UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

OFFICE OF FOSSIL ENERGY

ALASKA LNG PROJECT LLC

FE DOCKET NO. 14-96-LNG

FINAL OPINION AND ORDER GRANTING LONG-TERM AUTHORIZATION TO EXPORT LIQUEFIED NATURAL GAS TO NON-FREE TRADE AGREEMENT NATIONS

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DOE/FE ORDER NO. 3643-A

AUGUST 20, 2020

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# FREQUENTLY USED ACRONYMS

Annual Energy Outlook
Alaska Gasline Development Corporation
Alaska Natural Gas Transportation Act
American Public Gas Association
American Petroleum Institute
Billion Cubic Feet per Day
Billion Cubic Feet per Year
U.S. Department of Energy
U.S. Energy Information Administration
Environmental Impact Statement
U.S. Environmental Protection Agency
Office of Fossil Energy, U.S. Department of Energy
Federal Energy Regulatory Commission
Free Trade Agreement
Greenhouse Gas
Liquefied Natural Gas
Thousand Cubic Feet
Million British Thermal Units
Million Metric Tons per Annum
National Environmental Policy Act
NERA Economic Consulting
Natural Gas Act
Record of Decision
Trillion Cubic Feet

# I. INTRODUCTION

On July 18, 2014, Alaska LNG Project LLC (Alaska LNG) filed an application (Application)<sup>1</sup> with the Office of Fossil Energy (FE) of the Department of Energy (DOE) under section 3 of the Natural Gas Act (NGA).<sup>2</sup> Alaska LNG submitted supplemental information on September 5, 2014.<sup>3</sup> Alaska LNG requests long-term, multi-contract authorization to export 20 million metric tons per annum (mtpa) of liquefied natural gas (LNG) produced from Alaskan sources, which Alaska LNG states is equivalent to approximately 929 billion cubic feet per year (Bcf/yr) of natural gas, or 2.55 Bcf per day (Bcf/d).<sup>4</sup> Alaska LNG seeks authorization to export the LNG from a liquefaction facility to be constructed in the Nikiski area of the Kenai Peninsula in south central Alaska (Liquefaction Facility). According to Alaska LNG, the Liquefaction Facility will be part of the "largest integrated gas/LNG project of its kind ever designed and constructed," called the Alaska LNG Project (or Project).<sup>5</sup>

An independent, public corporation of the State of Alaska known as Alaska Gasline Development Corporation (AGDC)<sup>6</sup> plans to site, construct, and operate the Alaska LNG Project.<sup>7</sup> Among other facilities, the Alaska LNG Project will include a natural gas treatment

<sup>&</sup>lt;sup>1</sup> Alaska LNG Project LLC, Application for Long-Term Authorization to Export Liquefied Natural Gas, FE Docket No. 14-96-LNG (Jul. 18, 2014) [hereinafter App.].

<sup>&</sup>lt;sup>2</sup> 15 U.S.C. § 717b(a). The authority to regulate the imports and exports of natural gas, including liquefied natural gas, under section 3 of the NGA (15 U.S.C. § 717b) has been delegated to the Assistant Secretary for FE in Redelegation Order No. 00-002-04G, issued on June 4, 2019.

<sup>&</sup>lt;sup>3</sup> Alaska LNG Project LLC, Email from Jennifer Brough, Counsel for Alaska LNG, to Benjamin Nussdorf, DOE/FE, Supp. Info., FE Docket No. 14-96-LNG (Sept. 5, 2014) [hereinafter Supp.]. The supplemental information is incorporated herein.

<sup>&</sup>lt;sup>4</sup> App. at 1.

<sup>&</sup>lt;sup>5</sup> *Id.* at 3.

<sup>&</sup>lt;sup>6</sup> The Alaska State Legislature provided AGDC with the authority and primary responsibility for developing a LNG project on the State's behalf. *See* Alaska Stat. § 31.25.005.

<sup>&</sup>lt;sup>7</sup> See App. at 3; see also Alaska Gasline Dev. Corp., Order Granting Authorization Under Section 3 of the Natural Gas Act, 171 FERC ¶ 61,134, ¶¶ 1-2 (May 21, 2020) [hereinafter FERC Order]. AGDC has stated that it is in negotiations with producer members of Alaska LNG—the authorization holder and applicant in this proceeding—to obtain an option to purchase Alaska LNG. See id. ¶ 5. According to AGDC, it will make the required filings at DOE/FE to authorize a change in control over ownership of the export license to AGDC, as appropriate. See id.; see

plant located on the North Slope of Alaska (Prudhoe Bay Treatment Plant) and an approximately 800-mile-long pipeline (Mainline Pipeline) to transport natural gas from the Prudhoe Bay Treatment Plant to the Liquefaction Facility for liquefaction and export.<sup>8</sup> Alaska LNG states that the proposed Project will enable natural gas to be produced from the "vast resources" on the North Slope that, to date, have been stranded because there is no existing natural gas pipeline system linking the North Slope production area to Alaska's market areas in the south.<sup>9</sup>

Alaska LNG seeks to export the LNG by vessel from the proposed Alaska LNG Project to: (i) any country with which the United States currently has, or in the future will have, a free trade agreement (FTA) requiring the national treatment for trade in natural gas (FTA countries),<sup>10</sup> and (ii) any country with which the United States has not entered into a FTA requiring national treatment for trade in natural gas, and with which trade is not prohibited by U.S. law or policy (non-FTA countries).<sup>11</sup> Alaska LNG requests this authorization for a term of 30 years, commencing on the earlier of the date of first export or 12 years from the date this authorization is issued.<sup>12</sup> Alaska LNG seeks the authorization on its own behalf and as agent for other entities that hold title to the LNG at the time of export.<sup>13</sup>

*also* U.S. Dep't of Energy, Procedures for Changes in Control Affecting Applications and Authorizations to Import or Export Natural Gas, 79 Fed. Reg. 65,541 (Nov. 5, 2014).

<sup>&</sup>lt;sup>8</sup> See App. at 2, 7-8; see also infra § IV.B.

<sup>&</sup>lt;sup>9</sup> App. at 3; *see also* FERC Order at ¶ 9.

<sup>&</sup>lt;sup>10</sup> 15 U.S.C. § 717b(c). The United States currently has FTAs requiring national treatment for trade in natural gas with Australia, Bahrain, Canada, Chile, Colombia, Dominican Republic, El Salvador, Guatemala, Honduras, Jordan, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, Republic of Korea, and Singapore. FTAs with Israel and Costa Rica do not require national treatment for trade in natural gas.

<sup>&</sup>lt;sup>11</sup> 15 U.S.C. § 717b(a); see App. at 1-2.

<sup>&</sup>lt;sup>12</sup> App. at 1.

<sup>&</sup>lt;sup>13</sup> *Id.* at 10.

On November 21, 2014, in Order No. 3554, DOE/FE granted the FTA portion of the Application in the requested volume of LNG equivalent to 929 Bcf/yr of natural gas for a 30vear term.<sup>14</sup>

DOE/FE published a notice of the non-FTA portion of the Application in the *Federal Register* (Notice of Application) on September 17, 2014.<sup>15</sup> The Notice of Application called on interested persons to submit protests, motions to intervene, notices of intervention, and comments by November 17, 2014. In total, DOE/FE received eight motions to intervene. Five motions to intervene were filed in support of the Application by American Petroleum Institute (API); TransCanada Alaska Midstream, LP; the State of Alaska and AGDC (filing jointly); ConocoPhillips Alaska, Inc.; and BP Exploration (Alaska) Inc. Sierra Club and Robert S. Mulford each filed a motion to intervene that included a protest of the Application. Finally, the American Public Gas Association (APGA) filed a motion to intervene taking no position on the Application. DOE/FE also received numerous letters in support of the Application. Additional procedural history is discussed below.<sup>16</sup>

On May 28, 2015, DOE/FE conditionally granted the non-FTA portion of the Application in DOE/FE No. 3643 (Conditional Order).<sup>17</sup> In the Conditional Order, DOE/FE made preliminary findings on all issues except the environmental issues in this proceeding.<sup>18</sup> DOE/FE

<sup>&</sup>lt;sup>14</sup> Alaska LNG Project LLC, DOE/FE Order No. 3554, FE Docket No. 14-96-LNG, Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Alaska LNG Project in the Nikiski Area of the Kenai Peninsula, Alaska, to Free Trade Agreement Nations (Nov. 21, 2014).

<sup>&</sup>lt;sup>15</sup> U.S. Dep't of Energy, Alaska LNG Project LLC; Application for Long-Term Authorization to Export Liquefied Natural Gas Produced from Domestic Natural Gas Resources to Non-Free Trade Agreement Nations for a 30-Year Period, 79 Fed. Reg. 55,764 (Sept. 17, 2014) [hereinafter Notice of Application]. <sup>16</sup> See infra § VI.

<sup>&</sup>lt;sup>17</sup> Alaska LNG Project LLC, DOE/FE Order No. 3643, FE Docket No. 14-96-LNG, Order Conditionally Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Alaska LNG Terminal in Nikiski, Alaska, to Non-Free Trade Agreement Nations (May 28, 2015) [hereinafter Conditional Order].

<sup>&</sup>lt;sup>18</sup> *Id.* at 39-40.

also advised that "the issues addressed [in the Conditional Order] regarding the export of natural gas will be reexamined at the time of DOE/FE's review of the FERC environmental analysis."<sup>19</sup> Accordingly, although this final Order builds on the Conditional Order, DOE/FE presents its findings and conclusions in this Order on all issues associated with Alaska LNG's proposed exports—both environmental and non-environmental.

Most recently, on May 21, 2020, the Federal Energy Regulatory Commission (FERC) issued an order (FERC Order) authorizing AGDC to site, construct, and operate the proposed Alaska LNG Project, including the Liquefaction Facility with a liquefaction capacity of 20 mtpa of LNG.<sup>20</sup> DOE/FE notes that certain parties to the FERC proceeding have sought rehearing of the FERC Order, and that rehearing proceeding is ongoing.<sup>21</sup>

As the basis for this Order, DOE/FE has reviewed a substantial administrative record including, but not limited to, the following: the non-FTA portion of Alaska LNG's Application; the Supplement to the Application; the comments, motions to intervene, and protests submitted in response to the Application; the final environmental impact statement (EIS) for the Alaska LNG Project prepared by FERC staff, the FERC Order, and the most recent projections of the U.S. Energy Information Administration (EIA). Based on this record, DOE/FE has determined that it has not been shown that Alaska LNG's proposed exports will be inconsistent with the public interest, as would be required to deny the Application under NGA section 3(a).<sup>22</sup>

<sup>&</sup>lt;sup>19</sup> *Id.* at 40.

<sup>&</sup>lt;sup>20</sup> See FERC Order at ¶¶ 3-4, 20, 253 (Ordering Para. A); see also infra § VII.C.

<sup>&</sup>lt;sup>21</sup> See Alaska Gasline Dev. Corp., Notice of Denial of Rehearings by Operation of Law and Providing for Further Consideration, 172 FERC ¶ 62,032 (July 22, 2020).

<sup>&</sup>lt;sup>22</sup> See infra § VIII.

DOE/FE therefore grants the non-FTA portion of the Application in the full volume requested— 929 Bcf/yr of natural gas.<sup>23</sup>

DOE/FE participated as a cooperating agency in FERC's environmental review of the Alaska LNG Project under the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321 *et seq.* FERC issued the final EIS for the Project on March 6, 2020.<sup>24</sup> After an independent review, DOE/FE adopted the final EIS on March 16, 2020 (DOE/EIS-0512),<sup>25</sup> and the U.S. Environmental Protection Agency (EPA) published a notice of the adoption on March 27, 2020.<sup>26</sup> As an Appendix to this Order, DOE/FE is issuing the record of decision (ROD) under NEPA for the proposed Alaska LNG Project. This Order requires Alaska LNG's compliance with the 165 environmental conditions adopted in the FERC Order.<sup>27</sup>

In sum, this Order authorizes Alaska LNG to export LNG produced from Alaskan sources in a volume of 929 Bcf/yr of natural gas (2.55 Bcf/d) for a term of 30 years. Because the export volumes authorized in Alaska LNG's FTA order (DOE/FE Order No. 3554) and this Order each reflect the planned liquefaction capacity of the Alaska LNG Project as approved by FERC, the FTA and non-FTA volumes are not additive.<sup>28</sup> Additionally, although DOE/FE currently has approved the export of LNG and compressed natural gas produced from the lower-

<sup>&</sup>lt;sup>23</sup> See infra § XI (Ordering Para. A).

<sup>&</sup>lt;sup>24</sup> Federal Energy Regulatory Comm'n, *Alaska LNG Project Final Environmental Impact Statement*, Docket No. CP17-178-000 (Mar. 6, 2020), *available at:* <u>https://www.ferc.gov/industries-data/natural-gas/final-environmental-impact-statement-0</u> [hereinafter final EIS].

<sup>&</sup>lt;sup>25</sup> Letter from Amy Sweeney, DOE/FE, to Julie Roemele, U.S. Envtl. Prot. Agency (Mar. 16, 2020) (adoption of final EIS), *available at:* <u>https://www.energy.gov/nepa/downloads/doeeis-0512-notice-adoption</u>.

<sup>&</sup>lt;sup>26</sup> U.S. Envtl. Prot. Agency, Environmental Impact Statements; Notice of Availability, 85 Fed. Reg. 17,327, 17,328 (Mar. 27, 2020).

<sup>&</sup>lt;sup>27</sup> Although the final EIS recommended 164 environmental mitigation measures, FERC adopted one additional environmental condition for a total of 165 environmental conditions. *See* FERC Order at ¶ 107; *see also infra* § VII.C.

<sup>&</sup>lt;sup>28</sup> See infra § X.I.

48 states to non-FTA countries in a cumulative volume of 45.89 Bcf/d of natural gas,<sup>29</sup> the volume authorized in this Order is not additive to those volumes. Because there is no natural gas pipeline interconnection between Alaska and the lower-48 states, DOE/FE generally views those LNG export markets as distinct.<sup>30</sup>

#### II. BACKGROUND

#### A. DOE/FE's Issuance of Alaska LNG's Conditional Order

On May 28, 2015, in DOE/FE Order No. 3643, DOE/FE conditionally granted the portion of Alaska LNG's Application requesting to export LNG to non-FTA countries, pursuant to NGA section 3(a).<sup>31</sup> At the time that DOE/FE issued the Conditional Order, the FERC proceeding for the siting, construction, and operation of the Alaska LNG Project was still pending. FERC was the lead agency for purposes of review of the proposed Project under NEPA, and DOE/FE was participating in that environmental review as a cooperating agency.<sup>32</sup>

DOE/FE found that Alaska LNG's proposed exports "are likely to yield net economic benefits to the United States," and that the opponents of the Application "have not demonstrated that the requested authorization will be inconsistent with the public interest."<sup>33</sup> DOE/FE explained that, "[w]hen [FERC's] environmental review is complete, DOE/FE will reconsider its public interest determination in light of the information gathered as part of that review."<sup>34</sup>

<sup>&</sup>lt;sup>29</sup> See Jordan Cove Energy Project L.P., DOE/FE Order No. 3413-A, FE Docket No. 12-32-LNG, Final Opinion and Order Granting Long-Term Authorization to Export Liquefied Natural Gas to Non-Free Trade Agreement Nations, at 6 (July 6, 2020).

<sup>&</sup>lt;sup>30</sup> See, e.g., Freeport LNG Expansion, L.P., et al., DOE/FE Order No. 3282, FE Docket No. 10-161-LNG, Order Conditionally Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel From the Freeport LNG Terminal on Quintana Island, Texas, to Non-Free Trade Agreement Nations, at 13-14 n.36 (May 17, 2013).

<sup>&</sup>lt;sup>31</sup> See Conditional Order at 41 (Ordering Para. A).

<sup>&</sup>lt;sup>32</sup> *Id.* at 9.

<sup>&</sup>lt;sup>33</sup> *Id.* at 2.

<sup>&</sup>lt;sup>34</sup> *Id.* at 10.

Finally, because the seven motions to intervene were unopposed, DOE/FE deemed the motions granted by operation of law.<sup>35</sup>

# B. Judicial Decisions Upholding DOE's Non-FTA Authorizations

In 2015 and 2016, Sierra Club petitioned the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) for review of five long-term LNG export authorizations issued by DOE/FE under the standard of review discussed below. Sierra Club challenged DOE/FE's approval of LNG exports from projects proposed or operated by the following authorization holders: Freeport LNG Expansion, L.P., *et al.*; Dominion Cove Point LNG, LP; Sabine Pass Liquefaction, LLC; and Cheniere Marketing, LLC, *et al.* The D.C. Circuit subsequently denied four of the five petitions for review: one in a published decision issued on August 15, 2017 (*Sierra Club I*),<sup>36</sup> and three in a consolidated, unpublished opinion issued on November 1, 2017 (*Sierra Club I*).<sup>37</sup> Sierra Club did not seek further judicial review of either decision. In January 2018, Sierra Club voluntarily withdrew its fifth and remaining petition for review.<sup>38</sup>

In *Sierra Club I*, the D.C. Circuit concluded that DOE/FE had complied with both section 3(a) of the NGA and NEPA in issuing the challenged non-FTA authorization to Freeport LNG Expansion, L.P. and its related entities (collectively, Freeport). DOE/FE had granted the Freeport application in 2014 in a volume equivalent to 0.4 Bcf/d of natural gas, finding that Freeport's proposed exports were in the public interest under NGA section 3(a). DOE/FE also considered and disclosed the potential environmental impacts of its decision under NEPA. Sierra

<sup>&</sup>lt;sup>35</sup> See id. at 27 (citing 10 C.F.R. § 590.303(g)), 46 (Ordering Para. Q).

<sup>&</sup>lt;sup>36</sup> Sierra Club v. U.S. Dep't of Energy, 867 F.3d 189 (D.C. Cir. 2017) [hereinafter Sierra Club I] (denying petition for review of the LNG export authorization issued to Freeport LNG Expansion, L.P., et al.).

 <sup>&</sup>lt;sup>37</sup> Sierra Club v. U.S. Dep't of Energy, 703 Fed. App'x 1 (D.C. Cir. Nov. 1, 2017) [hereinafter Sierra Club II].
 (denying petitions for review in Nos. 16-1186, 16-1252, and 16-1253 of the LNG export authorizations issued to Dominion Cove Point LNG, LP, Sabine Pass Liquefaction, LLC, and Cheniere Marketing, LLC, *et al.*, respectively).
 <sup>38</sup> See Sierra Club v. U.S. Dep't of Energy, No. 16-1426, Per Curiam Order (D.C. Cir. Jan. 30, 2018) (granting Sierra Club's unopposed motion for voluntary dismissal).

Club petitioned for review of the Freeport authorization, arguing that DOE fell short of its obligations under both the NGA and NEPA. The D.C. Circuit rejected Sierra Club's arguments in a unanimous decision, holding that, "Sierra Club has given us no reason to question the Department's judgment that the [Freeport] application is not inconsistent with the public interest."<sup>39</sup>

First, the Court rejected Sierra Club's principal NEPA argument concerning the alleged indirect effects of LNG exports, such as the effects related to the likely increase in natural gas production and usage that would result from the Freeport export authorization.<sup>40</sup> The Court found that DOE "offered a reasonable explanation as to why it believed the indirect effects pertaining to increased [natural] gas production were not reasonably foreseeable."<sup>41</sup> The Court thus held that, "[u]nder our limited and deferential review, we cannot say that the Department failed to fulfill its obligation under NEPA by declining to make specific projections about environmental impacts stemming from specific levels of export-induced [natural] gas production."<sup>42</sup>

Second, the Court rejected Sierra Club's challenge to DOE's examination of the potential "downstream" GHG emissions resulting from the indirect effects of exports—*i.e.*, those resulting from the transport and usage of U.S. LNG abroad.<sup>43</sup> The Court pointed to DOE's 2014 Life Cycle Greenhouse Gas Report, finding there was "nothing arbitrary" about the scope of DOE's analysis of GHG emissions in that Report.<sup>44</sup>

<sup>&</sup>lt;sup>39</sup> Sierra Club I, 867 F.3d at 203.

<sup>&</sup>lt;sup>40</sup> *Id.* at 192.

<sup>&</sup>lt;sup>41</sup> *Id*. at 198.

<sup>&</sup>lt;sup>42</sup> *Id.* at 201.

<sup>&</sup>lt;sup>43</sup> *Id*.

<sup>&</sup>lt;sup>44</sup> *Id.* at 202; *see also* U.S. Dep't of Energy, Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas From the United States, 79 Fed. Reg. 32,260 (June 4, 2014) (2014 Life Cycle Greenhouse Gas Report).

Third, in reviewing Sierra Club's claims under the NGA, the Court found that Sierra Club "repeats the same argument it made to support its NEPA claim—namely, that the Department arbitrarily failed to evaluate foreseeable indirect effects of exports."<sup>45</sup> Having "already rejected this argument" under NEPA, the Court determined that "Sierra Club offers no basis for reevaluating the scope of DOE's evaluation for purposes of the Natural Gas Act."<sup>46</sup>

Subsequently, in the consolidated *Sierra Club II* opinion issued on November 1, 2017, the D.C. Circuit ruled that "[t]he court's decision in [*Sierra Club I*] largely governs the resolution of the [three] instant cases."<sup>47</sup> Upon its review of the remaining "narrow issues" in those cases, the Court again rejected Sierra Club's arguments under the NGA and NEPA, and upheld DOE/FE's actions in issuing the non-FTA authorizations in those proceedings.<sup>48</sup>

The D.C. Circuit's decisions in *Sierra Club I* and *II* continue to guide DOE's review of applications to export LNG to non-FTA countries.

# III. PUBLIC INTEREST STANDARD

#### A. Natural Gas Act Section 3(a)

Section 3(a) of the NGA sets forth the standard for review of the Application:

[N]o person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the [Secretary of Energy<sup>49</sup>] authorizing it to do so. The [Secretary] shall issue such order upon application, unless after opportunity for hearing, [he] finds that the proposed exportation or importation will not be consistent with the public interest. The [Secretary] may by [the Secretary's] order grant such application, in whole or part, with such modification and upon

<sup>&</sup>lt;sup>45</sup> *Sierra Club I*, 867 F.3d at 203.

<sup>&</sup>lt;sup>46</sup> Id.

<sup>&</sup>lt;sup>47</sup> Sierra Club II, 703 Fed. App'x 1, at \*2.

<sup>&</sup>lt;sup>48</sup> Id.

<sup>&</sup>lt;sup>49</sup> The Secretary's authority was established by the Department of Energy Organization Act, 42 U.S.C. § 7172, which transferred jurisdiction over imports and export authorizations from the Federal Power Commission to the Secretary of Energy.

such terms and conditions as the [Secretary] may find necessary or appropriate.<sup>50</sup>

DOE, as affirmed by the D.C. Circuit, has consistently interpreted NGA section 3(a) as creating a rebuttable presumption that a proposed export of natural gas is in the public interest.<sup>51</sup> Accordingly, DOE will conduct an informal adjudication and grant a non-FTA application unless DOE finds that the proposed exportation will not be consistent with the public interest.<sup>52</sup> Before reaching a final decision, DOE must also comply with NEPA.<sup>53</sup>

Although NGA section 3(a) establishes a broad public interest standard and a presumption favoring export authorizations, the statute does not define "public interest" or identify criteria that must be considered in evaluating the public interest. In prior decisions, DOE has identified a range of factors that it evaluates when reviewing an application for export authorization. These factors include economic impacts, international impacts, security of natural gas supply, and environmental impacts, among others. To conduct this review, DOE looks to record evidence developed in the application proceeding.

DOE's prior decisions have also looked to certain principles established in its 1984 Policy Guidelines.<sup>54</sup> The goals of the Policy Guidelines are to minimize federal control and

<sup>52</sup> See id. ("there must be 'an affirmative showing of inconsistency with the public interest' to deny the application" under NGA section 3(a)) (quoting *Panhandle Producers & Royalty Owners Ass'n v. Econ. Regulatory Admin.*, 822 F.2d 1105, 1111 (D.C. Cir. 1987)). As of August 24, 2018, qualifying small-scale exports of natural gas to non-FTA countries are deemed to be consistent with the public interest under NGA section 3(a). *See* 10 C.F.R. § 590.102(p); 10 C.F.R. § 590.208(a); *see also* U.S. Dep't of Energy, Small-Scale Natural Gas Exports; Final Rule, 83 Fed. Reg. 35,106 (July 25, 2018).

<sup>&</sup>lt;sup>50</sup> 15 U.S.C. § 717b(a).

<sup>&</sup>lt;sup>51</sup> See Sierra Club I, 867 F.3d at 203 ("We have construed [NGA section 3(a)] as containing a 'general presumption favoring [export] authorization."") (quoting *W. Va. Pub. Serv. Comm'n v. U.S. Dep't of Energy*, 681 F.2d 847, 856 (D.C. Cir. 1982)).

<sup>&</sup>lt;sup>53</sup> See Sierra Club I, 867 F.3d at 192.

<sup>&</sup>lt;sup>54</sup> U.S. Dep't of Energy, New Policy Guidelines and Delegations Order Relating to Regulation of Imported Natural Gas, 49 Fed. Reg. 6684 (Feb. 22, 1984) [hereinafter 1984 Policy Guidelines].

involvement in energy markets and to promote a balanced and mixed energy resource system.

The Guidelines provide that:

The market, not government, should determine the price and other contract terms of imported [or exported] natural gas .... The federal government's primary responsibility in authorizing imports [or exports] will be to evaluate the need for the gas and whether the import [or export] arrangement will provide the gas on a competitively priced basis for the duration of the contract while minimizing regulatory impediments to a freely operating market.<sup>55</sup>

While the Policy Guidelines are nominally applicable to natural gas import cases, DOE

subsequently held in Order No. 1473 that the same Policy Guidelines should be applied to

natural gas export applications.56

In Order No. 1473, DOE stated that it was guided by DOE Delegation Order No. 0204-

111.57 That delegation order directed the regulation of exports of natural gas "based on a

consideration of the domestic need for the gas to be exported and such other matters as the

Administrator [of the Economic Regulatory Administration] finds in the circumstances of a

particular case to be appropriate."58

Although DOE Delegation Order No. 0204-111 is no longer in effect, <sup>59</sup> DOE's review of

export applications under NGA section 3(a) has continued to focus on: (i) the domestic need for

the natural gas proposed to be exported, (ii) whether the proposed exports pose a threat to the

<sup>&</sup>lt;sup>55</sup> *Id.* at 6685.

<sup>&</sup>lt;sup>56</sup> *Phillips Alaska Natural Gas Corp., et al.*, DOE/FE Order No. 1473, FE Docket No. 96-99-LNG, Order Extending Authorization to Export Liquefied Natural Gas from Alaska (Apr. 2, 1999), at 14 (citing *Yukon Pacific Corp.,* DOE/FE Order No. 350, Order Granting Authorization to Export Liquefied Natural Gas from Alaska, 1 FE ¶ 70,259, at 71,128 (1989)).

<sup>&</sup>lt;sup>57</sup> See id. at 13 and n.45.

<sup>&</sup>lt;sup>58</sup> DOE Delegation Order No. 0204-111 (Feb. 22, 1984), at 1 ( $\P$  (b)); *see also* 1984 Policy Guidelines, 49 Fed. Reg. at 6690 (incorporating DOE Delegation Order No. 0204-111). In February 1989, the Assistant Secretary for Fossil Energy assumed the delegated responsibilities of the Administrator of the Economic Regulatory Administration. *See* Applications for Authorization to Construct, Operate, or Modify Facilities Used for the Export or Import of Natural Gas, 62 Fed. Reg. 30,435, 30,437 n.15 (June 4, 1997) (citing DOE Delegation Order No. 0204-127, 54 Fed. Reg. 11,436 (Mar. 20, 1989)).

<sup>&</sup>lt;sup>59</sup> DOE Delegation Order No. 0204-111 was later rescinded by DOE Delegation Order No. 00-002.00 (¶ 2) (Dec. 6, 2001), and DOE Redelegation Order No. 00-002.04 (¶ 2) (Jan. 8, 2002).

security of domestic natural gas supplies, (iii) whether the arrangement is consistent with DOE's policy of promoting market competition, and (iv) any other factors bearing on the public interest, as determined by DOE.

## B. Application of Standard to Proposed Exports from Alaska

When an applicant proposes to export LNG produced in Alaska under NGA section 3(a),

DOE/FE has determined that the traditional "domestic need" criterion of the public interest

standard "should be focused specifically on the regional need of the natural gas proposed to be

exported from the local gas market in Alaska."<sup>60</sup> For example, in DOE/FE Order No. 1473,

DOE/FE agreed that a consideration of "general domestic or national need" was not relevant to

its public interest analysis when considering proposed exports of LNG from Alaska.<sup>61</sup> Instead,

DOE/FE concluded that "regional need is the only relevant need consideration" due to the

"geographic isolation of Alaska and the Cook Inlet area from the rest of the United States."<sup>62</sup>

In DOE/FE Order No. 2860, DOE/FE summarized the applicable standard as follows:

The standard of review ... is whether the proposed export is inconsistent with the public interest standard and, in particular, whether there is a shortage of natural gas supplies in the local Southeastern Alaska market such that local needs for natural gas cannot be met and whether there are other public interest considerations which would make a grant of the requested authorization inconsistent with the public interest.<sup>63</sup>

<sup>&</sup>lt;sup>60</sup> ConocoPhillips Alaska Natural Gas Corp., DOE/FE Order No. 3418, FE Docket No. 13-155-LNG, Order Granting Blanket Authorization to Export Liquefied Natural Gas by Vessel from the Kenai LNG Facility near Kenai, Alaska to Non-Free Trade Agreement Nations, at 5 (Apr. 14, 2014).

<sup>&</sup>lt;sup>61</sup> Phillips Alaska Natural Gas Corp., DOE/FE Order No. 1473, at 15 n.48.

<sup>&</sup>lt;sup>62</sup> Id.

<sup>&</sup>lt;sup>63</sup> ConocoPhillips Alaska Natural Gas Corp. & Marathon Oil Co., DOE/FE Order No. 2860, FE Docket No. 10-63-LNG, Order Granting Authorization to Export Liquefied Natural Gas from Alaska, at 16 (Oct. 5, 2010); see also ConocoPhillips Alaska Natural Gas Corp., DOE/FE Order No. 3784, FE Docket No. 15-149-LNG, Order Granting Blanket Authorization to Export Liquefied Natural Gas by Vessel from the Kenai LNG Facility Near Kenai, Alaska, and Vacating Prior Export Authorization, at 6 (Feb. 8, 2016) ("we consider the regional need for the proposed exports in the Cook Inlet region and any other public interest considerations that may be relevant, based on the record evidence").

In this proceeding, the natural gas for the proposed exports will be produced in the North Slope region, which includes natural gas derived from the area of Alaska north of the Brooks Range, including the continental shelf of the United States under the Beaufort Sea.<sup>64</sup> Accordingly, DOE/FE will consider the need for the proposed exports in Alaska and the North Slope region specifically, as well as any other relevant public interest considerations.

## **IV. DESCRIPTION OF REQUEST**

#### A. Description of Applicant

Alaska LNG is a Delaware limited liability company with its principal place of business in Anchorage, Alaska.<sup>65</sup> In the Application, Alaska LNG states that its members are ExxonMobil Alaska LNG LLC, ConocoPhillips Alaska LNG Company, and BP Alaska LNG LLC (collectively, the Members). According to Alaska LNG, affiliates of the Members currently hold oil and gas leasehold interests in Alaska, including in the Prudhoe Bay and Point Thomson Units on the North Slope.<sup>66</sup>

Additionally, Alaska LNG states that, in 2014, it entered into an agreement with various parties, including the State of Alaska and AGDC, related to the "evaluation and development" of the Alaska LNG Project.<sup>67</sup> Under that agreement, the State of Alaska holds a 25% participation interest in the Project, through its designees AGDC and TransCanada Corporation.<sup>68</sup> The

<sup>&</sup>lt;sup>64</sup> ConocoPhillips Alaska Natural Gas Corp., DOE/FE Order No. 3784, at 5.

<sup>&</sup>lt;sup>65</sup> App. at 7; Supp. at 1.

<sup>&</sup>lt;sup>66</sup> App. at 7.

<sup>&</sup>lt;sup>67</sup> *Id.* at 3 & n.10 (citing Heads of Agreement By and Among the Administration of the State of Alaska, Alaska Gasline Dev. Corp., TransCanada Alaska Dev. Inc., ExxonMobil Alaska Production Inc., ConocoPhillips Alaska, Inc., and BP Exploration (Alaska) Inc. for the Alaska LNG Project (Jan. 14, 2014), *available at*: http://www.dor.alaska.gov/Portals/5/Docs/PressReleases/HOA.pdf).

<sup>&</sup>lt;sup>68</sup> State of Alaska and Alaska Gasline Dev. Corp., Joint Motion to Intervene and Comments in Support of the Requested Authorization, FE Docket 14-96-LNG, at 3-4 (Nov. 17, 2014) [hereinafter State Intervenors Mot.].

agreement was activated by Alaska Senate Bill 138, enacted on May 8, 2014, which enables the State of Alaska to participate in the Project.<sup>69</sup>

On July 6, 2020, Alaska LNG filed a Notification Regarding Change in Control.<sup>70</sup>

Alaska LNG stated that BP Alaska LNG LLC is a wholly owned subsidiary of BP Exploration

(Alaska) Inc. (BPXA). Alaska LNG further stated that, effective June 30, 2020, Hilcorp Alaska,

LLC (Hilcorp) acquired the stock of BPXA-which includes the member interest in BP Alaska

LNG LLC—as part of a larger corporate transaction whereby Hilcorp and its affiliates acquired

all of BP's Alaska operations.<sup>71</sup> As a result, Hilcorp has acquired BP Alaska LNG LLC's

membership interest in Alaska LNG (33.3%).<sup>72</sup>

# **B.** The Alaska LNG Project

As approved by FERC, the Alaska LNG Project will include the following main

components:

- A natural gas treatment plant (Prudhoe Bay Treatment Plant), to be located in the Prudhoe Bay Unit of Alaska's North Slope, consisting of three treatment trains for the removal of carbon dioxide and hydrogen sulfide from the feed gas, and two natural gas pipelines connecting production units to the Treatment Plant;
- (ii) An approximately 806.9-mile-long, 42-inch-diameter pipeline (Mainline Pipeline) capable of transporting up to 3.9 Bcf/d of natural gas from the Prudhoe Bay Treatment Plant to the Liquefaction Facility;<sup>73</sup>
- (iii) Eight compressor stations along the Mainline Pipeline, with at least five off-take points for delivery of natural gas to Alaska; and

<sup>69</sup> Id. at 3-4; App. at 3; see Alaska Stat. § 31.25.080.

<sup>&</sup>lt;sup>70</sup> Alaska LNG Project LLC, Notification Regarding Change in Control, FE Docket No. 14-96-LNG (July 6, 2020) [hereinafter Alaska LNG Notification].

 $<sup>^{71}</sup>$  See *id.* at 2.

<sup>&</sup>lt;sup>72</sup> *Id.*; *see also* U.S Dep't of Energy, Response to Notification Regarding Change in Control (Alaska LNG Project LLC), FE Docket No. 14-96-LNG, at 2-3 (Aug. 12, 2020).

<sup>&</sup>lt;sup>73</sup> The proposed Mainline Pipeline generally will follow the existing Trans Alaska Pipeline System crude oil pipeline and adjacent highways south to Livengood, Alaska, before heading south-southwest towards the site of the Liquefaction Facility. See FERC Order at  $\P$  16.

(iv) A Liquefaction Facility to be located on the eastern shore of Cook Inlet in the Nikiski area of the Kenai Peninsula, consisting of three LNG trains with a total maximum capacity of 20 mtpa, as well as storage and LNG delivery facilities for the marine loading of LNG for export.<sup>74</sup>

Alaska LNG states that it will be required to build each component of this greenfield Project.<sup>75</sup>

The proposed Project will be located across commercial, private, federal, and state-owned land.<sup>76</sup> Specifically, the Prudhoe Bay Treatment Plant is proposed to be located on state land designated for oil and natural gas development within the North Slope Borough.<sup>77</sup> Alaska LNG states that the Liquefaction Facility will be sited in an area that (at the time the Application was filed) is a mix of industrial, commercial, and residential uses, with no zoning requirements.<sup>78</sup> Alaska LNG states that it has secured more than 200 acres of land for the Liquefaction Facility, which is nearly half of the total acreage of the proposed site.<sup>79</sup> Alaska LNG states that it will obtain any necessary land use permits or authorizations related to the development of the site.<sup>80</sup>

Alaska LNG states that this "integrated mega-project" is unique due to its size, scope, costs, required upstream development, and project development timeline, which are more significant than any LNG project in the lower-48 states.<sup>81</sup>

#### C. Source of Natural Gas

Alaska LNG seeks authorization to export natural gas from the North Slope Point

<sup>&</sup>lt;sup>74</sup> App. at 7-8; *see also* FERC Order at ¶¶ 3-4. Alaska LNG states that the 20 mtpa of LNG represents the peak capacity of the Liquefaction Facility for export purposes. Alaska LNG also proposes to supply in-state volumes of natural gas from the North Slope, which would be in addition to the 20 mtpa export volume. *Id.* at 8 nn.20-21; *see also* FERC Order at ¶ 4 n.5.

<sup>&</sup>lt;sup>75</sup> App. at 5.

<sup>&</sup>lt;sup>76</sup> FERC Order at  $\P$  16.

<sup>&</sup>lt;sup>77</sup> Id.

<sup>&</sup>lt;sup>78</sup> See Supp. at 1; see also FERC Order at ¶ 16 (stating that the site for the Liquefaction Facility will be in an industrial area).

<sup>&</sup>lt;sup>79</sup> App. at 8. A map of the Project and an affidavit concerning the land acquired for the Project is attached to the Application as Appendices C and D, respectively.

<sup>&</sup>lt;sup>80</sup> Supp. at 1.

<sup>&</sup>lt;sup>81</sup> App. at 1, 5.

Thomson Unit and Prudhoe Bay Unit production fields of Alaska. According to Alaska LNG, affiliates of the Members of Alaska LNG are leaseholders of natural gas resources in Alaska, thus providing the Project with access to natural gas.<sup>82</sup> Alaska LNG expects that the natural gas developed and produced by the respective affiliates of its Members will be delivered to the Liquefaction Facility where LNG will be produced and made available for export.<sup>83</sup>

#### **D. Business Model**

Alaska LNG requests authorization to export LNG on its own behalf and as agent for any or all of the following: (i) each of its Members; (ii) the respective affiliates of its Members; (iii) the State of Alaska or its nominee; and (iv) other third parties, under contracts to be executed in the future, as applicable.<sup>84</sup> Alaska LNG states that the title holder at the point of export may be another party, such as the respective affiliates of its Members or other third parties pursuant to an LNG sales and purchase contract.<sup>85</sup>

Alaska LNG states that it will comply with all DOE/FE requirements for exporters and agents, as set forth in recent DOE/FE orders. Alaska LNG states that, in addition to registering any LNG title holder for whom it seeks to export as agent, Alaska LNG will file under seal with DOE/FE any relevant long-term commercial agreements once those agreements have been executed.<sup>86</sup>

#### E. Export Term and Commencement of Operations

Alaska LNG states that the requested 30-year export term and 12-year commencement term are appropriate and necessary in light of the "unprecedented investment" required in the

<sup>&</sup>lt;sup>82</sup> *Id.* at 12; *see also* FERC Order at ¶¶ 3-4.

<sup>&</sup>lt;sup>83</sup> App. at 12.

<sup>&</sup>lt;sup>84</sup> *Id.* at 10.

<sup>&</sup>lt;sup>85</sup> Id.

<sup>&</sup>lt;sup>86</sup> *Id.* at 10-11.

Project (which Alaska LNG estimates will be between \$45 and \$65 billion to construct), the Project scope, and time requirements needed to bring natural gas resources from the North Slope to market.<sup>87</sup> Alaska LNG emphasizes that each component of the Project must be built from the ground up. Further, "the challenges of moving equipment and a workforce over long distances to the construction sites are magnified under the extreme Arctic conditions."<sup>88</sup> Alaska LNG states that a 30-year export term is supported by the natural gas reserves and resources estimates in the studies submitted with its Application (discussed *infra*).<sup>89</sup> Finally, Alaska LNG states that a 30-year export term will provide a longer time period to recover the initial investments following Project start-up.<sup>90</sup>

# V. APPLICANT'S PUBLIC INTEREST ANALYSIS

In the Application, Alaska LNG asserts that its requested non-FTA authorization is consistent with the public interest under NGA section 3(a). In support of this argument, Alaska LNG states that its proposed exports would not have a detrimental impact on the regional domestic supply of natural gas. According to Alaska LNG, "estimated recoverable natural gas reserves and resources in Alaska are abundant and more than sufficient to meet demand for both Alaska in-state consumption and [the] proposed export over the requested 30-year export term."<sup>91</sup> Alaska LNG further states that the proposed exports would produce significant economic benefits in Alaska and the United States as a whole, would create thousands of jobs and produce revenues to the benefit of local and regional economies, and would have positive

<sup>&</sup>lt;sup>87</sup> *Id.* at 37. We note that, more recently, AGDC has estimated that the cost of the Project facilities will be "between \$40 and \$45 billion." FERC Order at  $\P$  3.

 <sup>&</sup>lt;sup>88</sup> App. at 38 (noting, for example, that the facilities for the Prudhoe Bay Treatment Plant must be constructed in a modular fashion, then sealifted to the North Slope during a very short time window in the late summer).
 <sup>89</sup> App. at 39.

<sup>&</sup>lt;sup>90</sup> *Id.* at 9, 39.

<sup>&</sup>lt;sup>91</sup> *Id*. at 17.

benefits for national energy security and the U.S. balance of trade, among other public interest impacts.<sup>92</sup> According to Alaska LNG, construction of the Project would be "the single largest investment in Alaska's history."<sup>93</sup>

Alaska LNG commissioned two studies to support its request. First, Alaska LNG engaged DeGolyer and MacNaughton (D&M) to evaluate "whether there are the necessary natural gas reserves and resources in Alaska to support domestic natural gas demand in Alaska and the Project's feed gas requirements, and to evaluate the possible term of such export" (D&M Supply Report).<sup>94</sup> According to Alaska LNG, the conservative "expected supply scenario" in the D&M Supply Report supports the requested 30-year LNG export term, and the alternative "high supply scenario" would support an even longer export term of 40 years or more.<sup>95</sup>

Second, Alaska LNG engaged NERA Economic Consulting (NERA) to conduct "an analysis of the natural gas market and macroeconomic impacts that the Project could potentially have on both Alaska and the United States as a whole" (NERA Socio-Economic Report).<sup>96</sup> NERA concluded that, based on the Expected Demand scenario for the natural gas—to meet both Alaska in-state natural gas demand and the Project's feed gas requirements—the Expected Supply "is sufficient to meet and exceed the Expected Demand."<sup>97</sup> According to Alaska LNG, NERA determined that the export of Alaska natural gas would lead to lower natural gas prices in Alaska, and would have positive market and macroeconomic impacts on both Alaska and the United States.<sup>98</sup> Alaska LNG also contends that granting its requested authorization will enable

<sup>&</sup>lt;sup>92</sup> See id. at 30-35.

<sup>&</sup>lt;sup>93</sup> *Id*. at 32.

<sup>&</sup>lt;sup>94</sup> *Id.* at 18. A copy of the D&M Supply Report is attached to the Application as Appendix E.

<sup>&</sup>lt;sup>95</sup>App. at 18-21.

<sup>&</sup>lt;sup>96</sup> Id. at 21. A copy of the NERA Socio-Economic Report is attached to the Application as Appendix F.

<sup>&</sup>lt;sup>97</sup> *Id.* at 21-22.

<sup>98</sup> Id. at 25-26, 33.

the production of currently-stranded North Slope natural gas supplies to serve consumers in Alaska, as well as to support the proposed exports.<sup>99</sup>

Finally, section 12 of the Alaska Natural Gas Transportation Act (ANGTA) states that "before any Alaska natural gas in excess of 1,000 Mcf [thousand cubic feet] per day may be exported to any nation other than Canada or Mexico, the President must make and publish an express finding that such exports will not diminish the total quantity or quality nor increase the total price of energy available to the United States."<sup>100</sup> In the Application, Alaska LNG states that President Reagan issued such a finding in 1988, which was not limited in scope to a particular project or time period. In accordance with DOE/FE precedent, Alaska LNG argues that the 1988 Presidential finding is valid and applicable to this Project, and that the requirement of section 12 of ANGTA has been satisfied.<sup>101</sup>

In the Conditional Order, DOE/FE summarized Alaska LNG's public interest arguments and supporting studies in the following categories: (i) domestic need for the natural gas proposed to be exported, (ii) impact of the proposed exports on natural gas market prices, (iii) Presidential finding concerning Alaska natural gas; (iv) economic benefits, (v) benefits to national energy security, and (vi) environmental benefits.<sup>102</sup> DOE/FE incorporates by reference DOE/FE's summary and discussion of these public interest arguments in the Conditional Order.

<sup>&</sup>lt;sup>99</sup> *Id*. at 24-25.

<sup>&</sup>lt;sup>100</sup> 15 U.S.C. § 719j.

<sup>&</sup>lt;sup>101</sup> App. at 26-30.

<sup>&</sup>lt;sup>102</sup> Conditional Order at 10-18.

#### VI. DOE/FE PROCEEDINGS

#### A. Overview

In response to the Notice of Application,<sup>103</sup> DOE/FE received eight motions to intervene from API; TransCanada Alaska Midstream, LP; the State of Alaska and AGDC (filing jointly); ConocoPhillips Alaska, Inc.; BP Exploration (Alaska) Inc.;<sup>104</sup> Sierra Club; Robert S. Mulford; and APGA.<sup>105</sup> The motions to intervene filed by Sierra Club and Mr. Mulford also included protests of the Application.<sup>106</sup> DOE/FE also received numerous letters in support of the Application, asserting that the Alaska LNG Project would provide economic benefits for residents across the State of Alaska.<sup>107</sup> Although Alaska LNG did not oppose any of the motions to intervene, it submitted an "Answer to Limited Protests" on December 2, 2014.<sup>108</sup> On December 8, 2014, Mr. Mulford submitted a "Rebuttal of the Alaska LNG Project LLC Motion to Reject the Protest of Robert S. Mulford."<sup>109</sup>

In the Conditional Order, DOE/FE reviewed and summarized the comments, motions to intervene, and protests submitted in response to the Notice of Application. DOE also made preliminary findings on all issues under NGA section 3(a) except the environmental issues.<sup>110</sup>

<sup>&</sup>lt;sup>103</sup> See supra § I.

<sup>&</sup>lt;sup>104</sup> Although DOE/FE previously stated that seven motions to intervene were filed in response to the Notice of Application, an additional motion to intervene—filed by BP Exploration (Alaska) Inc. (BPXA)—was also timely filed but inadvertently omitted from the Conditional Order. *See* BP Exploration (Alaska) Inc., Motion to Intervene, FE Docket 14-96-LNG (Nov. 13, 2014). Like the other motions to intervene, BPXA's motion to intervene was unopposed and therefore granted by operation of law. *See* Conditional Order at 27, 46 (Ordering Para. Q). As noted above, BPXA's membership interest in the Alaska LNG Project was acquired by Hilcorp on June 30, 2020. *See supra* § IV.A.

<sup>&</sup>lt;sup>105</sup> Conditional Order at 18-24.

<sup>&</sup>lt;sup>106</sup> *Id.* at 22-24.

<sup>&</sup>lt;sup>107</sup> *Id.* at 18-19.

<sup>&</sup>lt;sup>108</sup> Alaska LNG Project LLC, Answer to Limited Protests, FE Docket No. 14-96-LNG (Dec. 2, 2014) [hereinafter Alaska LNG Answer].

<sup>&</sup>lt;sup>109</sup> Robert S. Mulford, Rebuttal of the Alaska LNG Project LLC Motion to Reject the Protest of Robert S. Mulford, FE Docket 14-96-LNG (Dec. 8, 2014).

<sup>&</sup>lt;sup>110</sup> See Conditional Order §§ VI-IX.

DOE/FE incorporates these arguments and findings by reference into this Order. To ensure a complete review, DOE/FE examines below the environmental arguments—which were raised only by Sierra Club—as well as Alaska LNG's response.

#### **B.** Sierra Club's Protest

Sierra Club asserts that the proposed exports from the Alaska LNG Project are not in the public interest under NGA section 3(a) and are not supported by adequate environmental analysis.<sup>111</sup> Specifically, Sierra Club asserts that the Project will cause extensive environmental harm, including "impacting the environment around the export site, inducing harmful natural gas production, and likely increasing global greenhouse gas emissions."<sup>112</sup>

First, according to Sierra Club, the construction and operation of the Liquefaction Facility and related pipelines will directly impact local water quality, habitats, and air quality.<sup>113</sup> Second, the Project will induce additional natural gas production in the United States, causing "myriad environmental harms."<sup>114</sup> Lastly, Sierra Club argues that LNG exports likely will compete with wind, solar, and other clean, renewable energy sources, as well as conservation efforts, in importing markets.<sup>115</sup> Sierra Club asserts that these renewable energy sources have lower environmental and climate impacts than LNG.<sup>116</sup> Sierra Club also states that it "expects to offer further comments on the details of these impacts as part of the NEPA review process."<sup>117</sup>

<sup>&</sup>lt;sup>111</sup> Sierra Club, Motion to Intervene and Protest, FE Docket No. 14-96-LNG, at 1 (Nov. 17, 2014) [hereinafter Sierra Club Mot.].

<sup>&</sup>lt;sup>112</sup> Id.

 $<sup>^{113}</sup>$  *Id*. at 3.

<sup>&</sup>lt;sup>114</sup> *Id.* <sup>115</sup> *Id.* 

 $<sup>^{116}</sup>$  Id.

<sup>&</sup>lt;sup>117</sup> Sierra Club Mot. at 1.

# C. Answer of Alaska LNG to Sierra Club's Protest

Alaska LNG asserts that Sierra Club's protest contains vague and unsupported allegations of environmental harm that allegedly would result if the Project were constructed.<sup>118</sup> Alaska LNG argues that Sierra Club's protest fails to meet its burden under NGA section 3(a) to make an affirmative showing that the authority sought in the Application is inconsistent with the public interest.<sup>119</sup> Further, Alaska LNG notes that any environmental issues will be thoroughly reviewed during the NEPA review process then-pending before FERC.<sup>120</sup> Finally, Alaska LNG argues that Sierra Club has provided no studies or analysis to support its claims of environmental harm, and that Sierra Club fails to dispute the findings in the comprehensive studies submitted by Alaska LNG in support of the Application.<sup>121</sup>

#### VII. FERC PROCEEDING

#### **A. FERC's Pre-Filing Procedures**

Authorizations issued by FERC permitting the siting, construction, and operation of LNG export terminals are reviewed under NGA subsections 3(a) and (e), 15 U.S.C. § 717b(a), (e). FERC's approval process for such an application consists of a mandatory pre-filing process during which the environmental review required by NEPA commences,<sup>122</sup> and a formal application process that starts no sooner than 180 days after issuance of a notice that the prefiling process has commenced.<sup>123</sup>

On September 12, 2014, FERC began its pre-filing review of the Alaska LNG Project.<sup>124</sup>

<sup>&</sup>lt;sup>118</sup> Alaska LNG Answer at 4.

<sup>&</sup>lt;sup>119</sup> Id.

 $<sup>^{120}</sup>$  Id.

<sup>&</sup>lt;sup>121</sup> Id. at 4-5.

<sup>122 18</sup> C.F.R. § 157.21. <sup>123</sup> 18 C.F.R. § 157.21(a)(2).

<sup>&</sup>lt;sup>124</sup> Alaska Gasline Dev. Corp., Approval of Pre-Filing Request, FERC Docket No. PF14-21-000 (Sept. 12, 2014); Final EIS at 1-1.

FERC established pre-filing Docket No. PF14-21-000 to place information related to the Project into the public record.<sup>125</sup> On March 13, 2015, FERC issued a Notice of Intent to Prepare an Environmental Impact Statement for the proposed Project.<sup>126</sup> DOE agreed to participate as a cooperating agency in FERC's environmental review.<sup>127</sup>

### **B.** FERC's Environmental Review

On April 17, 2017, AGDC<sup>128</sup> filed an application with FERC under section 3 of the NGA

to site, construct, and operate the proposed Alaska LNG Project.<sup>129</sup> FERC assigned Docket No.

CP17-178-000 to AGDC's proposal.

In compliance with NEPA, FERC staff issued a Notice of Availability of a Draft

Environmental Impact Statement on June 28, 2019, and placed the draft EIS into the public

record.<sup>130</sup> On March 6, 2019, FERC staff issued the final EIS for the Project.<sup>131</sup> The final EIS

responded to comments received on the draft EIS, and addressed numerous potential impacts of

the Project, including but not limited to wetlands, geological conditions, water resources, air

quality, and cumulative impacts.<sup>132</sup>

<sup>&</sup>lt;sup>125</sup> See Final EIS at 1-1.

<sup>&</sup>lt;sup>126</sup> Fed. Energy Regulatory Comm'n, Alaska Gasline Dev. Corp. *et al.*; Notice of Intent to Prepare an Environmental Impact Statement for the Planned Alaska LNG Project and Request for Comments on Environmental Issues, FERC Docket No. PF14-21-000, 80 Fed. Reg. 13,366 (Mar. 13, 2015).

<sup>&</sup>lt;sup>127</sup> See id. at 13,368.

<sup>&</sup>lt;sup>128</sup> As noted above, AGDC is an independent, public corporation of the State of Alaska. The State of Alaska, through AGDC, holds a 25% participation interest in the Alaska LNG Project. *See supra* §§ I, IV.A.

<sup>&</sup>lt;sup>129</sup> Alaska Gasline Dev. Corp., Application for Authorization under Section 3 of the Natural Gas Act, FERC Docket No. CP17-178-000 (Apr. 17, 2017).

<sup>&</sup>lt;sup>130</sup> Fed. Energy Regulatory Comm'n, Alaska Gasline Dev. Corp.; Notice of Availability of the Draft Environmental Impact Statement for the Proposed Alaska LNG Project, FERC Docket No. CP17-178-000, 84 Fed. Reg. 32,451 (Jul. 8, 2019); *see also* FERC Order at ¶ 23.

<sup>&</sup>lt;sup>131</sup> See Fed. Energy Regulatory Comm'n, Alaska Gasline Dev. Corp.; Notice of Availability of the Final Environmental Impact Statement for the Proposed Alaska LNG Project, FERC Docket No. CP17-178-000, 85 Fed. Reg. 14,470 (Mar. 12, 2020); see also FERC Order at ¶ 24.

<sup>&</sup>lt;sup>132</sup> See final EIS at ES-2 to ES-6; FERC Order at  $\P$  24.

Based on its environmental analysis, FERC staff concluded in the final EIS that although "Project construction and operation would result in adverse environmental impacts[,]" AGDC's commitments and FERC's recommended mitigations "would reduce these effects to less than significant levels" in some cases.<sup>133</sup> The final EIS contained 164 site-specific environmental mitigation measures, which FERC staff recommended that FERC attach as conditions to any authorization of the Project.<sup>134</sup>

# C. FERC's Order Granting Authorization

On May 21, 2020, FERC issued its Order authorizing AGDC to site, construct, and operate the Alaska LNG Project with a liquefaction capacity of 20 mtpa of LNG.<sup>135</sup> In addition to the Liquefaction Facility, FERC authorized AGDC to construct and operate the Mainline Pipeline, two additional natural gas pipelines connecting production units to the Prudhoe Bay Treatment Plant, and other associated facilities.<sup>136</sup>

In granting these authorizations, FERC cited the final EIS in stating that the construction and operation of the Alaska LNG Project "would have significant impacts on permafrost, wetlands, forests, and caribou, specifically the Central Arctic Herd, as well as some sensitive noise receptors."<sup>137</sup> FERC concluded, however, that "if the project is constructed and operated as described in the final EIS, the environmental impacts associated with the project are acceptable considering the public benefits that will be provided by the project."<sup>138</sup> Specifically, FERC found that, although the Project would result in "temporary, long-term, and permanent impacts on the environment, some of which would be significant, most impacts would be

<sup>&</sup>lt;sup>133</sup> Final EIS at 5-1.

<sup>&</sup>lt;sup>134</sup> *Id.* at 5-50 to 5-77 (list of mitigation measures).

<sup>&</sup>lt;sup>135</sup> FERC Order at ¶¶ 1, 3-4, 253 (Ordering Para. A).

<sup>&</sup>lt;sup>136</sup> *Id*.

<sup>&</sup>lt;sup>137</sup> *Id.* at ¶ 25.

<sup>&</sup>lt;sup>138</sup> *Id.* at ¶ 251.

reduced to less-than-significant levels if the project is constructed and operated in accordance with applicable laws and regulations and the environmental mitigation measures recommended in the final EIS" and adopted by FERC's Order.<sup>139</sup> FERC also pointed to the economic and public benefits from the proposal, including increased employment opportunities and household income from the Project's construction and operation.<sup>140</sup> On this basis, FERC found that the arguments in opposition to the Alaska LNG Project did not overcome the presumption that the Project is consistent with the public interest under NGA section 3.<sup>141</sup> FERC adopted the 164 mitigation measures recommended in the final EIS as environmental conditions of the Order (with some slight modifications) and added one condition for a total of 165 environmental conditions set forth in the Appendix of FERC's Order.<sup>142</sup>

FERC considered the major environmental issues reviewed in the final EIS.<sup>143</sup> In addressing greenhouse gas (GHG) emissions, for example, FERC pointed to the estimate in the final EIS that operation of the Alaska LNG Project may result in GHG emissions of up to 16.3 million metric tons per year of carbon dioxide equivalent (CO<sub>2</sub>e) with maximum flare.<sup>144</sup> FERC further stated that the operation of the Project will "result in a range of about 30-47 percent increase in the annual fossil-fuel combustion inventory in Alaska" based on 2017 levels.<sup>145</sup>

<sup>142</sup> Id. at ¶ 249-250. FERC added Environmental Condition 24, requiring that, following construction of the Project, AGDC shall conduct seasonal monitoring for a period of three years to track caribou herd movement and determine if project infrastructure is creating a barrier to caribou movement. Id. at ¶ 107 & App'x. <sup>143</sup> FERC Order at ¶¶ 44-247.

<sup>&</sup>lt;sup>139</sup> Id. Additionally, FERC stated that AGDC committed to implementing 40 additional mitigation measures that are not included in the final EIS, but that AGDC is required to implement. See id. at ¶ 17 n.39. <sup>140</sup> FERC Order at ¶ 17.

<sup>&</sup>lt;sup>141</sup> Id. at ¶¶ 17, 253.

<sup>&</sup>lt;sup>144</sup> Id. at ¶ 214 (citing final EIS at Tables 4.15.5-1, 4.15.10, 4.15.5-114.15.5-12, 4.15.5-13, 4.15.5-14, 4.15.5-15, 4.15.5-3, and 4.15.5-20).

<sup>&</sup>lt;sup>145</sup> *Id.* at  $\P$  215 (citations omitted).

FERC noted in comparison that, from "a national perspective, direct operational GHG emissions would result in a range of 0.17-0.28 percent increase in national GHG emissions."<sup>146</sup>

On the basis of these estimates, FERC acknowledged the finding in the final EIS that the quantified GHG emissions from the construction and operation of the Alaska LNG Project "would increase the atmospheric concentration of GHGs in combination with past and future emissions from all other sources and contribute incrementally to future climate change impacts."<sup>147</sup> FERC stated, however, that it has "neither the tools nor the expertise to determine whether project-related GHG emissions will have a significant impact on climate change and any potential resulting effects, such as global warming or sea level rise."<sup>148</sup> Therefore, FERC concluded that "it could not determine whether a project's contribution to climate change would be significant."<sup>149</sup>

Additionally, FERC considered the cumulative impacts of the Alaska LNG Project with other projects in the same geographic and temporal scope.<sup>150</sup> FERC observed that the Project combined with other projects in the study area would contribute to significant cumulative impacts on permafrost, wetlands, forest, caribou, noise, and population.<sup>151</sup> However, FERC stated that, for the majority of resources where a level of impact could be ascertained, the Project's cumulative impacts "would not be significant."<sup>152</sup>

Based on its review of these and other environmental issues, FERC found that, "if the project is constructed and operated as described in the final EIS, the environmental impacts

<sup>&</sup>lt;sup>146</sup> *Id.* (*citing, e.g.*, U.S. Envtl. Prot. Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2018, 2018 Data, Table ES-2 (Apr. 2020)).

<sup>&</sup>lt;sup>147</sup> *Id.* at  $\P$  216 (citing final EIS at 4-1221).

<sup>&</sup>lt;sup>148</sup> *Id.* (citing *Jordan Cove Energy Project L.P.*, 170 FERC ¶ 61,202, at ¶ 262 (2020)).

<sup>&</sup>lt;sup>149</sup> FERC Order at ¶ 216.

<sup>&</sup>lt;sup>150</sup> *Id.* at  $\P$  236 (citing final EIS at 4-1158 to 4-1222); *see also id.*  $\P$  237 (describing other projects). <sup>151</sup> *Id.*  $\P$  237.

<sup>&</sup>lt;sup>152</sup> *Id.* at  $\P$  238 (citing final EIS at 5-48).

associated with the project are acceptable considering the public benefits that will be provided by the project."<sup>153</sup> FERC noted the importance of compliance with the environmental recommendations contained in the final EIS and included, as modified, as conditions to its Order.<sup>154</sup> FERC stated that "Commission staff will only issue a construction notice to proceed with an activity when satisfied that the applicant has complied with all applicable conditions."<sup>155</sup> FERC further emphasized that it "has the authority to take whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the project," including the authority to impose any additional measures deemed necessary to ensure compliance with the intent of the conditions of the FERC Order.<sup>156</sup>

In sum, FERC found that the Alaska LNG Project is not inconsistent with the public interest under NGA section 3.<sup>157</sup> We note that certain parties have requested rehearing of the FERC Order, and that rehearing proceeding is ongoing.<sup>158</sup>

#### VIII. DISCUSSION AND CONCLUSIONS

In reviewing Alaska LNG's Application, DOE/FE has considered its obligations under NGA section 3(a) and NEPA. To accomplish these purposes, DOE/FE has examined a wide range of information addressing environmental and non-environmental factors, including Alaska LNG's Application, supporting studies, and supplemental information; the filings submitted in response to the Application; FERC's final EIS; the FERC Order (including the 165 environmental conditions adopted in that Order); and other information discussed below.

<sup>&</sup>lt;sup>153</sup> *Id.* at ¶ 251.

<sup>&</sup>lt;sup>154</sup> FERC Order at ¶ 250.

<sup>&</sup>lt;sup>155</sup> *Id*.

<sup>&</sup>lt;sup>156</sup> Id.

<sup>&</sup>lt;sup>157</sup> *Id.* at ¶ 251.

<sup>&</sup>lt;sup>158</sup> See Alaska Gasline Dev. Corp., Notice of Denial of Rehearings by Operation of Law and Providing for Further Consideration, 172 FERC ¶ 62,032 (July 22, 2020).

## A. Non-Environmental Issues

#### 1. Regional Supply of Natural Gas

In considering the adequacy of natural gas supplies proposed to be exported, DOE/FE previously has determined that the "domestic need" criterion of the NGA section 3(a) public interest standard "should be focused specifically on the *regional* need of the natural gas proposed to be exported from the local gas market in Alaska."<sup>159</sup> As the basis for this standard, DOE's prior decisions involving exports of LNG produced in Alaska (from the Cook Inlet region) emphasized the relative geographic isolation of Alaska from the lower-48 states. This condition of relative geographic isolation continues today. Because there is currently no pipeline interconnection between Alaska and the lower-48 states and are analyzed separately.<sup>160</sup> Further, there is no existing natural gas pipeline connecting the North Slope production area at issue in this proceeding with markets to the south where the natural gas can be sold and monetized.<sup>161</sup> Thus, to date, North Slope natural gas remains an undeveloped or "stranded" resource base.<sup>162</sup>

In the Conditional Order, DOE found that Alaska LNG had introduced evidence "demonstrating that there is sufficient natural gas supply within the State of Alaska to meet both anticipated regional demand and the demand that would likely result from granting the requested authorization."<sup>163</sup> Based on this evidence—as well as the lack of substantive opposition to it—

<sup>161</sup> See App. at 19 n.57; see also FERC Order at ¶ 9; U.S. Dep't of Energy, Office of Fossil Energy, Alaska Natural Gas Flaring & Venting Regulations, at 1 (May 2019), available at:

<sup>&</sup>lt;sup>159</sup> ConocoPhillips Alaska Natural Gas Corp., DOE/FE Order No. 3418, at 5; see also supra § III.B.

<sup>&</sup>lt;sup>160</sup> See, e.g., Freeport LNG Expansion, L.P., et al., DOE/FE Order No. 3282, at 13-14 n.36.

https://www.energy.gov/sites/prod/files/2019/08/f66/Alaska.pdf. <sup>162</sup> See Conditional Order at 33; see also App. at 3.

<sup>&</sup>lt;sup>163</sup> See Conditional Order at 33.

DOE/FE further concluded that, "because the Alaska LNG Project will access stranded gas [on the North Slope], the Project will improve rather than worsen the supply of gas available to consumers in Alaska."<sup>164</sup>

Additionally, we take administrative notice of the U.S. Energy Information Administration's (EIA) authoritative data for Alaska's natural gas supply and demand, set forth in the *State Energy Profile* for Alaska issued on December 19, 2019,<sup>165</sup> and in EIA's recent statelevel natural gas reserves, production, and demand data. EIA states that Alaska's proved dry natural gas proved reserves totaled 8.8 trillion cubic feet (Tcf) at the start of 2019—the 11th largest state proved reserves in the United States.<sup>166</sup> In comparison, Alaska's natural gas consumption totaled 0.36 Tcf in 2018.<sup>167</sup> Notably, Alaska ranks third in the nation (after Texas and Pennsylvania) in natural gas gross withdrawals, but most of Alaska's natural gas production is not brought to market due to the lack of an intrastate transmission system.<sup>168</sup> Instead, approximately 90% of Alaska's natural gas withdrawals—most of it extracted during oil production—is reinjected into the crude oil reservoirs to help maintain pressure and sustain production rates.<sup>169</sup>

Based on the evidence submitted by Alaska LNG in the Application, as well as the more recent data compiled by EIA, DOE/FE finds that natural gas reserves in the North Slope (and Alaska generally) far exceed anticipated regional demand. Further, the proposed Project will benefit the North Slope region and the State of Alaska through the construction and operation of

<sup>164</sup> Id.

<sup>165</sup> U.S. Energy Info. Admin., *Alaska State Energy Profile* (last updated Dec. 19, 2019), *available at:* <u>https://www.eia.gov/state/?sid=AK</u> [hereinafter *Alaska State Energy Profile*].

<sup>&</sup>lt;sup>166</sup> U.S. Energy Info. Admin., *Alaska Dry Natural Gas Proved Reserves* (last updated Dec. 12, 2019), *available at:* <u>https://www.eia.gov/dnav/ng/NG\_ENR\_DRY\_DCU\_SAK\_A.htm</u>.

 <sup>&</sup>lt;sup>167</sup> See Alaska State Energy Profile; U.S. Energy Info. Admin., Natural Gas Consumption by End Use (last updated July 31, 2020), available at: <u>https://www.eia.gov/dnav/ng/ng\_cons\_sum\_a\_EPG0\_VC0\_mmcf\_a.htm</u>.
 <sup>168</sup> See Alaska State Energy Profile ("Quick Facts").

the Mainline Pipeline that will both: (i) transport the North Slope natural gas to the Liquefaction Facility for global export, and (ii) deliver natural gas to in-state consumers through the Pipeline's planned off-take points.

#### 2. Local, Regional, and National Economic Benefits

Alaska LNG introduced evidence that the proposed exports will generate significant local and regional economic benefits through: (i) direct and indirect job creation in the exploration, development, production, and transportation of natural gas; (ii) infrastructure to enhance exploration and production opportunities; (iii) an increase in overall economic activity; and (iv) an enhanced tax base.<sup>170</sup>

In particular, the Alaska LNG Project is expected to create up to 15,000 jobs during construction and approximately 1,000 jobs for operations—making the Project the "largest investment in Alaska's history."<sup>171</sup> Citing the NERA Socio-Economic Report, Alaska LNG states that the Project will boost Alaska's overall economic well-being (as represented by the improvement in consumer welfare), gross state product for Alaska, and personal income in Alaska (as represented by consumption).<sup>172</sup> Further, as determined by NERA, Alaska LNG states that the Project will lead to lower natural gas prices in Alaska.<sup>173</sup>

In terms of national economic benefits, NERA found that "the increased economic activity in Alaska [will lead] to overall benefits for the U.S. as a whole," as represented by gross domestic product.<sup>174</sup> According to Alaska LNG, NERA determined that "economic impacts on

<sup>&</sup>lt;sup>170</sup> See supra § V; App. at 30-33; Conditional Order at 14-17.

<sup>&</sup>lt;sup>171</sup> App. at 32.

<sup>&</sup>lt;sup>172</sup> *Id.* at 32-33 & Figure 7.

<sup>&</sup>lt;sup>173</sup> Id. at 25-26 (citing NERA Socio-Economic Report at 2 and Figure 1).

<sup>&</sup>lt;sup>174</sup> Id. at 33 (quoting NERA Socio-Economic Report at 5).

Alaska would be much larger than the impacts on the U.S. as a whole, but economic impacts in both Alaska and the U.S. are positive for both [export] scenarios."<sup>175</sup>

In the Conditional Order, DOE/FE noted that no contrary evidence was introduced by opponents of the Application. On the basis of this record, DOE/FE found that Alaska LNG's proposed exports are likely to generate significant economic benefits, and we reaffirm this finding.176

#### 3. Benefits of International Trade

DOE/FE has not limited its review to energy and economic issues but has considered the international consequences of this decision. As discussed above, DOE/FE reviews applications to export LNG to non-FTA nations under section 3(a) of the NGA. The United States' commitment to free trade is one factor bearing on that review.

Additionally, an efficient, transparent international market for natural gas with diverse sources of supply provides both economic and strategic benefits to the United States and our allies. Indeed, increased production of domestic natural gas has significantly reduced the need for the United States to import LNG. In global trade, LNG shipments that would have been destined to U.S. markets have been redirected to Europe and Asia, improving energy security for many of our key trading partners. To the extent U.S. exports can diversify global LNG supplies and increase the volumes of LNG available globally, these exports will improve energy security for many U.S. allies and trading partners. Therefore, we agree with Alaska LNG that authorizing its exports may advance the public interest for reasons that are distinct from and additional to their economic benefits.

<sup>&</sup>lt;sup>175</sup> *Id.* at 32; *see also id.* at 33 (Figure 8). <sup>176</sup> *See* Conditional Order at 32.

#### **B.** Environmental Issues

In reviewing the potential environmental impacts of Alaska LNG's proposal to export LNG, DOE/FE has considered both its obligations under NEPA and its obligation under NGA section 3(a) to ensure that the proposal is not inconsistent with the public interest.

#### **1.** Adoption of FERC's Final EIS

DOE/FE participated in FERC's environmental review of the proposed Alaska LNG Project as a cooperating agency. Because DOE was a cooperating agency, DOE/FE is permitted to adopt without recirculating the final EIS, provided that DOE/FE has conducted an independent review of the EIS and determines that its comments and suggestions have been satisfied.<sup>177</sup> For the reasons discussed herein, DOE/FE has not found that the arguments raised in the FERC proceeding or the current proceeding detract from the reasoning and conclusions contained in the final EIS. Accordingly, DOE/FE has adopted the final EIS (DOE/EIS-0512) (*see supra* § I), and hereby incorporates the reasoning contained in the final EIS in this Order. Additionally, in the Appendix to this Order, DOE/FE is issuing the Record of Decision (ROD) under NEPA for the proposed Project.

#### 2. Environmental Impacts

Sierra Club opposes Alaska LNG's Application on the grounds that the proposed exports will impact the environment around the export site, induce natural gas production, and likely increase global GHG emissions.<sup>178</sup> Sierra Club asserts that these alleged harms must be considered pursuant to NEPA and as part of DOE/FE's public interest analysis under NGA section 3(a).<sup>179</sup>

<sup>&</sup>lt;sup>177</sup> See 40 C.F.R. § 1506.3(c).

<sup>&</sup>lt;sup>178</sup> Sierra Club Mot. at 1.

<sup>&</sup>lt;sup>179</sup> Id. at 3.

Upon review, DOE/FE finds that some of Sierra Club's arguments—namely, Sierra Club's argument that "DOE/FE cannot proceed with Alaska LNG's application without fully evaluating the environmental impacts"<sup>180</sup>—have been addressed and are now moot. Indeed, Sierra Club stated that it "expects to offer further comments on the details on these impacts as part of the NEPA review process."<sup>181</sup> As discussed above, however, this authorization follows the completion of the NEPA review process at FERC (in which Sierra Club participated)<sup>182</sup>— such that this Order is conditioned on Alaska LNG's compliance with the environmental review covered all reasonably foreseeable environmental impacts of the proposed Alaska LNG Project. In particular, DOE/FE previously has determined that NEPA does not require the review to include induced upstream natural gas production, as Sierra Club suggests.<sup>184</sup>

Moreover, Sierra Club's environmental concerns over the development of natural gas from the North Slope do not lead us to conclude that exports of natural gas to non-FTA nations should be prohibited. Rather, DOE/FE believes the public interest is better served by addressing these environmental concerns directly—through federal, state, or local regulation, or through self-imposed industry guidelines where appropriate—rather than by prohibiting exports of natural gas. Unlike DOE, environmental regulators have the legal authority to impose requirements on natural gas production that appropriately balance benefits and burdens, and to

<sup>&</sup>lt;sup>180</sup> *Id.* at 3.

<sup>&</sup>lt;sup>181</sup> Id.

<sup>&</sup>lt;sup>182</sup> FERC Order at ¶ 6.

<sup>&</sup>lt;sup>183</sup> See, e.g., *id.* at  $\P$  250 ("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.").

<sup>&</sup>lt;sup>184</sup> See, e.g., Golden Pass Products LLC, DOE/FE Order No. 3978, FE Docket No. 12-156-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Golden Pass LNG Terminal Located in Jefferson County, Texas, to Non-Free Trade Agreement Nations, 147-49 (Apr. 25, 2017).

update these regulations from time to time as technological practices and scientific understanding evolve.

By comparison, section 3(a) of the NGA is too blunt an instrument to address these environmental concerns efficiently. A decision to prohibit exports of natural gas would cause the United States to forego entirely the economic and international benefits discussed herein, but would have little more than a modest, incremental impact on the environmental issues. For these reasons, we conclude that the environmental concerns associated with natural gas production do not establish that exports of natural gas to non-FTA nations are inconsistent with the public interest. We note that the D.C. Circuit in *Sierra Club I* rejected Sierra Club's arguments on this basis, and the Court's conclusions and reasoning guide our review in this proceeding.<sup>185</sup>

Finally, Sierra Club contends that the proposed Project likely will increase global GHG emissions and that LNG exports will compete against renewable forms of energy in importing countries.<sup>186</sup> Sierra Club does not provide support for these conclusory statements. Further, DOE/FE agrees with Alaska LNG that an increased supply of natural gas made possible through exports of U.S. LNG is likely to help countries reduce their reliance on coal and fuel oil—which may reduce GHG emissions over the 30-year export term.<sup>187</sup> Additionally, we note that the D.C. Circuit in *Sierra Club I* rejected Sierra Club's arguments concerning the need for DOE/FE to analyze the impact of U.S. LNG on other fuel sources in importing countries—upholding DOE's finding that such an analysis would be too speculative to inform the public interest determination.<sup>188</sup>

<sup>&</sup>lt;sup>185</sup> See Sierra Club I, 867 F.3d at 203 (rejecting argument that DOE arbitrarily failed to evaluate foreseeable indirect effects of exports under NGA section 3(a)); see supra § II.B.

<sup>&</sup>lt;sup>186</sup> Sierra Club Mot. at 1, 3.

<sup>&</sup>lt;sup>187</sup> See App. at 35.

<sup>&</sup>lt;sup>188</sup> See Sierra Club I, 867 F.3d at 202.

# C. Presidential Finding

Section 12 of the Alaska Natural Gas Transportation Act of 1976 (ANGTA) provides that "before any Alaska natural gas in excess of 1,000 Mcf per day may be exported to any nation other than Canada or Mexico, the President must make and publish an express finding that such exports will not diminish the total quantity or quality nor increase the total price of energy available to the United States."<sup>189</sup> On January 12, 1988, President Reagan made this finding. stating that "exports of Alaska natural gas would represent a judgement by the market that the energy demands of American consumers can be met adequately from other sources at comparable or lower prices."<sup>190</sup> President Reagan further stated that "[t]his finding removes the Section 12 regulatory impediment to Alaskan natural gas exports in a manner that allows any private party to develop this resource and sets up competition for this [export] purpose."<sup>191</sup> DOE/FE previously has concluded that this 1988 Presidential finding is "generic" and thus not limited to a particular project.<sup>192</sup> We also note that no intervenors in this proceeding protested the applicability of this 1988 Presidential finding to the Alaska LNG Project. DOE/FE therefore agrees with Alaska LNG and API that the 1988 Presidential finding satisfies the ANGTA section 12 requirement.

# **D.** Conclusion

DOE/FE has reviewed the evidence in the record and relevant precedent in earlier non-FTA export decisions. DOE/FE finds that the opponents of the Application have failed to

<sup>&</sup>lt;sup>189</sup> 15 U.S.C. § 719j.

<sup>&</sup>lt;sup>190</sup> Presidential Finding Concerning Alaska Natural Gas, 53 Fed. Reg. 999 (Jan. 15, 1988).

<sup>&</sup>lt;sup>191</sup> Id.

<sup>&</sup>lt;sup>192</sup> See Yukon Pacific Corp., DOE/FE Order No. 350, ERA Docket No. 87-68-LNG, Order Granting Authorization to Export Liquefied Natural Gas from Alaska, at § V.A.3 (Nov. 16, 1989) (concluding that "President Reagan fulfilled this statutory condition precedent in 1988 when he issued the Finding").

overcome the statutory presumption that Alaska LNG's proposed exports are consistent with the public interest under NGA section 3(a).

### IX. FINDINGS

On the basis of the findings and conclusions set forth above, DOE/FE grants Alaska LNG's Application, as supplemented, subject to the Terms and Conditions and Ordering Paragraphs set forth below.

## X. TERMS AND CONDITIONS

To ensure that the authorization issued by this Order is not inconsistent with the public interest, DOE/FE has attached the following Terms and Conditions to the authorization. Alaska LNG must abide by each Term and Condition or face appropriate sanction.

## A. Term of the Authorization

Citing the size, scope, and cost of the Project, Alaska LNG requests a 30-year term for the authorization. Consistent with the Conditional Order, DOE/FE finds good cause for granting a 30-year term. The 30-year term will begin on the date when Alaska LNG commences commercial export of LNG from the Alaska LNG Project, but not before.

### **B.** Commencement of Operations

Citing the complexity and expansive scope of the Project, Alaska LNG requests that this authorization commence on the earlier of the date of first export or 12 years from the date of the issuance of this Order. Consistent with the Conditional Order, DOE/FE finds good cause for adding as a condition of the authorization that Alaska LNG must commence commercial LNG export operations no later than 12 years from the date of issuance of this Order.

### C. Commissioning Volumes

Alaska LNG will be permitted to apply for short-term export authorizations to export Commissioning Volumes prior to the commencement of the first commercial exports of LNG

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from the Project. "Commissioning Volumes" are defined as the volume of LNG produced and exported under a short-term authorization during the initial start-up of each LNG train, before each LNG train has reached its full steady-state capacity and begun its commercial exports pursuant to Alaska LNG's long-term contracts.<sup>193</sup> The Commissioning Volumes will not be counted against the maximum level of volumes previously authorized in Alaska LNG's FTA authorization (DOE/FE Order No. 3554) or in this Order.

## D. Make-Up Period

Alaska LNG will be permitted to continue exporting for a total of three years following the end of the 30-year term established in this Order, solely to export any volume that it was unable to export during the original export period (Make-Up Volume). The three-year term during which the Make-Up Volume may be exported shall be known as the "Make-Up Period."

The Make-Up Period does not affect or modify the total volume of LNG previously authorized in Alaska LNG's FTA authorization (DOE/FE Order No. 3554) or in this Order. Insofar as Alaska LNG may seek to export additional volumes not previously authorized for export, it will be required to obtain appropriate authorization from DOE/FE.

## E. Transfer, Assignment, or Change in Control

DOE/FE's natural gas regulations prohibit authorization holders from transferring or assigning authorizations to import or export natural gas without specific authorization by the Assistant Secretary for Fossil Energy.<sup>194</sup> DOE/FE has found that this requirement applies to any change of control of the authorization holder. This condition was deemed necessary to ensure

 <sup>&</sup>lt;sup>193</sup> See Freeport LNG Expansion, L.P., et al., DOE/FE Order Nos. 3282-B & 3357-A, FE Docket Nos. 10-161-LNG & 11-161-LNG, Order Amending DOE/FE Order Nos. 3282 and 3357, at 4-9 (June 6, 2014) (providing additional discussion of Commissioning Volumes and the Make-Up Period).
 <sup>194</sup> 10 C.F.R. § 590.405.

that DOE/FE will be given an adequate opportunity to assess the public interest impacts of such a transfer or change.

DOE/FE construes a change in control to mean a change, directly or indirectly, of the power to direct the management or policies of an entity whether such power is exercised through one or more intermediary companies or pursuant to an agreement, written or oral, and whether such power is established through ownership or voting of securities, or common directors, officers, or stockholders, or voting trusts, holding trusts, or debt holdings, or contract, or any other direct or indirect means.<sup>195</sup> A rebuttable presumption that control exists will arise from the ownership or the power to vote, directly or indirectly, 10% or more of the voting securities of such entity.<sup>196</sup>

# F. Agency Rights

Alaska LNG requests authorization to export LNG on its own behalf and as agent for other entities that hold title to the LNG at the time of export, pursuant to long-term contracts. DOE/FE previously has determined that, in LNG export orders in which Agency Rights have been granted, DOE/FE shall require registration materials filed for, or by, a LNG title-holder (Registrant) to include the same company identification information and long-term contract information of the Registrant as if the Registrant had filed an application to export LNG on its own behalf.<sup>197</sup>

 <sup>&</sup>lt;sup>195</sup> See U.S. Dep't of Energy, Procedures for Changes in Control Affecting Applications and Authorizations to Import or Export Natural Gas, 79 Fed. Reg. 65,541, 65,542 (Nov. 5, 2014).
 <sup>196</sup> See id.

<sup>&</sup>lt;sup>197</sup> See, e.g., Cameron LNG, LLC, DOE/FE Order No. 3846, FE Docket No. 15-90-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from Trains 4 and 5 of the Cameron LNG Terminal to Non-Free Trade Agreement Nations, at 128-29 (July 15, 2016); *Freeport LNG Expansion, L.P., et al.*, DOE/FE Order No. 2913, FE Docket No. 10-160-LNG, Order Granting Long-Term Authorization to Export Liquefied Natural Gas from the Freeport LNG Terminal to Free Trade Agreement Nations, at 7-8 (Feb. 10, 2011).

To ensure that the public interest is served, this authorization shall be conditioned to require that where Alaska LNG proposes to export LNG from the Project as agent for other entities that hold title to the LNG (Registrants), it must register with DOE/FE those entities on whose behalf it will export LNG in accordance with the procedures and requirements described herein.

# G. Contract Provisions for the Sale or Transfer of LNG to be Exported

DOE/FE will require that Alaska LNG file or cause to be filed with DOE/FE any relevant long-term commercial agreements, including liquefaction tolling agreements, pursuant to which Alaska LNG exports LNG as agent for a Registrant. DOE/FE finds that the submission of all such agreements or contracts within 30 days of their execution using the procedures described below will be consistent with the "to the extent practicable" requirement of section 590.202(b).<sup>198</sup>

In addition, DOE/FE finds that section 590.202(c) of DOE/FE's regulations<sup>199</sup> requires that Alaska LNG file, or cause to be filed, all long-term contracts associated with the long-term supply of natural gas to the Project, whether signed by Alaska LNG or the Registrant, within 30 days of their execution.

DOE/FE recognizes that some information in Alaska LNG's or a Registrant's long-term commercial agreements associated with the export of LNG, and/or long-term contracts associated with the long-term supply of natural gas to the Project, may be commercially sensitive. DOE/FE therefore will provide Alaska LNG the option to file or cause to be filed either unredacted contracts, or in the alternative (A) Alaska LNG may file, or cause to be filed, long-term contracts under seal, but it also will file either: i) a copy of each long-term contract

<sup>&</sup>lt;sup>198</sup> 10 C.F.R. § 590.202(b). <sup>199</sup> *Id.* § 590.202(c).

with commercially sensitive information redacted, or ii) a summary of all major provisions of the contract(s) including, but not limited to, the parties to each contract, contract term, quantity, any take or pay or equivalent provisions/conditions, destinations, re-sale provisions, and other relevant provisions; and (B) the filing must demonstrate why the redacted information should be exempted from public disclosure.<sup>200</sup>

To ensure that DOE/FE destination and reporting requirements included in this Order are conveyed to subsequent title holders, DOE/FE will include as a condition of this authorization that future contracts for the sale or transfer of LNG exported pursuant to this Order shall include an acknowledgement of these requirements.

### H. Export Quantity

This Order grants Alaska LNG's Application in the full volume of LNG requested for export to non-FTA countries, up to the equivalent of 929 Bcf/yr of natural gas.

# I. Combined FTA and Non-FTA Export Authorization Volumes

The volumes of LNG authorized for export in Alaska LNG's FTA authorization (DOE/FE Order No. 3554) and this Order each reflect the planned liquefaction capacity of the Alaska LNG Project, as approved by FERC. Accordingly, Alaska LNG may not treat the FTA and non-FTA export volumes as additive to one another.

## XI. ORDER

Pursuant to section 3 of the Natural Gas Act, it is ordered that:

A. Alaska LNG Project LLC (Alaska LNG) is authorized to export LNG produced from Alaskan sources by vessel from the proposed Alaska LNG Project to be located in the Nikiski area of the Kenai Peninsula, Alaska, in a volume up to the equivalent of 929 Bcf/yr of natural

<sup>&</sup>lt;sup>200</sup> Id. § 590.202(e) (allowing confidential treatment of information in accordance with 10 C.F.R. § 1004.11).

gas. This authorization is for a term of 30 years to commence from the date of first commercial export, but not before. Alaska LNG is authorized to export the LNG on its own behalf and as agent for other entities who hold title to the natural gas, pursuant to one or more long-term contracts (a contract greater than two years).

B. Alaska LNG may export Commissioning Volumes prior to the commencement of the terms of this Order, pursuant to a separate short-term export authorization. The Commissioning Volumes will not be counted against the export volumes previously authorized in Alaska LNG's FTA authorization or in this Order.

C. Alaska LNG may continue exporting for a total of three years following the end of the 30-year export term, solely to export any Make-Up Volume that it was unable to export during the original export period. The three-year Make-Up Period allowing the export of Make-Up Volumes will not affect or modify the export volumes previously authorized in Alaska LNG's FTA authorization or in this Order. Insofar as Alaska LNG may seek to export additional volumes not previously authorized, it will be required to obtain appropriate authorization from DOE/FE.

D. Alaska LNG must commence export operations using the planned Project no later than 12 years from the date of issuance of this Order.

E. The LNG export quantity authorized in this Order is equivalent to 929 Bcf/yr of natural gas.

F. This LNG may be exported to any country with which the United States does not have a FTA requiring national treatment for trade in natural gas, which currently has or in the future develops the capacity to import LNG, and with which trade is not prohibited by U.S. law or policy.

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G. Alaska LNG shall ensure that all transactions authorized by this Order are permitted and lawful under U.S. laws and policies, including the rules, regulations, orders, policies, and other determinations of the Office of Foreign Assets Control of the U.S. Department of the Treasury and FERC. Failure to comply with these requirements could result in rescission of this authorization and/or other civil or criminal penalties.

H. Alaska LNG shall ensure compliance with all terms and conditions established by FERC in the final EIS, including the 165 environmental conditions adopted in the FERC Order issued on May 21, 2020. Additionally, this authorization is conditioned on Alaska LNG's ongoing compliance with any other preventative and mitigative measures at the proposed Alaska LNG Project imposed by federal or state agencies.

I. (i) Alaska LNG shall file, or cause others to file, with the Office of Regulation, Analysis, and Engagement a non-redacted copy of <u>all executed long-term contracts associated</u> <u>with the long-term export of LNG</u> as agent for other entities from the Project. The non-redacted copies must be filed within 30 days of their execution and may be filed under seal, as described above.

(ii) Alaska LNG shall file, or cause others to file, with the Office of Regulation, Analysis, and Engagement a non-redacted copy of <u>all executed long-term contracts associated</u> <u>with the long-term supply of natural gas</u> to the Project. The non-redacted copies must be filed within 30 days of their execution and may be filed under seal, as described above.

J. Alaska LNG is permitted to use its authorization to export LNG as agent for other LNG title-holders (Registrants), after registering those entities with DOE/FE. Registration materials shall include an agreement by the Registrant to supply Alaska LNG with all information necessary to permit Alaska LNG to register that person or entity with DOE/FE,

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including: (1) the Registrant's agreement to comply with this Order and all applicable requirements of DOE/FE's regulations at 10 C.F.R. Part 590, including but not limited to destination restrictions; (2) the exact legal name of the Registrant, state/location of incorporation/registration, primary place of doing business, and the Registrant's ownership structure, including the ultimate parent entity if the Registrant is a subsidiary or affiliate of another entity; (3) the name, title, mailing address, e-mail address, and telephone number of a corporate officer or employee of the Registrant to whom inquiries may be directed; and (4) within 30 days of execution, a copy of any long-term contracts not previously filed with DOE/FE, described in Ordering Paragraph I of this Order.

Any change in the registration materials—including changes in company name, contact information, length of the long-term contract, termination of the long-term contract, or other relevant modification—shall be filed with DOE/FE within 30 days of such change(s).

K. Alaska LNG, or others for whom Alaska LNG acts as agent, shall include the following provision in any agreement or other contract for the sale or transfer of LNG pursuant to this Order:

Customer or purchaser acknowledges and agrees that it will resell or transfer LNG, purchased hereunder for delivery only to countries identified in Ordering Paragraph F of DOE/FE Order No. 3643-A, issued August 20, 2020, in FE Docket No. 14-96-LNG, and/or to purchasers that have agreed in writing to limit their direct or indirect resale or transfer of such LNG to such countries. Customer or purchaser further commits to cause a report to be provided to Alaska LNG Project LLC that identifies the country (or countries) into which the LNG was actually delivered, and to include in any resale contract for such LNG the necessary conditions to ensure that Alaska LNG Project LLC is made aware of all such actual destination countries.

L. Within two weeks after the first export authorized in Ordering Paragraph A occurs,

Alaska LNG shall provide written notification of the date that the first export occurred.

M. Alaska LNG shall file with the Office of Regulation, Analysis, and Engagement, on a

semi-annual basis, written reports describing the status of the proposed Alaska LNG Project.

The reports shall be filed on or by April 1 and October 1 of each year, and shall include information on the status of the proposed Project, the date the Project is expected to commence first exports of LNG, and the status of any associated long-term supply and export contracts.

N. With respect to any change in control of the authorization holder, Alaska LNG must comply with DOE/FE's Procedures for Change in Control Affecting Applications and Authorizations to Import or Export Natural Gas.<sup>201</sup>

O. Monthly Reports: With respect to the exports authorized by this Order, Alaska LNG shall file with the Office of Regulation, Analysis, and Engagement, within 30 days following the last day of each calendar month, a report on Form FE-746R indicating whether exports of LNG have been made. The first monthly report required by this Order is due not later than the 30<sup>th</sup> day of the month following the month of first export. In subsequent months, if exports have not occurred, a report of "no activity" for that month must be filed. If exports of LNG have occurred, the report must give the following details of each LNG cargo: (1) the name(s) of the authorized exporter registered with DOE/FE; (2) the name of the U.S. export terminal; (3) the name of the LNG tanker; (4) the date of departure from the U.S. export terminal; (5) the country (or countries) into which the LNG was actually delivered; (6) the name of the supplier/seller; (7) the volume in thousand cubic feet (Mcf); (8) the price at point of export per million British thermal units (MMBtu); (9) the duration of the supply agreement; and (10) the name(s) of the purchaser(s).

(Approved by the Office of Management and Budget under OMB Control No. 1901-0294.)

P. All monthly report filings on Form FE-746R shall be made to the U.S. Department of Energy (FE-34), Office of Fossil Energy, Office of Regulation, Analysis, and Engagement,

<sup>&</sup>lt;sup>201</sup> See 79 Fed. Reg. at 65,541-42.

according to the methods of submission listed on the Form FE-746R reporting instructions available at <u>https://www.energy.gov/fe/services/natural-gas-regulation</u>.

Issued in Washington, D.C., on August 20, 2020.

Mark W. Menezes Deputy Secretary of Energy

## **APPENDIX: RECORD OF DECISION**

The Department of Energy's Office of Fossil Energy (DOE/FE) prepared this Record of Decision (ROD) and Floodplain Statement of Findings pursuant to the National Environmental Policy Act of 1969 (NEPA),<sup>202</sup> and in compliance with the Council on Environmental Quality (CEQ) implementing regulations for NEPA,<sup>203</sup> DOE's implementing procedures for NEPA,<sup>204</sup> and DOE's "Compliance with Floodplain and Wetland Environmental Review Requirements."<sup>205</sup>

As discussed above, DOE/FE participated as a cooperating agency with the Federal Energy Regulatory Commission (FERC) in preparing an environmental impact statement (EIS) analyzing the potential environmental impacts of the proposed Alaska LNG Project (or the Project) that would be used to support the export authorization sought from DOE/FE.<sup>206</sup> The proposed Project is comprised of: (i) a Liquefaction Facility to be located on the Kenai Peninsula, having a maximum liquefaction capacity of 20 mtpa (equivalent to 929 Bcf/yr of natural gas) with storage and LNG delivery facilities for the marine loading of LNG; (ii) an approximately 800-mile long, large-diameter gas pipeline (Mainline Pipeline) from the Liquefaction Facility to the gas treatment plant, which will have multiple compressor stations and several off-take points for delivery of gas to Alaska; (iii) a gas treatment plant on the North Slope of Alaska, called the Prudhoe Bay Treatment Plan, consisting of three or more amine processing/treating train modules with compression, dehydration, and chilling, to be built in a modular fashion and sealifted to its location; and (iv) transmission lines between the Prudhoe

<sup>&</sup>lt;sup>202</sup> 42 U.S.C. § 4321, et seq.

<sup>&</sup>lt;sup>203</sup> 40 C.F.R. Parts 1500-08.

<sup>&</sup>lt;sup>204</sup> 10 C.F.R. Part 1021.

<sup>&</sup>lt;sup>205</sup> *Id.* at Part 1022.

<sup>&</sup>lt;sup>206</sup> Federal Energy Regulatory Comm'n, *Alaska LNG Project Final Environmental Impact Statement*, Docket No. CP17-178-000 (Mar. 6, 2020), *available at:* <u>https://www.ferc.gov/industries-data/natural-gas/environment/final-environmental-impact-statement-feis</u> [hereinafter final EIS].

Bay Treatment Plan and producing fields on the North Slope.<sup>207</sup> In accordance with 40 C.F.R. § 1506.3, DOE/FE adopted the final EIS on March 16, 2020 (DOE/EIS-0512),<sup>208</sup> and the U.S. Environmental Protection Agency (EPA) published a notice of the adoption on March 27, 2020.<sup>209</sup>

### A. Alternatives

The EIS assessed alternative methods that could be used to achieve the Alaska LNG Project's objectives.<sup>210</sup> The range of alternatives analyzed included the No-Action Alternative, system alternatives, gas treatment facilities alternatives, Point Thomson Unit gas transmission line (PTTL) alternatives, Prudhoe Bay Unit gas transmission line (PBTL) alternatives, Mainline Pipeline route alternatives, Mainline Pipeline aboveground facility alternatives, liquefaction facility alternatives, and additional work area alternatives.<sup>211</sup> Alternatives were evaluated and compared to the proposed Project to determine if the alternatives would be environmentally preferable.<sup>212</sup>

The EIS analyzed a No-Action Alternative, in which the Alaska LNG Project would not be constructed.<sup>213</sup> The EIS determined that the stated purpose of the Project would not be met under the No-Action Alternative.<sup>214</sup> In addition, the EIS concluded that if the Project were not constructed, environmental impacts would occur from the likely development of other LNG

<sup>&</sup>lt;sup>207</sup> App. at 7-8; *see also Alaska Gasline Dev. Corp.*, Order Granting Authorization Under Section 3 of the Natural Gas Act, 171 FERC ¶ 61,134, ¶¶ 3-4 (May 21, 2020) [hereinafter FERC Order].

<sup>&</sup>lt;sup>208</sup> Letter from Amy Sweeney, DOE/FE, to Julie Roemele, U.S. Envtl. Prot. Agency (Mar. 16, 2020) (adoption of final EIS).

<sup>&</sup>lt;sup>209</sup> U.S. Envtl. Prot. Agency, Environmental Impact Statements; Notice of Availability, 85 Fed. Reg. 17,327 (Mar. 27, 2020).

<sup>&</sup>lt;sup>210</sup> Final EIS at 3-1 to 3-49.

<sup>&</sup>lt;sup>211</sup> Id.

<sup>&</sup>lt;sup>212</sup> *Id*.

<sup>&</sup>lt;sup>213</sup> *Id.* at 3-2 to 3-3.

<sup>&</sup>lt;sup>214</sup> *Id.* at ES-6.

projects seeking to transport gas from the North Slope for export in foreign commerce and for instate deliveries.<sup>215</sup> The EIS determined that the development of these alternative projects would result in similar impacts and would not provide a significant environmental advantage over the proposed Project.<sup>216</sup> The EIS, therefore, did not consider the No-Action Alternative further.<sup>217</sup>

The EIS also evaluated system alternatives for the Project.<sup>218</sup> Three system alternatives were evaluated within the EIS: (1) existing and proposed Alaska system alternatives; (2) existing and proposed Canadian and contiguous system alternatives; and (3) natural gas exports via pipeline system alternatives. Within the existing and proposed Alaska system alternatives, the EIS determined that each system either would not meet the Project's objectives or would require significant infrastructure construction, including increased liquefaction or storage capacity, pipeline construction, or possibly both.<sup>219</sup> On this basis, the EIS concluded that no existing or proposed Alaska system alternative would provide a significant environmental advantage to the proposed Project.<sup>220</sup>

The EIS also determined that none of the existing or proposed Canadian and contiguous U.S. system alternatives would offer a significant environmental advantage.<sup>221</sup> Each of these system alternatives would require a much longer and larger pipeline to reach liquefaction facilities.<sup>222</sup> Similarly, the EIS evaluated potential system alternatives using a pipeline to export the natural gas outside North America.<sup>223</sup> After excluding Canada, the EIS noted that the nearest

<sup>&</sup>lt;sup>215</sup> *Id* at 3-2 to 3-3; *see also id*. at ES-6.

<sup>&</sup>lt;sup>216</sup> Final EIS at 3-2 to 3-3.

<sup>&</sup>lt;sup>217</sup> *Id* at 3-3.

<sup>&</sup>lt;sup>218</sup> *Id.* at 3-3 to 3-5. <sup>219</sup> *Id.* at 3-4 to 3-5.

 $<sup>^{220}</sup>$  Id.

<sup>&</sup>lt;sup>221</sup> *Id.* at 3-5. <sup>222</sup> Final EIS at 3-5.

<sup>&</sup>lt;sup>223</sup> Id.

foreign market for the Alaska LNG Project is in Asia (more than 2,000 miles away), which would require subsea pipeline construction crossing the Pacific Ocean at an average depth of 13,000 feet.<sup>224</sup> The EIS concluded that pursuing such an alternative would neither be technically nor economically practical, nor offer a significant environmental advantage over the proposed Project.<sup>225</sup>

The EIS also evaluated gas treatment facilities alternatives, analyzing both alternative sites for the gas treatment plant and alternative facility configurations.<sup>226</sup> Within these main areas, the EIS focused on a variety of factors, including but not limited to dock site access, road access, and proximity to proposed pipeline infrastructure.<sup>227</sup> In assessing each of these factors within the alternatives, none offered a significant environmental advantage over the proposed Alaska LNG Project.<sup>228</sup>

The EIS also analyzed the alternatives for the PTTL and the PBTL pipelines. In the case of the PTTL, the EIS did not identify any alternative gas transmission alternative that could provide significant environmental advantages to the propose route.<sup>229</sup> For the PBTL, the EIS determined that due to the short length of the pipeline, limited resource impacts, and the lack of options to avoid resources, no alternatives could be identified that could reduce impacts while still meeting the Project's stated objectives.<sup>230</sup>

Additionally, the EIS evaluated Mainline Pipeline route alternatives. Along with the 134 route variations provided by the applicant, the EIS examined alternative routes in three particular

<sup>&</sup>lt;sup>224</sup> Id.

<sup>&</sup>lt;sup>225</sup> Id.

<sup>&</sup>lt;sup>226</sup> *Id.* at 3-6 to 3-18.

<sup>&</sup>lt;sup>227</sup> *Id.*<sup>228</sup> Final EIS at 3-6 to 3-18.

<sup>&</sup>lt;sup>229</sup> *Id.* at 3-18.

<sup>&</sup>lt;sup>230</sup> Id.

areas based on consultations with stakeholders during scoping.<sup>231</sup> Those three areas include the Cook Inlet, Denali, and Fairbanks.<sup>232</sup> According to the EIS, each alternative produced either no significant environmental advantage or a greater environmental impact when compared to the proposed Project.<sup>233</sup>

The EIS also analyzed alternatives for the Mainline Pipeline aboveground facility. The EIS analyzed two elements: aboveground pipeline and compression alternatives.<sup>234</sup> For the aboveground pipeline alternative, instead of burying large segments of pipeline in permafrost and wetland areas, the pipeline would remain aboveground to reduce environmental impacts.<sup>235</sup> While noting these benefits, the EIS concluded that the alternative did not provide a significant environmental advantage over the proposed Project because of the technical and operation risk associated with aboveground pipeline.<sup>236</sup>

For the compression alternative, the EIS evaluated the use of electric-driven compressors as an alternative to gas-fired, turbine-driven compressors for the Mainline Pipeline compressor stations. While electric-driven compressors would eliminate air emissions from natural gas combustion locally, the EIS notes this alternative would require new electrical transmission lines and outside power generation likely by older coal- and oil-fired power plants in Central Alaska.<sup>237</sup> Taking these two factors into account, the EIS concluded that the compression alternative would not provide a significant environmental advantage over the proposed Project.<sup>238</sup>

- 233 Id.
- <sup>234</sup> Final EIS at 3-31 to 3-33.
- <sup>235</sup> *Id.* at 3-31 to 3-32. <sup>236</sup> *Id.* at 3-32.
- $^{237}$  Id. at 3-32.

<sup>&</sup>lt;sup>231</sup> *Id.* at 3-18 to 3-19.

<sup>&</sup>lt;sup>232</sup> *Id.* at 3-18 to 3-31. <sup>233</sup> *Id.* 

 $<sup>^{238}</sup>$  Id. at 3-33.

The EIS also analyzed liquefaction facilities alternatives for the proposed Alaska LNG Project. For this analysis, the EIS evaluated alternative sites as well as alternative dredged material locations for construction of the proposed liquefaction facility.<sup>239</sup> When analyzing alternative sites to the proposed Project site, the EIS evaluated seven locations throughout Alaska based on 15 environmental and engineering factors.<sup>240</sup> The EIS determined that each alternative site would not provide a significant environmental advantage to the proposed site.<sup>241</sup> Additionally, the EIS evaluated dredged material placement alternatives, including: a permitted spoil disposal area in the Cook Inlet, sites upland or farther from the Project, and other potential dredge spoil disposal options, such as beach nourishment and/or coastal bluff erosion stabilization.<sup>242</sup> The EIS concluded that each of the alternatives would either be technically impractical or unlikely to offer a significant environmental advantage over the proposed site.<sup>243</sup>

Finally, the EIS evaluated additional work area alternatives for several aspects of the proposed Project's Mainline Material Offloading Facility.<sup>244</sup> The EIS analyzed alternative locations, configurations, and transportation methods for the proposed facility. Upon evaluating the potential of using road transport, existing berthing and docking facilities, and heavy-lift helicopters, the EIS concluded each of the alternatives would either be technically impractical or would not offer a significant environment advantage to the proposed Project.<sup>245</sup>

<sup>&</sup>lt;sup>239</sup> *Id.* at 3-33 to 3-47.

<sup>&</sup>lt;sup>240</sup> Final EIS at 3-37.

<sup>&</sup>lt;sup>241</sup> *Id.* at 3-39 to 3-46.

 $<sup>^{242}</sup>$  *Id.* at 3-47.  $^{243}$  *Id* 

 $<sup>^{243}</sup>$  Id.  $^{244}$  Id.

<sup>&</sup>lt;sup>211</sup> Id.

<sup>&</sup>lt;sup>245</sup> *Id.* at 3-47 to 3-49.

## **B.** Environmentally Preferred Alternative

When compared against the alternatives assessed in the EIS, the proposed Alaska LNG Project—as modified by the recommended mitigation measures—is the environmentally preferred alternative to meet the Project's objectives.<sup>246</sup>

# C. Decision

DOE/FE has decided to issue DOE/FE Order No. 3643-A, authorizing Alaska LNG to export LNG by vessel from the proposed Alaska LNG Project to non-FTA countries in a volume equivalent to 929 Bcf/yr of natural gas for a term of 30 years. The LNG may be sourced from natural gas supplies located at the Prudhoe Bay and Point Thomson production units on the North Slope of Alaska. DOE/FE's decision is based on: (i) the analysis of potential environmental impacts presented in the EIS; and (ii) DOE's determination in the Order that the protestors and commenters in opposition have failed to show that Alaska LNG's proposed exports will be inconsistent with the public interest, as would be required to deny the Application under NGA section 3(a).<sup>247</sup>

### **D.** Mitigation

As a condition of its decision to issue Order No. 3643-A, DOE/FE is imposing requirements that will avoid or minimize the environmental impacts of the Alaska LNG Project. Specifically, in its Order authorizing the Project on May 21, 2020,<sup>248</sup> FERC adopted the 164 mitigation measures recommended in the final EIS as environmental conditions of the Order (with some slight modifications) and added one condition for a total of 165 environmental

<sup>&</sup>lt;sup>246</sup> Final EIS at 3-49.

<sup>&</sup>lt;sup>247</sup> 15 U.S.C. § 717b(a).
<sup>248</sup> See FERC Order at ¶¶ 1, 3-4.

conditions.<sup>249</sup> Mitigation measures beyond those included in Order No. 3643-A that are enforceable by other federal and state agencies are additional conditions of Order No. 3643-A. With these conditions, DOE/FE has determined that all practicable means to avoid or minimize environmental harm from the proposed Project have been adopted.

## E. Floodplain Statement of Findings

DOE/FE prepared this Floodplain Statement of Findings in accordance with DOE's regulations, entitled "Compliance with Floodplain and Wetland Environmental Review Requirements."<sup>250</sup> The required floodplain assessment was conducted during development and preparation of the EIS, which determined that portions of the Project would be located in floodplains.<sup>251</sup> While the placement of the Project within floodplains would be unavoidable, DOE/FE has determined that the proposed design for the Project minimizes floodplain impacts to the extent practicable.

<sup>&</sup>lt;sup>249</sup> FERC Order at ¶¶ 249-250, App'x. FERC added Environmental Condition 24, requiring that following construction of the Project, AGDC shall conduct seasonal monitoring for a period of three years to track caribou herd movement and determine if project infrastructure is creating a barrier to caribou movement. *Id.* at ¶ 107, App'x.

<sup>&</sup>lt;sup>250</sup> 10 C.F.R. Part 1022.

<sup>&</sup>lt;sup>251</sup> Final EIS at 4-164 to 4-166.