UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

OFFICE OF FOSSIL ENERGY

EAGLE LNG PARTNERS JACKSONVILLE II LLC	)))	FE DOCKET NO. 17-79-LNG

OPINION AND ORDER GRANTING LONG-TERM, MULTI-CONTRACT AUTHORIZATION TO EXPORT LIQUEFIED NATURAL GAS IN ISO CONTAINERS LOADED AT THE EAGLE MAXVILLE FACILITY IN JACKSONVILLE, FLORIDA, AND EXPORTED BY VESSEL TO FREE TRADE AGREEMENT AND NON-FREE TRADE AGREEMENT NATIONS

DOE/FE ORDER NO. 4078

SEPTEMBER 15, 2017

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FREQUENTLY USED ACRONYMS

AEO	Annual Energy Outlook
Bcf/d	Billion Cubic Feet per Day
Bcf/yr	Billion Cubic Feet per Year
CPP	Clean Power Plan
DOE	U.S. Department of Energy
EIA	U.S. Energy Information Administration
EPA	U.S. Environmental Protection Agency
FE	Office of Fossil Energy, U.S. Department of Energy
ISO	ISO IMO7/TVAC-ASME LNG
FTA	Free Trade Agreement
LNG	Liquefied Natural Gas
Mcf	Thousand Cubic Feet
MMBtu	Million British Thermal Units
mtpa	Million Metric Tons per Annum
NEPA	National Environmental Policy Act
NERA	NERA Economic Consulting
NETL	National Energy Technology Laboratory
NGA	Natural Gas Act
Tcf	Trillion Cubic Feet
VOC	Volatile Organic Compound

I. INTRODUCTION

On June 15, 2017, Eagle LNG Partners Jacksonville II LLC (Eagle Maxville) filed an export application (Application)[1] with the Office of Fossil Energy of the Department of Energy (DOE/FE) requesting authority to export domestically produced liquefied natural gas (LNG) under section 3 of the Natural Gas Act (NGA).[2] Specifically, Eagle Maxville requests a consolidated long-term, multi-contract authorization to export LNG as follows:

(i) Under section 3(c) of the NGA, to countries with which the United States has entered into a free trade agreement (FTA) requiring national treatment for trade in natural gas, and with which trade is not prohibited by U.S. law or policy (FTA countries),[3] for a period of 20 years commencing on the earlier of the date of first export or five years from the date of this Order, and

(ii) Under section 3(a) of the NGA, to any other country with which trade is not prohibited by U.S. law or policy (non-FTA countries),[4] for a period of 20 years to commence on the earlier of the date of first export or five years from the date of this Order.[5]

Eagle Maxville seeks to export LNG to both FTA and non-FTA countries in a volume equivalent to 2.8 billion cubic feet per year (Bcf/yr) of natural gas (0.01 Bcf per day (Bcf/d)), meaning that the non-FTA and FTA volumes would not be additive to one another.[6] Eagle Maxville requests authorization to export this LNG on its own behalf and as agent for other entities that will hold title to the LNG at the time of export.

[1] Eagle LNG Partners Jacksonville II LLC, Application for Long-Term Authorization to Export Liquefied Natural Gas to Free Trade Agreement and Non-Free Trade Agreement Countries, FE Docket No. 17-79-LNG (June 15, 2016) [hereinafter Eagle Maxville App.].
[2] 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. 00-006.02 issued on November 17, 2014.
[3] 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.
[4] 15 U.S.C. § 717b(a).
[5] Eagle Maxville App. at 3.
[6] *See id*. at 3-4.

Eagle Maxville states that the proposed exports of LNG will be loaded into approved ISO IMO7/TVAC-ASME LNG (ISO) containers at its LNG production and storage facility, called the Maxville Facility (or the Facility), located in west Jacksonville, Florida.[7] After loading, the containers will be transported by truck and loaded onto container ships or roll-on/roll-off ocean-going carriers for export at the nearby Port of Jacksonville or other ports capable of handling ISO containers without modification. As discussed below, Eagle Maxville is in the final stages of completing the Maxville Facility, with commissioning activities underway.[8] Eagle Maxville states that commercial operations are expected to commence in the first week of October 2017.[9] According to Eagle Maxville, the Facility primarily will produce LNG for use as marine fuel for domestic markets, but Eagle Maxville seeks to export any remaining output to markets in the Caribbean Basin and elsewhere in the region.[10]

In this consolidated Order, DOE/FE grants Eagle Maxville's Application and authorizes the requested export volume of 2.8 Bcf/yr (0.01 Bcf/d) to both FTA and non-FTA countries. Specifically, DOE/FE grants the FTA portion of the Application under NGA section § 3(c). Section 3(c) was amended by section 201 of the Energy Policy Act of 1992 (Pub. L. 102-486) to require that FTA applications "shall be deemed to be consistent with the public interest" and granted "without modification or delay."[11] The FTA portion of the Application falls within NGA section 3(c) and, therefore, DOE/FE approves the requested FTA authorization without

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[7] In the Application (at 6-7), Eagle Maxville discusses loading the LNG into either cryogenic transport trailers or ISO containers. However, in an update to the Application filed on August 14, 2017, Eagle Maxville clarifies that it will utilize ISO containers loaded at the Maxville Facility for export purposes. Therefore, for purposes of this authorization, we discuss only loading into ISO containers. *See* Ltr. from James F. Bowe, Jr., Counsel for Eagle LNG Partners Jacksonville II LLC, to DOE/FE, FE Docket No. 17-79-LNG (Aug. 14, 2017) (Eagle Maxville App. Update).

[8] *See* Eagle Maxville App. Update at 2.

[9] *See id*.

[10] Eagle Maxville App. at 4-8.

[11] 15 U.S.C. § 717b(c).

modification or delay. Accordingly, none of the public interest analysis discussed below applies to the FTA authorization herein.

As to the non-FTA portion of the Application, DOE/FE has reviewed the record in this proceeding under NGA section 3(a) and grants that requested authorization.[12] On July 5, 2017, DOE/FE published a Notice of Application for the requested non-FTA export authorization in the *Federal Register*.[13] The Notice of Application called on interested persons to submit protests, motions to intervene, notices of intervention, and comments by August 4, 2017. No protests or comments were filed, and therefore the Application is uncontested.[14]

The non-FTA export volume approved in this Order—equivalent to 0.01 Bcf/d of natural gas—brings DOE/FE's cumulative total of approved non-FTA exports of LNG and compressed natural gas (CNG) to 21.35 Bcf/d of natural gas.

II. BACKGROUND FOR NON-FTA AUTHORIZATION

A. DOE's LNG Export Studies

In 2011, DOE/FE engaged the U.S. Energy Information Administration (EIA) and NERA Economic Consulting (NERA) to conduct a two-part study of the economic impacts of U.S. LNG exports, which together was called the "2012 LNG Export Study." In relevant part, the 2012 EIA Study examined how prescribed levels of natural gas exports (at 6 Bcf/d and 12 Bcf/d) above baseline cases could affect domestic energy markets. The NERA Study projected that, across all scenarios studied—assuming either 6 Bcf/d or 12 Bcf/d of LNG export volumes—the United States would experience net economic benefits from allowing LNG exports. DOE/FE

[12] *See infra* § IV (Standard of Review for Non-FTA Authorization).
[13] Eagle LNG Partners Jacksonville II LLC, Application for Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas to Non-Free Trade Agreement Nations, 82 Fed. Reg. 31,050 (July 5, 2017).
[14] DOE finds that the requirement for public notice of applications in 10 C.F.R. Part 590 is applicable only to non-FTA applications under NGA section 3(a).

published a notice of availability of the 2012 LNG Export Study in the *Federal Register* for public comment.[15] DOE/FE responded to the public comments in connection with the LNG export proceedings identified in that notice.[16]

By May 2014, in light of the volume of LNG exports to non-FTA countries then-authorized by DOE/FE and the number of non-FTA export applications still pending, DOE/FE determined that an updated study was warranted to consider the economic impacts of exporting LNG from the lower-48 states to non-FTA countries.[17] On May 29, 2014, DOE announced plans to undertake new economic studies to gain a better understanding of how potentially higher levels of U.S. LNG exports—at levels between 12 and 20 Bcf/d of natural gas—would affect the public interest.[18]

DOE/FE commissioned two new macroeconomic studies. The first, *Effect of Increased Levels of Liquefied Natural Gas Exports on U.S. Energy Markets*, was performed by EIA and published in October 2014 (2014 EIA LNG Export Study or 2014 Study).[19] The 2014 Study assessed how specified scenarios of increased natural gas exports could affect domestic energy markets. At DOE's request, this 2014 Study served as an update of EIA's January 2012 study of

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[15] *See* 2012 LNG Export Study, 77 Fed. Reg. 73,627 (Dec. 11, 2012), *available at*: http://energy.gov/sites/prod/files/2013/04/f0/fr_notice_two_part_study.pdf (Notice of Availability of the LNG Export Study).

[16] *See, e.g.*, *Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 3792, FE Docket No. 15-63-LNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel From the Sabine Pass LNG Terminal Located in Cameron Parish, Louisiana, to Non-Free Trade Agreement Nations, at 66-121 (Mar. 11, 2016).

[17] 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. DOE/FE therefore focuses on LNG exports from the lower-48 states for purposes of determining macroeconomic impacts.

[18] *See* U.S. Dep't of Energy, Office of Fossil Energy, Request for an Update of EIA's January 2012 Study of Liquefied Natural Gas Export Scenarios, *available at*: http://energy.gov/fe/downloads/request-update-eia-s-january-2012-study-liquefied-natural-gas-export-scenarios (May 29, 2014) (memorandum from FE to EIA).

[19] U.S. Energy Information Administration, *Effect of Increased Levels of Liquefied Natural Gas Exports on U.S. Energy Markets* (Oct. 2014), *available at*: https://www.eia.gov/analysis/requests/fe/pdf/lng.pdf.

LNG export scenarios and used baseline cases from EIA's 2014 *Annual Energy Outlook* (AEO 2014).[20]

The second study, *The Macroeconomic Impact of Increasing U.S. LNG Exports*, was performed jointly by the Center for Energy Studies at Rice University's Baker Institute and Oxford Economics under contract to DOE/FE (together, Rice-Oxford) and published in October 2015 (2015 LNG Export Study or 2015 Study).[21] The 2015 Study is a scenario-based assessment of the macroeconomic impact of levels of U.S. LNG exports, sourced from the lower-48 states, under different assumptions including U.S. resource endowment, U.S. natural gas demand, international LNG market dynamics, and other factors. The 2015 Study considered export volumes ranging from 12 to 20 Bcf/d of natural gas, as well as a high resource recovery case examining export volumes up to 28 Bcf/d of natural gas. The analysis covers the 2015 to 2040 time period.

On December 29, 2015, DOE/FE published a Notice of Availability of the 2014 and 2015 LNG Export Studies in the *Federal Register*, and invited public comment on those Studies.[22] DOE received 38 comments in response to the Notice of Availability, of which 14 comments opposed the conclusions in the 2014 and 2015 Studies and/or LNG exports generally, 21 expressed support for the Studies, and three took no position. DOE/FE has carefully examined

[20] Each Annual Energy Outlook (AEO) presents EIA's long-term projections of energy supply, demand, and prices. It is based on results from EIA's National Energy Modeling System (NEMS) model.
[21] Center for Energy Studies at Rice University Baker Institute and Oxford Economics, *The Macroeconomic Impact of Increasing U.S. LNG Exports* (Oct. 29, 2015), *available at*: http://energy.gov/sites/prod/files/2015/12/f27/20151113_macro_impact_of_lng_exports_0.pdf.
[22] U.S. Dep't of Energy, Macroeconomic Impacts of LNG Exports Studies; Notice of Availability and Request for Comments, 80 Fed. Reg. 81,300, 81,302 (Dec. 29, 2015) [hereinafter Notice of Availability] (providing a 45-day public comment period "to help inform DOE in its public interest determinations of the authorizations sought in the 29 non-FTA export applications identified …").

the comments in a series of non-FTA LNG export decisions,[23] and the precedents established in those decisions have been considered in our review of Eagle Maxville's Application. *See infra* § VII.

B. DOE's Environmental Studies

On June 4, 2014, DOE/FE issued two notices in the *Federal Register* proposing to evaluate different environmental aspects of the LNG production and export chain. First, DOE/FE announced that it had conducted a review of existing literature on potential environmental issues associated with unconventional natural gas production in the lower-48 states. The purpose of this review was to provide additional information to the public concerning the potential environmental impacts of unconventional natural gas exploration and production activities, including hydraulic fracturing. DOE/FE published its draft report for public review and comment, entitled *Draft Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States* (Draft Addendum).[24] DOE/FE received comments on the Draft Addendum and, on August 15, 2014, issued the final Addendum with its response to the public comments contained in Appendix B.[25]

With respect to the Addendum, DOE/FE has taken all public comments into consideration in this decision and has made those comments, as well as the underlying studies, part of the record in this proceeding. As explained below, the Addendum is not required by the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321 *et seq*., but DOE/FE

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[23] *See, e.g., Lake Charles LNG Export Co., LLC*, DOE/FE Order No. 3868, FE Docket No. 13-04-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Lake Charles Terminal in Calcasieu Parish, Louisiana to Non-Free Trade Agreement Nations, at 43-81 (July 29, 2016).

[24] Dep't of Energy, Draft Addendum to Environmental Review Documents Concerning Exports of Natural Gas From the United States, 79 Fed. Reg. 32,258 (June 4, 2014). DOE/FE announced the availability of the Draft Addendum on its website on May 29, 2014.

[25] Dep't of Energy, Addendum to Environmental Review Documents Concerning Exports of Natural Gas From the United States, 79 Fed. Reg. 48,132 (Aug. 15, 2014) [hereinafter Addendum]; *see also* http://energy.gov/fe/addendum-environmental-review-documents-concerning-exports-natural-gas-united-states.

believes that this document will inform its review of the public interest under NGA section 3(a), and are responsive to concerns raised in other non-FTA export proceedings.

C. DOE/FE's Categorical Exclusion Under NEPA for Non-FTA Authorization

On August 10, 2017, DOE/FE issued a categorical exclusion from the preparation of an environmental impact statement or environmental assessment under NEPA for Eagle Maxville's Application (Categorical Exclusion).[26] Specifically, DOE/FE applied categorical exclusion B5.7 of DOE/FE's regulations (10 C.F.R. Part 1021, Subpart D, Appendix B5). This exclusion applies to natural gas import or export activities requiring minor operational changes to existing projects, but no new construction. This Order grants the non-FTA portion of the Application, in part, on the basis of this Categorical Exclusion.

III. SUMMARY OF FINDINGS AND CONCLUSIONS FOR NON-FTA AUTHORIZATION

This Order presents DOE/FE's findings and conclusions on all issues associated with Eagle Maxville's proposed exports of LNG in this proceeding, including both environmental and non-environmental issues.[27] As the basis for this Order, DOE/FE has reviewed a substantial administrative record that includes (but is not limited to) the following: the uncontested Application; DOE/FE's 2014 and 2015 LNG Export Studies; the Addendum; and public comments received on DOE/FE's various analyses.

On the basis of this record, DOE/FE has determined that it has not been demonstrated that the proposed exports of LNG will be inconsistent with the public interest, as would be required to deny the Application under NGA section 3(a). DOE/FE therefore authorizes Eagle

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[26] U.S. Dep't of Energy, Categorical Exclusion Determination, *Eagle LNG Partners Jacksonville II LLC*, FE Docket No. 17-79-LNG (Aug. 10, 2017) [hereinafter Categorical Exclusion].

[27] As discussed below, the non-environmental issues primarily include economic and international impacts associated with the proposed exports, as well as security of the natural gas supply in the United States. *See infra* § IV.

Maxville's export of domestically produced LNG from the Maxville Facility to FTA and non-FTA countries in a total volume equivalent to 2.8 Bcf/yr of natural gas. This authorization is subject to the Terms and Conditions and Ordering Paragraphs set forth herein, *see infra* §§ VIII-X, but is not conditioned on additional environmental analysis or review.

IV. STANDARD OF REVIEW FOR NON-FTA AUTHORIZATION

Section 3(a) of the NGA sets forth the standard for review of the non-FTA portion 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[28]] 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 such terms and conditions as the [Secretary] may find necessary or appropriate.

15 U.S.C. § 717b(a). This provision creates a rebuttable presumption that a proposed export of natural gas is in the public interest. DOE/FE must grant such an application unless opponents of the application overcome that presumption by making an affirmative showing of inconsistency with the public interest.[29]

While 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

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[28] 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.

[29] *See, e.g.*, *Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 2961, FE Docket No. 10-111-LNG, Opinion and Order Conditionally Granting Long-Term Authorization to Export Liquefied Natural Gas From Sabine Pass LNG Terminal to Non-Free Trade Agreement Nations, at 28 (May 20, 2011) [hereinafter *Sabine Pass*]; *see also Phillips Alaska Natural Gas Corp. & Marathon Oil Co.*, DOE/FE Order No. 1473, FE Docket No. 96-99-LNG, Order Extending Authorization to Export Liquefied Natural Gas from Alaska, at 13 (April 2, 1999) [hereinafter *Phillips Alaska Natural Gas*], citing *Panhandle Producers & Royalty Owners Ass'n v. ERA*, 822 F.2d 1105, 1111 (D.C. Cir. 1987).

that must be considered. In prior decisions, however, DOE/FE 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/FE looks to record evidence developed in the application proceeding.[30]

DOE/FE's prior decisions have also looked to certain principles established in its 1984 Policy Guidelines.[31] The goals of the Policy Guidelines are to minimize federal control and 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.[32]

While nominally applicable to natural gas import cases, DOE/FE subsequently held in Order No. 1473 that the same policies should be applied to natural gas export applications.[33]

In Order No. 1473, DOE/FE stated that it was guided by DOE Delegation Order No. 0204-111. That delegation order, which authorized the Administrator of the Economic Regulatory Administration to exercise the agency's review authority under NGA section 3, directed the Administrator to regulate exports "based on a consideration of the domestic need for the gas to be exported and such other matters as the Administrator finds in the circumstances of a

[30] *See, e.g.*, *Sabine Pass*, DOE/FE Order No. 2961, at 28-42 (reviewing record evidence in issuing conditional authorization).
[31] New Policy Guidelines and Delegations Order Relating to Regulation of Imported Natural Gas, 49 Fed. Reg. 6684 (Feb. 22, 1984) [hereinafter 1984 Policy Guidelines].
[32] *Id*. at 6685.
[33] *Phillips Alaska Natural Gas*, DOE/FE Order No. 1473, 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)).

particular case to be appropriate."[34] In February 1989, the Assistant Secretary for Fossil Energy assumed the delegated responsibilities of the Administrator of ERA.[35]

Although DOE Delegation Order No. 0204-111 is no longer in effect, DOE/FE's review of export applications 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 security of domestic natural gas supplies, (iii) whether the arrangement is consistent with DOE/FE's policy of promoting market competition, and (iv) any other factors bearing on the public interest described herein.

V. DESCRIPTION OF REQUEST FOR FTA AND NON-FTA AUTHORIZATIONS

Eagle Maxville requests long-term, multi-contract authorization to export domestically produced LNG from the Maxville Facility to both FTA and non-FTA countries in a volume equivalent to approximately 2.8 Bcf/yr of natural gas, or 0.01 Bcf/d. As explained below, Eagle Maxville states that the LNG will be loaded into ISO containers for transportation by truck to port facilities for loading onto ocean-going container ships.[36] Eagle Maxville requests both the FTA and non-FTA authorizations for a 20-year term, commencing on the earlier of the date of first export or five years from the date of issuance of this Order. Eagle Maxville seeks to export this LNG on its own behalf and as agent for other entities who will hold title to the LNG at the port of export.[37]

[34] DOE Delegation Order No. 0204-111, at 1; *see also* 1984 Policy Guidelines, 49 Fed. Reg. at 6690.
[35] *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)).
[36] Eagle Maxville App. at 4.
[37] *Id*. at 3.

A. Description of Applicant

Eagle Maxville is a Delaware limited liability company with its principal place of business in Houston, Texas. Eagle Maxville is a wholly-owned subsidiary of Eagle LNG Partners LLC (also a Delaware limited liability company) and an affiliate of Eagle LNG Partners Jacksonville LLC.[38]

Eagle Maxville notes that its affiliate, Eagle LNG Partners Jacksonville LLC, is developing a LNG production and export terminal on the St. Johns River in the Port of Jacksonville, Florida. Eagle Maxville states that the proposed Port of Jacksonville terminal is separate and distinct from the Maxville Facility. According to Eagle Maxville, the current member of Eagle LNG Partners LLC is Ferus Natural Gas Fuels, L.P., which is a Delaware partnership.[39]

B. Maxville Facility

<u>Description of Facility.</u> The Maxville Facility is located in southwestern Duval County, at the southwestern edge of Jacksonville, Florida. Eagle Maxville states that the Facility is situated on approximately 10 acres within an appropriately zoned parcel of approximately 97 acres that is wholly owned by Eagle Maxville.[40] As described below, Eagle Maxville states that the Maxville Facility will receive domestically produced natural gas via a local utility, process this natural gas into LNG, temporarily store the produced LNG, and periodically load LNG into ISO containers for transportation by truck to port facilities for transfer into vessels for export, among other purposes.[41]

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[38] *See id*. at 4.
[39] *Id.* at 4-5.
[40] *See id*. at 6. A drawing depicting the location of the Maxville Facility and the Facility's layout is attached to the Application as Attachment 1.
[41] *Id*. at 4; Eagle Maxville App. Update at 2.

Eagle Maxville states that the "principal purpose" of the Maxville Facility is to supply LNG to Crowley Puerto Rico Services, Inc. (Crowley) for use in LNG-powered "Commitment Class" ships that are being introduced into the U.S. mainland to Puerto Rico trade.[42] According to Eagle Maxville, however, the Maxville Facility will have LNG production capacity that will exceed Crowley's anticipated marine fuel needs. To the extent that all of the Facility's output will not be taken by Crowley or other domestic markets, Eagle Maxville plans to export the LNG to markets primarily in the Caribbean Basin.[43] Eagle Maxville explains that LNG exported from the Maxville Facility "will serve industrial customers in the Caribbean Basin that have volume requirements much smaller than what is typically economical for marine bulk LNG export facilities."[44]

At full build-out, the Maxville Facility will have two LNG trains, one LNG storage tank with a capacity of 1 million gallons, and a truck load-out facility for the loading of cryogenic transport trailers and ISO containers. The first LNG train will have the capacity to produce approximately 7.7 million cubic feet per day (MMcf/d) of LNG, or the equivalent of approximately 0.01 Bcf/d of natural gas. The second LNG train will have the capacity to produce 10.6 MMcf/d of liquefied natural gas, or the equivalent of approximately 0.01 Bcf/d of natural gas. Eagle Maxville states that, even though the two LNG trains will have a combined output equivalent to 0.02 Bcf/d of natural gas, it is requesting authorization to export no more than the quantity of LNG that can be produced from the first train.[45]

Eagle Maxville states that the Maxville Facility will receive natural gas through an existing adjacent natural gas pipeline system. For the LNG produced from this natural gas and

[42] Eagle Maxville App. at 5.
[43] *See id*. at 5-6.
[44] *Id*. at 6.
[45] *See id*.

designated for export, Eagle Maxville anticipates that ISO containers will be filled at the Maxville Facility, then transported by truck to the Port of Jacksonville or to facilities in other ports in Florida and neighboring states capable of handling the ISO containers. At these ports, the ISO containers will be loaded onto container ships or roll-on/roll-off ocean-going carriers for export.[46] As noted above, Eagle Maxville states that the likely destination of these LNG exports will be nations in the Caribbean and Central America.[47]

Status of Facility. Eagle Maxville states that it commenced construction of the Maxville Facility in May 2016. As of the date of the Application (June 15, 2017), Eagle Maxville states that "all major construction has been completed."[48] According to Eagle Maxville, it has received all state and local permits required for construction and operation of the Maxville Facility, with the exception of a routine occupancy permit that will be issued in due course.[49] Eagle Maxville further states that, as of June 15, 2017:

- Most components of the Facility are mechanically complete, with all systems expected to be mechanically complete by August 1, 2017, and the Facility capable of receiving natural gas in August 2017.
- Minor site cleanup work is ongoing; and
- Pre-commissioning activities involving completed systems commenced in early June 2017.

Additionally, on August 14, 2017, Eagle Maxville updated the Application to reflect the current status of the Maxville Facility. Eagle Maxville reports that:

- Commissioning activities are underway at the Facility;

[46] *See id*. at 7; Eagle Maxville App. Update at 2. Eagle Maxville states that each ISO container will hold approximately 10,000 gallons, or 0.81 MMcf, of LNG. At full build out, the Maxville Facility will be able to fill up to 23 ISO containers per day. *See* Eagle Maxville App. at 7.
[47] *See id*.
[48] Eagle Maxville App. at 5.
[49] *See id*. at 5, 8. The status of the environmental, land use, and safety-related permits required by the Maxville Facility, as well as the current status of construction as of the date of the Application, are summarized in Attachment 2 to the Application.

- The U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration has completed a second audit of the Maxville Facility;
- The local gas distribution utility, People's Gas, is completing the Maxville Facility's natural gas tie-in, which is on-track for hand-over at the end of August 2017; and
- Eagle Maxville and its EPC contractor are working through the punch list of minor items required for final commissioning and completion.

According to Eagle Maxville, it is expected to begin commercial operation of the Maxville Facility during the first week of October 2017.[50]

Eagle Maxville further states that the Maxville Facility is not subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC) because the Facility is not an "LNG terminal" under NGA section 3.[51] Eagle Maxville notes, however, that the Maxville Facility is subject to reviews and approvals by a number of local, state, and national agencies, and that the Facility's design reflects input by the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration in compliance with the requirements of 49 C.F.R. Part 193 (federal safety standards for LNG facilities).[52]

Finally, Eagle Maxville notes that the Maxville Facility primarily is intended to serve the marine fuel market, with much of the Facility's output already contractually committed to support Crowley's LNG-powered ships. Therefore, according to Eagle Maxville, the Maxville Facility will be completed regardless of whether Eagle Maxville receives authorization to export any of the Facility's LNG output.[53]

C. Business Model

Eagle Maxville requests this authorization on its own behalf and as agent for other parties

[50] *See* Eagle Maxville App. Update at 2.
[51] *See* Eagle Maxville App. at 7-8 & n.6.
[52] *See id*. at 8; *see also id*. at 31.
[53] *See id*. at 8-9.

who will hold title to the LNG at the time of export. Eagle Maxville states that it has not yet finalized and executed any long-term natural gas supply or long-term export contracts, but it anticipates entering into commercial agreements in the form of LNG sales and purchase agreements.

Eagle Maxville states that it will comply with all DOE/FE requirements for exporters and agents, including filing any long-term natural gas supply or long-term export contracts with DOE once those agreements are executed. Eagle Maxville further states that, when acting as agent, it will register with DOE/FE each LNG title holder for which it seeks to export LNG as agent, and will comply with other registration requirements as set forth in recent DOE/FE orders.[54]

D. Source of Natural Gas

Eagle Maxville states that the natural gas to be received at the Maxville Facility will be produced from natural gas supply sources that feed into the Southern Natural Gas Company, LLC (SNG) pipeline system, a portion of which occupies a right-of-way adjacent to the Maxville Facility project site.[55] Through the SNG system, Eagle Maxville states that it will have direct access to major sources of natural gas supply, including supplies produced in the Gulf Coast region both onshore and offshore. Additionally, Eagle Maxville states that the Florida Gas Transmission Company, LLC pipeline system and other pipelines are interconnected with the SNG system at various locations, which will provide indirect access to additional sources of natural gas supply, including sources located in the mid-continent region and in the Appalachian region, such as the Marcellus and Utica shale plays.[56]

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[54] *See* Eagle Maxville App. at 10-11.
[55] *See id*. at 12.
[56] *Id*.

E. Environmental Review for Non-FTA Authorization

Citing DOE/FE's actions in three proceedings (*American LNG Marketing LLC*, DOE/FE Order No. 3690; *Flint Hills Resources, LP*, DOE/FE Order No. 3829; and *Carib Energy (USA) LLC*, DOE/FE Order No. 3487),[57] Eagle Maxville asserts that DOE/FE does not need to conduct an environmental review of the Maxville Facility because it is subject to a categorical exclusion from the requirements of NEPA—specifically, categorical exclusion B5.7 (10 C.F.R. Part 1021, Subpart D, Appendix B5). Categorical exclusion B5.7 applies, in relevant part, to authorizations to import or export natural gas under NGA section 3 that involve minor operational changes but not new construction. Eagle Maxville asserts that—like the *Flint Hills Resources* proceeding—"approval of the export authorization sought here 'fall[s] within the scope of the B5.7 categorical exclusion because the contemplated construction and operations will not be changed due to action on [the] Application.'"[58]

Eagle Maxville provides several arguments in support of this position, including that: (i) all major construction on the Maxville Facility has been completed; (ii) construction and operation of the Maxville Facility will occur without regard to DOE/FE's decision on the Application because Eagle Maxville has a contractual obligation to supply LNG to Crowley for its LNG-powered ships; and (iii) the Maxville Facility is both small in size and proposes to export a "relatively small volume of LNG" that "will be insignificant in the context of the overall demand for natural gas in the U.S."[59]

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[57] *See infra* at 34-36 (citing orders).
[58] Eagle Maxville App. at 30-31 (citing *Flint Hills Resources*, DOE/FE Order No. 3829 at 19).
[59] *See id*. at 30-32.

VI. APPLICANT'S PUBLIC INTEREST ANALYSIS FOR NON-FTA AUTHORIZATION

A. Overview

Citing DOE/FE precedent, Eagle Maxville states that NGA section 3(a) creates a rebuttable presumption that its proposed exports to non-FTA countries are in the public interest, and that DOE must grant its Application unless any opponents of the Application overcome that presumption. Emphasizing the small volume of LNG that it seeks to export, Eagle Maxville maintains that its proposed non-FTA exports are consistent with the public interest. In support of this position, Eagle Maxville addresses the following factors: (i) the domestic need for the natural gas to be exported, (ii) the economic benefits associated with its proposed exports; and (iii) the environmental benefits associated with its proposed exports.

B. Domestic Need for Natural Gas To Be Exported

Eagle Maxville states that it is proposing to export a small volume of LNG to non-FTA countries (2.8 Bcf/yr, or 0.01 Bcf/d)—particularly compared with the volumes authorized by DOE in other recent non-FTA export proceedings. In light of this small volume, Eagle Maxville states that "the impact of granting the export authorization … on the domestic availability of natural gas will be orders of magnitude smaller than the impacts identified in other recent applications which DOE/FE granted as consistent with the public interest."[60] Eagle Maxville notes that its proposed exports of 0.01 Bcf/d are comparable to export volumes which DOE/FE has found "'will have no practical impact on the domestic supply of natural gas in the United States or natural gas markets.'"[61] According to Eagle Maxville, DOE/FE can therefore readily

[60] *Id*. at 16-17.
[61] *Id*. at 17 (quoting *Flint Hills Resources*, DOE/FE Order No. 3829, at 15-16) (addressing proposed LNG exports of 0.01 Bcf/d).

conclude that the proposed exports likewise will not have a significant impact on the domestic supply of natural gas.[62] Eagle Maxville also asserts that its exports will fulfill an important need for natural gas in Caribbean and Central American markets, which "lack the customer demand, waterway infrastructure, and transmission infrastructure necessary to handle large quantities of natural gas and large LNG carriers."[63]

1. Domestic Natural Gas Supply and Demand

Addressing the domestic need for the natural gas to be exported, Eagle Maxville states that EIA data demonstrate that recoverable reserves of natural gas in the United States are plentiful, economical, and more than adequate to meet domestic demand for many years to come. Specifically, according to Eagle Maxville, EIA has determined that dry natural gas proved reserves increased by 35.2 trillion cubic feet (Tcf) (12.9%) between 2009 and 2015, and that estimates of technically recoverable natural gas resources increased by 355.7 Tcf (16.8%) between 2008 and 2014.[64]

Eagle Maxville asserts that, given these substantial additional natural gas resources and the relatively minor increases in domestic natural gas demand during the same time period, more than sufficient natural gas resources exist to accommodate both domestic demand and LNG exports, including the small volume of exports proposed in this Application, throughout the proposed export authorization period. Bolstering this assertion, Eagle Maxville notes that EIA's AEO 2017 projects in its Reference Case that U.S. dry natural gas production will increase by 49% between 2015 and 2050, and that production from shale resources and tight oil plays will increase from 13.5 Tcf in 2015 to 27.5 Tcf in 2050.[65]

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[62] *See id*.
[63] *Id*. at 17.
[64] *See* Eagle Maxville App. at 18 & n.32.
[65] *See id*. at 19.

Eagle Maxville next states that, although domestic demand for natural gas is anticipated to grow over the next 25 years, demand will continue to be outpaced by available natural gas supply. Eagle Maxville maintains that EIA's data demonstrate that natural gas demand was only 17% higher in 2015 than it was in 2000, and that EIA estimates that annual U.S. consumption of natural gas will grow at an annual rate of only 0.7% over the period from 2016 to 2050, with consumption expected to reach 34.62 Tcf in 2050, as compared to 27.68 Tcf in 2016. Eagle Maxville contrasts this to EIA's projection that total U.S. dry natural gas production during the same time period is expected to increase by over 51.8%, with a projected annual growth rate of 1.2%.[66] Eagle Maxville asserts that this increase is adequate to support both the growth in U.S. natural gas consumption and a substantial volume of LNG exports (4.44 Tcf in 2050).[67]

In sum, Eagle Maxville maintains that its export of a "very small amount" of LNG will have no measurable impact on the availability or price of natural gas in U.S. markets, and that there will be more than enough natural gas produced in the United States over the next 25 years to satisfy domestic requirements as well as to support significant LNG exports.[68]

2. Impact on Domestic Prices of Natural Gas and Net Economic Impacts

Eagle Maxville states that U.S. shale gas production, which increased by over 50% during the 2007-2013 period, has contributed to the decline in natural gas prices from a high in 2008 of approximately $11/MMBtu (Million British Thermal Units) to the current wellhead price ranging from $2.00 to $3.00/MMBtu. Eagle Maxville notes that EIA's AEO 2017 Reference case estimates that the Henry Hub spot price for natural gas will remain (in real 2016 dollars) well under $5.00 per MMBtu through 2025, and will not exceed $5.11 in any year on average

[66] *See id*. at 19-20 & n.37-38 (citing EIA AEO 2017 at Table 13).
[67] *See id*. (citing EIA AEO 2017 at Table 62).
[68] *Id*. at 20.

over the period from 2016-2040.[69] Eagle Maxville points out that several additional analyses—such as a study by ICF International—have concluded that LNG exports in the range of 6 to 12 Bcf/d of natural gas would not have any significant impacts on domestic prices.[70]

Eagle Maxville states that, even assuming that LNG exports were to have some modest impact on domestic natural gas prices, DOE's 2012, 2014, and 2015 LNG Export Studies demonstrate that LNG exports from the United States will not result in any adverse economic impacts upon U.S. consumers. For example, Eagle Maxville points to EIA's conclusion in the 2014 EIA Study that, even if LNG exports ultimately are greater than forecast, "'[i[ncreased energy production spurs investment, which more than offsets the adverse impact of somewhat higher energy prices when the export scenarios are applied.'"[71] Eagle Maxville also points to the conclusion in the 2015 LNG Export Study that, "'the positive impacts of higher U.S. gas production, greater investment in the U.S. natural gas sector, and increased profitability of U.S. gas producers typically exceeds the negative impacts of higher domestic prices associated with increased LNG exports.'"[72]

Next, Eagle Maxville identifies several other publicly-available studies, which it states similarly find that the United States will benefit from exporting domestically produced LNG. In addition to the ICF Study referenced above, these studies include:

- Charles Ebinger, *et al.*, *Liquid Markets: Assessing the Case for U.S. Exports of Liquefied Natural Gas*, Brookings Institution (May 2012);
- Michael Levi, *A Strategy for U.S. Natural Gas Exports*, The Hamilton Project, Brookings Institution (June 2012);

[69] *See id*. 20 (citing EIA AEO 2017 at Table 13).
[70] Eagle Maxville App. at 21.
[71] *Id*. at 22 & n.49 (quoting EIA 2014 Study at 12).
[72] *Id*. at 24-25 (quoting 2015 LNG Export Study at 16).

- Kenneth B. Medlock II, Ph.D., *U.S. LNG Exports: Truth and Consequence*, Energy Forum at the James A. Baker Institute for Public Policy, Rice University (Aug. 10, 2012); and

- Deloitte, *Exporting the American Renaissance: Global Impacts of LNG Exports from the United States* (2013).

Eagle Maxville incorporates these studies by reference into its Application as support for its argument that its requested non-FTA authorization is not inconsistent with the public interest.[73]

Finally, Eagle Maxville points to DOE/FE's findings in recent export authorizations that *Annual Energy Outlook* 2017 (AEO 2017) provides independent support for the proposition that domestic supplies will be adequate both to meet domestic needs and to support additional LNG exports and other final non-FTA LNG exports it has previously authorized. Eagle Maxville argues that the same conclusion is appropriate here, given the *de minimis* quantities of LNG that Eagle Maxville proposes to export.[74]

C. Other Public Interest Factors

Eagle Maxville contends that the Maxville Facility—with an estimated capital cost of nearly $100 million—has resulted in, and will continue to produce, several economic and environmental benefits. These include:

- Providing economic stimulus for the State of Florida and the North Florida region, and indirectly for the U.S. economy;

- Promoting the use of abundant domestic natural gas supplies for environmentally beneficial applications; and,

- Promoting the export of LNG to markets in the Atlantic and Caribbean basins, which strengthens economic trade and ties with countries in these regions, while displacing diesel and other high carbon fuels in those countries.

[73] *See id*. at 25-26.
[74] *See id*. at 26.

Eagle Maxville asserts that these benefit are consistent with the public interest under NGA section 3(a).[75]

1. Economic Benefits

Eagle Maxville contends the Maxville Facility has provided (and will continue to provide) an economic stimulus at the local, state, and national levels through the creation of jobs, increased economic activity, and increased tax revenues.

Eagle Maxville states that, at peak construction, the Maxville Facility employed 100 workers per month. During its operation, the Facility will continue to employ approximately 15 individuals. Eagle Maxville states that this job creation is consistent with the National Export Initiative.[76] Eagle Maxville points to additional economic benefits associated with the construction and operation of the Facility, including increased sales and property tax revenues and "significant" increase in tax revenues that it contends will accrue to the City of Jacksonville government.[77] Lastly, Eagle Maxville contends that exports from its Facility will contribute, even if only modestly, to a reduction in the U.S. trade deficit.[78]

2. Environmental Benefits

Eagle Maxville states that exporting LNG exports to Caribbean markets, which currently rely on higher-carbon fossil fuels for power generation, will result in significant environmental benefits. Eagle Maxville asserts that emissions from burning natural gas are far less than emissions from coal-fired power generation. According to Eagle Maxville, increasing the amount of LNG exported to Caribbean Basin countries will provide a low-cost energy alternative and encourage these countries to switch from fuel oil and diesel to more environmentally

[75] Eagle Maxville App. at 27.
[76] National Export Initiative, 75 Fed. Reg. 12,433 (Mar. 16, 2010).
[77] Eagle Maxville App. at 28.
[78] *See id*.

friendly fuels. Eagle Maxville maintains that exporting LNG to Caribbean Basin countries—in which natural gas can displace consumption of coal, fuel oil, and diesel—will reduce carbon emissions while facilitating stronger relationships with neighboring countries.[79]

VII. DISCUSSION AND CONCLUSIONS FOR NON-FTA AUTHORIZATION

In reviewing the non-FTA portion of Eagle Maxville's Application, DOE/FE has considered both its obligations under NEPA and its obligation under NGA section 3(a) to ensure that the proposed LNG exports are not inconsistent with the public interest. To accomplish these purposes, DOE/FE has examined a wide range of information addressing environmental and non-environmental factors, including:

- Eagle Maxville's uncontested Application;
- The Draft Addendum, comments received in response to the Draft Addendum, and the final Addendum; and
- The 2014 and 2015 EIA LNG Export Studies, including comments received in response to those Studies.

To avoid repetition, the following discussion focuses on arguments and evidence presented by Eagle Maxville to the extent that DOE/FE has not already addressed the same or substantially similar arguments in its responses to comments on the Addendum and/or the 2014 and 2015 Studies.

A. Non-Environmental Issues

In considering non-environmental issues in this proceeding, we have reviewed the uncontested Application, the 2014 and 2015 LNG Export Studies, and the comments on those

[79] *See id*. at 28-29.

Studies. We also take administrative notice of EIA's most recent authoritative projections for natural gas supply, demand, and prices, set forth in the AEO 2017.[80]

The Reference case for AEO 2017 includes the effects of the Clean Power Plan (CPP),[81] which is intended to reduce carbon emissions from the power sector. DOE/FE assessed the AEO 2017 to evaluate any differences from AEO 2014, which formed the basis for the 2014 Study. AEO 2017 also included a Reference case without implementation of the Clean Power Plan. Both Reference Cases show natural gas production levels that favor exports, but that also have lower net LNG exports in 2040 (12.5 Bcf/d for the Reference Case with the CPP and 12 Bcf/d for the Reference Case without the CPP).

1. Eagle Maxville's Application

Upon review, we find that several factors identified in the Application support a grant of the non-FTA authorization to export domestically produced LNG in a requested volume equivalent to 2.8 Bcf/yr of natural gas.

First, we find that the volume of LNG authorized for export to non-FTA countries in this Order—equivalent to 0.01 Bcf/d of natural gas—will have no practical impact on the domestic supply of natural gas in the United States or on natural gas markets, as evidenced by the 2014 and 2015 LNG Export Study, as well as AEO 2017, as discussed below.

Second, the 2014 and 2015 LNG Export Study project that exports of LNG will generate net economic benefits to the broader U.S. economy.

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[80] U.S. Energy Information Administration, *Annual Energy Outlook* 2017 (Jan. 2017), *available at*: http://www.eia.gov/outlooks/aeo.

[81] U.S. Envtl. Protection Agency, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule, 80 Fed. Reg. 64,662 (Oct. 23, 2015) (effective Dec. 22, 2015). On February 9, 2016, the U.S. Supreme Court issued a stay of the effectiveness of this rule pending review. *See Chamber of Commerce, et al. v. EPA, et al.*, Order in Pending Case, 577 U.S. ___ (2016). Most recently, the U.S. Court of Appeals for the District of Columbia Circuit issued an order holding the case in abeyance for 60 days, with EPA required to file status reports at 30-day intervals. *See West Virginia, et al. v. EPA, et al.*, Order, Case No. 15-1363 (D.C. Cir. Aug. 8, 2017).

Third, as discussed below, over the 20-year term of the non-FTA authorization, the proposed exports will benefit the liquidity of international natural gas markets and, as Eagle Maxville points out, will make a positive contribution to the United States' trade balance. For this reason, we agree with Eagle Maxville that its proposed exports are consistent with U.S. policy under the National Export Initiative.[82]

2. Price Impacts

As discussed above, the 2014 and 2015 LNG Export Studies projected the economic impacts of LNG exports in a range of scenarios, including scenarios that exceeded the current amount of LNG exports authorized in the final non-FTA export authorizations to date (equivalent to a total of 21.35 Bcf/d of natural gas with the issuance of this Order).[83] The 2015 Study concluded that LNG exports at these levels (in excess of 12 Bcf/d of natural gas) would result in higher U.S. natural gas prices, but that these price changes would remain in a relatively narrow range across the scenarios studied. However, even with these estimated price increases, the 2015 Study found that the United States would experience net economic benefits from increased LNG exports in all cases studied.[84]

We have also reviewed EIA's AEO 2017, published in January 2017. The Reference case of this projection includes the effects of the CPP, discussed *supra*, which is intended to reduce carbon emissions from the power sector. DOE/FE assessed AEO 2017 to evaluate any differences from AEO 2014, which formed the basis for the 2014 Study.

Comparing key results from 2040 (the end of the projection period in Reference case projections from AEO 2014) shows that the latest Reference case Outlook foresees lower-48

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[82] National Export Initiative, 75 Fed. Reg. 12,433 (Mar. 16, 2010).
[83] *See infra* § VII.
[84] *See* 2015 Study at 8, 82.

market conditions that would be even more supportive of LNG exports, including higher production and demand coupled with notably lower prices. Results from EIA's AEO 2017 no-CPP case, which is the same as the Reference case but does not include the CPP, are also more supportive of LNG exports on the basis of higher production with lower prices relative to AEO 2014.

For the year 2040, the AEO 2017 Reference case anticipates 3 percent more natural gas production in the lower-48 than AEO 2014. It also projects an average Henry Hub natural gas price that is lower than AEO 2014 by 38 percent. In the AEO 2017 no-CPP case, for the year 2040, lower-48 production is 2 percent higher than in AEO 2014, with the Henry Hub price 39 percent lower. Both higher production and lower prices in both AEO 2017 cases illustrate a market environment supportive of LNG exports. These differences, along with other key production, consumption, price, and export variables across AEO 2014 and AEO 2017, are depicted in the table below.

Table 1: Year 2040 Reference Case Comparisons in AEO 2014 and AEO 2017

	AEO 2014 Reference Case	**AEO 2017 Reference Case** **Includes Clean Power Plan**	**AEO 2017 Reference Case** **Without Clean Power Plan**
Lower-48 Dry Natural Gas Production (Bcf/d)	99.4	102.3	101.4
Total Natural Gas Consumption (Bcf/d)	86.4	87.2	85.6
Electric Power Sector Consumption (Bcf/d)	30.7	30.2	28.5
<u>Net</u> Exports by Pipeline (Bcf/d)	6.6	3.7	3.8
<u>Net</u> LNG Exports (Bcf/d)	9.2	12.0	12.5
LNG Exports – Total (Bcf/d)	9.6	12.1	12.7
Lower-48	7.4	12.1	12.7
Alaska	2.2	0.0	0.0
Henry Hub Spot Price ($/MMBtu)(Note 1)	**$8.15 (2016$)** $7.65 (2012$)	**$5.07 (2016$)**	**$5.01 (2016$)**

Note 1: Prices adjusted to 2016$ with the AEO 2014 projection of a GDP price index.

3. Significance of the 2014 and 2015 LNG Export Studies

For the reasons discussed above, DOE/FE commissioned the 2014 EIA LNG Export Study and the 2015 LNG Export Study, and invited the submission of responsive comments on both Studies. DOE/FE has analyzed this material and determined that these two Studies provide substantial support for granting Eagle Maxville's Application. Specifically, the conclusion of the

2015 Study is that the United States will experience net economic benefits from issuance of authorizations to export domestically produced LNG.

We have evaluated the public comments submitted in response to the 2014 and 2015 LNG Export Studies. Certain commenters have criticized aspects of the models, assumptions, and design of the Studies. As discussed above, however, EIA's projections in AEO 2017 continue to show market conditions that will accommodate increased exports of natural gas. When compared to the AEO 2014 Reference case, the AEO 2017 Reference case projects increases in domestic natural gas production—well in excess of what is required to meet projected increases in domestic consumption. Accordingly, we find that the 2014 and 2015 LNG Export Studies are fundamentally sound and support the proposition that the proposed authorization will not be inconsistent with the public interest.

4. Benefits of International Trade

We have not limited our review to the contents of the 2014 and 2015 LNG Export Studies and the data from AEO 2017, but have considered a wide range of other information. For example, the National Export Initiative, established by Executive Order, sets a goal to "improve conditions that directly affect the private sector's ability to export" and to "enhance and coordinate Federal efforts to facilitate the creation of jobs in the United States through the promotion of exports."[85]

We have also considered the international consequences of our decision. We review 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. An efficient, transparent international market for natural gas with diverse sources of supply provides both economic and

[85] 75 Fed. Reg. at 12,433.

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, it will improve energy security for many U.S. allies and trading partners. As such, authorizing U.S. exports may advance the public interest for reasons that are distinct from and additional to the economic benefits identified in the 2014 and 2015 Studies.

B. Environmental Issues

1. Issuance of a Categorical Exclusion

In reviewing the potential environmental impacts of Eagle Maxville's proposal to export LNG to non-FTA countries, 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. Eagle Maxville proposes to export LNG from the Maxville Facility, which has been constructed to produce LNG for domestic uses. Specifically, as noted above, all major construction has been completed at the Facility, and commissioning activities at the Facility are underway.[86] Eagle Maxville has received all state and local permits required for construction and operation of the Maxville Facility, with the exception of a routine occupancy permit that Eagle Maxville states will be issued in due course.[87] Commercial operations at the Facility are expected to begin in the first week of October.[88]

[86] Eagle Maxville App. at 5; Eagle Maxville App. Update at 2.
[87] *See id*.
[88] Eagle Maxville App. Update at 2.

The Department's regulations at 10 C.F.R. Part 1021, Subpart D, Appendix B, list categorical exclusions that apply to DOE actions. Item B5.7 provides a categorical exclusion where approvals or disapprovals of authorizations to import or export natural gas under NGA section 3 involve minor operational changes, but not new construction. Approval of Eagle Maxville's requested authorization falls within the scope of the B5.7 categorical exclusion because the proposed exports will not require additional construction or modification of the Maxville Facility. Accordingly, on August 10, 2017, DOE/FE issued a Categorical Exclusion Determination applying a categorical exclusion under NEPA for the non-FTA portion of the Application. The issuance of the Categorical Exclusion supports a determination that no further environmental review of the Application is required under NEPA. Therefore, we find that no environmental conditions need to be imposed on this authorization.

2. Environmental Impacts Associated with Induced Production of Natural Gas

The current rapid development of natural gas resources in the United States likely will continue, with or without the export of natural gas to non-FTA nations.[89] Nevertheless, a decision by DOE/FE to authorize exports to non-FTA nations could accelerate that development by some increment. As discussed above, the Addendum reviewed the academic and technical literature covering the most significant issues associated with unconventional gas production, including impacts to water resources, air quality, greenhouse gas emissions, induced seismicity, and land use.

The Addendum shows that there are potential environmental issues associated with unconventional natural gas production that need to be carefully managed, especially with respect to emissions of volatile organic compounds (VOCs) and methane, and the potential for

[89] Addendum at 2.

groundwater contamination. These environmental concerns do not lead us to conclude, however, that exports of natural gas to non-FTA nations should be prohibited. Rather, we believe 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 update these regulations from time to time as technological practices and scientific understanding evolve. For example, in 2012, using its authority under the Clean Air Act, the U.S. Environmental Protection Agency (EPA) promulgated regulations for hydraulically fractured wells that are expected to yield significant emissions reductions.[90] In 2013, EPA updated those regulations to include storage tanks,[91] and in 2014 EPA issued a series of technical white papers exploring the potential need for additional measures to address methane emissions from the oil and gas sector.[92] In January 2015, EPA announced a strategy for "address[ing] methane and smog-forming VOC [volatile organic compound] emissions from the oil and gas industry in order to ensure continued, safe and responsible growth in U.S. oil and natural gas production."[93] Specifically, EPA initiated a rulemaking to set standards for methane and VOC emissions from new and modified oil and gas

[90] U.S. Envtl. Prot. Agency, Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews; Final Rule, 77 Fed. Reg. 49,490 (Aug. 16, 2012).
[91] U.S. Envtl. Prot. Agency, Oil and Natural Gas Sector: Reconsideration of Certain Provisions of New Source Performance Standards; Final Rule, 78 Fed. Reg. 58,416 (Sept. 23, 2013).
[92] U.S. Envtl. Prot. Agency, Fact Sheet: EPA's Strategy for Reducing Methane and Ozone-Forming Pollution From the Oil and Natural Gas Industry (Jan. 14, 2015), *available at*: https://www.epa.gov/newsreleases/fact-sheet-epas-strategy-reducing-methane-and-ozone-forming-pollution-oil-and-natural.
[93] *Id*.

production sources, and natural gas processing and transmission sources.[94] EPA issued the proposed rule in September 2015,[95] and the final rule on June 3, 2016.[96]

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 identified by intervenors. 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.

C. Other Considerations

Our decision is not premised on an uncritical acceptance of the general conclusion of the 2014 and 2015 LNG Export Studies of net economic benefits from LNG exports. Both of those Studies and many public comments identify significant uncertainties and even potential negative

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[94] The White House, Office of the Press Secretary, Fact Sheet: Administration Takes Steps Forward on Climate Action Plan by Announcing Actions to Cut Methane Emissions (Jan. 14, 2015), *available at*: https://www.whitehouse.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1 (stating that, in developing the proposed and final standards, EPA "will focus on in-use technologies, current industry practices, [and] emerging innovations … to ensure that emissions reductions can be achieved as oil and gas production and operations continue to grow.").

[95] *See* U.S. Envtl. Prot. Agency, Oil and Natural Gas Sector: Emission Standards for New and Modified Sources, Proposed Rule, 80 Fed. Reg. 56,593 (Sept. 18, 2015). EPA subsequently extended the public comment period on this proposed rule and two related proposed rules until December 4, 2015. *See* 80 Fed. Reg. 70,719 (Nov. 13, 2015).

[96] U.S. Envtl. Prot. Agency, Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources; Final Rule (40 C.F.R. Part 60), 81 Fed. Reg. 35,824 (June 3, 2016), *available at:* https://www.gpo.gov/fdsys/pkg/FR-2016-06-03/pdf/2016-11971.pdf. On April 18 and May 26, 2017, EPA announced a reconsideration and partial stay of certain requirements of this final rule. *See* U.S. Envtl. Prot. Agency, Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources; Grant of Reconsideration and Partial Stay, 82 Fed. Reg. 25,730 (June 5, 2017); *vacated Clean Air Council v. EPA*, D.C. Cir. Case No. 17-1145 (July 3, 2017), *reh'g en banc denied* (Aug. 10, 2017). On June 16, 2017, EPA proposed a two-year stay and additional three-month stay of those requirements during EPA's reconsideration process. *See* U.S. Envtl. Prot. Agency, Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources: Three Month Stay of Certain Requirements, Proposed Rule, 82 Fed. Reg. 27,641 (June 16, 2017); U.S. Envtl. Prot. Agency, Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources: Stay of Certain Requirements, Proposed Rule, 82 Fed. Reg. 27,645 (June 16, 2017) (proposed two-year stay).

impacts from LNG exports. The economic impacts of higher natural gas prices and potential increases in natural gas price volatility are two of the factors that we view most seriously. Yet we also have taken into account factors that could mitigate such impacts, such as the current oversupply situation and data indicating that the natural gas industry would increase natural gas supply in response to increasing exports. Further, we note that it is far from certain that all or even most of the proposed LNG export projects will ever be realized because of the time, difficulty, and expense of commercializing, financing, and constructing LNG export terminals, as well as the uncertainties inherent in the global market demand for LNG. On balance, we find that the potential negative impacts of Eagle Maxville's proposed exports are outweighed by the likely net economic benefits and by other non-economic or indirect benefits.

More generally, DOE/FE continues to subscribe to the principle set forth in our 1984 Policy Guidelines[97] that, under most circumstances, the market is the most efficient means of allocating natural gas supplies. However, agency intervention may be necessary to protect the public in the event there is insufficient domestic natural gas for domestic use. There may be other circumstances as well that cannot be foreseen that would require agency action.[98] Given these possibilities, DOE/FE recognizes the need to monitor market developments closely as the impact of successive authorizations of LNG exports unfolds.

[97] 49 Fed. Reg. at 6684 (Feb. 22, 1984).

[98] Some commenters previously asked DOE to clarify the circumstances under which the agency would exercise its authority to revoke (in whole or in part) previously issued LNG export authorizations. We cannot precisely identify all the circumstances under which such action would be taken. We reiterate our observation in *Sabine Pass* that: "In the event of any unforeseen developments of such significant consequence as to put the public interest at risk, DOE/FE is fully authorized to take action as necessary to protect the public interest. Specifically, DOE/FE is authorized by section 3(a) of the Natural Gas Act … to make a supplemental order as necessary or appropriate to protect the public interest. Additionally, DOE is authorized by section 16 of the Natural Gas Act 'to perform any and all acts and to prescribe, issue, make, amend, and rescind such orders, rules, and regulations as it may find necessary or appropriate' to carry out its responsibilities." *Sabine Pass*, DOE/FE Order No. 2961, at 33 n.45 (quoting 15 U.S.C. § 717o).

D. Conclusion

We have reviewed the evidence in the record and relevant precedent in earlier non-FTA export decisions and have not found an adequate basis to conclude that Eagle Maxville's proposed exports of LNG to non-FTA countries will be inconsistent with the public interest. For that reason, we are authorizing Eagle Maxville's proposed exports to non-FTA countries subject to the limitations and conditions described in this Order.

In deciding whether to grant a final non-FTA export authorization, we consider in our decision-making the cumulative impacts of the total volume of all final non-FTA export authorizations. With the issuance of this Order, DOE/FE has now issued final non-FTA authorizations in a cumulative volume of exports totaling 21.35 Bcf/d of natural gas, or approximately 7.79 Tcf per year, for the 29 final authorizations issued to date—Sabine Pass Liquefaction, LLC (2.2 Bcf/d),[99] Carib Energy (USA) LLC (0.04 Bcf/d),[100] Cameron LNG, LLC (1.7 Bcf/d),[101] FLEX I (1.4 Bcf/d),[102] FLEX II (0.4 Bcf/d),[103] Dominion Cove Point LNG, LP

[99] *Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 2961-A, FE Docket No. 10-111-LNG, Final Opinion and Order Granting Long-Term Authorization to Export Liquefied Natural Gas From Sabine Pass LNG Terminal to Non-Free Trade Agreement Nations (Aug. 7, 2012).

[100] *Carib Energy (USA) LLC*, DOE/FE Order No. 3487, FE Docket No. 11-141-LNG, Final Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers by Vessel to Non-Free Trade Agreement Nations in Central America, South America, or the Caribbean (Sept. 10, 2014).

[101] *Cameron LNG, LLC*, DOE/FE Order No. 3391-A, FE Docket No. 11-162-LNG, Final Opinion and Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Cameron LNG Terminal in Cameron Parish, Louisiana, to Non-Free Trade Agreement Nations (Sept. 10, 2014).

[102] *Freeport LNG Expansion, L.P., et al.*, DOE/FE Order No. 3282-C, FE Docket No. 10-161-LNG, Final Opinion and Order 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 (Nov. 14, 2014) (FLEX I Final Order).

[103] *Freeport LNG Expansion, L.P., et al.*, DOE/FE Order No. 3357-B, FE Docket No. 11-161-LNG, Final Opinion and Order 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 (Nov. 14, 2014) (FLEX II Final Order).

(0.77 Bcf/d),[104] Cheniere Marketing, LLC and Corpus Christi Liquefaction, LLC (2.1 Bcf/d),[105] Sabine Pass Liquefaction, LLC Expansion Project (1.38 Bcf/d),[106] American Marketing LLC (0.008 Bcf/d),[107] Emera CNG, LLC (0.008 Bcf/d),[108] Floridian Natural Gas Storage Company, LLC,[109] Air Flow North American Corp. (0.002 Bcf/d),[110] Bear Head LNG Corporation and Bear Head LNG (USA), LLC (0.81 Bcf/d),[111] Pieridae Energy (USA) Ltd.,[112] Sabine Pass Liquefaction, LLC Design Increase (0.56 Bcf/d),[113] Cameron LNG, LLC Design Increase (0.42

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[104] *Dominion Cove Point LNG, LP*, DOE/FE Order No. 3331-A, FE Docket No. 11-128-LNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas from the Cove Point LNG Terminal in Calvert County, Maryland, to Non-Free Trade Agreement Nations (May 7, 2015).

[105] *Cheniere Marketing, LLC and Corpus Christi Liquefaction, LLC*, DOE/FE Order No. 3638, FE Docket No. 12-97-LNG, Final Order and Opinion Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Proposed Corpus Christi Liquefaction Project to Be Located in Corpus Christi, Texas, to Non-Free Trade Agreement Nations (May 12, 2015).

[106] *Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 3669, FE Docket Nos. 13-30-LNG, 13-42-LNG, & 13-121-LNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Sabine Pass LNG Terminal Located in Cameron Parish, Louisiana, to Non-Free Trade Agreement Nations (June 26, 2015).

[107] *American LNG Marketing LLC*, DOE/FE Order No. 3690, FE Docket No. 14-209-LNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers Loaded at the Proposed Hialeah Facility Near Medley, Florida, and Exported by Vessel to Non-Free Trade Agreement Nations (Aug. 7, 2015).

[108] *Emera CNG, LLC*, DOE/FE Order No. 3727, FE Docket No. 13-157-CNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Compressed Natural Gas by Vessel From a Proposed CNG Compression and Loading Facility at the Port of Palm Beach, Florida, to Non-Free Trade Agreement Nations (Oct. 19, 2015).

[109] *Floridian Natural Gas Storage Co., LLC*, DOE/FE Order No. 3744, FE Docket No. 15-38-LNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers Loaded at the Proposed Floridian Facility in Martin County, Florida, and Exported by Vessel to Non-Free Trade Agreement Nations (Nov. 25, 2015).

[110] *Air Flow North American Corp*., DOE/FE Order No. 3753, FE Docket No. 15-206-LNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers Loaded at the Clean Energy Fuels Corp. LNG Production Facility in Willis, Texas, and Exported by Vessel to Non-Free Trade Agreement Nations in Central America, South America, the Caribbean, or Africa (Dec. 4, 2015).

[111] *Bear Head LNG Corporation and Bear Head LNG (USA)*, DOE/FE Order No. 3770, FE Docket No. 15-33-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export U.S.-Sourced Natural Gas by Pipeline to Canada for Liquefaction and Re-Export in the Form of Liquefied Natural Gas to Non-Free Trade Agreement Countries (Feb. 5, 2016).

[112] *Pieridae Energy (USA) Ltd*., DOE/FE Order No. 3768, FE Docket No. 14-179-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export U.S.-Sourced Natural Gas Natural Gas by Pipeline to Canada for Liquefaction and Re-Export in the Form of Liquefied Natural Gas to Non-Free Trade Agreement Countries (Feb. 5, 2016).

[113] *Sabine Pass Liquefaction, LLC,* DOE/FE Order No. 3792, FE Docket No. 15-63-LNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel From the Sabine Pass LNG Terminal Located in Cameron Parish, Louisiana, to Non-Free Trade Agreement Nations (Mar. 11, 2016).

Bcf/d),[114] Flint Hills Resources, LP (0.01 Bcf/d),[115] Cameron LNG, LLC Expansion Project (1.41 Bcf/d),[116] Lake Charles Exports, LLC (2.0 Bcf/d),[117] Lake Charles LNG Export Company, LLC,[118] Carib Energy (USA), LLC (0.004),[119] Magnolia LNG, LLC (1.08 Bcf/d),[120] Southern LNG Company, L.L.C. (0.36 Bcf/d),[121] the FLEX Design Increase (0.34 Bcf/d),[122] Golden Pass Products LLC (2.21 Bcf/d),[123] Delfin LNG LLC,[124] the Lake Charles LNG Export Company,

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[114] *Cameron LNG, LLC*, DOE/FE Order No. 3797, FE Docket No. 15-167-LNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Cameron Terminal Located in Cameron and Calcasieu Parishes, Louisiana, to Non-Free Trade Agreement Nations (Mar. 18, 2016).

[115] *Flint Hills Resources, LP*, DOE/FE Order No. 3829, FE Docket No. 15-168-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers and in Bulk Loaded at the Stabilis LNG Eagle Ford Facility in George West, Texas, and Exported by Vessel to Non-Free Trade Agreement Nations (May 20, 2016).

[116] *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 Located in Cameron and Calcasieu Parishes, Louisiana, to Non-Free Trade Agreement Nations (July 15, 2016).

[117] *Lake Charles Exports, LLC*, DOE/FE Order No. 3324-A, FE Docket No. 11-59-LNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Lake Charles Terminal in Calcasieu Parish, Louisiana, to Non-Free Trade Agreement Nations (July 29, 2016).

[118] *Lake Charles LNG Export Co., LLC*, DOE/FE Order No. 3868, FE Docket No. 13-04-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Lake Charles Terminal in Calcasieu Parish, Louisiana to Non-Free Trade Agreement Nations (July 29, 2016).

[119] *Carib Energy (USA) LLC*, DOE/FE Order No. 3937, FE Docket No. 16-98-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers Loaded at Designated Pivotal LNG, Inc. Facilities and Exported by Vessel to Non-Free Trade Agreement Nations in Central America, South America, or the Caribbean (Nov. 28, 2016).

[120] *Magnolia LNG, LLC*, DOE/FE Order No. 3909, FE Docket No. 13-132-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel From the Proposed Magnolia LNG Terminal to be Constructed in Lake Charles, Louisiana, to Non-Free Trade Agreement Nations (Nov. 30, 2016).

[121] *Southern LNG Company, L.L.C.*, DOE/FE Order No. 3956, FE Docket No. 12-100-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Elba Island Terminal in Chatham County, Georgia, to Non-Free Trade Agreement Nations (Dec. 16, 2016).

[122] *Freeport LNG Expansion, L.P.*, *et al.*, DOE/FE Order No. 3957, FE Docket No. 16-108-LNG, Opinion and Order 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 (Dec. 19, 2016).

[123] *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 (Apr. 25, 2017).

[124] *Delfin LNG LLC*, DOE/FE Order No. 4028, FE Docket No. 13-147-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from a Proposed Floating Liquefaction Project and Deepwater Port 30 Miles Offshore of Louisiana to Non-Free Trade Agreement Nations (June 1, 2017).

LLC Design Increase (0.33 Bcf/d),[125] the Lake Charles Exports, LLC Design Increase,[126] and this Order.

We note that the volumes authorized for export in the *Lake Charles Exports* and *Lake Charles LNG Export* orders are both 2.0 Bcf/d and 0.33 Bcf/d, respectively, yet are not additive to one another because the source of LNG approved under all of those orders is the Lake Charles Terminal. Likewise, the *Carib* and *Floridian* orders are both 14.6 Bcf/yr of natural gas (0.04 Bcf/d), yet are not additive to one another because the source of LNG approved under both orders is from the Floridian Facility.[127] Additionally, the volumes authorized for export in the *Bear Head* and *Pieridae US* orders are not additive; together, they are limited to a maximum of 0.81 Bcf/d to reflect the current capacity of the Maritimes Northeast Pipeline at the U.S.-Canadian border.[128] In sum, the total export volume is within the range of scenarios analyzed in the 2014 and 2015 LNG Export Studies. The 2015 Study found that in all such scenarios—assuming LNG export volumes totaling 12 Bcf/d up to 20 Bcf/d of natural gas—the United States would experience net economic benefits.

DOE/FE will continue taking a measured approach in reviewing the other pending applications to export domestically produced LNG. Specifically, DOE/FE will continue to assess the cumulative impacts of each succeeding request for export authorization on the public

[125] *Lake Charles LNG Export Co., LLC*, DOE/FE Order No. 4010, FE Docket No. 16-109-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Lake Charles Terminal in Calcasieu Parish, Louisiana, to Non-Free Trade Agreement Nations (June 29, 2017).
[126] *Lake Charles Exports, LLC*, DOE/FE Order No. 4011, FE Docket No. 16-110-LNG, Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Lake Charles Terminal in Calcasieu Parish, Louisiana, to Non-Free Trade Agreement Nations (June 29, 2017).
[127] *See Floridian Natural Gas Storage Co., LLC*, DOE/FE Order No. 3744, at 22 (stating that the quantity of LNG authorized for export by Floridian in DOE/FE Order No. 3744 "will be reduced by the portion of the total approved volume of 14.6 Bcf/yr that is under firm contract directly or indirectly to Carib Energy (USA), LLC"); *see also id*. at 21 (Floridian "may not treat the volumes authorized for export in the [*Carib* and *Floridian*] proceedings as additive to one another.").
[128] *See Bear Head LNG Corporation and Bear Head LNG (USA)*, DOE/FE Order No. 3770, at 178-79 (stating that the quantity of LNG authorized for export by Bear Head LNG and Pieridae US "are not additive; together, they are limited to a maximum of 0.81 Bcf/d to reflect the current capacity of the M&N US Pipeline.").

interest with due regard to the effect on domestic natural gas supply and demand fundamentals. In keeping with the performance of its statutory responsibilities, DOE/FE will attach appropriate and necessary terms and conditions to authorizations to ensure that the authorizations are utilized in a timely manner and that authorizations are not issued except where the applicant can show that there are or will be facilities capable of handling the proposed export volumes and existing and forecast supplies that support that action. Other conditions will be applied as necessary.

The reasons in support of proceeding cautiously are several: (1) the 2014 and 2015 LNG Export Studies, like any studies based on assumptions and economic projections, are inherently limited in their predictive accuracy; (2) applications to export significant quantities of domestically produced LNG are a new phenomena with uncertain impacts; and (3) the market for natural gas has experienced rapid reversals in the past and is again changing rapidly due to economic, technological, and regulatory developments. The market of the future very likely will not resemble the market of today. In recognition of these factors, DOE/FE intends to monitor developments that could tend to undermine the public interest in grants of successive applications for exports of domestically produced LNG and, as previously stated, to attach terms and conditions to the authorization in this proceeding and to succeeding LNG export authorizations as are necessary for protection of the public interest.

VIII. TERMS AND CONDITIONS

To ensure that the FTA and non-FTA authorizations issued by this Order are not inconsistent with the public interest, DOE/FE has attached the following Terms and Conditions to both authorizations, unless otherwise specified. The reasons for each term or condition are explained below. Eagle Maxville must abide by each Term and Condition or may face rescission of the authorization or other appropriate sanction.

A. Term of the Authorizations

For both the FTA and non-FTA authorization, Eagle Maxville requests a 20-year term commencing on the date of first export. We grant the FTA request without modification as required by NGA section 3(c), 15 U.S.C. § 717b(c). Eagle Maxville's requested 20-year non-FTA term is consistent with our practice in the non-FTA export authorizations issued to date. The FTA and non-FTA terms will begin on the date when Eagle Maxville commences commercial export of domestically sourced LNG from the Maxville Facility, but not before.

B. Commencement of Operations

As requested by Eagle Maxville, DOE/FE will add as a condition of the authorizations that Eagle Maxville must commence commercial LNG export operations from the Maxville Facility no later than five years from the date of issuance of this Order.

C. FTA Countries for FTA Authorization

The countries with which the United States has a FTA requiring national treatment for trade in natural gas currently are: Australia, Bahrain, Canada, Chile, Colombia, Dominican Republic, El Salvador, Guatemala, Honduras, Jordan, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, Republic of Korea, and Singapore.

D. Commissioning Volumes

Eagle Maxville will be permitted to apply for short-term export authorizations to export Commissioning Volumes prior to the commencement of the first commercial exports of domestically sourced LNG from the Maxville Facility. "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 Eagle Maxville's long-term contracts.[129] The Commissioning Volumes will not be counted against the maximum level of volumes previously authorized in this Order.

E. Make-Up Period

Eagle Maxville will be permitted to continue exporting for a total of three years following the end of the 20-year FTA and non-FTA term established in this Order, solely to export any Make-Up Volume that it was unable to export during the original export periods. 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 authorized in this Order. Insofar as Eagle Maxville may seek to export additional volumes not previously authorized for export, it will be required to obtain appropriate authorization from DOE/FE.

F. Transfer, Assignment, or Change in Control

DOE/FE's natural gas import/export 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.[130] As a condition of the similar authorization issued to Sabine Pass in DOE/FE Order No. 2961, DOE/FE found that the requirement for prior approval by the Assistant Secretary under its regulations applies to any change of effective control of the authorization holder either through asset sale or stock transfer or by other means. This condition was deemed necessary to ensure that, prior to any transfer or

[129] For additional discussion of Commissioning Volumes and the Make-Up Period referenced below, 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).
[130] 10 C.F.R. § 590.405.

change in control, 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. A rebuttable presumption that control exists will arise from the ownership or the power to vote, directly or indirectly, 10 percent or more of the voting securities of such entity.[131]

G. Agency Rights

Eagle Maxville requests authorization to export LNG from the Maxville Facility in a volume equivalent to 2.8 Bcf/yr to both FTA and non-FTA countries on its own behalf and as agent for other entities that hold title to the LNG at the time of export. DOE/FE previously addressed the issue of Agency Rights in Order No. 2913, which granted Freeport LNG Expansion, L.P., *et al.* (FLEX) authority to export LNG to FTA countries.[132] In that order, DOE/FE approved a proposal by FLEX to register each LNG title holder for whom FLEX sought to export LNG as agent. DOE/FE found that this proposal was an acceptable alternative to the non-binding policy adopted by DOE/FE in *Dow Chemical*, which established that the title for all

[131] For information on DOE/FE's procedures governing a change in control, 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 (Nov. 5, 2014) [hereinafter Procedures for Changes in Control].

[132] *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 Freeport LNG Terminal to Free Trade Nations (Feb. 10, 2011) [hereinafter *Freeport LNG*].

LNG authorized for export must be held by the authorization holder at the point of export.[133] We find that the same policy considerations that supported DOE/FE's acceptance of the alternative registration proposal in Order No. 2913 apply here as well.

DOE/FE has reiterated its policy on Agency Rights procedures in prior authorizations, including in *Cameron LNG, LLC*, DOE/FE Order No. 3846.[134] In that order, DOE/FE determined that, in LNG export orders in which Agency Rights have been granted, DOE/FE shall require registration materials filed for, or by, an 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.[135]

To ensure that the public interest is served, this authorization shall be conditioned to require that where Eagle Maxville proposes to export LNG 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.

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

DOE/FE's regulations require applicants to supply transaction-specific factual information "to the extent practicable."[136] Additionally, DOE/FE regulations allow confidential treatment of the information supplied in support of or in opposition to an application if the submitting party requests such treatment, shows why the information should be exempted from public disclosure, and DOE/FE determines it will be afforded confidential treatment in accordance with 10 C.F.R. § 1004.11.[137]

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[133] *Dow Chem. Co.*, DOE/FE Order No. 2859, FE Docket No. 10-57-LNG, Order Granting Blanket Authorization to Export Liquefied Natural Gas, at 7-8 (Oct. 5, 2010), *discussed in Freeport LNG*, DOE/FE Order No. 2913, at 7-8.
[134] *See Cameron LNG, LLC*, DOE/FE Order No. 3846.
[135] *See id*. at 128-29 (citation omitted).
[136] 10 C.F.R. § 590.202(b).
[137] *Id*. § 590.202(e).

DOE/FE will require that Eagle Maxville file or cause to be filed with DOE/FE any relevant long-term commercial agreements pursuant to which Eagle Maxville exports LNG as agent for a Registrant once those agreements have been executed. 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). By way of example and without limitation, a "relevant long-term commercial agreement" would include an agreement associated with LNG exports with a minimum term of two years to provide natural gas liquefaction services at the Maxville Facility, a long-term sales contract involving natural gas or LNG stored or liquefied at the Maxville Facility, or an agreement to provide export services from the Maxville Facility.

In addition, DOE/FE finds that section 590.202(c) of DOE/FE's regulations[138] requires that Eagle Maxville file, or cause to be filed, all long-term contracts associated with the long-term supply of natural gas to the Maxville Facility, whether signed by Eagle Maxville or the Registrant, within 30 days of their execution.

DOE/FE recognizes that some information in Eagle Maxville'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 Maxville Facility, may be commercially sensitive. DOE/FE therefore will provide Eagle Maxville the option to file or cause to be filed either unredacted contracts, or in the alternative (A) Eagle Maxville 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 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,

[138] *Id*. § 590.202(c).

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.

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 the FTA and non-FTA authorizations that future contracts for the sale or transfer of LNG exported pursuant to this Order shall include an acknowledgement of these requirements.

I. Export Quantity

Eagle Maxville sought authorization to export up to a total of 2.8 Bcf/yr of natural gas (0.01 Bcf/d) to FTA and non-FTA countries. As set forth herein, this Order authorizes the export of LNG in the full amount requested, up to the equivalent of 2.8 Bcf/yr of natural gas for FTA and non-FTA countries.

IX. FINDINGS

On the basis of the findings and conclusions set forth above, we find that it has not been shown that a grant of the requested authorization will be inconsistent with the public interest, and we further find that Eagle Maxville's Application should be granted subject to the Terms and Conditions set forth herein. The following Ordering Paragraphs reflect current DOE/FE practice, and apply to both the FTA and non-FTA authorizations in this Order unless otherwise stated.

X. ORDER

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

A. Eagle LNG Partners Jacksonville II LLC (Eagle Maxville) is authorized to export domestically produced LNG in approved ISO containers loaded at the Maxville Facility located near Jacksonville, Duval County, Florida, in a volume equivalent to 2.8 Bcf/yr of natural gas. Eagle Maxville is authorized to export this LNG on its own behalf and as agent for other entities that hold title to the natural gas, pursuant to one or more long-term contracts (a contract greater than two years).

B. This LNG may be exported to any country which presently has, or in the future develops, the capacity to import ocean-going LNG via approved ISO containers transported on ocean-going carriers, and with which trade is not prohibited by U.S. law or policy.

C. The 20-year period for the FTA and non-FTA authorizations will commence when Eagle Maxville commences commercial export of domestically sourced LNG from the Maxville Facility, but not before. Eagle Maxville 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 volume authorized in this Order.

D. Eagle Maxville may continue exporting for a total of three years following the end of the 20-year export term for the FTA and non-FTA authorization, 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 does not affect or modify the volume of LNG authorized for export in this Order. Insofar as Eagle Maxville may seek to export additional volumes not previously authorized for export, it will be required to obtain appropriate authorization from DOE/FE.

E. Eagle Maxville must commence export operations using the planned liquefaction facilities no later than five years from the date of issuance of this Order.

F. The LNG export quantity authorized in this Order is equivalent to a total of 2.8 Bcf/yr of natural gas for both the FTA and non-FTA authorizations.

G. Eagle Maxville shall ensure that all transactions authorized by this Order are permitted and lawful under United States laws and policies, including the rules, regulations, orders, policies, and other determinations of the Office of Foreign Assets Control of the United States Department of the Treasury. Failure to comply with this requirement could result in rescission of this authorization and/or other civil or criminal remedies.

H. The non-FTA authorization is conditioned on Eagle Maxville's on-going compliance with any preventative and mitigative measures at the Maxville Facility imposed by federal or state agencies.

I. (i) Eagle Maxville shall file, or cause others to file, with the Office of Regulation and International Engagement a non-redacted copy of <u>all executed long-term contracts associated with the long-term export of LNG</u> as agent for other entities from the Maxville Facility. The non-redacted copies may be filed under seal and must be filed within 30 days of their execution. Additionally, if Eagle Maxville has filed the contracts described in the preceding sentence under seal or subject to a claim of confidentiality or privilege, within 30 days of their execution, Eagle Maxville shall also file, or cause others to file, for public posting either: (a) a redacted version of the contracts described in the preceding sentence, or (b) major provisions of the contracts. In these filings, Eagle Maxville shall state why the redacted or non-disclosed information should be exempted from public disclosure.

(ii) Eagle Maxville shall file, or cause others to file, with the Office of Regulation and International Engagement a non-redacted copy of <u>all executed long-term contracts associated with the long-term supply of natural gas</u> to the Maxville Facility. The non-redacted copies may be filed under seal and must be filed within 30 days of their execution. Additionally, if Eagle Maxville has filed the contracts described in the preceding sentence under seal or subject to a claim of confidentiality or privilege, within 30 days of their execution, Eagle Maxville shall also file, or cause others to file, for public posting either: i) a redacted version of the contracts described in the preceding sentence, or ii) major provisions of the contracts. In these filings, Eagle Maxville shall state why the redacted or non-disclosed information should be exempted from public disclosure.

J. Eagle Maxville, or others for whom Eagle Maxville acts as agent, shall include the following provision in any agreement or other contract for the sale or transfer of LNG exported pursuant to this Order and any other applicable DOE/FE authorization:

> Customer or purchaser acknowledges and agrees that it will resell or transfer U.S.-sourced natural gas in the form of LNG purchased hereunder for delivery to the countries identified in Ordering Paragraph B of DOE/FE Order No. 4078, issued September 15, 2017, in FE Docket No. 17-79-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 Eagle LNG Partners Jacksonville II LLC that identifies the country of destination (or countries) into which the exported LNG or natural gas was actually delivered and/or received for end use, and to include in any resale contract for such LNG the necessary conditions to insure that Eagle LNG Partners Jacksonville II LLC is made aware of all such actual destination countries.

K. Eagle Maxville is permitted to use its FTA and non-FTA authorizations in this Order to export LNG as agent for other entities, after registering such entities with DOE/FE. Registration materials shall include an acknowledgement and agreement by the Registrant to supply Eagle Maxville with all information necessary to permit Eagle Maxville to register that person or entity with DOE/FE, 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.

L. Each registration submitted pursuant to this Order shall have current information on file with DOE/FE. Any changes in company name, contact information, change in term 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).

M. Eagle Maxville shall ensure that all persons required by this Order to register with DOE/FE have done so. Any failure by Eagle Maxville to ensure that all such persons or entities are registered with DOE/FE shall be grounds for rescinding in whole or in part the FTA and non-FTA authorizations in this Order.

N. Within two weeks after the first export of domestically produced LNG occurs from the Maxville Facility, Eagle Maxville shall provide written notification of the date that the first export of LNG authorized in Ordering Paragraph A above occurred.

O. Eagle Maxville shall file with the Office of Regulation and International Engagement, on a semi-annual basis, written reports describing the status of the Maxville Facility. 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 Maxville Facility, the date the Maxville Facility is expected to commence first exports of LNG, and the status of the long-term contracts associated with the long-term export of LNG and any long-term supply contracts.

P. With respect to any change in control of the authorization holder, Eagle Maxville must comply with DOE/FE's Procedures for Change in Control Affecting Applications and Authorizations to Import or Export Natural Gas.[139] For purposes of this Ordering Paragraph, a

[139] *See* Procedures for Changes in Control at 65,541-42.

"change in control" shall include any change, directly or indirectly, of the power to direct the management or policies of Eagle Maxville, 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.[140]

Q. Monthly Reports: With respect to the LNG exports authorized by this Order, Eagle Maxville shall file with the Office of Regulation and International Engagement, within 30 days following the last day of each calendar month, a report indicating whether exports of LNG have been made. The first monthly report required by this Order is due not later than the 30th 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 in ISO containers by vessel 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 exported LNG or natural gas is actually delivered and/or received for end use; (6) the name of the supplier/seller; (7) the volume in Mcf; (8) the price at point of export per million British thermal units (MMBtu); (9) the name and location (city/state) of the facility where the ISO container is loaded with LNG; (10) the mode(s) of transport used to move the loaded ISO container from the loading facility to the export port or terminal; (11) the duration of the supply agreement (indicate spot sales); and (12) the name(s) of the purchaser(s).

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[140] *See id*. at 65,542.

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

R. All monthly report filings shall be made to U.S. Department of Energy (FE-34), Office of Fossil Energy, Office of Regulation and International Engagement, P.O. Box 44375, Washington, D.C. 20026-4375, Attention: Natural Gas Reports. Alternatively, reports may be e-mailed to ngreports@hq.doe.gov or may be faxed to Natural Gas Reports at (202) 586-6050.

Issued in Washington, D.C., on September 15, 2017.

Robert J. Smith
Acting Deputy Assistant Secretary
Office of Oil and Natural Gas