

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

FLINT HILLS RESOURCES, LP)
) 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

DOE/FE ORDER NO. 3829

MAY 20, 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
CNG	Compressed Natural Gas
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
FLEX	Freeport LNG Expansion, L.P. and FLNG Liquefaction LLC
FTA	Free Trade Agreement
LNG	Liquefied Natural Gas
LOI	Letter of Intent
Mcf	Thousand Cubic Feet
MMBtu	Million British Thermal Units
NEMS	National Energy Modeling System
NEPA	National Environmental Policy Act
NERA	NERA Economic Consulting
NGA	Natural Gas Act
NOA	Notice of Availability
VOC	Volatile Organic Compound

I. INTRODUCTION

On November 5, 2015, Flint Hills Resources, LP (Flint Hills) 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 ISO containers or in bulk,³ in a volume equivalent to approximately 3.62 billion cubic feet per year (Bcf/yr) of natural gas⁴ to: (i) any country with which the United States currently has, or in the future will have, 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)⁵; and (ii) any other country with which trade is not prohibited by U.S. law or policy (non-FTA countries). Flint Hills seeks to purchase and ship the LNG for export from a LNG liquefaction facility owned by Stabilis LNG Eagle Ford, LLC (Stabilis Facility), located in George West, Texas.⁶ Flint Hills requests authority to export this LNG on its own behalf and as agent for other entities who hold title to the LNG at the time of export. Flint Hills requests the authorization for a 20-year term to commence on the earlier of the date of first commercial export or a date three months from the issuance of a final

¹ *Flint Hills Resources, LP*, Application for Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas to Free Trade Agreement Nations and Non-Free Trade Agreement Nations, FE Docket No. 15-168-LNG (Nov. 5, 2015) [hereinafter Flint Hills 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 Flint Hills states that it generally intends to use ISO containers to export LNG. Under this scenario, the ISO containers will be trucked to a port or dock located along the Gulf Coast, where the containers will be loaded onto a barge or ship for export. If Flint Hills uses tanker trucks, it will truck LNG from the Stabilis Facility directly to a bulk transport barge, ship, or floating storage for distribution to customers. App. at 4-5. Appendix A of the Application contains a non-exhaustive list of ports from which Flint Hills may export LNG.

⁴ The Application states that this is equal to approximately 120,000 gallons of LNG per day.

⁵ 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.

⁶ Flint Hills states that Stabilis LNG is owned in part (49%) by Flint Hills' affiliate, FHR LNG, LLC. App. at 3.

order granting the requested authorization. Additional information describing Flint Hills' request is presented *infra* at section V.

The portion of the Application dealing with proposed exports to FTA countries was deemed in the public interest pursuant to section 3(c) of the NGA.⁷ DOE granted that portion of the Application in DOE/FE Order No. 3809, issued April 13, 2016.⁸ Earlier, on February 16, 2016, DOE/FE published a Notice of Flint Hills' Application to export LNG to non-FTA countries 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 April 18, 2016. DOE/FE received no responses to the Notice of Application. Consequently, the portion of the Application dealing with proposed exports to non-FTA countries is uncontested. This Order addresses the non-FTA export proposal.

II. BACKGROUND

A. 2012 LNG Export Study

On May 20, 2011, DOE/FE issued *Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 2961 (*Sabine Pass*), the Department's first order conditionally granting a long-term authorization to export liquefied natural gas (LNG) produced in the lower-48 states to non-FTA countries.¹⁰ In

⁷ 15 U.S.C. § 717b(c).

⁸ *Flint Hills Resources, LP*, DOE/FE Order No. 3809, Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas in ISO Containers or in Bulk Loaded as the Stabilis LNG Eagle Ford, LLC Facility in George West, Texas, and Exported by Vessel to Free Trade Agreement Nations (April 13, 2016) [hereinafter FTA Order].

⁹ Flint Hills Resources, LP, Application for Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas Produced to Non-Free Trade Agreement Countries, 81 Fed. Reg. 7776 (Feb. 16, 2016) [hereinafter Flint Hills Notice of Application].

¹⁰ *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 (May 20, 2011). In August 2012, DOE/FE granted final authorization.

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).

that order, DOE/FE conditionally authorized Sabine Pass to export a volume of LNG equivalent to 2.2 Bcf per day (Bcf/d) of natural gas.

By August 2011, with other non-FTA export applications then pending before it, DOE/FE determined that further study of the economic impacts of LNG exports was warranted to better inform its public interest review under section 3 of the NGA.¹¹ Accordingly, 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 LNG exports.¹²

First, in August 2011, DOE/FE requested that EIA assess how prescribed levels of natural gas exports above baseline cases could affect domestic energy markets. Using its National Energy Modeling System (NEMS), EIA examined the impact of two DOE/FE-prescribed levels of assumed natural gas exports (at 6 Bcf/d and 12 Bcf/d) under numerous scenarios and cases based on projections from EIA's 2011 *Annual Energy Outlook* (AEO 2011), the most recent EIA projections available at the time.¹³ The new scenarios and cases examined by EIA included a variety of supply, demand, and price outlooks. EIA published its study, *Effect of Increased Natural Gas Exports on Domestic Energy Markets*, in January 2012.¹⁴ As discussed below, EIA generally found that LNG exports will lead to higher domestic natural gas prices, increased domestic natural gas production, reduced domestic natural gas consumption, and increased natural gas imports from Canada via pipeline.

¹¹ DOE/FE stated in *Sabine Pass* that it "will evaluate the cumulative impact of the [Sabine Pass] authorization and any future authorizations for export authority when considering any subsequent application for such authority." DOE/FE Order No. 2961, at 33.

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 (Federal Register Notice of Availability of the LNG Export Study).

¹³ The Annual Energy Outlook (AEO) presents long-term projections of energy supply, demand, and prices. It is based on results from EIA's NEMS model.

¹⁴ See LNG Export Study – Related Documents, available at <http://energy.gov/fe/downloads/lng-export-study-related-documents> (EIA Analysis (Study - Part 1)).

Second, DOE contracted with NERA to assess the potential macroeconomic impact of LNG exports by incorporating EIA's then-forthcoming case study output from the NEMS model into NERA's general equilibrium model of the U.S. economy. NERA analyzed the potential macroeconomic impacts of LNG exports under a range of global natural gas supply and demand scenarios, including scenarios with unlimited LNG exports. DOE published the NERA Study, *Macroeconomic Impacts of LNG Exports from the United States*, in December 2012.¹⁵ Among its key findings, NERA projected that the United States would gain net economic benefits from allowing LNG exports. For every market scenario examined, net economic benefits increased as the level of LNG exports increased.

On December 11, 2012, DOE/FE published a Notice of Availability (NOA) of the EIA and NERA studies (collectively, the 2012 LNG Export Study or Study).¹⁶ DOE/FE invited public comment on the Study, and stated that its disposition of the then-pending non-FTA LNG export applications would be informed by the Study and the comments received in response thereto.¹⁷ The NOA required initial comments by January 24, 2013, and reply comments between January 25 and February 25, 2013.¹⁸ DOE/FE received over 188,000 initial comments and over 2,700 reply comments, of which approximately 800 were unique.¹⁹ The comments also included 11 economic studies prepared by commenters or organizations under contract to commenters.

¹⁵ See id. (NERA Economic Consulting Analysis (Study - Part 2)).

¹⁶ 77 Fed. Reg. at 73,627.

¹⁷ Id. at 73,628.

¹⁸ Id. at 73,627. On January 28, 2013, DOE issued a Procedural Order accepting for filing any initial comments that had been received as of 11:59 p.m., Eastern time, on January 27, 2013.

¹⁹ Because many comments were nearly identical form letters, DOE/FE organized the initial comments into 399 docket entries, and the reply comments into 375 entries. See Dep't of Energy, *Initial Comments- LNG Export Study*, available at http://www.fossil.energy.gov/programs/gasregulation/authorizations/export_study/export_study_initial_comments.html (May 15, 2013); see also, Dep't of Energy, *Invitation to Offer Reply Comments- LNG Export Study*, available at http://www.fossil.energy.gov/programs/gasregulation/authorizations/export_study/export_study_reply_comments.html (Mar. 5, 2013).

The public comments represent a diverse range of interests and perspectives, including those of federal, state, and local political leaders; large public companies; public interest organizations; academia; industry associations; foreign interests; and thousands of U.S. citizens. While the majority of comments were short letters expressing support or opposition to the 2012 LNG Export Study or to LNG exports in general, others contained detailed statements of differing points of views. The comments were posted on the DOE/FE website and entered into the public record of several non-FTA export proceedings.²⁰ DOE/FE has carefully examined the comments in a series of non-FTA LNG export decisions, and the precedents established in those decisions have been considered in our review of Flint Hills' Application.²¹

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*.²²

²⁰ See 77 Fed. Reg. at 73,629.

²¹ See, e.g. *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) (§§ V, VIII).

²² 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.

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.²³

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 Flint Hills' Application.²⁴ 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),²⁵ and is responsive to concerns previously raised in connection with other non-FTA LNG export proceedings.

C. DOE/FE's Categorical Exclusion Under NEPA

On May 18, 2016, DOE/FE issued a categorical exclusion from the preparation of an environmental impact statement or environmental assessment under NEPA for Flint Hills' 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 Flint Hills' 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 Flint Hills' proposed exports of LNG to non-FTA countries, including both environmental and

²³ 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].

²⁴ See e.g., *American LNG Marketing LLC*, DOE/FE Order No. 3690, at § IX.

²⁵ 15 U.S.C. § 717b(a).

²⁶ U.S. Dep't of Energy, Categorical Exclusion Determination, *Flint Hills Resources, LP*, FE Docket No. 15-168-LNG (May 18, 2016) [hereinafter Categorical Exclusion].

non-environmental issues.²⁷ DOE/FE has reviewed a wide range of information, including but not limited to Flint Hills' Application, the 2012 LNG Export Study, public comments received on the 2012 LNG Export Study, and the Addendum.

For the reasons set forth below, DOE/FE has determined that it has not been demonstrated that the 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 Flint Hills' Application to export domestically produced LNG in a volume equivalent to 3.62 Bcf/yr of natural gas (0.01 Bcf per day (Bcf/d)) for a 20-year term. As requested in the Application, Flint Hills is authorized to export this LNG to any non-FTA country that has, or in the future develops, the capacity to import LNG in ISO containers or in bulk, 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* §§ VIII and X.

IV. PUBLIC INTEREST STANDARD

Section 3(a) of the NGA sets forth the standard for review of Flint Hills' 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.

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 (public interest standard).

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.

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 the presumption is rebutted by 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 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.

DOE/FE’s prior decisions have also looked to certain principles established in its 1984 Policy Guidelines.³⁰ 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.³¹

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.³²

²⁹ See, e.g., *Sabine Pass*, Order No. 2961, at 28; *Phillips Alaska Natural Gas Corp. & Marathon Oil Co.*, DOE/FE Order No. 1473, Order Extending Authorization to Export Liquefied Natural Gas from Alaska, at 13 (April 2, 1999), citing *Panhandle Producers & Royalty Owners Ass’n v. ERA*, 822 F.2d 1105, 1111 (D.C. Cir. 1987).

³⁰ New Policy Guidelines and Delegations Order Relating to Regulation of Imported Natural Gas, 49 Fed. Reg. 6684 (Feb. 22, 1984) [hereinafter 1984 Policy Guidelines].

³¹ *Id.* at 6685.

³² *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, 71,128 (1989)).

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 section 3 of the NGA, 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 particular case to be appropriate."³³ In February 1989, the Assistant Secretary for Fossil Energy assumed the delegated responsibilities of the Administrator of ERA.³⁴

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

Flint Hills requests long-term, multi-contract authorization to export domestically produced LNG to non-FTA countries in a volume equivalent to 3.62 Bcf/yr of natural gas (0.01 Bcf/d). Flint Hills requests this authorization for a 20-year term, commencing on the earlier of the date of first export or three months from the date of this Order. Flint Hills additionally requests authority to export this LNG on its own behalf and as agent for other entities who hold title to the LNG at the time of export.

³³ DOE Delegation Order No. 0204-111, at 1; *see also* 49 Fed. Reg. at 6690.

³⁴ *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)).

The Application states that the LNG for export will be acquired from Stabilis at the Stabilis Facility in George West, Texas. Flint Hills requests authority to export this LNG from the Gulf Coast and elsewhere in the southeastern United States.³⁵ The Application also states that Flint Hills generally intends to use ISO containers for the export of this LNG. Under this scenario, the ISO containers will be trucked from the Stabilis Facility to a port or dock located along the Gulf Coast, where the containers will be loaded onto a barge or ship for export. Alternatively, Flint Hills states that it will export this LNG in bulk, using tanker trucks to transport the LNG from the Stabilis Facility directly to a bulk transport barge, a ship, or floating storage for distribution to customers.³⁶ According to Flint Hills, upon arrival by truck at the point of export, ocean-going marine vessels (for ISO containers) or transport barge, ship, or floating storage (for bulk LNG) will be loaded for transport to the destination countries.

A. Description of Applicant

Flint Hills states that it is a Delaware limited partnership with its principal place of business in Wichita, Kansas. Flint Hills further states that it is a wholly-owned indirect subsidiary of Flint Hills Resources, LLC, a Delaware limited liability company with its principal place of business in Wichita, Kansas.

B. Stabilis Facility

According to Flint Hills, the Stabilis Facility has the capacity to produce 120,000 gallons of LNG per day and store approximately 270,000 gallons of LNG. Flint Hills states that the Stabilis Facility is currently operational and can accommodate both ISO container and tanker

³⁵ Flint Hills App. at 4. Appendix A of the Application contains a non-exhaustive list of ports from which Flint Hills may export LNG.

³⁶ Flint Hills App. at 4-5.

truck loadings. Flint Hills therefore asserts that no additional plant infrastructure or operational changes at the Stabilis Facility will be required as a result of the proposed exports.

C. Business Model

Flint Hills seeks to export LNG on its own behalf and as agent for other entities who hold title to the LNG at the time of export. Flint Hills states that it will comply with all DOE/FE requirements for exporters and agents, including registration requirements. Flint Hills 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. Flint Hills will comply with other registration requirements as set forth in recent DOE/FE orders. Flint Hills states that it has not entered into any long-term supply or long-term export agreements with prospective customers, but will file any relevant contracts and agreements with DOE/FE under seal following their execution.

D. Source of Natural Gas

Flint Hills states that the Stabilis Facility sources gas from the robust and abundant resources of natural gas currently available in South Texas.³⁷ According to the Application, gas is sourced from a local gas plant approximately two miles from the Stabilis Facility, and transported to the Stabilis Facility via an intrastate pipeline. The Application states that a backup supply also can be sourced from the Transcontinental Interstate Pipeline via a connecting line into the same intrastate pipeline between the primary supplier and the Stabilis Facility.

E. Environmental Review

Flint Hills 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

³⁷ Flint Hills App. At 5.

of NEPA where approvals of authorizations to export natural gas under NGA Section 3 involve minor operational changes, but not new construction. Flint Hills states that the Stabilis Facility is an existing, operational facility currently producing LNG for exploration and production markets and other industrial fuel applications.³⁸ Therefore, Flint Hills states that no new construction at the Stabilis Facility and no operational changes are proposed or would be required in order for Flint Hills to ship LNG from the Stabilis Facility for export.

VI. APPLICANT'S PUBLIC INTEREST ANALYSIS

Flint Hills states that its proposed export authorization is not inconsistent with the public interest, and therefore meets the standard under NGA section 3(a). In support of this position, Flint Hills addresses the following four factors: (i) domestic need for natural gas to be exported; (ii) benefits to the national economy; (iii) international impacts; and (iv) global environmental impacts.

A. Domestic Need for Natural Gas to be Exported

Flint Hills states that export of LNG in an amount equivalent to 0.01 Bcf/d, as proposed in the Application, will not have a significant impact on the domestic supply of natural gas. In particular, Flint Hills contends:

- Recent advancements in natural gas exploration and production technology have changed the outlook for the U.S. natural gas market and resulted in a situation where the increase in supplies will outpace increases in demand.
- Production from shale resources led to a 21 percent increase in dry gas production between 2010 and 2014. Flint Hills states that this growth can be attributed largely to increases in the production of shale gas.
- EIA's *Annual Energy Outlook 2015* (AEO 2015) forecast that shale gas and tight oil play production will increase from 11.3 Tcf to 19.6 Tcf from 2013 to 2040.
- EIA's estimates of technically recoverable natural gas reserves increased approximately 30 percent between 2009 and 2014.

³⁸ Flint Hills App. at 16

- In AEO 2015, EIA estimates long-term annual growth of only 0.5 percent in consumption of natural gas in the United States while total dry gas production during the same period is projected to almost double, with an annual growth rate of 1.4 percent.
- The volume that Flint Hills proposes for export is over 210 times less than that authorized for a single applicant in *Cheniere Marketing*, DOE/FE Order No. 3638,³⁹ and only 0.01 percent of the average amount of dry natural gas projected to be produced in the United States in 2016.

B. Benefits to the National Economy

Flint Hills points out that the 2012 LNG Export Study showed that across all scenarios studied, the United States was projected to gain net economic benefits from allowing LNG exports. Though prices would rise as a result of greater exports, Flint Hills notes that the net benefit to the U.S. economy also rises, as measured by economic welfare, real household income, or real Gross Domestic Product.

Flint Hills further argues that the quantity of natural gas it seeks to export in this proceeding is “so minimal as to have no practical impact on natural gas prices in the U.S.”⁴⁰ In support of this statement, Flint Hills refers to DOE/FE’s non-FTA export authorization in *Carib*, DOE/FE Order No. 3487, issued in September 2014.⁴¹ In that order, DOE/FE concluded that Carib’s proposed exports of LNG equivalent to .04 Bcf/d of natural gas—itself a small volume, yet greater than Flint Hills’ current export proposal—was “unlikely to have a significant impact on domestic natural gas markets or on the domestic economy generally.”⁴² Flint Hills states that,

³⁹ *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) (authorizing the export of domestically produced LNG up to the equivalent of 767 Bcf/yr of natural gas).

⁴⁰ Flint Hills App. at 13.

⁴¹ *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, at 15 (Sept. 10, 2014).

⁴² Flint Hills App. at 13 (quoting *Carib*, DOE/FE Order No. 3487 at 14).

similar to *Carib*, its exports will have no impact on domestic natural gas markets.

C. International Impacts

According to Flint Hills, the proposed LNG exports over the requested 20-year term will help to reduce the United States' balance of trade. Beyond the United States' borders, Flint Hills asserts, there will be benefits to nations that import the LNG, particularly to countries in the Caribbean and Central American regions. Flint Hills claims that exporting domestic LNG will introduce an alternative fuel to the Caribbean and Central America that will support the conversion of existing power generating stations from heavy fuel oil to less expensive, more environmentally friendly, natural gas. In this regard, Flint Hills states that securing cleaner energy sources for the Caribbean is a priority for the Administration. Flint Hills suggests that the proposed exports are well-suited to meet the objectives of the Caribbean Energy Security Initiative (CESI), launched in June 2014. Flint Hills states that the export of LNG is consistent with the CESI's aims of supporting the Caribbean in pursuit of alternative sources of energy and facilitating faster access to U.S. natural gas. Through its access to LNG from the existing Stabilis Facility and its ability to move LNG by ISO containers or smaller ocean going carriers, Flint Hills believes it can quickly and cost-effectively move LNG to the Caribbean and help meet the demand for diversified fuel supply.

D. Environmental Impacts

Flint Hills contends that, because natural gas burns cleaner than other fossil fuels, LNG exports can have significant environmental benefits. Flint Hills cites data from the U.S. Environmental Protection Agency (EPA) in stating that, compared to the average coal-fired plant used for electric generation, natural gas-fired plants emit half as much carbon dioxide (CO₂), a third of the nitrogen oxides, and one percent of the sulfur oxides. Flint Hills further states that an

increased supply of natural gas made possible through LNG exports will help support the United States' climate change initiatives.

VII. DISCUSSION AND CONCLUSIONS

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

- Flint Hills' Application and letter amending the Application;
- The 2012 LNG Export Study, including comments received in response to the Study; and
- The Draft Addendum, comments received in response to the Draft Addendum, and the final Addendum.

We also take administrative notice of EIA's most recent authoritative supply data and projections, set forth in AEO 2015 and discussed below.

To avoid repetition, the following discussion focuses on arguments and evidence presented by Flint Hills to the extent that DOE/FE has not already addressed the same or substantially similar arguments in its responses to comments on the 2012 LNG Export Study or the Addendum.

A. Non-Environmental Issues

1. Flint Hills' 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 3.62 Bcf/yr of natural gas, or 0.01 Bcf/d.

First, we agree with Flint Hills that the volume of LNG authorized for export 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 natural gas markets, as evidenced by the 2012 LNG Export Study and AEO 2015, as discussed further below.

Second, the 2012 LNG Export Study also shows that exports of LNG will generate net economic benefits to the broader U.S. economy.

Third, we agree with Flint Hills that the proposed exports over the requested 20-year term will help the destination countries in Central America and the Caribbean to convert existing power generating stations from heavy fuel oil to less expensive, more environmentally friendly natural gas. This is 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, Flint Hills proposed exports are consistent with U.S. policy under the National Export Initiative.

2. Price Impacts

The 2012 LNG Export Study projected the economic impacts of LNG exports in a range of scenarios, including scenarios that equaled and exceeded the current amount of long-term LNG exports authorized in the final non-FTA export authorizations to date, including the export of LNG authorized in this Order (equivalent to a total of 11.81 Bcf/d of natural gas). *See infra* § X.D, E. The 2012 LNG Export Study concluded that LNG exports at these levels (*e.g.*, 6 Bcf/d of natural gas and higher) 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. NERA's analysis indicates that, after five years of increasing LNG exports, wellhead natural gas price increases could range from \$0.22 to \$1.11 (2010\$/Mcf) depending on the market-determined

level of exports. However, even with these estimated price increases, NERA found that the United States would experience net economic benefits from increased LNG exports in all cases studied.

3. Significance of the 2012 LNG Export Study

For the reasons discussed above, DOE/FE commissioned the 2012 LNG Export Study and invited the submission of responsive comments. DOE/FE has analyzed this material and determined that the 2012 LNG Export Study provides substantial support for granting Flint Hills' Application. The conclusion of the 2012 LNG Export Study is that the United States will experience net economic benefits from issuance of authorizations to export domestically produced LNG.

We have evaluated the initial and reply comments submitted in response to the 2012 LNG Export Study. Various commenters have criticized the data used as inputs to the 2012 LNG Export Study and numerous aspects of the models, assumptions, and design of the Study. However, EIA's most recent projections, set forth in AEO 2015, continue to show market conditions that will accommodate increased exports of natural gas. When compared to the AEO 2013 Reference Case, the AEO 2015 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 2012 LNG Export Study is fundamentally sound and supports 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 2012 LNG Export Study and the current data from AEO 2015, but have considered a wide range of other information. For

example, the National Export Initiative, established by Executive Order, 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.”⁴³

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. Therefore, authorizing U.S. exports may advance the public interest for reasons that are distinct from and additional to the economic benefits identified in the 2012 LNG Export Study.

B. Environmental Issues—Issuance of a Categorical Exclusion

In reviewing the potential environmental impacts of Flint Hills’ 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, Flint Hills proposes to acquire LNG from a facility that is already constructed and operating. Implementation of Flint Hills’ proposal will not involve any additional construction.

⁴³ Exec. Order No. 13543, 75 Fed. Reg. 12,433 (Mar. 16, 2010).

The only operational changes will involve the loading of LNG into ISO containers or into bulk containers and the transportation of those ISO containers or bulk containers by truck from the Facility to the designated port.⁴⁴

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 Flint Hills' requested authorization to export LNG from the Facility fall within the scope of the B5.7 categorical exclusion because the contemplated construction and operations will not be changed due to action on Flint Hills' Application. Accordingly, on May 18, 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 Flint Hills' 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 issuance of the Categorical Exclusion, we find that no environmental conditions need to be imposed on this authorization.

⁴⁴ While Flint Hills contends that the Stabilis Facility is already used to load LNG and, therefore, a grant of the requested authorization in this proceeding does not represent an operational change, we find that a grant of the authorization will involve an incremental, albeit minor, operational change due to the increase in loading operations associated with the 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.⁴⁵ Nevertheless, a decision by DOE/FE to authorize exports to non-FTA nations could accelerate that development by some increment. For this reason, DOE/FE prepared and received public comment on the Addendum. 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 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

⁴⁵ Addendum, *supra* note 24 at 2.

emissions reductions.⁴⁶ In 2013, EPA updated those regulations to include storage tanks,⁴⁷ 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.⁴⁸ More recently, 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.”⁴⁹ 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.⁵⁰ EPA recently issued the proposed rule, with a final rule expected to follow in June 2016.⁵¹

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 raised by commenters to the 2012 LNG Export Study. For these reasons, we conclude that the environmental concerns

⁴⁶ 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).

⁴⁷ U.S. Envtl. Prot. Agency, Oil and Natural Gas Sector: Reconsideration of Certain Provisions of New Source Performance Standards; Final Rule, 77 Fed. Reg. 58,416 (Sept. 23, 2013).

⁴⁸ U.S. Envtl. Prot. Agency, *Methane: Addressing Greenhouse Gases and Smog forming VOCs from the Oil and Gas Industry* (May 12, 2016), available at <https://www3.epa.gov/airquality/oilandgas/methane.html>.

⁴⁹ 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 <http://www.epa.gov/airquality/oilandgas/pdfs/20150114fs.pdf>.

⁵⁰ 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-climateaction-plan-anno-1>.

⁵¹ 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).

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 2012 LNG Export Study of net economic benefits from exports of LNG. Both the 2012 LNG Export Study and many public comments identify significant uncertainties and even potential negative impacts from such 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 and compressed natural gas (CNG) export projects will ever be realized because of the time, difficulty, and expense of commercializing, financing, and constructing such projects, as well as the uncertainties inherent in the global market demand for LNG and CNG.

More generally, DOE/FE continues to subscribe to the principle set forth in our 1984 Policy Guidelines⁵² that, under most circumstances, the market is the most efficient means of allocating natural gas supplies. However, we recognize that 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

⁵² 49 Fed. Reg. at 6684.

agency action.⁵³ 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 Flint Hills' proposed exports of LNG to non-FTA countries will be inconsistent with the public interest. For that reason, we are authorizing Flint Hills' proposed exports to non-FTA countries in those specified regions, 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 11.81 Bcf/d of natural gas, or 4.34 trillion cubic feet per year, for the 16 final authorizations issued to date— Sabine Pass Liquefaction, LLC (Trains 1-4) (2.2 Bcf/d),⁵⁴ Carib Energy (USA) LLC (0.04 Bcf/d),⁵⁵ Cameron

⁵³ Some commenters on the 2012 LNG Export Study 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).

⁵⁴ *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).

⁵⁵ *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).

LNG, LLC (1.7 Bcf/d),⁵⁶ FLEX I (1.4 Bcf/d),⁵⁷ FLEX II (0.4 Bcf/d),⁵⁸ Dominion Cove Point LNG, LP (0.77 Bcf/d),⁵⁹ Cheniere Marketing, LLC and Corpus Christi Liquefaction, LLC (2.1 Bcf/d),⁶⁰ Sabine Pass Liquefaction, LLC Expansion Project (1.38 Bcf/d),⁶¹ American Marketing LLC (0.008 Bcf/d),⁶² Emera CNG, LLC (0.008 Bcf/d),⁶³ Floridian Natural Gas Storage Company, LLC,⁶⁴ Air Flow North American Corp. (0.002 Bcf/d),⁶⁵ Bear Head LNG Corporation

⁵⁶ *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).

⁵⁷ *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).

⁵⁸ *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).

⁵⁹ *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).

⁶⁰ *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).

⁶¹ *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).

⁶² *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).

⁶³ *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).

⁶⁴ *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).

⁶⁵ *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).

and Bear Head LNG (USA), LLC (0.81 Bcf/d),⁶⁶ Pieridae Energy (USA) Ltd.,⁶⁷ and Sabine Pass Liquefaction, LLC (0.56 Bcf/d),⁶⁸ Cameron LNG, LLC (0.42 Bcf/d),⁶⁹ and this Order (0.01 Bcf/d). We note that the volumes authorized for export in 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.⁷⁰ Likewise, 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.⁷¹ In sum, the total export volume is within the range of scenarios analyzed in the 2012 EIA and NERA studies. NERA found that in all such scenarios—assuming either 6 Bcf/d or 12 Bcf/d of export volumes—the United States would experience net economic benefits.

In sum, the total export volume is within the range of scenarios analyzed in the 2012 EIA and NERA studies. NERA found that in all such scenarios—assuming either 6 Bcf/d or 12 Bcf/d of export volumes—the United States would experience net economic benefits.

⁶⁶ *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).

⁶⁷ *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).

⁶⁸ *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).

⁶⁹ *Cameron LNG, LLC*, DOE/FE Order No. 3797, FE Docket No. 15-67-LNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas from the Cameron Terminal Located in Cameron and Calcasieu Parishes, Louisiana, to Non-Free Trade Agreement Nations (Mar. 18, 2016).

⁷⁰ See *id.* 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”).

⁷¹ See *Bear Head LNG Corporation and Bear Head LNG (USA)*, *supra* note 64, at 178 (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).

DOE/FE will continue taking a measured approach in reviewing the other pending applications to export natural gas. 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 2012 LNG Export Study, like any study based on assumptions and economic projections, is inherently limited in its predictive accuracy; (2) applications to export significant quantities of domestically produced LNG are a new phenomenon 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 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. Flint Hills must abide by each term and condition or may face rescission of its authorization or other appropriate sanction.

A. Term of the Authorization

Flint Hills has requested a 20-year term for the authorization commencing on the earlier of the date of first export or three months from the date that the requested authorization is granted. We find that the requested term is not inconsistent with the public interest and will be granted.

B. Commencement of Operations Within Five Years

In order to ensure that the authorization granted by this Order is put to use in a reasonable time, we find that Flint Hills must commence commercial LNG export operations no later than five years from the date of issuance of this Order. Consistent with other similar orders granted by DOE/FE, the purpose of this condition is to ensure that other entities that may seek similar authorizations are not frustrated in their efforts to obtain those authorizations by authorization holders that are not engaged in actual export operations.⁷²

C. 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.⁷³ As a condition of the similar authorization issued to Sabine Pass in Order No. 2961,⁷⁴ 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.

⁷² See *Air Flow North American Corp.*, *supra* note 63, at 27.

⁷³ 10 C.F.R. § 590.405.

⁷⁴ *Sabine Pass Liquefaction, LLC*, *supra* note 9, at 38-39.

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.⁷⁵

D. Agency Rights

Flint Hills requests authorization to export LNG in a volume equivalent to 3.62 Bcf/yr on its own behalf and as agent for other entities that hold title to the LNG at the time of export, pursuant to long-term sales and purchase agreements with Flint Hills. 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.⁷⁶ 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

⁷⁵ 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).

⁷⁶ *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.⁷⁷ 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 reiterated its policy on Agency Rights procedures in *Gulf Coast LNG Export, LLC.*⁷⁸ In *Gulf Coast*, DOE/FE confirmed 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.⁷⁹

To ensure that the public interest is served, the authorization granted herein shall be conditioned to require that where Flint Hills 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.

E. 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.”⁸⁰ 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. § 1004.11.⁸¹

⁷⁷ *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.

⁷⁸ *Gulf Coast LNG Export, LLC*, DOE/FE Order No. 3163, FE Docket No. 12-05-LNG, Order Granting Long-Term Multi-Contract Authority to Export LNG by Vessel from the Proposed Brownsville Terminal to Free Trade Agreement Nations (Oct. 16, 2012).

⁷⁹ See *id.* at 7-8.

⁸⁰ 10 C.F.R. § 590.202(b).

⁸¹ *Id.* § 590.202(e).

DOE/FE will require that Flint Hills file or cause to be filed with DOE/FE any relevant long-term commercial agreements, including sale and purchase agreements, pursuant to which Flint Hills 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 with a minimum term of two years, such as a long-term purchase and sales agreement involving LNG stored or liquefied at the Stabilis Facility.

DOE/FE also will require Flint Hills to file any long-term contracts Flint Hills enters into providing for the long-term export of LNG on its own behalf from the Stabilis Facility. DOE/FE finds that the submission of these 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).

In addition, DOE/FE finds that section 590.202(c) of DOE/FE’s regulations⁸² requires that Flint Hills file all long-term contracts associated with the long-term supply of natural gas to the Facility for export pursuant to this authorization within 30 days of their execution.

DOE/FE recognizes that some information in Flint Hills’ 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 Facility for export, may be commercially sensitive. DOE/FE therefore will provide Flint Hills the option to file unredacted contracts, or in the alternative (A) Flint Hills may file long-term contracts under seal, but it also will file either: (i) a

⁸² *Id.* § 590.202(c).

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, 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.

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

X. ORDER

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

A. Flint Hills Resources, LP is authorized to export domestically produced LNG transported by truck from the Stabilis LNG Eagle Ford Facility in George West, Texas to a port or dock located along the Gulf Coast in an amount up to the equivalent of 3.62 Bcf/yr of natural gas. The LNG may be transported in approved ISO containers and loaded for export on cargo vessels, or may be transported in bulk and transferred for export onto bulk LNG vessels without ISO containers. This authorization is for a term of 20 years to commence on the earlier of the date of first commercial export or three months from the date that this Order is issued.

B. Flint Hills is authorized to export this LNG on its own behalf and as agent for other entities who hold title to the LNG at the time of export pursuant to one or more long-term contracts (contracts having terms greater than two years).

C. Flint Hills must commence export operations using the Facility no later than five years from the date of issuance of this Order (May 20, 2021).

D. This LNG may be exported to any country which presently has, or in the future develops, the capacity to import LNG from ISO containers or in bulk transported on ocean-going carriers or other waterborne vessels 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.

E. Flint Hills shall ensure that all transactions authorized by this Order are permitted and lawful under U. S. laws and policies, including the rules, regulations, orders, policies, and other determinations of the Office of Foreign Assets Control of the U. S. Department of the Treasury and the U.S. Department of Transportation. Additionally, Flint Hills shall ensure that any third parties with whom Flint Hills (or others on Flint Hills' behalf) contracts to handle truck transport in ISO containers or in bulk will obtain and comply with any required federal, state, or local permits relating to hazardous materials and cryogenic handling. Failure to comply with these requirements could result in rescission of this authorization and/or other civil or criminal remedies.

F. (i) Flint Hills 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 on its own behalf or as agent for other entities from the Stabilis Facility. The non-redacted copies may be filed under seal and must be filed within

30 days of their execution. Additionally, if Flint Hills 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, Flint Hills 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, Flint Hills shall state why the redacted or non-disclosed information should be exempted from public disclosure.

(ii) Flint Hills shall file, or cause others to 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 supply of natural gas to the Stabilis Facility. The non-redacted copies may be filed under seal and must be filed within 30 days of their execution. Additionally, if Flint Hills 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, Flint Hills 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, Flint Hills shall state why the redacted or non-disclosed information should be exempted from public disclosure.

G. Flint Hills shall include the following provision in any agreement or other contract for the sale or transfer of LNG exported pursuant to this Order:

Customer or purchaser acknowledges and agrees that it will resell or transfer LNG purchased hereunder for delivery only to countries identified in Ordering Paragraph D of DOE/FE Order No. 3829, issued May 20, 2016, in FE Docket No. 15-168-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 Flint Hills Resources, LP that identifies the country (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 Flint Hills Resources, LP is made aware of all such countries.

H. Flint Hills is permitted to use its authorization in order to export LNG as agent for other entities, after registering the other parties with DOE/FE. Registration materials shall include an acknowledgement and agreement by the Registrant to supply Flint Hills with all information necessary to permit Flint Hills 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'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 F of this Order.

I. Each registration submitted pursuant to this Order shall have current information on file with DOE/FE. Any changes in company name, contact information, length of the 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).

J. As a condition of this authorization, Flint Hills shall ensure that all persons required by this Order to register with DOE/FE have done so. Any failure by Flint Hills to ensure that all such persons or entities are registered with DOE/FE shall be grounds for rescinding the authorization in whole or in part.

K. Within two weeks after the first export of domestically produced LNG by Flint Hills occurs from the Stabilis Facility, Flint Hills shall provide written notification of the date that the first export of LNG authorized in Ordering Paragraph A above occurred.

L. Flint Hills 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.

M. Prior to any change in control of the authorization holder, Flint Hills must comply with DOE/FE Procedures for Change in Control Affecting Applications and Authorizations to Import or Export Natural Gas.⁸³ 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 Flint Hills, 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.⁸⁴

N. Monthly Reports: With respect to the LNG exports authorized by this Order, Flint Hills 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

⁸³ 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).

⁸⁴ See *id.* at 65,542.

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).

If exports of LNG in bulk 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 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 transport barge, carrier, or floating storage is loaded with LNG; (10) the mode(s) of transport used to move bulk LNG 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)

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

Issued in Washington, D.C., on May 20, 2016.



Christopher A. Smith
Assistant Secretary
Office of Fossil Energy