

under Part 284, Subpart G of the Commission's regulations to provide open-access natural gas transportation services.

3. For the reasons discussed in this order, we will authorize Plaquemines LNG's proposal under section 3 to construct and operate the Plaquemines LNG Project. We will also grant Gator Express's requested authorizations under section 7(c) of the NGA to construct and operate the Gator Express Pipeline Project. These authorizations are subject to the conditions discussed herein.

I. Background and Proposals

4. Plaquemines LNG and Gator Express are Delaware limited liability companies with their primary place of business in Washington, D.C. Plaquemines LNG and Gator Express are direct, wholly-owned subsidiaries of Venture Global LNG, Inc. (Venture Global).⁵ Upon commencing operations proposed in its application, Gator Express will become a natural gas company within the meaning of section 2(6) of the NGA,⁶ and will be subject to the Commission's jurisdiction. Because its operations will not be in interstate commerce, Plaquemines LNG will not be a "natural gas company" as defined in the NGA, but will be subject to the Commission's jurisdiction under NGA section 3.

A. Plaquemines LNG Project (Docket No. CP17-66-000)

5. Plaquemines LNG requests authorization to site, construct, and operate the Plaquemines LNG Project on an approximately 632-acre site on the west bank of the Mississippi River in Plaquemines Parish, Louisiana.⁷ The project is designed with a nameplate liquefaction and export capacity of approximately 20 million metric tons per annum (MTPA), and a peak achievable capacity of 24 MTPA under optimal operating conditions. The project will receive natural gas via Gator Express's proposed Gator Express Pipeline Project. The project will be constructed in two phases, each phase designed with a nameplate liquefaction and export capacity of 10 MTPA, and a peak

⁵ Venture Global is also the parent company of Venture Global Calcasieu Pass, LLC and TransCameron Pipeline LLC, which received authorizations from this Commission to construct and operate an LNG terminal and pipeline, respectively, in Cameron Parish, Louisiana. *Venture Global Calcasieu Pass, LLC*, 166 FERC ¶ 61,144 (2019).

⁶ 15 U.S.C. § 717a(6) (2018).

⁷ Plaquemines LNG states that it has secured a lease option agreement for the property, which grants Plaquemines LNG the exclusive right to lease the LNG terminal site for up to 70 years. The Plaquemines Parish Council approved the lease agreement on August 13, 2015, and, on August 19, 2015, Plaquemines LNG and the Port of Plaquemines executed the agreement.

achievable capacity of 12 MTPA under optimal operating conditions. Each phase of construction will take approximately 35 months to complete, with initial operations beginning approximately 24 months after the start of construction, as each liquefaction block will be placed into service after completion. Phase II construction would begin 12 months after the start of Phase I construction.

6. The Plaquemines LNG Project will consist of liquefaction facilities, four LNG storage tanks, marine facilities, and associated infrastructure and support facilities. Specifically, Plaquemines LNG proposes to construct the following facilities:

- one natural gas gate station;
- six pretreatment facilities to remove carbon dioxide, hydrogen sulfide, and water from the natural gas received from the Gator Express Pipeline (three pretreatment facilities constructed during each phase, with each facility composed of a hydrogen sulfide removal unit, an acid gas removal unit, and a dehydration unit);
- 18 liquefaction blocks (nine blocks constructed during each phase);⁸
- four full containment storage tanks with a capacity of approximately 200,000 cubic meters (two tanks constructed during each phase);
- two boil-off, flash, and gas relief systems (one constructed during each phase);
- three LNG loading berths, each designed to accommodate LNG carriers of 120,000 to 185,000 cubic meters (two constructed during Phase I and one during Phase II);
- two 710-megawatt electric power generation plants (one constructed during each phase);
- safety and security systems; and
- other appurtenant facilities.

⁸ Each liquefaction block contains: two single mixed refrigerant process trains, a refrigerant storage site, and piping that connects the refrigerant storage site and the process trains. Each block will have a nameplate capacity of 1.1 MTPA of LNG for export.

7. Plaquemines LNG received authorization from the Department of Energy, Office of Fossil Energy (DOE/FE) to export up to 24 MTPA of natural gas in the form of LNG to countries with which the United States has a Free Trade Agreement.⁹ In addition, Plaquemines LNG currently has pending before DOE/FE an application to export LNG to other nations with which the U.S. permits such trade, but has not entered into a Free Trade Agreement.¹⁰

B. Gator Express Pipeline Project (Docket No. CP17-67-000)

8. In conjunction with the Plaquemines LNG Project, Gator Express proposes to construct a new interstate natural gas pipeline system to provide up to 3,940,000 dekatherms (Dth) per day of firm natural gas transportation service. Natural gas transported on the Gator Express Pipeline Project will be received from interconnections with Tennessee Gas Pipeline Company, LLC (Tennessee Gas) and Texas Eastern Transmission, LP (Texas Eastern) and delivered to the Plaquemines LNG Project for liquefaction and export.

9. Gator Express proposes to construct the Gator Express Pipeline Project in two phases to match the corresponding construction schedule of the Plaquemines LNG Project. Phase I and II would each provide 1,970,000 Dth per day of firm transportation service, providing enough feed gas for nine liquefaction blocks, mirroring the Plaquemines LNG phased build-out. The project comprises two co-located pipelines in Plaquemines Parish.

10. Phase I of the Gator Express Pipeline would consist of: (1) two segments of 42-inch-diameter pipeline (totaling 15.1 miles) extending from new interconnections with Tennessee Gas and Texas Eastern to the LNG terminal (Southwest Lateral TGP); (2) a new meter station and appurtenant facilities at each interconnection; and (3) a 0.7-mile-long segment of 42-inch-diameter pipeline located adjacent to the longer (11.7-mile-long) segment of the Southwest Lateral TGP, which will become part of the Phase II pipeline.¹¹ Phase II would consist of 11.0 miles of 42-inch-diameter pipeline, which, together with the 0.7-mile-long segment constructed during Phase I, will loop the

⁹ *Venture Global Plaquemines LNG, LLC*, FE Docket No. 16-28-LNG, Order No. 3866 (July 21, 2016).

¹⁰ *Venture Global Plaquemines LNG, LLC*, March 1, 2016 Application, FE Docket No. 16-28-LNG.

¹¹ Global Express proposes to construct 0.7 miles of the Phase II Southwest Lateral TETCO during Phase I to minimize impacts on wetlands located adjacent to the terminal site.

11.7-mile-long segment of the Southwest Lateral TGP and provide service from the Texas Eastern interconnection to the LNG terminal (Southwest Lateral TETCO). Gator Express estimates that the entire Gator Express Pipeline Project will cost approximately \$284 million, with the Southwest Lateral TGP estimated at a cost of \$172 million and the Southwest Lateral TETCO estimated at a cost of approximately \$111 million.¹²

11. Gator Express states that it held a binding open season from November 28 to December 9, 2016, for proposed firm transportation services to the Plaquemines LNG Project. Gator Express states that Plaquemines LNG executed a binding precedent agreement for 100 percent of the firm transportation service provided by Phases I and II of the Gator Express Pipeline Project for a term of twenty years at negotiated rates. Based upon its level of commitment, Plaquemines LNG qualified for Anchor Shipper status. Gator Express received no other bids or expressions of interest during the open season.

12. Gator Express also requests: (1) a blanket certificate of public convenience and necessity pursuant to Part 284, Subpart G of the Commission's regulations authorizing Gator Express to provide transportation service to customers requesting and qualifying for transportation service under its proposed FERC Gas Tariff, with pre-granted abandonment authorization;¹³ (2) a blanket certificate of public convenience and necessity pursuant to Part 157, Subpart F of the Commission's regulations authorizing certain future facility construction, operation, and abandonment;¹⁴ and (3) approval of its *pro forma* tariff.

II. Notice, Interventions, and Comments

13. Notice of Plaquemines LNG's and Gator Express's joint application was issued on March 3, 2017, and published in the *Federal Register* on March 22, 2017.¹⁵ Louisiana Coastal Protection Restoration Authority filed a timely, unopposed motion to intervene noting its nearby projects to restore wetlands, marshes, and other coastal and flood protection measures. Timely, unopposed motions to intervene are granted by operation of Rule 214(c) of the Commission's Rules of Practice and Procedure.¹⁶ Mr. Steve Hourcade, a local landowner, filed comments in opposition to the projects, commenting that the

¹² Application at Exhibit K.

¹³ 18 C.F.R. § 284.221 (2018).

¹⁴ *Id.* § 157.204 (2018).

¹⁵ 82 Fed. Reg. 14,707 (2017).

¹⁶ 18 C.F.R. § 385.214(c) (2019).

projects will decrease property values and have noise and safety impacts. On December 6, 2016, U.S. Senators John Kennedy and Bill Cassidy and U.S. Representatives Steve Scalise, Ralph Abraham, Garret Graves, Mike Johnson, and Clay Higgins filed a letter in support of the projects.

III. Discussion

A. Plaquemines LNG Project (Docket No. CP17-66-000)

14. Because the proposed 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.¹⁷ Although section 3 provides that an application for the exportation or importation of natural gas shall be approved unless the proposal “will not be consistent 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.”¹⁸

15. DOE/FE, pursuant to its authority under NGA section 3, issued Plaquemines LNG authorizations to export up to 24 MTPA of domestically-produced natural gas to free trade nations from the proposed Plaquemines LNG Project in Plaquemines Parish,

¹⁷ The regulatory functions of NGA 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.* (2012). In reference to regulating the imports or exports of natural gas, the Secretary of Energy 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 is in DOE Delegation Order No. 00-004.00A, effective May 16, 2006. Applications for authorization to import or export natural gas must be submitted to the Department of Energy (DOE). The Commission does not authorize importation or exportation of the commodity itself. *See EarthReports, Inc. v. FERC*, 828 F.3d 949, 952-53 (D.C. Cir. 2016) (detailing how regulatory oversight for the export of LNG and supporting facilities is divided between the Commission and DOE).

¹⁸ 15 U.S.C. § 717b(a) (2018). For a discussion of the Commission’s authority to condition its approvals of LNG facilities under section 3 of the NGA, *see Distrigas Corporation v. FPC*, 495 F.2d 1057, 1063-64 (D.C. Cir. 1974), *cert. denied*, 419 U.S. 834 (1974); *Dynegy LNG Production Terminal, L.P.*, 97 FERC ¶ 61,231, 62,054 (2001).

Louisiana.¹⁹ DOE/FE's order approving Plaquemines LNG's export volumes states that "[i]n light of DOE's statutory obligation to grant this Application without modification or delay, there is no need for DOE/FE to review other arguments asserted by Plaquemines LNG in support of the Application."²⁰ Plaquemines LNG has entered into long-term contracts with Polish Oil and Gas Company to supply up to 1.0 MTPA of LNG.²¹ Polish Oil and Gas Company will take title of the LNG at the LNG vessel intake manifold during loading at the marine berth.²²

16. We have reviewed Plaquemines LNG's application to determine if the siting, construction, and operation of its LNG facilities would be inconsistent with the public interest.²³ The proposed site for the Plaquemines LNG Project is located on land owned by the Port of Plaquemines, with a lease option agreement for Venture Global to lease the land, and is zoned for heavy industrial uses.²⁴ Further, as discussed below, the Environmental Impact Statement (EIS) prepared for the proposed project finds that most of the environmental impacts would be reduced to less than significant levels with the implementation of Plaquemines LNG's proposed mitigation measures and additional measures recommended in the EIS and adopted in this order.²⁵ We conclude that, with the conditions required in this order, the environmental impacts of the Plaquemines LNG

¹⁹ *Venture Global Plaquemines LNG, LLC*, FE Docket No. 16-28-LNG, Order No. 3866 (July 21, 2016).

²⁰ *Id.* at 6. Section 3(c) of the NGA provides that the exportation and importation of natural gas to and from countries with which there is in effect a Free Trade Agreement "shall be deemed to be consistent with the public interest, and applications for such importation and exportation shall be granted without modification or delay." 15 U.S.C. § 717b(c) (2018).

²¹ Venture Global January 7, 2019 comments at 4.

²² *Id.*

²³ *See Sierra Club v. FERC*, 827 F.3d 36, 40 (D.C. Cir. 2016) (explaining that an applicant for a section 3 facility "must obtain authorizations from both the Department of Energy (to export) and the Commission (to construct and to operate the necessary facilities)").

²⁴ Venture Global January 7, 2019 comments at 10. *See Supra* note 7.

²⁵ *See infra* P 94.

Project will be appropriately and reasonably reduced and the project can be constructed and operated safely.

17. In accordance with the Memorandum of Understanding signed on August 31, 2018, by the Commission and the Pipeline and Hazardous Materials Safety Administration (PHMSA) within the U.S. Department of Transportation (DOT),²⁶ PHMSA undertook a review of the proposed facility's ability to comply with the federal safety standards contained in Part 193, Subpart B, of Title 49 of the Code of Federal Regulations.²⁷ On April 3, 2019,²⁸ PHMSA issued a Letter of Determination indicating Plaquemines LNG has demonstrated that the siting of its proposed LNG facilities complies with those federal safety standards. If the proposed project is subsequently modified so that it differs from the details provided in the documentation submitted to PHMSA, further review would be conducted by PHMSA.

18. Plaquemines LNG is proposing to operate its LNG terminal under the terms and conditions mutually agreed to by its customers and will solely bear the responsibility for the recovery of any costs associated with construction and operation of the terminal. Accordingly, Plaquemines LNG's proposal does not trigger NGA section 3(e)(4).²⁹

19. Accordingly, we find that, subject to the conditions imposed in this order, Plaquemines LNG's proposal is not inconsistent with the public interest. Therefore, we will grant Plaquemines LNG's application for authorization under section 3 of the NGA to site, construct, and operate the proposed LNG terminal facilities.

B. Gator Express Pipeline Project (CP17-67-000)

20. Because Gator Express's proposed pipeline facilities will be used to transport natural gas in interstate commerce subject to the jurisdiction of the Commission, the

²⁶ *Memorandum of Understanding Between the Department of Transportation and the Federal Energy Regulatory Commission Regarding Liquefied Natural Gas Transportation Facilities* (Aug. 31, 2018), <https://www.ferc.gov/legal/mou/2018/FERC-PHMSA-MOU.pdf>.

²⁷ 49 C.F.R. pt. 193, Subpart B (2019).

²⁸ Commission staff April 4, 2014 memo, Docket No. CP17-66-000 (attaching PHMSA's Letter of Determination).

²⁹ 15 U.S.C. § 717b(e)(4) (2018) (governing orders for LNG terminal offering open access service).

construction and operation of the facilities are subject to the requirements of subsections (c) and (e) of section 7 of the NGA.³⁰

1. Certificate Policy Statement

21. The Certificate Policy Statement provides guidance for evaluating proposals to certificate new construction.³¹ 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.

22. Under this policy, the threshold requirement for applicants proposing new projects is that the applicant 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 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 proceed to consider the environmental analysis where other interests are addressed.

23. As noted above, the threshold requirement for pipelines proposing new interstate gas pipeline facilities is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. Gator Express is a new company with no existing shippers. Thus, there is no potential for subsidization on Gator Express's system or degradation of service to existing customers.

³⁰ 15 U.S.C. § 717f(c), (e) (2018).

³¹ *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).

24. In addition, there is no evidence that the Gator Express Pipeline Project will adversely affect other pipelines or their customers. The project is designed to provide transportation of natural gas from interconnections with the existing interstate grid to the Plaquemines LNG Project and is not intended to replace service on other pipelines. Further, no pipeline company or their captive customers have protested Gator Express's application.

25. We are also satisfied that Gator Express has taken appropriate steps to minimize adverse impacts on landowners and surrounding communities. Though Gator Express is proposing to construct two pipelines, the two pipelines will be co-located within the same easement and approximately 88 percent of the pipeline route would occupy lands classified as open waters. In addition, Gator Express engaged in public outreach during the pre-filing process, working with all interested stakeholders and soliciting input on any concerns. Accordingly, for purposes of our consideration under the Certificate Policy Statement, we find that Gator Express has taken sufficient steps to minimize impacts on landowners and surrounding communities.

26. Gator Express's proposed project will enable it to transport domestically-sourced natural gas to the Plaquemines LNG Project, where the gas will be liquefied for export. Gator Express executed a long-term precedent agreement with Plaquemines LNG for the full capacity of the pipeline system. Based on the benefits the proposed project will provide, the lack of adverse effects on existing customers, other pipelines and their captive customers, and the minimal adverse impacts on landowners and surrounding communities, we find, consistent with the Certificate Policy Statement and section 7 of the NGA, that the public convenience and necessity requires approval of Gator Express's proposal, as conditioned in this order.

2. Blanket Certificates

27. Gator Express requests a Part 284, Subpart G blanket certificate in order to provide open-access transportation services. Under a Part 284 blanket certificate, Gator Express would not need individual authorizations to provide transportation services to particular customers. Gator Express filed a *pro forma* Part 284 tariff to provide open-access transportation services. Because a Part 284 blanket certificate is required for Gator Express to participate in the Commission's open-access regulatory regime, we will grant Gator Express a Part 284 blanket certificate, subject to the conditions imposed herein.

28. Gator Express also requests a Part 157, Subpart F blanket certificate. The Part 157 blanket certificate gives an interstate pipeline NGA section 7 authority to automatically, or after prior notice, perform a restricted number of routine activities related to the construction, acquisition, abandonment, and replacement and operation of existing pipeline facilities, provided that the activities comply with constraints on costs and

environmental impacts.³² Because the Commission has previously determined through a rulemaking that these blanket-certificate eligible activities are in the public convenience and necessity,³³ it is the Commission's practice to grant new natural gas companies a Part 157 blanket certificate if requested.³⁴ Accordingly, we will grant Gator Express a Part 157 blanket certificate, subject to the conditions imposed herein.

3. Rates

a. Initial Rates

29. Gator Express proposes to provide firm and interruptible transportation services pursuant Part 284 of the Commission's regulations at cost-based recourse rates under its proposed Rate Schedules FT and IT, and also requests the authority to offer service at negotiated rates. Gator Express estimates that the Southwest Lateral TGP facilities will cost \$172,906,634 to construct, and the Southwest Lateral TETCO facilities will cost \$111,393,202 to construct.³⁵ Gator Express uses a straight fixed-variable rate design and proposes a monthly recourse reservation charge of \$1.41 per Dth for firm service on the Southwest Lateral TGP, reflecting an adjusted first-year cost of service of \$33,447,415 and annual billing determinants of 1,970,000 Dth per day, based on the design capacity of the lateral.³⁶ For service on the Southwest Lateral TETCO, Gator Express uses a straight

³² See 18 C.F.R. § 157.203 (2019).

³³ *Revisions to the Blanket Certificate Regulations and Clarification Regarding Rates*, Order No. 686, FERC Stats. & Regs. ¶ 31,231, at P 9 (2006) (cross-referenced at 117 FERC ¶ 61,074), *order on reh'g*, Order No. 686-A, 119 FERC ¶ 61,303, *order on reh'g*, Order No. 686-B, 120 FERC ¶ 61,249 (2007).

³⁴ *Cf. Rover Pipeline LLC*, 161 FERC ¶ 61,244, at P 13 (2017) (denying a request for a blanket certificate where the company's actions had eroded the Commission's confidence it would comply with all the requirements of the blanket certificate program, including the environmental requirements).

³⁵ The costs incurred for constructing 0.7 miles of the Southwest Lateral TETCO during Phase I are included in the rate base for the Southwest Lateral TETCO. Application Exhibit K at 1, n.1. We note that for any reason should Gator Express not construct the Southwest Lateral TETCO, Gator Express will be at risk for any costs associated with the construction of the 0.7 miles of pipeline for the Southwest Lateral TETCO constructed during Phase I.

³⁶ Gator Express adjusted its originally filed rates to reflect a reduction from 35 percent to 21 percent in the Federal corporate income tax component of its proposed cost of service. Gator Express February 15, 2018 Data Response at 2 (providing updated

fixed-variable rate design and proposes a monthly recourse reservation charge of \$0.92 per Dth for firm service, reflecting an adjusted first-year cost of service of \$21,633,530 and annual billing determinants of 1,970,000 Dth per day, based on the design capacity of the lateral.³⁷ Gator Express also proposes a usage charge of \$0.00 per Dth for transportation service on its system, explaining that as a smaller system with no compression, no variable costs will be incurred for providing transportation services.

30. The costs of service for both the Southwest Lateral TGP and Southwest Lateral TETCO reflect a capital structure of 50.00 percent equity and 50.00 percent debt, a return on equity of 14.00 percent, a cost of debt of 7.75 percent, a transmission plant depreciation rate of 5.00 percent, and a 21 percent Federal income tax factor.³⁸ Gator Express did not credit its projected costs of service for any revenues associated with interruptible transportation service. However, Gator Express proposes to credit interruptible transportation revenues that exceed its variable costs to qualifying customers under Rate Schedule FT per the revenue sharing mechanism described in section 15 of the General Terms and Conditions (GT&C) of its proposed FERC Gas Tariff, as discussed further below.

31. In its application, Gator Express proposed rates under Rate Schedule IT and authorized overrun service based on the 100 percent load factor derivative of the respective lateral's proposed Rate Schedule FT rate.

32. The Commission finds the cost factors underlying Gator Express's proposed cost of service for each lateral are reasonable for a new pipeline entity. We also find it reasonable for Gator Express to construct the pipeline in phases corresponding to the

Exhibits K, L, and N). The proposed reduction in the Federal corporate income tax component is consistent with the Tax Cuts and Jobs Act, which became effective January 1, 2018. Pub. L. No. 115-97, 131 Stat. 2054 (2017).

³⁷ *Id.*

³⁸ On July 18, 2018, the Commission issued Order No. 849. *Interstate and Intrastate Natural Gas Pipelines; Rate Changes Relating to Federal Income Tax Rate*, Order No. 849, 164 FERC ¶ 61,031 (2018). Order No. 849 finds that an income tax double recovery results from granting a Master Limited Partnership (MLP) a separate income tax allowance and a pre-tax return on equity, and accordingly, establishes a policy that MLPs are not permitted to recover an income tax allowance in their cost of service. Order No. 849 also explains that other partnership and pass-through entities not organized as an MLP must, if claiming an income tax allowance, address the double-recovery concern. In a May 1, 2018 response to a staff data request, Gator Express states that it is not a MLP or pass-through entity for income tax purposes.

construction schedule of the LNG terminal, and will approve Gator Express's proposed initial monthly recourse reservation charge of \$1.41 per Dth for firm transportation service on the Southwest TGP facilities (Phase I facilities), which is based on the costs of the Phase I facilities. However, Gator Express's proposal to charge a separate monthly recourse reservation charge of \$0.92 per Dth for firm transportation service on the Southwest Lateral TETCO facilities (Phase II facilities), which is based solely on the cost of the Phase II facilities, is not supported.

33. According to the application, once the Southwest Lateral TETCO (Phase II) facilities are placed in service, Gator Express's pipeline system will be composed of two looped, co-located, and interconnected pipelines that can be operated either separately or in tandem to transport volumes to a single delivery point, the LNG terminal.³⁹ It appears that the Southwest Lateral TETCO facilities, which will loop over 75 percent of the Southwest Lateral TGP (Phase I) facilities, will create capacity at a lower cost than the capacity created by the Phase I facilities; however, the service provided on the looped portions of the lines will be indistinguishable. As recognized in the Certificate Policy Statement, cheap expansibility could result in new customers who pay a proposed rate less than the system rate receiving a subsidy from existing customers because the new customers would not face the full cost of the construction that would make their service possible.⁴⁰ We find that once the Southwest Lateral TETCO facilities are placed in service, Gator Express's system will function as an integrated system and that a single recourse rate should be established using a cost of service that combines the costs and design capacities of both the Phase I and Phase II facilities.⁴¹ Thus, we direct Gator Express to file actual tariff records consistent with its *pro forma* tariff records for Phase I services and, at the same time, to file fully-supported *pro forma* tariff records to propose a reservation rate for firm transportation service on the entire pipeline system once the Phase II facilities are placed in service, consistent with this discussion.

34. We will also approve Gator Express's proposal to establish a usage charge of \$0.00 per Dth for transportation service on its system. Gator Express should establish rates under Rate Schedule IT and for its authorized overrun service based on the nm100 percent load factor derivative of the approved Rate Schedule FT rate for the Southwest Lateral TGP (Phase I facilities) and for the firm transportation rate it will establish that is applicable to the combined facilities.

³⁹ Application at 4; Resource Report 1 at 1-10, 1-15.

⁴⁰ Certificate Policy Statement, 88 FERC at 61,746-47; *see also Colorado Interstate Gas Co.*, 122 FERC ¶ 61,256, at PP 58-60 (2008).

⁴¹ *See, e.g., Gulfstream Natural Gas System, L.L.C.*, 105 FERC ¶ 61,052 (2003).

35. Finally, the Commission notes that the tariff's Statement of Rates, Section 1, Service Rates uses the terms Phase I and Phase II rather than Southwest Lateral TGP and Southwest Lateral TETCO when setting forth the rates. To provide clarity, Gator Express's tariff should either define the terms Phase I and Phase II, or define and refer to the laterals by their names: Southwest Lateral TGP and Southwest Lateral TETCO. Gator Express also should modify its Statement of Rates, consistent with the above discussion.

b. Fuel and Lost and Unaccounted For Gas

36. Gator Express proposes to recover the cost of fuel and lost-and-unaccounted-for gas through in-kind reimbursement percentages assessed on its shippers' receipts. Gator Express proposes to annually adjust the fuel and lost-and-unaccounted-for gas percentages, and to true up any over- or under-recoveries, through a recovery mechanism described in GT&C section 13 of its proposed tariff. Gator Express proposes an initial fuel reimbursement percentage of 0.0000 percent, and an initial lost-and-unaccounted-for gas reimbursement percentage of 0.2500 percent.⁴² The Commission finds that Gator Express's proposed initial fuel and lost-and-unaccounted-for gas recovery percentages are reasonable because the system does not include compression, and finds that the proposed tariff recovery mechanism is consistent with Commission policy.⁴³

c. Negotiated Rates

37. Gator Express states that it will provide service to the project shipper under a negotiated rate agreement pursuant to negotiated rate authority in GT&C section 4.14 of the *pro forma* tariff. Gator Express executed a precedent agreement with its sole shipper, Plaquemines LNG, committing to a 20-year negotiated rate firm transportation agreement for the full amount of each lateral's design capacity. Gator Express must file either a negotiated rate agreement or a tariff record setting forth the essential elements of any such agreement in accordance with the Alternative Rate Policy Statement⁴⁴ and the Commission's negotiated rate policies.⁴⁵ Gator Express must file negotiated rate

⁴² Application at Exhibit P (Pro Forma Tariff, Statement of Rates, F&LU Charges).

⁴³ 18 C.F.R. § 154.403 (2019); *ANR Pipeline Co.*, 108 FERC ¶ 61,050 (2004).

⁴⁴ *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines; Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076 (1996), *order granting clarification*, 74 FERC ¶ 61,194 (1996).

⁴⁵ *Natural Gas Pipelines Negotiated Rate Policies and Practices; Modification of Negotiated Rate Policy*, 104 FERC ¶ 61,134 (2003), *order on reh'g and clarification*,

agreements or tariff records at least 30 days, but no more than 60 days, before the proposed effective dates for such rates.⁴⁶

d. Three-Year Filing Requirements

38. Consistent with Commission precedent, Gator Express is required to file a cost and revenue study no later than three months after the end of its first three years of actual operation of the entire Gator Express Pipeline Project (both Phases I and II) to justify the project's existing cost-based firm and interruptible recourse rates.⁴⁷ In its filing, the projected units of service should be no lower than those upon which Gator Express's approved initial rates are based. The filing must include a cost and revenue study in the form specified in section 154.313 of the Commission's regulations to update cost-of-service data.⁴⁸ Gator Express's cost and revenue studies should be filed through the eTariff portal using a Type of Filing Code 580. In addition, Gator Express is advised to include, as part of the eFiling Filing Title/Description, a reference to Docket No. CP17-67-000, and the cost and revenue study.⁴⁹ After reviewing the data, the Commission will determine whether to exercise its authority under NGA section 5 to investigate whether the rates remain just and reasonable. In the alternative, in lieu of these filings, Gator Express may make a NGA general section 4 rate filing to propose alternative rates for transportation to be effective no later than three years after the in-service dates for the entire pipeline system, as approved.

114 FERC ¶ 61,042 (2006), *dismissing reh'g and denying clarification*, 114 FERC ¶ 61,304 (2006).

⁴⁶ Gator Express is also required to file any service agreement containing non-conforming provisions and to disclose and identify any transportation term or agreement in a precedent agreement that survives the execution of the service agreement. *E.g.*, *Texas Eastern Transmission, LP*, 149 FERC ¶ 61,198, at P 33 (2014).

⁴⁷ *Bison Pipeline, LLC*, 131 FERC ¶ 61,013, at P 29 (2010); *Ruby Pipeline, LLC*, 128 FERC ¶ 61,224, at P 57 (2009); *MarkWest Pioneer, L.L.C.*, 125 FERC ¶ 61,165, at P 34 (2008). The cost of service must combine the costs and design capacities of both laterals. *See Driftwood LNG LLC*, 167 FERC ¶ 61,054, at P 46 (2019); *Cheyenne Plains Gas Pipeline Company, L.L.C.*, 109 FERC ¶ 61,291, at P 8 (2004); *Gulfstream Natural Gas System, L.L.C.*, 105 FERC ¶ 61,052, at P 33 (2003).

⁴⁸ 18 C.F.R. § 154.313 (2019).

⁴⁹ *Electronic Tariff Filings*, 130 FERC ¶ 61,047, at P 17 (2010).

4. Pro Forma Tariff

39. Gator Express included a *pro forma* open-access tariff applicable to services on both laterals. We approve the *pro forma* tariff as generally consistent with Commission policies, with the following exceptions.

a. Rate Schedule FT, Section 2.6(b) – Daily Balancing

40. Section 2.6(b) of Rate Schedule FT states “[e]xcept as otherwise provided in this Tariff, Customer must balance its daily receipts and its daily deliveries at the end of each Gas Day.” The tariff does not explain how a shipper can satisfy this requirement when section 10.1 of the GT&C states that the best available operational data will be provided on the day immediately following the close of each Gas Day, and in light of proposed GT&C section 6, Nominations and Scheduling Procedures, which provides for no more than the standard three intraday nomination periods. Section 2.6(b) also is inconsistent with section 2.7(b) which provides that the “responsibility [of a Customer] to adjust and maintain a concurrent balance between receipts and deliveries [is] based on the best information available to Customer.” Therefore, section 2.6(b) of Rate Schedule FT is rejected.

b. Rate Schedule FT, Section 6 – Exemption from Offering Segmentation

41. Section 6 of Rate Schedule FT states that “[s]egmentation rights are not offered on Transporter’s system because segmentation is not operationally feasible.” Gator Express asserts that segmentation is not operationally feasible on its system and requests exemption from the requirement in section 284.7(d) of the Commission’s regulations⁵⁰ to offer segmentation to the extent operationally feasible. Gator Express explains that its system will receive gas from receipt-only interconnections with Texas Eastern and Tennessee Gas and transport the gas to the single delivery point at the LNG terminal.⁵¹ Thus, according to Gator Express, there are no intermediate points capable of segmentation.

42. We will grant Gator Express a limited waiver from the Commission’s segmentation requirement. Because Gator Express’s system consists of unidirectional, receipt-only interconnections with upstream pipelines and one delivery point downstream at the LNG terminal, segmentation is not feasible on the system as currently configured.⁵² The waiver

⁵⁰ 18 C.F.R. § 284.7(d) (2019).

⁵¹ Application at 28-29.

⁵² *Sierrita Gas Pipeline, LLC*, 147 FERC ¶ 61,192, at P 56 (2014) (finding

will become void should Gator Express add a point to its system making segmentation operationally feasible. Before such additional point is placed in service, Gator Express must file new or revised tariff records in accordance with the Commission's regulations to provide for segmentation and to delete proposed section 6 from Rate Schedule FT.

c. **GT&C Section 3.5 – Waivers of Gas Quality at Downstream Delivery Points**

43. GT&C section 3.5 states:

Delivery Point Obligations. Upon mutual agreement between Transporter and a downstream Interconnecting Party, Transporter may temporarily deliver Gas that does not conform to the quality specifications set forth in GT&C Section 3.1, if Transporter, in its reasonable operational judgment and in a not unduly discriminatory manner, determines that such delivery will not interfere with its ability to: (1) maintain prudent and safe operation of part or all of Transporter's pipeline system, and (2) ensures [sic] that such agreement does not adversely affect Transporter's ability to provide firm services. Transporter *may post waivers on its [Electronic Bulletin Board] at its discretion* and will report waivers in accordance with Part 358 of the Commission's Regulations.⁵³

44. The proposed language emphasized above is inconsistent with section 358.7(i) of the Commission's regulations,⁵⁴ which requires a transmission provider to post on its Internet Web site notice of each waiver of a tariff provision that it grants in favor of an affiliate, unless the waiver has been approved by the Commission. Gator Express is directed to revise GT&C Section 3.5 accordingly.

d. **Rate Schedule FT, Section 2.3 – Obligation to Provide Transportation; GT&C Section 4.1 – Request for Service**

45. Rate Schedule FT, Section 2.3, and GT&C Section 4.1 state that Gator Express is not obligated to provide transportation service if the quantities tendered or requested are so small so as to cause operational difficulties such as measurement and, in the case of GT&C Section 4.1, for time periods of less than one (1) month. Rate Schedule FT,

segmentation is not possible where the pipeline has only one receipt point and one delivery point).

⁵³ Emphasis added.

⁵⁴ 18 C.F.R. § 358.7(i) (2019).

Section 2.3 also states “Transporter shall promptly notify Customer if such operating conditions precluding service exist.”

46. Under sections 284.7(b) and 284.9(b) of the Commission’s regulations,⁵⁵ the transporter may not discriminate as to the duration of service or level of volumes transported.⁵⁶ However, the Commission has allowed a pipeline to include a minimum volume restriction in its tariff when the pipeline was able to show that quantities below the threshold were too small to be metered and where the company provided operational and cost justification for the restriction.⁵⁷ Gator Express has not specified a minimum volume or provided any justification for its restriction. Therefore, in its tariff filing to comply with this order, Gator Express is directed to clarify and justify the above-mentioned service thresholds referred to in its tariff, or delete references to such thresholds.

e. **GT&C Section 5.6 – Terms Incorporated Into All TSAs;**
GT&C Section 25.1 – Indemnification/Liability

47. GT&C Section 5.6(c) includes several situations in which parties are liable under Transportation Service Agreements, but does not mention parties being liable for gross negligence, willful misconduct, or bad faith actions. However, GT&C Section 25.1 states “[n]either Transporter nor Customer shall be liable to the other party for special, indirect, consequential (including loss of profits), incidental or punitive damages except to the

⁵⁵ 18 C.F.R. §§ 284.7(b), 284.9(b) (2019).

⁵⁶ Section 284.7(b)(1) provides that “[a]n interstate pipeline or intrastate pipeline that offers transportation service on a firm basis under Subpart B, C, or G must provide such service without undue discrimination, or preference, including undue discrimination or preference in the quality of service provided, *the duration of service*, the categories, prices, or *volumes of natural gas to be transported*, customer classification, or undue discrimination or preference of any kind.” 18 C.F.R. § 284.7(b)(1) (2019) (emphasis added).

⁵⁷ See, e.g., *Gulf South Pipeline Co., LP*, 103 FERC ¶ 61,105, at P 13 n.7 (2003) (accepting a proposal for a 100 Dth/d threshold for connections of new receipt and delivery points because serving small volume points presented operation challenges, such as the increased potential for lost system gas); *Texas Eastern Transmission Corp.*, 37 FERC ¶ 61,260, at 61,680-81 (1986) (“A minimum throughput condition can be justified as a means of ensuring that the quantities of gas to be transported will be large enough to be metered”).

extent such damages arise out of such party's gross negligence, willful misconduct, or bad faith actions."

48. These sections are inconsistent with each other, and GT&C Section 5.6(c) is inconsistent with Commission policy. Generally, the Commission's policy on limitations of liability disfavors shielding parties from exposure to indirect or consequential damages associated with their gross negligence, bad faith, or willful misconduct.⁵⁸ By limiting the liability of parties under a transportation service agreement to only direct damages, GT&C Section 5.6(c) effectively precludes damages that could be recoverable for gross negligence, willful misconduct, or bad faith actions associated with performance or non-performance under a service agreement. However, under GT&C Section 25.1, a party to a service agreement could be liable to another party for types of damages other than direct damages associated with gross negligence, willful misconduct, or bad faith actions. We find that GT&C Section 25.1 is consistent with Commission policy, but GT&C Section 5.6(c) is not. Thus, Gator Express is directed to revise GT&C Section 5.6(c) to be consistent with GT&C Section 25.1, and with Commission policy regarding parties' liability in situations of gross negligence, bad faith, or willful misconduct.

f. GT&C Section 6.5 – Allocation of Capacity

49. GT&C Section 6.5 sets forth curtailment priorities for when transportation service is interrupted due to capacity limitations after Gator Express allocates capacity to "Emergency Gas," which the tariff defines as gas "purchased or utilized to protect Transporter's system integrity."⁵⁹ In particular, with regard to firm capacity, paragraph (d) of GT&C Section 6.5 provides:

The next quantities to be interrupted shall be those firm service quantities scheduled under Rate Schedule FT. *Reductions during the Evening Nomination Cycle will be interrupted using the scheduling priorities in GT&C Section 6.3 for firm transportation services.* Reductions occurring after the Evening Nomination Cycle will be interrupted pro rata based on contract entitlements at the point at which the capacity limitation occurs.⁶⁰

50. The scheduling priorities for firm service in GT&C Section 6.3 are based on whether a customer's nomination utilizes only primary capacity, flow path secondary capacity in which some primary capacity is utilized, or only secondary capacity.

⁵⁸ See *Enable Gas Transmission, LLC*, 152 FERC ¶ 61,052, at PP 140-161 (2015).

⁵⁹ GT&C Section 1.14.

⁶⁰ Emphasis added.

Although Commission policy permits distinctions between firm nominations for the purpose of scheduling, once scheduled, all firm transportation services are curtailed at the same priority.⁶¹ Therefore, we direct Gator Express to revise GT&C Section 6.5(d) in accordance with this discussion. In addition, to provide clarity, the heading of GT&C Section 6.5 should be changed to “Curtailed of Capacity.”

g. GT&C Section 11.12 – Force Majeure

51. Gator Express’s proposed definition of *force majeure* events in GT&C Section 11.12(b) includes “priority limitation or restraining orders of any kind of the government of the United States or a State or of any civil or military entity.”

52. Gator Express’s proposed tariff language conflicts with Commission policy because it can be interpreted to include regular, periodic maintenance activities required to comply with government actions as *force majeure* events. The Commission has clarified the basic distinction as to whether outages resulting from governmental actions are force majeure or non-force majeure events.⁶² The Commission has found that outages necessitated by compliance with government standards concerning the regular, periodic maintenance activities a pipeline must perform in the ordinary course of business to ensure the safe operation of the pipeline, including the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration’s integrity management regulations, are non-*force majeure* events requiring full reservation charge credits. Conversely, outages resulting from one-time, non-recurring government requirements, including special, one-time testing requirements after a pipeline failure, are *force majeure* events requiring only partial crediting.⁶³

53. In addition, GT&C Section 11.2(b) also defines *force majeure* events, in part, as “any other causes, whether of the kind herein enumerated or otherwise, not reasonably within the control of the party claiming suspension, which by due diligence such party is unable to overcome.” However, the Commission defines *force majeure* outages as events

⁶¹ *Dominion South Pipeline Company, L.P.*, 113 FERC ¶ 61,064, at P 41 (2005); *Algonquin Gas Transmission Co.*, 104 FERC ¶ 61,118, at P 34 (2003).

⁶² *Kinder Morgan Louisiana Pipeline LLC*, 154 FERC ¶ 61,145, at P 30 (2016); *TransColorado Gas Transmission Co., LLC*, 144 FERC ¶ 61,175, at PP 35-43 (2013); *Gulf South Pipeline Co., LP*, 141 FERC ¶ 61,224, at PP 28-47 (2012), *order on reh’g*, 144 FERC ¶ 61,215, at PP 31-34 (2013).

⁶³ *Algonquin Gas Transmission, LLC*, 153 FERC ¶ 61,038, at P 104 (2015) (*Algonquin*).

that are both unexpected and uncontrollable.⁶⁴ We direct Gator Express to revise GT&C Section 11.2(b) to comply with Commission policy, as discussed above.

h. GT&C Section 13 – Fuel

54. Gator Express proposes a fuel tracker as part of its *pro forma* tariff. GT&C Section 13.5(a) states “[i]n each Annual and Periodic [Fuel Lost and Unaccounted for Adjustment Mechanism (FAM)] Filing, Transporter shall calculate the Current [Fuel Lost and Unaccounted for (FL&U)] Percentages by: (i) estimating the total FL&U quantities required during the 12-month period commencing with the effective date of Transporter’s FAM filing (Current FL&U Quantities)”

55. Section 154.403(c)(10) of the Commission’s regulations⁶⁵ states that “[a] step-by-step explanation of the methodology used to reflect changes in the fuel reimbursement percentage, including the allocation and classification of the fuel use and unaccounted-for natural gas” must be included in the GT&C. Gator Express’s proposed language explains that it will estimate the FL&U quantities, but does not explain the methodology Gator Express will use to produce those estimates. Therefore, when Gator Express files actual tariff records, it must revise GT&C Section 13 to include an explanation of how Gator Express will produce the estimates for the FL&U quantities required for the 12-month period.

i. GT&C Section 15 – Revenue Sharing Mechanism

56. The Commission’s policy regarding new interruptible services requires the pipeline either to credit 100 percent of the interruptible revenues, net of variable costs, to maximum rate firm and interruptible customers, or to allocate costs and volumes to these services.⁶⁶ Gator Express chose the interruptible revenue crediting option.

57. Gator Express proposes to credit interruptible revenues to “Qualifying Customers,” which it describes as Rate Schedule FTS customers: (1) paying the maximum recourse rate; (2) paying a negotiated rate; or (3) identified as anchor shippers in Gator Express’s

⁶⁴ *North Baja Pipeline, LLC v. FERC*, 483 F.3d 819, 823 (D.C. Cir. 2007), *aff’g*, *North Baja Pipeline, LLC*, 109 FERC ¶ 61,159 (2004), *order on reh’g*, 111 FERC ¶ 61,101 (2005); *see also Kinder Morgan Louisiana Pipeline LLC*, 154 FERC ¶ 61,145, at P 29 (2016); *Algonquin*, 153 FERC ¶ 61,038 at P 103.

⁶⁵ 18 C.F.R. § 154.403(c)(10) (2019).

⁶⁶ *See, e.g., Creole Trail LNG, L.P.*, 115 FERC ¶ 61,331, at P 27 (2006); *Entrega Gas Pipeline Inc.*, 112 FERC ¶ 61,177, at P 51 (2005).

certificate application. Gator Express's description of shippers eligible for crediting fails to include maximum rate interruptible shippers.⁶⁷ The Commission's policy regarding new interruptible services requires a 100 percent credit of the interruptible revenues, net of variable costs, to maximum rate firm and interruptible customers.⁶⁸

58. In addition, Commission policy does not provide for shippers to receive interruptible revenue credits simply by virtue of their status as anchor shippers. If such anchor shippers pay the maximum recourse firm rate, they are eligible for credits. If such shippers pay negotiated rates, the pipeline may agree to provide them with credits after eligible recourse rate shippers have been credited with 100 percent of interruptible revenues net of variable costs; interruptible revenues due to maximum rate shippers cannot be reduced to reflect negotiated rate provisions.⁶⁹ Further, the provisions of a negotiated rate are specific to actual negotiated rate filings and are required to be reported in a tariff record that identifies the negotiated rate provisions. Therefore, we will require Gator Express to remove references to negotiated rates and anchor shippers in GT&C Section 15, and include shippers paying maximum interruptible rates among the shippers eligible for credits.

j. GT&C Section 23 – NAESB Standards

59. Section 284.12 of the Commission's regulations require an interstate pipeline that transports gas under Part 284 to comply with the business practices and electronic communications standards as promulgated by the North American Energy Standards Board (NAESB).⁷⁰ Gator Express proposes to comply with this requirement in GT&C Section 23. Since Gator Express filed its proposed tariff in this proceeding, the Commission has amended its regulations to incorporate by reference, with certain enumerated exceptions, the NAESB WGQ Version 3.1 business practice standards. For this reason, we direct Gator Express to file tariff records, no less than 60 days prior to its in-service date, to implement the NAESB WGQ Version 3.1 business practice standards.

⁶⁷ *East Tennessee Natural Gas, LLC*, 114 FERC ¶ 61,122, at P 31 (2006).

⁶⁸ *Georgia Strait Crossing Pipeline LP*, 98 FERC ¶ 61,271, at 62,055-62,056 (2002).

⁶⁹ *Wyoming Interstate Co., Ltd.*, 121 FERC ¶ 61,135, at P 11 (2007).

⁷⁰ 18 C.F.R. § 284.12 (2019).

k. Posting Requirements

60. Gator Express addresses web site information posting requirements in GT&C Sections 9.14, 20.4 and 20.5 of its tariff. GT&C Section 9.14 provides that Gator Express will post certain capacity release replacement shipper data on its Electronic Bulletin Board within 48 hours of the completed transaction. GT&C Sections 20.4 and 20.5 both appear to address the posting of available capacity, but Section 20.4 lists only four data elements, whereas Section 20.5 incorporates by reference the capacity posting requirements set forth in section 284.13(d) of the Commission's regulations.⁷¹

61. Pipelines may propose to post more information than required and to post that information earlier than required. However, the Commission requires open access pipelines to post certain information in a timely fashion. For example, section 284.13(b)(1) of the Commission's regulations requires that firm and capacity release information be posted no later than the first nomination under a transaction.⁷² This does not match Gator Express's proposal in GT&C Section 9.14, where Gator Express proposes to post certain capacity release replacement shipper data within 48 hours after the transaction commences. In addition, section 284.13(d) of the Commission's regulations enumerates the data pipelines must post for available capacity.⁷³ GT&C Section 20.4 and Section 20.5 conflict with one another—Section 20.4 lists the available capacity data elements to be posted and Section 20.5 simply incorporates the posting requirements of section 284.13(d) of the Commission's regulations. The list of proposed posted capacity data elements in GT&C Section 20.4 do not match those required by section 284.13(d) of the Commission's Regulations. Thus, the posting of available capacity obligations in GT&C Sections 20.4 and 20.5 are not the same. The Commission requires that GT&C Sections 9.14, 20.4 and 20.5 must be revised to reflect the posting requirements of the Commission's regulations.

5. Non-Conforming Contract Provisions

62. Gator Express states that it has granted Plaquemines LNG several contractual rights as its anchor shipper and that there will be certain differences between the service agreement it will enter into with Plaquemines LNG and the *pro forma* Firm Transportation

⁷¹ 18 C.F.R. § 284.13(d) (2019).

⁷² 18 C.F.R. § 284.13(b)(1) (2019).

⁷³ 18 C.F.R. § 284.13(d) (2019).

Service Agreement (FT service agreement) set forth in its proposed tariff.⁷⁴ Gator Express requests that the Commission approve the following non-conforming contract provisions:

- a. Receipts Point Entitlements – Plaquemines LNG will have entitlements at primary points of receipt that, in aggregate, exceed its maximum daily transportation quantity (MDTQ), provided that neither its primary firm entitlement at any single point of receipt nor its aggregate receipts on any day exceeds its MDTQ;
- b. Delay in Effective Date of Phase II Service – Plaquemines LNG will have a one-time right to delay Phase II service, as set forth in the Precedent Agreement between Gator Express and Plaquemines LNG;
- c. Contract Extension Rights – Plaquemines LNG will have the right to extend the initial term of each Phase of its Rate Schedule FT service agreement from one to ten years, subject to the shipper providing notice no later than two years prior to the end of the initial term of each Phase;
- d. Step-Down Rights – If Plaquemines LNG elects to extend the initial term of either Phase I or Phase II service, Plaquemines LNG may also choose to reduce its maximum transportation quantity for the extended term of the applicable Phase; provided, however, that the reduced MDTQ shall be no less than 225,000 Dth per phase; and
- e. Creditworthiness Provisions – Project-specific creditworthiness requirements are set forth in the precedent agreement between Gator Express and Plaquemines LNG.

63. In *Columbia Gas Transmission Corp.*, the Commission clarified that a material deviation is any provision in a service agreement that: (a) goes beyond filling in the blank spaces with the appropriate information allowed by the tariff, and (b) affects the substantive rights of the parties.⁷⁵ The Commission prohibits negotiated terms and conditions of service that result in a shipper receiving a different quality of service than that offered other shippers under the pipeline's generally applicable tariff or that affect

⁷⁴ The differences between the pro forma FT service agreement and the service agreement to be entered into with Plaquemines LNG are reflected in redline format in Exhibit Z1 of Plaquemines LNG's Application.

⁷⁵ *Columbia Gas Transmission Corp.*, 97 FERC ¶ 61,221, at 62,002 (2001) (*Columbia*).

the quality of service received by others.⁷⁶ However, not all material deviations are impermissible. As we explained in *Columbia*,⁷⁷ provisions that materially deviate from the corresponding pro forma agreement fall into two general categories: (a) provisions the Commission must prohibit because they present a significant potential for undue discrimination among shippers, and (b) provisions the Commission can permit without a substantial risk of undue discrimination.⁷⁸

64. The Commission finds that the incorporation of non-conforming provisions in Plaquemines LNG's service agreement constitutes material deviations from Gator Express's *pro forma* FT service agreement. However, in other proceedings the Commission has found that non-conforming provisions may be necessary to reflect the unique circumstances involved with the construction of new infrastructure and to provide the needed security to ensure the viability of a project.⁷⁹ We find that the non-conforming provisions identified by Gator Express are permissible because they do not present a risk of undue discrimination, do not adversely affect the operational conditions of providing service, and do not result in any customer receiving a different quality of service.⁸⁰ As discussed further below, when Gator Express files its non-conforming service agreements, we will require Gator Express to identify and disclose all non-conforming provisions or agreements affecting the substantive rights of the parties under the tariff or service agreement.

65. At least 30 days, but not more than 60 days, before providing service to any project shipper under a non-conforming agreement, Gator Express must file an executed copy of the non-conforming agreement and identify and disclose all non-conforming provisions or agreements affecting the substantive rights of the parties under the tariff or service agreement. This required disclosure includes any such transportation provision or agreement detailed in a precedent agreement that survives the execution of the service agreement. Consistent with section 154.112 of the Commission's regulations, Gator Express must also file a tariff record identifying these agreements as non-conforming

⁷⁶ *Monroe Gas Storage Co., LLC*, 130 FERC ¶ 61,113, at P 28 (2010).

⁷⁷ 97 FERC at 62,003-62,004.

⁷⁸ *See also Equitrans, L.P.*, 130 FERC ¶ 61,024, at P 5 (2010).

⁷⁹ *E.g., Tennessee Gas Pipeline Co., L.L.C.*, 144 FERC ¶ 61,219, at P 32 (2013); *Midcontinent Express Pipeline LLC*, 124 FERC ¶ 61,089 (2008).

⁸⁰ *See, e.g. Gulf South Pipeline Co., LP*, 115 FERC ¶ 61,123 (2006); *Gulf South Pipeline Co. LP*, 98 FERC ¶ 61,318, at P 4 (2002).

agreements.⁸¹ In addition, the Commission emphasizes that the above determination relates only to those items described by Gator Express in its application and not to the entirety of the precedent agreement or the language contained in the precedent agreement.⁸²

IV. Environmental Analysis

66. To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA),⁸³ Commission staff evaluated the potential environmental impacts of the proposed projects in an EIS. On November 13, 2018, Commission staff issued the draft EIS addressing issues raised up to the point of publication. Notice of the draft EIS was published in the Federal Register on November 20, 2018, establishing a 45-day public comment period ending on January 7, 2019.⁸⁴ Commission staff held a public comment session on December 11, 2018, to receive comments on the draft EIS and 24 people attended the public comment session and 11 people provided oral comments. In response to the draft EIS, we also received six written comment letters from federal and state agencies; companies/organizations; landowners; and individuals. The transcript of the public comment session and all written comments on the draft EIS are part of the public record for the projects.

67. On May 3, 2019, Commission staff issued the final EIS for the projects, and a public notice of the availability of the final EIS was published in the Federal Register on May 13, 2019.⁸⁵ The final EIS addresses geology; soils; water resources; fisheries and aquatic resources; wetlands; vegetation; wildlife resources; threatened, endangered, and other special status species; land use, recreation, and visual resources; socioeconomics; cultural resources; air quality and noise; safety; cumulative impacts; alternatives; and

⁸¹ 18 C.F.R. § 154.112 (2019).

⁸² A Commission ruling on non-conforming provisions in a certificate proceeding does not waive any future review of such provisions when the executed copy of the non-conforming agreement(s) and a tariff record identifying the agreement(s) as non-conforming are filed with the Commission, consistent with section 154.112 of the Commission's regulations. *See, e.g., Tennessee Gas Pipeline Co., L.L.C.*, 150 FERC ¶ 61,160, at P 44 n.33 (2015).

⁸³ 42 U.S.C. §§ 4321 - 4375 (2012). *See also* 18 C.F.R. pt. 380 (2019) (the Commission's NEPA-implementing regulations).

⁸⁴ 83 Fed. Reg. 58,558.

⁸⁵ 84 Fed. Reg. 20,871.

comments received on the draft EIS. The final EIS concludes that construction and operation of the projects will result in some adverse environmental impacts, but impacts will be reduced to less-than-significant levels with the implementation of the applicants' proposed mitigation measures and Commission staff's recommended mitigation measures, which are included as environmental conditions in the appendix to this order.⁸⁶ No adverse comments concerning the final EIS have been filed. The U.S. Department of the Interior, on behalf of the U.S. Fish and Wildlife Service (FWS), and the National Marine Fisheries Service (NMFS), filed comments on endangered species, the U.S. Environmental Protection Agency filed comments stating its draft EIS comments were addressed, and the Louisiana Department of Wildlife and Fisheries filed comments on pipeline construction impacts. Those comments and major environmental issues addressed in the final EIS are discussed below.

A. Geology

68. The overall effect of the Plaquemines LNG Project and Gator Express Pipeline Project on topography and geology would be minor. The final EIS concludes that the seismic risk to the Plaquemines LNG Project site is low because the site is not in proximity to a major fault and includes lower ground motions.⁸⁷ Further, Plaquemines LNG has designed the project to minimize the risk to structures from seismic activity to meet federal safety regulations.⁸⁸ The Gator Express Pipeline Project would be located in an area considered seismically quiet.⁸⁹ Gator Express will design and construct the pipeline to accommodate earthquake ground motions.⁹⁰ Blasting is not anticipated during construction of the projects, and no paleontological resources are anticipated within the

⁸⁶ The numbering of environmental conditions in the appendix to this order differs from that of the recommended conditions in the final EIS. Final EIS recommended condition 16 is not included in the appendix to this order because consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service is complete. Environmental Conditions 50 and 51 were added after issuance of the Final EIS. Environmental Conditions 101 and 102 were a single recommended condition in the final EIS (final EIS recommended condition 100) and Environmental Conditions 123 and 124 were a single recommended condition in the final EIS (final EIS recommended condition 121). The substance of these conditions remains the same as in the final EIS.

⁸⁷ Final EIS at 4-251 to 4-255.

⁸⁸ *Id.*

⁸⁹ *Id.* at 4-3 to 4-4.

⁹⁰ *Id.* at 4-4.

project areas.⁹¹ Therefore, the final EIS concludes that the projects' impacts on geological resources would be adequately minimized and not significant, and the potential impacts on the projects from geologic hazards would be minimal.

B. Soils

69. Construction of the projects would require temporary disturbance of the soil and operations would result in permanent, but minor impacts on the soil.⁹² The LNG terminal site comprises approximately 146.4 acres of soils categorized as prime farmland, currently fallow and used for cattle grazing.⁹³ These lands are not considered unique farmland or farmland of statewide importance.⁹⁴ All soils at the site are prone to compaction.⁹⁵ The Plaquemines LNG Project would result in 625.8 acres of soil being permanently impacted from the construction of the project, including by paved or gravel plant roads or being occupied by facilities and workspaces.⁹⁶ The portions of the Gator Express Pipeline Project not constructed in open-water would be constructed in soils with characteristics similar to the soils at the LNG terminal.⁹⁷ Plaquemines LNG and Gator Express would implement the mitigation measures contained in the project-specific *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan), project-specific *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures), and its Stormwater Pollution Prevention Plan to control erosion, enhance successful revegetation, and minimize any potential adverse impacts on soil resources.⁹⁸

⁹¹ *Id.* at 4-5.

⁹² *Id.* at 4-11 to 4-12 (Plaquemines LNG Project); 4-12 to 4-13 (Gator Express Pipeline Project).

⁹³ *Id.* at 4-9.

⁹⁴ *Id.* at 4-9.

⁹⁵ *Id.* at 4-9.

⁹⁶ *Id.* at 4-8, Table 4.2-1; 4-11 to 4-12.

⁹⁷ *Id.* at 4-12 to 4-13.

⁹⁸ *Id.* at 4-13.

C. Water Resources

70. The Plaquemines LNG Project and Gator Express Pipeline Project lie within the New Orleans aquifer system.⁹⁹ The majority of activities associated with the project would involve shallow, temporary, and localized excavation, with the exception of concrete or steel piles constructed at the LNG terminal.¹⁰⁰ The construction of piles could result in minor, indirect impacts on shallow aquifers, which tend to contain limited amounts of freshwater, and would not result in impacts on the deeper underlying aquifers that provide water to wells within the area.¹⁰¹ Thus, the projects would not have a significant impact on groundwater resources in the project area.

71. Impacts on surface waters would be temporary and minor.¹⁰² The Plaquemines LNG Project would be located on the Mississippi River. The river serves as the primary source of drinking water for Plaquemines Parish with five drinking water intakes.¹⁰³ A portion of the terminal site is located within the Source Water Protection Area for the Pointe à la Hache water system and the Port Sulphur Water District.¹⁰⁴ Impacts on the Mississippi River due to pile driving and excavation associated with the construction of the LNG loading and ship berthing facilities would be temporary and limited to the work area and result in localized, temporary increases in turbidity and suspended sediment levels.¹⁰⁵ No long-term or permanent water quality impacts are anticipated because there is no dredging required at the terminal.¹⁰⁶ The Gator Express Pipeline Project crosses approximately 12.1 miles of open water habitat, which would result in localized,

⁹⁹ *Id.* at 4-14.

¹⁰⁰ *Id.* at 4-16.

¹⁰¹ *Id.*

¹⁰² *Id.* at 4-26 to 4-37.

¹⁰³ *Id.* at 4-19. Two intakes are located upstream from the terminal site: Dalcour intake (25 miles) and Belle Chase intake (20 miles). Three intakes are located downstream of the terminal site: Pointe à la Hache intake (4 miles); Port Sulphur intake (4 miles); and Boothville intake (35 miles downstream).

¹⁰⁴ *Id.*

¹⁰⁵ *Id.* at 4-27.

¹⁰⁶ *Id.*

temporary increases in sedimentation rates and turbidity levels during construction.¹⁰⁷ Therefore, impacts on surface waters from construction and operation of the LNG terminal and pipeline system would be minor.

72. For hydrostatic testing of the LNG storage tanks and associated facilities, Plaquemines LNG anticipates appropriating water from the adjacent drainage canal.¹⁰⁸ For hydrostatic testing of the pipeline, Gator Express plans to use available surface water for testing and would filter the water to remove entrained solids and any chemical contaminants prior to discharge.¹⁰⁹ Impacts on surface waters as a result of hydrostatic testing would be negligible.¹¹⁰

D. Wetlands

73. Construction and operation of the Plaquemines LNG Project would result in a temporary impact on approximately 12.0 acres of wetlands, a permanent conversion of approximately 2.8 acres of wetlands, and a permanent loss of approximately 368.1 acres of wetlands.¹¹¹ Construction and operation of the Gator Express Pipeline Project would have a temporary impact on approximately 947.1 acres of wetlands and a permanent impact on approximately 2.8 acres of wetlands.¹¹² On June 5, 2019, the Louisiana Department of Wildlife and Fisheries commented that the marsh that would be crossed by the pipeline may not recover following construction. Gator Express and Plaquemines LNG would restore temporarily impacted marsh areas in accordance with its *Procedures* and any applicable permit conditions. Gator Express and Plaquemines LNG would offset impacts on U.S. Army Corps of Engineers-jurisdictional wetlands through its Compensatory Mitigation Plan, which includes the use of mitigation banks, an in-lieu fee program, and implementing proposed mitigation measures to reduce impacts on wetlands.¹¹³ The plan would be reviewed by the U.S. Army Corps of Engineers' New Orleans District as part of Venture Global's section 404 Clean Water Act permitting

¹⁰⁷ *Id.* at 4-24.

¹⁰⁸ *Id.* at 4-31.

¹⁰⁹ *Id.* at 4-34.

¹¹⁰ *Id.* at 4-31; 4-34.

¹¹¹ *Id.* at 4-41.

¹¹² *Id.* at 4-44.

¹¹³ *Id.* at 4-48.

process.¹¹⁴ The final EIS concludes that impacts on wetlands due to construction and operation would not be significant. Moreover, any impacts would be further reduced by Venture Global's proposed wetland mitigation measures.

E. Vegetation

74. Construction of the Plaquemines LNG Project would result in the total clearing of approximately 624 acres of vegetation.¹¹⁵ Operation of the Plaquemines LNG Project would result in approximately 606 acres of vegetation being permanently lost.¹¹⁶ Construction of the Gator Express Pipeline Project would result in the total clearing of approximately 75 acres of vegetation.¹¹⁷ Operation of the Gator Express Pipeline Project would result in the loss of approximately 2 acres of vegetation.¹¹⁸ Gator Express would use its project-specific Plan and Procedures, which require the use of temporary and permanent erosion control measures, topsoil segregation in select areas, testing and mitigation for soil compaction, post-construction monitoring, and limited routine vegetation maintenance.¹¹⁹ Therefore, the final EIS concludes that impacts on vegetation would be permanent, but minor.

75. The Gator Express Pipeline Project would impact an area of coastal live oak-hackberry forest, a vegetation community of special concern.¹²⁰ Gator Express conducted field surveys and identified 4.0 acres of coastal live oak-hackberry forest within the footprint of the pipeline route.¹²¹ Gator Express would avoid further impacts through the use of horizontal directional drilling construction, which would avoid impacts on 1.6 acres of the forest, resulting in a temporary impact on 0.7 acres, which would recover after construction, and 1.7 acres would be permanently converted from coastal

¹¹⁴ *Id.* at 4-48.

¹¹⁵ *Id.* at 4-50.

¹¹⁶ *Id.*

¹¹⁷ *Id.* at 4-50.

¹¹⁸ *Id.*

¹¹⁹ *Id.* at 4-54.

¹²⁰ *Id.* at 4-55 to 4-56.

¹²¹ *Id.*

live oak-hackberry forest to herbaceous uplands.¹²² The final EIS concludes that impacts on coastal live oak-hackberry would be permanent, but minor.

F. Wildlife Resources

76. Construction of the Plaquemines LNG Project and Gator Express Pipeline Project would require vegetation clearing, grading, and filling to prepare the site, which would affect both vegetated and open water habitat and in turn impact wildlife in the area. Impacts would include displacement, stress, and direct mortality of some individuals with larger impacts on less mobile species.¹²³ Pile-driving activities have the potential to alter wildlife behavior, including the foraging and nesting activities of wildlife within the project area.¹²⁴ Venture Global would use noise mitigation measures to reduce impacts on the human environment and wildlife from pile-driving activities.¹²⁵ Impacts associated with the Plaquemines LNG Project on wildlife species would be minimized because wildlife species in the area are already exposed to industrial activities due to other similar facilities along the Mississippi River.¹²⁶ A possible colonial nesting waterbird area occurs within a 2-mile radius of the Gator Express Pipeline Project.¹²⁷ Plaquemines LNG and Gator Express committed to measures recommended by the FWS and the Louisiana Department of Wildlife and Fisheries, which include the requirements to avoid impacts on colonial waterbird nesting colonies by conducting pre-construction nesting surveys and clearing areas with potential nesting habitat outside of the nesting season from March 1 through July 31.¹²⁸ Impacts on wildlife, including migratory birds and colonial waterbirds, would be less than significant.

G. Aquatic Resources and Essential Fish Habitat

77. Construction of the marine facilities, berthing area, and turning basin for the Plaquemines LNG Project would not require dredging or excavation of the Mississippi

¹²² *Id.*

¹²³ *Id.* at 4-58.

¹²⁴ *Id.*

¹²⁵ *Id.* at 4-58 to 4-59.

¹²⁶ *Id.* at 4-59.

¹²⁷ *Id.* at 4-61.

¹²⁸ *Id.* at 4-63.

River, but activities would occur within the waterway for installation of pilings.¹²⁹ Construction of marine facilities would result in a localized increase in turbidity and suspended sediment levels, but any impact would be temporary and limited to the immediate area for the LNG loading and marine facilities construction.¹³⁰ No permanent or long-term water quality impacts are anticipated from construction.¹³¹ Underwater noise impacts from pile driving may result in injury or trauma to fish, sea turtles, and other aquatic species, but Plaquemines LNG developed an Underwater Noise Mitigation Plan through consultation with NMFS and the FWS, which will reduce impacts on aquatic species to acceptable levels.¹³²

78. Construction of the Gator Express Pipeline project would result in temporary noise impacts during in-water construction, increased sedimentation, and water turbidity in construction work areas, mortality of individuals that come into direct contact with construction equipment, and the introduction of pollutants into waterways.¹³³ Gator Express would cross two wetlands and a perennial stream via the horizontal directional drilling method, which would avoid direct impacts on these features and minimize impacts on fisheries, fish habitat, and other aquatic resources within and adjacent to these waterbodies.¹³⁴

79. The portion of the Mississippi River located within the Plaquemines LNG Project does not provide essential fish habitat since managed fish species would not be common this far upriver.¹³⁵ Therefore, the final EIS concludes that the LNG terminal facilities located in the Mississippi River would not affect essential fish habitat.¹³⁶ Construction of the pipeline system would impact essential fish habitat for post-larval and juvenile life stages of white shrimp, brown shrimp, lane snapper, all life stages of red drum, and adult

¹²⁹ *Id.* at 4-71 to 4-72.

¹³⁰ *Id.* at 4-71.

¹³¹ *Id.*

¹³² *Id.* at 4-75.

¹³³ *Id.* at 4-79.

¹³⁴ *Id.* at 4-80.

¹³⁵ *Id.* at 4-83.

¹³⁶ *Id.*

gray snapper.¹³⁷ Essential fish habitat would be modified by the dredging, excavation, and related activities for pipeline construction and barge access channels, resulting in potential impacts of sediment disturbance and changes in water depth from dredging and excavation.¹³⁸ The benthic communities are expected to recolonize quickly after construction; therefore, the final EIS concludes that adverse impacts on essential fish habitat would be minor because of the temporary nature and limited spatial extent of the project.¹³⁹

H. Threatened, Endangered, and Other Special Status Species

80. FWS identified four federally listed species and NMFS identified 12 federally listed species as potentially occurring in the project area or along the LNG vessel transit route.¹⁴⁰ One additional species for which potentially suitable habitat is present, the eastern black rail, was proposed for listing as threatened by FWS.¹⁴¹ Commission staff determined that the project may affect, but is not likely to adversely affect listed species or critical habitat for the sixteen federally listed species and may affect, but is not likely to jeopardize the continued existence of the eastern black rail. FWS, on February 3, 2017, concurred with this determination of effect for the four listed species under its jurisdiction.¹⁴² On June 3, 2019, the U.S. Department of the Interior and the FWS confirmed that their previous concurrence is still valid and also provided concurrence with Commission staff's determination of effect for the eastern black rail. On September 17, 2019, NMFS concurred with Commission staff's determination of effect for federally listed species under its jurisdiction. Therefore, consultation under section 7 of the Endangered Species Act is complete.

¹³⁷ *Id.* at 4-85.

¹³⁸ *Id.* at 4-85 to 4-86.

¹³⁹ *Id.*

¹⁴⁰ *Id.* at 4-92.

¹⁴¹ *Id.* at 4-92.

¹⁴² *Id.* at 4-104.

I. Land Use, Recreation, and Visual Resources

81. Venture Global entered into a lease agreement with the Plaquemines Port Harbor and Terminal District for the Plaquemines LNG Project-site.¹⁴³ The project would be located on primarily undeveloped land currently zoned as heavy industrial.¹⁴⁴ It would permanently occupy 625.8 acres of land, the water-based marine facilities would permanently occupy 10.7 acres, and an additional 92.2 acres would be temporarily occupied by workspaces.¹⁴⁵ Approximately 525.0 acres or 82 percent of the land is classified as cultivated cropland, but the land has recently been used for cattle grazing and hay production.¹⁴⁶ The remainder of the LNG terminal site includes forested land (76.2 acres), wetlands (24.5 acres), developed commercial/industrial land (17.8 acres), herbaceous land (2.0 acres), and scrub-shrubland (1.3 acres).¹⁴⁷ The construction of the LNG project would result in the permanent conversion of the 518.9 acres of agricultural lands to commercial/industrial use.¹⁴⁸ The Plaquemines LNG Project is consistent with the Port of Plaquemines Master Plan, which does not envision the land for future agricultural uses.¹⁴⁹ Therefore, the final EIS finds that the project would not represent a significant impact on agricultural uses within the area.¹⁵⁰ The Gator Express Pipeline Project would impact the following land use types: open water (846.0 acres), wetlands (72.3 acres), and herbaceous land (34.9 acres).¹⁵¹ The final EIS concludes that the impacts on land use would not be significant.

¹⁴³ *Id.* at 4-106; Plaquemines Port Harbor and Terminal District January 10, 2019 Letter.

¹⁴⁴ *Id.* at 4-109.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at 4-112.

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

¹⁵¹ *Id.* at 4-109.

82. There are three wildlife refuges located at least 35 miles from any of the project workspaces.¹⁵² There is a private conservation area and one historic park, both are located at least 16 miles from any project workspace.¹⁵³ The proposed construction and operation of the LNG terminal and pipeline would not impact these resources.¹⁵⁴ Barataria-Terrebonne National Estuary Program Gulf Ecological Management Site is located approximately 1.0 mile from the pipeline system. Impacts on the restoration area are expected to be minor and temporary.¹⁵⁵

83. Construction and operation of the Plaquemines LNG Project would result in adverse impacts on the viewshed. The LNG terminal will include four LNG storage tanks (188 feet tall), as well as a cold flare (280 feet tall), warm flare (280 feet tall), low-pressure flare (175 feet tall), and marine vapor control facilities (100 feet tall).¹⁵⁶ Lighting would be used at the terminal site during evening activities and as required for safety purposes.¹⁵⁷ During construction, impacts would be visible to local residents, drivers and visitors along the nearby roadways, visitors to nearby marinas, and boaters on nearby waterways.¹⁵⁸ The closest residence is 0.14 miles from the site, and only low-lying vegetation would shield the view of construction activities, especially considering many residences are elevated to avoid storm impacts.¹⁵⁹ Construction activities would generate minor impacts on the viewshed due to the existing industrial nature of the area.¹⁶⁰ During operations of the LNG terminal, individuals may view exterior plant lighting, air navigation lighting, LNG storage tanks, the electric power generation facilities, liquefaction heat exchanges, air coolers, and the flare stack.¹⁶¹ Plaquemines

¹⁵² *Id.* at 4-116.

¹⁵³ *Id.* at 4-116.

¹⁵⁴ *Id.* at 4-116.

¹⁵⁵ *Id.* at 4-116 to 4-118.

¹⁵⁶ *Id.* at 4-119 to 4-123.

¹⁵⁷ *Id.* at 4-120.

¹⁵⁸ *Id.*

¹⁵⁹ *Id.* at 4-121.

¹⁶⁰ *Id.*

¹⁶¹ *Id.* at 4-121 to 4-122.

LNG indicates that flaring would be anticipated to occur twice a year for start-up and shutdown purposes and other flaring would be estimated to occur up to 12 times per year.¹⁶² Exterior lighting at the LNG terminal, where possible, would consist of full cutoff types that would direct light towards the ground to minimize impacts.¹⁶³ Similar to impacts during construction, operational impacts would be visible to residents, drivers, recreational and commercial boaters, resulting in minor, adverse, permanent impacts.¹⁶⁴

84. On June 5, 2019, the Louisiana Department of Wildlife and Fisheries commented that it will review all oyster lease assessments to ensure that impacts are avoided or minimized to the maximum extent possible which may require modifications to the project. We have included Environmental Condition 17, which requires Gator Express to file documentation that consultation with the Louisiana Department of Natural Resources Oyster Lease Damage Evaluation Board and/or the affected lease holder(s) has been completed prior to construction.

J. Socioeconomics

85. Construction of the project would have a minor, short-term beneficial effect on population levels in the areas around the project because project construction would require an average number of 3,900 non-local workers when construction of Phases I and II of the LNG terminal overlap and a maximum number of approximately 5,330 non-local workers when construction periods of the LNG terminal and pipeline system overlap.¹⁶⁵ Operations of the LNG terminal would require 250 full-time workers.¹⁶⁶ The EIS concludes that many of the construction workers would come from outside the region, but half of the permanent positions would be filled with workers from the region.¹⁶⁷ Many construction workers would reside in nearby hotels and RV campgrounds, and any adverse impacts associated with construction would be temporary and minor.¹⁶⁸

¹⁶² *Id.* at 4-122.

¹⁶³ *Id.*

¹⁶⁴ *Id.*

¹⁶⁵ *Id.* at 4-127.

¹⁶⁶ *Id.*

¹⁶⁷ *Id.* at 4-127 to 4-128.

¹⁶⁸ *Id.* at 4-137.

86. The Plaquemines LNG Terminal and the pipe bridge associated with the Gator Express Pipeline Project could have an impact on the property value in the nearby communities.¹⁶⁹ The final EIS concludes that impacts on nearby property values would be comparable to other uses for the site because it is zoned for industrial uses.¹⁷⁰

87. Plaquemines Parish is home to one of the largest commercial fishing fleets in the lower 48 states, and most of the commercial fishing ports and marinas lie to the south of the terminal site.¹⁷¹ The final EIS provided an estimate of 16 trips per week on the Mississippi River of bulk carrier vessels or tugs and barges during the peak phases of construction.¹⁷² During operation of the terminal, LNG carrier traffic would occur with less frequency compared to construction vessel traffic and the width of the Mississippi River in the delta area is wide enough to allow other vessels to travel abreast or pass, but in the main body of the river, commercial vessels might experience minor delays as they may be unable to pass the LNG carriers.¹⁷³ Therefore, the impacts on commercial traffic would be permanent and minor.¹⁷⁴

88. Recreational fishing serves as a vital part of the economy within Plaquemines Parish and both the freshwater and saltwater fishing is considered world class.¹⁷⁵ Construction and operation at the terminal would not restrict access to significant fishery resources, but traffic associated with construction would have a slight effect on recreational fishing.¹⁷⁶ Impacts on recreational fishing would be similar to those anticipated for the commercial fisheries, negligible and temporary during construction and negligible and permanent during operations.

89. The final EIS concludes that the construction and operation of the projects would not disproportionately affect low-income or minority populations because the projects,

¹⁶⁹ *Id.* at 4-140.

¹⁷⁰ *Id.*

¹⁷¹ *Id.* at 4-130.

¹⁷² *Id.* at 4-133.

¹⁷³ *Id.*

¹⁷⁴ *Id.* at 4-131.

¹⁷⁵ *Id.* at 4-132.

¹⁷⁶ *Id.* at 4-133.

including the proposed mitigation measures and project-design features, would not result in high or adverse impacts on the human health or environment of residential communities closest to the project.

K. Cultural Resources

90. Cultural resources investigations were conducted for the Gator Express Pipeline Project and the terminal site for the Plaquemines LNG Project to identify archeological sites and historic structures. No historical properties were identified.¹⁷⁷ The reports were submitted to the Louisiana State Historic Preservation Officer.¹⁷⁸ The Louisiana State Historic Preservation Officer concurred that the project would have no effects on historic properties. We agree.

L. Air Quality and Noise

91. Construction emissions associated with the Plaquemines LNG Project would not be a permanent source of emissions, and, therefore would not have a long-term effect on air quality in the area.¹⁷⁹ During construction the Plaquemines LNG Project may result in a potential intermittent exceedance of emission levels of criterial pollutants that exceed the National Ambient Air Quality Standards (NAAQS) in the immediate vicinity of the project.¹⁸⁰ The final EIS concludes that these exceedances would not be persistent at any one time due to the dynamic and fluctuating nature of construction activities within a day, week, or month.¹⁸¹ Plaquemines LNG would minimize potential impacts on air quality caused by operation of the terminal by adhering to applicable federal and state regulations and installing best available control technology to minimize emissions.¹⁸² In addition, modeling showed that the project would not significantly contribute to: any

¹⁷⁷ *Id.* at 4-157; 4-158.

¹⁷⁸ *Id.*

¹⁷⁹ *Id.* at 4-176.

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *Id.* at 4-181.

exceedances of the NAAQS;¹⁸³ deposition impacts;¹⁸⁴ or visibility impacts on Class I locations.¹⁸⁵

92. Construction emissions associated with the pipeline project would be concentrated around the area of construction and move as the construction of the pipeline progress along the right-of-way.¹⁸⁶ Long-term air quality impacts of the pipeline project would be negligible and associated with pig launchers and receivers, meter stations, block valves, and fugitive emissions from pipeline components and associated equipment because the project does not include compressor units.¹⁸⁷

93. Noise impacts associated with construction would vary depending on the phase of construction, the number and type of equipment operating, the level of operation, and the distance of the receptor from the construction site.¹⁸⁸ During construction of the Plaquemines LNG Project, the loudest portions would be during site preparation and pile-driving activities.¹⁸⁹ Noise impacts associated with construction of the Plaquemines LNG Project would be temporary and moderate due to the pile-driving activities.¹⁹⁰ Operation of the Plaquemines LNG Project would generate sound impacts throughout the life of the project, but the increase in noise levels would be below the Commission's limit standard of a day-night sound level (L_{dn}) of 55 A-weighted decibels (dBA), with the implementation of mitigation measures, resulting in only minor impacts on the nearest noise sensitive areas (NSA).¹⁹¹ The largest impact on nearby NSA would be associated with steam generation and blowdown events, but these events would result in sound levels of 50 dBA at the

¹⁸³ *Id.* at 4-192.

¹⁸⁴ *Id.* at 4-185.

¹⁸⁵ *Id.* at 4-186.

¹⁸⁶ *Id.* at 4-174 to 4-175.

¹⁸⁷ *Id.* at 4-177.

¹⁸⁸ *Id.* at 4-204.

¹⁸⁹ *Id.* Pile-driving activities are expected to occur 6 days per week, Monday through Saturday from 7:00am to 5:00pm.

¹⁹⁰ *Id.* at 4-205.

¹⁹¹ *Id.* at 4-208.

nearest NSA.¹⁹² Environmental Conditions 19 and 20 require Plaquemines LNG to file a full-load noise survey no later than 60 days after placing Phase I and the entire LNG terminal in service. Should noise levels attributable to the project exceed 55 dBA L_{dn} , Plaquemines LNG must install additional noise controls to meet the Commission's threshold of 55 dBA.¹⁹³ With implementation of the mitigation measures proposed by the applicants and required by the environmental conditions, the final EIS concludes that the projects would not have a significant impact on the local noise environment.

94. Noise impacts associated with construction of the Gator Express Pipeline Project will be loudest during the horizontal directional drilling operations and during the pile-driving activities associated with the pipe bridge, otherwise construction noises will be intermittent.¹⁹⁴ To minimize the noise impacts of horizontal directional drilling operations, Gator Express proposes to use a sound curtain enclosure or acoustic barrier.¹⁹⁵ To further reduce impacts associated with horizontal directional drilling, Environmental Condition 18 requires Gator Express to file, prior to construction, a Horizontal Directional Drilling Noise Mitigation Plan.¹⁹⁶

M. Greenhouse Gas Emissions

95. With respect to impacts from greenhouse gases (GHGs), the final EIS discloses the GHG emissions from construction and operation of the projects, the climate change impacts in the region, and the regulatory structure for GHGs under the Clean Air Act.¹⁹⁷

96. The final EIS estimated that operation of the projects, including the LNG terminal and pipeline facilities, may result in direct and indirect emissions of up to 7,440,000 metric tons per year of carbon dioxide equivalent (CO₂e).¹⁹⁸ To provide context to the

¹⁹² *Id.* at 4-209.

¹⁹³ *Id.*

¹⁹⁴ *Id.* at 4-205.

¹⁹⁵ *Id.* at 4-206.

¹⁹⁶ *Id.* at 4-206 to 4-207.

¹⁹⁷ *Id.* at 4-165 to 4-171.

¹⁹⁸ *Id.* at 4-180, table 4.11-4. CO₂e emissions in the final EIS are expressed in short tons, which have been converted to metric tons in this Order so the emissions may be viewed in context with the EPA's *Inventory of U.S. Greenhouse Gas Emissions and*

GHG estimate, according to the national net CO₂e emissions estimate in the EPA's *Inventory of U.S. Greenhouse Gas Emissions and Sinks* (EPA 2019), 5.743 billion metric tons of CO₂e were emitted at the national level in 2017 (inclusive of CO₂e sources and sinks). The direct and indirect operational emissions of these facilities could potentially increase annual CO₂e emissions based on the 2017 levels by 0.13 percent at the national level.¹⁹⁹ Currently, there are no national targets to use as benchmarks for comparison.²⁰⁰

97. The final EIS included a qualitative discussion that addressed various effects of climate change.²⁰¹ The final EIS acknowledges that the quantified GHG emissions from the construction and operation of the project will contribute incrementally to climate change.²⁰² Further, the Commission has previously concluded it could not determine a project's incremental physical impacts on the environment caused by GHG emissions.²⁰³ The Commission has also previously concluded it could not determine whether a project's contribution to climate change would be significant.²⁰⁴

N. Reliability and Safety

98. As part of the NEPA review, staff assessed potential impacts to the human environment in terms of safety and whether the proposed facilities would operate safely, reliably, and securely. Commission staff conducted a preliminary engineering and technical review of the Plaquemines LNG Project, including potential external impacts

Sinks.

¹⁹⁹ EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2017. (2019), Table ES-2, <https://www.epa.gov/sites/production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf>.

²⁰⁰ The national emissions reduction targets expressed in the EPA's Clean Power Plan were repealed, Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emissions Guidelines Implementing Regulations, 84 Fed. Reg. 32,520, 32,522-32,532 (July 8, 2019), and the targets in the Paris climate accord are pending withdrawal.

²⁰¹ Final EIS at 4-330 to 4-333.

²⁰² *Id.* at 4-333.

²⁰³ *Dominion Transmission, Inc.*, 163 FERC ¶ 61,128, at PP 67-70 (2018) (LaFleur, Comm'r, *dissenting in part*; Glick, Comm'r, *dissenting in part*).

²⁰⁴ *Id.*

based on the site location. Based on this review, the final EIS recommends a number of mitigation measures for implementation prior to initial site preparation, prior to construction of final design, prior to commissioning, prior to introduction of hazardous fluids, prior to commencement of service, and throughout the life of the facility, to enhance the reliability and safety of the facility. With these measures, the final EIS concludes that acceptable layers of protection or safeguards would reduce the risk of a potentially hazardous scenario from developing that could impact the offsite public. These recommendations have been adopted as mandatory conditions in the appendix to this order.

99. In addition, the U.S. Coast Guard reviewed the proposed Plaquemines LNG Project, including the associated LNG traffic, for navigation safety and maritime security. The U.S. Coast Guard reviewed a Waterway Suitability Assessment submitted by Plaquemines LNG that focused on the navigation safety and maritime security aspects of LNG carrier transits along the affected waterway. On January 23, 2017, the U.S. Coast Guard issued a Letter of Recommendation indicating that the Lower Mississippi River would be considered suitable for accommodating the type and frequency of LNG marine traffic associated with this project.²⁰⁵ If the project is authorized and constructed, the facility would be subject to the U.S. Coast Guard's inspection and enforcement program to ensure compliance with the requirements of 33 C.F.R §§ 105 and 127.²⁰⁶

100. Further, as noted above,²⁰⁷ PHMSA determined that the siting of the proposed LNG facilities complies with the federal safety standards governing the location, design, construction, operation, and maintenance of LNG facilities.²⁰⁸ The PHMSA Letter of Determination summarizes PHMSA's evaluation of the hazard modeling results and endpoints used to establish exclusion zones, as well as its review of Plaquemines LNG's evaluation of potential incidents and safety measures that could have a bearing on the safety of plant personnel and the surrounding public.

101. In addition, Environmental Condition 50, which requires an evaluation of emergency shutdown valve closure times, and Environmental Condition 51, which requires an evaluation of dynamic pressure surge effects from valve and pump operations, have been added to the appendix to this order since the issuance of the final EIS. These additional conditions have been included to better ensure the safety of the

²⁰⁵ Final EIS at 1-5.

²⁰⁶ 33 C.F.R. pts. 105; 127 (2019).

²⁰⁷ *See supra* P 17.

²⁰⁸ *See* 49 C.F.R. pt. 193, Subpart B (2019).

facility during an emergency and to prevent conditions that could lead to a process release.

102. The Gator Express Pipeline Project would be constructed, operated, and maintained in accordance with DOT's safety standards. The final EIS concludes that the project would result in a slight increase in risk exposure to the nearby public, however, that risk would be minimized through compliance with DOT's standards.²⁰⁹

O. Cumulative Impacts

103. The final EIS considered the cumulative impacts of the projects with other projects or actions within the geographic and temporal scope of the projects.²¹⁰ The types of other projects evaluated in the final EIS that could potentially contribute to cumulative impacts on a range of environmental resources include existing LNG terminals and future liquefaction projects, oil and gas facilities, other industrial facilities, utility and transportation projects, commercial and residential developments, and government facilities/activities.²¹¹ The final EIS concludes that the project's contribution to cumulative impacts on resources affected by the projects would generally not be significant, with the exception of air quality cumulative impacts.²¹² The final EIS found that cumulative modeling showed the potential for NAAQS exceedances, but this project would not contribute pollutants above significant levels and would not contribute to significant adverse combined effects with other existing and foreseeable actions.²¹³

P. Alternatives

104. The final EIS assessed the No-Action Alternative, other LNG system alternatives, five site alternatives, and various facility configuration alternatives for the Plaquemines LNG Project that could achieve the objectives of the project.²¹⁴ In addition, two major pipeline route alternatives were considered.²¹⁵ Alternatives were evaluated and compared to the projects to determine whether the alternatives were technically and

²⁰⁹ Final EIS at 4-282.

²¹⁰ *Id.* at 4-291 to 4-334.

²¹¹ *Id.* at 4-293 to 4-306.

²¹² *Id.* at 4-333 to 4-334.

²¹³ *Id.* at 4-327.

²¹⁴ *Id.* at 3-1 to 3-12.

²¹⁵ *Id.* at 3-12 to 3-16.

economically feasible and practical; and offer a significant environmental advantage over the proposed projects. The final EIS concludes that the alternatives proposed did not offer a significant environmental advantage and found that the proposed projects, as modified by Commission staff's recommended mitigation measures, which are attached as conditions to the appendix to this order, was the preferred alternative.

Q. Environmental Analysis Conclusion

105. We have reviewed the information and analysis contained in the final EIS regarding potential environmental effects of the projects, as well as other information in the record. We are adopting the environmental recommendations in the final EIS and include them as conditions in the appendix to this order. Compliance with the environmental conditions appended to our orders is integral to ensuring that the environmental impacts of approved projects are consistent with those anticipated by our environmental analyses. Thus, Commission staff carefully reviews all information submitted. Commission staff will only issue a construction notice to proceed with an activity when satisfied that the applicant has complied with all applicable conditions. We also note that the Commission has the authority to take whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the projects, including authority to impose any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the order, as well as the avoidance or mitigation of unforeseen adverse environmental impacts resulting from project construction and operation.

106. We agree with the conclusions presented in the final EIS and find that the projects, if constructed and operated as described in the final EIS, is an environmentally acceptable action. Further, for the reasons discussed throughout the order, as stated above, we find that the Plaquemines LNG Project is not inconsistent with the public convenience and necessity, and that the Gator Express Pipeline Project is in the public convenience and necessity.

107. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this authorization and Certificate. The Commission encourages cooperation between jurisdictional companies 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.²¹⁶

²¹⁶ See 15 U.S.C. § 717r(d) (2018) (state or federal agency's failure to act on a permit considered to be inconsistent with Federal law); see also *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 310 (1988) (state regulation that interferes with FERC's regulatory authority over the transportation of natural gas is preempted) and *Dominion*

V. Conclusion

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

The Commission orders:

(A) In Docket No. CP17-66-000, Plaquemines LNG is authorized under section 3 of the NGA to site, construct, and operate the proposed project located in Plaquemines Parish, Louisiana, as described and conditioned herein, and as more fully described in Plaquemines LNG's application and subsequent filings by the applicant, including any commitments made therein.

(B) The authorization in Ordering Paragraph (A) above is conditioned on:

(1) Plaquemines LNG's facilities being fully constructed and made available for service within seven years of the date of this order; and

(2) Plaquemines LNG's compliance with the environmental conditions contained in the appendix to this order.

(C) In Docket No. CP17-67-000, a certificate of public convenience and necessity under section 7(c) of the NGA is issued to Gator Express authorizing it to construct and operate the proposed project, as described and conditioned herein, and as more fully described in Gator Express's application and subsequent filings by the applicant, including any commitments made therein.

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

(1) Gator Express's facilities being constructed and made available for service within seven years of the date of this order pursuant to section 157.20(b) of the Commission's regulations;

(2) Gator Express's compliance with all applicable Commission regulations under the NGA, particularly the general terms and conditions

Transmission, Inc. v. Summers, 723 F.3d 238, 245 (D.C. Cir. 2013) (noting that state and local regulation is preempted by the NGA to the extent it conflicts with federal regulation, or would delay the construction and operation of facilities approved by the Commission).

set forth in Parts 154, 157, and 284, and paragraphs (a), (c), (e), and (f) of section 157.20 of the Commission's regulations; and

(3) Gator Express's compliance with the environmental conditions contained in the appendix to this order.

(E) A blanket transportation certificate is issued to Gator Express under Subpart G of Part 284 of the Commission's regulations.

(F) A blanket construction certificate is issued to Gator Express under Subpart F of Part 157 of the Commission's regulations.

(G) Gator Express shall file a written statement affirming that it has executed firm contracts for the capacity levels and terms of service represented in the signed precedent agreements, prior to commencing construction.

(H) Gator Express's initial recourse rates for Southwest Lateral TGP (Phase I facilities) are approved, as conditioned and modified above.

(I) Gator Express shall file actual tariff records for Southwest Lateral TGP (Phase I) service that comply with the requirements contained in the body of this order and file revised rates and *pro forma* tariff records, consistent with the modifications discussed in the body of this order, for the entire pipeline system (Phase I and Phase II facilities) to be effective upon the start of service, not less than 60 days prior to the commencement of interstate service consistent with Part 154 of the Commission's regulations.

(J) Gator Express must file at least 30 days, but not more than 60 days before the in-service date of the proposed facilities, an executed copy of the non-conforming agreement 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.

(K) No later than three months after the end of its first three years of actual operation of its entire system (i.e., both the Southwest Lateral TGP and the Southwest Lateral TETCO), Gator Express must make a filing to justify its cost-based firm and interruptible recourse rates. Gator Express's cost and revenue study should be filed through the eTariff portal using a Type of Filing Code 580. In addition, Gator Express is advised to include as part of the eFiling description, a reference to Docket No. CP17-67-000 and the cost and revenue study.

(L) Plaquemines LNG and Gator Express shall notify the Commission's environmental staff by telephone, e-mail, or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Plaquemines LNG or Gator Express. Plaquemines LNG and Gator Express shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission. Commissioner Glick is dissenting with a separate statement attached.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix

Environmental Conditions

As recommended in the final environmental impact statement and otherwise amended herein, this authorization includes the following conditions:

1. Venture Global Plaquemines LNG, LLC (Plaquemines LNG) and Venture Global Gator Express, LCC (Gator Express) shall follow the construction procedures and mitigation measures described in its applications and supplements (including responses to staff data requests) and as identified in the final environmental impact statement (EIS), unless modified by the Order. Plaquemines LNG and Gator Express must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of 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 Office of Energy Projects (OEP) **before using that modification.**
2. For the Plaquemines LNG Project, the Director of OEP, or the Director's designee, has delegated authority to address any requests for approvals or authorizations necessary to carry out the conditions of the Order, and take whatever steps are necessary to ensure the protection of life, health, property, and the environment during construction and operation of the project. This authority shall allow:
 - a. the modification of conditions of the Order;
 - b. stop-work authority and authority to cease operation; and
 - c. the imposition of any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the Order as well as the avoidance or mitigation of unforeseen adverse environmental impact resulting from project construction and operation.
3. For the Gator Express Pipeline Project, the Director of OEP, or the Director's designee, has delegated authority to address any requests for approvals or authorizations necessary to carry out the conditions of the Order, and take

whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the project. This authority shall allow:

- a. the modification of conditions of the Order;
 - b. stop-work authority; and
 - c. the imposition of any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the Order as well as the avoidance or mitigation of unforeseen adverse environmental impact resulting from project construction and operation.
4. **Prior to any construction**, Plaquemines LNG and Gator Express shall each file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors (EIs), 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 shown in the final EIS, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of construction**, Plaquemines LNG and Gator Express 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.
- Gator Express's exercise of eminent domain authority granted under Natural Gas Act (NGA) section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations. Gator Express'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. Plaquemines LNG and Gator Express shall file with the Secretary 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 workspace allowed by the Commission's *Upland Erosion Control, Revegetation & Maintenance Plan* and/or minor field realignments per landowner needs and requirements which 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 Order and before construction begins**, Plaquemines LNG and Gator Express shall each file an Implementation Plan with the Secretary for review and written approval by the Director of OEP. Plaquemines LNG and Gator Express must file revisions to the plan as schedules change. The plan(s) shall identify:

- a. how Plaquemines LNG and Gator Express will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EIS, and required by the Order;
- b. how Plaquemines LNG and Gator Express 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 on-site construction and inspection personnel;
- c. the number of EIs assigned per spread, and how Plaquemines LNG and Gator Express 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 material;
 - e. the location and dates of the environmental compliance training and instructions Plaquemines LNG and Gator Express will give to all personnel involved with construction and restoration (initial and refresher training as the projects progress and personnel change), with the opportunity for OEP staff to participate in the training session(s);
 - f. the company personnel and specific portion of Plaquemines LNG's and Gator Express's organization having responsibility for compliance;
 - g. the procedures (including use of contract penalties) Plaquemines LNG and Gator Express 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 on-site personnel;
 - (3) the start of construction; and
 - (4) the start and completion of restoration.
8. Plaquemines LNG shall employ at least one EI for the terminal and Gator Express shall employ at least one EI per pipeline construction spread for the pipeline facilities, or as may be required by the Director of OEP. The EIs shall be:
- a. responsible for monitoring and ensuring compliance with all mitigation measures required by the Order and other grants, permits, certificates, or other 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, Plaquemines LNG and Gator Express shall file updated status reports with the Secretary, on a **monthly** basis for the terminal and on a **biweekly** basis for the pipeline facilities, until all construction and restoration activities are complete. Problems of a significant magnitude shall be reported the Commission **within 24 hours**. 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 Plaquemines LNG's and Gator Express's efforts to obtain the necessary federal authorizations;
 - b. the construction status of the LNG terminal and each pipeline spread, 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, contractor nonconformance/deficiency logs, and each instance of noncompliance observed by the EIs 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, nonconformance, or deficiency;
 - 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 Plaquemines LNG or Gator Express from other federal, state, or local permitting agencies concerning instances of noncompliance, and Plaquemines LNG or Gator Express's response.
10. Plaquemines LNG and Gator Express must receive written authorization from the Director of OEP **before commencing construction of any project facilities**. To obtain such authorization, Plaquemines LNG and Gator Express must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
11. Plaquemines LNG must receive written authorization from the Director of OEP **prior to introducing hazardous fluids into the terminal 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. Plaquemines LNG must receive written authorization from the Director of OEP **before placing each phase of the LNG terminal into service**. Such authorization will only be granted following a determination that the facilities have been constructed in accordance with the Commission's approval, can be expected to operate safely as designed, and the rehabilitation and restoration of the right-of-way and other areas affected by the project are proceeding satisfactorily.
13. Gator Express must receive written authorization from the Director of OEP, **before placing each phase of the pipeline system into service** (i.e., the Southwest Lateral TGP in Phase I and the Southwest Lateral TETCO in Phase II). Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the project are proceeding satisfactorily.
14. **Within 30 days of placing each of the authorized facilities in service**, Plaquemines LNG and Gator Express shall 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 conditions in the Order Plaquemines LNG and Gator Express have complied with or will comply with. This statement shall also identify any areas affected by the projects where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
15. Gator Express shall provide **72 hours notice** to the owner(s) of producing oil and gas wells located within 0.25 mile from the pipeline workspace in order to allow the owner's representative to be on-site during construction activities. (Final EIS section 4.1.2)
16. Plaquemines LNG and Gator Express shall **not begin** construction of the project **until** it files with the Secretary a copy of the determination of consistency with the Coastal Zone Management Plan issued by the Louisiana Department of Natural Resources (LDNR). (Final EIS section 4.8.7)
17. **Prior to construction of the pipelines**, Gator Express shall file with the Secretary documentation that consultation with the LDNR Oyster Lease Damage Evaluation

- Board and/or the affected lease holder(s) has been completed. (Final EIS section 4.9.3.1)
18. **Prior to beginning the Horizontal Directional Drill (HDD) at Lake Hermitage**, Gator Express shall file with the Secretary, for the review and written approval by the Director of OEP, an HDD noise mitigation plan for the crossing to reduce the projected noise level attributable to the proposed drilling operations at the nearby noise-sensitive area (NSA). During drilling operations, Gator Express shall implement the approved plan, monitor noise levels, and make all reasonable efforts to restrict the noise attributable to the drilling operations to no more than a day-night sound level (L_{dn}) of 55 decibels on the A-weighted scale (dBA) at the NSA. (Final EIS section 4.11.2.3)
 19. **No later than 60 days after placing Phase I of the LNG Terminal into service**, Plaquemines LNG shall file a full power load noise survey with the Secretary for the LNG terminal. If the noise attributable to operation of the equipment at the LNG terminal exceeds an L_{dn} of 55 dBA at the nearest NSA, **within 60 days** Plaquemines LNG shall modify operation of the liquefaction facilities or install additional noise controls until a noise level below an L_{dn} of 55 dBA at the NSA is achieved. Plaquemines 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. (Final EIS section 4.11.2.4)
 20. **No later than 60 days after placing the entire LNG terminal into service**, Plaquemines LNG shall file a noise survey with the Secretary. If a full load condition noise survey is not possible, Plaquemines LNG shall provide an interim survey at the maximum possible horsepower load **within 60 days** of placing the LNG terminal into service and provide the full load survey **within 6 months**. If the noise attributable to operation of the equipment at the LNG terminal exceeds an L_{dn} of 55 dBA at the nearest NSA under interim or full horsepower load conditions, Plaquemines LNG shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year** of the in-service date. Plaquemines LNG shall confirm compliance with the above requirement by filing an additional noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls. (Final EIS section 4.11.2.4)
 21. **Prior to initial site preparation**, Plaquemines LNG shall file with the Secretary a study that determines the presence or absence of growth faults extending across the site using geophysically logged borings that is stamped and sealed by the professional engineer-of-record, registered in Louisiana. If growth faults are determined to be present, Plaquemines LNG shall file a plan to avoid or mitigate growth fault impacts with the Secretary that is stamped and sealed by the professional engineer-of-record, registered in Louisiana. (Final EIS section 4.12.5)

22. **Prior to construction of final design**, Plaquemines LNG shall file with the Secretary the following information, stamped and sealed by the professional engineer-of-record, registered in Louisiana:

- a. site preparation drawings and specifications;
- b. LNG terminal structures and foundation design drawings and calculations (including prefabricated and field constructed structures);
- c. seismic specifications for procured equipment; and
- d. quality control procedures to be used for civil/structural design and construction.

In addition, Plaquemines LNG shall file, in its Implementation Plan, the schedule for producing this information. (Final EIS section 4.12.5)

23. **Prior to commencement of service**, Plaquemines LNG shall file with the Secretary a monitoring and maintenance plan, stamped and sealed by the professional engineer-of-record registered in Louisiana, for the perimeter levee which ensures the crest elevation relative to mean sea level will be maintained for the life of the facility considering berm settlement, subsidence, and sea level rise. (Final EIS section 4.12.5)

Conditions 25 through 125 shall apply to the Plaquemines LNG Project. Information pertaining to these specific conditions shall be filed with the Secretary for review and written approval by the Director of OEP, or the Director's designee, within the timeframe indicated by each condition. Specific engineering, vulnerability, or detailed design information meeting the criteria specified in Order No. 833 (Docket No. RM16-15-000), including security information, shall be filed as critical energy infrastructure information pursuant to 18 C.F.R. § 388.113. *See Critical Electric Infrastructure Security and Amending Critical Energy Infrastructure Information*, Order No. 833, 157 FERC ¶ 61,123 (2016). Information pertaining to items such as offsite emergency response, procedures for public notification and evacuation, and construction and operating reporting requirements would be subject to public disclosure. All information shall be filed **a minimum of 30 days** before approval to proceed is requested.

24. **Prior to initial site preparation**, Plaquemines LNG shall file an overall project schedule, which includes the proposed stages of the commissioning plan. (Final EIS section 4.12.5)

25. **Prior to initial site preparation**, Plaquemines LNG shall file quality assurance and quality control procedures for construction activities. (Final EIS section 4.12.5)

26. **Prior to initial site preparation**, Plaquemines LNG shall file procedures for controlling access during construction. (Final EIS section 4.12.5)
27. **Prior to initial site preparation**, Plaquemines LNG shall file its design wind speed criteria for all other facilities not covered by U.S. Department of Transportation (DOT) Pipeline Hazardous Materials Safety Administration (PHMSA) Letter of Determination to be designed to withstand wind speeds commensurate with the risk and reliability associated with the facilities in accordance with ASCE 7-16 or equivalent. (Final EIS section 4.12.5)
28. **Prior to initial site preparation**, Plaquemines LNG shall develop an Emergency Response Plan (ERP) (including evacuation) and coordinate procedures with the U.S. Coast Guard; state, county, and local emergency planning groups; fire departments; state and local law enforcement; and appropriate federal agencies. This plan shall include at a minimum:
 - a. designated contacts with state and local emergency response agencies;
 - b. scalable procedures for the prompt notification of appropriate local officials and emergency response agencies based on the level and severity of potential incidents;
 - c. procedures for notifying residents and recreational users within areas of potential hazard;
 - d. evacuation routes/methods for residents and public use areas that are within any transient hazard areas along the route of the LNG marine transit;
 - e. locations of permanent sirens and other warning devices; and
 - f. an “emergency coordinator” on each LNG marine vessel to activate sirens and other warning devices.

Plaquemines LNG shall notify Commission staff of all planning meetings in advance and shall report progress on the development of its ERP at 3-month intervals. (Final EIS section 4.12.5)

29. **Prior to initial site preparation**, Plaquemines LNG shall file 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. This comprehensive plan shall include funding mechanisms for the capital costs associated with any necessary security/emergency management equipment and personnel base. Plaquemines LNG shall notify FERC staff of all planning meetings in advance and shall report progress on the development of its Cost-Sharing Plan at 3-month intervals. (Final EIS section 4.12.5)

30. **Prior to construction of final design**, Plaquemines LNG shall include spill containment (e.g., a trough collection system) for the entire length of the pipe-in-pipe system between the LNG storage tanks and the marine berth area sized for a full guillotine rupture of the pipe-in-pipe line based on a 10-minute duration. (Final EIS section 4.12.5)
31. **Prior to construction of final design**, Plaquemines LNG shall file details of the pipe-in-pipe system design, including wall thicknesses, spacers, expansion bellows or loops, and transitions. (Final EIS section 4.12.5)
32. **Prior to construction of final design**, Plaquemines LNG shall file change logs that list and explain any changes made from the front end engineering design provided in Plaquemines 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. (Final EIS section 4.12.5)
33. **Prior to construction of final design**, Plaquemines LNG shall file information/revisions pertaining to the response numbers 14 of its October 11, 2018 filing, response numbers 8, 15, 24, 25, 27, 39, 40, and 43 of its October 16, 2018 filing, and response numbers 11, 31, and 38 of its October 30, 2018 filing, which indicated features to be included or considered in the final design. (Final EIS section 4.12.5)
34. **Prior to construction of final design**, Plaquemines LNG shall file a plot plan of the final design showing all major equipment, structures, buildings, and impoundment systems. (Final EIS section 4.12.5)
35. **Prior to construction of final design**, Plaquemines LNG shall file drawings of the storage tank piping support structure and support of horizontal piping at grade including pump columns, relief valves, pipe penetrations, instrumentation, and appurtenances. (Final EIS section 4.12.5)
36. **Prior to construction of final design**, Plaquemines LNG shall file an up-to-date equipment list, process and mechanical data sheets, and specifications. The specifications shall be in consistent units and include:
 - a. Building Specifications (e.g., control buildings, electrical buildings, compressor buildings, storage buildings, pressurized buildings, ventilated buildings, blast resistant buildings);
 - b. Mechanical Specifications (e.g., piping, valve, insulation, rotating equipment, heat exchanger, storage tank, pressure vessel, other specialized equipment);

- c. Electrical and Instrumentation Specifications (e.g., power system specifications, control system specifications, SIS specifications, cable specifications, other electrical and instrumentation specifications); and
 - d. Security and Fire Safety Specifications (e.g., security, passive protection, hazard detection, hazard control, firewater). (Final EIS section 4.12.5)
37. **Prior to construction of final design**, Plaquemines LNG shall specify and design their control systems and human machine interfaces in accordance with the ISA Standards 5.3, 5.5, 60.1, 60.3, 60.4, and 60.6, or other equivalent standards and recommended practices for designing control buildings, displaying graphic symbols for human machine interfaces, and consideration of other human factors. (Final EIS section 4.12.5)
38. **Prior to construction of final design**, Plaquemines LNG shall file a list of all codes and standards and the final specification document number where they are referenced. (Final EIS section 4.12.5)
39. **Prior to construction of final design**, Plaquemines LNG shall file three-dimensional plant drawings, or other documentation, to confirm plant layout for maintenance, access, egress, and congestion. (Final EIS section 4.12.5)
40. **Prior to construction of final design**, Plaquemines LNG shall file up-to-date process flow diagrams (PFDs) and piping and instrument diagrams (P&IDs). The PFDs shall include heat and material balances. The P&IDs shall 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 size and set points; and
 - i. drawing revision number and date. (Final EIS section 4.12.5)

41. **Prior to construction of final design**, Plaquemines LNG shall include a means to remove mercury as part of the design to limit concentrations to less than 0.01 micrograms per normal cubic meter or alternatively provide monitoring for mercury by means of an analyzer or preventative maintenance inspections of the heat exchangers and connections for a mercury removal package. (Final EIS section 4.12.5)
42. **Prior to construction of final design**, Plaquemines LNG shall file layout and design specifications of the pig trap, inlet separation and liquid disposal, inlet/send-out meter station, filters, and pressure control. (Final EIS section 4.12.5)
43. **Prior to construction of final design**, Plaquemines LNG shall file a car seal philosophy and a list of all car-sealed and locked valves consistent with the P&IDs. (Final EIS section 4.12.5)
44. **Prior to construction of final design**, Plaquemines LNG shall file documentation demonstrating that the recommendations from the Front End Engineering Design Hazard Identification are complete and consistent with the requirements of the final design as determined by the engineering, procurement, and construction contractor. (Final EIS section 4.12.5)
45. **Prior to construction of final design**, Plaquemines LNG shall file a hazard and operability review prior to issuing the P&IDs for construction. A copy of the review, a list of the recommendations, and actions taken on the recommendations shall be filed. (Final EIS section 4.12.5)
46. **Prior to construction of final design**, Plaquemines LNG shall file the safe operating limits (upper and lower), alarm and shutdown set points for all instrumentation (i.e., temperature, pressures, flows, and compositions). (Final EIS section 4.12.5)
47. **Prior to construction of final design**, Plaquemines LNG shall include LNG tank fill flow measurement with high flow alarm. (Final EIS section 4.12.5)
48. **Prior to construction of final design**, Plaquemines LNG shall include boil-off gas (BOG) flow, tank density profile and temperature profile measurement for each tank. (Final EIS section 4.12.5)
49. **Prior to construction of final design**, Plaquemines LNG shall file cause-and-effect matrices for the process instrumentation, fire and gas detection system, and emergency shutdown system for review and approval. The cause-and-effect matrices shall include alarms and shutdown functions, details of the voting and shutdown logic, and set points. (Final EIS section 4.12.5)

50. **Prior to construction of final design**, Plaquemines LNG shall file an evaluation of emergency shutdown valve closure times. The evaluation shall account for the time to detect an upset or hazardous condition, notify plant personnel, and close the emergency shutdown valve.
51. **Prior to construction of final design**, Plaquemines LNG shall file an evaluation of dynamic pressure surge effects from valve opening and closure times and pump startup and shutdown operations.
52. **Prior to construction of final design**, Plaquemines LNG shall specify that all Emergency Shutdown (ESD) valves are to be equipped with open and closed position switches connected to the Distributed Control System/Safety Instrumented System (DCS/SIS). (Final EIS section 4.12.5)
53. **Prior to construction of final design**, Plaquemines LNG shall specify the minimum distance required for valve maintenance, between the LNG loading header and the first valve in the discharge piping to the loading arm. (Final EIS section 4.12.5)
54. **Prior to construction of final design**, Plaquemines LNG shall specify that piping and equipment that may be cooled with liquid nitrogen is to be designed for liquid nitrogen temperatures, with regard to allowable movement and stresses. (Final EIS section 4.12.5)
55. **Prior to construction of final design**, Plaquemines LNG shall include any isolation valves necessary for startup, operation, shutdown, restart, and maintenance procedures. (Final EIS section 4.12.5)
56. **Prior to construction of final design**, Plaquemines LNG shall demonstrate that, for hazardous fluids, piping and piping nipples 2 inches or less in diameter are designed to withstand external loads, including vibrational loads in the vicinity of rotating equipment and operator live loads in areas accessible by operators. (Final EIS section 4.12.5)
57. **Prior to construction of final design**, Plaquemines LNG shall specify that all drains from high pressure hazardous fluid systems are to be equipped with double isolation and bleed valves or equivalent positive isolation. (Final EIS section 4.12.5)
58. **Prior to construction of final design**, Plaquemines LNG shall file the sizing basis and capacity for the final design of the flares and/or vent stacks as well as the pressure and vacuum relief valves for major process equipment, vessels, and storage tanks. (Final EIS section 4.12.5)

59. **Prior to construction of final design**, Plaquemines LNG shall file pressure relieving protection for flammable liquid piping segments (i.e., refrigerants, liquid hydrocarbons, condensate products) that can be isolated by valves. (Final EIS section 4.12.5)
60. **Prior to construction of final design**, Plaquemines LNG shall file an updated fire protection evaluation of the proposed facilities. A copy of the evaluation, a list of recommendations and supporting justifications, and actions taken on the recommendations shall be filed. The evaluation shall justify the type, quantity, and location of hazard detection and hazard control, passive fire protection, emergency shutdown and depressurizing systems, firewater, and emergency response equipment, training, and qualifications in accordance with National Fire Protection Association (NFPA) 59A (2001). The justification for the flammable and combustible gas detection and flame and heat detection shall be in accordance with ISA 84.00.07 or equivalent methodologies that would demonstrate 90 percent or more of releases (unignited and ignited) that could result in an offsite or cascading impact would be detected by two or more detectors and result in isolation and deinventory within 10 minutes. The analysis shall take into account the set points, voting logic, wind speeds, and wind directions. The justification for firewater shall provide calculations for all firewater demands (including firewater coverage on the LNG storage tanks) based on design densities, surface area, and throw distance and specifications for the corresponding hydrant and monitors needed to reach and cool equipment. (Final EIS section 4.12.5)
61. **Prior to construction of final design**, Plaquemines LNG shall file spill containment system drawings with dimensions and slopes of curbing, trenches, impoundments, and capacity calculations considering any foundations and equipment within impoundments, as well as the sizing and design of the down-comer that would transfer spills from the tank top to the ground-level impoundment system. The spill containment drawings shall show containment for all hazardous fluids, including all liquids handled above their flashpoint, from the largest flow from a single line for 10 minutes, including de-inventory, or the maximum liquid from the largest vessel (or total of impounded vessels) or otherwise demonstrate that providing spill containment would not significantly reduce the flammable vapor dispersion or radiant heat consequences of a spill. In addition, Plaquemines LNG shall demonstrate that the stainless steel piping spill trays at each LNG storage tank would withstand the force and shock of a sudden cryogenic release. (Final EIS section 4.12.5)
62. **Prior to construction of final design**, Plaquemines LNG shall consult with DOT PHMSA on compliance with 49 C.F.R. § 193 for the water removal design using drains. (Final EIS section 4.12.5)

63. **Prior to construction of final design**, Plaquemines LNG shall file electrical area classification drawings. The drawings shall be updated with the latest design, including liquefaction blocks and full containment tanks, and demonstrate compliance with NFPA 59A, NFPA 70, NFPA 497, API 500, or equivalent, including but not limited to, illustrating Class 1 Division 1 and Division 2, as applicable, at all impoundment trenches, the LNG ship transfer connection, refrigerant truck transfer connection, diesel truck transfer connection, diesel and other combustible tank vents, power plant area, gas turbines, feed gas aftercoolers, MR coolers, and pig launchers. (Final EIS section 4.12.5)
64. **Prior to construction of final design**, Plaquemines LNG shall file detailed calculations to confirm that the final fire water volumes would be accounted for when evaluating the capacity of the impoundment system during a spill and fire scenario. (Final EIS section 4.12.5)
65. **Prior to construction of final design**, Plaquemines LNG shall file an analysis demonstrating the flammable vapor dispersion from design spills would be prevented from dispersing underneath the elevated LNG storage tanks, or demonstrating the LNG storage tanks would be able to withstand the overpressure due to ignition of the flammable vapors that disperses underneath the elevated LNG storage tanks. (Final EIS section 4.12.5)
66. **Prior to construction of final design**, Plaquemines LNG shall file drawings and details of how process seals or isolations installed at the interface between a flammable fluid system and an electrical conduit or wiring system meet the requirements of NFPA 59A (2001 edition). Plaquemines LNG shall also provide the results of consultation with DOT PHMSA indicating that the proposed electrical process seal design would be considered to meet the design requirements of NFPA 59A (2001), as incorporated by 49 C.F.R. § 193.2101. (Final EIS section 4.12.5)
67. **Prior to construction of final design**, Plaquemines LNG shall file details of an air gap or vent installed downstream of process seals or isolations installed at the interface between a flammable fluid system and an electrical conduit or wiring system. Each air gap shall vent to a safe location and be equipped with a leak detection device that shall continuously monitor for the presence of a flammable fluid, alarm the hazardous condition, and shut down the appropriate systems. (Final EIS section 4.12.5)
68. **Prior to construction of final design**, Plaquemines LNG shall file an analysis of the localized hazards to operators from a potential liquid nitrogen release and shall also provide spill containment and low oxygen detectors to mitigate liquid nitrogen releases. (Final EIS section 4.12.5)

69. **Prior to construction of final design**, Plaquemines LNG shall file a drawing showing the location of the emergency shutdown buttons. Emergency shutdown buttons shall be easily accessible, conspicuously labeled, and located in an area which would be accessible during an emergency. (Final EIS section 4.12.5)
70. **Prior to construction of the final design**, Plaquemines LNG shall install a plant-wide shutdown button or provide a human reliability analysis that demonstrates the multiple pushbutton approach does not significantly increase the risk compared to a plant-wide shutdown button. (Final EIS section 4.12.5)
71. **Prior to construction of final design**, Plaquemines LNG shall file complete drawings and a list of the hazard detection equipment. The drawings shall clearly show the location and elevation of all detection equipment, including near the diesel and hot oil tanks, steam turbine power plant, flare KO drums, ethylene packages, peaking generator, essential diesel generator, acid gas removal area, hot oil furnaces, thermal oxidizer, combustion air intakes and HVAC intakes of buildings. The list shall include the instrument tag number, type and location, alarm indication locations, and shutdown functions of the hazard detection equipment. (Final EIS section 4.12.5)
72. **Prior to construction of final design**, Plaquemines LNG shall account for the calibration gas of the hazard detectors when determining the lower flammable limit set points for methane, propane, butane, ethylene, and condensate. (Final EIS section 4.12.5)
73. **Prior to construction of final design**, Plaquemines LNG shall account for the calibration gas of hazard detectors when determining the set points for toxic components such as aqueous ammonia, natural gas liquids, and hydrogen sulfide. Include a list of alarm and shutdown set points for each hazard detector. (Final EIS section 4.12.5)
74. **Prior to construction of final design**, Plaquemines LNG shall file a technical review of facility design that:
 - a. identifies all combustion/ventilation air intake equipment and the distances to any possible flammable gas or toxic release; and
 - b. demonstrates that these areas are adequately covered by hazard detection devices and indicates how these devices would isolate or shut down any combustion or heating ventilation and air conditioning equipment whose continued operation could add to or sustain an emergency. (Final EIS section 4.12.5)

75. **Prior to construction of final design**, Plaquemines LNG shall file an analysis of the off gassing of hydrogen in battery rooms and ventilation calculations that limit concentrations below the lower flammability limits (LFL) (e.g., 25 percent LFL) and shall also provide hydrogen detectors that alarm (e.g., 20 to 25 percent LFL) and initiate mitigative actions (e.g., 40 to 50 percent LFL). (Final EIS section 4.12.5)
76. **Prior to construction of final design**, Plaquemines LNG shall specify smoke detection in occupied buildings. (Final EIS section 4.12.5)
77. **Prior to construction of final design**, Plaquemines LNG shall specify hazard detection suitable to detect high temperatures and smoldering combustion products in electrical buildings and control room buildings. (Final EIS section 4.12.5)
78. **Prior to construction of final design**, Plaquemines LNG shall file an evaluation of the voting logic and voting degradation for hazard detectors. (Final EIS section 4.12.5)
79. **Prior to construction of final design**, Plaquemines LNG shall file facility plan drawings and a list of the fixed and wheeled dry-chemical, hand-held fire extinguishers, and other hazard control equipment. Plan drawings shall clearly show the location and elevation by tag number of all fixed dry chemical systems in accordance with NFPA 17, and wheeled and hand-held extinguishers along normal paths of access and egress in accordance with NFPA 10 travel distances, including but not limited to, at the liquefaction blocks, near the metering station and pig launchers, on top of all tanks, and in all buildings. The list shall include the equipment tag number, manufacturer and model, agent type, agent capacity, discharge rate, automatic and manual remote signals initiating discharge of the units, and equipment covered. (Final EIS section 4.12.5)
80. **Prior to construction of final design**, Plaquemines LNG shall specify carbon dioxide systems installed in accordance with NFPA 12 or equivalent in gas turbine enclosures. (Final EIS section 4.12.5)
81. **Prior to construction of final design**, Plaquemines LNG shall specify clean agent systems installed in accordance with NFPA 2001 or equivalent in instrumentation buildings. (Final EIS section 4.12.5)
82. **Prior to construction of final design**, Plaquemines LNG shall file drawings and calculations for the structural passive protection systems to protect equipment and supports from cryogenic releases. (Final EIS section 4.12.5)
83. **Prior to construction of final design**, Plaquemines LNG shall file calculations or test results for the structural passive protection systems to demonstrate that

- equipment and supports are protected from cryogenic releases. (Final EIS section 4.12.5)
84. **Prior to construction of final design**, Plaquemines LNG shall file drawings and specifications for the structural passive protection systems to demonstrate the equipment and supports are protected from pool and jet fires. (Final EIS section 4.12.5)
85. **Prior to construction of final design**, Plaquemines LNG shall file a detailed quantitative analysis to demonstrate that adequate mitigation would be provided for each significant component within the 4,000 BTU/ft²-hr zone from pool and jet fires that could cause failure of the component. Trucks at the truck loading/unloading areas shall be included in the analysis. A combination of passive and active protection for pool fires and passive and/or active protection for jet fires shall be provided and demonstrate the effectiveness and reliability. Effectiveness of passive mitigation shall be supported by calculations or test results for the thickness limiting temperature rise and active mitigation shall be justified with calculations or test results demonstrating flow rates and durations of any cooling water will mitigate the heat absorbed by the vessel. (Final EIS section 4.12.5)
86. **Prior to construction of final design**, Plaquemines LNG shall file a projectile analysis to demonstrate that the outer concrete impoundment wall of a full-containment LNG storage tank could withstand projectiles from explosions and high winds. The analysis shall detail the projectile speeds and characteristics and method used to determine penetration or perforation depths. (Final EIS section 4.12.5)
87. **Prior to construction of final design**, Plaquemines LNG shall file specifications and drawings demonstrating how cascading damage of transformers would be prevented (e.g., firewalls or spacing) in accordance with NFPA 850 or equivalent. (Final EIS section 4.12.5)
88. **Prior to construction of final design**, Plaquemines LNG shall file facility plan drawings showing the proposed location of the firewater and any foam systems. Plan drawings shall clearly show the location of firewater and foam piping, post indicator valves, and the location and area covered by, each monitor, hydrant, hose, water curtain, deluge system, foam system, water-mist system, and sprinkler. The drawings shall also include piping and instrumentation diagrams of the firewater and foam systems. The firewater coverage drawings shall illustrate firewater coverage by two or more hydrants or monitors accounting for obstructions (or deluge systems) for all process areas that contain flammable or combustible fluids, including all three docks, diesel generators and storage, hot oil storage, gas dehydration units, and LNG storage tanks. (Final EIS section 4.12.5)

89. **Prior to construction of final design**, Plaquemines LNG shall specify remotely operated or automatic firewater monitors in areas inaccessible or difficult to access in the event of an emergency. (Final EIS section 4.12.5)
90. **Prior to construction of final design**, Plaquemines LNG shall specify firewater capacities for the monitors and hydrants. (Final EIS section 4.12.5)
91. **Prior to construction of final design**, Plaquemines LNG shall design the firewater pump shelter for maintenance access to the firewater pumps. (Final EIS section 4.12.5)
92. **Prior to construction of final design**, Plaquemines LNG shall specify that a firewater flow test meter is installed and equipped with a transmitter and that a pressure transmitter is installed upstream of the flow transmitter. The flow transmitter and pressure transmitter shall be connected to the DCS and recorded.
93. **Prior to construction of final design**, Plaquemines LNG shall specify the reducer on the suction side of the firewater pump to be eccentric or otherwise justify the use of an alternative reducer that will not cause air pockets to form and cause possible damage to the firewater pump. (Final EIS section 4.12.5)
94. **Prior to construction of final design**, Plaquemines LNG shall file an analysis of the structural integrity of the outer containment of the full containment storage tanks when exposed to a roof tank top fire or adjacent tank top fire. (Final EIS section 4.12.5)
95. **Prior to construction of final design**, Plaquemines LNG shall file drawings and specifications for protecting transfer piping, pumps, and compressors, etc. to ensure that they are located away from roadway or protected from inadvertent damage from vehicles. (Final EIS section 4.12.5)
96. **Prior to construction of final design**, Plaquemines LNG shall file specifications, drawings, and details of vehicle barriers at each facility entrance for access control. (Final EIS section 4.12.5)
97. **Prior to construction of final design**, Plaquemines LNG shall file specifications, drawings, and details of the vehicle collision protection at the State Highway 23 road crossing of the LNG transfer line that demonstrate it can withstand impact from the most severe loading, including potential explosion loads from any trucks carrying hazardous materials. (Final EIS section 4.12.5)
98. **Prior to construction of final design**, Plaquemines LNG shall file security camera drawings showing the location, areas covered, and features of the camera (fixed, tilt/pan/zoom, motion detection alerts, low light, mounting height, etc.) to verify camera coverage of the entire perimeter with redundancies and cameras

interior to the facility, including atop the LNG storage tanks, that would enable rapid monitoring of the LNG plant. (Final EIS section 4.12.5)

99. **Prior to construction of final design**, Plaquemines LNG shall file a photometric lighting simulation or other calculations that demonstrate lighting coverage adequately covers, in accordance with API 540, the interior and perimeter of the facility, including in liquefaction blocks, oily water treatment plant area, exterior of buildings, and along paths/roads of access and egress. (Final EIS section 4.12.5)
100. **Prior to construction of final design**, Plaquemines LNG shall file details of fencing with barbed or razor wire, or equivalent, at road crossing that would restrict and deter access. (Final EIS section 4.12.5)
101. **Prior to construction of final design**, Plaquemines LNG shall file drawings of the security fence. The fencing drawings shall provide details of fencing that demonstrates it would restrict and deter access around the entire facility and has a setback from exterior features (e.g., power lines, trees, etc.) and from interior features (e.g., piping, equipment, buildings, etc.) that does not allow the fence to be overcome. (Final EIS section 4.12.5)
102. **Prior to the construction of the final design**, Plaquemines LNG shall provide an evaluation that demonstrates the storm surge barrier, including any gated areas and water discharge through the storm surge barrier, would prevent LNG from extending offsite in the event of a release of the full contents of a LNG storage tank. The evaluation shall also demonstrate whether and how high the sheet piles would need to be protected from embrittlement. (Final EIS section 4.12.5)
103. **Prior to commissioning**, Plaquemines 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. Plaquemines LNG shall file with the Secretary documentation certifying that each of these milestones has been completed before authorization to commence the next phase of commissioning and startup will be issued. (Final EIS section 4.12.5)
104. **Prior to commissioning**, Plaquemines LNG shall file the operation and maintenance procedures and manuals, as well as safety procedures, hot work procedures and permits, abnormal operating conditions reporting procedures, simultaneous operations procedures, and management of change procedures and forms. (Final EIS section 4.12.5)
105. **Prior to commissioning**, Plaquemines LNG shall provide procedures for removing the spent hydrogen sulfide (H₂S) catalyst. (Final EIS section 4.12.5)

106. **Prior to commissioning**, Plaquemines LNG shall tag all equipment, instrumentation, and valves in the field, including drain valves, vent valves, main valves, and car-sealed or locked valves. (Final EIS section 4.12.5)
107. **Prior to commissioning**, Plaquemines LNG shall file and maintain a detailed training log to demonstrate that operating, maintenance and emergency response staff has completed the required training. (Final EIS section 4.12.5)
108. **Prior to commissioning**, Plaquemines LNG shall file detailed plans and procedures for: testing the integrity of onsite mechanical installation; functional tests; introduction of hazardous fluids; operational tests; and placing the equipment into service. (Final EIS section 4.12.5)
109. **Prior to commissioning**, Plaquemines LNG shall file the procedures for pressure/leak tests which address the requirements of American Society of Mechanical Engineers (ASME) VIII and ASME B31.3. (Final EIS section 4.12.5)
110. **Prior to commissioning**, Plaquemines LNG shall file 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, and shall provide justification if not using an inert or non-flammable gas for clean-out, dry-out, purging, and tightness testing. (Final EIS section 4.12.5)
111. **Prior to commissioning**, Plaquemines LNG shall equip the LNG storage tanks and adjacent piping and supports with permanent settlement monitors to allow personnel to observe and record the total and relative settlement between the LNG storage tank and adjacent piping. The settlement record shall be reported in the semi-annual operational reports. (Final EIS section 4.12.5)
112. **Prior to introduction of hazardous fluids**, Plaquemines LNG shall file settlement results from the hydrostatic tests of the LNG storage containers and shall file a plan to periodically verify settlement is as expected and does not exceed the applicable criteria set forth in API 620, API 625, API 653, and ACI 376. (Final EIS section 4.12.5)
113. **Prior to introduction of hazardous fluids**, Plaquemines LNG shall complete all pertinent tests (Factory Acceptance Tests, Site Acceptance Tests, Site Integration Tests) associated with the DCS and SIS that demonstrates full functionality and operability of the system. (Final EIS section 4.12.5)
114. **Prior to introduction of hazardous fluids**, Plaquemines LNG shall develop and implement an alarm management program to ensure effectiveness of process alarms. (Final EIS section 4.12.5)

115. **Prior to introduction of hazardous fluids**, Plaquemines 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). (Final EIS section 4.12.5)
116. **Prior to introduction of hazardous fluids**, Plaquemines LNG shall complete and document foam system and sprinkler system acceptance tests. (Final EIS section 4.12.5)
117. **Prior to introduction of hazardous fluids**, Plaquemines LNG shall complete and document a clean agent acceptance tests. (Final EIS section 4.12.5)
118. **Prior to introduction of hazardous fluids**, Plaquemines LNG shall complete and document a pre-startup safety review to ensure that installed equipment meets the design and operating intent of the facility. The pre-startup safety review shall include any changes since the last hazard review, operating procedures, and operator training. A copy of the review with a list of recommendations, and actions taken on each recommendation, shall be filed. (Final EIS section 4.12.5)
119. Plaquemines LNG shall file a request for written authorization from the Director of OEP **prior to unloading or loading the first LNG commissioning cargo**. **After production of first LNG**, Plaquemines LNG shall file weekly reports on the commissioning of the proposed systems that detail the progress toward demonstrating the facilities can safely and reliably operate at or near the design production rate. The reports shall include a summary of activities, problems encountered, and remedial actions taken. The weekly reports shall also include the latest commissioning schedule, including projected and actual LNG production by each liquefaction train, LNG storage inventories in each storage tank, and the number of anticipated and actual LNG commissioning cargoes, along with the associated volumes loaded or unloaded. Further, the weekly reports shall include a status and list of all planned and completed safety and reliability tests, work authorizations, and punch list items. Problems of significant magnitude shall be reported to the FERC **within 24 hours**. (Final EIS section 4.12.5)
120. **Prior to commencement of service**, Plaquemines LNG shall label piping with fluid service and direction of flow in the field, in addition to the pipe labeling requirements of NFPA 59A (2001 edition). (Final EIS section 4.12.5)
121. **Prior to commencement of service**, Plaquemines LNG shall file any preventative and predictive maintenance program that performs periodic or continuous equipment condition monitoring to ensure mechanical integrity of equipment. (Final EIS section 4.12.5)

122. **Prior to commencement of service**, Plaquemines LNG shall file procedures for offsite contractors' responsibilities, restrictions, and limitations and for supervision of these contractors by Plaquemines LNG staff. (Final EIS section 4.12.5)
123. **Prior to commencement of service**, Plaquemines LNG shall notify the FERC staff of any proposed revisions to the security plan and physical security of the plant. (Final EIS section 4.12.5)
124. **Prior to commencement of service**, Plaquemines LNG shall file a request for written authorization from the Director of OEP. Such authorization would only be granted following a determination by the U.S. Coast Guard, under its authorities under the Ports and Waterways Safety Act, the Magnuson Act, the Maritime Transportation Security Act of 2002, and the Security and Accountability For Every Port Act, that appropriate measures to ensure the safety and security of the facility and the waterway have been put into place by Plaquemines LNG or other appropriate parties. (Final EIS section 4.12.5)

In addition, conditions 126 through 129 shall apply throughout the life of the Plaquemines LNG terminal.

125. The facility shall be subject to regular FERC staff technical reviews and site inspections on at least an **annual basis** or more frequently as circumstances indicate. Prior to each FERC staff technical review and site inspection, Plaquemines 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 P&IDs 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. (Final EIS section 4.12.5)
126. **Semi-annual** operational reports shall be filed to identify changes in facility design and operating conditions; abnormal operating experiences; activities (e.g., LNG marine vessel arrivals, quantity and composition of imported and exported LNG, liquefied and vaporized quantities, boil off/flash gas); and plant modifications, including future plans and progress thereof. Abnormalities shall include, but not be limited to, unloading/loading/shipping problems, potential hazardous conditions from offsite 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 hazardous

fluids and/or from other sources, 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)” shall be included in the semi-annual operational reports. Such information would provide the FERC staff with early notice of anticipated future construction/maintenance at the LNG facilities. (Final EIS section 4.12.5)

127. In the event the temperature of any region of any secondary containment, including imbedded pipe supports, becomes less than the minimum specified operating temperature for the material, the Commission shall be notified **within 24 hours** and procedures for corrective action shall be specified. (Final EIS section 4.12.5)
128. Significant non-scheduled events, including safety-related incidents (e.g., LNG, condensate, refrigerant, or natural gas releases; fires; explosions; mechanical failures; unusual over pressurization; and major injuries) and security-related incidents (e.g., attempts to enter site; and suspicious activities) shall be reported to the FERC staff. In the event that 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 FERC staff **within 24 hours**. This notification practice shall be incorporated into the LNG facility’s emergency plan. Examples of reportable hazardous fluids-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 5 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 a facility that contains, controls, or processes hazardous fluids;
 - g. any crack or other material defect that impairs the structural integrity or reliability of a 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 facilities) plus the build-up allowed for operation of pressure-limiting or control devices;
- i. a leak in a 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 a facility that contains or processes hazardous fluids;
- l. safety-related incidents from hazardous fluids transportation occurring at or en route to and from the LNG facility; 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 terminal'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 FERC 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. (Final EIS section 4.12.5)

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Venture Global Plaquemines LNG, LLC

Docket No. CP17-66-000

Venture Global Gator Express, LLC

Docket No. CP17-67-000

(Issued September 30, 2019)

GLICK, Commissioner, *dissenting*:

1. I dissent from today's order because it violates both the Natural Gas Act¹ (NGA) and the National Environmental Policy Act² (NEPA). In particular, the Commission is again refusing to consider the consequences its actions have for climate change. Neither the NGA nor NEPA permit the Commission to assume away the impact that constructing and operating this liquefied natural gas (LNG) facility and associated natural gas pipeline will have on climate change. Yet that is precisely what the Commission is doing today.

2. In today's order authorizing the Venture Global Plaquemines LNG, LLC export terminal (LNG Terminal) pursuant to section 3 of the NGA and the associated Venture Global Gator Express, LLC natural gas pipeline (Pipeline Project) pursuant to section 7 of the NGA (collectively, Project), the Commission continues to treat climate change differently than all other environmental impacts. The Commission steadfastly refuses to assess whether the impact of the Project's GHG emissions on climate change is significant, even though it quantifies the GHG emissions directly caused by the Project.³ That failure forms an integral part of the Commission's decisionmaking in today's order: The refusal to assess the significance of the Project's contribution to the harm caused by climate change is what allows the Commission to misleadingly state that the Project's environmental impacts will be "less-than-significant"⁴ and, as a result, conclude that the Project satisfies the NGA's public interest standard.⁵ Claiming that a project has no significant environmental impacts while at the same time refusing to assess the

¹ 15 U.S.C. §§ 717b, 717f (2018).

² National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321 *et seq.*

³ *Venture Global Plaquemines LNG, LLC*, 168 FERC ¶ 61,204, at P 96 (2019) (Order); Final Environmental Impact Statement at Table 4.11-4 (Final EIS).

⁴ Order, 168 FERC ¶ 61,204 at P 67; Final EIS at ES-15.

⁵ Order, 168 FERC ¶ 61,204 at PP 19, 26.

significance of the project's impact on the most important environmental issue of our time is not reasoned decisionmaking.

I. The Commission's Public Interest Determinations Are Not the Product of Reasoned Decisionmaking

3. The NGA's regulation of LNG import and export facilities "implicate[s] a tangled web of regulatory processes" split between the U.S. Department of Energy (DOE) and the Commission.⁶ The NGA establishes a general presumption favoring the import and export of LNG unless there is an affirmative finding that the import or export "will not be consistent with the public interest."⁷ Section 3 of the NGA, which governs LNG imports and exports, provides for two independent public interest determinations: one regarding the import or export of LNG itself and one regarding the facilities used for that import or export. DOE determines whether the import or export of LNG is consistent with the public interest, with transactions among free trade countries legislatively deemed to be "consistent with the public interest."⁸ The Commission evaluates whether "an application for the siting, construction, expansion, or operation of an LNG terminal" is itself consistent with the public interest.⁹ Pursuant to that authority, the Commission

⁶ *Sierra Club v. FERC*, 827 F.3d 36, 40 (D.C. Cir. 2016) (*Freeport*).

⁷ 15 U.S.C. § 717b(a); see *EarthReports, Inc. v. FERC*, 828 F.3d 949, 953 (D.C. Cir. 2016) (citing *W. Va. Pub. Servs. Comm'n v. Dep't of Energy*, 681 F.2d 847, 856 (D.C. Cir. 1982) ("NGA [section] 3, unlike [section] 7, 'sets out a general presumption favoring such authorization.'")). Under section 7 of the NGA, the Commission approves a proposed pipeline if it is shown to be consistent with the public interest, while under section 3, the Commission approves a proposed LNG import or export facility unless it is shown to be inconsistent with the public interest. Compare 15 U.S.C. §717b(a) with 15 U.S.C. §717f(a), (e).

⁸ 15 U.S.C. § 717b(c). The courts have explained that, because the authority to authorize the LNG exports rests with DOE, NEPA does not require the Commission to consider the upstream or downstream GHG emissions that may be indirect effects of the export itself when determining whether the related LNG export facility satisfies section 3 of the NGA. See *Freeport*, 827 F.3d at 46-47; see also *Sierra Club v. FERC*, 867 F.3d 1357, 1373 (D.C. Cir. 2017) (*Sabal Trail*) (discussing *Freeport*). Nevertheless, NEPA requires that the Commission consider the direct GHG emissions associated with a proposed LNG export facility. See *Freeport*, 827 F.3d at 41, 46.

⁹ 15 U.S.C. § 717b(e). In 1977, Congress transferred the regulatory functions of NGA section 3 to DOE. DOE, however, subsequently delegated to the Commission authority to approve or deny an application for the siting, construction, expansion, or

must approve a proposed LNG facility unless the record shows that the facility would be inconsistent with the public interest.¹⁰

4. As part of that determination, the Commission examines a proposed facility's impact on the environment and public safety. A facility's impact on climate change is one of the environmental impacts that must be part of a public interest determination under the NGA.¹¹ Nevertheless, the Commission maintains that it need not consider whether the Project's contribution to climate change is significant in this order because it lacks a means to do so—or at least so it claims.¹² However, the most troubling part of the Commission's rationale is what comes next. Based on this alleged inability to assess significance when it comes to climate change, the Commission concludes that the Project's environmental impacts will be “less-than-significant.”¹³ Think about that. The Commission is saying out of one side of its mouth that it cannot assess the significance of the Project's impact on climate change¹⁴ while, out of the other side of its mouth, assuring us that all environmental impacts are insignificant.¹⁵ That is ludicrous,

operation of an LNG terminal, while retaining the authority to determine whether the import or export of LNG to non-free trade countries is in the public interest. *See EarthReports*, 828 F.3d at 952-53.

¹⁰ *See Freeport*, 827 F.3d at 40-41.

¹¹ *See Sabal Trail*, 867 F.3d at 1373 (explaining that the Commission must consider a pipeline's direct and indirect GHG emissions because the Commission may “deny a pipeline certificate on the ground that the pipeline would be too harmful to the environment”); *see also Atl. Ref. Co. v. Pub. Serv. Comm'n of N.Y.*, 360 U.S. 378, 391 (1959) (holding that the NGA requires the Commission to consider “all factors bearing on the public interest”).

¹² Order, 168 FERC ¶ 61,204 at P 97; Final EIS at 4-333.

¹³ Order, 168 FERC ¶ 61,204 at P 67 Final EIS at ES-15.

¹⁴ Order, 168 FERC ¶ 61,204 at P 97; Final EIS at 4-333 (“We are unable to determine the significance of the Project's contribution to climate change.”)

¹⁵ Order, 168 FERC ¶ 61,204 at P 67; Final EIS at ES-15 (asserting that the Project's adverse environmental impacts “would be reduced to less-than-significant levels with the implementation” of certain mitigation measures).

unreasonable, and an abdication of our responsibility to give climate change the “hard look” that the law demands.¹⁶

5. It also means that the Project’s impact on climate change cannot play a meaningful role in the Commission’s public interest determination, no matter how often the Commission assures us that it does. Using the approach in today’s order, the Commission will always conclude that a project will not have a significant environmental impact irrespective of the project’s actual GHG emissions or those emissions’ impact on climate change. If the Commission’s conclusion will not change no matter how many GHG emissions a project causes, those emissions cannot, as a logical matter, play a meaningful role in the Commission’s public interest determination. A public interest determination that systematically excludes the most important environmental consideration of our time is contrary to law, arbitrary and capricious, and not the product of reasoned decisionmaking.

6. The Commission’s failure is all-the-more troubling because of the volume of emissions it is ignoring in this proceeding. The Final EIS indicates that the Project will directly emit more than 8 million tons of GHGs each year.¹⁷ That is equivalent to the annual GHG emissions of 1.75 million automobiles¹⁸ or, in other words, more cars than there are in the entire state of Louisiana, where the Project is located.¹⁹ The decision to

¹⁶ See, e.g., *Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1322 (D.C. Cir. 2015) (explaining that agencies cannot overlook a single environmental consequence if it is even “arguably significant”); see also *Michigan v. EPA*, 135 S. Ct. 2699, 2706 (2015) (“Not only must an agency’s decreed result be within the scope of its lawful authority, but the process by which it reaches that result must be logical and rational.”) (internal quotation marks omitted); *Motor Vehicle Mfrs. Ass’n, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (explaining that agency action is “arbitrary and capricious if the agency has . . . entirely failed to consider an important aspect of the problem, [or] offered an explanation for its decision that runs counter to the evidence before the agency.”).

¹⁷ Final EIS at Table 4.11-4; Order, 168 FERC ¶ 61,204 at P 96 (reporting the same volume, but expressed in short tons rather than metric tons).

¹⁸ This figure was calculated using the U.S. Environmental Protection Agency’s Greenhouse Gas Equivalencies Calculator. See U.S. Env’tl. Prot. Agency, Greenhouse Gas Equivalencies Calculator, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator> (last visited Sept. 29, 2019).

¹⁹ U.S. Dep’t of Transp., Fed. Highway Admin., *State Motor-Vehicle Registrations - 2017* (Jan. 2019), <https://www.fhwa.dot.gov/policyinformation/statistics/2017/mv1.cfm#foot2> (reporting 1,389,436 automobiles registered in Louisiana).

exclude those emissions from playing any role in the Commission's public interest determination is indefensible, especially given the undisputed fact that the Project's GHG emissions will contribute to climate change.²⁰

II. The Commission Fails to Satisfy Its Obligations under NEPA

7. The Commission's NEPA analysis is similarly flawed. In order to evaluate the environmental consequences of the Project under NEPA, the Commission must consider the harm caused by the Project's GHG emissions and "evaluate the 'incremental impact' that these emissions will have on climate change or the environment more generally."²¹ As noted, the Final EIS states that the Project will directly emit more than 8 million tons of GHGs annually.²² Although that quantification of the Project's GHG emissions is a necessary step toward meeting the Commission's NEPA obligations, listing the volume of emissions alone is insufficient.²³

²⁰ Final EIS at 4-333 ("Construction and operation of the Project would increase the atmospheric concentration of GHGs in combination with past, current, and future emissions from all other sources globally and contribute incrementally to future climate change impacts."); *see also id.* at 4-331 (explaining that climate change is "driven by accumulation of GHG in the atmosphere through combustion of fossil fuels (coal, petroleum, and natural gas), combined with agriculture, clearing of forests, and other natural sources").

²¹ *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1216 (9th Cir. 2008); *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 51 (D.D.C. 2019) (explaining that the agency was required to "provide the information necessary for the public and agency decisionmakers to understand the degree to which [its] decisions at issue would contribute" to the "impacts of climate change in the state, the region, and across the country").

²² Final EIS at Table 4.11-4.

²³ *See Ctr. for Biological Diversity*, 538 F.3d at 1216 ("While the [environmental document] quantifies the expected amount of CO₂ emitted . . . , it does not evaluate the 'incremental impact' that these emissions will have on climate change or on the environment more generally"); *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 995 (9th Cir. 2004) ("A calculation of the total number of acres to be harvested in the watershed is a necessary component . . . , but it is not a sufficient description of the actual environmental effects that can be expected from logging those acres.").

8. As an initial matter, identifying the consequences that those emissions will have for climate change is essential if NEPA is to play the disclosure and good government roles for which it was designed. The Supreme Court has explained that NEPA’s purpose is to “ensure[] that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts” and to “guarantee[] that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision.”²⁴ It is hard to see how hiding the ball by refusing to assess the significance of a project’s climate impacts is consistent with either of those purposes.

9. In addition, under NEPA, a finding of significance informs the Commission’s inquiry into potential ways of mitigating environmental impacts.²⁵ An EIS must “contain a detailed discussion of possible mitigation measures” to address adverse environmental impacts.²⁶ “Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects” of a project, making an examination of possible mitigation measures necessary to ensure that the agency has taken a “hard look” at the environmental consequences of the action at issue.²⁷

10. The Commission responds that it need not determine whether the Project’s contribution to climate change is significant because “[t]here is no universally accepted methodology” for assessing the harms caused by the Project’s contribution to climate change.²⁸ But the lack of a single consensus methodology does not prevent the Commission from adopting *a* methodology, even if that methodology is not universally accepted. The Commission could, for example, select one methodology to inform its reasoning while also disclosing the potential limitations of that methodology or it could

²⁴ *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 768 (2004) (citing *Robertson v. Methow Valley Citizens Coun.*, 490 U.S. 332, 349 (1989)).

²⁵ 40 C.F.R. § 1502.16 (2018) (NEPA requires an implementing agency to form a “scientific and analytic basis for the comparisons” of the environmental consequences of its action in its environmental review, which “shall include discussions of . . . [d]irect effects and their significance.”).

²⁶ *Robertson*, 490 U.S. at 351.

²⁷ *Id.* at 352; *see also* 40 C.F.R. §§ 1508.20 (defining mitigation), 1508.25 (including in the scope of an environmental impact statement mitigation measures).

²⁸ Final EIS at 4-333; *see also* Order, 168 FERC ¶ 61,204 at P 97 (acknowledging that the Project will contribute to climate change but claiming that it cannot determine whether that contribution—or the resulting harm—will be significant).

employ multiple methodologies to identify a range of potential impacts on climate change. In refusing to assess a project's climate impacts without a perfect model for doing so, the Commission sets a standard for its climate analysis that is higher than it requires for any other environmental impact.

11. In any case, the Commission has several tools to assess the harm from the Project's contribution to climate change. For example, by measuring the long-term damage done by a ton of carbon dioxide, the Social Cost of Carbon links GHG emissions to the environmental harm caused by climate change, thereby facilitating the necessary "hard look" at the Project's environmental impacts that NEPA requires. Especially when it comes to a global problem like climate change, a measure for translating a single project's climate change impacts into concrete and comprehensible terms plays a useful role in the NEPA process by putting the harm in terms that are readily accessible for both agency decisionmakers and the public at large. Yet, the Commission continues to ignore the Social Cost of Carbon, relying instead on deeply flawed reasoning that I have previously critiqued at length.²⁹

12. Furthermore, even without a formal tool or methodology, the Commission can use its expertise and discretion to consider all factors and determine, quantitatively or qualitatively, whether the Project's GHG emissions will have a significant impact on climate change. That is precisely what the Commission does in other aspects of its environmental review. For example, consider the Commission's evaluation of the Project's impact on wetlands. The Final EIS finds that the Project would cause a permanent loss of 368 acres of wetlands—which it deems to be "substantial"—but then proceeds to conclude that the impact on wetlands will not be significant.³⁰ The Final EIS does not rely on a "universally accepted methodology"³¹ for assessing impacts on wetlands to reach that determination. Instead, the Commission makes a judgment call based on its assessment of the evidence in the record. Indeed, throughout today's order

²⁹ See, e.g., *Fla. Se. Connection, LLC*, 164 FERC ¶ 61,099 (2018) (Glick, Comm'r, dissenting).

³⁰ Final EIS at 4-41 ("[W]etland impacts would not be significant, and the impacts on wetlands would be further reduced with [the developer's] proposed wetland mitigation").

³¹ *Id.* at 4-333.

and in the Final EIS, the Commission makes several other significance determinations without the tools it claims it needs to assess the significance of the Project's impact on climate change.³² The Commission's refusal to similarly analyze the Project's impact on climate change is arbitrary and capricious.

13. And even if the Commission were to determine that the Project's GHG emissions are significant, that would not end its analysis of the adverse impacts. Instead, as noted above, the Commission could blunt those impacts through mitigation—as the Commission often does with regard to other environmental impacts.³³ The Supreme Court has held that an EIS must “contain a detailed discussion of possible mitigation measures” to address adverse environmental impacts.³⁴ As noted above, “[w]ithout such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects.”³⁵ Consistent with this obligation, the Final EIS discusses mitigation measures to ensure that the Project's adverse environmental impacts (other than its GHG emissions) are reduced to less-than-significant levels.³⁶ And

³² See, e.g., Order, 168 FERC ¶ 61,204 at P 68 (“[T]he projects’ impact on geological resources would be adequately minimized and not significant”); *id.* PP 74-75 (finding that the Project's impact on vegetation—including the coastal live oak-hackberry forest, a “vegetation community of special concern”—“would be permanent, but minor”); *id.* P 76 (“Impacts on wildlife, including migratory birds and colonial waterbirds, would be less than significant.”); *id.* at P 81 (concluding that the Project's impact on over 700 acres of land would not be significant).

³³ Today's order is a perfect example of how mitigation measures can facilitate a public interest finding. The Final EIS finds that the Project would have significant adverse impacts, but that the proposed mitigation measures will reduce those impacts to less-than-significant levels. Final EIS at ES-15. Although I do not believe that the Commission can rationally make that finding so long as it refuses to assess the significance of the Project's impact on climate change, that finding, flawed as it is, illustrates the role that mitigation can play in finding that a project satisfies the public interest standard. The Commission's authority to impose conditions arises from the requirement that the project must be in the public interest—not some other congressional direction to mitigate adverse impacts—and, in practice, can help to facilitate that finding.

³⁴ *Robertson*, 490 U.S. at 351.

³⁵ *Id.* at 351-52; see also 40 C.F.R. §§ 1508.20 (defining mitigation), 1508.25 (including in the scope of an environmental impact statement mitigation measures).

³⁶ See, e.g., Final EIS at 4-41 (discussing mitigation measures for certain wetlands); *id.* at 4-58—4-59 (discussing mitigation measures for noise associated with

throughout today's order, the Commission uses its conditioning authority under section 3 and section 7 of the NGA³⁷ to implement these mitigation measures, which support its public interest finding.³⁸ Once again, however, the Project's climate impacts are treated differently, as the Commission refuses to identify any potential climate mitigation measures or discuss how such measures might affect the magnitude of the Project's impact on climate change.

14. Finally, the Commission's refusal to seriously consider the significance of the impact of the Project's GHG emissions is even more mystifying because NEPA "does not dictate particular decisional outcomes."³⁹ NEPA "merely prohibits uninformed—rather than unwise—agency action."⁴⁰ The Commission could find that a project contributes significantly to climate change, but that it is nevertheless in the public interest because its benefits outweigh its adverse impacts, including on climate change. In other words, taking the matter seriously—and rigorously examining a project's impacts on climate change—does not necessarily prevent any of my colleagues from ultimately concluding that a project satisfies the relevant public interest standard.

For these reasons, I respectfully dissent.

Richard Glick
Commissioner

pile driving); *id.* at 4-63—4-65 (discussing mitigation measures to protect migratory birds).

³⁷ 15 U.S.C. § 717b(e)(3)(A); *id.* § 717f(e); Order, 168 FERC ¶ 61,204 at P 105 (“[T]he Commission has the authority to take whatever steps are necessary to ensure the protection of environmental resources . . . , including authority to impose any additional measures deemed necessary . . .”).

³⁸ *See* Order, 168 FERC ¶ 61,204 at PP 68-94 (discussing the Final EIS's environmental analysis and requiring various mitigation measures discussed therein).

³⁹ *Sierra Club v. U.S. Army Corps of Engineers*, 803 F.3d 31, 37 (D.C. Cir. 2015).

⁴⁰ *Id.* (quoting *Robertson*, 490 U.S. at 351).