UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

OFFICE OF FOSSIL ENERGY AND CARBON MANAGEMENT

In the Matter of:

Sabine Pass Liquefaction, LLC and Sabine Pass Liquefaction Stage V, LLC Docket No. 24 - - LNG

APPLICATION FOR LONG-TERM AUTHORIZATION TO EXPORT LIQUEFIED NATURAL GAS TO FREE TRADE AGREEMENT NATIONS AND NON-FREE TRADE AGREEMENT NATIONS

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Pursuant to Section 3 of the Natural Gas Act ("NGA")¹ and Part 590 of the regulations of the Department of Energy ("DOE"), ² Sabine Pass Liquefaction, LLC and Sabine Pass Liquefaction Stage V, LLC (together "Sabine Pass" or "Applicants") hereby submit for filing this application ("Application") to the Office of Fossil Energy and Carbon Management of the DOE ("DOE/FECM") for long-term, multi-contract authority, as well as related short-term authority, ³

¹ 15 U.S.C. § 717b (2018). The authority to regulate the imports and exports of natural gas, including liquefied natural gas, under section 3 of the NGA has been delegated to the Assistant Secretary for Fossil Energy and Carbon Management in Redelegation Order No. S4-DEL-FE1-2022, issued on June 13, 2022.

² 10 C.F.R. § 590 (2023).

³ On December 18, 2020, DOE issued a Policy Statement discontinuing its practice of issuing separate longterm and short-term authorizations for exports of natural gas from the same facility. "Including Short-Term Export Authority in Long-Term Authorizations for the Export of Natural Gas on a Non-Additive Basis," Policy Statement, 86 Fed. Reg. 2243 (Jan. 12, 2021) (hereinafter "Including Short-Term Policy Statement"). Instead, long-term authorizations to export domestically produced natural gas may include additional authority to export the same approved volume pursuant to transactions with terms of less than two years (including commissioning volumes) on a non-additive basis. Accordingly, Sabine Pass requests that the long-term authorizations requested here also allow for the export of a portion of the approved volumes on a short-term or spot basis.

to export additional domestically produced liquefied natural gas ("LNG") from the existing Sabine Pass liquefied natural gas ("LNG") facility on the Sabine-Neches Waterway ("SNWW") in Cameron Parish, Louisiana ("SPLNG Terminal").⁴ The additional export authorizations requested in this Application relate to the liquefaction facilities proposed in the Sabine Pass Stage 5 Expansion Project ("Stage 5 Project") to be added to the existing SPLNG Terminal.

Specifically, Sabine Pass requests to increase the authorized amount of LNG exports from the SPLNG Terminal by the equivalent of 899.46 billion cubic feet per year ("Bcf/yr")⁵ of LNG, to any country which has, or in the future develops, the capacity to import LNG via ocean-going carriers and with which the U.S. either (1) has a Free Trade Agreement ("FTA") requiring national treatment for trade in natural gas ⁶ or (2) does not have such a FTA but with which trade is not prohibited by U.S. law or policy ("non-FTA" nations). The requested additional volumes reflect the total peak capacity under optimal conditions of the facilities to be added to the SPLNG

⁴ The SPLNG Terminal currently consists of the SPLNG Terminal Phase I Project (an LNG terminal and associated facilities, including a marine terminal, a turning basin with two marine berths and three LNG storage tanks) approved by the Federal Energy Regulatory Commission ("FERC") in its Docket No. CP04-47-000), the SPLNG Phase II Project (three additional LNG storage tanks, ambient air vaporizers, and associated facilities within the SPLNG Terminal approved by FERC in its Docket No. CP05-396-000), each as amended by the SPLNG Export Project (modifications to permit the SPLNG Terminal to operate with the additional purpose of exporting LNG previously imported to the U.S. approved by FERC in its Docket Nos. CP04-47-001 and CP05-396-001), the Sabine Pass Liquefaction Project (four natural gas liquefaction trains and appurtenant facilities approved by FERC in its Docket No. CP11-72-000, as amended in Docket No. CP14-12-000, and further amended in Docket No. CP19-515-000), the Sabine Pass Modification Project (feed-gas pipeline meter interconnects, a heavy hydrocarbon removal unit for each liquefaction train, condensate storage, metering and send-out facilities as well as certain modifications to enhance operations and reliability approved by FERC in its Docket No. CP13-2-000), the Sabine Pass Liquefaction Expansion Project (two additional natural gas liquefaction trains approved by FERC in its Docket No. CP13-52-000), as amended in Docket No. CP19-515-000), and the SPLNG Third Berth Expansion Project (a third marine berth and supporting facilities approved by FERC in its Docket No. CP19-11-000).

⁵ Approximate equivalent of 17.76 metric tonnes per annum ("MTPA").

⁶ The U.S. 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. In addition to current FTA nations, Sabine Pass expressly requests that its FTA authorization include any additional nation which DOE subsequently identifies publicly as having entered into a free trade agreement providing for national treatment for trade in natural gas, or that otherwise is treated as (or equivalent to) an FTA nation by the U.S., provided that the destination nation has the capacity to import LNG. For ease of reference, Sabine Pass refers herein to all such nations simply as "FTA nations."

Terminal in the Stage 5 Project, which include two new natural gas liquefaction trains (Trains 7 and 8), as well as a boil-off gas ("BOG") re-liquefaction unit, and other supporting infrastructure. Sabine Pass requests this export authorization, on behalf of itself and as agent for other entities that may hold title to the LNG at the time of export from the SPLNG Terminal, for: (1) for the FTA authorization, a period of twenty-five (25) years after the commencement of commercial exports under the requested authorization; and (2) for the non-FTA authorization, a period extending through the later of (i) the end of 2050 or (ii) twenty (20) years after the commencement of commercial exports under the requested authorization. ⁷

Sabine Pass requests authority to export 899.46 Bcf/yr of LNG to both FTA and non-FTA nations on a non-additive basis. Consistent with the different standards under Section 3 of the NGA applicable to LNG exports to FTA and non-FTA nations ⁸ and with DOE precedent, Sabine Pass requests that DOE/FECM issue two separate orders authorizing the LNG exports proposed hereto FTA nations and to non-FTA nations.⁹

⁷ Effective August 25, 2020, DOE discontinued its prior practice of granting a standard 20-year export term for long-term non-FTA authorizations to export domestically produced natural gas from the lower-48 states to non-FTA nations. DOE instead adopted a longer term through December 31, 2050, as the standard export term for longterm non-FTA authorizations, unless a shorter term is requested by the applicant. "Extending Natural Gas Export Authorizations to Non-Free Trade Agreement Countries Through the Year 2050," Notice of Final Policy Statement". As explained below, exports from the Stage 5 Project may commence after 2030; accordingly, Sabine Pass requests that the term of its incremental non-FTA authorization reflect the pre-existing standard of 20-years should that term extend past the year 2050 adopted in the Term Extension Policy Statement.

⁸ NGA Section 3(c) provides that the export of natural gas to a nation with which there is in effect an FTA requiring national treatment for trade in natural gas shall be deemed to be consistent with the public interest and requires that such applications be granted without modification or delay. Section 3(a) provides that applications to export LNG to non-FTA nations shall be authorized unless the Secretary finds that the proposed exports will not be consistent with the public interest. Such exports are presumptively in the public interest and that presumption can be overcome only through an affirmative demonstration that the proposed export is inconsistent with the public interest, as explained below.

⁹ DOE recently announced that it will initiate a process to update its previous studies used to inform its determinations whether additional LNG export authorization requests to non-FTA nations are consistent with the public interest. Press Release, DOE to Update Public Interest Analysis to Enhance National Security, Achieve Clean Energy Goals and Continue Support for Global Allies (Jan. 26, 2024), available at: https://www.energy.gov/articles/doe-update-public-interest-analysis-enhance-national-security-achieve-clean-

In support of this Application, Sabine Pass respectfully states the following:

I. DESCRIPTION OF THE APPLICANTS

The exact name of the first Applicant is Sabine Pass Liquefaction, LLC, which is a Delaware limited liability corporation authorized to do business in the states of Louisiana, Texas, Alabama, Arkansas, Illinois, Indiana, Kentucky, Mississippi, Ohio, Oklahoma, Pennsylvania, Tennessee, and West Virginia. Sabine Pass Liquefaction, LLC has previously received DOE authorizations for LNG exports from the six fully operational liquefaction trains at the SPLNG Terminal, as further described in Part IV below.

The exact name of the second Applicant is Sabine Pass Liquefaction Stage V, LLC, which is also a Delaware limited liability corporation authorized to do business in the states of Louisiana and Texas. This entity was created for the purpose of the Stage 5 Project and is primarily engaged in the business of developing that expansion.

Both Applicants are indirect subsidiaries of Cheniere Energy Partners, L.P., a Delaware limited partnership controlled by indirect subsidiaries of Cheniere Energy, Inc ("Cheniere"), with affiliates of Blackstone Inc., affiliates of Brookfield Asset Management Inc., and the public holding the remaining non-controlling limited partner interests in Cheniere Energy Partners, L.P. Cheniere, a Delaware corporation and a publicly traded energy company listed on the New York Stock Exchange (NYSE MKT: LNG), is a developer, owner and operator, both of its own accord and through Cheniere Energy Partners, L.P., of LNG terminals and natural gas pipelines on the Gulf Coast, including the SPLNG Terminal and the Stage 5 Project. Cheniere is the largest producer of LNG in the United States ("U.S.") and the second largest LNG operator in the world.

<u>energy-goals</u>. DOE's new studies presumably will be completed well before DOE/FECM acts on the non-FTA portion of this Application, and so the "pause" in non-FTA authorizations should have no impact here. Depending on how the related public comment process progresses, however, Sabine Pass may supplement this Application to address the studies if warranted.

Both Applicants have their principal place of business at Cheniere's headquarters located at 845

Texas Avenue, Houston, Texas 77002.

II. CORRESPONDENCE AND COMMUNICATIONS

All correspondence and communications concerning this Application should be addressed

to the following persons:¹⁰

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III. EXECUTIVE SUMMARY

Sabine Pass began exporting LNG from the SPLNG Terminal in 2016, as the first LNG export project operating in the lower-48 portion of the U.S. With six large-scale liquefaction trains having an aggregate maximum production capacity of approximately 1,661.94 Bcf/y¹¹, the SPLNG Terminal is currently the largest operating liquefaction project in the U.S. The facility has reliably and safely produced and exported more than 2,400 LNG cargoes since 2016.

¹⁰ To the extent necessary, SPL respectfully requests waiver of Section 590.202(a) of DOE's regulations, to include additional pertinent personnel and outside counsel on the official service list in this proceeding. 10 C.F.R. 590.202(a).

¹¹ Approximate equivalent of 33.04 MTPA.

Sabine Pass proposes to liquefy and export additional LNG volumes from its existing SPLNG Terminal facilities to meet the increased international demand for natural gas by adding liquefaction capacity and leveraging existing supporting infrastructure that will enable abundant domestic natural gas supplies to be exported as LNG while minimizing greenfield construction and environmental impacts. An expansion of the existing SPLNG Terminal is ideally situated to help satisfy the world's growing demand for U.S. natural gas exports. Countries around the world are aiming to (1) improve energy security and reliability, (2) improve energy affordability, and (3) improve air quality and public health and reduce greenhouse gas ("GHG") emissions. Export of LNG from the Stage 5 Project will help to achieve these goals by promoting the continued displacement outside the U.S. of coal and other more GHG emission-intensive fuels while providing a secure, reliable, and affordable source of energy for U.S. allies and trading partners. Recent global events have further highlighted the importance of natural gas and LNG in meeting the world's energy needs, now and throughout the energy transition.

The proposed Stage 5 Project will be constructed adjacent to the existing SPLNG Terminal and operated on an integrated basis with it. The addition of two liquefaction trains, plus the new BOG reliquefaction unit, will increase the SPLNG Terminal's aggregate nominal LNG production capacity from the currently authorized 1,661.94 Bcf/yr by an additional 899.46 Bcf/yr¹². Therefore, Sabine Pass proposes to increase the maximum quantity of its exports authorized by DOE, for both FTA and non-FTA nations, on a non-additive basis, to correspond with that increased LNG production capacity.

Incremental LNG exports by Sabine Pass from the Stage 5 Project will result in: new markets for the nation's abundant natural gas supplies; increased economic growth, employment,

¹² Approximate equivalent of 17.76 MTPA.

tax revenues and net economic benefits; improved energy and economic security for many U.S. allies and trading partners; geopolitical benefits; lower global emissions by displacing coal and other more emissions-intensive fuels; and improvements in the U.S. balance of trade.

As more fully set forth in this Application, granting Sabine Pass its requested authorization to export additional LNG will be consistent with, and indeed advance, the public interest, for all the reasons that DOE has recognized in dozens of orders authorizing LNG exports, notably including those previously issued for Sabine Pass.

IV. EXISTING LONG-TERM EXPORT AUTHORIZATIONS

DOE has previously issued to Sabine Pass long-term, multi-contract authority to export domestic LNG from the SPLNG Terminal in a volume equivalent, in total, to 1661.94 Bcf/yr to both FTA and non-FTA nations for a term through December 31, 2050.¹³ The series of orders in which DOE has authorized these long-term, multi-contract exports of domestic LNG from the SPLNG Terminal are listed in Appendix A of this Application.¹⁴ All of the liquefaction trains at SPLNG Terminal share common infrastructure and are operated as a single integrated facility. Accordingly, DOE/FECM has held that any of Sabine Pass' long-term export authorizations may be utilized in conjunction with any of Sabine Pass' long-term contracts associated with LNG

¹³ Sabine Pass Liquefaction, LLC, DOE/FE Order No. 4520, Docket No. 19-125-LNG, Order Granting Long-Term Authorization to Export Liquefied Natural Gas to Free Trade Agreement Nations (Apr. 14, 2020), amended by DOE/FE Order No. 4520-A, et al. (Oct. 28, 2020) (extending export term), further amended by DOE/FE Order No. 4520-B, et al. (Feb. 26, 2021) (granting request for contract consolidation); and Sabine Pass Liquefaction, LLC, DOE/FE Order No. 4800 Docket No. 19-125-LNG, Order Granting Long-Term Authorization to Export Liquefied Natural Gas to Free Trade Agreement Nations (March 16, 2022).

¹⁴ In Appendix A, Sabine Pass has reproduced, for ease of reference, the same list of its prior export authorizations set forth by DOE/FECM in Appendix A of its Order No. 4800 (cited in the prior footnote), while adding full citations.

exports or gas supply required to be filed with DOE pursuant to the authorizations, as long as the volume and term of the contract are consistent with the authorization.¹⁵

V. DESCRIPTION OF THE STAGE 5 PROJECT

The Federal Energy Regulatory Commission ("FERC") approved on May 30, 2023, the request of Sabine Pass to initiate its National Environmental Policy Act ("NEPA") "pre-filing" process for the Stage 5 Project. A related natural gas pipeline project proposed by Sabine Pass' affiliate, Sabine Crossing, LLC ("Sabine Crossing"), was later added to the FERC pre-filing process. Sabine Pass and Sabine Crossing subsequently engaged in and have now completed the pre-filing process in FERC Docket No. PF23-2. During that process, Sabine Pass participated in meetings with local, state, and federal agencies and interested parties to seek greater stakeholder involvement, identify interests, and resolve concerns early in the review of the Stage 5 Project, including through public scoping meetings and public comments filed with FERC. Contemporaneously with the filing of this Application, Sabine Pass also is submitting its formal application with FERC for its authorization under NGA Section 3 of the siting, construction and operation of the Stage 5 Project, in a joint submission with Sabine Crossing requesting FERC approval of the related gas pipeline facilities (the "FERC Application"). The FERC Staff will lead in the preparation of an Environmental Impact Statement for the Stage 5 Project pursuant to NEPA, and DOE/FECM presumably will participate in that NEPA process as a cooperating agency, just as it did in FERC's pre-filing process.

The Stage 5 Project will be constructed adjacent to the existing SPLNG Terminal on land controlled under long-term lease by Sabine Pass. As detailed in the FERC Application, the Stage

¹⁵ DOE/FE Order No. 4520-B, *et al.*, in multiple dockets (Feb. 26, 2021) (granting request for contract consolidation).

5 Project includes the addition of two natural gas liquefaction trains, one BOG re-liquefaction unit; and two full-containment, above-ground 220,000 cubic meter ("m3") LNG storage tanks and supporting infrastructure. The proposed Stage 5 Project facilities will be interconnected and operated on an integrated basis with the existing SPLNG Terminal which is the largest LNG terminal in the United States ("U.S.") with six liquefaction trains already in service. The proposed additional new liquefaction trains (Trains 7 and 8), together with the new BOG re-liquefaction unit, will increase the total LNG production capacity of the SPLNG Terminal, at peak operations under optimal conditions, by 899.46 Bcf/y. Sabine Pass also proposes to increase the authorized maximum loading rate of LNG carriers ("LNGCs") at the existing SPLNG Terminal marine berths and to have simultaneous loading capabilities for the three existing jetties, facilitating an increase in the maximum marine vessels traffic from the currently authorized 580 LNGCs per year up to 740 LNGCs per year.¹⁶ The Project also includes accommodations for potential future carbon capture from Acid Gas Removal Units included in the pre-treatment facilities. All of the proposed Stage 5 Project facilities are described in more detail in Sabine Pass' FERC Application requesting FERC authorization to site, construct, and operate the facilities.¹⁷

Sabine Crossing proposes in the FERC Application a new, 48-inch diameter natural gas pipeline extending from the SPLNG Terminal, under the SNWW, and into Texas, that can transport up to approximately 2.7 Bcf per day ("Bcf/d") of natural gas to the SPLNG Terminal, supplementing the existing pipelines that currently supply the SPLNG Terminal. Sabine Pass has

¹⁶ On July 21, 2023, Sabine Pass submitted a follow-on Waterway Suitability Assessment ("WSA") to the U.S. Coast Guard ("USCG") with a request for a Letter of Recommendation to confirm that the existing waterway can adequately accommodate the proposed additional 160 LNGC calls per year. The WSA is currently under review.

¹⁷ The Secretary of DOE has delegated to FERC the authority to approve or disapprove the construction and operation of natural gas import and export facilities and the site at which such facilities shall be located. The most recent such delegation is DOE Delegation Order No, 00-044.00A, effective May 16, 2006.

entered into a binding precedent agreement with Sabine Crossing for essentially all of the firm transportation capacity of the new pipeline. The Sabine Crossing Pipeline will originate at a location in Texas where it is expected to become interconnected with upstream pipelines. Sabine Pass anticipates that significant volumes of natural gas will become available at such interconnected receipt points by the time that feed gas is needed for the Stage 5 Project, given the abundant available supplies and the gas demand of Sabine Pass and other projects in the area. With its transportation capacity on the Sabine Crossing Pipeline extending into Texas, Sabine Pass is well-placed to obtain gas supplies that will be brought to that area. The other LNG terminals under construction in the area, along with the Stage 5 Project that will follow them, create a demand pull for new supplies to the area. And a complementary supply push comes from the large and growing natural gas production in the region, prominently from the Permian, Eagle Ford, and Haynesville production regions.

The particular natural gas supplies that will be exported pursuant to the requested authorization cannot be known at this time and undoubtedly will change over time. The Stage 5 Project by design is not dependent upon any particular natural gas supply. Sabine Pass currently has the ability to access natural gas from every supply source in the continental U.S. as well as Canada and works with dozens of natural gas producers and infrastructure companies to purchase natural gas supply and reliably transport the supply to the terminal through the integrated pipeline grid. In the same way, feed gas supplies for the Stage 5 Project could be produced from any of a wide variety of production areas. The feed gas will be sourced in requisite volumes in the spot market or purchased under long-term arrangements. Sabine Pass also will file all long-term natural gas supply agreements, once executed, with the DOE/FECM in accordance with established policy and precedent.

As DOE/FECM recognized when ruling that any of Sabine Pass' export authorizations may be utilized in conjunction with any of its long-term contracts, Sabine Pass' LNG export contracts generally do not require that the LNG be produced by specific infrastructure and there is no physical separation of the LNG produced by contract.¹⁸ Sabine Pass' marketing affiliates have so far entered into long-term LNG sale and purchase agreements ("SPA") with five offtake customers to purchase LNG associated with the increased volumes provided by the Stage 5 Project, however these volumes are not required to be produced specifically from the Stage 5 project facilities as the SPLNG Terminal operates on an integrated basis.¹⁹ Sabine Pass has already filed the SPAs with DOE.²⁰ The off-take contracts reflect significant commercial momentum for the project and the market's need for additional LNG supply and desire to contract for LNG produced by the proven, reliable supplier Sabine Pass. Sabine Pass will file all long-term, binding contracts associated with the export of LNG from its facility once executed, in accordance with established DOE/FE policy

¹⁸ DOE/FE Order No. 4520-B, *et al.*, issued in multiple dockets, at p. 2 (Feb. 26, 2021)

¹⁹ See Cheniere Energy, Inc., Press Release, Cheniere and Foran Energy Group Sign Long-Term LNG Sale and Purchase Agreement (Nov. 2, 2023) (announcing 20-year SPA with Foran Energy Group Co. Ltd. for approximately 0.9 MTPA), available at https://lngir.cheniere.com/news-events/press-releases/detail/288/cheniereand-foran-energy-group-sign-long-term-lng-sale-and; Cheniere Energy, Inc., Press Release, Cheniere and BASF Sign Long-Term LNG Sale and Purchase Agreement (Aug. 22, 2023) (announcing long-term SPA with BASF for up to approximately 0.8 MTPA), available at https://lngir.cheniere.com/news-events/press-releases/detail/284/Cheniereand-basf-sign-long-term-lng-sale-and-purchase; Cheniere Energy, Inc., Press Release, Cheniere and ENN Sign Long-Term LNG Sale and Purchase Agreement (June 26, 2023) (announcing 20-plus year SPA with ENN Natural Gas Co., Ltd. for approximately 1.8 MTPA), available at https://lngir.cheniere.com/news-events/pressreleases/detail/279/cheniere-and-enn-sign-long-term-lng-sale-and-purchase; Cheniere Energy, Inc., Press Release, Cheniere and Equinor Sign Long-Term LNG Sale and Purchase Agreement (June 21, 2023) (announcing 15-plus year SPA with Equinor ASA for approximately 1.75 MTPA), available at https://lngir.cheniere.com/news-events/pressreleases/detail/278/cheniere-and-equinor-sign-long-term-lng-sale-and-purchase; Cheniere Energy, Inc., Cheniere and KOSPSO Sign Long-Term LNG Sale and Purchase Agreement (May 16, 2023) (announcing long-term SPA with Korea Sothern Power Co. Ltd for approximately 0.4 MTPA), available at https://lngir.cheniere.com/newsevents/press-releases/detail/277/cheniere-and-kospo-sign-long-term-lng-sale-and-purchase.

²⁰ See Sabine Pass' contract filings in its existing Docket Nos. 10-85-LNG, 10-111-LNG, 13-30-LNG, 13-42-LNG, 13-121-LNG, 14-92-LNG, 15-63-LNG & 19-125-LNG on: July 17, 2022 (Equinor ASA); July 17, 2023 (ENN LNG (Singapore) Pte. Ltd.); Aug. 31, 2023 (BASF SE); and Nov. 29, 2023 (Foran Energy Group Co. Ltd.).

and precedent, and requests that DOE/FECM confirm that its contract consolidation ruling previously issued for Sabine Pass applies equally to the new export authorizations once issued.

In its FERC Application, Sabine Pass requests that FERC authorize the Stage 5 Project as proposed by October 2025. The Stage 5 Project may be constructed in either a single or multiple stages and has a projected six-year construction period. While Sabine Pass anticipates LNG exports from the Stage 5 Project could commence as early as 2030; however, depending on the timing required to obtain the regulatory approvals as well as the construction timeline, the actual start of commercial exports is dependent on factors outside of Sabine Pass' control and may not commence until the early years of the 2030s.

VI. AUTHORIZATIONS REQUESTED

Sabine Pass requests long-term, multi-contract authorization to export domestically produced LNG in an additional quantity of 899.46 Bcf/y of LNG commencing on the earlier of the date of first export or seven years from the date the requested authorization is granted by DOE/FECM. ²¹ Consistent with the Including Short-Term Policy Statement, ²² Sabine Pass requests that its authorizations also provide for the export of some portion of the same approved volume (including commissioning volumes) pursuant to transactions with terms of less than two years on a non-additive basis.

Sabine Pass requests the additional export authorization for a term of twenty-five (25) years after the commencement of commercial exports under the requested FTA authorization. For the additional non-FTA authorization, Sabine Pass requests a term extending through the later of (i)

²¹ In its orders authorizing non-FTA exports, DOE/FE has consistently imposed the condition that the applicant must commence commercial LNG export operations no later than seven years after the issuance of the order. *See* DOE/FECM, Policy Statement on Export Commencement Deadlines in Authorizations to Export Natural Gas to Non-Free Trade Agreement Countries, 88 Fed. Reg. 25272 (April 26, 2023) ("Commencement Deadline Policy").

²² See note 3 supra.

the end of 2050 or (ii) twenty (20) years after the commencement of commercial exports under the requested authorization. Beginning with its first export authorization for Sabine Pass, DOE authorized long-term non-FTA LNG exports for a period of twenty (20) years (while allowing longer terms for FTA authorizations).²³ As it standardized that 20-year non-FTA term for other LNG export projects, DOE explained that "LNG export facilities are capital intensive and that, to obtain financing for such projects, there must be a reasonable expectation that the authorization will continue for a term sufficient to support repayment."²⁴ In its 2020 Term Extension Policy Statement, DOE authorized longer export terms for non-FTA exports extending through the end of 2050 as its new standard, based at least in part on the comments filed by Cheniere.²⁵ DOE explained the basis for adopting a longer export term in part as follows:

a 30-year export term would better match the operational life of LNG export facilities, which are typically designed for a service life of 30 to 50 years. A 30-year export term thus would provide authorization holders with greater security in financing their export facility and would maximize their ability to enter into natural gas supply and export contracts for a longer period of time... and a 30-year export term would benefit U.S. authorization holders as they compete for long-term export contracts in the global market."²⁶

²³ See 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 2, 20 n.26, 42 (May 20, 2011) (Ordering Para. B). DOE later granted Sabine Pass's final order with a 20-year term (see DOE/FE Order No. 2961–A, issued on August 7, 2012).

²⁴ See 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, at 89 (Nov. 14, 2014).

²⁵ See Cheniere Energy, Inc., Comments on the 2018 LNG Export Study (July 27, 2018), discussed in DOE/FE, Notice of Proposed Policy Statement and Request for Comments, 85 Fed. Reg. 7674 at 7679 *et seq.* (Feb. 11, 2020).

²⁶ Term Extension Policy Statement, 85 Fed. Reg. 52237 at 52240 (Aug. 25, 2020).

DOE also concluded that the longer term "will provide important commercial benefits to existing and future authorization holders in the lower-48 states, while enhancing long-term regulatory certainty for both authorization holders and foreign buyers of U.S. LNG."²⁷

As explained above, exports from the Stage 5 Project may not commence until the early years of the 2030s. Therefore, the generally applicable term through December 31, 2050, has the potential to result here in a term of *less than* 20-years for its non-FTA authorization, which would be completely contrary to DOE's reasoning not only in the Term Extension Policy Statement but also in its prior adoption of 20-year terms. A term of less than 20-years would put Sabine Pass at a commercial disadvantage, particularly in competition with LNG producers elsewhere in the world, would be inconsistent with the economic life of the new Stage 5 Project facilities, and could present financing challenges. Therefore, a term of at least 20-years is appropriate for the incremental non-FTA export authorization requested here.²⁸

Sabine Pass requests the issuance of separate orders authorizing the requested LNG exports (1) to any country which has, or in the future develops, the capacity to import LNG via oceangoing carriers and with which the U.S. has, or in the future enters into, an FTA requiring the national treatment for trade in natural gas or is otherwise deemed by the U.S. as being treated as an FTA nation, and (2) to any country with the capacity to import LNG via ocean-going carriers and with which the U.S. does not have such an FTA but with which trade is not prohibited by U.S. law or policy. This approach of two separate orders for exports to FTA nations and non-FTA nations follows established DOE/FECM policy and procedures.

²⁷ *Id.* at 52241.

²⁸ Sabine Pass recognizes that the Term Extension Policy Statement was also based in part of studies recognizing the macro-economic benefits of LNG exports encompassed the time period through 2050. *Id.* at 52241. New studies by DOE may extend beyond that date. In any event, there is no reason to believe that public interest considerations relevant to LNG exports will suddenly change materially in the years just past 2050. Furthermore, the factors cited in the text above outweigh any potential concern with the end-date of previous studies.

Sabine Pass respectfully requests that DOE/FECM issue the requested FTA authorization as soon as practicable, consistent with the statutory requirement of issuance without delay. Sabine Pass recognizes that, pursuant to DOE/FECM's procedures and precedent, the agency presumably will not act on the non-FTA component of this Application until the NEPA review process for the Stage 5 Project is completed as part of the FERC approval process and FERC issues its authorization. As previously noted, Sabine Pass has completed the FERC pre-filing process for the Stage 5 Project and is filing its formal FERC Application contemporaneously with this Application, requesting FERC authorization of the siting, construction, and operation of the Stage 5 Project by October 2025.

Consistent with its existing authorizations, Sabine Pass requests authorization to export LNG both on its own behalf and as agent for other entities with which it may contract that may hold title to the LNG at the time of export from the SPLNG Terminal. Sabine Pass will comply fully with all applicable DOE/FECM requirements for both exporters and their agents, including the requirements detailed in orders such as *Freeport LNG Development*, *L.P.* and *Gulf Coast LNG Export LLC*. ²⁹ If it acts as an agent for others holding title to LNG at the time of export, Sabine Pass will register with DOE each LNG title holder for which Sabine Pass seeks to export LNG as agent. Furthermore, in the event it acts as agent for others, Sabine Pass will provide the DOE/FE a written statement by the title holder that acknowledges and agrees to (1) comply with all requirements in Sabine Pass' long-term export authorizations, and (2) include those requirements in any subsequent purchase or sale agreement entered into by the title holder.

²⁹ *Freeport LNG Expansion, L.P. and FLNG Liquefaction, LLC*, FE Order No. 2913 (Feb. 10, 2011) (establishing the criteria for exports for agents subsequently adopted in a number of orders); *Gulf Coast LNG Export LLC*, DOE/FE Order No. 3163 at 7-8 (Oct. 16, 2012) (reiterating agency policy).

A. EXPORT TO FREE-TRADE NATIONS

Sabine Pass first requests authority to export additional quantities of LNG up to the equivalent of 899.46 Bcf/yr to FTA nations, including any additional nation which DOE publicly identifies in the future as having entered into an FTA providing for national treatment for trade in natural gas, or otherwise being is treated as, or equivalent to, an FTA nation by the U.S., provided that the destination nation has the capacity to import LNG. Section 3(c) of the NGA, as amended by Section 201 of the Energy Policy Act of 1992 (Pub. L. 102-486), requires that applications to authorize exports of natural gas, including LNG, to a nation with which there is in effect a free trade agreement requiring national treatment for trade of natural gas be "deemed to be consistent with the public interest" and "granted without modification or delay." ³⁰ In addition, DOE/FECM has held that the otherwise applicable regulatory requirements for public notice and other procedures set forth in 10 C.F.R. Part 590 do not apply to exports to FTA nations. ³¹

Under this statutory structure, the portion of this Application that proposes to export LNG to FTA nations must be granted without modification or delay, including for the requested 25-year term. The DOE has consistently followed this approach in granting long-term authorizations (excluding those subsequently vacated) to allow exports of natural gas to FTA nations.³² Consistent with the established practice of DOE/FECM, Sabine Pass asks that the requested FTA

 $^{^{30}}$ 15 U.S.C. § 717b(c) (2018) ("For purposes of [15 U.S.C. § 717b(a)] of this section, the importation of the natural gas referred to in [15 U.S.C. § 717b(b)] of this section, or the exportation of natural gas to a nation with which there is in effect a free trade agreement requiring national treatment for trade in natural gas, shall be deemed to be consistent with the public interest, and applications for such importation or exportation shall be granted without modification or delay.").

³¹ *E.g., Sabine Pass Liquefaction, LLC,* DOE/FE Order No. 4520 at p. 7, note 31 (Apr. 14, 2020); *Corpus Christi Liquefaction, LLC; CCL Midscale 8-9, LLC; and Cheniere Marketing, LLC,* DOE/FE Order No. 5019, Docket No. 23-46-LNG, Order Granting Long-Term Authorization to Export Liquefied Natural Gas to Free Trade Agreement Nations, at p. 7, note 31 (July 19, 2023).

³² A list of orders authorizing long-term exports to FTA (and non-FTA) nations, as well as docket numbers and the links to the orders, is available on the DOE/FE website at: <u>https://www.energy.gov/fe/downloads/summary-Ing-export-applications-lower-48-states</u>.

authorization be granted initially and separately, without waiting on the further inquiry required to address the requested authorization for LNG export to non-FTA nations. Given the mandatory standard of NGA Section 3(a), DOE/FECM is not required to engage in any analysis of factors affecting the public interest in acting on the FTA aspect of this Application and has as not done so when approving applications to export LNG to FTA nations in the past. Nevertheless, further support for the requested FTA authorization is provided by the below presentation concerning the non-FTA authorization to the extent it is deemed relevant.

B. EXPORT TO NON-FREE-TRADE NATIONS

Sabine Pass also requests authority to export LNG of up to the equivalent of 899.46 Bcf/yr to nations with which the U.S. does not have an FTA requiring national treatment for trade in natural gas but with which trade is not prohibited by U.S. law or policy. The non-FTA portion of the Application must be reviewed pursuant to the statutory standard established in Section 3(a) of the NGA. The statute provides that:

[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] authorizing it to do so. The [Secretary] *shall issue* such order upon application, *unless*, after opportunity for hearing, [the Secretary] finds that the proposed exportation or importation will not be consistent with the public interest. ³³

This statutory language creates a presumption that the proposed export of natural gas is in the public interest. Accordingly, DOE has consistently held that it must grant export applications unless opponents of an application overcome this presumption by making an affirmative

³³ 15 U.S.C. § 717b(a) (2006) (emphasis added). The Secretary's authority was established by the DOE Organization Act of 1977, which transferred jurisdiction over gas import and export authorizations from the Federal Power Commission to DOE.

demonstration that the proposed export is inconsistent with the public interest. ³⁴ This interpretation has been affirmed by the U.S. Court of Appeals for the D.C. Circuit. ³⁵

The Policy Guidelines developed by DOE in 1984 to implement NGA Section 3 (which are applicable to exports as well as imports ³⁶) promote the free and open trade of natural gas. ³⁷ The Policy Guidelines were "designed to establish natural gas trade on a market-competitive basis and to provide immediate as well as long-term benefits to the American economy from this trade." ³⁸ Moreover, the Guidelines provide that:

The market, not government, should determine the price and other contract terms of imported [or exported] gas. U.S. buyers [sellers] should have full freedom – along with the responsibility – for negotiating the terms of trade arrangements with foreign sellers [buyers]....

* * *

The policy cornerstone of the public interest standard [of NGA Section 3] is competition. Competitive import [export] arrangements are an essential element of the public interest, and natural gas imported [exported] under arrangements that provide for the sale of gas in volumes and at prices responsive to market demands largely meets the public interest test....³⁹

³⁴ *E.g.*, *Philips Alaska Natural Gas Corp. and Marathon Oil Co.*, DOE/FE Order No. 1473 at 13 (Apr. 2, 1999); *Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 2961 at 28 (May 20, 2011); *Dominion Cove Point LNG, LP*, DOE/FE Order No. 3331-B at 11 (Apr. 18, 2016); *Sabine Pass Liquefaction, LLC*, Order No. 4800 at 27 (March 16, 2022); *Sierra Club, et al.*, Order Denying Petition for Rulemaking on Exports of Liquefied Natural Gas, at 10 (July 18, 2023).

³⁵ *E.g., Sierra Club v. U.S. Dep't of Energy*, 867 F.3d 189 at 203 (D.C. Cir. 2017).

³⁶ E.g., Philips Alaska, DOE/FE Order No. 1473 at 14; Yukon Pacific Corp., DOE/FE Order No. 350, 1 FE ¶ 70,259 at 71,128 (1989); Dominion Cove Point LNG, LP, DOE/FE Order No. 3331 at 8 (Sept. 11, 2013); Sabine Pass Liquefaction, LLC, Order No. 4800 at 26 (March 16, 2022); Sierra Club, et al., Order Denying Petition for Rulemaking on Exports of Liquefied Natural Gas, at 11 (July 18, 2023).

³⁷ *Policy Guidelines and Delegation Orders Relating to the Regulation of Imported Natural Gas*, 49 Fed. Reg. 6,684 (Feb. 22, 1984).

³⁸ *Id.* at 6,684.

³⁹ *Id.* at 6685 and 6687. The parenthetical references to exports are added in the above quotation to reflect the applicability of the Policy Guidelines to exports. *See* note 33, *supra*.

In authorizing long-term non-FTA exports, DOE has repeatedly and consistently explained that it "continues to subscribe to the principle set forth in our 1984 Policy Guidelines that, under most circumstances, the market is the most efficient means of allocating natural gas supplies."⁴⁰ And as DOE has repeatedly explained: "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."⁴¹ DOE has promoted the competitive, free-trade policies embodied in the Policy Guidelines by consistently authorizing LNG exports to non-FTA nations in an unbroken line of over 40 decisions (excluding those since vacated) over more than a dozen years, for aggregate, currently authorized exports to non-FTA nations of nearly 48 Bcf/day, were all the authorized projects actually placed in service. ⁴² Of course, as DOE/FE has recognized "it is far from certain that all or even most of the proposed LNG export projects will ever be realized because of the time, complexity, and expense of commercializing, financing, and constructing LNG export terminals, as well as the uncertainties inherent in the global market demand for LNG."43 Furthermore, DOE's Commencement Deadline Policy Statement issued in April 2023 is intended to reduce the "authorization overhang" over time so that the total volume of authorized exports will become more aligned with a realistic operational outlook. ⁴⁴ DOE's policy properly allows

⁴⁰ *E.g.*, *Phillips Alaska Natural Gas Corp., et al.*, DOE/FE Order No. 1473, at 14 (Apr. 2, 1999), at 14; *Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 2961 at 28 (May 20, 2011); *Dominion Cove Point LNG, LP*, Order No. 3331 at 141 (Sept. 11, 2013); *Cameron LNG, LLC*, DOE/FE Order No. 3391 at 132 (Feb. 11, 2014); *Cheniere Marketing, LLC*, Order No. 3638 at 205 (May 12, 2015); *Sabine Pass Liquefaction, LLC*, Order No. 3669 at 210 (June 26, 2015); *Sabine Pass Liquefaction, LLC*, Order No. 4800 at 27 (March 16, 2022).

⁴¹ *E.g., Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 2961 at 29 (May 20, 2011); *Sabine Pass Liquefaction, LLC*, Order No. 4800 at 27 (March 16, 2022).

⁴² Sierra Club, et al., Order Denying Petition for Rulemaking on Exports of Liquefied Natural Gas, at 15 (July 18, 2023). A list of all the non-FTA approvals with docket numbers, volumes, and links to the relevant DOE/FE orders is available at: https://www.energy.gov/fe/downloads/summary-lng-export-applications-lower-48-states.

⁴³ Term Extension Policy Statement, 85 Fed. Reg. at 52243

⁴⁴ Commencement Deadline Policy, 88 Fed. Reg. 25272 at 25278 (April 26, 2023).

competitive market forces to determine which of the authorized projects succeed. The successful commercialization, finance, and construction of these very large infrastructure projects requires supporting long-term contractual commitments from creditworthy offtakers, and those contractual commitments in turn demonstrate the market demand for that project. Sabine Pass has demonstrated its ability to secure that needed support with its prior projects and has already obtained significant contractual support for the Phase 5 Project as explained in Section V above.

While NGA section 3(a) establishes a broad public interest standard and a presumption favoring export authorizations, the statute does not define "public interest" or identify the criteria that must be considered. In its orders authorizing long-term LNG exports to non-FTA nations, DOE has been guided by DOE Delegation Order No. 0204-111, which directed that regulation of gas exports be "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." ⁴⁵ More specifically, DOE/FE has explained that its review of export applications focuses on: (i) the domestic need for the natural gas proposed to be exported, (ii) whether the arrangement is consistent with DOE/FE's policy of promoting market competition, and (iv) any other factors bearing on the public interest. ⁴⁶

Granting Sabine Pass its requested authorization to export LNG will be consistent with, and indeed advance, the public interest, for all the reasons that DOE has recognized in its many orders authorizing LNG exports, notably including those related to Sabine Pass referenced in

⁴⁵ DOE Delegation Order No. 0204-111 (Feb. 22, 1984) at 1 (¶ b); see also Policy Guidelines and Delegation Orders Relating to the Regulation of Imported Natural Gas, 49 Fed. Reg. at 6690.

⁴⁶ *E.g., Sabine Pass Liquefaction, LLC*, Order No. 4800 at 28 (March 16, 2022); *Sierra Club, et al.*, Order Denying Petition for Rulemaking on Exports of Liquefied Natural Gas, at 12 (July 18, 2023).

Appendix A. The general benefits of LNG exports are well known to DOE/FE and have been explained by it in many orders as well as a series of studies. In 2012, 2015, and again in 2018, DOE released studies assessing the macroeconomic impacts of LNG exports to inform its decisions on applications seeking authorization to export LNG to non-FTA nations. The conclusions of those studies have been uniformly supportive of the public interest in LNG exports, as explained below.

Faced with multiple LNG export proposals, DOE initially undertook an in-depth two-part study of the cumulative economic impact of LNG exports in 2012. ⁴⁷ The first part of the study, conducted by the Energy Information Agency ("EIA"), evaluated the potential impact of additional LNG exports on domestic energy consumption, production and prices under several export scenarios, and was published in January 2012. The second part of the study, performed by NERA Economic Consulting ("NERA"), evaluated the potential macroeconomic impact of LNG exports using its energy-economy model, and was made available in December 2012. The two 2012 studies, as well as the results of the extensive notice and comment process undertaken by DOE/FE seeking public comments on them, are summarized in detail in many DOE/FE orders authorizing LNG exports to non-FTA nations, ⁴⁸ and more briefly in more recent orders. As DOE/FE has summarized, two of the key findings of the 2012 NERA study were the following:

Across all the scenarios studied, 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. Scenarios with unlimited exports had higher net economic benefits than

⁴⁷ The 2012 studies are available at: <u>https://www.energy.gov/fe/services/natural-gas-regulation/lng-export-</u> study.

⁴⁸ *E.g., Freeport LNG,* Order No. 3282 at 30-109; *Lake Charles Exports,* Order No. 3324 at 42-121; *Dominion Cove Point LNG,* Order No. 3331 at 56-134; *Freeport LNG,* Order No. 3357 at 31-50 and 91-143; *Cameron LNG,* Order No. 3391 at 23-42 and 71-125; *Jordan Cove,* Order No. 3413 at 26-51 and 82-136; *Oregon LNG,* Order No. 3465 at 29-54 and 78-132; *Cheniere Marketing,* Order No. 3638 at 68-146; *Sabine Pass Liquefaction,* Order No. 3669 at 25-51 and 94-148.

corresponding cases with limited exports. In all cases, the benefits that come from export expansion outweigh the losses from reduced capital and wage income to U.S. consumers, and hence LNG exports have net economic benefits in spite of higher domestic natural gas prices.

U.S. natural gas prices would increase if the United States exports LNG. However, the global market limits how high U.S. natural gas prices can rise under pressure of LNG exports because importers will not purchase U.S. exports if U.S. wellhead price rises above the cost of competing supplies. Natural gas price changes attributable to LNG exports remain in a relatively narrow range across the entire range of scenarios.⁴⁹

By May 2014, as the volumes of proposed LNG exports continued to grow, DOE/FE commissioned two new economic studies to understand better how higher levels of LNG exports, at levels between 12 and 20 Bcf/d of natural gas, would affect the public interest. The first study was an update by EIA of its 2012 study that again focused on how LNG exports would affect domestic energy markets and was published in October 2014.⁵⁰ The second study – which was jointly performed by the Center of Energy Studies at Rice University's Baker Institute and Oxford Economics and published in October 2015 – considered the macroeconomic impact of various levels of U.S. LNG exports ranging from 12 Bcf to 28 Bcf/d. ⁵¹ The results of the 2014 and 2015 studies – which were entirely consistent with the conclusions of the 2012 studies -- were

⁴⁹ See, e.g., Freeport LNG, Order No. 3282 at 40-41; Lake Charles Exports, Order No. 3324 at 52-53; Dominion Cove Point LNG, Order No. 3331 at 66-67; Freeport LNG, Order No. 3357 at 41-42; Cameron LNG, Order No. 3391 at 33-34; Jordan Cove, Order No. 3413 at 37-38; Oregon LNG, Order No. 3465 at 39-40; Cheniere Marketing, Order No. 3638 at 78-79; Sabine Pass Liquefaction, Order No. 3669 at 36-37. These findings are also set forth in the Executive Summary of NERA Study itself. See Macroeconomic Impacts of LNG Export from the United States, NERA Economic Consulting, at 1-2.

⁵⁰ EIA, *Effect of Increased Levels of Liquefied Natural Gas Exports on U.S. Energy Markets* (Oct. 2014)(the "2014 EIA LNG Study), available at: <u>https://fossil.energy.gov/app/docketindex/docket/index/11.</u>

⁵¹ "*The Macroeconomic Impact of Increasing U.S. LNG* Exports," (Oct. 29, 2015)(the "2015 LNG Study"), also available at: <u>https://fossil.energy.gov/app/docketindex/docket/index/11</u>. Although actual LNG exports have been consistently growing in recent years, they have still not yet exceeded even the 12 Bcf per day limit contemplated in the original 2012 studies. LNG exports have reached record highs in 2021 and averaged 9.6 Bcf per day over the first six months of the year, and the peak capacity currently in operation is 10.8 Bcf per day. *See* EIA, Today in Energy, "U.S. liquefied natural gas exports grew to record highs in the first half of 2021" (July 27, 2021), available at: <u>https://www.eia.gov/todayinenergy/detail.php?id=48876</u>.

summarized in detail in certain DOE orders and held to be supportive of LNG exports. ⁵² The 2014 EIA study generally showed relatively small increases in natural gas prices and increased production satisfying most of the increased demand and concluded that increased LNG exports will result in higher economic output. ⁵³ The 2015 external study of the impact of LNG exports in the range of up to 28 Bcf/d concluded that higher LNG exports will have positive macroeconomic impacts, regardless of the assumptions about the U.S. natural gas markets. ⁵⁴ That study estimated that increasing LNG exports from 12 Bcf/d to 20 Bcf/d would result in a positive impact on gross domestic product of \$7-20 billion annually over the years 2026-2040 (in 2015 prices). ⁵⁵

In 2017, with growing volumes of authorized LNG exports, DOE/FE and its contractor KeyLogic Systems commissioned the 2018 Export Study by NERA, which was released by DOE on June 7, 2018. ⁵⁶ Public comments were filed, and DOE responded to the comments and summarized the conclusions of the study in the Federal Register on December 28, 2018. ⁵⁷ Like DOE/FE's prior economic studies, the 2018 Study examines the impacts of varying levels of LNG exports on domestic energy markets; but it differed from earlier studies in the following key ways:

(i) Includes a larger number of scenarios (54 scenarios) to capture a wider range of uncertainty in four natural gas market conditions than examined in the previous studies;

(ii) Includes LNG exports in all 54 scenarios that are market-determined levels, including the three alternative baseline scenarios that are based on the projections in EIA's then current *Annual Energy Outlook 2017* ("AEO 2017");

⁵² *E.g., Golden Pass Products, LLC*, Order No. 3978 at 54-71 (Apr. 25, 2017); *Delfin LNG LLC*, Order No. 4028 at 51-69 (June 1, 2017).

⁵³ See 2014 EIA LNG Study at 12 (Summary of Results).

⁵⁴ See 2015 LNG Study at 8-16 (Executive Summary).

⁵⁵ *Id.* at 8.

⁵⁶ The 2018 study is available at: <u>https://fossil.energy.gov/app/docketindex/docket/index/10</u>.

⁵⁷ "Study on Macroeconomic Outcomes of LNG Exports: Response to Comments Received on Study," 83 Fed. Reg. 67,251 (Dec. 28, 2018).

(iii) Examines unconstrained LNG export volumes beyond the levels examined in the previous studies;

(iv) Examines the likelihood of those market-determined LNG export volumes; and

(v) Provides macroeconomic projections associated with several of the scenarios lying within the more likely range of exports.

In its subsequent non-FTA export authorizations, DOE/FECM has repeatedly explained the methodology and results of the 2018 Study and found them to be sound. ⁵⁸ The principal conclusions from the study, as summarized by DOE/FECM, were that it provides substantial support for non-FTA authorization for volumes up to 52.8 Bcf/d of natural gas and that the U.S. experiences net economic benefits from LNG exports.⁵⁹ In its 2020 final policy statement extending Non-FTA export authorizations through 2050, DOE/FECM explained that the 2018 LNG Export Study "considered unconstrained (or market-determined) levels of LNG exports and included analysis through the year 2050."⁶⁰ The corresponding level of exports in the year 2050 from the same scenario in the 2018 LNG Export Study is 69.1 Bcf/d of natural gas.⁶¹

Furthermore, in its recent orders, DOE/FECM has recognized the 2018 Study's findings remain consistent with more current assessments of current and future natural gas supply, demand, and prices.⁶² The assessments considered by DOE/FECM include EIA's 2022 Annual Energy

⁵⁸ *E.g., Venture Global Calcasieu Pass, LLC*, DOE/FE Order No. 4346 at 8-15 (March 5, 2019); *Sabine Pass Liquefaction, LLC*, Order No. 4800 at 12-19 (March 16, 2022); *Freeport LNG Expansion, L.P., et al.*, Order No. 4961 at 12-18 (March 3, 2023).

⁵⁹ *See* citations in the prior footnote.

⁶⁰ Term Extension Policy Statement, 85 Fed. Reg. 52237, 52240 (Aug. 25, 2020).

⁶¹ The referenced 52.8 Bcf/d level of LNG exports is the market-determined level in the year 2040 for the scenario with high U.S. natural gas supply, reference case U.S. natural gas demand, low rest of world natural gas supply, and high rest of world natural gas demand ("High_Ref_Low_High"). The market-determined level of LNG exports for the High_Ref_Low_High scenario in the year 2050 is 69.1 Bcf/d of natural gas. 2018 LNG Export Study, at App. E.

⁶² Sabine Pass Liquefaction, LLC, Order No. 4800 at 47-48; Freeport LNG Expansion, L.P., et al., Order No. 4961 at 55-58.

Outlook ("AEO 2022") as well as the EIA *Short-Term Energy Outlooks* issued in March 2022 and February 2023.⁶³ DOE/FECM concluded that the EIA's more recent projections reinforce the conclusions of the 2018 Study, continue to show that market conditions will accommodate increased exports of natural gas, and confirm DOE's long-standing conclusion that LNG exports are consistent with the public interest. ⁶⁴ As explained below, even more recent EIA projections support the same conclusions. And the new studies that DOE has recently announced in connection with its "pause" on new-FTA authorizations should be no different.

Given the extensive evidence of the benefits of LNG exports as demonstrated by the studies noted above and previously recognized by DOE itself in its numerous orders, Sabine Pass is not submitting any additional studies of its own. Sabine Pass will summarize, however, the factors showing the public interest in LNG exports:

1. Gas Supplies Are Ample for LNG Exports, As Well As Domestic Needs

The primary focus of the DOE/FE's public interest analysis is on the domestic need for the LNG proposed to be exported. This domestic need can be analyzed by comparing the domestic natural gas supply against natural gas demand.

Domestic natural gas resources are abundant, affordable, and less emissions-intensive than other traditional fuels and are sufficient to meet both the domestic consumption demand and any expected level of LNG exports (including the incremental volumes proposed by Sabine Pass here) in the long-term. Technological developments in the natural gas industry have led to significant increases in domestically produced natural gas, especially with regard to non-conventional production of natural gas from onshore shale formations.

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See Order No. 4800 at 47 (March 16, 2022); Freeport LNG Expansion, L.P., et al., Order No. 4961 at 56

⁶⁴ See citations in the prior footnote.

The tremendous growth in natural gas production in recent years is well-known. In 2005 – just before the shale gas renaissance – total U.S. dry natural gas marketed production was just slightly more than 18 trillion cubic feet ("Tcf"). In contrast, in 2022, domestic dry gas production exceeded 36.3 Tcf in 2022, a record high and more than twice the 2005 production level. ⁶⁵ Short term EIA projections indicate that U.S. dry natural gas production again will reach record levels in 2025.⁶⁶

The latest EIA long-term data and projections show U.S. natural gas production continuing to increase going forward, and for the excess of production over consumption to grow. The reference case in EIA's 2023 Annual Energy Outlook ("AEO 2023") projects that total U.S. dry gas production will increase to 42.07 Tcf in 2050, growing by an average amount of 0.5% per year from 2022-50. ⁶⁷ In contrast, EIA projects natural gas consumption to *decrease* by an average of 0.2% per year over that time period, resulting in 2050 projected consumption of 30.01 Tcf. ⁶⁸ The AEO2023 thus concluded that "continued growth in U.S. production … combined with relatively little growth in domestic consumption, allows the U.S. to remain a net exporter of … natural gas through 2050 in all AEO2023 cases."⁶⁹

The growing supply surplus supports the conclusion that LNG exports are consistent with the public interest. Importantly, the projections in AEO 2023 are even more supportive of LNG exports than the AEO 2017 data that was relied upon in DOE/FE's 2018 Study that recognized the

Id.

⁶⁵ See EIA Natural Gas Data, available at: <u>http://www.eia.gov/dnav/ng/hist/n9070us2A.htm</u>.

⁶⁶ U.S. Energy Info. Admin., *Short Term Energy Outlook – February 2024* (Feb. 6, 2024), available at: https://www.eia.gov/outlooks/steo/.

⁶⁷ EIA, AEO 2023, at Table 13 *Natural Gas Supply, Disposition, and Prices (Reference Case)*, available at: <u>https://www.eia.gov/outlooks/aeo/data/browser/#/?id=13-AEO2023&cases=ref2023&sourcekey=0</u>.

⁶⁸

⁶⁹ AEO 2023 at p. 6.

public interest benefits of LNG exports at unconstrained levels. For example, for the year 2050, the AEO 2017 reference case projected domestic production in 2050 of nearly the same as the AEO 2023 projection (at 40.28 Tcf), but it projected total consumption of 34.52 Tcf, about 4.5 Tcf more than the latest projections. ⁷⁰ DOE/FECM made this same sort of analysis, comparing the AEO 2017 to the then-current AEO 2022 data, in its recent orders authorizing non-FTA exports that reaffirmed the soundness of the 2018 Study;⁷¹ unsurprisingly, the next year's AEO supports the same conclusions.

At the same time that natural gas production has grown significantly, proven reserves have dramatically increased as well. EIA observed that total proved natural gas reserves grew to a record high of 625 Tcf for 2021, compared to only around 213.4 Tcf in 2005, of 322.7 Tcf in 2012 when DOE/FE first seriously studied the implications of LNG exports, and of 464.3 Tcf in 2017 (which would have been the latest data at the time of DOE's 2018 macroeconomic study of LNG exports). ⁷² Thus, over the time period that DOE has been considering LNG exports, the conclusion that the U.S. has ample gas for both all domestic natural gas use and LNG export demand has only strengthened.

Furthermore, as a result of the increasing production and abundant reserves, domestic natural gas prices have remained relatively low as natural gas exports have increased significantly since Sabine Pass began exporting in 2016 and other projects followed. Through 2020, as LNG

⁷⁰ See Table 13 for AEO 2017 is available at: <u>https://www.eia.gov/outlooks/aeo/data/browser/#/?id=13-AEO2017&cases=ref2017&sourcekey=0</u>.

⁷¹ See Sabine Pass Liquefaction, LLC, DOE/FE Order No. 4800 at 54-55 (Mar. 16, 2022); Cheniere Marketing LLC & Corpus Christie Liquefaction, LLC, DOE/FE Order No. 4799 at 53 (Mar. 16, 2022); Freeport LNG Expansion, L.P., et al., Order No. 4961 at 56-57 (March 3, 2023).

⁷²See EIA, U.S. Crude Oil and Natural Gas Proved Reserves, at Table 9, U.S. proved reserves of total natural
gas, wet after lease separation, 2001–20, available at:
https://www.eia.gov/naturalgas/crudeoilreserves/pdf/Table9.pdf.

exports ramped up, natural gas prices were historically low.⁷³ As the result of a concatenation of supply and demand factors influenced by the COVID pandemic and the economic recovery associated with the emergence from it, and then Russia's invasion of Ukraine, domestic natural gas prices increased some in 2021 and then more dramatically in 2022.⁷⁴ In 2023, however, natural gas prices returned to low levels, with the Henry Hub natural price averaging just \$2.57 per MMBtu,⁷⁵ notwithstanding record levels of LNG exports. Earlier this year, EIA forecasted that the Henry Hub price will remain below \$3.00 for 2024 and 2025 and observed that "upward price pressures will be limited by relatively flat consumption of natural gas in the electric power sector and persistently high inventories."⁷⁶.

Previously, EIA's reference case in AEO 2023 had projected Henry Hub prices to remain high in 2023 and to still be slightly over \$4 per MMBtu in 2024 but then to exceed that level (in constant 2022 nominal dollars) in only two individual years through 2050, with the highest projected prices over the period being \$4.02 and \$4.01 in 2041 and 2042 (before decreasing again).⁷⁷ EIA's most recent, shorter-term projections have significantly lowered price projections in the short-term, and now project Henry Hub prices of \$2.65 in 2024 and \$2.94 in 2025;⁷⁸ but that

⁷³ See EIA, Today in Energy, "Natural gas prices in 2019 were the lowest in the past three years" (Jan. 9, 2020), available at: https://www.eia.gov/todayinenergy/detail.php?id=42455; EIA, Today in Energy, "In 2020, U.S. natural prices gas were the lowest in decades," (Jan. 7, 2021), available at: https://www.eia.gov/todayinenergy/detail.php?id=46376.

⁷⁴ EIA reports annual Henry Hub spot prices over time at: <u>https://www.eia.gov/dnav/ng/hist/rngwhhdA.htm</u>. As shown there, the 2021 price was the highest since 2011, but was lower than every year in the decade of the 2000s (when the U.S. was a net importer of natural gas) except for 2003. Even the higher price in 2022 was lower than the annual price every year from 2005-2008.

⁷⁵ EIA, Today in Energy, "U.S. Henry Hub natural gas prices in 2023 were the lowest since mid-2020" (Jan. 4, 2024), available at: <u>https://www.eia.gov/todayinenergy/detail.php?id=61183#</u>.

⁷⁶ *Id.* U.S. Energy Info. Admin., *Short Term Energy Outlook – January 2024* (Jan. 9, 2024) at p. 3, available at: https://www.eia.gov/outlooks/steo/archives/Jan24.pdf.

⁷⁷ EIA, AEO 2023, at Table 13 *Natural Gas Supply, Disposition, and Prices (Reference Case)*, available at: https://www.eia.gov/outlooks/aeo/data/browser/#/?id=13-AEO2023&cases=ref2023&sourcekey=0.

⁷⁸ EIA, Short-Term Energy Outlook at 2 (Feb. 2024), available at: https://www.eia.gov/outlooks/steo/pdf/steo_full.pdf.

certainly is no reason to expect higher prices in the longer term, and likely just the opposite. Importantly, the price projections in AEO 2022 are (just like the production / consumption comparison) even more supportive of LNG exports than the AEO 2017 data that was relied upon in DOE/FE's 2018 macro-economic study of LNG exports. The 2017 AEO utilized in that Study projected Henry Hub prices in excess of \$4.00 (in 2016 dollars) every year from 2020 to 2050 and reaching \$5.83 in 2050 – compared to the 2023 AEO projection for 2050 of \$3.95 in 2022\$.⁷⁹ Thus, the latest available EIA pricing data is even more supportive of LNG exports than the data studied in 2018 and continues to demonstrate that arguments against LNG exports based on misplaced concern about insufficient supplies or domestic natural gas prices are baseless. While LNG exports are a meaningful component of the domestic natural gas market, domestic natural gas prices are clearly driven by numerous factors beyond LNG exports, demonstrated, for example, by historically low prices in February 2024.⁸⁰

This conclusion is further bolstered by EIA's *Issues in Focus: Effects of Liquefied Natural Gas Exports on the U.S. Natural Gas Market* released in conjunction with AEO 2023 in May 2023.⁸¹ The study designed three additional cases, beyond those in AEO 2023, and concluded that, while LNG exports have some impact on domestic prices "[t]he resulting variation in natural gas prices in these three cases, however, was narrower than recent in history and our AEO2023, despite a wide variety of U.S. LNG export volumes."⁸² In the scenario with LNG exports most impacting domestic natural gas prices (the "Fast Build Plus High LNG Price case"), the projected

⁷⁹ For the comparison of price projects, compare Table 13 in the AEO 2017 to the same table in AEO 2023 (both of which are cited in the preceding notes).

⁸⁰ <u>https://www.reuters.com/business/energy/tumbling-us-natural-gas-prices-prove-unstoppable-hurting-producers-</u> 2024-02-21/

⁸¹ This EIA Study ("Issues in Focus") is available at: https://www.eia.gov/outlooks/aeo/IIF LNG/pdf/LNG Issue in Focus.pdf.

⁸² *Id.* at 3.

Henry Hub price would not be "beyond recent history or the highest AEO2023 case."⁸³ More specifically, in that scenario Henry Hub prices are projected to reach \$4.80/MMBtu in 2050 and "[b]y contrast, the annual Henry Hub spot price averaged \$6.52/MMBtu in 2022, and our projected 2050 price in the AEO2023 Low Oil and Gas Supply case is nearly \$6.40/MMBtu."⁸⁴

In summary, just as DOE/FE has repeatedly and consistently found in its many long-term export authorizations, there are adequate natural gas resources in the U.S. to meet demand associated with LNG exports as well as all domestic needs. Accordingly, granting the export authorization requested by Sabine Pass to export LNG to non-FTA nations is unlikely to affect the availability of natural gas to domestic consumers or to have negative economic effects. To the contrary, the proposed LNG exports will provide net economic benefits to the U.S., regardless of the amount of LNG that is exported by others.

2. Sabine Pass Stage 5 Will Provide Macro-Economic Benefits

As explained above, DOE has commissioned a series of studies to evaluate the macroeconomic effect of LNG exports and all have included that LNG exports result in net economic benefits, as recognized in DOE/FE's many export authorization orders. DOE has consistently concluded in its orders that the conclusions of its 2018 macro-economic study (detailed above) remains sound; accordingly, Sabine Pass incorporates that study by reference into this Application. These conclusions about the benefits of LNG exports in general equally apply to Sabine Pass' Stage 5 Project. Therefore, the macroeconomic benefits associated with the Project further demonstrate that it is consistent with, and indeed will promote, the public interest. More

⁸³ *Id.* at 8.

⁸⁴ *Id.*

specifically, the Stage 5 Project will benefit the economy by creating jobs, increasing tax revenues, and reducing the nation's trade deficit.

Based on preliminary estimates, Sabine Pass anticipates spending between \$13 - \$15.5 billion to construct the SPLNG Terminal Expansion, with the majority expected to be spent in Louisiana, Texas, and across the U.S. Construction of the Stage 5 Terminal expansion is expected to take approximately six years to complete, with the total construction workforce expected to average 2,500 workers and an estimated peak of approximately 6,000 workers. Sabine Pass will prioritize local hiring, and local workers are expected to account for a significant percentage (anticipated to be approximately 30%) of the construction jobs over the duration of the Project. Approximately 182 full-time permanent workers will be employed for the Project.

The Project will have an estimated total construction payroll of \$4.9 billion over the sixyear construction period. These expenditures, along with spending on equipment and services in the region, will generate economic activity and support employment and income elsewhere in the economy through the multiplier effect, as initial changes in demand "ripple" through the local economy and generate indirect ("supply chain") and induced ("consumption-driven") impacts.

Indirect impacts are generated by expenditures on goods and services by new or existing businesses and organizations such as construction companies, parts and equipment suppliers, and other businesses that supply goods and services to the Project during construction and operation. Indirect effects are often referred to as "supply-chain" impacts because they involve interactions among businesses. Induced impacts are generated by the spending of households associated either directly or indirectly with the proposed Project. Workers employed during construction, for example, will use their income to rent housing, patronize local restaurants, and purchase groceries and other household goods and services. Workers at businesses that supply the Project during construction or operation will do the same. Induced effects are often referred to as "consumptiondriven" impacts.

Economic impacts from construction and other pre-operational activities associated with the Stage 5 Project will benefit the region and the U.S. as a whole. The Stage 5 Project's construction and pre-operational activities are anticipated to lead to an increase in job-years of employment in the region, as well as significant business activity resulting in billions of dollars in total expenditures and gross product. Once operational, the Stage 5 Project is estimated to lead to annual gains in U.S. business activity of over \$1.5 billion annually in gross product and annual federal and state income taxes of approximately \$4 million and \$1 million, respectively.

Estimated tax revenues associated with construction and operation of the Stage 5 Project will result in increased tax revenues for local taxing entities, the State of Louisiana, the State of Texas, and the Federal government. During construction, some portion of the estimated \$4.9 billion construction payroll will be spent locally by both local and non-local workers for the purchase of housing, food, gasoline, entertainment, and other consumable items. Some portions of construction materials also likely will be purchased locally. These direct payroll and materials expenditures will have a positive impact on local economies and will likely stimulate indirect construction demands. Sales tax will also be paid on goods and services purchased with payroll monies or for construction materials, resulting in a beneficial impact on the local economies.

Following construction, the Stage 5 Project, as part of the expanded SPLNG Terminal, will be subject to *ad valorem* (*i.e.*, property taxes), which are assessed and collected at the parish or municipal level. These taxes will have a positive impact for the municipalities in which the Stage 5 Project facilities are located. Finally, Sabine Pass estimates port-related expenses from additional LNG calling at the terminal generate above \$40 milling in annual fee collections. These collected port fees in turn would create additional indirect and induced economic benefits in the local economy.

In addition, LNG exports also will help realign the U.S. balance of trade. The U.S. has experienced large international balance of trade deficits for many years. The trade deficit decreased somewhat in 2023 compared to the record high set in 2022 but was still over \$950 billion. ⁸⁵ Energy trades, including LNG exports, play an important and growing role in reducing the trade deficit. ⁸⁶ For instance, when the trade deficit reached its peak of \$67 billion in the month of August 2022, LNG exports for the month were valued at \$4.95 billion, effectively reducing the deficit by about 7.5%.⁸⁷ Authorizing the export of additional LNG by Sabine Pass will help redress this trade imbalance further by allowing the U.S. to export more of its abundant and valuable natural gas.

3. LNG Exports Provide Geopolitical Benefits

In considering the international consequences of LNG exports in its prior orders, DOE has consistently recognized that "An efficient, transparent international market for natural gas with diverse sources of supply provides both economic and strategic benefits to the United States and

⁸⁷ See Energy Policy Research Foundation, Chart of the Week, "LNG Trade Lowers U.S. Trade Deficit" (Sept. 27, 2023), available at: <u>https://eprinc.org/wp-content/uploads/2023/09/Chart2023-37-USNaturalGasTradeLowersUSTradeDeficit-Version1.pdf</u>; American Petroleum Institute, "Natural Gas' Strategic Value Continues to Grow," (Oct. 5, 2023), available at: <u>https://www.api.org/news-policy-and-issues/blog/2023/10/05/natural-gas-strategic-value-continues-to-grow#:~:text=The%20Energy%20Policy%20Research%20Foundation,overall%20trade%20contribution%20is%20s ignificant.</u>

⁸⁵ U.S. Bureau of Economic Analysis ("BEA") Official Blog, "2023 Trade Gap is \$773.4 Billion" (Feb. 7, 2024), available at: <u>https://www.bea.gov/news/blog/2024-02-07/2023-trade-gap-7734-billion</u>.

⁸⁶ See EIA, Today in Energy, "U.S. energy trade lowers the overall 2020 U.S. trade deficit for the first time on record" (Sept. 22, 2021), available at: <u>https://www.eia.gov/todayinenergy/detail.php?id=49656;</u>

its allies." ⁸⁸ In its most recent export authorization for Sabine Pass, DOE/FECM reiterated its recognition of the energy security benefits of LNG exports for U.S. allies and trading partners (noted in many export authorization orders) while also highlighting the current situation. Thus, DOE/FE explained:

[A]n 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. For example, in light of the recent Russian invasion of Ukraine, there are renewed concerns about energy security for Europe and Central Asia, particularly given the relative share of Russian natural gas supplies into those regions. By authorizing additional exports to non-FTA countries, including to U.S. allies in Europe and elsewhere, this Order will enable Sabine Pass to help mitigate the acute and immediate energy security concern. More generally, to the extent U.S. exports diversify global LNG supplies and increase the volumes of LNG available globally, these exports will improve energy security for many U.S. allies and trading partners. Therefore, we find that authorizing Sabine Pass's requested exports advance the public interest for reasons that are distinct from and additional to the economic benefits identified in the 2018 LNG Export Study and DOE's prior macroeconomic studies.⁸⁹

The geopolitical importance of U.S. natural gas supplies unquestionably has been highlighted and dramatically reinforced by recent events associated with Russia's invasion of Ukraine. President Biden and European Union ("EU") President von der Leyen's joint statement, shortly before the invasion, reflected the importance of this issue,⁹⁰ as did the joint statement of

⁸⁸ *E.g.*, Term Extension Policy Statement, 85 Fed. Reg. at 52244; *Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 3792, FE Docket No. 15-63-LNG at 170 (March 11, 2016); *Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 3669, FE Docket No. 13-30-LNG, et al. at 196 (June 26, 2015).

⁸⁹ Sabine Pass Liquefaction, LLC, DOE/FE Order No. 4800 at 55-56 (Mar. 16, 2022) (internal footnotes omitted). See also Cheniere Marketing LLC & Corpus Christie Liquefaction, LLC, DOE/FE Order No. 4799 at 54 (Mar. 16, 2022) (same language with the name of the applicant substituted); Freeport LNG Expansion, L.P., et al., Order No. 4961 at 64-65 (March 3, 2023) (same language with the name of the applicant substituted).

⁹⁰ Joint Statement by President Biden and President von der Leyen on U.S.-EU Cooperation on Energy Security, Jan. 28, 2022, available at: <u>https://www.whitehouse.gov/briefing-room/statementsreleases/2022/01/28/joint-statement-by-president-biden-and-president-von-der-leyen-on-u-s-eu-cooperation-onenergy-security/.</u>

the U.S.-EU Energy Council chaired by, among others, Energy Secretary Granholm.⁹¹ After the invasion, the European Commission proposed a plan to reduce Europe's dependence on Russian gas as soon as possible, including importantly a dramatic increase in EU LNG imports.⁹² Then, on March 25, 2022, the European Commission and the U.S. issued a joint statement on European energy security announcing a major initiative to increase deliveries of U.S. LNG to Europe.⁹³ As part of that initiative, the European Commission stated that it will work toward ensuring stable demand for additional U.S. LNG until at least 2030 of approximately 50 billion cubic meters per year, while the U.S.:

commits to maintaining an enabling regulatory environment with procedures to review and expeditiously act upon applications to permit any additional export LNG capacities that would be needed to meet this emergency energy security objective and support the [EU's], affirming the joint resolve to terminate EU dependence on Russian fossil fuels by 2027.⁹⁴

In written testimony to the U.S. Senate Energy and Natural Resources Committee in

February 2023, Director-General for Energy at the European Commission Ditte Juul Jorgenson,

made clear how U.S. allies and partners see the role of LNG exports from the U.S.:

[O]ur cooperation with United States is indispensable. We expect that the U.S. will remain a key LNG supplier to the EU in 2023 and beyond with imports overshooting the records set in 2022. Transatlantic trade of LNG is more than just trade. It is also about security, shared values, and a strong partnership. I am hopeful that

⁹¹ Joint Statement on the U.S.-EU Energy Council, Office of the Spokesperson, Feb. 7, 2022, available at: <u>https://www.state.gov/joint-statement-on-the-u-s-eu-energy-council/.</u>

⁹² See Press Release, European Commission, *REPowerEU: Joint European action for more affordable, secure* and sustainable energy, Mar. 8, 2022, available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1511.

⁹³ See Press Release, European Commission, Joint Statement between the European Commission and the United States on European Energy Security, Mar. 25, 2022, available at: <u>https://ec.europa.eu/commission/presscorner/detail/en/statement_22_2041</u>.

⁹⁴ Id.

we will see the support of this committee for a continued Transatlantic energy security partnership.⁹⁵

At last year's CERAWeek 2023, Energy Secretary Granholm highlighted that: "the world

is moving quickly to shift away from Russian energy sources, and ... the US has become an

indispensable partner to our allies, and a global energy powerhouse.⁹⁶ She further observed that:

[European countries] are very grateful that our LNG exporters really stepped up and ... they very strongly are accelerating ... their ability to have their own LNG terminals. ... The immediate need for getting LNG is coupled with their immediate need to invest in diversifying their energy supply. They did not want to have to go back and switch to coal. They did not want to switch to more carbon intensive forms of energy. They really do want to use the cleanest form of energy possible that they can get and they have been very grateful to the United States. They feel like our LNG is cleaner and they feel like we are a trusted partner and they can count on us. And so that is very important for our country's own leadership in the world and our own shoring up of our allies in the world and at a point where the world is really dividing along geopolitical lines because of energy, that has been very important.⁹⁷

Of course, the geopolitical benefits of U.S. LNG exports are not limited just to Europe, nor

to the short-term. Export of LNG from the U.S. has fundamentally altered the world's energy and economic map to the benefit of the U.S., U.S. allies and trade partners.⁹⁸ Increased access to U.S. natural gas not only provides new, uniquely flexible supplies to U.S. allies and trade partners around the world, but also supports global natural gas trade on a transparent, market-competitive

⁹⁵ U.S. Senate Committee on Energy and Natural Resources, *Written Testimony of Ditte Juul Jorgensen* (Feb. 16, 2023) *available at* <u>https://www.energy.senate.gov/services/files/DD2126D8-3D3E-4612-889F-C3FB05F22BB3</u>.

⁹⁶ U.S. Dep't of Energy, *Remarks as Prepared for Delivery by Secretary Jennifer Granholm at CERAWeek* 2023 (Mar. 8, 2023), *available at* https://www.energy.gov/articles/remarks-prepared-delivery-secretary-jennifergranholm-ceraweek-2023.

⁹⁷ Jennifer Granholm, Secretary, U.S. Dep't of Energy, U.S. Secretary of Energy Jennifer M. Granholm Speaks at 2023 CERAWeek Luncheon & Keynote Address, C-SPAN (Mar. 8, 2023), available at <u>https://www.c-</u> span.org/video/?526539-1/energy-secretary-granholm-speaks-ceraweek-conference.

⁹⁸ See, e.g., Center for Strategic & International Studies, "Geopolitical Significance of U.S. LNG" (Feb. 7, 2024), available at: <u>https://www.csis.org/analysis/geopolitical-significance-us-lng</u>.

basis, aligning with DOE's 1984 Policy Guidance and providing immediate as well as long-term benefits to the American economy from this trade. Sabine Pass has been the country's leader in that effort, and export authorization for the incremental Stage 5 Project volumes will contribute further to the geopolitical benefits of U.S. LNG exports.

4. LNG Exports Provide Environmental Benefits

Exporting natural gas also will benefit the U.S. because it will enable the use of less emissions intensive natural gas for the generation of electricity or for other end-uses as opposed to coal or more carbon intensive fossil fuels such as diesel or heavy fuel oil used in foreign countries. The increased use in the U.S. of natural gas for power generation in place of coal in recent years has resulted in decreased CO₂ emissions. Between 2005 and 2019, total U.S. electricity generation increased by almost 2% while related CO₂ emissions fell by 33%: while some of that reduction resulted from increased use of renewable generation, the majority resulted from the substitution of coal with natural gas for electric generation. ⁹⁹ EIA has emphasized the key role of natural gas in reducing U.S. carbon emissions.¹⁰⁰ LNG exports to Asia have displaced the more emissions-

⁹⁹ EIA, "U.S. Energy-Related Carbon Dioxide Emissions," released Sept. 30, 2020, available at: <u>https://www.eia.gov/environment/emissions/carbon/#:~:text=EIA%20calculated%20that%20between%202005,carbon%20generation%20totaled%205%2C475%20MMmt.&text=Between%202005%20and%202019%2C%20total.C O2%20emissions%20fell%20by%2033%25.</u>

¹⁰⁰ See, e.g., EIA, Today in Energy, "Electric power sector CO2 emissions drop as generation mix shifts from coal to natural gas" (June 9, 2021) ("Although both the increased use of renewables and the shift from coal-fired to natural gas-fired generation contributed to reductions in electric power sector CO2 emissions, the shift from coal to natural gas had a larger effect. Of the 819 million metric ton decline in CO2 emissions from 2005 to 2019, approximately 248 million metric tons (30%) of that decline is attributable to the increase in renewable generation. In comparison, almost 532 million metric tons (65%) of the decline in CO2 emissions is attributable to the shift from available coal-fired gas-fired electricity generation."), to natural at: https://www.eia.gov/todayinenergy/detail.php?id=48296#; EIA, Today in Energy, "U.S. energy-related CO₂ emissions expected to rise slightly in 2018, remain flat in 2019" (Feb. 8, 2018) ("The underlying energy consumption trends that resulted in these changes-mainly because more electricity has been generated from natural gas than from other fossil fuels-have helped to lower the U.S. emissions level since 2005 because natural gas is a less carbonintensive fuel than either coal or petroleum."), available at: https://www.eia.gov/todayinenergy/detail.php?id=34872.

intensive use of coal, contributing to global emissions reductions.¹⁰¹ Additional LNG exports from the U.S. may similarly substitute for coal, or fuel oil, usage overseas, and support the deployment of renewable energy, thereby sharing the environmental benefits of natural gas with other nations, enabling efforts to reduce GHG emissions. A 2024 study by the Pacific Northwest National Laboratory's Joint Global Change Research Institute found that new investments in natural gas infrastructure are needed in all scenarios.¹⁰²

A 2019 study by the International Energy Agency ("IEA"), titled *The Role of Gas in Today's Energy Transition*, observed that "[s]ince 2010, coal-to-gas switching has saved around 500 million tonnes of CO₂ - an effect equivalent to putting an extra 200 million EVs running on zero-carbon electricity on the road over the same period." ¹⁰³ The IEA Report explained that "While there is a wide variation across different sources of coal and gas, an estimated 98% of gas consumed today has a lower lifecycle emissions intensity than coal when used for power or heat. This analysis takes into account both CO₂ and methane emissions and shows that, on average, coal-to-gas switching reduces emissions by 50% when producing electricity and by 33% when providing heat." Furthermore, IEA concluded that "[t]here is potential in today's power sector to

¹⁰¹ See, e.g., E&E News, Benjamin Storrow & Sara Schonhard. Biden confronts climate challenge that tested Obama (January 29, 2024) available at eenews.net/articles/biden-confronts-climate-challenge-that-testedobama/#:~:text=In%20China%2C%20LNG%20has%20displaced,their%20own%20right%2C%20Ravikumar%20sa id. ("In China, LNG has displaced coal from district heating. That is likely a net positive for climate not only because coal is carbon intensive when burned, but also because Chinese coal mines are major methane emitters in their own right,"); see also, Wall Street Journal, Jeffrey Kupfer, An LNG Export Ban Is Bad Politics for Biden (Jan. 24, 2024) ("Natural gas is a cleaner alternative to coal, biomass and wood, with roughly half the carbon-dioxide emissions of coal. U.S. LNG exports to Asia have displaced vast quantities of coal in some of the world's fastest-growing economies—a big step toward reducing global emissions").

¹⁰² See, Yarlagadda et al., "The future evolution of global natural gas trade," iScience, 2024, available at: <u>https://doi.org/10.1016/j.isci.2024.108902</u>.

¹⁰³ IEA, *The Role of Gas in Today's Energy Transition*, July 2019, summary of key findings available at: <u>https://www.iea.org/reports/the-role-of-gas-in-todays-energy-transitions; full report available at:</u> <u>https://iea.blob.core.windows.net/assets/cc35f20f-7a94-44dc-a750-41c117517e93/TheRoleofGas.pdf</u>.

reduce up to 1.2 gigatonnes of CO2 emissions by switching from coal to existing gas-fired plants." ¹⁰⁴ With respect to other air pollutants, the same IEA study explains:

The edge of natural gas over other combustible fuels is reinforced by looking at the emissions of the main air pollutants: PM2.5; sulfur oxides, mainly SO2; and nitrogen oxides (NOX). These three are responsible for the most widespread impacts of air pollution, either directly or once transformed into other pollutants via chemical reactions in the atmosphere. The controlled burning of natural gas releases very few particulate emissions into the air, while nearly all SO2 naturally present in natural gas is removed prior to transport. The combustion of natural gas does produce NOX, although gas accounts for less than 10% of global energy-related NOX emissions.¹⁰⁵

DOE, with its National Energy Technologies Laboratory ("NETL"), prepared a study in 2014 of the Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States to better inform the public about the environmental effects of increased LNG exports. The study compared the GHG emissions from power generation in Europe and Asia using exported U.S. LNG with the GHG emissions from power generated using local hydrocarbon resources. ¹⁰⁶ DOE/FE has held that "[t]he conclusions of the [2014 GHG Study], combined with the observation that many LNG-importing nations rely heavily on fossil fuels for electric generation, suggests that exports of U.S. LNG may decrease global GHG emissions, although there is substantial uncertainty on this point.... Based on the record evidence, however, we see no reason to conclude that U.S. LNG exports will increase global GHG emissions in a material or predictable way." ¹⁰⁷

¹⁰⁴ *Id.* (summary of key findings).

¹⁰⁵ Full IEA Report, *cited supra*, at 35.

¹⁰⁶ DOE, DOE/NETL-2014/1649, *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States* (May 14, 2014), (hereinafter, the "2014 GHG Study"), available at: http://www.energy.gov/sites/prod/files/2014/05/f16/Life%20Cycle%20GHG%20Perspective%20Report.pdf.

¹⁰⁷ *E.g., Venture Global Calcasieu Pass, LLC,* DOE/FE Order No. 4346 at 69; *Venture Global Plaquemines LNG, LLC,* DOE/FE Order No. 4446 at 41. Identical or very similar statements are included in numerous other DOE orders.

On September 19, 2019, DOE/FE announced the availability for public review and comment of a new report updating the 2014 GHG Study.¹⁰⁸ As with the 2014 GHG Study, the update compares life cycle GHG emissions from U.S. LNG exports to regional coal and other imported natural gas for electric power generation in Europe and Asia, while including more recent information. DOE/FE has found that the "LCA GHG Update [2019] demonstrated that the conclusions of the 2014 LCA GHG Report remained the same" and that the 2019 GHG Study, like the studies before it, "supports the proposition that exports of LNG from the lower-48 states will not be inconsistent with the public interest."¹⁰⁹

DOE/FE returned to the topic of the environmental impacts of LNG exports, and in particular, the GHG topic, in the Term Extension Policy Statement. After explaining that the 2019 GHG Study supports the issuance of export authorizations, the Policy Statement adds:

foreign demand for U.S. natural gas has increased as countries in the Caribbean, Central America, and South America seek to import cleaner sources of energy. DOE further observes that many of these countries are currently dependent on diesel and/or fuel oil for their generation needs. These energy needs are challenging from both a cost- and emissions-perspective. By importing LNG from the United States, these countries will have access to a more reliable, cost-effective supply of energy that also has emissions benefits over current sources. At the same time, the United States will facilitate stronger relationships with these importing countries, while promoting U.S. leadership in the global energy market....

[I]mports of U.S. LNG can work in concert with the development of renewable generation both in the United States and in importing countries. Imported natural gas can provide reliable standby energy supply immediately, while renewable development is occurring. Imported LNG also can provide continued reliability to enhance solar or other renewable sources once they are developed. For these

¹⁰⁸ DOE, DOE/NETL-2019/2041, Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States: 2019 Update (Sept. 12. 2019). available at: https://fossil.energy.gov/app/docketindex/docket/index/21. See also DOE, Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States: 2019 Update-Responses to Comments, 85 Fed. Reg. 72 (Jan. 2, 2020).

¹⁰⁹ *E.g., Sabine Pass Liquefaction, LLC*, Order No. 4800 at 21 (March 16, 2022).

reasons, authorization holders...may provide indirect benefits to the use of renewable energy in importing countries. ¹¹⁰

DOE/FE has developed a clear record, affirmed by the U.S. Court of Appeals for the D.C. Circuit Court, on analyzing the environment and climate benefits of exports of LNG from the United States, and their consistency with the public interest. More recent data and analysis, voluntary corporate actions, new federal regulations, and market developments all provide further evidence, in support of DOE/FE's record, of the environmental and climate benefits of LNG exports.

In 2021, Cheniere announced the publication of a peer-reviewed, LNG life cycle assessment ("LCA").¹¹¹ The LCA model constructed for the study was based on the publicly available NETL upstream supply chain model, the same as used as an input for the DOE/FE's 2014 GHG Study and 2019 Update. This first-of-its kind analysis utilized GHG emissions data specific to the supply chain of Sabine Pass in 2018, including known natural gas suppliers upstream of the liquefaction facility, actual operations of the SPL facility, and unique cargo-specific data. The study estimates a GHG intensity 34-36% lower than the NETL study (the 2019 GHG Study) from U.S. LNG transported to China, on a 100-year and 20-year Global Warming Potential. The results of this study, with more recent and specific data to LNG supply chain operations, reinforce DOE/FE's findings on the environmental impact of LNG generally and Sabine Pass specifically.

In addition, voluntary corporate efforts to measure and mitigate methane emissions from the oil and gas supply in the U.S. will continue to reduce the lifecycle GHG emissions and thus increase the environmental advantages of U.S. LNG supplies. Cheniere has pursued a climate

¹¹⁰ Term Extension Policy Statement, 85 Fed. Reg. at 52245-46 (internal footnotes omitted).

¹¹¹ See Cheniere Press Release, "Cheniere Announces Publication of Greenhouse Gas Life Cycle Assessment" (Aug. 5, 2021), available at: <u>https://lngir.cheniere.com/news-events/press-releases/detail/226/cheniere-announces-publication-of-greenhouse-gas-life-cycle</u>. The press release contains a link to study and supporting materials, which are directly available at: <u>https://pubs.acs.org/doi/full/10.1021/acssuschemeng.1c03307</u>.

strategy to measure and mitigate GHG emissions to improve the climate benefits of Cheniere's LNG.

In addition, as Cheniere explained in comments provided to DOE/FECM in response to a request for information last year,¹¹² Cheniere's efforts in this area include but are not limited to a collaboration with companies, technology providers, and academic institutions to implement quantification, monitoring, reporting, and verification ("QMRV") of GHG emissions to improve the understanding of GHG emissions, further the deployment of advanced monitoring technologies and protocols, and inform strategic and cost-effective mitigation opportunities.¹¹³ The QMRV program began in 2021 with five natural gas producers at natural gas production sites and a firstof-its-kind study to directly measure methane emissions from an LNG carrier. The program expanded in 2022 to five natural gas midstream companies at natural gas gathering, processing, transmission, and storage systems, including facilities operated by Cheniere. Also in 2022, Cheniere initiated the QMRV program at the Sabine Pass and Corpus Christi LNG terminals. These programs have resulted in improved data and transparency around GHG emissions and mitigation of GHG emissions across the LNG supply chain.¹¹⁴ In 2022, Cheniere joined the Oil and Gas Methane Partnership (OGMP 2.0), the United Nations Environment Programme's flagship oil and gas methane emissions reporting and mitigation initiative. Additionally, in 2022, Cheniere began providing long-term customers with the Cargo Emissions Tags (utilizing the

¹¹² DOE/FECM, "Notice of Request for Information on Opportunities to Reduce Greenhouse Gas Emissions and Other Air Pollutants Associated with U.S. Liquefied Natural Gas (LNG) Exports," 88 Fed. Reg. 25393 (Apr. 26, 2023).

¹¹³ Cheniere's response to the RFP is publicly available as part of the "LNG Response Summary Table" available at: <u>https://netl.doe.gov/sites/default/files/2023-09/DE-FOA-0003052%20Responses.pdf</u> (with Cheniere response at pp. 188-194 of the PDF).

¹¹⁴ The QMRV participants also have published a series of peer-reviewed studies on related topics. *See* <u>https://doi.org/10.1021/acs.est.2c06211;</u> <u>https://doi.org/10.1021/acs.est.3c01121;</u> <u>https://doi.org/10.26434/chemrxiv-2023-9j9ht.</u>

Cheniere LCA described above) showing the estimated GHG emissions associated with each cargo

produced at Cheniere's facilities.

Notably, in its most recent non-FTA order for Sabine Pass DOE/FECM observed as follows:

DOE believes the public interest is also served by addressing these environmental concerns through federal, state, or local regulation. We note that environmental regulators have imposed requirements on natural gas production and transportation to balance benefits and burdens, and have continued to update these regulations as technological practices and scientific understanding evolve. Additionally, some companies in the natural gas industry including Sabine Pass's parent company, Cheniere Energy, Inc., and some of Cheniere's natural gas suppliers—have begun implementing measures to advance the quantification, monitoring, reporting and verification (or QMRV) of GHG emissions.¹¹⁵

These efforts to measure GHG emissions support a data-driven approach to managing emissions. Cheniere is taking addition steps to reduce GHG emissions at its facilities and across its supply chain. At its facilities, Cheniere has programs to reduce GHG emissions, particularly methane, such as an Annual QMRV Program, a closed-loop cooling process; leak monitoring and repair; pressure safety valve integrity monitoring; compressed air valve control; low- or no-bleed devices; and pipe flange management. Cheniere marketing charters vessels, where feasible, with the most efficient propulsion and containment systems to help reduce GHG emissions from LNG shipping.

In addition to voluntary efforts by Cheniere and others in the natural gas industry, recently promulgated and proposed new federal regulations of methane from oil and natural gas operations

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Sabine Pass Liquefaction, LLC, Order No. 4800 at 58 (March 16, 2022).

will reduce methane emissions.¹¹⁶ The U.S. Environmental Protection Agency estimates that these new rules will reduce U.S. methane emissions in the oil and gas supply chains by over 1.5 billion metric tons of carbon dioxide equivalent (CO2e) or by more than 80% by 2030.¹¹⁷ A result of these regulations will be to further reduce the lifecycle GHG emissions of the LNG supply chain and thus making LNG exports more beneficial to the climate, particularly compared to other natural gas and LNG suppliers globally without such strong regulatory frameworks.

All these on-going efforts will further the environmental advantages of U.S. LNG exports compared to alternative supplies, further supporting the consistency of the exports with the public interest.

VII. REVIEW OF PROJECT ENVIRONMENTAL IMPACTS

Consistent with the NEPA requirements and related regulations and the established approach with similar LNG export projects, FERC will act as the lead agency for the environmental review for the siting, construction and operation of the Stage 5 Project, with DOE participating in the NEPA review process as a cooperating agency. As previously explained, Sabine Pass has completed the FERC pre-filing process for its Project and is filing its formal FERC application on or about the same day as this Application. As required by NEPA and FERC regulations, Sabine Pass will design and construct its Stage 5 Project to minimize or mitigate adverse environmental impacts. The use of previously disturbed brownfield areas and integration with facilities and utilities at the existing SPLNG Terminal will serve to further reduce impacts of the Stage 5 Project impacts, with a significant portion of the land required for the SPLNG Terminal Expansion

¹¹⁶ See "EPA's Final Rule for Oil and Natural Gas Operations Will Sharply Reduce Methane and Other Harmful Pollution" (Dec. 2, 2023), available at: <u>https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-operations/epas-final-rule-oil-and-natural-gas</u>

¹¹⁷ See EPA Presentation "EPA's Final Rule to Reduce Methane and Other Harmful Pollution from Oil and Natural Gas Operations" (Dec. 2, 2023), available at: <u>https://www.epa.gov/system/files/documents/2023-12/epas-final-oil-and-gas-rule.-overview-presentation.pdf</u>

overlapping with the existing SPLNG Terminal. This will result in far less impact to the environment than a greenfield project.

In addition to participating in the FERC-lead NEPA process, DOE/FECM should consider (as it has in its other export authorization proceedings) the following environmental documents:

- Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States, 79 Fed. Reg. 48132 (Aug. 15, 2014);¹¹⁸
- Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States, 79 Fed. Reg. 32260 (June 4, 2014);¹¹⁹
- Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States: 2019 Update, 84 Fed. Reg. 49278 (Sept. 19, 2019), and DOE's response to public comments received on that study;¹²⁰ and
- the Marine Transport Technical Support Document issued in November 2020 updating DOE's NEPA regulations regarding Section 3 authorizations addressing the transport of natural gas by marine vessels.¹²¹

VIII. APPENDICES

The following appendices are included as part of this Application:

Appendix A: List of Sabine Pass Existing Long-Term Export AuthorizationsAppendix B: Opinion of Counsel

¹¹⁸ The Addendum and related documents are available at: <u>https://energy.gov/fe/draft-addendum-</u> environmental-review-documents-concerning-exports-natural-gas-united-state

¹¹⁹ The 2014 Life Cycle Greenhouse Gas Report is available at: <u>https://energy.gov/fe/life-cycle-greenhouse-gas-perspective-exporting-liquefied-natural-gas-united-states</u>

¹²⁰ U.S. Dep't of Energy, Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States: 2019 Update—Response to Comments, 85 Fed. Reg. 72 (Jan. 2, 2020). The 2019 Update and related documents are available at: https://fossil.energy.gov/app/docketindex/docket/ index/21.

¹²¹ U.S. Dep't of Energy, Technical Support Document, Notice of Final Rulemaking, National Environmental Policy Act Implementing Procedures (10 C.F.R. Part 1021) (Nov. 2020), available at: https://www.energy.gov/sites/prod/files/2020/12/f81/10-cfr-1021-ng-tsd-2020-11_0.pdf.

WHEREFORE, for all the foregoing reasons, Sabine Pass respectfully requests that DOE/FE authorize it to engage in long-term, multi-contract exports (as well as short-term exports) of domestically produced LNG of up to the equivalent of a maximum of 899.46 Billion cubic feet of natural gas per year for a period: (1) for the FTA authorization, of twenty (25) years after the commencement of commercial exports under the requested authorization; and (2) for the non-FTA authorization, extending through the later of (i) the end of 2050 or (ii) twenty (20) years after the commencement of commercial exports under the requested authorization. Sabine Pass requests the issuance of two separate orders authorizing the LNG exports requested herein: first, to any country with which the U.S. currently or in the future has an FTA requiring national treatment for trade in natural gas and, second, to any country with which the U.S. does not have an FTA requiring national treatment for trade in natural gas and with which trade is not prohibited by U.S. law or policy.

Respectfully submitted,

Florian Pintgen, Vice President, Commercial Operations Karri Mahmoud, Director, Environmental & Regulatory Projects Cheniere Energy, Inc. 845 Texas Avenue, Suite 1500 Houston, TX 77002 (713) 375-5000 Email: <u>Florian.Pintgen@cheniere.com</u> Email: <u>Karri.Mahmoud@cheniere.com</u>

Harold W. Bulger III Senior Counsel Cheniere Energy, Inc. 601 Pennsylvania Ave. NW Suite 1000, North Building Washington, DC 20004 (202) 442-3073 Harold.Bulger@cheniere.com J. Patrick Nevins Latham & Watkins LLP 555 Eleventh Street, N.W. Suite 1000 Washington, D.C. 20004 (202) 637-3363 patrick.nevins@lw.com

Dated: February 29, 2024

Appendix A

LONG-TERM EXPORT AUTHORIZATIONS ISSUED TO SABINE PASS LIQUEFACTION, LLC FOR THE SABINE PASS LNG TERMINAL

Docket No.	Order No.	Date Issued	Trains	Volume (Bcf/yr)
10-85-LNG	2833-B ¹²²	Sept. 7, 2010, as amended	1-4	803.0
13-30-LNG	3306-C ¹²³	July 11, 2013, as amended	5-6	101.0
13-42-LNG	3307-C ¹²⁴	July 12, 2013, as amended	5-6	88.3
13-121-LNG	3384-C ¹²⁵	Jan. 22, 2014, as amended	5-6	314.0

Table 1: For the Long-Term Export of Domestic LNG to FTA Countries

¹²² Sabine Pass Liquefaction, LLC, Order Granting Long-Term Authorization to Export Liquefied Natural Gas from Sabine Pass LNG Terminal to Free Trade Nations, DOE/FE Order No. 2833, FE Docket No. 10-85-LNG (Sept. 7, 2010), amended by DOE/FE Order No. 2833-A (Oct. 28, 2020) (extending export term), further amended by DOE/FE Order No. 2833-B (Feb. 26, 2021) (granting request for contract consolidation).

¹²³ Sabine Pass Liquefaction, LLC, Order Granting Authorization to Export Liquefied Natural Gas by Vessel Pursuant to the Long-Term Contract with Total Gas & Power North America, Inc. from the Sabine Pass LNG Terminal to Free Trade Agreement Nations, DOE/FE Order No. 3306, FE Docket No. 13-30-LNG, (July 11, 2013), amended by DOE/FE Order No. 3306-A (Oct. 31, 2017) (granting withdrawal of filing and request for clarification), further amended by DOE/FE Order No. 3306-B (Oct. 28, 2020) (extending export term), further amended by DOE/FE Order No. 3306-C (Feb. 26, 2021) (granting request for contract consolidation).

¹²⁴ Sabine Pass Liquefaction, LLC, Order Granting Authorization to Export Liquefied Natural Gas by Vessel Pursuant to the Long-Term Contract with Centrica plc from the Sabine Pass LNG Terminal to Free Trade Agreement Nations, DOE/FE Order No. 3307, FE Docket No. 13-42-LNG, (July 12, 2013), *amended by* DOE/FE Order No. 3307-A (Oct. 31, 2017) (granting withdrawal of filing and request for clarification), *further amended by* DOE/FE Order No. 3307-B (Oct. 28, 2020) (extending export term), *further amended by* DOE/FE Order No. 3307-C (Feb. 26, 2021) (granting request for contract consolidation).

¹²⁵ Sabine Pass Liquefaction, LLC, Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Sabine Pass LNG Terminal to Free Trade Agreement Nations, DOE/FE Order No. 3384, FE Docket No. 13-121-LNG (Jan. 22, 2014), *amended by* DOE/FE Order No. 3384-A (Oct. 31, 2017) (granting withdrawal of filing and request for clarification), *further amended by* DOE/FE Order No. 3384-B (Oct. 28, 2020) (extending export term), *further amended by* DOE/FE Order No. 3384-C (Feb. 26, 2021) (granting request for contract consolidation).

Docket No.	Order No.	Date Issued	Trains	Volume (Bcf/yr)
14-92-LNG	3595-B ¹²⁶	Feb. 12, 2015, as amended	1-4	203.0
19-125-LNG	4520-B ¹²⁷	Apr. 14, 2020, as amended	1-6	152.64
Total FTA Volume				1,661.94

¹²⁶ Sabine Pass Liquefaction, LLC, Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Sabine Pass LNG Terminal in Cameron Parish, Louisiana, to Free Trade Agreement Nations, DOE/FE Order No. 3595, FE Docket No. 14-92-LNG (Feb. 12, 2015), Errata (Feb. 24, 2015), *amended by* DOE/FE Order No. 3595-A (Oct. 28, 2020) (extending export term), *further amended by* DOE/FE Order No. 3595-B (Feb. 26, 2021) (granting request for contract consolidation).

¹²⁷ Sabine Pass Liquefaction, LLC, Order Granting Long-Term Authorization to Export Liquefied Natural Gas to Free Trade Agreement Nations, DOE/FE Order No. 4520, Docket No. 19-125-LNG (Apr. 14, 2020), *amended by* DOE/FE Order No. 4520-A (Oct. 28, 2020) (extending export term), *further amended by* DOE/FE Order No. 4520-B (Feb. 26, 2021) (granting request for contract consolidation).

Docket No.	Order No.	Date Issued	Trains	Volume (Bcf/yr)
10-111-LNG	2961-E ¹²⁸	Aug. 7, 2012, as amended	1-4	803.0
13-30-LNG 13-42-LNG 13-121-LNG	3669-D ¹²⁹	June 26, 2015, as amended	5-6	503.3
15-63-LNG	3792-C ¹³⁰	Mar. 11, 2016, as amended	1-4	203.0
19-125-LNG	4800 ¹³¹	Mar. 16, 2022	1-6	152.64
Total Non- FTA Volume				1,661.94

Table 2: For the Long-Term Export of Domestic LNG to Non-FTA Countries

¹²⁸ Sabine Pass Liquefaction, LLC, Opinion and Order Conditionally Granting Long-Term Authorization to Export Liquefied Natural Gas from Sabine Pass LNG Terminal to Non-Free Trade Agreement Nations, DOE/FE Order No. 2961, FE Docket No. 10-111-LNG (May 20, 2011); Sabine Pass Liquefaction, LLC, Final Opinion and Order Granting Long-Term Authorization to Export Liquefied Natural Gas from Sabine Pass LNG Terminal to Non-Free Trade Agreement Nations, DOE/FE Order No. 2961-A, FE Docket No. 10-111-LNG (Aug. 7, 2012), Errata (Sept. 4, 2012), reh'g denied DOE/FE Order No. 2961-B (Jan. 25, 2013), amended by DOE/FE Order No. 2961-C (May 4, 2016) (authorizing make-up period), further amended by DOE/FE Order No. 2961-D (Oct. 28, 2020) (extending export term), further amended by DOE/FE Order No. 2961-E (Feb. 26, 2021) (granting request for contract consolidation).

¹²⁹ Sabine Pass Liquefaction, LLC, 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, DOE/FE Order No. 3669, FE Docket Nos. 13-30-LNG, 13-42-LNG, and 13-121-LNG (June 26, 2015), *reh'g denied* DOE/FE Order No. 3669-A (May 26, 2016), *amended by* DOE/FE Order No. 3669-B (Oct. 31, 2017) (granting withdrawal of filing and request for clarification), *further amended by* DOE/FE Order No. 3669-C (Oct. 28, 2020) (extending export term), *further amended by* DOE/FE Order No. 3669-D (Feb. 26, 2021) (granting request for contract consolidation).

¹³⁰ Sabine Pass Liquefaction, LLC, 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, DOE/FE Order No. 3792, Docket No. 15-63-LNG (Mar. 11, 2016), *reh'g denied* DOE/FE Order No. 3792-A (Oct. 20, 2016), *further amended by* DOE/FE Order No. 3792-B (Oct. 28, 2020) (extending export term), *further amended by* DOE/FE Order No. 3792-C (Feb. 26, 2021) (granting request for contract consolidation).

¹³¹ Sabine Pass Liquefaction, LLC, Order Granting Long-Term Authorization to Export Liquefied Natural Gas to Non-Free Trade Agreement Nations, DOE/FECM Order No. 4800, Docket No. 19-125-LNG (Mar. 16, 2022).

Appendix B

OPINION OF COUNSEL



Cheniere Energy, Inc. 845 Texas Avenue, Suite 1250 Houston, Texas 77002 Phone: (713) 375-5000 Fax: (713) 375-6000 Cheniere.com

U.S. Department of Energy Office of Fossil Energy, FE-34 1000 Independence Avenue, S.W. Washington, D.C. 20585

RE: Sabine Pass Liquefaction, LLC and Sabine Pass Liquefaction Stage V, LLC FE Docket No. 24-__-LNG Application for Long-Term Authorization to Export LNG

Dear Sir or Madam:

This opinion of counsel is provided in accordance with the requirements of section 590.202(c) of the U.S. Department of Energy's regulations, 10 C.F.R. § 590.202(c) (2019). I have examined the Limited Liability Company Agreement of Sabine Pass Liquefaction, LLC and Sabine Pass Liquefaction Stage V, LLC (collectively, "Sabine Pass") and other authorities as necessary and have concluded that the proposed exportation of liquefied natural gas is within Sabine Pass' corporate powers.

Respectfully submitted,

By: Sean Markowitz Executive Vice President, Chief Legal Officer and Corporate Secretary Cheniere Energy, Inc. 845 Texas Avenue, Suite 1500 Houston, TX 77002 (713) 375-5000 February 29, 2024