

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

CARIB ENERGY (USA) LLC)
) 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

DOE/FE ORDER NO. 3937

NOVEMBER 28, 2016

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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
FERC	Federal Energy Regulatory Commission
FTA	Free Trade Agreement
LNG	Liquefied Natural Gas
Mcf	Thousand Cubic Feet
MMBtu	Million British Thermal Units
NEPA	National Environmental Policy Act
NERA	NERA Economic Consulting
NGA	Natural Gas Act

I. INTRODUCTION

On March 25, 2016, Carib Energy (USA) LLC (Carib) filed an application (Application)¹ with the Office of Fossil Energy (FE) of the Department of Energy (DOE) under section 3 of the Natural Gas Act (NGA)² for long-term, multi-contract authorization to export domestically produced liquefied natural gas (LNG) in a volume equivalent to approximately 1.3 billion cubic feet (Bcf) per year (Bcf/yr), or 0.004 Bcf per day (Bcf/d), of natural gas.³ Carib seeks to export the LNG by use of approved IMO7/TVAC-ASME LNG (ISO) containers transported on ocean-going carriers⁴ to any country within Central America, South America, or the Caribbean that has, or in the future develops, the capacity to import LNG delivered by ocean-going container vessels carrying ISO containers, provided that trade is not prohibited by U.S. law or policy with that country, and provided further that the country has not entered into a free trade agreement (FTA) with the United States requiring national treatment for trade in natural gas (non-FTA countries).

Carib seeks to purchase the LNG for export from any of five existing natural gas liquefaction facilities, which are owned and operated by Pivotal LNG, Inc. (Pivotal) or by one of Pivotal's affiliates (collectively, Pivotal Facilities). The Pivotal Facilities are described in Appendix D of the Application and include the following:

- The Trussville LNG Facility located in Trussville, Alabama;
- The Chattanooga LNG Facility located in Chattanooga, Tennessee;
- The Riverdale LNG Facility located in Riverdale, Georgia;
- The Cherokee LNG Facility located in Ball Ground, Georgia; and
- The Macon LNG Facility located in Macon, Georgia.

¹ *Carib Energy (USA) LLC*, Application for Long-Term Authorization to Export Liquefied Natural Gas to Non-Free Trade Agreement Countries, FE Docket No. 16-98-LNG (Mar. 25, 2016) [hereinafter Carib App.].

² 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 Carib clarified this requested quantity in an email to DOE/FE dated July 18, 2016.

⁴ Carib clarified its proposed mode of transport in an email to DOE/FE dated August 9, 2016.

Specifically, Carib states that it “will purchase” LNG from the Trussville and Chattanooga LNG Facilities, and that, in the future, Pivotal “also would have the ability to source LNG” for sale to Carib from the other three Facilities, subject to any applicable regulatory approvals.⁵

Carib states that delivery of LNG will be taken at the Facilities, and the LNG transported within the United States over highways using approved ISO containers.⁶ Carib intends to export the LNG from the ports of Jacksonville, Florida; Port Everglades, Florida; Gulfport, Mississippi; and any port in the southeastern United States capable of accommodating LNG exports by ISO containers transported on ocean-going container vessels.⁷

Carib requests authorization to export this LNG for a 20-year period, commencing on the earlier of the date of first export or five years from the date the requested authorization is granted. Carib seeks to export this LNG under the purchase and sale agreement described in a Master LNG Purchase and Sale Agreement entered into on March 12, 2014, between Carib and Pivotal (Master LNG Purchase and Sale Agreement).⁸

On August 17, 2016, DOE/FE published a Notice of Carib’s Application in the *Federal Register*.⁹ The Notice of Application called on interested persons to submit protests, motions to intervene, notices of intervention, and comments no later than 4:30 p.m., Eastern Time, on October 17, 2016. In response, DOE/FE received two motions to intervene in this proceeding,

⁵ Carib App. at 4.

⁶ *See id.* at 6.

⁷ *See id.*

⁸ *See id.* at 5. Carib filed the Master LNG Purchase and Sale Agreement with DOE/FE under seal. A summary of the Agreement is attached to the Application as Appendix C.

⁹ Carib Energy (USA) LLC, Application for Long-Term, Multi-Contract Authorization To Export Liquefied Natural Gas to Non-Free Trade Agreement Nations in Central America, South America, or the Caribbean, 81 Fed. Reg. 54,795 (Aug. 17, 2016) [hereinafter Carib Notice of Application].

filed by Pivotal¹⁰ and Floridian Natural Gas Storage Company, LLC,¹¹ respectively. Neither opposed Carib's Application. Consequently, Carib's Application is uncontested.

The grant of this Order—in a volume of LNG equivalent to 1.3 Bcf/yr of natural gas—brings DOE/FE's cumulative total of approved non-FTA exports of LNG and compressed natural gas (CNG) to 5553 Bcf/yr (15.22 Bcf/d) of natural gas. Because the 2014 and 2015 LNG Export Studies commissioned by DOE/FE (discussed *infra*) examined U.S. LNG exports in excess of 12 Bcf/d, we find it appropriate to review those Studies as part of our public interest review in this proceeding.

II. BACKGROUND

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 published a notice of availability of the 2012 LNG Export Study in the *Federal Register* for

¹⁰ Pivotal LNG, Inc., Motion to Intervene, FE Docket No. 16-98-LNG (Oct. 17, 2016) [hereinafter Pivotal Motion].

¹¹ Floridian Natural Gas Storage Co., LLC, Motion to Intervene, FE Docket No. 16-98-LNG (Oct. 17, 2016) [hereinafter Floridian Motion].

public comment.¹² DOE/FE responded to the public comments in connection with the LNG export proceedings identified in that notice.¹³

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.¹⁴ 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.¹⁵

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).¹⁶ The 2014 EIA 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

¹² 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).

¹³ 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).

¹⁴ 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.

¹⁵ 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).

¹⁶ 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>.

study of LNG export scenarios and used baseline cases from EIA’s 2014 *Annual Energy Outlook* (AEO 2014).¹⁷

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).¹⁸ 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 in volumes ranging from 12 to 20 Bcf/d of natural gas under a range of assumptions, including U.S. resource endowment, U.S. natural gas demand, international LNG market dynamics, and other factors. 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.¹⁹ 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 the comments in a series of non-FTA LNG export decisions,²⁰ and the precedents established in those decisions have been considered in our review of Carib’s Application. *See infra* § VIII.B.

¹⁷ 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.

¹⁸ 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.

¹⁹ 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 ...”).

²⁰ *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).

B. Environmental Addendum

On June 4, 2014, DOE/FE issued a notice in the *Federal Register* proposing to evaluate different environmental aspects of the LNG production chain. Specifically, DOE/FE announced that it had conducted a review of existing literature on potential environmental issues associated with unconventional 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*.²¹ 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.²²

DOE/FE has taken the Draft Addendum, all public comments on the Draft Addendum, and the final Addendum into consideration in a series of non-FTA LNG export decisions, and the precedents established in those decisions have been factored into our review of Carib's Application. The Addendum is not required by the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 *et seq.*, but DOE/FE believes that it will inform its review of the public interest under NGA section 3(a),²³ and is responsive to concerns previously raised in connection with other non-FTA LNG export proceedings.

²¹ 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) [hereinafter Draft Addendum]. DOE/FE announced the availability of the Draft Addendum on its website on May 29, 2014.

²² 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].

²³ 15 U.S.C. § 717b(a).

C. DOE/FE's Categorical Exclusion Under NEPA

On November 21, 2016, DOE/FE issued a categorical exclusion from the preparation of an environmental impact statement or environmental assessment under NEPA for Carib's Application (Categorical Exclusion).²⁴ 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 Carib's Application, in part, on the basis of this Categorical Exclusion.

III. SUMMARY OF FINDINGS AND CONCLUSIONS

This Order presents DOE/FE's findings and conclusions on all issues associated with Carib's proposed exports under NGA section 3(a), including both environmental and non-environmental issues.²⁵ As the basis for this Order, DOE/FE has reviewed a substantial administrative record that includes (but is not limited to) the following: Carib's Application, as supplemented; the motions to intervene submitted by Pivotal and Floridian; DOE/FE's 2014 and 2015 LNG Export Studies; the Addendum; and public comments received on DOE/FE's various analyses.

For the reasons set forth below, DOE/FE has determined that it has not been demonstrated that Carib's proposed exports of LNG to non-FTA countries will be inconsistent with the public interest, as would be required to deny the Application under NGA section 3(a). On this basis, DOE/FE grants Carib's Application to export domestically produced LNG in a volume equivalent to 1.3 Bcf/yr of natural gas (0.004 Bcf/d) for a 20-year term. As requested in

²⁴ U.S. Dep't of Energy, Categorical Exclusion Determination, *Carib Energy (USA) LLC*, FE Docket No. 16-98-LNG (Nov. 21, 2016) [hereinafter Categorical Exclusion].

²⁵ 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 (public interest standard).

the Application, Carib is authorized to export this LNG to any non-FTA country in Central America, South America, or the Caribbean that has, or in the future develops, the capacity to import LNG in ISO containers transported on ocean-going vessels. This authorization is subject to the Terms and Conditions and Ordering Paragraphs set forth herein, but is not conditioned on additional environmental analysis or review. *See infra* §§ IX, XI.

IV. PUBLIC INTEREST STANDARD

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

[N]o person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the [Secretary of Energy²⁶] 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.²⁷

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

²⁶ 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.

²⁷ *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.²⁸

DOE/FE's prior decisions have also looked to certain principles established in its 1984 Policy Guidelines.²⁹ 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.³⁰

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.³¹

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

²⁸ See, e.g., *Sabine Pass*, DOE/FE Order No. 2961, at 28-42 (reviewing record evidence in issuing conditional authorization).

²⁹ New Policy Guidelines and Delegations Order Relating to Regulation of Imported Natural Gas, 49 Fed. Reg. 6684 (Feb. 22, 1984) [hereinafter 1984 Policy Guidelines].

³⁰ *Id.* at 6685.

³¹ *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.”³² In February 1989, the Assistant Secretary for Fossil Energy assumed the delegated responsibilities of the Administrator of ERA.³³

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

Carib seeks long-term, multi-contract authorization to export domestically produced LNG in a volume equivalent to approximately 1.3 Bcf/yr of natural gas (0.004 Bcf/d). Carib states that it will export the LNG by use of approved ISO containers transported on ocean-going carriers to any non-FTA country within Central America, South America, or the Caribbean that has, or in the future develops, the capacity to import LNG delivered by ocean-going container vessels carrying ISO containers. Carib requests a 20-year term of authorization, commencing on the earlier of the date of first export or five years from the date of the issuance of this Order.

A. Description of Applicant

Carib is a wholly-owned subsidiary of Crowley Petroleum Services, Inc. (Crowley), with its principal place of business in Jacksonville, Florida. Crowley is a wholly-owned subsidiary of Crowley Maritime Corp., which is a wholly-owned subsidiary of Crowley Holdings, Inc.

Crowley Holdings, Inc. is a family and employee-owned company.³⁴

³² DOE Delegation Order No. 0204-111, at 1; *see also* 1984 Policy Guidelines, 49 Fed. Reg. at 6690.

³³ *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)).

³⁴ Carib App. at 3.

B. Pivotal Facilities

Carib seeks to purchase the LNG for export from any of five existing natural gas liquefaction facilities owned and operated by Pivotal or by one of its affiliates. Carib describes these Facilities as follows:³⁵

- **Trussville LNG Facility.** Carib states that the Trussville LNG Facility is a small-volume LNG production facility located in Trussville, Alabama, owned and operated by Pivotal. The Trussville LNG Facility has a liquefaction capacity of 5,000 thousand cubic feet per day (Mcf/d). DOE notes that this is a volume equivalent to 1.825 Bcf/yr of natural gas. The Facility is capable of loading 20 trucks per day. The Trussville LNG Facility was built in 1974 and is subject to regulation by the Alabama Public Service Commission.
- **Chattanooga LNG Facility.** The Chattanooga LNG Facility is a LNG peak shaving facility located in Chattanooga, Tennessee, that is owned and operated by Chattanooga Gas Company. The Chattanooga LNG Facility has a liquefaction capacity of 10,000 Mcf/d (equivalent to 3.65 Bcf/yr), and storage capacity equivalent to 1.2 Bcf of gas. The Facility is capable of loading 20 trucks per day. The Chattanooga LNG Facility was built in 1972 and is subject to regulation by the Tennessee Regulatory Authority. The Facility is also subject to safety regulation by the Federal Energy Regulatory Commission (FERC).
- **Riverdale LNG Facility.** The Riverdale LNG Facility is a small-volume LNG production facility located in Riverdale, Georgia, owned and operated by Atlanta Gas Light Company. It has a liquefaction capacity of 10,000 Mcf/d, and storage capacity equivalent to 2.5 Bcf of natural gas. The Facility is capable of loading 20 trucks per day. The Riverdale Facility was built in 1972 and is subject to regulation by the Georgia Public Service Commission.

³⁵ See *id.* at App'x D.

- **Cherokee LNG Facility.** The Cherokee LNG Facility is a small-volume LNG production facility located in Ball Ground, Georgia, owned and operated by Atlanta Gas Light Company. It has a liquefaction capacity of 10,000 Mcf/d, and storage capacity equivalent to 2.0 Bcf of gas. The Facility is capable of loading 20 trucks per day. The Cherokee Facility was built in 1988 and is subject to regulation by the Georgia Public Service Commission.
- **Macon LNG Facility.** The Macon LNG Facility is a small-volume LNG production facility located in Macon, Georgia, and owned and operated by Atlanta Gas Light Company. It has a liquefaction capacity of 10,000 Mcf/d, and a storage capacity equivalent to 1.5 Bcf of gas. The Facility is capable of loading 20 trucks per day. The Macon Facility was built in 1978 and is subject to regulation by the Georgia Public Service Commission.

Carib asserts that it intends to purchase LNG from Pivotal sourced from the Trussville and Chattanooga LNG Facilities.³⁶ Carib states that, in the future and subject to any applicable regulatory approvals, Pivotal also would have the ability to source LNG from the other identified Facilities and sell the LNG to Carib.³⁷

According to Carib, delivery of LNG will be taken at the Facilities, and then transported within the United States over highways using approved 40-foot ISO containers.³⁸ Carib intends to export the LNG from the ports of Jacksonville, Florida; Port Everglades, Florida; Gulfport, Mississippi; and any port in the southeastern U.S. capable of accommodating LNG exports by ISO containers transported on ocean-going container vessels.³⁹ According to Carib, these containers comply with all United States Department of Transportation regulations, and the third

³⁶ *Id.* at 4.

³⁷ *Id.*

³⁸ *Id.* at 6.

³⁹ *Id.*

parties with whom Carib will be contracting to handle transportation will comply with all required permits, including but not limited to any federal, state, and local permits relating to hazardous material and cryogenic handling regulations and requirements.⁴⁰ Carib states that all ISO containers will be tracked from the time of loading until delivery at the export terminal by use of a proprietary GPS tracking system.⁴¹

C. Business Model

Carib states that the LNG subject to the proposed exports will be purchased under the purchase and sale agreement described in the Master LNG Purchase and Sale Agreement entered into on March 12, 2014, between Carib and Pivotal.⁴² Carib states that, under the terms of the Master LNG Purchase and Sale Agreement, Carib shall have the right to purchase a firm or interruptible supply of LNG from the Facilities of up to 1.3 Bcf/yr for a 20-year period.⁴³

Carib states that it expects to enter into long-term sale agreements with customers in the Caribbean, Central America, and South America to export LNG, and to purchase LNG from Pivotal under the Master LNG Purchase and Sale Agreement to serve those customers from the Facilities, pursuant to Transaction Confirmations that would be executed for each sale.⁴⁴

According to Carib, upon entering into a sales agreement with a customer, Pivotal and Carib will execute a Transaction Confirmation that sets forth the quantities for sale and delivery to that customer.⁴⁵

Carib states that the Transaction Confirmation will include relevant information, such as transaction term, quantity of natural gas to be purchased under the transaction, the liquefaction

⁴⁰ Carib App. at 6.

⁴¹ *Id.*

⁴² *Id.* at 5.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ Carib App. at 5.

facility from which the LNG will be acquired, and the name of the customer and the port of destination.⁴⁶ Following the execution of each Transaction Confirmation, Carib states that it will file the Transaction Confirmation with DOE under seal. Carib notes that DOE/FE has previously found that this commitment conforms to the requirements of 10 C.F.R. § 590.202(b), which calls upon applicants to supply transaction-specific information “to the extent practicable.”⁴⁷

D. Source of Natural Gas

Carib states that it will export natural gas available in the United States natural gas pipeline system. According to Carib, the Facilities receive natural gas transported through existing pipeline facilities interconnected to the U.S. interstate pipeline grid. Additionally, Carib notes that each of the Facilities have, and expect to continue to have, an excess supply of LNG.⁴⁸

E. Environmental Review

Carib states that the Application is subject to a categorical exclusion from the requirements of NEPA pursuant to exclusion B5.7 at 10 C.F.R. Part 1021, Subpart D, Appendix B, of DOE/FE’s regulations. Item B5.7 provides a categorical exclusion from the requirements of NEPA where approvals of authorizations to export natural gas under NGA Section 3 involve minor operational changes, but not new construction. Carib states that FERC has disclaimed NGA section 3 jurisdiction over the Facilities.⁴⁹ Carib further asserts that, because the designated Facilities are existing, operational LNG facilities, no new construction at the Facilities would be required in order for Carib to export LNG.⁵⁰

⁴⁶ *Id.* at 6.

⁴⁷ Carib App. at 6 (citing 10 C.F.R. § 590.202(b)).

⁴⁸ *Id.* at 6.

⁴⁹ *Id.* at 12 & n.25 (citing *Pivotal LNG, Inc.*, 151 FERC P 61,006 (2015)); *see also* Carib App. at 4 n.8.

⁵⁰ *Id.* at 12.

VI. APPLICANT'S PUBLIC INTEREST ANALYSIS

Carib states that its proposed export of domestically produced LNG is consistent with the public interest, and therefore meets the standard under NGA section 3(a).⁵¹ Carib asserts that it is seeking to export a relatively small amount of LNG—equivalent to 0.004 Bcf/d of natural gas.⁵² Carib states that the export of such small volumes of LNG has become economically and technically feasible in recent years due to the combined factors of increased domestic supply of natural gas and the development of approved containers allowing the safe and effective transport of smaller volumes of LNG than was previously practical.⁵³ According to Carib, this change allows it to take advantage of excess natural gas supply in the U.S. and use that supply to fill the needs of customers in Central America, South America, and the Caribbean—countries which lack the infrastructure and the demand to justify imports of tanker loads of LNG containing much larger volumes.⁵⁴ Carib states that these smaller volumes of natural gas will not have a significant impact on domestic supply, and will fulfill a need that is not otherwise being met in the marketplace—both domestically and abroad.⁵⁵ In support of this position, Carib addresses the following three factors in detail: (i) domestic need for natural gas to be exported; (ii) domestic energy security and international impacts; and (iii) public benefits of the requested authorization.⁵⁶

A. Domestic Need for Natural Gas to be Exported

Carib asserts that U.S. customers have, and are projected to have in the mid-term future, access to substantial quantities of natural gas due to technological advances that have allowed for

⁵¹ *Id.* at 8.

⁵² *Id.* at 7.

⁵³ Carib App. at 7-8.

⁵⁴ *Id.* at 8.

⁵⁵ *Id.* at 8.

⁵⁶ *Id.* at 7-12.

development of previously undeveloped reserves of domestic shale gas.⁵⁷ Carib, citing EIA's *Annual Energy Outlook 2015* (AEO 2015), states that total dry natural gas production in the United States increased by 35 percent from 2005 to 2013, largely from the development of shale gas resources in the lower 48 states.⁵⁸ According to Carib, AEO 2015 also projects that lower 48 shale gas production (including natural gas from tight oil formations) is predicted to increase by 73 percent in the AEO 2015 Reference Case, resulting in a 45 percent increase in total U.S. dry natural gas production.⁵⁹ Carib states that, in all of the AEO 2015 cases, the increase in U.S. natural gas production results in a continuing decline in net natural gas imports through 2040, with the United States expected to become a net exporter of natural gas in 2017.⁶⁰ Citing DOE precedent, Carib also asserts that projections in AEO 2015 support the proposition that domestic supply will be sufficient to meet domestic needs and to supply exports.⁶¹

Next, Carib contends that the small volume of LNG it seeks to export (1.3 Bcf/yr) would not have a significant impact on domestic natural gas supply.⁶² Carib further argues that this quantity is not sufficient to have an adverse impact on domestic supply when compared to the U.S. natural gas market as a whole.⁶³

B. Domestic Energy Security and International Impacts

Carib states that the relatively small volume of LNG it seeks to export will have little effect on domestic natural gas supplies and minimal effect, if any, on domestic energy security.⁶⁴ Specifically, Carib notes that its purchases from Pivotal will be primarily excess natural gas

⁵⁷ *Id.* at 8.

⁵⁸ Carib App. at 8.

⁵⁹ *Id.*

⁶⁰ *Id.* at 8-9.

⁶¹ *Id.* at 9.

⁶² *Id.*

⁶³ *Id.*

⁶⁴ Carib App. at 9.

supply and that, by allowing these purchases for export overseas, DOE/FE's approval of the Application will have little, if any, effect on domestic energy security.⁶⁵

Carib further asserts the exports will benefit the United States by supporting the use of generation fueled by natural gas rather than more environmentally damaging diesel or heavy fuel oil, commonly used by countries in South America, Central America, and the Caribbean.⁶⁶ Carib states countries in these regions do not have a domestic supply of natural gas and do not have the necessary infrastructure for the exploration, production, or transportation of natural gas.⁶⁷ Likewise, most of these countries do not have an independent supply of LNG or liquefaction facilities that would serve a natural gas or LNG market.⁶⁸ According to Carib, many of these countries do not have customers with a natural gas demand that would support the volume a typical LNG tanker imports.⁶⁹ By focusing on this small customer market, Carib asserts that it is fulfilling a need for such countries looking to diversify their fuel supplies.

Carib states that the authorization would also have world-wide environmental benefits as these countries reduce their dependence on diesel or fuel oil and thus reduce the negative environmental impact of their generation fuel.⁷⁰ Additionally, Carib states that a supply of clean generation fuel from the United States to these countries would improve the trade balance in the United States, and would support President Obama's National Export Initiative and the Obama Administration's Caribbean Energy Security Initiative to promote cooperation among the United

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ Carib App. at 10.

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.*

States and Caribbean nations on energy issues.⁷¹ Carib states that, as acknowledged by DOE/FE in *Sabine Pass*, an improvement in natural gas supplies internationally will help countries (such as those to which Carib will be exporting LNG) that currently have limited sources of natural gas supplies to broaden and diversify their supply base, thereby “‘contribut[ing] to greater overall transparency, efficiency, and liquidity of international gas markets.’”⁷²

Further, Carib states, unlike large suppliers of LNG, Carib would be marketing directly to smaller customers.⁷³ As such, Carib states that it may be able to contract directly with local utilities, industrial, and commercial customers in such countries that would require smaller quantities of LNG and would not otherwise be served by very large suppliers of LNG.⁷⁴ Carib asserts that its imports would also stabilize power production in those countries by providing generators with access to fuel that would serve as feedstock for power generation facilities and for stand-by power generation.⁷⁵

C. Public Benefits of the Requested Authorization

Carib asserts that having the authority and the opportunity to market LNG abroad will enable Carib to foster the development of a domestic natural gas and natural gas by-product market.⁷⁶ According to Carib, developing a robust LNG export market will encourage the development of a market in natural gas liquids such as ethane, propane, and condensates that can be substituted for petroleum products made from imported oil, thereby reducing U.S. dependence

⁷¹ Carib App. at 10 (citing, *e.g.*, Exec. Order No. 13534, 75 Fed. Reg. 12,433 (Mar. 11, 2010); Remarks by Vice President Joe Biden on the Caribbean Energy Security Initiative (Jan. 26, 2015); Caribbean Energy Security Summit Joint Statement (Jan. 26, 2015)).

⁷² *Id.* at 10-11 n.24 (quoting *Sabine Pass* at 37).

⁷³ *Id.* at 11.

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ Carib App. at 11.

on imported oil and further promoting the effort to reduce U.S. trade imbalances.⁷⁷

Carib further contends that the export of U.S.-sourced natural gas will help to promote new international markets for natural gas, and thus will encourage the development of new, additional productive resources in the United States.⁷⁸ Carib states that these developments may help decouple international natural gas prices and oil prices in some markets and may exert downward pressure on natural gas prices in those markets.⁷⁹

Additionally, Carib expects its export of domestic LNG to encourage the development of jobs in the United States.⁸⁰ Carib cites domestic transportation companies, which will be used to transport the LNG from each Facility to the port.⁸¹ Carib also cites its own job creation, stating that the proposed export operations will increase Carib's need for additional sales and administrative staff.⁸²

VII. CURRENT PROCEEDING BEFORE DOE/FE

A. Overview

In response to the Notice of Application published in the *Federal Register* on August 17, 2016,⁸³ Pivotal and Floridian each filed a timely motion to intervene, taking no position on the Application. No comments or protests were submitted.

B. Pivotal's to Intervene

Pivotal states that Pivotal and Carib have entered into a Master LNG Purchase and Sale Agreement giving Carib the ability to purchase LNG from Pivotal.⁸⁴ Pivotal states that, pursuant

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ Carib App. at 11.

⁸² *Id.* at 12.

⁸³ See Notice of Application, 81 Fed. Reg. 54,795 (Aug. 17, 2016).

⁸⁴ Pivotal Mot. at 2.

to this Agreement, Carib may purchase LNG produced at any of the existing natural gas liquefaction facilities listed in Appendix D of Carib's Application, which are owned and operated by Pivotal or by one of Pivotal's affiliates.⁸⁵ For those reasons, Pivotal states that it has a direct and substantial interest in this docket which cannot be adequately represented by any other party, and therefore requests that it be permitted to intervene in this proceeding and be granted full rights as a party.⁸⁶

C. Floridian's Motion to Intervene

Floridian states that it is developing a new natural gas liquefaction, storage, vaporization and truck loading facility near Indiantown in Martin County, Florida.⁸⁷ Floridian states that it holds a certificate of public convenience and necessity issued by FERC under NGA section 7(c) authorizing the new facility (the Floridian Facility).⁸⁸ Additionally, Floridian holds a long-term, multi-contract authorization issued by DOE/FE, allowing Floridian to export domestically produced LNG produced at the Floridian Facility to non-FTA nations up to the equivalent of 14.6 Bcf of natural gas per year,⁸⁹ less the portion of that volume that may be under firm contract directly or indirectly to Carib (due to DOE/FE's having previously authorized Carib to export LNG from the Floridian Facility at the equivalent maximum annual send-out capacity).⁹⁰ Floridian states that, due to these reasons, it has a direct and unique interest in this proceeding that cannot be adequately represented by any other party, and therefore there is good cause to grant Floridian's request for intervention.⁹¹

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ Floridian Mot. at 2.

⁸⁸ *Id.*

⁸⁹ Floridian states this is the maximum annual send-out capacity of natural gas in its liquefied state via the truck loading station at the Floridian Facility. Floridian Mot. at 2.

⁹⁰ *Id.* (citing *Carib Energy (USA) LLC*, DOE/FE Order No. 3487, FE Docket No. 11-141-LNG (Sept. 10, 2014)).

⁹¹ *Id.*

VIII. DISCUSSION AND CONCLUSIONS

In reviewing Carib's Application to export LNG, DOE/FE has considered both its obligations under NEPA and its obligation under NGA section 3(a) to ensure that the proposed LNG export proposals 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:

- Carib's Application, as supplemented, and the motions to intervene submitted by Pivotal and Floridian;
- The Draft Addendum, comments received in response to the Draft Addendum, and the final Addendum;
- The 2014 EIA LNG Export Study and the 2015 LNG Export Study, including comments received in response to those Studies.

To avoid repetition, the following discussion focuses on arguments and evidence presented by Carib, 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 LNG Export Studies.

A. Motions to Intervene

Pivotal and Floridian each timely filed a motion to intervene regarding Carib's Application. Both motions were unopposed, and therefore are granted by operation of law pursuant to 10 C.F.R. § 590.303(g).

B. Non-Environmental Issues

In considering non-environmental issues in this proceeding, we have reviewed the Application and the 2014 and 2015 LNG Export Studies. We also take administrative notice of

EIA's more recent authoritative supply data and projections, set forth in AEO 2015 and in the *Annual Energy Outlook 2016* (AEO 2016)⁹² published in June 2016, as discussed below.

1. Carib's Application

Upon review, we find that several factors identified in the Application support a grant of the authorization to export domestically produced LNG in an amount equivalent to 1.3 Bcf/yr of natural gas, or 0.004 Bcf/d.

First, we agree with Carib that the volume of LNG authorized for export in this Order—equivalent to 0.004 Bcf/d of natural gas—will have no practical impact on the domestic supply of natural gas in the United States or natural gas markets, as evidenced by the 2014 and 2015 LNG Export Studies, as well as AEO 2015 and AEO 2016, as discussed further below.

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

Third, according to Carib, the proposed exports over the requested 20-year term will help the destination countries in Central America, South America, and the Caribbean to convert existing power generating stations from heavy fuel oil to more environmentally friendly natural gas. No party has challenged these statements. Carib further notes that these benefits are consistent with the Administration's objectives in the Caribbean Energy Security Initiative.

Fourth, as discussed below, over the 20-year term of the authorization, the proposed exports will benefit the liquidity of international natural gas markets and make a positive contribution to the United States' trade balance. For this reason, Carib's proposed exports are consistent with U.S. policy under the National Export Initiative.

⁹² U.S. Energy Information Administration, *Annual Energy Outlook 2016* (July 2016, updated Sept. 2016), available at: www.eia.gov/forecasts/aeo/.

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 and CNG exports authorized in the final non-FTA export authorizations to date (equivalent to a total of 15.22 Bcf/d of natural gas).⁹³ The 2015 Study concluded that LNG exports at these levels (12 to 20 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.⁹⁴

We have also reviewed EIA's AEO 2016. The Reference case of this projection includes the effects of the Clean Power Plan (CPP), which is intended to reduce carbon emissions from the power sector.⁹⁵ DOE/FE assessed the AEO 2016 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 and AEO 2016) shows that the latest Outlook foresees market conditions that would be even more supportive of LNG exports, including higher production and demand coupled with lower prices. Results from EIA's AEO 2016 no-CPP case, which is the same as the Reference case but does not include the CPP, are also more supportive of LNG

⁹³ See *infra* § XIII.E.

⁹⁴ See 2015 Study at 8, 82.

⁹⁵ U.S. Env'tl. 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).

exports on the same basis of higher production and demand with lower prices relative to AEO 2014.

For the year 2040, the AEO 2016 Reference case anticipates 15 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 nearly 40 percent. With regard to exports, the 2016 projection’s 2040 net pipeline exports of 2.4 Bcf/d and total LNG exports of 18.4 Bcf/d (over 90 percent higher than total LNG exports in AEO 2014) illustrate the Outlook’s view of a market environment supportive of exports.

In the AEO 2016 no-CPP case, for the year 2040, lower-48 production is almost 14 percent higher than in AEO 2014, with the Henry Hub price over 42 percent lower. Net pipeline exports of 2.8 Bcf/d and total LNG exports of 18.6 Bcf/d again indicate a market supportive of exports. These differences are depicted in the table below:

Table 1: Year 2040 Reference Case Comparisons in AEO 2014 and AEO 2016

	AEO 2014 Reference Case	AEO 2016 Reference Case Includes Clean Power Plan	AEO 2016 Reference Case Without Clean Power Plan
Lower-48 Dry Natural Gas Production (Bcf/d)	99.7	114.6	113.5
Total Natural Gas Consumption (Bcf/d)	86.7	94.3	92.6
Electric Power Sector Consumption (Bcf/d)	30.8	32.8	30.6
<u>Net Exports by Pipeline (Bcf/d)</u>	6.7	2.4	2.8
<u>Net LNG Exports</u>	9.2	18.2	18.4

(Bcf/d)			
LNG Exports – Total (Bcf/d)	9.6	18.4	18.6
Lower-48	7.4	18.4	18.6
Alaska	2.2	0.0	0.0
Henry Hub Spot Price (\$/MMBtu)^(Note 1)	\$8.03 (2015\$) \$7.65 (2012\$)	\$4.86 (2015\$)	\$4.65 (2015\$)

Note 1: Prices adjusted to 2015\$ with the Gross Domestic Product implicit deflator for AEO 2014.

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 Carib’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 2016 continue to show market conditions that will accommodate increased exports of natural gas. When compared to the AEO 2014 Reference case, the AEO 2016 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 2015 and AEO 2016, but have considered a wide range of other information. For example, the National Export Initiative, established by Executive Order and cited by Carib, sets an Administration 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.”⁹⁶

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 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.

⁹⁶ National Export Initiative, 75 Fed. Reg. 12,433 (Mar. 16, 2010).

B. Environmental Issues—Issuance of a Categorical Exclusion

In reviewing the potential environmental impacts of Carib’s proposal to export LNG, DOE/FE has considered its obligations under NEPA and its separate obligation under NGA section 3(a) to ensure that the proposal is not inconsistent with the public interest. In this proceeding, Carib proposes to acquire LNG from the Pivotal Facilities, which are already constructed and operating. We agree with Carib that implementation of its export proposal will not involve any additional construction; rather, it will involve only minor operational changes conducted in the normal course of business.⁹⁷

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 Carib’s requested authorization to export LNG from the Facility fall within the scope of the B5.7 categorical exclusion because the contemplated operations will not be changed due to action on Carib’s Application. Accordingly, on November 21, 2016, DOE/FE issued a Categorical Exclusion Determination applying a categorical exclusion under NEPA for the current Application.

The issuance of the Categorical Exclusion supports a determination that no further environmental review of Carib’s Application is required under NEPA. Other factors supporting this determination include: (i) the relatively small volume authorized for export under the Application, and (ii) the fact that no interventions or comments have been submitted in this proceeding raising environmental concerns associated with the proposed exports. In light of the

⁹⁷ Carib App. at 12.

issuance of the Categorical Exclusion, we find that no environmental conditions need to be imposed on this authorization.

C. 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.⁹⁸ 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 VOCs and methane, and the potential for 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, EPA promulgated regulations for hydraulically fractured wells that are expected to yield significant emissions

⁹⁸ Addendum at 2.

reductions.⁹⁹ In 2013, EPA updated those regulations to include storage tanks,¹⁰⁰ 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.¹⁰¹ In January 2015, EPA announced a strategy for “address[ing] methane and smog-forming VOC emissions from the oil and gas industry in order to ensure continued, safe and responsible growth in U.S. oil and natural gas production.”¹⁰² Specifically, as part of the Administration’s efforts to address climate change, EPA has initiated a rulemaking to set standards for methane and VOC emissions from new and modified oil and gas production sources, and natural gas processing and transmission sources.¹⁰³ EPA issued the proposed rule in September 2015,¹⁰⁴ and the final rule on June 3, 2016.¹⁰⁵

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

⁹⁹ U.S. Env’tl. 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).

¹⁰⁰ U.S. Env’tl. 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).

¹⁰¹ U.S. Env’tl. Prot. Agency, Office of Air Quality Planning & Standards, *White Papers on Methane and VOC Emissions*, available at <http://www3.epa.gov/airquality/oilandgas/methane.html> (released April 15, 2014).

¹⁰² U.S. Env’tl. 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 <http://www.epa.gov/airquality/oilandgas/pdfs/20150114fs.pdf>.

¹⁰³ 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.”).

¹⁰⁴ See U.S. Environmental Protection 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).

¹⁰⁵ See U.S. Env’tl. 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>.

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.

D. 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 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 Carib'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 Guidelines¹⁰⁶ 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

¹⁰⁶ 49 Fed. Reg. at 6684 (Feb. 22, 1984).

other circumstances as well that cannot be foreseen that would require agency action.¹⁰⁷ Given these possibilities, DOE/FE recognizes the need to monitor market developments closely as the impact of successive authorizations of LNG exports unfolds.

E. 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 Carib's proposed exports of LNG to non-FTA countries will be inconsistent with the public interest. For that reason, we are authorizing Carib's proposed exports to non-FTA countries in Central America, South America, and the Caribbean 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 5553 Bcf/yr, or 15.22 Bcf/d of natural gas, for the 21 final authorizations issued to date—Sabine Pass Liquefaction, LLC (2.2 Bcf/d),¹⁰⁸

¹⁰⁷ 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).

¹⁰⁸ *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).

Carib Energy (USA) LLC (0.04 Bcf/d),¹⁰⁹ Cameron LNG, LLC (1.7 Bcf/d),¹¹⁰ FLEX I (1.4 Bcf/d),¹¹¹ FLEX II (0.4 Bcf/d),¹¹² Dominion Cove Point LNG, LP (0.77 Bcf/d),¹¹³ Cheniere Marketing, LLC and Corpus Christi Liquefaction, LLC (2.1 Bcf/d),¹¹⁴ Sabine Pass Liquefaction, LLC Expansion Project (1.38 Bcf/d),¹¹⁵ American Marketing LLC (0.008 Bcf/d),¹¹⁶ Emera CNG, LLC (0.008 Bcf/d),¹¹⁷ Floridian Natural Gas Storage Company, LLC,¹¹⁸ Air Flow North American Corp. (0.002 Bcf/d),¹¹⁹ Bear Head LNG Corporation and Bear Head LNG (USA),

¹⁰⁹ *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).

¹¹⁰ *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).

¹¹¹ *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).

¹¹² *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).

¹¹³ *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).

¹¹⁴ *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).

¹¹⁵ *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).

¹¹⁶ *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).

¹¹⁷ *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).

¹¹⁸ *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).

¹¹⁹ *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

LLC (0.81 Bcf/d),¹²⁰ Pieridae Energy (USA) Ltd.,¹²¹ Sabine Pass Liquefaction, LLC Design Increase (0.56 Bcf/d),¹²² Cameron LNG, LLC Design Increase (0.42 Bcf/d),¹²³ Flint Hills Resources, LP (0.01 Bcf/d),¹²⁴ Cameron LNG, LLC Expansion Project (1.41 Bcf/d),¹²⁵ Lake Charles Exports, LLC (2.0 Bcf/d),¹²⁶ Lake Charles LNG Export Company, LLC,¹²⁷ and this Order.

We note that the volumes authorized for export in the *Lake Charles Exports* and *Lake Charles LNG Export* orders are both 730 Bcf/yr (2.0 Bcf/d), yet are not additive to one another because the source of LNG approved under both orders is from the Lake Charles Terminal. Likewise, the *Carib* (2014) and *Floridian* orders are both 14.6 Bcf/yr of natural gas (0.04 Bcf/d),

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).

¹²⁰ *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).

¹²¹ *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).

¹²² *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).

¹²³ *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).

¹²⁴ *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).

¹²⁵ *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).

¹²⁶ *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).

¹²⁷ *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).

yet are not additive to one another because the source of LNG approved under both orders is from the Floridian Facility.¹²⁸ 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.¹²⁹ 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 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

¹²⁸ 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”).

¹²⁹ 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”).

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.

IX. TERMS AND CONDITIONS

To ensure that the authorization issued by this Order is not inconsistent with the public interest, DOE/FE has attached the following Terms and Conditions to the authorization. The reasons for each term or condition are explained below. Carib must abide by each Term and Condition or may face rescission of the authorization or other appropriate sanction.

A. Term of the Authorization

Carib requests a 20-year term for the authorization commencing from the date export operations begin. This term is consistent with our practice in the non-FTA export authorizations issued to date, including Carib's non-FTA authorization in DOE/FE Order No. 3487. The 20-year term will begin on the date when Carib commences commercial export of domestically sourced LNG from one of the Pivotal Facilities, but not before.

B. 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 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

C. 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."¹³² Additionally, DOE/FE regulations allow confidential

¹³⁰ 10 C.F.R. § 590.405.

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. 65,641 (Nov. 5, 2014) [hereinafter Procedures for Changes in Control].

¹³² 10 C.F.R. § 590.202(b).

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. § 1004.11.¹³³

DOE/FE will require that Carib file or cause to be filed with DOE/FE any relevant long-term commercial agreements pursuant to which Carib exports LNG, including sale and purchase agreements. 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 Carib’s Master LNG Sale and Purchase Agreement with Pivotal or other agreement with a minimum term of two years whereby Carib sells LNG to third parties or provides export services.

In addition, DOE/FE finds that section 590.202(c) of DOE/FE’s regulations¹³⁴ requires that Carib file, or cause to be filed, all long-term contracts associated with the long-term supply of natural gas for export by Carib, within 30 days of their execution.

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

¹³³ *Id.* § 590.202(e).

¹³⁴ *Id.* § 590.202(c).

the parties to each contract, contract term, quantity, any take or pay or equivalent provisions/conditions, destinations, re-sale provisions, and other relevant provisions; and (B) the filing must demonstrate why the redacted information should be exempted from public disclosure.

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

D. Export Quantity

Carib seeks authorization to export up to 1.3 Bcf/yr of natural gas (0.004 Bcf/d), which is within the maximum liquefaction capacity of the Facilities identified in the Application.¹³⁵ As set forth herein, this Order authorizes the export of LNG in the full amount requested, up to the equivalent of 1.3 Bcf/yr of natural gas.

X. 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 Carib's Application should be granted subject to the Terms and Conditions set forth herein. The following Ordering Paragraphs reflect current DOE/FE practice.

¹³⁵ Carib's Application in Appendix D states that the Trussville and Chattanooga LNG Facilities have liquefaction capacities of 5,000 Mcf/d (1.825 Bcf/yr) and 10,000 Mcf/d (3.65 Bcf/yr), respectively. In addition, each of the Pivotal Facilities has the capability to load 20 trucks per day. The three Georgia facilities (Riverdale, Cherokee, and Macon) also have the capability to load 20 trucks per day with liquefaction capacity that exceeds the truck loading capacity. In total, all five Pivotal Facilities could load 100 trucks per day. DOE estimates that each 40-foot long ISO container has a nominal capacity of 10,000 gallons of LNG, equivalent to approximately 815,000 cubic feet of natural gas. Therefore, the truck loading and export capacity of all five Facilities totals 0.00815 Bcf/d or 2.97 Bcf/yr of natural gas, a volume greater than the export authority sought in this Application.

XI. ORDER

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

A. Carib Energy (USA) LLC is authorized to export domestically produced LNG in approved IMO7/TVAC-ASME LNG (ISO) containers loaded at designated Pivotal Facilities and transported by truck to any port in the southeastern United States capable of accommodating LNG exports by ISO containers transported on ocean-going container vessels. The ISO containers can be loaded onto ocean-going carriers for export at those ports. The LNG can be sourced from the following five existing natural gas liquefaction facilities owned and operated by Pivotal LNG, Inc. or by one of Pivotal's affiliates: the Trussville LNG Facility (Trussville, Alabama), the Chattanooga LNG Facility (Chattanooga, Tennessee), the Riverdale LNG Facility (Riverdale, Georgia), the Cherokee LNG Facility (Ball Ground, Georgia), and the Macon LNG Facility (Macon, Georgia) (collectively, Facilities), subject to any applicable regulatory approvals governing those Facilities. Carib is authorized to export this LNG in a volume equivalent to 1.3 Bcf/yr of natural gas solely on its own behalf, pursuant to one or more long-term contracts (a contract greater than two years).

B. This authorization is for a term of 20 years to commence on the earlier of the date of first commercial export or five years from the date that this Order is issued.

C. This LNG may be exported to any country in Central America, South America, and the Caribbean that presently has, or in the future develops, the capacity to import LNG from ISO containers transported on ocean-going carriers and with which trade is not prohibited by U.S. law or policy, provided that the country does not have a FTA with the United States requiring the national treatment for trade in natural gas.

D. Carib 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. Additionally, Carib must adhere to any applicable State regulations governing the export of LNG from the Facilities. Failure to comply with this requirement could result in rescission of this authorization and/or other civil or criminal remedies.

E. (i) Carib shall file with the Office of Regulation and International Engagement, Division of Natural Gas Regulation, a non-redacted copy of all executed long-term contracts associated with the long-term export of LNG from the Facilities. The non-redacted copies may be filed under seal and must be filed within 30 days of their execution. Additionally, if Carib 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, Carib shall also 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, Carib shall state why the redacted or non-disclosed information should be exempted from public disclosure.

(ii) Carib shall file, or cause others to file, with the Office of Regulation and International Engagement a non-redacted copy of all executed long-term contracts associated with the long-term supply of natural gas to the Facilities. The non-redacted copies may be filed under seal and must be filed within 30 days of their execution. Additionally, if Carib 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, Carib 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, Carib shall state why the redacted or non-disclosed information should be exempted from public disclosure.

F. Carib 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 only to countries identified in Ordering Paragraph C of DOE/FE Order No. 3937, issued November 28, 2016, in FE Docket No. 16-98-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 Carib Energy (USA) LLC that identifies the country of destination (or countries), upon delivery, 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 Carib Energy (USA) LLC is made aware of all such actual destination countries.

G. Within two weeks after the first export of domestically produced LNG occurs by Carib from one of the Facilities, Carib shall provide written notification of the date that the first export of LNG authorized in Ordering Paragraph A above occurred.

H. Carib shall file with the Office of Regulation and International Engagement, Division of Natural Gas Regulation, on a semi-annual basis, written reports identifying the date the exports authorized by this Order are expected to commence, and the status of the long-term contracts associated with the long-term export of LNG and any related long-term supply contracts.

I. With respect to any change in control of the authorization holder, Carib must comply with DOE/FE's Procedures for Change in Control Affecting Applications and Authorizations to Import or Export Natural Gas.¹³⁶ For purposes of this Ordering Paragraph, a "change in control" shall include any change, directly or indirectly, of the power to direct the management or policies of Carib, whether such power is exercised through one or more intermediary companies or

¹³⁶ See Procedures for Changes in Control at 65,541-42.

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.¹³⁷

J. Monthly Reports: With respect to the LNG exports authorized by this Order, Carib 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 vessel; (4) the date of departure from the U.S. export terminal; (5) the country (or countries) into which the LNG 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).

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

K. 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

¹³⁷ See *id.* at 65,542.

e-mailed to ngreports@hq.doe.gov or may be faxed to Natural Gas Reports at (202) 586-6050.

L. The unopposed motions to intervene submitted by Pivotal and Floridian are deemed granted by operation of law. 10 C.F.R. § 590.303(g).

Issued in Washington, D.C., on November 28, 2016.

A handwritten signature in black ink, appearing to read "Chris B.", written over a horizontal line.

Christopher A. Smith
Assistant Secretary
Office of Fossil Energy