

173 FERC ¶ 61,253
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: James P. Danly, Chairman;
Neil Chatterjee and Richard Glick.

Trans-Foreland Pipeline Company LLC

Docket No. CP19-118-000

ORDER GRANTING AUTHORIZATION UNDER SECTION 3 OF THE
NATURAL GAS ACT

(Issued December 17, 2020)

1. On March 29, 2019, Trans-Foreland Pipeline Company LLC (Trans-Foreland) filed an application pursuant to section 3 of the Natural Gas Act (NGA)¹ and Part 153 of the Commission's regulations² for authorization to construct, modify, and operate new facilities for the import of liquefied natural gas (LNG) at Trans-Foreland's existing Kenai LNG export terminal (Kenai LNG Terminal) in Nikiski, Kenai Peninsula Borough, Alaska (Kenai LNG Cool Down Project). For the reasons discussed below, we will grant Trans-Foreland's requested authorization, subject to the conditions in this order.

I. Background and Proposal

2. Trans-Foreland, a limited liability company organized under the laws of Delaware, is a wholly owned subsidiary of Tesoro Alaska Company LLC, which also owns and operates the Kenai Refinery adjacent to the Kenai LNG Terminal. In 2018, Trans-Foreland became the sole owner of the stock interest and assets of ConocoPhillips Alaska Natural Gas Corporation (ConocoPhillips), the entity that owned the Kenai LNG Terminal and holds the section 3 authorization for the terminal.³ Kenai LNG LLC, a

¹ 15 U.S.C. § 717b.

² 18 C.F.R. pt. 153 (2020).

³ Trans-Foreland, Letter to Secretary Kimberly D. Bose, Docket No. CP09-34-000 (filed May 2, 2018).

subsidiary of Trans-Foreland, and Tesoro Alaska Company LLC own and operate the terminal, respectively.⁴

3. The existing Kenai LNG Terminal includes a pretreatment facility, a 0.2 billion cubic feet per day (Bcf/day) liquefaction unit, three 35,000-cubic-meter LNG storage tanks, a boil-off gas management system, a marine loading/unloading dock, and ancillary facilities. The terminal has not exported LNG since 2015 and has been maintained in a warm idle state since 2018.

4. To convert the Kenai LNG Terminal to an import terminal, Trans-Foreland proposes to construct: (1) a skid-mounted, electric-powered trim LNG vaporizer module consisting of 10 trim LNG vaporizers; (2) a 1,000 horsepower (hp), electric-driven boil-off gas booster compressor; (3) a vaporizer feed pump; (4) an LNG circulation pump; (5) twelve new valves and minor piping rearrangements; and (6) appurtenant facilities. Trans-Foreland states that all construction will occur within the boundary of the Kenai LNG Terminal. Approximately one month prior to in-service, Trans-Foreland plans to apply for authorization from the U.S. Department of Energy's (DOE) Office of Fossil Energy to import LNG at the Kenai LNG Terminal.

5. In addition, Trans-Foreland proposes to return the terminal's existing storage tanks, marine dock, transfer piping, boil-off gas management system, and ancillary facilities to an active state. Trans-Foreland would import up to four tanker loads of LNG per year⁵ and use its boil-off gas management system to deliver imported gas to the Kenai Refinery.⁶ Trans-Foreland estimates the project will allow for the delivery of 3,500 to 7,000 million

⁴ Trans-Foreland, Tesoro Alaska Company LLC, and Kenai LNG LLC are all wholly owned subsidiaries of Marathon Petroleum Company. Trans-Foreland March 20, 2020 Filing at 3.

⁵ The existing liquefaction equipment at the Kenai LNG Terminal has the operational capacity to produce up to 1.63 million metric tons per annum (MTPA) of LNG per year. However, authorization from the U.S. Department of Energy (DOE)'s Office of Fossil Energy to export LNG from the Kenai LNG Terminal expired in 2018, and Trans-Foreland does not propose to return the liquefaction portion of the plant to an active state.

⁶ During periods when boil-off gas generation is insufficient to meet the refinery's needs, a portion of the LNG would be vaporized and delivered to the Kenai Refinery along with the boil-off gas.

British thermal units (MMBtu) per day of gas to the Kenai Refinery. The annual capacity of Trans-Foreland's import terminal would be 1.825 million MMBtu per year.⁷

II. Procedural Issues

A. Notice, Interventions, and Comments

6. Notice of Trans-Foreland's application was published in the *Federal Register* on April 18, 2019,⁸ with interventions, comments, and protests due on or before May 3, 2019. Alaska Gasline Development Corporation, BP Alaska LNG LLC, and ExxonMobil Alaska LNG LLC filed timely, unopposed motions to intervene.⁹ No comments were filed.

B. Transfer of Section 3 Authorization

7. Trans-Foreland requests that ConocoPhillips Alaska Natural Gas Corporation's section 3 authorization be assigned to Trans-Foreland. Assignment of the section 3 authorization to Trans-Foreland constitutes a transfer of an existing authorization, and is thereby subject to the Commission's jurisdiction and the requirements of NGA section 3 and section 153.9(a) of the Commission's regulations.¹⁰ The proposed transfer of authorization is an administrative modification which will not alter any of the terms and conditions of the existing NGA section 3 authorization. Accordingly, we conclude it is not inconsistent with the public interest to permit the assignment of the section 3 authorization for the Kenai LNG Terminal to Trans-Foreland.

III. Discussion

A. Public Interest Standard

8. Because the proposed facilities will be used to import natural gas from foreign countries, the construction and operation of the proposed facilities and site of their

⁷ Trans-Foreland's annual capacity is based on average deliveries of 5,000 MMBtu per day, although the terminal would be capable of delivering up to 7,000 MMBtu per day.

⁸ 84 Fed. Reg. 16,256 (April 18, 2019).

⁹ Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.214(c)(1) (2020).

¹⁰ 18 C.F.R. § 153.9(a) (2020) (authorizations for import and export facilities under NGA section 3 "shall not be transferable or assignable without prior Commission authorization.").

location require approval by the Commission under section 3 of the NGA.¹¹ While 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.”¹² NGA section 3(a) also provides that, for good cause shown, the Commission may make supplemental orders as it may find “necessary or appropriate.”¹³

9. We have reviewed Trans-Foreland’s application to determine if the proposed modifications would not be consistent with the public interest.¹⁴ The Kenai LNG Cool Down Project will enable Trans-Foreland to import LNG at the existing Kenai LNG Terminal and deliver up to 7,000 MMBtu per day of gas to the Kenai Refinery. The project is located entirely within the existing terminal site and, as discussed below, the Environmental Assessment (EA) prepared by Commission staff for the project finds

¹¹ The regulatory functions of NGA section 3 were transferred to the Secretary of Energy of the DOE 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.* The Secretary subsequently delegated to the Commission the authority to approve or disapprove the construction and operation of natural gas import and export facilities and the site at which such facilities shall be located. The most recent delegation is in DOE Delegation Order No. 00-004.00A, effective May 16, 2006. The Commission does not authorize importation or exportation of the commodity itself. Rather, applications for authorization to import or export natural gas must be submitted to the DOE. *See EarthReports, Inc. v. FERC*, 828 F.3d 949, 952–53 (D.C. Cir. 2016) (*EarthReports*) (detailing how regulatory oversight for the export of LNG and supporting facilities is divided between the Commission and DOE).

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

¹³ 15 U.S.C. § 717b(a).

¹⁴ *See Nat’l Steel Corp.*, 45 FERC ¶ 61,100, at 61,332–33 (1988) (observing that DOE, “pursuant to its exclusive jurisdiction, has approved the importation with respect to every aspect of it except the point of importation” and that the “Commission’s authority in this matter is limited to consideration of the place of importation, which necessarily includes the technical and environmental aspects of any related facilities.”).

impacts from the construction and operation of the facilities will not constitute a major federal action significantly affecting the quality of the human environment.

10. In accordance with the Memorandum of Understanding signed on August 31, 2018, by the Commission and the Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA),¹⁵ PHMSA undertook a review of the proposed project's ability to comply with the federal safety standards contained in Part 193, Subpart B, of Title 49 of the Code of Federal Regulations.¹⁶ On March 25, 2020, PHMSA issued a Letter of Determination indicating that Trans-Foreland had demonstrated that the siting of the proposed project complies with these 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.

11. Trans-Foreland states that the LNG terminal will not be used to provide service to any non-affiliated third parties and Trans-Foreland will solely bear the responsibility for the recovery of any costs associated with construction and operation of the terminal. Accordingly, Trans-Foreland's proposal does not trigger NGA section 3(e)(4).¹⁷

12. In view of the above, we find that, subject to the conditions imposed in this order, Trans-Foreland's proposal is not inconsistent with the public interest. Therefore, we will grant Trans-Foreland's application for authorization under section 3 of the NGA to construct and operate its proposed Kenai LNG Cool Down Project.

B. Environmental Analysis

13. On May 13, 2019, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment for the Proposed Kenai LNG Cool Down Project and Request for Comments on Environmental Issues* (NOI). The NOI was published in the *Federal Register* on May 17, 2019,¹⁸ and mailed to interested parties including federal, state, and

¹⁵ *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/sites/default/files/2020-05/FERC-PHMSA-MOU_0.pdf (accessed Sept. 3, 2020).

¹⁶ 49 C.F.R. pt. 193, subpt. B (2020).

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

¹⁸ 84 Fed. Reg. 22,480 (May 17, 2019).

local officials; agency representatives; environmental and public interest groups; Native American tribes; local libraries and newspapers; and affected landowners with homes within certain distances of aboveground facilities. In response, we received comments from the Alaska State Historic Preservation Office, Alaska Department of Environmental Conservation (ADEC), and the Environmental Protection Agency (EPA) concerning water quality, aquatic resources, permafrost and vegetation, solid waste, hazardous materials and wastewater management, endangered species, seismic risks, cumulative effects, air quality, climate adaption, cultural resources, tribal consultation, environmental justice, permits and authorizations, and monitoring management topics.¹⁹ All substantive comments received in response to the NOI are addressed in the Environmental Assessment (EA).

14. To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA),²⁰ Commission staff prepared an EA to evaluate the potential environmental impacts of the proposed project. The U.S. Department of Energy, PHMSA, and U.S. Coast Guard (Coast Guard) participated as cooperating agencies in this process. The analysis in the EA addresses geology, soil, water resources, fisheries and other aquatic organisms, cultural resources, land use and visual resources, socioeconomics and environmental justice, air quality and noise, reliability and safety, cumulative impacts, and alternatives. All substantive comments received in response to the NOI were addressed in the EA. The EA was issued for a 30-day comment period and placed into the public record on September 3, 2020. In response to the EA, we received comments from the Alaska Department of Fish and Game (ADFG), EPA, and ADEC.²¹ On November 3, 2020, Trans-Foreland filed responses to the agencies' comments.²²

1. Project Facilities

15. The ADEC comments that it is not clear what existing facilities Trans-Foreland proposes to use during operation of the project and states that the previous owner of the Kenai LNG Terminal, ConocoPhillips, operated the Kenai LNG Terminal with

¹⁹ Alaska State Historic Preservation Office May 31, 2019 Comment; ADEC June 12, 2020 Comment; EPA June 13, 2020 Comment.

²⁰ 42 U.S.C. § 4321 *et seq*; *see also* the Commission's NEPA regulations at 18 C.F.R. pt. 380 (2020).

²¹ ADFG October 5, 2020 Comment; EPA October 5, 2020 Comment; ADEC October 5, 2020 Comment.

²² Trans-Foreland November 3, 2020 Response.

15 emission units.²³ The ADEC requests a complete list of what existing emission units Trans-Foreland would make use of as a part of the project operation to help fully assess the potential air quality and visibility impacts.

16. Trans-Foreland would make use of the following existing Kenai LNG Terminal equipment: the marine facility and associated marine transfer piping; three LNG Storage Tanks with associated piping and pumps; a vent stack; vapor blowers C-720 and C-730; the C-702 fuel compressor system (consisting of suction drum, compressor, and aftercooler); sendout piping to refinery; existing utilities, including lighting; on-site power; a control system; nitrogen generation; plant air; utility air; utility water; and fire water.

2. Jurisdiction of LNG Carriers

17. The EPA comments that the Commission should identify the agency that has jurisdictional authority for LNG carriers.²⁴ As stated in section B.9.1 of the EA, the Coast Guard has jurisdictional authority for LNG carriers traversing Cook Inlet to and from the Kenai LNG Terminal, and the Coast Guard's Safety and Liquefied Natural Gas Carriers Regulatory Requirements address regulatory requirements for LNG carriers.²⁵

3. Threatened and Endangered Species

18. ADFG notes that a portion of Cook Inlet has been proposed as critical habitat for the federally threatened Humpback Whale - Mexico Distinct Population Segment.²⁶ On October 9, 2019, the National Marine Fisheries Service (NMFS) issued a Proposed Rule to Designate Critical Habitat for the Central America, Mexico, and Western Northern Pacific Distinct Population Segments of Humpback Whales.²⁷ In this proposed rule, NMFS designates a portion of Cook Inlet as critical habitat.²⁸ However, NMFS has yet to issue a final rule and it is not known if and when a final rule may be issued. Therefore, it would be premature for Commission staff to address potential impacts on critical

²³ ADEC October 5, 2020 Comment at 1. An emission unit is an individual piece of equipment that emits air pollutants at a stationary source.

²⁴ EPA October 5, 2020 Comment at 2.

²⁵ EA at 50.

²⁶ ADFG October 5, 2020 Comment.

²⁷ 84 Fed. Reg. 54,354 (Oct. 9, 2019).

²⁸ *Id.* at 54,368.

habitat for the Humpback Whale - Mexico Distinct Population Segment. Further, Trans-Foreland is not proposing any modifications to the marine dock, so we do not expect any project-related impacts on the Humpback Whale, and the LNG carriers are outside of the Commission's jurisdiction. Should NMFS issue a final rule designating critical habitat in Cook Inlet for the Humpback Whale, our environmental staff will communicate with NMFS to determine if additional consultation is necessary.

19. The EPA comments that the Commission should include additional information pertaining to noise impacts on Beluga whales.²⁹ Cook Inlet Beluga Whales are a federally listed endangered species, and the EA describes Commission staff's Endangered Species Act (ESA) consultation process for this and other species.³⁰ Since issuance of the EA, the Commission's environmental staff requested concurrence from NMFS in a letter dated September 22, 2020, that included the EA as the biological assessment (BA) for the project.³¹ In the EA/BA, Commission staff acknowledges that noise affects marine mammals and other species, and staff explicitly states that LNG ship-generated noise could affect federally listed threatened and endangered species.³² However, federally listed species occurring in Cook Inlet are accustomed to ship traffic and have become (to some extent) habituated to this traffic and its effects. Additionally, listed species presence in Cook Inlet is often transitory or seasonal. Further, given the relatively small number of ships that would be used during operation of the project (four per year) compared to the existing ship traffic within Cook Inlet (about 490 ships of 300 gross tons or more per year), Commission staff concludes that the additional noise impact resulting from the proposed ship traffic would be minimal.³³ Based on Commission staff's review of the project, the EA states that LNG carriers associated with the project are *not likely to adversely affect* federally listed threatened and endangered species.³⁴ Furthermore, to ensure that impacts on federally listed threatened and endangered species are adequately addressed, the EA includes a recommendation that we are adopting as Environmental Condition 14 in the appendix to this authorization, that prevents Trans-Foreland from beginning any construction activities until the ESA

²⁹ EPA October 5, 2020 Comment at 2.

³⁰ EA at 12–14, 25–29.

³¹ Commission September 22, 2020 Letter to the National Marine Fisheries Service Requesting Concurrence.

³² EA at 25.

³³ *Alaska Gasline Dev. Corp.*, Final Environmental Impact Statement at 4-393, Docket No. CP17-178-000, at 4-393 (Mar. 6, 2020).

³⁴ EA at 26.

consultation process is complete.³⁵ Therefore, we conclude that the Commission has appropriately addressed noise impacts on Beluga whales.

20. The EPA also states that the Commission should describe in greater detail the measures included in the *Vessel Strike Avoidance Measures and Reporting for Mariners*.³⁶ The *Vessel Strike Avoidance Measures and Reporting for Mariners* is a publicly available document accessible from NMFS' Additional Agency Guidance (under the Protected Species Management heading) website.³⁷ Vessel strike avoidance measures include crew training to identify protected species, watching for protected species, reduced vessel speeds, distance recommendations when protected species are sighted, and protected species observance reporting.³⁸

21. Finally, the EPA comments that the Commission should encourage Trans-Foreland to implement measures to minimize lighting impacts on threatened and endangered bird species.³⁹ In section B.4.3 of the EA, staff finds that constructing and operating the project would result in *no effect* on federally listed species managed by the U.S. Fish and Wildlife Service including listed bird species.⁴⁰ Additionally, the EA addresses lighting system requirements⁴¹ and considered EPA's recommendation that Trans-Foreland implement measures to minimize lighting impacts on threatened and endangered bird species. Based on Trans-Foreland's response to a staff information request that "minimal lighting will be installed for operation of the new facilities, as all new equipment will be installed within the existing facility that is already adequately lit," the requirement that Trans-Foreland file lighting drawings for the project facilities as stipulated in Environmental Condition 24, and staff's analysis of threatened and endangered species, we conclude that bird species are already affected by the existing

³⁵ *Id.*; see also Environmental Condition 14.

³⁶ EPA October 5, 2020 Comment at 2.

³⁷ See *Additional Agency Guidance*, NAT'L MARINE FISHERIES SERV., *Vessel Strike Avoidance Measures and Reporting for Mariners*, <https://www.fisheries.noaa.gov/resource/document/additional-agency-guidance> (accessed Nov. 17, 2020) (providing access to the *Vessel Strike Avoidance Measures and Reporting for Mariners*).

³⁸ Nat'l Marine Fisheries Serv., *Vessel Strike Avoidance Measures and Reporting for Mariners* (2008).

³⁹ EPA October 5, 2020 Comment at 2.

⁴⁰ EA at 26.

⁴¹ *Id.* at 57.

lighting and additional minimization measures for the new lighting are not necessary.⁴² These minor changes would not significantly impact protected bird species beyond those impacts experienced from the existing lighting.

4. Air Quality

22. The EPA comments that the Commission should require that Trans-Foreland adopt a Construction Emissions Mitigation Plan, and require additional mitigation measures to reduce construction emissions.⁴³ Section B.8.1.6 of the EA states that Trans-Foreland would require its contractors to meet all federal, state, and local air quality regulations and emission standards applicable to construction equipment, and would minimize fugitive dust emissions by applying water on disturbed areas during construction.⁴⁴ In its response to comments on the EA, Trans-Foreland asserts that it would maintain equipment in accordance with the manufacturers' recommendations and minimize engine idling to the extent practicable.⁴⁵ Based on the relatively minor quantity of construction emissions, and given the temporary and short duration of construction activities (i.e., 5 months), we do not find that it is warranted to require Trans-Foreland to develop and maintain a Construction Emissions Mitigation Plan, or to adopt additional construction emission mitigation measures beyond those already committed to by Trans-Foreland.

23. Next, the EPA requests that the EA provide figures or graphs to illustrate project operational emissions.⁴⁶ Tables 5 through 8 quantify the project's operational emissions.⁴⁷

24. The ADEC asserts that the EA's language regarding the lack of applicable ambient standards or emission limits for greenhouse gases (GHG) under the Clean Air Act is dependent on the ADEC's review of the Kenai LNG Terminal's air quality permit, and that a Prevention of Significant Deterioration (PSD) permit may require limitations on GHGs in support of Best Available Control Technology findings.⁴⁸ The ADEC also

⁴² Trans-Forelands July 17, 2019 Response to Staff Information Request at 15.

⁴³ EPA October 5, 2020 Comment at 1.

⁴⁴ EA at 40.

⁴⁵ Trans-Foreland November 3, 2020 Response at 6.

⁴⁶ EPA October 5, 2020 Comment at 1–2.

⁴⁷ EA at 41–43.

⁴⁸ ADEC October 5, 2020 Comment at 2.

notes that the EA's discussion on PSD and New Source Review (NSR) could be further refined by stating that PSD/NSR applicability is determined by both the size and type of proposed project.⁴⁹ The ADEC comments that the EA's statement that the project would not "trigger the need for a pre-construction permit from ADEC" is premature and the ADEC has not yet made a final determination if a pre-construction permit is necessary.⁵⁰

25. The ADEC also notes that upcoming revisions to the Regional Haze State Implementation Plan indicate that emissions from this project may have the potential to impact both the Denali National Park and the Tuxedni National Wildlife Refuge area, and ADEC's planning and regulatory process may result in additional requirements on Trans-Foreland to address impacts.⁵¹ The ADEC avers that the EA's conclusion that no adverse impacts to the nearest Class 1 area, Tuxedni National Wilderness Refuge, would occur as a result of the project should be modified to state: "it is likely that there will be no substantive impacts to the Class 1 area, but that determination will be made through air emissions modeling in the department's regulatory processes."⁵²

26. As stated in section B.8.1.7 of the EA, project operation would not result in a significant quantity of criteria pollutant emissions that would result in visibility impacts at nearby Class 1 areas.⁵³ However, we understand that the ADEC may find it appropriate to require additional permitting responsibilities and air quality modeling from Trans-Foreland. Section A.10 of the EA notes that Trans-Foreland would be responsible for obtaining all permits and approvals required for the project, regardless of their inclusion in the EA.⁵⁴ Therefore, while the EA reflects Trans-Foreland's understanding of the applicable permits necessary for the project at the time of the application filing, additional air permits may be required of Trans-Foreland that are not addressed in the EA. Additionally, we note that ADEC's permitting requirements do not impact the EA's conclusions that operation of the project would not result in significant impacts on air quality.

27. ADEC also comments that the construction emissions impacts and mitigation section of the EA does not provide a discussion of itinerant fuel burning equipment or on-

⁴⁹ *Id.*

⁵⁰ *Id.* at 2–3.

⁵¹ *Id.* at 3.

⁵² *Id.*

⁵³ EA at 44.

⁵⁴ *Id.* at 12.

site worker housing.⁵⁵ As stated in the EA, the project would require about 35 workers during peak construction and average about 20 workers, most of whom are operations personnel at the existing Kenai LNG Terminal.⁵⁶ On-site worker housing is not proposed as part of the project, and table 4 of EA includes all reasonably-anticipated sources of construction emissions, including emissions from the following equipment: crane, boom truck, excavator, dozer, roller, vacuum truck, loader, fork lift, dump truck, trucks, welders, man lifts, and a generator.⁵⁷

28. Finally, ADEC asserts that table 7 of the EA, Annual Venting Emissions from Ship Unloading, should include criteria pollutant emissions in addition to GHG emissions.⁵⁸ We note that this table specifically quantifies LNG venting emissions during ship unloading, not ship engine emissions. In response to ADEC's comments, Trans-Foreland provided an estimate of LNG carrier engine emissions assuming a 70,000 cubic meter LNG carrier unloading four times per year during project operations.⁵⁹ Trans-Foreland estimates that these unloading events would result in about 13.2 tons per year (tpy) of nitrogen oxides, 8.2 tpy of carbon monoxide, 8.9 tpy of volatile organic compounds, 1,133.8 tpy of carbon dioxide equivalents, 0.7 tpy of particulate matter of aerodynamic size 10 microns or less and 2.5 microns or less, 0.8 tpy of sulfur dioxide, and 0.02 tpy hazardous air pollutants.⁶⁰ Based on the minor quantity of engine emissions during LNG ship unloading events, we conclude that ship engine emissions would not result in significant air quality impacts during project operation, and do not change the EA's determination that the proposed project would not cause or significantly contribute to a degradation of ambient air quality or an exceedance of the National Ambient Air Quality Standards.⁶¹

5. Reliability and Safety

29. The ADEC comments that while the EA discusses the Coast Guard safety and LNG carrier regulatory requirements, the EA should have noted that if the LNG tank

⁵⁵ ADEC October 5, 2020 Comment at 3.

⁵⁶ EA at 34.

⁵⁷ *Id.* at 41.

⁵⁸ ADEC October 5, 2020 Comment at 3.

⁵⁹ Trans-Foreland November 3, 2020 Response at 6.

⁶⁰ *Id.* at Attachment 2.

⁶¹ EA at 55.

vessels are self-propelled and more than 400 gross registered tons, they would be classified as non-tank vessels and would be required to meet the ADEC's Financial Responsibility and Oil Discharge Prevention and Contingency Plan requirements.⁶² The Kenai LNG Terminal is an existing natural gas terminal facility, and the LNG marine vessels are non-jurisdictional to the Commission. While the EA disclosed that the LNG marine vessels are subject to Coast Guard's regulations under Part 154 of Title 46 of the Code of Federal Regulations that contains the safety standards for vessels carrying LNG in bulk, the EA is not exhaustive in all the federal, state, and local requirements of the non-jurisdictional LNG marine vessels. In addition, the conclusions in the EA on the safety of the LNG carriers are reliant on the Coast Guard safety requirements and are not contingent on the varying state and local requirements. However, we note that the LNG marine vessels would be required to abide by the Coast Guard's regulations and any other applicable requirements.

6. Updated GHG Analysis

30. The EA estimates the maximum potential GHG emissions from operation of the project to be about 49,000 metric tons of carbon dioxide equivalent (CO₂e).⁶³ To provide context to the EA's GHG estimate, 34.3 and 5,743 million metric tons of CO₂e were emitted at the state and national levels, respectively, in 2017 (inclusive of CO₂e sources and sinks).⁶⁴ The operational emissions of the project could potentially increase CO₂e emissions based on the 2017 levels by 0.0014 and 0.000009% at the state and national levels, respectively. Currently, there are no national targets to use as a

⁶² ADEC October 5, 2020 Comment at 3; *see* ALASKA ADMIN. CODE tit. 18, Art. 2, Art. 4 (2020).

⁶³ EA at 40–44. This estimate includes venting and ship engine operating emissions but not warm idle state emissions, which are temporary, or emissions from the delivery of 3,500 to 7,000 MMBtu per day of gas to the Kenai Refinery, which will displace an existing fuel source.

⁶⁴ U.S. Energy Information Administration, *Table 1: State Energy-Related Carbon Dioxide Emissions by Year, Unadjusted* (May 20, 2020), <https://www.eia.gov/environment/emissions/state/> (accessed Nov. 23, 2020); U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2017* at ES6-8 (Table ES-2) (2019), <https://www.epa.gov/sites/production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf> (accessed June 18, 2020).

benchmark for comparison.⁶⁵ Additionally, we are unaware of any GHG emission reduction goals established either at the federal level or by the State of Alaska.

31. GHG emissions, such as those emitted from the project's operation, will contribute incrementally to climate change, and we have previously disclosed various effects of climate change on Alaska.⁶⁶ However, as the Commission has previously concluded, it cannot determine a project's incremental physical impacts on the environment caused by GHG emissions.⁶⁷ We have also previously concluded the Commission cannot determine whether an individual project's contribution to climate change would be significant.⁶⁸ That situation has not changed.

7. Environmental Analysis Conclusion

32. Based on the analysis in the EA, as supplemented herein, we conclude that if constructed and operated in accordance with Trans-Foreland's application and supplements, and in compliance with the environmental conditions in the appendix to this order, our approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment. Further, for the reasons discussed throughout the order, as stated above, we find that the Kenai LNG Cool Down Project is not inconsistent with the public interest.

33. Compliance with the environmental conditions included in 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

⁶⁵ 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 (July 8, 2019), and the targets in the Paris Climate Accord were withdrawn.

⁶⁶ *Alaska Gasline Dev. Corp.*, Final Environmental Impact Statement at 4-1220 – 4-1222, Docket No. CP17-178-000, at 4-1220- 4-1,222 (Mar. 6, 2020) (detailing the environmental impacts attributed to climate change in Alaska from U.S. Global Change Research Program's 2017 and 2018 Climate Science Special Report: The Fourth National Climate Assessment).

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

⁶⁸ *Id.*

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.

34. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this authorization. The Commission encourages cooperation between section 3 authorization holders 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.⁶⁹

C. Conclusion

35. At a meeting held on December 17, 2020, the Commission on its own motion received and made 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) Trans-Foreland is authorized under section 3 of the NGA to construct and operate the Kenai LNG Cool Down Project, as described and conditioned herein, and as more fully described in Trans-Foreland's application and subsequent filings, including any commitments made therein, and subject to the environmental conditions contained in the appendix to this order.

(B) Trans-Foreland's proposed project shall be constructed and made available for service within two years of the date of this order.

(C) Trans-Foreland's request that ConocoPhillips Alaska Natural Gas Corporation's section 3 authorization be assigned to Trans-Foreland is granted.

⁶⁹ See 15 U.S.C. § 717r(d) (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 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).

(D) Trans-Foreland shall notify the Commission's environmental staff by telephone or e-mail of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Trans-Foreland. Trans-Foreland 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.
Commissioner Clements is not participating.

(S E A L)

Kimberly D. Bose,
Secretary.

Appendix – Environmental Conditions

As recommended in the Environmental Assessment (EA), this authorization includes the following conditions:

1. Trans-Foreland Pipeline Company LLC (Trans-Foreland) shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EA, unless modified by the Order. Trans-Foreland must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
 - d. receive approval in writing from the Director of the Office of Energy Projects (OEP), or the Director's designee, **before using that modification.**
2. 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. **Prior to any construction**, Trans-Foreland shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors (EI), and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the

environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.

4. The authorized facility location shall be as shown in the EA, as supplemented by filed facility diagrams and plot plans. **As soon as they are available, and before the start of construction**, Trans-Foreland shall file with the Secretary any revised detailed survey facility diagrams/plot plans at a scale not smaller than 1:6,000 with station positions for the facility 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 diagrams/plans.
5. Trans-Foreland shall file with the Secretary detailed facility diagrams/plot plans and aerial photographs at a scale not smaller than 1:6,000 identifying all facility relocations, and staging areas, 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 diagrams/aerial photographs. Each area must be approved in writing by the Director of OEP, or the Director's designee, **before construction in or near that area**.

This requirement does not apply to extra workspace allowed by the Commission's *Upland Erosion Control, Revegetation, and 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.

6. **Within 60 days of the Order and before construction begins**, Trans-Foreland shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP, or the Director's designee. Trans-Foreland must file revisions to the plan as schedules change. The plan shall identify:
- a. how Trans-Foreland will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EA, and required by the Order;
 - b. how Trans-Foreland will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
 - c. the number of EIs assigned, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
 - d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
 - e. the location and dates of the environmental compliance training and instructions Trans-Foreland will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change);
 - f. the company personnel (if known) and specific portion of Trans-Foreland's organization having responsibility for compliance;
 - g. the procedures (including use of contract penalties) Trans-Foreland will follow if noncompliance occurs; and
 - h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - (1) the completion of all required surveys and reports;
 - (2) the environmental compliance training of onsite personnel;
 - (3) the start of construction; and
 - (4) the start and completion of restoration.

7. Trans-Foreland shall employ at least one EI during project construction and restoration. The EI 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 6 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. 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
 - e. responsible for maintaining status reports.
8. Beginning with the filing of its Implementation Plan, Trans-Foreland shall file updated status reports with the Secretary on a **monthly** basis until all construction and restoration activities are complete. Problems of a significant magnitude shall be reported to the FERC **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 Trans-Foreland's efforts to obtain the necessary federal authorizations;
 - b. project schedule, including current construction status of the project and work planned for the following reporting period;
 - c. a listing of all problems encountered, contractor nonconformance/deficiency logs, and each instance of noncompliance observed by the EI during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
 - d. a description of the corrective and remedial actions implemented in response to all instances of noncompliance, nonconformance, or deficiency;
 - e. the effectiveness of all corrective and remedial 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 Trans-Foreland from other federal, state, or local permitting agencies concerning instances of noncompliance, and Trans-Foreland's response.
- 9. Trans-Foreland shall employ a special inspector during construction, and a copy of the special inspector's reports shall be included in the monthly status reports filed with the Secretary (see condition 8 above). The special inspector shall be responsible for:
 - a. observing the construction of the project facilities to be certain it conforms to the design drawings and specifications;
 - b. furnishing inspection reports to the engineer- or architect- of-record and other designated persons. All discrepancies shall be brought to the immediate attention of the contractor for correction, and then if uncorrected, to the engineer- or architect- of-record; and
 - c. submitting a final signed report stating whether the work requiring special inspection was, to the best of his/her knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions.
- 10. Trans-Foreland must receive written authorization from the Director of OEP, or the Director's designee, **before commencing construction of any project facilities**. To obtain such authorization, Trans-Foreland must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
- 11. Trans-Foreland must receive written authorization from the Director of OEP, or the Director's designee, **prior to introducing hazardous fluids into the project facilities**. Instrumentation and controls, hazard detection, hazard control, and security components/systems necessary for the safe introduction of such fluids shall be installed and functional.
- 12. Trans-Foreland must receive written authorization from the Director of OEP, or the Director's designee, **before placing the project into service**. Such authorization will only be granted following a determination that the facilities have been constructed in accordance with the FERC approval, can be expected to

operate safely as designed, and the rehabilitation and restoration of areas affected by the project are proceeding satisfactorily.

13. **Within 30 days of placing the authorized facilities in service**, Trans-Foreland shall file an affirmative statement with the Secretary, certified by a senior company official:
 - a. that the facilities have been constructed and installed 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 Trans-Foreland has complied with or will comply with. This statement shall also identify any areas affected by the project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
14. Trans-Foreland shall **not begin** construction activities **until**:
 - a. FERC staff receives comments from the National Marine Fisheries Service (NMFS) regarding the proposed action;
 - b. FERC staff completes Endangered Species Act consultation with the National Marine Fisheries Service (NMFS); and
 - c. Trans-Foreland has received written notification from the Director of OEP, or the Director's designee, that construction or use of mitigation may begin.
15. Trans-Foreland shall file noise surveys with the Secretary **no later than 60 days** after placing the project into service. If full-load condition noise surveys are not possible, Trans-Foreland shall provide an interim survey at the maximum possible load **within 60 days** of placing the project into service and provide the full-load surveys **within 6 months**. If the noise attributable to operation of the equipment at the Terminal exceeds a day-night noise level of 55 decibels on the A-weighted scale at the nearest noise sensitive areas under interim or full load conditions, Trans-Foreland 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. Trans-Foreland 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.

16. **Prior to initial site preparation**, Trans-Foreland shall file its design wind speed criteria for all other facilities not covered by the U.S. Department of Transportation (USDOT) 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 American Society of Civil Engineers/Structural Engineering Institute (ASCE/SEI) 7-05, 7-10, or equivalent.
17. **Prior to initial site preparation**, Trans-Foreland shall file with the Secretary the frost depth for the final foundation design in compliance with project specifications, including ASCE/SEI 7-05 and 7-10 or equivalent.
18. **Prior to initial site preparation**, Trans-Foreland shall use properly compacted soil backfill material around the foundations area to prevent foundation structures from freeze-thaw damage.
19. **Prior to construction of final design**, Trans-Foreland shall file with the Secretary correspondence regarding USDOT PHMSA's determination on whether the vacuum jacketed piping complies with 49 CFR 193.2167 and National Fire Protection Association (NFPA) Standard 59A (2001) section 2.2.1.2, as applicable.
20. **Prior to construction of final design**, Trans-Foreland file with the Secretary the final design package (e.g., structures and foundations drawings, design specifications, and calculations, etc.) and associated quality assurance and control procedures with the documents reviewed, approved, and stamped and sealed by the professional engineer of record in the State of Alaska.
21. **Prior to construction of final design**, Trans-Foreland shall demonstrate with calculations or modelling that are stamped and sealed by a professional engineer in the State of Alaska that the structural design would be designed to withstand settlement values that exceed 1.5 inches.

Conditions 22 through 76 shall apply to the 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 recommendation. 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 submitted as critical energy infrastructure information pursuant to 18 CFR 388.113. See Critical Electric Infrastructure Security and Amending Critical Energy Infrastructure Information, Order No. 833, 81 Fed. Reg. 93,732 (December 21, 2016), FERC Stats. & Regs. 20200903-3006 FERC PDF (Unofficial) 09/03/2020 Kenai LNG Cool Down Project

Environmental Assessment 132 31,389 (2016). Information pertaining to items such as offsite emergency response, procedures for public notification and evacuation, and construction and operating reporting requirements will be subject to public disclosure. All information shall be filed a minimum of 30 days before approval to proceed is required.

22. **Prior to initial site preparation**, Trans-Foreland shall file an overall project schedule, which includes the proposed stages of the commissioning plan.
23. **Prior to initial site preparation**, Trans-Foreland shall file quality assurance and quality control procedures for construction activities.
24. **Prior to construction of final design**, Trans-Foreland shall file lighting drawings for the project facilities. The lighting drawings shall show the location, elevation, type of light fixture, and lux levels of the lighting system and shall illustrate adequate coverage in accordance with federal regulations (e.g., 49 CFR 193, 33 CFR 127, 33 CFR 105) and American Petroleum Standard (API) Standard 540 or equivalent.
25. **Prior to construction of final design**, Trans-Foreland shall file security camera drawings for the project facilities. The security camera drawings shall show the locations, areas covered, and features of each camera (e.g., fixed, tilt/pan/zoom, motion detection alerts, low light, mounting height, etc.) to verify coverage of the project facilities with redundancies to enable rapid and reliable monitoring of the facility.
26. **Prior to construction of final design**, Trans-Foreland shall file change logs that list and explain any changes made from the front-end engineering design provided in the project'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.
27. **Prior to construction of final design**, Trans-Foreland shall file a plot plan of the final design showing all major equipment, structures, buildings, and impoundment systems.
28. **Prior to construction of final design**, Trans-Foreland shall file an up-to-date equipment list, process and mechanical data sheets, and specifications. The specifications shall include:
 - a. building specifications (e.g., 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 and vessel, other specialized equipment);
 - c. electrical and instrumentation specifications (e.g., power system, control system, safety instrument system [SIS], cable, other electrical and instrumentation); and
 - d. security and fire safety specifications (e.g., security, passive protection, hazard detection, hazard control, firewater).
29. **Prior to construction of final design**, Trans-Foreland shall file a list of all codes and standards and the final specification document number where they are referenced.
30. **Prior to construction of final design**, Trans-Foreland shall file up-to-date process flow diagrams and piping and instrumentation diagrams (P&ID) including vendor P&IDs. The process flow diagrams 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.
31. **Prior to construction of final design**, Trans-Foreland shall file P&IDs, specifications, and procedures that clearly show and specify the tie-in details required to safely connect subsequently constructed facilities with the operational facilities.

32. **Prior to construction of final design**, Trans-Foreland shall file a car seal philosophy and a list of all car-sealed and locked valves consistent with the P&IDs.
33. **Prior to construction of final design**, Trans-Foreland shall file the safe operating limits (upper and lower), alarm and shutdown set points for all instrumentation (e.g., temperature, pressures, flows, and compositions).
34. **Prior to construction of final design**, Trans-Foreland shall file cause-and-effect matrices for the process instrumentation, fire and gas detection system, and emergency shutdown system. The cause-and-effect matrices shall include alarms and shutdown functions, details of the voting and shutdown logic, and set points.
35. **Prior to construction of final design**, Trans-Foreland shall specify that all emergency shutdown valves are to be equipped with open and closed position switches connected to the Distributed Control System and/or Safety Instrumented System (DCS/SIS).
36. **Prior to construction of final design**, Trans-Foreland 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(s).
37. **Prior to construction of final design**, Trans-Foreland shall include liquefied natural gas (LNG) tank fill flow measurement with high flow alarm.
38. **Prior to construction of final design**, Trans-Foreland 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.
39. **Prior to construction of final design**, Trans-Foreland shall file the sizing basis and capacity for the final design of the pressure relief valves for major process equipment and vessels.
40. **Prior to construction of final design**, Trans-Foreland shall file vent stack design information showing that it could handle the maximum vapor loads during ship unloading operations when the boil-off-gas (BOG) compression system is not available and would not result in flammable vapors reaching ignition sources and areas that would cause cascading damage. Alternatively, Trans-Foreland shall file

procedures to cease LNG carrier (LNGC) unloading operations when the BOG compression system is not available.

41. **Prior to construction of final design**, Trans-Foreland shall locate the inlet emergency shutdown valve 10 feet from the trim vaporizer module.
42. **Prior to construction of final design**, Trans-Foreland 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 NFPA 59A (2001). The justification for flammable and combustible gas detection shall take into account the set points, voting logic and degradation logic, wind speeds, and wind directions and flame and heat detection systems shall account for coverage of all project facilities containing flammable or combustible fluids. The justification for firewater shall provide evaluation of the total area that may experience firewater demand due to each governing scenario; calculations for all firewater demands (including firewater coverage on the LNG storage tanks) based on design densities, surface area, and throw distance as well as specifications for the corresponding hydrant and monitors needed to reach and cool equipment.
43. **Prior to construction of final design**, Trans-Foreland shall file final electrical classification drawings, including cross-sectional drawings, for all project equipment and buildings. The drawings shall demonstrate compliance with NFPA 59A, NFPA 70, NFPA 497, and API Recommended Practice 500, or equivalents. In addition, the electrical area classification drawings shall specify the trim vaporizer module as Class 1 Division 1 per USDOT PHMSA's vaporizer spacing equivalency determination.
44. **Prior to construction of final design**, Trans-Foreland shall file final ventilation details and calculations for project buildings to demonstrate the design meets recommended and generally accepted good engineering practices, such as NFPA 59A, NFPA 70, NFPA 497, and API Recommended Practice 500.
45. **Prior to construction of final design**, Trans-Foreland 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).
46. **Prior to construction of final design**, Trans-Foreland 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.

47. **Prior to construction of final design**, Trans-Foreland 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. The list shall include the instrument tag number, type and location, alarm indication locations, shutdown functions of the hazard detection equipment, and manufacturer and model.
48. **Prior to construction of final design**, Trans-Foreland shall file a technical review of facility design that:
 - a. identifies all combustion/ventilation air intake equipment and the elevation and distances to any possible flammable gas release; and
 - b. demonstrates that these areas are adequately covered by hazard detection devices and indicates how these devices would isolate or shutdown any combustion or heating ventilation and air conditioning equipment whose continued operation could add to or sustain an emergency.
49. **Prior to construction of final design**, Trans-Foreland shall file a design that includes hazard detection suitable to detect high temperatures and smoldering combustion products in electrical buildings.
50. **Prior to construction of final design**, Trans-Foreland 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.
51. **Prior to construction of final design**, Trans-Foreland 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 by tag number of all fixed, wheeled, and hand-held extinguishers and shall demonstrate the spacing of extinguishers meet prescribed NFPA 10 travel distances. The list shall include the equipment tag number, type, capacity, equipment covered, discharge rate, and automatic and manual remote signals initiating discharge of the units and shall demonstrate they meet NFPA 59A.
52. **Prior to construction of final design**, Trans-Foreland shall file a design that includes clean agent systems in each electrical building that serve safety and security systems.

53. **Prior to construction of final design**, Trans-Foreland shall file drawings and specifications for the structural passive protection systems demonstrating protection of the new and existing equipment and supports from cryogenic releases from the project facilities.
54. **Prior to construction of final design**, Trans-Foreland shall file calculations or test results for the structural passive protection systems demonstrating protection of the new and existing equipment and supports from cryogenic releases from the project facilities.
55. **Prior to construction of final design**, Trans-Foreland shall file drawings and specifications for the structural passive protection systems demonstrating protection of the new and existing equipment and supports from pool and jet fires from the project facilities.
56. **Prior to construction of final design**, Trans-Foreland shall file a detailed quantitative analysis to demonstrate that adequate mitigation would be provided for each significant component within the 4,000 British thermal units per square foot per hour zone from pool and jet fires that could cause failure of the component. 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 effectiveness of active mitigation shall be justified with calculations or test results demonstrating flow rates and durations of any cooling water would mitigate the heat absorbed by the vessel.
57. **Prior to construction of final design**, Trans-Foreland shall file an evaluation showing that overpressures from vapor cloud explosions would not cause or would be mitigated from causing cascading damage onto occupied buildings, pressure vessels, LNG storage tanks, and emergency equipment.
58. **Prior to construction of final design**, Trans-Foreland shall file specifications and drawings demonstrating how cascading damage of transformers would be prevented (e.g., fire walls or spacing) in accordance with NFPA 850 or equivalent.
59. **Prior to construction of final design**, Trans-Foreland shall file facility plan drawings showing the proposed location of the firewater systems. Plan drawings shall clearly show the location of firewater piping, post indicator valves, and the location and area covered by, each monitor, hydrant, hose, deluge system, and sprinkler. The drawings shall also include piping and instrumentation diagrams of the firewater systems.

60. **Prior to commissioning**, Trans-Foreland 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. Trans-Foreland shall file documentation certifying that each of these milestones has been completed before authorization to commence the next phase of commissioning and startup will be issued.
61. **Prior to commissioning**, Trans-Foreland 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.
62. **Prior to commissioning**, Trans-Foreland shall file the procedures for pressure/leak tests which address the requirements of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section VIII and ASME B31.3. In addition, Trans-Foreland shall file a line list of pneumatic and hydrostatic test pressures.
63. **Prior to commissioning**, Trans-Foreland 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.
64. **Prior to commissioning**, Trans-Foreland shall file updates to the operation and maintenance procedures and manuals, as well as safety procedures, which cover the receipt of LNG into the facility.
65. **Prior to commissioning**, Trans-Foreland shall tag all equipment, instrumentation, and valves in the field, including drain valves, vent valves, main valves, and car-sealed or locked valves.
66. **Prior to commissioning**, Trans-Foreland shall file a plan to maintain a detailed training log to demonstrate that operating, maintenance, and emergency response staff have completed the required training.
67. **Prior to introduction of hazardous fluids**, Trans-Foreland shall complete and document 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.

68. **Prior to introduction of hazardous fluids**, Trans-Foreland shall complete and document a firewater monitor and hydrant coverage test. The actual coverage area from each monitor and hydrant shall be shown on facility plot plan(s).
69. **Prior to introduction of hazardous fluids**, Trans-Foreland shall complete and document clean agent acceptance tests.
70. **Prior to introduction of hazardous fluids**, Trans-Foreland 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.
71. **Prior to introduction of hazardous fluids**, Trans-Foreland shall file an updated emergency response plan that includes the project facilities. The emergency response plan updates shall be coordinated with federal, state, and local agencies and neighboring facilities and shall include processes and procedures to be used in the event of an incident at the Kenai LNG Terminal or neighboring facilities.
72. Trans-Foreland shall file a request for written authorization from the Director of OEP, or the Director's designee, **prior to receiving the first LNGC**. Problems of significant magnitude encountered during or after unloading of the first LNGC, including during any commissioning activities, shall be reported to the FERC **within 24 hours**.
73. **Prior to receiving the first LNG cargo**, including any commissioning cargoes, Trans-Foreland shall file a request for authorization from the Director of OEP, or the Director's designee. Such authorization would only be granted following a determination by the Coast Guard, under its authorities under the Ports and Waterways Safety Act, the Magnuson Act, the Marine 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 Trans-Foreland or other appropriate parties.
74. **Prior to commencement of service**, Trans-Foreland shall notify FERC staff of any proposed revisions to the security plan and physical security of the plant.
75. **Prior to commencement of service**, Trans-Foreland shall label piping with fluid service and direction of flow in the field, in addition to the pipe labeling requirements of NFPA 59A (2001).

76. **Prior to commencement of service**, Trans-Foreland shall provide updates addressing the import of LNG and project facilities, in the plans for any preventative and predictive maintenance program that performs periodic or continuous equipment condition monitoring.

In addition, conditions 77 through 79 shall apply throughout the life of the Kenai LNG facility.

77. 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, Trans-Foreland 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.
78. **Semi-annual** operational reports shall be filed with the Secretary to identify changes in facility design and operating conditions; abnormal operating experiences; activities (e.g., ship 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 tank, storage tank vibrations and/or vibrations in associated cryogenic piping, storage tank settlement, significant equipment or instrumentation malfunctions or failures, nonscheduled 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 FERC staff with early notice of anticipated future construction/maintenance at the LNG facilities.
79. 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, suspicious activities) shall be reported to

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 FERC staff **within 24 hours**. This notification practice shall be incorporated into the liquefaction 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 an LNG facility that contains, controls, or processes hazardous fluids;
- g. any crack or other material defect that impairs the structural integrity or reliability of an LNG facility that contains, controls, or processes hazardous fluids;
- h. any malfunction or operating error that causes the pressure of a pipeline or LNG facility that contains or processes hazardous fluids to rise above its maximum allowable operating pressure (or working pressure for LNG facilities) plus the build-up allowed for operation of pressure-limiting or control devices;
- i. a leak in an LNG facility that contains or processes hazardous fluids that constitutes an emergency;
- j. inner tank leakage, ineffective insulation, or frost heave that impairs the structural integrity of an LNG storage tank;
- k. any safety-related condition that could lead to an imminent hazard and cause (either directly or indirectly by remedial action of the operator), for purposes other than abandonment, a 20 percent reduction in operating

pressure or shutdown of operation of a pipeline or an LNG facility that contains or processes hazardous fluids;

- l. safety-related incidents 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 facility's incident management plan.

In the event of an incident, the Director of OEP, or the Director's designee, 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, 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.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Trans-Foreland Pipeline Company LLC

Docket No. CP19-118-000

(Issued December 17, 2020)

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 will have on climate change. Yet that is precisely what the Commission is doing today.

2. In today's order authorizing Trans-Foreland Pipeline Company LLC's LNG import terminal (Kenai LNG Cool Down Project or Project) pursuant to section 3 of the NGA, 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: The refusal to assess the significance of the Project's contribution to the harm caused by climate change is what allows the Commission to state that approval of the Project will not "significantly affect[] the quality of the human environment."⁴ Claiming that a project has no significant environmental impacts while at the same time refusing to assess the significance of the project's impact on the most important environmental issue of our time is not reasoned decisionmaking.

3. That failure to meaningfully consider climate change leaves me no choice but to dissent. No matter what I might otherwise think of the Kenai LNG Cool Down Project, I will not join an order that functionally excludes climate change from the Commission's

¹ 15 U.S.C. §§ 717b, 717f (2018).

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

³ *Trans-Foreland Pipeline Co.*, 173 FERC ¶ 61,253, at PP 30-31 (2020); Kenai LNG Cool Down Project Environmental Assessment at 40-44.

⁴ *Trans-Foreland*, 173 FERC ¶ 61,253 at P 32.

public interest analysis. So long as the Commission continues to preclude climate change from playing a meaningful role in that analysis, it will continue to sow what I believe to be unnecessary discord in its NGA certificate proceedings.

For these reasons, I respectfully dissent.

Richard Glick
Commissioner