61,178 (2009); Docket Nos. CP05-119-004 and CP05-121-003 (September 5, 2008) (delegated letter order); Cameron Interstate June 20, 2008 application to amend certificate authorization, exhibit P at 4.

³⁸ *Id.*

Interstate proposes to provide firm maximum daily deliveries of 2.3 Bcf per day from receipt points located on the northern part of its system to the Cameron LNG facility located on the southern part of its system.

43. Based on the projected annual cost of service of \$56,313,752 and annual monthly FT reservation determinants of 27,960,000 MMBtu (firm pipeline capacity equivalent to 2,330,000 MMBtu per day, times 12), Cameron Interstate proposes a maximum Rate Schedule FT incremental recourse reservation rate of \$2.0141 per MMBtu per month. Cameron Interstate also proposes a maximum recourse incremental IT rate of \$0.0662 per MMBtu, derived at a 100 percent load factor of the Rate Schedule FT rate.³⁹ We find that the cost components used to derive Cameron Interstate's proposed incremental recourse reservation and interruptible rates reasonably reflect current Commission policy. However, the annual billing determinants used to derive the proposed incremental recourse reservation rate and the interruptible recourse rate should be based on design capacity of 2,350,000 Mcf per day⁴⁰ as opposed to Cameron Interstate's proposed firm pipeline capacity billing determinants of 2,330,000 MMBtu per day. Accordingly, we will condition our approval of Cameron Interstate's proposed initial recourse rates upon Cameron Interstate filing revised tariff records and workpapers that reflect revised incremental recourse reservation and interruptible rates based upon the pipeline's design capacity of 2,350,000 Mcf per day.

44. We direct Cameron Interstate to keep separate books and accounting of costs attributable to the proposed facilities. The books should be maintained with applicable cross-references, as required by section 154.309 of the Commission's regulations.⁴¹ This information must be in sufficient detail so that the data can be identified in Statements G, I, and J in any future NGA section 4 or 5 rate case and the information must be provided consistent with Order No. 710.⁴² Such measures protect existing customers from cost overruns and from subsidization that might result from under-collection of the project's

³⁹ Cameron Interstate's currently effective system-wide Rate Schedule FT maximum recourse rate is \$1.3098 per MMBtu and the Rate Schedule IT maximum recourse rate is \$0.0431 per MMBtu. *See* Cameron Interstate Pipeline, LLC, FERC Gas Tariff, Rates and Charges, Summary of Rates and Charges, Section 4.0, 19.0.0.

⁴⁰ *See* Cameron Interstate Application, Exhibit G-II.

⁴¹ 18 C.F.R. § 154.309 (2013).

⁴² Revisions to Forms, Statements, and Reporting Requirements for Natural Gas Pipelines, Order No. 710, FERC Stats. & Regs., ¶ 31,267 (2008).

incremental cost of service, as well as help the Commission and parties to the rate proceedings determine the costs of the project.

45. We direct Cameron Interstate to file not less than 30 days, or more than 60 days, before the in-service date of the proposed facilities, all negotiated rate agreements or a tariff record describing the negotiated rate agreements associated with this project, in accordance with the Alternative Rate Policy Statement⁴³ and the Commission's negotiated rate policies.⁴⁴ Cameron Interstate must also file not less than 30 days, or more than 60 days, before the in-service date of the proposed facilities, an executed copy of any non-conforming agreements reflecting the non-conforming language and a tariff record identifying these agreements as non-conforming agreements consistent with section 154.112 of the Commission's regulations.

3. Fuel Retention

46. As a result of new compression on its system, Cameron Interstate proposes an incremental fuel rate of 0.40 percent in addition to its currently effective lost and unaccounted for (LAUF) factor.⁴⁵ The 0.40 percent fuel retention rate is based upon the average fuel usage at simulated rates of flow of 100, 75 and 50 percent of maximum daily capacity. Cameron Interstate states that future changes to its proposed incremental fuel retention charge will be subject to actual fuel usage and LAUF volumes pursuant to Cameron's currently effective fuel tracker adjustment mechanism in section 8.22 of the General Terms and Conditions (GT&C) of its tariff. We accept Cameron Interstate's proposed incremental fuel retention rate of 0.40 percent.

⁴³ *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines; Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076, order granting clarification, 74 FERC ¶ 61,194, reh'g denied, 75 FERC ¶ 61,024 (1996).

⁴⁴ *Natural Gas Pipelines Negotiated Rate Policies and Practices; Modification of Negotiated Rate Policy*, 104 FERC ¶ 61,134 (2003), order on reh'g and clarification, 114 FERC ¶ 61,042, dismissing reh'g and denying clarification, 114 FERC ¶ 61,304 (2006).

⁴⁵ Cameron Interstate's existing system-wide fuel retention charge is 0.33 percent which includes the LAUF factor. See section 4 of Cameron Interstate's tariff.

C. Waiver Requests

1. Capacity Reservation

47. Cameron Interstate requests limited waiver of the traditional open season requirements and restrictions on capacity reservations.⁴⁶ Cameron Interstate requests that the Commission allow it to enter into a pre-arranged service agreement with Cameron LNG to enable Cameron LNG to have assured capacity during the initial testing, pre-commissioning, and start-up of its three natural gas liquefaction trains. Cameron Interstate states that the entire testing and commissioning process for the three liquefaction trains is expected to take approximately 18 months. Cameron Interstate proposes to reserve all of the proposed associated south-bound firm capacity until the first liquefaction train at the Cameron LNG terminal is placed in service. Once the first train is commissioned, Cameron Interstate proposes to make one-third of the firm capacity on its system available for use by shippers.⁴⁷ Once the second train is commissioned, an additional one-third of the capacity on Cameron Interstate would become available for use. When the third train goes into service, Cameron LNG's reserved access to the capacity would end. All capacity would subsequently be available to shippers contracting for service. Cameron Interstate states that all potential bidders during the binding open season were made aware of this condition before they bid on the capacity.

48. Cameron Interstate acknowledges that posting is required before a pipeline enters into a pre-arranged deal for the capacity.⁴⁸ A pipeline may award available capacity on its system to a shipper, without an open season, for service to begin at some point in the future, but cannot make such an award of capacity more than 90 days prior to the time the shipper must commence paying reservation charges.⁴⁹ Cameron Interstate also acknowledges that section 8.4.1(b) of its tariff requires that "whenever capacity for a

⁴⁶ Cameron Interstate December 14, 2012 Application at 17-19.

⁴⁷ Cameron Interstate states it will make any capacity that is not used for testing and commissioning (and that is not otherwise committed to the project's long-term firm transportation customers under the terms of their firm transportation service agreements) available for commercial use in transporting gas in either direction while the trains are being tested and commissioned. Cameron Interstate February 5, 2014 Data Response No. 4.

⁴⁸ See 18 C.F.R. § 284.8(d) (2012).

⁴⁹ See *Midwestern Gas Transmission Co.*, 137 FERC ¶ 61,257, at P 54 (2011).

period greater than 92 days becomes available for subscription, Cameron [Interstate] will post notices on its Internet Web Site stating that Cameron [Interstate] will receive bids for the capacity...”⁵⁰ However, Cameron Interstate seeks waiver of any Commission rule or tariff provision that would prevent it from reserving capacity for use by Cameron LNG during its phased testing and commissioning process.⁵¹

49. Our policy is to permit a pipeline to reserve capacity from the market for no more than one year. Such a limitation assures that the reservation of capacity occurs only as part of a realistic expansion plan.⁵² Further, we have stated that allowing a pipeline to reserve capacity for only one year is a safeguard that ensures that the pipeline is not reserving capacity to exercise market power.⁵³ However, we have granted waiver of this policy under certain circumstances. In *Northwest Pipeline GP*,⁵⁴ we found that Northwest Pipeline GP had provided sufficient justification for its waiver request, demonstrating the existence of a realistic expansion plan. As a result, the Commission granted waiver, authorizing Northwest Pipeline GP to reserve capacity for up to 24 months. In *Transcontinental Gas Pipe Line Corporation*,⁵⁵ we granted waiver of the one-year limit to provide for up to 30 months of capacity reservation, also upon evidence of a realistic expansion plan.

50. Cameron Interstate has provided sufficient justification for reserving capacity for up to 18 months – in order to enable Cameron LNG to have assured capacity during the initial testing, pre-commissioning, and start-up of its three natural gas liquefaction trains. We find that Cameron Interstate provided sufficient information to ensure that all potential bidders were put on notice by disclosing this reservation of capacity condition as part of its binding open seasons. None of the shippers subscribing capacity as a result of those open seasons has objected to the proposed reservation of capacity. In addition, there has been no objection voiced by Cameron Interstate’s only existing long-term firm

⁵⁰ Cameron Interstate’s FERC NGA Gas Tariff, Cameron Interstate Pipeline, LLC FERC Gas Tariff, Section 8.4 - GTC, Allocations, 1.0.0.

⁵¹ Cameron Interstate February 5, 2014 Data Response No. 3.

⁵² See *Northern Natural Gas Company*, 105 FERC ¶ 61,057, at P 18 (2003). See also *Florida Gas Transmission Company, LLC*, 136 FERC ¶ 61,008, at P 25 (2011).

⁵³ See *Gas Transmission Northwest Corp.*, 109 FERC ¶ 61,141, at P 9 (2004).

⁵⁴ 127 FERC ¶ 61,116, at P 12 (2009).

⁵⁵ 120 FERC ¶ 61,204, at P 12 (2007).

transportation customer. Waiver of Cameron Interstate's open season tariff requirements for generally available capacity is necessary to allow for the reservation of capacity. Thus, we will grant waiver of the requirement in section 8.4.1(b) of the GT&C of Cameron Interstate's tariff.

2. Pro Forma Rates

51. Cameron Interstate requests waiver of any Commission's regulations necessary to allow it to revise its proposed rates prior to the in-service date of the Pipeline Project to reflect actual cost information.⁵⁶ Cameron Interstate may propose to amend this certificate to modify its initial rates to reflect updated cost and rate information, but any changes to initial rates can only take place prior to the Pipeline Project being placed into service. Accordingly, Cameron Interstate is cautioned to file any such amendment application, complete with all necessary supporting documentation, no later than 60 days prior to its anticipated in-service date to afford the Commission adequate time to review and act upon its request. If Cameron Interstate chooses to place its project into service before the Commission has acted on any amendment request, it will have to file an NGA section 4⁵⁷ rate case in order to change the rates approved in this order.⁵⁸

V. Environmental Analysis

A. Pre-Filing Review

52. On May 9, 2012, Commission staff granted the request of Cameron Interstate (Docket No. PF12-12-000) and Cameron LNG (Docket No. PF12-13-000) to use the

⁵⁶ See Cameron Interstate December 14, 2012 Application at page 19.

⁵⁷ 15 U.S.C. § 717c(d) (2012).

⁵⁸ In response to a staff data request asking how Cameron Interstate intended to recover the costs associated with its existing facilities once its existing shipper turns back all its firm capacity upon the Pipeline Project's going into service, Cameron Interstate indicated that planned to develop proposed cost-based maximum recourse rates for transportation services on its system that will reflect not only the incremental costs of the Pipeline Project, but also the unrecovered costs of Cameron Interstate's existing facilities. See Cameron Interstate March 27, 2013 Data Response Nos. 1 and 5. We note that such a change in rates, i.e., to recover costs not associated with the incremental facilities and services approved as part of the Pipeline Project, cannot be accomplished through a certificate amendment filing. Cameron Interstate would have seek approval of such rates by filing a section 4 rate case.

prefiling process. On August 6, 2012, the Commission issued a *Notice of Intent to Prepare an Environmental Impact Statement* (NOI). This notice was published in the Federal Register on August 13, 2012 and mailed to about 300 interested parties on the environmental mailing list including federal, state, and local officials; agency representatives; conservation organizations; Native American tribes; local libraries and newspapers in the project areas; and property owners in the vicinity of proposed project facilities.⁵⁹

53. On August 21, 2012, a public scoping meeting was held in Sulphur, Louisiana, to provide an opportunity for the public to learn more about the Liquefaction and Pipeline Projects and to provide oral comments on environmental issues to be addressed in the environmental impact statement (EIS). Ten people spoke in support of the project at the scoping meeting. A transcript of the meeting was placed into the public record for the proceedings. In addition, seven letters were filed by federal agencies, a Native American tribe, and a non-government organization providing written scoping comments on the project.

B. Application Review

54. After applications for the Liquefaction and Pipeline Projects were filed, Commission staff evaluated the potential environmental impacts of the proposed facilities in the draft and final EIS in accordance with the requirements of the National Environmental Policy Act of 1969 (NEPA).⁶⁰ The U.S. Army Corps of Engineers, U.S. Coast Guard, DOE, and U.S. Department of Transportation (DOT) participated as cooperating agencies in the preparation of the EIS.

55. On January 10, 2014, Commission staff issued a draft EIS that addressed the substantive issues raised during the scoping period.⁶¹ A 45-day public comment period followed issuance of the draft EIS. The draft EIS was mailed to the environmental mailing list. Commission staff held a public comment meeting on February 13, 2014, in Sulphur, Louisiana, and Commission staff placed transcripts of the public comment meeting into the public record. Eleven speakers provided comments at the meeting, and eleven additional stakeholders submitted written comments in response to the draft EIS.

⁵⁹ 77 Fed. Reg. 48,145 (August 13, 2012).

⁶⁰ 42 U.S.C. §§ 4321 *et seq.* (2006). *See* 18 C.F.R. Part 380 (2013) for the Commission's NEPA-implementing regulations.

⁶¹ The Commission published notice of the draft EIS in the *Federal Register* on January 17, 2014. 79 Fed. Reg. 3197 (January 17, 2014).

56. Ten of the speakers at the comment meeting spoke in support of the project, and one commenter expressed concern for the safety of the Calcasieu Barge Channel, which the project would not impact. Other concerns raised during the draft EIS comment period included concerns over the extent of the impacts on Corps of Engineers jurisdictional wetlands; Endangered Species Act consultations; environmental justice; air emissions during construction and operation; indirect effects of the project; system alternatives; and consideration of alternative sites for the liquefaction facility.

57. On April 30, 2014, Commission staff issued a final EIS for the Liquefaction and Pipeline Projects.⁶² The final EIS addresses timely comments received on the draft EIS.⁶³ The final EIS was mailed to the same parties as the draft EIS, as well as to those who commented on the draft EIS.⁶⁴ The EIS addresses geology; soils; water resources; wetlands; vegetation; wildlife and aquatic resources; threatened, endangered, and other special status species; land use, recreation, and visual resources; socioeconomics; cultural resources; air quality and noise; safety; cumulative impacts; and alternatives.

58. The final EIS concludes that the project will result in mostly temporary and short-term environmental impacts. While the final EIS concludes that the projects will result in some adverse environmental impact, it clarifies that these impacts will be reduced to less-than-significant levels with the implementation of Cameron LNG's and Cameron Interstate's proposed mitigation measures and staff's recommendations. The mitigation measures recommended in the EIS are included as environmental conditions in Appendix A of this order. The major environmental issues addressed in the EIS include essential fish habitat (EFH); cumulative traffic impacts on Louisiana Highway 27 (LA-27) in the vicinity of the Liquefaction Project site; noise impacts from the proposed Holbrook Compressor Station; public safety; and the concerns raised in comments on the draft EIS.

C. Major Environmental Issues Addressed in the Final EIS

1. Wetlands

59. As stated in the EIS, construction and operation of the Liquefaction Project would permanently fill a total of 213.5 acres of wetlands. To offset impacts on Corps of

⁶² The Commission published notice of the final EIS in the *Federal Register* on May 7, 2014. 79 Fed. Reg. 26,244 (May 7, 2014).

⁶³ Appendix L of the final EIS includes responses to comments on the draft EIS.

⁶⁴ The distribution list is provided in Appendix A of the final EIS.

Engineers jurisdictional wetlands, Cameron LNG would follow required mitigation measures included in the Corps of Engineers permit issued to Cameron LNG on February 12, 2014. The mitigation measures include creation of offsite brackish marsh wetland habitat.

60. Construction and operation of the Pipeline Project would affect approximately 56.7 acres of wetlands, of which Cameron Interstate would permanently impact 16.0 acres, including permanent conversion of approximately 1.3 acres from forested to emergent wetlands. The clearing of forested wetlands within 10 acres of temporary workspaces would result in a long-term impact because of the slow growth rate of trees in the workspace after the area is no longer needed and it is restored. Cameron Interstate would implement the mitigation measures in its *Wetland and Waterbody Construction and Mitigation Procedures* to control erosion and restore the grade and hydrology after construction in wetlands along the Pipeline Project route. To offset the loss of functional value within palustrine forested and palustrine scrub/shrub wetlands, Cameron Interstate would purchase mitigation credits from Corps of Engineers-approved wetland mitigation banks. The EIS concludes that Cameron LNG's and Cameron Interstate's proposed mitigation measures, the wetland compensation required by the Corps of Engineers permit, and the staff's recommended mitigation measures, required by this order would adequately minimize and mitigate wetland impacts. Specifically, Environmental Conditions 16 and 17 will ensure that Cameron Interstate protects wetlands at identified segments along the pipeline route.

2. Essential Fish Habitat

61. The proposed marine work dock associated with construction of the Liquefaction Project is within essential fish habitat, as defined by the Magnuson-Stevens Fishery Conservation and Management Act.⁶⁵ The EIS finds that dredging for the work dock would increase the water depth from approximately 3.5 feet to approximately 15 feet below mean sea level, permanently converting estuarine sub-tidal bottom habitat to deep water habitat. To minimize impacts on essential fish habitat and the species that use the habitats, Cameron LNG would use a suction dredge that would reduce sedimentation and turbidity for initial and maintenance dredging. In its comment letter on the draft EIS, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) requested that information related to the beneficial use of the dredge material and mitigation plan be included in the final EIS, and that the mitigation plan be updated to reflect the latest Jurisdictional Determination of wetlands regulated by the Corps of Engineers, as well as mitigation requirements. The final EIS updates this information and describes how Cameron LNG would beneficially reuse dredged materials at existing

⁶⁵ 16 U.S.C. 1801 *et seq.* (2012).

disposal sites and in its Corps of Engineers-approved marsh mitigation area. The disposal would be accomplished in accordance with the requirements of: (1) the section 404 of the Clean Water Act⁶⁶ and section 10 of the Rivers and Harbors Act of 1899⁶⁷ permits issued to Cameron LNG by the Corps of Engineers on February 12, 2014; (2) the amended Coastal Use Permit issued to Cameron LNG by the Louisiana Department of Natural Resources (Louisiana DNR) on January 21, 2014; and (3) the Modified Maintenance Dredge Permit issued to Cameron LNG by Louisiana DNR on November 20, 2013. The EIS states that the deep water habitat at the marine dock would recolonize with soft-bottom benthic organisms after completion of dredging and would continue to provide a prey base for EFH species. The EIS concludes that the project would not have a substantial adverse impact on essential fish habitat or EFH species.

3. Threatened and Endangered Species

62. Based on field surveys and consultations with the U.S. Fish and Wildlife Service (FWS) and NMFS, eight federally listed species potentially occur in the general project area. The EIS concludes that construction and operation of the project is *not likely to adversely affect* the green, hawksbill, Kemp's ridley, leatherback, and loggerhead sea turtles; the West Indian manatee; the piping plover; and the red-cockaded woodpecker. Environmental Condition 19 requires Cameron Interstate to conduct updated surveys for the red-cockaded woodpecker within one year prior to construction. In its comments on the draft EIS, FWS concurred with the determinations and stated that no further consultation regarding threatened and endangered species will be necessary unless there are significant changes in the scope or location of the project. Additionally, NMFS concluded that consultation was not necessary as the impacts were previously considered during Endangered Species Act consultations conducted in proceedings that culminated in the January 18, 2007 order authorizing Cameron LNG to increase the send-out rate of the terminal.⁶⁸ Thus, Endangered Species Act consultations are complete.

⁶⁶ 33 U.S.C. § 1344 (2012).

⁶⁷ 33 U.S.C. § 403 (2012).

⁶⁸ See 118 FERC ¶ 61,019 (2007) (order in Docket No. CP06-422-000). See April 9, 2014 Memo documenting telephone conversation between Danny Laffoon (FERC's Office of Energy Projects) and Kyle Baker (National Marine Fisheries Service).

4. Environmental Justice

63. The Pipeline Project facilities would be within or adjacent to existing pipeline and utility rights-of-way.⁶⁹ Therefore, the EIS clarifies that routing was not selected to disproportionately impact low income or minority populations. In addition, the closest community is the city of Sulphur, approximately 2.3 miles from the route. Similarly, the proposed Liquefaction Project site is adjacent to the existing Cameron LNG terminal and was not selected to disproportionately impact low income or minority populations. The residence closest to the Liquefaction Project site is about 1.2 miles to the northwest, and the nearest community is the town center of Hackberry, about 2.6 miles to the south. In accordance with the Executive Order 12,898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,⁷⁰ all public documents, notices, and meetings were made readily available to the public throughout the Liquefaction Project area during the EIS process. No environmental justice concerns were reported or identified for the existing pipelines or the existing terminal, and the EIS concludes that the proposed project would not result in impacts on low income or minority populations.

5. Air Quality and Noise

64. The EIS finds that most project-related air emissions would be produced by operation of the expanded LNG terminal and the Holbrook Compressor Station, and Cameron LNG and Cameron Interstate would comply with all applicable air permit requirements for those facilities. An air quality screening analysis summarized in the EIS indicated that the Liquefaction Project would not exceed the National Ambient Air Quality Standards (NAAQS) at any location, with the exception of nitrogen dioxide for both emitting facilities. An expanded analysis determined that operation of these facilities would not contribute significantly to any exceedance of the 1-hour NAAQS. Additionally, the EIS finds that air dispersion modeling for both facilities indicates the impacts would have a minimal effect on the local environment. As a result, no significant adverse impact on either the regional or local air quality would occur.

65. The EIS finds that the Liquefaction Project would increase noise levels at the nearest noise-sensitive area (NSA) during operation by 2.9 decibels on the A-weighted scale (dBA), resulting in a day-night noise level (L_{dn}) of 53.8 dBA. This is below the “barely detectable” noise level increase of 3 dBA and below the Commission L_{dn} limit of 55 dBA; therefore, the EIS concludes that there would be minor impacts on the nearest

⁶⁹ See Section 4.9 and response FG4-2 of Appendix L in the final EIS.

⁷⁰ Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 11, 1994).

NSA. The EIS also finds that construction of the terminal would result in noise impacts of about 53 dBA from sheet pile driving and 48 dBA from construction equipment at the nearest NSA. The EIS states that Cameron Interstate's Holbrook Compressor Station would result in an estimated operational noise level below the Commission L_{dn} limit of 55 dBA, but the increase would be clearly noticeable with an increase of 5.8 dBA at the nearest NSA. Cameron Interstate would implement mitigation measures to reduce noise impacts, including use of acoustically-treated enclosures and silencers on air intakes and exhausts. The EIS recommends that Cameron Interstate conduct a noise analysis during operation of the compressor station to ensure that the noise levels are at or below the L_{dn} of 55 dBA and concludes that the impact on noise levels resulting from operation of the project facilities would be minor. The recommendation is included in this order as Environmental Condition 24.

6. Safety

66. All project facilities would be designed, constructed, operated, and maintained to meet or exceed the U.S. Coast Guard Safety Standards⁷¹ and DOT Minimum Federal Safety Standards,⁷² as well as other applicable federal and state regulations. Commission staff performed a technical review of the preliminary engineering designs for the Liquefaction Project and concluded in the EIS that sufficient layers of safeguards would be included in the facility designs to mitigate the potential for an incident that could impact the safety of the off-site public. DOT reviewed the data and methodology Cameron LNG used to determine the design spills based on the flow from various leakage sources, including piping, containers, and equipment containing hazardous liquids. In a letter to the Commission, dated November 18, 2013, and filed on November 21, 2013, DOT stated it has no objection to Cameron LNG's methodology for determining the candidate design spills to establish the required siting for its proposed LNG liquefaction facilities. The U.S. Coast Guard reviewed the liquefaction facilities and stated that a Letter of Intent or a revision to the Water Suitability Assessment is not required for the Liquefaction Project because the modifications lie outside the Marine Transfer Area. By designing and operating the project in accordance with the applicable standards, the EIS concludes that the project would not result in significantly increased public safety risks.

⁷¹ 33 C.F.R. pts. 105 and 127 (2013).

⁷² 49 C.F.R. pts. 192 and 193 (2013).

7. Indirect Impacts

67. Sierra Club asserts that the draft EIS is deficient because it failed to consider the indirect effects of induced gas production associated with the Liquefaction Project. We disagree.

68. The CEQ regulations state that “indirect effects” of a proposed action are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”⁷³ In this vein, the EIS considered the indirect effects of construction and operation of the Liquefaction Project on, among other things, vegetation, communities, public parks, socioeconomic impacts, and noise.⁷⁴ However, as explained in the EIS, induced production is not caused by the Liquefaction Project; no specific shale-play has been identified as a source of natural gas for the project, nor has Sierra Club identified any. Moreover, the purpose of the Liquefaction Project is not to facilitate additional shale production, which may occur for reasons unrelated to the project and over which the Commission has no jurisdiction.⁷⁵

69. Even if, for the sake of argument, the Commission agreed that the Liquefaction Project would cause induced production, such production is not reasonably foreseeable. The Liquefaction Project will receive natural gas through Cameron Interstate, which, as described above, will interconnect with five major interstate pipelines. Those pipelines cross multiple shale-gas, as well as conventional-gas, plays and, through their interconnections with still other pipeline systems, effectively provide access to essentially all of the production areas in the lower-forty-eight. Thus, it is speculative as to where the gas processed by the Liquefaction Project will originate, much less where the wells, gathering line locations and the potential associated environmental impacts will occur. Accordingly, the level of analysis commenters seek would require the Commission to

⁷³ 40 C.F.R. § 1508.8(b) (2013).

⁷⁴ EIS at 4-36-37; 4-95; 4-104; and 4-150-151.

⁷⁵ EIS at L-96-97. Sierra Club further asserts that the Commission must consider the indirect effects of induced production in countries where the LNG is being shipped. Notwithstanding the Commission’s finding that induced production is not an indirect effect of the Liquefaction Project, any overseas impacts of the export of the gas would be under the jurisdiction of the receiving country.

engage in speculative analysis that would not provide meaningful information to inform our decision here.⁷⁶

8. Cumulative Impacts

70. Sierra Club also asserts that the DEIS failed to consider the cumulative impacts from all proposed export terminals, including export applications pending or approved by DOE. It claims that all proposed U.S. export projects “will impact the same resources, through the same effects as the Cameron project,” and that a cumulative consideration of these other proposals is particularly important as they may have “synergistic effects on, for example, gas price increases...”⁷⁷

71. We find no merit in Sierra Club’s arguments. In short, it seeks a programmatic EIS for a program which is not before the Commission. With respect to programmatic EISs, the CEQ regulations state that major federal actions for which an EIS may be required include “...programs, such as a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program...”⁷⁸

72. The Liquefaction Project does not meet this definition for broad proposals. The proposal concerns construction and operation of an LNG export terminal and pipeline facilities that will deliver gas to the export terminal. Moreover, the Commission considers proposed projects on their own merits, based on the facts and circumstances specific to the proposal. We conclude that the EIS properly fulfills its purpose, which is to disclose the potential environmental impacts of the Liquefaction Project, and to set forth measures to mitigate, minimize, or eliminate any potential impacts.

⁷⁶ See *N. Plains Res. Council v. Surface Transp. Board*, 668 F.3d 1067, 1078 (9th Cir. 2011) (agencies not required to engage in speculative analysis or do the impractical, if not the impossible, if not enough information is available to permit meaningful consideration). See also *Habitat Education Center v. U.S. Forest Service*, 609 F.3d 897 (7th Cir. 2010) (an environmental impact would be considered too speculative for inclusion in the NEPA document if at the time the document is drafted the impact cannot be described with sufficient specificity to make its consideration useful to a reasoned decision maker).

⁷⁷ Sierra Club March 3, 2013 Comments at 76.

⁷⁸ 40 C.F.R. § 1508.18(b)(3) (2013).

73. We find that the EIS properly considered cumulative impacts including, among other things, reasonably foreseeable liquefaction and export projects, and other reasonably foreseeable oil and gas facilities in the vicinity of the proposed project.⁷⁹ The EIS concludes that the potential impacts of the projects, when combined with the impacts from the other projects considered, would not result in a significant cumulative impacts.

74. The EIS also concludes that concurrent construction of the proposed project and other projects in the vicinity of the Liquefaction Project site would result in increased workers in the area, periods of significant traffic impact on portions of LA-27 south of Sulphur, Louisiana, and impacts on public services. Environmental Condition 20 will adequately reduce traffic impacts, and Cameron LNG's proposed mitigation would lessen impacts on public services.

9. Alternatives

75. Approximately 74 percent of Cameron Interstate's proposed pipeline route overlaps existing rights-of-way, and the remainder of the route is adjacent and parallel to existing rights-of-way. As a result, the EIS finds that many types of environmental impacts have already been minimized. The EIS did not identify any site-specific environmental concerns that would drive the need to evaluate alternative pipeline routes, nor were any alternatives suggested during the public scoping period or during the comment period for the draft EIS.

76. The EIS evaluates 12 system alternatives for the Liquefaction Project, including five operating LNG import terminals in the Gulf of Mexico area, and seven proposed or planned liquefaction and export projects along the Gulf Coast. All of the systems were eliminated from further consideration for reasons that include the need for substantial construction beyond that currently proposed, production volume limitations, in-service dates scheduled significantly beyond Cameron LNG's commitments to its customers, and environmental impacts that were considered comparable to or greater than those of the proposed project. In response to comments by Sierra Club and the Tulane Environmental Law Clinic on the draft EIS, the final EIS also considered a system alternative that would consist of two or more export facilities providing the required amount of LNG to fulfill Cameron LNG's contractual agreements with customers. That alternative was also eliminated from further consideration for the same reasons listed above. In addition, the EIS analyzed facility locations for the Liquefaction Project that would eliminate or lessen impacts on wetlands. However, these locations would be greater than five miles from the proposed facility and include constructability issues. Thus, they did not warrant from further consideration in the EIS.

⁷⁹ EIS at 4-201-208.

D. Environmental Conclusions

77. We have reviewed the information and analysis contained in the record, including the EIS, regarding the potential environmental effects of the Liquefaction and Pipeline Projects. Based on our consideration of this information and the discussion above, we agree with the conclusions presented in the EIS and find that approval of the Liquefaction and Pipeline Projects, if constructed and operated as described in the EIS, is an environmentally acceptable action. Thus, we are including the environmental mitigation measures as conditions to the authorizations granted by this order for the proposed projects.

78. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this authorization. The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.⁸⁰

VI. Conclusion

79. At a hearing held on June 19, 2014, the Commission on its own motion received and made 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) In Docket No. CP13-25-000, Cameron LNG is authorized under section 3 of the NGA to site, construct, and operate the proposed Liquefaction Project located in Cameron Parish, Louisiana, as described and conditioned herein, and as fully described in Cameron LNG's application and supplements, subject to the environmental conditions contained in the Appendix A of this order.

(B) Cameron LNG's proposed Liquefaction Project shall be made available for service within five years of the date of this order.

⁸⁰ See, e.g., *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293 (1988); *National Fuel Gas Supply v. Public Service Commission*, 894 F.2d 571 (2d Cir. 1990); and *Iroquois Gas Transmission System, L.P., et al.*, 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

(C) In Docket No. CP13-27-000, a certificate of public convenience and necessity under section 7(c) of the NGA is issued to Cameron Interstate authorizing it to construct and operate the proposed Pipeline Project, as described and conditioned herein, and as more fully described in Cameron Interstate's application and supplements.

(D) The certificate authorized in Ordering Paragraph (C) above is conditioned on:

(1) Cameron Interstate's proposed Pipeline Project being made available for service within five years of the date of this order.

(2) Cameron Interstate's compliance with all applicable Commission regulations under the NGA, particularly the general terms and conditions set forth in Parts 154, 157, and 284, and paragraphs (a), (c), (e), and (f) of section 157.20 of the regulations.

(3) Cameron Interstate's compliance with the environmental conditions listed in Appendix A of this order.

(E) Cameron Interstate's requested waivers are accepted in part and denied in part for the reasons set forth herein.

(F) Initial incremental recourse rates for Pipeline Project service under Rate Schedules FT and IT are approved as discussed herein, conditioned upon Cameron Interstate filing revised tariff records and workpapers reflecting an incremental recourse reservation rate and an interruptible rate developed using the Pipeline Project's design capacity equivalent of 2,350,000 MMBtu per day.

(G) Cameron Interstate's initial incremental fuel retention rate is approved.

(H) Cameron Interstate shall keep separate books and accounting costs attributable to the proposed services, as more fully described above.

(I) Cameron Interstate shall file actual tariff records reflecting its proposed rates not less than 30 days, or more than 60 days, before the date Cameron Interstate's incremental facilities go into service.

(J) Cameron Interstate shall file not less than 30 days, or more than 60 days, before the in-service date of the proposed facilities, all negotiated rate agreements or a tariff record describing the negotiated rate agreements associated with this project.

(K) Cameron Interstate shall file not less than 30 days, or more than 60 days, before the in-service date of the proposed facilities, an executed copy of any non-

conforming agreements reflecting the non-conforming language and a tariff record identifying these agreements as non-conforming agreements consistent with section 154.112 of the Commission's regulations.

(L) Cameron LNG and Cameron Interstate 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 the respective company. Cameron LNG and Cameron Interstate shall file written confirmation of such notification with the Secretary of the Commission (Secretary) within 24 hours.

(M) Prior to the commencement of construction, Cameron Interstate shall execute firm contracts for service equivalent to the levels and terms of service represented in its filed precedent agreements.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A

Environmental Conditions

As recommended in the final environmental impact statement (EIS), this authorization includes the following conditions:

1. Cameron LNG and Cameron Interstate shall follow the construction procedures and mitigation measures described in their applications, supplemental filings (including responses to staff data requests), and as identified in the EIS, unless modified by the order. Cameron LNG and Cameron Interstate must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
 - d. receive approval in writing from the Director of the Office of Energy Projects (OEP) **before using that modification.**
2. For liquefied natural gas (LNG) facilities, the Director of OEP has delegated authority to take all steps necessary to ensure the protection of life, health, property, and the environment during construction and operation of the Liquefaction Project. This authority shall include:
 - a. stop-work authority and authority to cease operation; and
 - b. the design and implementation of any additional measures deemed necessary to assure continued compliance with the intent of the conditions of the order.
3. For pipeline facilities, the Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the Pipeline Project. This authority shall allow:
 - a. the modification of conditions of the order; and
 - b. the design and implementation of any additional measures deemed necessary (including stop-work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from Pipeline Project construction and operation.

4. **Prior to any construction**, Cameron LNG and Cameron Interstate shall file affirmative statements with the Secretary, certified by senior company officials, that all company personnel, environmental inspectors (EI), and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.
5. The authorized facility locations shall be as depicted in the EIS, as supplemented by filed alignment sheets. **As soon as they are available and before the start of construction**, Cameron LNG and Cameron Interstate shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the order. All requests for modifications of environmental conditions of the order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

Cameron Interstate's exercise of eminent domain authority granted under the Natural Gas Act (NGA) Section 7(h) in any condemnation proceedings related to the order must be consistent with these authorized facilities and locations. Cameron Interstate's right of eminent domain granted under NGA Section 7(h) does not authorize it to increase the size of its natural gas pipeline to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

6. Cameron LNG and Cameron Interstate shall file detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area**.

This requirement does not apply to extra workspaces allowed by the Commission's and Cameron Interstate's Upland Erosion Control, Revegetation, and Maintenance Plan or minor field realignments per landowner needs and requirements that do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
 - b. implementation of endangered, threatened, or special concern species mitigation measures;
 - c. recommendations by state regulatory authorities; and
 - d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
7. **Within 60 days of the acceptance of the authorization and the certificate and before construction begins**, Cameron LNG and Cameron Interstate shall file Implementation Plans for the review and written approval by the Director of OEP. Cameron LNG and Cameron Interstate must file revisions to their plans as schedules change. The plans shall identify:
- a. how Cameron LNG and Cameron Interstate will implement the construction procedures and mitigation measures described in its respective application and supplements (including responses to staff data requests), identified in the EIS, and required by the order;
 - b. how Cameron LNG and Cameron Interstate will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
 - c. the number of EIs assigned per spread and aboveground facility sites, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
 - d. company personnel, including EIs and contractors, who will receive copies of the appropriate materials;
 - e. the location and dates of the environmental compliance training and instructions Cameron LNG and Cameron Interstate will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change), with the opportunity for OEP staff to participate in the training session(s);
 - f. the company personnel (if known) and specific portion of Cameron LNG's and Cameron Interstate's organization having responsibility for compliance;
 - g. the procedures (including use of contract penalties) Cameron LNG and Cameron Interstate will follow if noncompliance occurs; and

- h. for each discrete facility, a Gantt or PERT chart (or similar Project scheduling diagram), and dates for:
 - 1) the completion of all required surveys and reports;
 - 2) the environmental compliance training of onsite personnel;
 - 3) the start of construction; and
 - 4) the start and completion of restoration.
8. Cameron LNG shall employ at least one EI for the Liquefaction Project and Cameron Interstate shall employ at least one EI per construction spread for the Pipeline Project. Each EI shall be:
 - a. responsible for monitoring and ensuring compliance with all mitigation measures required by the order and other grants, permits, certificates, or authorizing documents;
 - b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 7 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of the order, and any other authorizing document;
 - d. a full-time position separate from all other activity inspectors;
 - e. responsible for documenting compliance with the environmental conditions of the order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - f. responsible for maintaining status reports.
9. Beginning with the filing of its Implementation Plan, Cameron LNG shall file updated status reports on a **monthly** basis for the Liquefaction Project and Cameron Interstate shall file updated status reports on a **weekly** basis for the Pipeline Project until all construction and restoration activities are complete. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
 - a. an update on Cameron LNG's and Cameron Interstate's efforts to obtain the necessary federal authorizations;
 - b. the construction status at the Liquefaction Project site and of each spread of the Pipeline Project, work planned for the following reporting period, and

any schedule changes for stream crossings or work in other environmentally sensitive areas;

- c. a listing of all problems encountered and each instance of noncompliance observed by each EI during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
 - d. a description of the corrective actions implemented in response to all instances of noncompliance, and their cost;
 - e. the effectiveness of all corrective actions implemented;
 - f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the order, and the measures taken to satisfy their concerns; and
 - g. copies of any correspondence received by Cameron LNG or Cameron Interstate from other federal, state or local permitting agencies concerning instances of noncompliance, and Cameron LNG's or Cameron Interstate's response.
10. **Prior to receiving written authorization from the Director of OEP to commence construction of any project facilities**, Cameron LNG and Cameron Interstate shall file with the Secretary documentation that each has received all applicable authorizations required under federal law (or evidence of waiver thereof).
 11. Cameron LNG must receive written authorization from the Director of OEP **prior to introducing hazardous fluids into the Liquefaction Project facilities**. Instrumentation and controls, hazard detection, hazard control, and security components/systems necessary for the safe introduction of such fluids shall be installed and functional.
 12. Cameron LNG must receive written authorization from the Director of OEP **before placing the Liquefaction Project facilities into service**. Such authorization will only be granted following a determination that the facilities have been constructed in accordance with Commission approval and applicable standards, can be expected to operate safely as designed, and the rehabilitation and restoration of the areas affected by the Liquefaction Project are proceeding satisfactorily.
 13. Cameron Interstate must receive written authorization from the Director of OEP **before placing the Pipeline Project into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-

of-way and other areas affected by the Pipeline Project are proceeding satisfactorily.

14. **Within 30 days of placing the authorized facilities in service**, Cameron LNG and Cameron Interstate shall each file an affirmative statement with the Secretary, certified by a senior company official:
 - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the authorization or certificate conditions Cameron LNG and Cameron Interstate has complied with or will comply with. This statement shall also identify any areas affected by the project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
15. Cameron LNG shall file with the Secretary the following information, stamped and sealed by the professional engineer-of-record:
 - a. LNG tank and foundation design based on the seismic design ground motions in Cameron LNG's Resource Report 13, Appendix I dated February 2013;
 - b. liquefaction facility structures and foundation designs;
 - c. seismic specifications used in conjunction with procuring equipment; and
 - d. quality control procedures to be used for design and construction.

In addition, Cameron LNG shall file, in its Implementation Plan, the schedule for producing this information.
16. **Prior to construction**, Cameron Interstate shall complete wetland surveys of the right-of-way from milepost (MP) 2.8 to MP 4.7 and file the results of the surveys with the Secretary for review by the Director of OEP.
17. **Prior to construction**, Cameron Interstate shall file with the Secretary for review and written approval by the Director of OEP, revised photo-alignment sheets depicting the reduced right-of-way widths at MP 1.55, MP 2.25, MP 15.98, MP 18.46, MP 18.79, MP 20.11, and MP 20.36; and the proposed extension of the horizontal directional drill (HDD) crossing of Beckwith Creek to avoid the saline pine savannah that is east of Beckwith Creek, as required by environmental condition 5 above.
18. **Prior to construction**, Cameron LNG and Cameron Interstate shall file revised environmental plans with the Secretary for review and written approval by the

Director of OEP that include measures to prevent the transport and spread of invasive aquatic weeds and animals. Cameron LNG and Cameron Interstate shall then submit the Commission-approved plan to the Louisiana Department of Fish and Wildlife.

19. **Prior to construction**, Cameron Interstate shall complete and file with the Secretary the results of an updated survey for the red-cockaded woodpecker between MP 13.9 and 14.5 where designated habitat exists. Specifically, Cameron Interstate shall ensure that the Commission staff receives the updated survey report for the red-cockaded woodpecker **within one year** of the Pipeline Project construction start date, as well as any comments received from the U.S. Fish and Wildlife Service regarding impacts on this species.
20. **Prior to construction**, Cameron LNG shall file a traffic plan with the Secretary, for review and written approval by the Director of OEP, that includes the following:
 - a. uniformed traffic control at the access driveways of the Liquefaction Project site during construction commuting times;
 - b. mass transportation to and from the Liquefaction Project site for construction workers, including the identification of locations for park-and-ride lots, and a schedule for plan implementation; and
 - c. a traffic study during construction to assess the U.S. Department of Transportation's Level of Service. If the traffic study indicates a U.S. Department of Transportation Level of Service of D or worse, Cameron LNG shall implement additional mitigation measures to reduce traffic impacts.
21. Cameron Interstate shall file, **in the weekly construction status reports**, the following information for the entry points of the Houston River, Indian Bayou, Beckwith Creek, and Marsh Bayou HDD sites:
 - a. the noise measurements from the nearest NSA, obtained **at the start of drilling operations**;
 - b. the noise mitigation that Cameron Interstate implemented at the start of drilling operations; and
 - c. any additional mitigation measures that Cameron Interstate would implement if the initial noise measurements exceeded a day-night sound level (L_{dn}) of 55 decibels on the A-weighted scale (dBA) at the nearest noise-sensitive area (NSA) and/or increased noise is over ambient conditions greater than 10 decibels (dB).

22. Cameron LNG shall file a full load noise survey with the Secretary for the Liquefaction Project **no later than 60 days** after each liquefaction train is placed into service for the first and second liquefaction train. If the noise attributable to the operation of the equipment at the Liquefaction Project exceeds an L_{dn} of 55 dBA at the nearby NSA, Cameron LNG shall reduce operation of the liquefaction facilities or install additional noise controls until a noise level below an L_{dn} of 55 dBA at the nearby NSA is achieved. Cameron LNG shall confirm compliance with the above requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls.
23. Cameron LNG shall file a noise survey with the Secretary **no later than 60 days** after placing the Liquefaction Project into service. If a full load noise survey is not possible, Cameron LNG shall file an interim survey at the maximum possible load and file the full load survey **within six months**. If the noise attributable to the operation of all of the equipment at the Liquefaction Project under interim or full load conditions exceeds an L_{dn} of 55 dBA at the nearby NSA, Cameron LNG shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within one year** of the in-service date. Cameron LNG shall confirm compliance with the above requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls.
24. Cameron Interstate shall file a noise survey for the Holbrook Compressor Station **no later than 60 days** after placing the station into service. If a full power load condition noise survey is not possible, Cameron Interstate shall file an interim survey at the maximum possible power load **within 60 days** of placing the station into service and file the full power load survey within six months. If the noise attributable to operation of all equipment at the station under interim or full power load conditions exceeds an L_{dn} of 55 dBA at any nearby NSA, Cameron Interstate shall:
 - a. file a report with the Secretary, for review and written approval by the Director of OEP, on what changes are needed;
 - b. install additional noise controls to meet that level **within one year** of the in-service date; and
 - c. confirm compliance with this requirement by filing a second full power load noise survey with the Secretary for review and written approval by the Director of OEP **no later than 60 days** after it installs the additional noise controls.

Environmental conditions 25 through 73 shall apply to the Liquefaction Project. Information pertaining to these specific conditions shall be filed with the Secretary for review and written approval by the Director of OEP either: **prior to initial site**

preparation; prior to construction of final design; prior to commissioning; prior to introduction of hazardous fluids; or prior to commencement of service, as indicated by each specific condition. Specific engineering, vulnerability, or detailed design information meeting the criteria specified in Order No. 683, including security information, shall be submitted as critical energy infrastructure information (CEII) pursuant to 18 C.F.R. § 388.112 (2013). *See Critical Energy Infrastructure Information*, Order No. 683, FERC Stats. & Regs. ¶ 31,228 (2006). Information pertaining to items such as: offsite emergency response; procedures for public notification and evacuation; and construction and operating reporting requirements, will be subject to public disclosure. All information shall be filed **a minimum of 30 days** before approval to proceed is requested.

25. **Prior to construction of the final design**, Cameron LNG shall file information/revisions with the Secretary, for review and written approval by the Director of OEP, pertaining to Cameron LNG's response numbers 30 and 71 of its April 29, 2013 filing, which indicated features to be included or considered in the final design.
26. **Prior to initial site preparation**, Cameron LNG shall file with the Secretary concurrence from DOT's Pipeline and Hazardous Materials Safety Administration that the Barbe Limit of Exclusion Zone complies with the exclusion zone requirements of 49 C.F.R. § 193.2059 (2013).
27. **Prior to initial site preparation**, Cameron LNG shall file procedures for controlling access during construction.
28. **Prior to initial site preparation**, Cameron LNG shall file the quality assurance and quality control procedures for construction activities.
29. **Prior to initial site preparation**, Cameron LNG shall file a plot plan of the final design showing all major equipment, structures, buildings, and impoundment systems.
30. Cameron LNG shall update its Emergency Response Plan (ERP) to include the Liquefaction Project facilities as well as instructions to handle on-site refrigerant and NGL-related emergencies. Cameron LNG shall file the ERP with the Secretary for review and written approval by the Director of the OEP **prior to initial site preparation**.
31. The ERP shall include a Cost-Sharing Plan identifying the mechanisms for funding all project-specific security/emergency management costs that would be imposed on state and local agencies. In addition to the funding of direct transit-related security/emergency management costs, this comprehensive plan shall include funding mechanisms for the capital costs associated with any necessary security/emergency management equipment and personnel base. Cameron LNG

shall file the Cost Sharing Plan for review and written approval by the Director of OEP **prior to initial site preparation.**

32. **The final design** shall include change logs that list and explain any changes made from the Front-End Engineering Design provided in Cameron LNG's application and filings. A list of all changes with an explanation for the design alteration shall be provided and all changes shall be clearly indicated on all diagrams and drawings.
33. **The final design** shall provide up-to-date Process Flow Diagrams with heat and material balances and piping and instrument diagrams (P&ID), which include the following information:
 - a. equipment tag number, name, size, duty, capacity, and design conditions;
 - b. equipment insulation type and thickness;
 - c. storage tank pipe penetration size and nozzle schedule;
 - d. valve high pressure side and internal and external vent locations;
 - e. piping with line number, piping class specification, size, and insulation type and thickness;
 - f. piping specification breaks and insulation limits;
 - g. all control and manual valves numbered;
 - h. relief valves with set points; and
 - i. drawing revision number and date.
34. **The final design** shall provide P&IDs, specifications, and procedure that clearly show and specify the tie-in details required to safely connect the Liquefaction Project to the existing facility.
35. **The final design** shall provide an up-to-date complete equipment list, process and mechanical data sheets, and specifications.
36. **The final design** shall provide complete plan drawings and a list of the hazard detection equipment. The drawings shall clearly show the location and elevation of all detection equipment. The list shall include the instrument tag number, type and location, alarm locations, and shutdown functions of the proposed hazard detection equipment.
37. **The final design** shall provide complete plan drawings and a list of the fixed and wheeled dry-chemical, hand-held fire extinguishers, and other hazard control equipment. Drawings shall clearly show the location by tag number of all fixed,

wheeled, and hand-held extinguishers. The list shall include the equipment tag number, type, capacity, equipment covered, and automatic and manual remote signals initiating discharge of the units.

38. **The final design** shall provide facility plans and drawings that show the location of the firewater and foam systems. Drawings shall clearly show: firewater and foam piping; post indicator valves; and the location of and area covered by each monitor, hydrant, deluge system, foam system, water-mist system, and sprinkler. The drawings shall also include piping and instrumentation diagrams of the firewater and foam system.
39. **The final design** shall include an updated fire protection evaluation of the proposed facilities carried out in accordance with the requirements of National Fire Protection Association Standard 59A (NFPA 59A) 2001, chapter 9.1.2 as required by 49 C.F.R. Part 193 (2013). A copy of the evaluation, a list of recommendations and supporting justifications, and actions taken on the recommendations shall be filed.
40. **The final design** shall ensure that the LNG storage tank piping supports are adequately designed for the higher rated in-tank pump flow rates.
41. **The final design** shall include a relief valve study to ensure the existing LNG storage tank vacuum relief valves provide adequate protection when the higher capacity in-tank pumps would be operating at full capacity.
42. **The final design** shall specify that for hazardous fluids, the piping, and piping nipples 2 inches or less are to be no less than Schedule 160.
43. **The final design** of the electrical purge seal arrangement shall include an alternate or additional detection method to the proposed nitrogen system pressure indicators, to detect and alarm flammable vapors at the vent discharge to atmosphere in order to account for small leaks that pressure indicators may not be able to detect.
44. **The final design** shall provide an air gap or acceptable means downstream of the secondary seal to prevent the migration of flammable vapors from the secondary seal to the switchgear.
45. **The final design** shall provide electrical area classification drawings.
46. **The final design** shall provide spill containment system drawings with dimensions and slopes of curbing, trenches, and impoundments.
47. **The final design** of the hazard detectors shall account for the calibration gas when determining the lower flammability limit set points for methane, propane, and ethylene, and condensate.

48. **The final design** shall provide pressure relieving protection for flammable liquid piping segments (i.e., refrigerants, liquid hydrocarbons, condensate products) that can be isolated by valves.
49. **The final design** shall specify that the pressure of the shell side of Inlet Gas Preheater, H1-1001, shall not exceed the allowable operating pressure during pressure relief conditions, and the relieving device shall discharge to a safe location.
50. **The final design** shall specify that the design temperature of the coil of the Hot Oil Heat Exchanger, H1-3013, is in accordance with Note 4 on page 5 of CAM1-PRC-DTS-H0035.
51. **The final design** shall specify that the C5+ Condensate Storage Tank fill connection is located above the maximum liquid level.
52. **The final design** shall address the potential for reverse flow through the Molecular Sieve Driers in the event that emergency vent valve XV1-10128 opens.
53. **The final design** shall include a hazard and operability review of the completed design prior to issuing the P&IDs for construction. A copy of the review, a list of recommendations, and actions taken on the recommendations, shall be filed.
54. **The final design** shall include the cause-and-effect matrices for the process instrumentation, fire and gas detection system, and emergency shutdown system. The cause-and-effect matrices shall include alarms and shutdown functions, details of the voting and shutdown logic, and setpoints.
55. **The final design** shall include a drawing showing the location of the emergency shutdown (ESD) buttons. ESD buttons shall be easily accessible, conspicuously labeled, and located in an area which would be accessible during an emergency.
56. **The final design** shall include a pressure survey of the anticipated operating and design conditions for the wet and dry flares. The survey shall include a report showing the stream analysis, flow rates, temperatures, and operating pressures from the relief discharge to the flare inlet.
57. **The final design** shall include a plan for clean-out, dry-out, purging, and tightness testing. This plan shall address the requirements of the American Gas Association's Purging Principles and Practice required by 49 C.F.R. Part 193 (2013), and shall provide justification if not using an inert or non-flammable gas for cleanout, dry-out, purging, and tightness testing.
58. **The final design** shall include the sizing basis and capacity for the final design of pressure and vacuum relief valves for major process equipment, vessels, and storage tanks.

59. **The final design** shall provide the procedures for pressure/leak tests which address the requirements of American Society of Mechanical Engineers (ASME) VIII and ASME B31.3, as required by 49 C.F.R. Part 193 (2013).
60. **The final design** shall include certification that any modifications are consistent with the information provided to DOT as described in the design spill determination letter dated November 18, 2013 (Accession Number 20131121-4000). In the event that any modifications to the design alters the candidate design spills on which the 49 C.F.R. Part 193 (2013) siting analysis was based, Cameron LNG shall consult with DOT on any actions necessary to comply with Part 193.
61. **The final design** shall include details the vapor fences as well as procedures to maintain and inspect the vapor barriers provided to meet the siting provisions of 49 C.F.R. § 193.2059 (2013). This information shall be filed a minimum of **30 days before** approval to proceed is requested.
62. **The final design** shall include details of the impingement shrouds as well as procedures to maintain and inspect the impingement shrouds. This information shall be filed a minimum of **30 days before** approval to proceed is requested.
63. **Prior to commissioning**, Cameron LNG shall file plans and detailed procedures for: testing the integrity of onsite mechanical installation, functional tests, introduction of hazardous fluids, operational tests, and placing the equipment into service.
64. **Prior to commissioning**, Cameron LNG shall file a detailed schedule for commissioning through equipment startup. The schedule shall include milestones for all procedures and tests to be completed prior to introduction of hazardous fluids and during commissioning and startup. Cameron LNG shall file documentation certifying that each of these milestones has been completed before authorization to commence the next phase of commissioning and startup will be issued.
65. **Prior to commissioning**, Cameron LNG shall file results of the LNG storage tank hydrostatic test and foundation settlement results.
66. **Prior to commissioning**, Cameron LNG shall tag all equipment, instrumentation, and valves in the field, including drain valves, vent valves, main valves, and car-sealed or locked valves.
67. **Prior to commissioning**, Cameron LNG shall file a tabulated list and drawings of the proposed hand-held fire extinguishers. The list shall include the equipment tag number, extinguishing agent type, capacity, number, and location. The drawings shall show the extinguishing agent type, capacity, and tag number of all hand-held fire extinguishers.

68. **Prior to commissioning**, Cameron LNG shall file updates addressing the Liquefaction Project facilities in the operation and maintenance procedures and manuals, as well as safety procedures.
69. **Prior to commissioning**, Cameron LNG shall maintain a detailed training log to demonstrate that operating staff has completed the required training.
70. **Prior to introduction of hazardous fluids**, Cameron LNG shall complete a firewater pump acceptance test and firewater monitor and hydrant coverage test. The actual coverage area from each monitor and hydrant shall be shown on facility plot plan(s).
71. **Prior to introduction of hazardous fluids**, Cameron LNG shall complete all pertinent tests (Factory Acceptance Tests, Site Acceptance Tests, Site Integration Tests) associated with the Distributed Control System and the Safety Instrumented System that demonstrates full functionality and operability of the system.
72. **Prior to commencement of service**, Cameron LNG shall label piping with fluid service and direction of flow in the field in addition to the pipe labeling requirements of NFPA 59A.
73. **Prior to commencement of service**, progress on the construction of the proposed systems shall be reported in **monthly** reports filed with the Secretary. Details shall include a summary of activities, problems encountered, contractor nonconformance/deficiency logs, remedial actions taken, and current project schedule. Problems of significant magnitude shall be reported to the Commission **within 24 hours**.

In addition, recommendations 74 through 76 shall apply throughout the life of the Liquefaction Project facility:

74. The facility shall be subject to regular Commission staff technical reviews and site inspections on at least an **annual basis** or more frequently as circumstances indicate. Prior to each Commission staff technical review and site inspection, Cameron LNG shall respond to a specific data request, including information relating to possible design and operating conditions that may have been imposed by other agencies or organizations. Up-to-date detailed piping and instrumentation diagrams reflecting facility modifications and provision of other pertinent information not included in the semi-annual reports described below, including facility events that have taken place since the previously submitted semi-annual report, shall be submitted.
75. Semi-annual operational reports shall be filed with the Secretary to identify changes in facility design and operating conditions, abnormal operating experiences, activities (including ship arrivals, quantity and composition of

imported and exported LNG, liquefied and vaporized quantities, boil-off/flash gas, etc.), plant modifications, including future plans and progress thereof.

Abnormalities shall include, but not be limited to: unloading/loading/shipping problems, potential hazardous conditions from off-site vessels, storage tank stratification or rollover, geysering, storage tank pressure excursions, cold spots on the storage tanks, storage tank vibrations and/or vibrations in associated cryogenic piping, storage tank settlement, significant equipment or instrumentation malfunctions or failures, non-scheduled maintenance or repair (and reasons therefore), relative movement of storage tank inner vessels, hazardous fluids releases, fires involving negative pressure (vacuum) within a storage tank and higher than predicted boil-off rates. Adverse weather conditions and the effect on the facility also shall be reported. Reports shall be submitted **within 45 days after each period ending June 30 and December 31**. In addition to the above items, a section entitled "Significant Plant Modifications Proposed for the Next 12 Months (dates)" also shall be included in the semi-annual operational reports. Such information would provide the Commission staff with early notice of anticipated future construction/maintenance projects at the LNG facility.

76. Significant non-scheduled events, including safety-related incidents (e.g., hazardous fluids releases, fires, explosions, mechanical failures, unusual over pressurization, and major injuries) and security-related incidents (e.g., attempts to enter site, suspicious activities) shall be reported to the Commission staff. In the event an abnormality is of significant magnitude to threaten public or employee safety, cause significant property damage, or interrupt service, notification shall be made **immediately**, without unduly interfering with any necessary or appropriate emergency repair, alarm, or other emergency procedure. In all instances, notification shall be made to the Commission staff **within 24 hours**. This notification practice shall be incorporated into the LNG facility's emergency plan. Examples of reportable LNG, NGL, condensate, or refrigerant related incidents include:
- a. fire;
 - b. explosion;
 - c. estimated property damage of \$50,000 or more;
 - d. death or personal injury necessitating in-patient hospitalization;
 - e. release of hazardous fluids for five minutes or more;
 - f. unintended movement or abnormal loading by environmental causes, such as an earthquake, landslide, or flood, that impairs the serviceability, structural integrity, or reliability of an LNG facility that contains, controls, or processes hazardous fluids;

- g. any crack or other material defect that impairs the structural integrity or reliability of an LNG facility that contains, controls, or processes hazardous fluids;
- h. any malfunction or operating error that causes the pressure of a pipeline or LNG facility that contains or processes hazardous fluids to rise above its maximum allowable operating pressure (or working pressure for LNG facilities) plus the build-up allowed for operation of pressure limiting or control devices;
- i. a leak in an LNG facility that contains or processes hazardous fluids that constitutes an emergency;
- j. inner tank leakage, ineffective insulation, or frost heave that impairs the structural integrity of an LNG storage tank;
- k. any safety-related condition that could lead to an imminent hazard and cause (either directly or indirectly by remedial action of the operator), for purposes other than abandonment, a 20 percent reduction in operating pressure or shutdown of operation of a pipeline or an LNG facility that contains or processes hazardous fluids;
- l. safety-related incidents occurring at or en route to and from the LNG facility involving hazardous fluids; or
- m. an event that is significant in the judgment of the operator and/or management even though it did not meet the above criteria or the guidelines set forth in an LNG facility's incident management plan.

In the event of an incident, the Director of OEP has delegated authority to take whatever steps are necessary to ensure operational reliability and to protect human life, health, property or the environment, including authority to direct the LNG facility to cease operations. Following the initial company notification, the Commission staff would determine the need for a separate follow-up report or follow-up in the upcoming semi-annual operational report. All company follow-up reports shall include investigation results and recommendations to minimize a reoccurrence of the incident.