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UNITED STATES OF AMERICA DEPARTMENT OF ENERGY OFFICE OF FOSSIL ENERGY AND CARBON MANAGEMENT

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Delfin LNG LLC) Docket Nos	. 13-129-LNG
) and	13-147-LNG
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REQUEST OF DELFIN LNG LLC FOR SUPPLEMENTAL ORDER GRANTING CONDITIONAL EXTENSION OF TIME FOR LONG-TERM AUTHORIZATIONS TO EXPORT LIQUEFIED NATURAL GAS

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Pursuant to Section 3(a) of the Natural Gas Act ("NGA") ¹ and Part 590 of the regulations of the Department of Energy ("DOE"), ² Delfin LNG LLC ("Delfin") submits to the Office of Fossil Energy and Carbon Management of the DOE ("DOE/FECM") this request ("Request") for a conditional extension of Delfin's existing long-term, multi-contract authority, as well as related short-term authority, to export domestically produced liquefied natural gas ("LNG") from Delfin's floating LNG (or "FLNG") project 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 or (2) does not have such a FTA but with which trade is not prohibited by U.S. law or policy ("non-FTA" nations).³ The LNG will be exported from FLNG vessels (or "FLNGVs") moored

¹ 15 U.S.C. § 717b(a) (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 Delfin LNG LLC, DOE/FE Order No. 3393, Docket No. 13-129-LNG (Feb. 20, 2014 (FTA authorization) amended by Order No. 3393-A (Dec. 10, 2020)(extension of term through 2050), further amended by Order No. 3393-B (May 18, 2021)(correcting the precise location of the FLNGVs); and DOE/FE Order No. 4028, Docket No. 13-147-LNG (June 1, 2017)(non-FTA authorization), reh'g denied by Order No. 4028-A (Apr. 3, 2018), amended by Order No. 4028-B (Dec. 10, 2020)(extension of term through 2050), further amended by Order No. 4028-C (May 18, 2021)(correcting the precise location of the FLNGVs). In addition, Delfin's export authorizations were amended, along with many others, by DOE/FE Order No. 4641 in Docket No. 10-85-LNG, et al.

at Delfin's deepwater port and located approximately 37.4 to 40.8 nautical miles offshore Cameron Parish, Louisiana (the "Delfin Deepwater Port"). Delfin is uniquely situated as the only FLNG project that has received non-FTA export authorization from DOE and the only LNG export project with (conditional) approval and a favorable Record of Decision ("ROD") from the Maritime Administration ("MARAD") under the Deepwater Port Act ("DWPA").⁴

Delfin does not propose any change in the nature of its project, nor in its existing export authorizations except to modify the timing condition so as to allow it to commence export operations from the Delfin Deepwater Port by no later than June 1, 2029. As detailed below, good cause exists to grant the requested extension of time which is appropriate in the circumstances and because LNG exports by Delfin remain in the public interest, taking fully into consideration current facts. Delfin has diligently and continuously worked to advance its project as expeditious as it could and has spent well over \$100 million in doing so. Through those efforts, it has successfully advanced the project such that it is now nearly ready to make Final Investment Decision ("FID").

Delfin has a modular project consisting of four separate FLNGVs, each of which may move forward individually independent of the others, with the result that long-term LNG off-take

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to include short-term (less than two year) exports (including for commissioning volumes) as part of the long-term authorization.

⁴ The Executive Director of MARAD, acting pursuant to authority delegated by the Secretary of Transportation, authorized the issuance subject to certain conditions of a License for the Port Delfin Project under the Deepwater Port Act of 1974 as amended on March 13, 2017. "Secretary's Decision on the Deepwater Port License Application of Delfin LNG, LLC," in Docket USCG-2015-0472. This MARAD Record of Decision ("ROD") is discussed by DOE in Order No. 4028 at 126-135. More recent developments related to MARAD and final license issuance are discussed in detail further below.

MARAD's authorizations under the DWPA are summarized at the MARAD Deepwater Licensing Program website at: https://www.maritime.dot.gov/ports/deepwater-ports-and-licensing/approved-applications. As detailed there, only three Deepwater Ports are in operation: an oil import/export facility and two LNG *import* facilities. Along with Delfin, one other Deepwater Port – an oil export facility – has been approved with its final license issuance pending.

contracts for only 2.5 to 3.0 metric tonnes per annum ("MTPA") are needed to support FID for the first FLNGV and the Delfin Deepwater Port, which will be constructed at an estimated cost of over \$2.5 billion. Delfin has ample commercial contracts for that purpose, having secured long-term contracts with five LNG off-takers for a total of 3.3 MTPA (some of which may not be sourced from Delfin's first FLNGV), with additional volumes in advanced commercial negotiations that will result in financial underpinnings for the second FLNGV as well.

The executed contracts represent a long-term revenue stream of almost \$19 billion that will underpin the Delfin Deepwater Port and the first FLNGV. Thus, Delfin has the needed financial support to reach FID and proceed with its first FLNGV, as well as contracted customers counting on its LNG supply. Notably, Delfin's largest single customer, with a commitment to purchase 1.0 MTPA of LNG for a 15-year term, is Centrica LNG Company Limited ("Centrica"), whose parent company is the largest energy supplier in the United Kingdom ("U.K.") and the owner of British Gas, Scottish Gas, and Bord Gáis. Centrica needs the LNG it has contracted to purchase from Delfin for the U.K.'s energy security and as a transition fuel as the country's moves toward net zero greenhouse Gas ("GHG") emissions.⁵

This extension request is consistent with the Policy Statement on Export Commencement Deadlines issued by DOE/FECM in April 2023.⁶ Delfin's project has been delayed by a series of extenuating circumstances outside its control including: the continuing evolution of FLNGV technology requiring a series of refinements of the project, complications related to trade with China, the impacts of the COVID-19 epidemic, the related slowdown in market demand for

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⁵ See Centrica Press Release, "Centrica signs major LNG supply agreement" (July 11, 2023), available at: https://www.centrica.com/media-centre/news/2023/centrica-signs-major-lng-supply-agreement/.

⁶ 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 Extension Policy").

LNG, and significant challenges with the MARAD licensing process. Much of the infrastructure for Delfin's project has already been constructed and is in existence, namely the large offshore natural gas pipelines that will transport feed gas to the FLNGVs. Delfin has invested tens of millions of dollars purchasing, maintaining, and preparing this infrastructure for use as the foundation of its Deepwater Port.

Unlike the land-based LNG export projects holding all other non-FTA authorizations, Delfin's project does not require significant onshore construction in the United States, thus avoiding impacts on front-line communities and on environmentally sensitive coastal areas. Instead, the key part of the Delfin project, the FLNGVs, will be constructed in existing shipyards overseas. Delfin has negotiated and agreed upon major terms of a near-ready-for-execution Engineering, Procurement, Construction and Integration ("EPCI") Agreement with Samsung Heavy Industries ("SHI") of South Korea, the leading shipyard in the world for FLNG construction, supported by Black & Veatch ("B&V") of Kansas for the topside liquefaction technology, for a new-build FLNGV. That FLNGV will have LNG production capacity of approximately 3.6 MTPA, based on the Front End Engineering and Design ("FEED") that Delfin completed with those contractors in 2020, with further optimizations and detailing conducted in post-FEED work in 2021. Delfin also is negotiating a Slot Reservation Agreement with SHI in order to ensure that construction activities on the first FLNGV can commence soon, and which will give Delfin an exclusive right to the shipyard slot needed for the construction and delivery of the vessel in 2028. In the coming months, Delfin expects to execute the Slot Reservation Agreement, and to issue a Limited Notice To Proceed ("LNTP") to SHI to begin work on the FLNGV, and then to execute the EPCI Agreement.

Before Delfin may absolutely commit to unconditional construction under the EPCI Agreement, finalize its financing arrangements, and reach FID on its first FLNGV, however, it needs to solidify the status of its long-standing regulatory approvals. Delfin has acquired and maintained the regulatory authorizations needed for its project, but two key final steps remain. First, Delfin needs MARAD to issue its final license under the DWPA. As detailed below, Delfin has been working with MARAD to that end for over two years⁷ and expected to receive the license in 2023; it still expects to receive the final DWPA license soon and will notify DOE/FECM of the issuance when it occurs. Second, Delfin needs DOE/FECM to grant the conditional extension of time for commencement of LNG exports requested here.

To ensure the consistency of its requested extension of time with the Commencement Extension Policy, Delfin proposes that DOE/FECM grant only a *conditional* extension that requires Delfin to certify by no later than nine (9) months after DOE/FECM's order that it has:

(1) obtained the final DWPA license (to the extent that this has not occurred prior to DOE/FECM granting the conditional extension); (2) secured necessary financing arrangements to construct its first FLNGV and the Deepwater Port; (3) made its positive FID decision with respect to first FLNGV; and (4) issued an unconditional, full NTP for first FLNGV to the EPCI contractor pursuant to the binding, executed EPCI contract. While Delfin is confident in its ability to satisfy those conditions within the requested time period, should it fail to do so then the export authorizations would expire at the end of that period. Thus, imposition by DOE/FECM of these conditions on the extension of time will eliminate soon any uncertainty about the status of Delfin's project, providing assurance to DOE (and all other stakeholders and interested

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⁷ In contrast to this very extended process for final license issuance, the DWPA itself requires a specific time frame of 330 days from the date of publication in the Federal Register (reflecting notice of a complete application), and of 356 days from the filing of the application, for approval or denial of the Deepwater Port. That timeline applied to the issuance of the ROD for Delfin.

observers) that Delfin will actually commence LNG exports by the extended deadline.

Therefore, the condition will satisfy the objective of the Commencement Extension Policy of reducing the "regulatory overhang" between authorized export volumes and projects actually moving forward.

In accordance with the timeline directed in the Commencement Extension Policy, Delfin is submitting this Request at least 90 days prior to the existing commencement deadline in its non-FTA order, which is June 1, 2024. Delfin respectfully requests that DOE/FECM grant the conditional extension proposed here by that deadline. Were DOE/FECM for any reason to require additional time to act on this Request, ⁸ Delfin would request that the existing deadline be "tolled" in light of the pending Request so that the existing non-FTA authorization would *not* expire and DOE/FECM could subsequently grant the conditional extension notwithstanding passage of the pre-existing deadline. ⁹

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⁸ Because the Request relates to an existing export authorization and is included within the already authorized level of LNG exports, DOE/FECM action on it is *not* affected by the recent initiation of a process for DOE 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. Regarding that "pause" in processing new export applications generally, *see* 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-energy-goals. Deputy Secretary Turk confirmed that extension requests like this one are not affected by the "pause" in his testimony before the Senate Committee on Energy & Natural Resources Committee on Feb. 8, 2024. The archived webcast of that hearing is available at:

https://www.energy.senate.gov/hearings/2024/2/full-committee-hearing-to-examine, with the statement regarding extensions provided in a response to Senator Murkowski reflected at 1:26 – 1:27 of the video. *See also* DOE/FECM posting "The Temporary Pause on Review of Pending Applications to Export Liquefied Natural Gas" at n. 1 (undated, but stating that it is "current as of February 2024), available at: https://www.energy.gov/sites/default/files/2024-

^{02/}The%20Temporary%20Pause%20on%20Review%20of%20Pending%20Applications%20to%20Export%20Liquefied%20Natural%20Gas 0.pdf

⁹ In similar circumstances, the Federal Energy Regulatory Commission ("FERC") routinely tolls its own in-service deadline conditions when extension requests are pending before it and often acts on them after the deadline has passed. *See, e.g., Algonquin Gas Transmission, LLC*, 170 FERC ¶ 61,144 at P 41 (2020) (explaining tolling policy). Indeed, FERC's granting of an extension of time for Delfin to place in-service the limited FERC-jurisdictional onshore components of its project – from Sept. 28, 2023 to Sept. 28, 2027 – issued on Oct. 4, 2023, slightly after the pre-existing deadline. *Delfin LNG LLC*, 185 FERC ¶ 61,009 (2023).

In support of this Request, Delfin respectfully states the following:

I. CORRESPONDENCE AND COMMUNICATIONS

All correspondence and communications concerning this Request should be addressed to the following persons: 10

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II. BACKGROUND REGARDING FLNG

Delfin is the only FLNG export project that has obtained non-FTA export authorization from DOE. Delfin's approach of sourcing U.S. LNG exports offshore from FLNGVs moored in the Gulf of Mexico offers a number of advantages over land-based projects. ¹¹ Using existing offshore pipelines, originally constructed to bring offshore production to land but no longer needed for that purpose, ¹² avoids the need to construct new infrastructure. More significantly,

¹⁰ To the extent necessary, Delfin respectfully requests waiver of Section 590.202(a) of DOE's regulations to include three individuals on the official service list related to this Request. 10 C.F.R. § 590.202(a).

¹¹ Delfin's explanation of the advantages of FLNG is addressed briefly by DOE in Order No. 4028 at pp. 18-19.

¹² See Delfin LNG LLC, High Island Offshore Systems, Inc., 160 FERC ¶ 61,130 (2017), reh'g denied, 163 FERC ¶ 61,040 (2018). This FERC order both authorized the construction of Delfin's onshore facilities (which consist of about two-miles of pipeline, a meter station, and new compression) and the use of the High Island Offshore System ("HIOS") exclusively to transport natural gas to Delfin's FLNGVs. Between the onshore facilities and HIOS is the pipeline formerly know of UTOS, which is owned by Delfin and was previously abandoned from FERC service. In addition to these major offshore pipelines, Delfin's Deepwater Port will include only about 700 feet of undersea

Delfin will construct its liquefaction facility, an FLNGV, at an existing shipyard. The shipyard obviously has already been constructed and is fully equipped, staffed and trained to build ships, and to build process and liquefaction modules and integrate them as a complete, fully functioning *floating liquefaction plant*. Therefore, Delfin does not need to make investments in a site, prepare the site, bring utilities and labor to a site, and so on before actually starting the construction of its liquefaction facility.¹³ This is a fundamental differentiation between Delfin and the traditional onshore LNG terminals that hold all other non-FTA authorizations.

The absence of any large onshore construction of a liquefaction plant not only saves costs for Delfin, it also eliminates the impacts (like those of land-based LNG terminals) on front-line coastal communities, landowners, and sensitive environmental areas. Furthermore, construction of the FLNGVs in a manufacturing-like process in an existing shipyard allows for standardization of equipment, firm control over the construction environment, and avoidance of potential challenges to construction like storms on-site. The offshore FLNG project also supports the offshore energy industry in the Gulf, including requirements for tugs, supply vessels, operators, onboard consumable, miscellaneous onshore and offshore logistics, and mariners.

Once operational, each FLNGV will have its own berth, storage and mooring with no common infrastructure (except the pipeline transporting the feed gas from shore) preventing potential wider failure across liquefaction facilities, and side-by-side offloading into LNG Carrier vessels eliminates the need for long cryogenic pipes and marine infrastructure.

pipeline to interconnect UTOS and HIOS, bypassing the platform where they currently connect, and approximately 6,400 feet laterals extending off HIOS to each of the FLNGVs. *See* MARAD ROD at 8-11.

¹³ Delfin's limited onshore facilities, authorized by FERC, consist of only new compression and a small amount of natural gas piping that all will be located at a 12-acre site owned by Delfin.

Moreover, loading operations will occur in the typically benign metocean environment well offshore, avoiding port congestion issues and fog that can delay operations for land-based projects. In the event of hurricanes or other significant storms, the FLNGV can move away from harm because, while it will generally remain moored at the Delfin Deepwater Port, it maintains independent means of propulsion, is capable of navigation, and will continue to be classed, flagged, and manned as a "vessel."¹⁴

The mobility of FLNGVs provides another significant advantage over land-based export projects. In connection with the recent pause in action on new export authorizations, DOE officials have expressed concerns about LNG exports increasing domestic natural gas prices and potential for U.S. prices to "converge" with higher overseas prices, which would harm U.S. consumers. Delfin believes this concern is misguided, and not supported by actual experience in recent years and contrary to the conclusions of DOE's own prior studies, as explained in Section VI of this Request. That said, in an unlikely future scenario in which natural gas exports from the U.S. were no longer economic, or not allowed by U.S. law or policy, Delfin's FLNGV is re-deployable and could move elsewhere in the world.

Delfin is the only holder of a non-FTA authorization that can provide this type of flexibility and assurance that that its liquefaction assets will not become "stranded." The ability to allow producing and consuming countries to react relatively quickly to unanticipated changes in market conditions or regulations is a significant benefit of floating LNG assets. This advantage is currently being proven with Floating Storage and Regasification Units ("FSRUs")

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¹⁴ In a letter ruling to Delfin issued on July 26, 2019, the U.S. Coast Guard ("USCG") ruled that Delfin's FLNGVs are "vessels" within the meaning of 33 C.F.R. Subchapter NN and are not part of the Deepwater Port itself.

¹⁵ See Feb. 8, 2024 testimony of Deputy Secretary Turk before the Senate Committee on Energy & Natural Resources Committee, cited *supra*. note 7, at :21 – :22 of the video; DOE/FECM posting "Unpacking the misconceptions surrounding the DOE's LNG update" (Feb. 8, 2024), available at: https://www.energy.gov/articles/unpacking-misconceptions-surrounding-does-lng-update.

being rapidly deployed to mitigate Europe's energy crisis.¹⁶ Similarly, the benefits of re-deployability have already been proven for FLNG, with two of the first four FLNGVs in operation having already been redeployed and a third expected to be redeployed in 2026.¹⁷

Importantly, FLNGVs are still a relatively new innovation with developing technology that has only recently matured, and Delfin has been on the leading edge of the FLNG developments. In the same year that Delfin obtained its MARAD approval and its non-FTA export authorization in 2017, the very first operating FLNGV in the world began production serving offshore gas fields for Petronas in Malaysia. Then in 2018, Golar LNG ("Golar") completed the world's first FLNGV conversion from an existing LNG Carrier (which was Delfin's initial plan for its first two FLNGVs) and the FLNGV "Hilli Episeyo" began production in Cameroon after construction in a Singapore shipyard. FLNGVs have subsequently begun to follow a similar evolutionary path as the conceptually similar (albeit simpler and much less expensive) FSRUs, moving from conversions with stick-built topsides to standardized new-build vessels with modular topsides and standardized liquefaction. Over time, FSRUs have become a well-established and important part of world regas markets, with about 50 FSRUs in operation and regasifying approximately 15% of the world's LNG. In contrast, only six FLNGVs – equivalent to the number of operating FRSUs around 15 years ago -- are currently in operation,

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¹⁶ See, e.g., S&P Global, "Commodities 2024: European FSRU buildout set to continue in 2024" (Dec. 23, 2023), available at: <a href="https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/lng/121923-european-fsru-buildout-set-to-continue-in-fs

<u>2024#:~:text=%22With%20Europe%20having%20secured%20up,which%20began%20in%20late%202022</u> ("The region's speedy deployment of floating storage and regasification unit (FSRU) infrastructure has been a key component in mitigating 2022's energy crisis, helping achieve a 60% rise in LNG import volumes last year").

¹⁷ Petronas FLNG 1 and the Exmar Tango FLNG barge have both been redeployed while the Golar Hilli is scheduled to be redeployed in 2026.

but with another five under construction with the result that installed FLNG capacity will grow from 12 MTPA in 2022 to almost 25 MTPA by 2026. 18

Importantly, the FLNGV industry has now progressed to the point that every part of Delfin's planned FLNGV has been proven to operate successfully in offshore environments similar to the location of Delfin's Deepwater Port in the Gulf of Mexico. The project design, however, has required changes over time to keep up with the evolving FLNGV technology.

III. DEVELOPMENTS SINCE DELFIN'S NON-FTA AUTHORIZATION ISSUED

A. New Management, Adapting to Changing FLNGV Technology, the U.S.-China Trade War, and the COVID Pandemic

In July 2018, Delfin filed with DOE/FECM a notice of change in control explaining changes in ownership of the company resulting in it being controlled and largely owned by two funds, Talisman Global Alternative Master, L.P. and Talisman Global Capital Master, L.P. ¹⁹

The new ownership brought in new management focused on updating and refining Delfin's original design to reflect the evolving and maturing FLNGV technology and develop the financing structure and secure binding, long-term commercial agreements. The then-new, and still current, management of Delfin Midstream, Inc. (Delfin's parent company) came from Golar, a leading company in the FRSU and nascent FLNGV industry, and includes: ²⁰

• Oscar Spieler, Delfin Midstream's Chairman and the former Chief Executive Officer ("CEO") of Golar;

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¹⁸ See generally Wood Mackenzie, Global FLNG Overview 2023 (Aug. 2023) at 6, available in part at: https://go.woodmac.com/l/131501/2023-08-28/2zqg4b/131501/169322877747dTM1zc/Global_FLNG_Overview_2 https://go.woodmac.com/l/131501/2023-08-28/2zqg4b/131501/169322877747dTM1zc/Global_FLNG_Overview_2 https://go.woodmac.com/l/131501/2023-08-28/2zqg4b/131501/169322877747dTM1zc/Global_FLNG_Overview_2 https://go.woodmac.com/l/131501/2023-08-28/2zqg4b/131501/169322877747dTM1zc/Global_FLNG_Overview_2 https://go.woodmac.com/l/131501/2023-08-28/2zqg4b/131501/169322877747dTM1zc/Global_FLNG_Overview_2 https://go.woodmac.com/l/131501/2023-08-28/2zqg4b/131501/169322877747dTM1zc/Global_FLNG_Overview_2 <a href="https://go.woodmac.com/l/131501/2023-08-28/2zqg4b/131501/2023-08/2020-08/2020-08/2020-08/2020-08/2020-08/2020-08/2020-08/2020-08/2020-08/2020-08/2020-08/2020-08/2020-08/2020-08/2020-08/2020

¹⁹ See "Notice of Change of Control Through Indirect Equity Ownership Changes", Docket No. 13-147-LNG (March 11, 2019), responding to July 10, 2018 filing by Delfin (which have previously been granted by operation of law when no protests were filed or action taken by DOE within 30 days of the public notice published in the Federal Register on Aug. 29, 2018).

²⁰ For additional information, see https://delfinmidstream.com/our-management/.

- Dudley Poston, CEO of Delfin Midstream and former Executive Vice President at Golar LNG from 2010-18, focusing on commercial development of FSRUs and FLNG, with a prior 16 years in the U.S. natural gas industry;
- Wouter Pastoor, Chief Operating Officer of Delfin Midstream and former head of Commercial and Director of FLNG Development at Golar from 2014-18, focusing on FLNG design of multiple projects, with 13 years prior FLNG experience before Golar;
- Brian Tienzo, Chief Financial Officer ("CFO") of Delfin Midstream and former CFO of Golar from 2011-17, leading the financing of FSRUs and of the first conversion FLNGV.

Among them, these Delfin leaders have over 150 years combined experience in the LNG industry at senior management levels, and they successfully executed the commercial, financial and operational deployment of Golar's FLNGV Hilli Episeyo, the world's first conversion FLNGV.

Delfin with its new leadership contracted with Golar both to license its FLNGV conversion design and to obtain its "Mark II" FEED for a conversion FLNGV using second generation liquefier technology with air cooling and waste-heat recovery, providing both greater efficiency and reduced environmental impacts. Reporting on developments in 2019 in its semi-annual progress report to DOE in October 2019, Delfin highlighted the following:

- "Delfin continued to work with Golar LNG and completed the Front End Engineering Design ("FEED") for the project's first Conversion FLNGV. Delfin and Golar LNG have now signed a Term Sheet, which gives Delfin an irrevocable license from Golar LNG to use the FLNG FEED design for developing the first Conversion FLNGV" and
- "Supplementing its license with Golar for a Conversion FLNGV, Delfin has commenced the development of a new-build FLNGV design. Delfin has performed conceptual engineering studies, carried out preliminary EPC contract negotiations, and is commencing further FEED studies. The new-build FLNGV is being designed in compliance with Delfin's Deepwater Port license

requirements. Delfin anticipates entering into a final EPC contract for the new FLNGV in 2020."²¹

During 2018-19, however, Delfin was focused on developing its first FLNGV with Chinese off-takers, Chinese lenders, and construction of the vessel in a Chinese shipyard, and negotiations to that end were very advanced. At that time, the opportunity appeared great with the world's fastest growing LNG market receiving increasing LNG volumes from the U.S. and eager at the time for more (which would have significant environmental benefits of displacing coal or fuel oil in China with cleaner-burning natural gas). As a summary of the complicated U.S.-China LNG relationship explained:

In 2016, over 9 percent of U.S. LNG went to China, and China ranked third among U.S. customers. China retained this position in 2017, receiving almost 15 percent of U.S. LNG exports. Then, as part of an escalating trade war with the United States, China imposed tariffs on U.S. LNG—at the rate of 10 percent in September 2018 and then 25 percent in June 2019. Soon enough, U.S. LNG exports fell to zero.²²

The dramatic falloff in shipments of U.S. LNG delivered to China in 2019 can be tracked in DOE's LNG Annual Reports which report the cumulative shipments by destination country and show for China deliveries: 6 cargoes in 2016, 36 cargoes though 2017, 62 cargoes through 2018, and then 64 cargoes through 2019.²³ Delfin was a casualty of the U.S.-China trade war, which put a definitive end to Delfin's pursuit of a China-focused first FLNGV as 2019 ended.

In 2020, of course, the COVID-19 pandemic hit. In its aftermath, very few of the long-term LNG contracts needed to finance an LNG project were available and U.S. LNG

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²¹ See Delfin's Semi-annual Progress Report, Docket Nos. 13-129-LNG and 13-147-LNG (Oct. 31, 2019), at p. 2, available at: https://www.energy.gov/sites/default/files/2019/10/f67/Delfin%20LNG%2C%20LLC%2C.pdf.

²² Nikos Tsafos, Center for Strategic & International Studies, "A New Chapter in U.S.-China LNG Relations," (Dec. 6, 2021) available at: https://www.csis.org/analysis/new-chapter-us-china-lng-relations#:~: text=Then%2C%20as%20part%20of%20an, LNG%20exports%20fell%20to%20zero.

²³ The archived LNG Reports are available at: https://www.energy.gov/fecm/listings/lng-reports-november-2023-final-edition-lng-monthly.

projects generally ceased to make progress.²⁴ DOE/FECM recognized the adverse market conditions and logistical issues associated with the COVID-19 pandemic when granting an extension of the commencement deadline for Port Arthur LNG.²⁵ The FERC, in its role in authorizing the siting, construction, and operation of LNG terminals, similarly has repeatedly recognized "the COVID-19 pandemic's unprecedented upheaval of global supply chains and energy markets" and the adverse impact it had on the commercial development of LNG export projects.²⁶ Delfin was adversely affected by the significant impact that COVID had on LNG project development, just like other projects.

Moving forward in the face of these extenuating circumstances outside its control, in 2020 Delfin contracted with SHI and B&V for the FEED study for a third-generational FLNGV.²⁷ This FLNGV design is developed as a 100% new-build FLNGV and contracted under a Lump-Sum Turn-Key EPCI contract. The first FLNGV designs and operations, which Delfin's management (and their predecessor employer Golar) had been involved in and executed were conversions of LNG carriers into FLNGVs. Since the first FLNGVs have started

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²⁴ No U.S. LNG projects reached FID in 2020, and Sempra Energy's Costa Azul LNG project in Mexico was the only new LNG project to reach FID that year. *See, e.g.*, Wood Mackenzie, "LNG FID Tracker Q4 2020: Costa Azul gets the green light as only FID this year" (Dec. 17, 2020), available at: https://www.woodmac.com/reports/lng-lng-fid-tracker-q4-2020-costa-azul-gets-the-green-light-as-only-fid-this-year-456559/.

²⁵ Port Arthur LNG, LLC, Order Nos. 3698-C/4372-B, Docket No. 15-53-LNG, et al. at 6-7, 12 (Apr. 21, 2023).

²⁶ See, e.g., Driftwood LNG LLC, 186 FERC ¶ 61,112 at P 11 (2024); Port Arthur LNG, LLC, 181 FERC ¶ 61,024 at P 9 (2022); Freeport LNG, 181 FERC ¶ 61,023 at P 12 (2022).

²⁷ Delfin informed DOE about this FEED study in both its semi-annual progress reports in 2020. *See* Delfin's Semi-annual Progress Report, Docket Nos. 13-129-LNG and 13-147-LNG (March 31, 2020), at p. 3, available at: https://www.energy.gov/sites/default/files/2020/04/f73/Delfin%20LNG%2C%20LLC.pdf ("Delfin has commenced the Newbuild Front End Engineering Design ("FEED") for the Project's liquefaction vessels as an additional option to the existing Conversion FLNGV design that, as described in previous reports to DOE, Delfin developed earlier in cooperation with Golar and for which Delfin secured an irrevocable license. The Newbuild FEED work is being carried out by Black & Veatch (Kansas City) in cooperation with Samsung Heavy Industries (Korea). The work is being executed by Black & Veatch (Kansas City) in cooperation with Samsung Heavy Industries (Korea). The work has been progressing well and is on schedule for completion in the 3rd quarter of 2020").

operations, the shipyards and contractors have gained the experience to enhance risk management for execution and performance risk. This development allows Delfin to contract to construct new FLNGVs under a Lump-Sum, Turn-Key contract making the EPC contractor fully responsible to design, build and deliver a fully-functioning, fit-for-purpose FLNGV, which includes completion guarantees and delivery and performance obligations. This approach is comparable to typical EPC contracts for onshore LNG plants in the US, which allows the FLNGV to be financed with similar bank finance structures as other LNG projects. The initial FEED study was completed in October 2020, setting the stage for Delfin to move forward with its project technically. Further post-FEED engineering was conducted in subsequent years to further optimize and detail the FLNG design. Unfortunately, LNG market development remained slow and, despite its diligent efforts, Delfin was unable to secure the binding off-take contracts and financing necessary to move forward with the Delfin LNG project through 2021.

Delfin's shareholders continued to make significant investments during this period of low demand to continue to develop innovative FLNG technology. In addition to refining Delfin's own design, the company was successful during this time period in developing the first phase of the Cedar LNG project in Canada, B.C. Working in collaboration with the Haisla First Nation ("Haisla") and a local development company, Delfin was responsible for developing the FLNG solution for this project and could leverage from Delfin's own FLNGV design. FLNG was specifically selected by Haisla over land-based liquefaction alternatives due to its much smaller environmental footprint and minimal impact on the nearby Haisla's Kitamaat village. Delfin worked together with the same contractors, *i.e.* SHI and B&V, to develop a project specific FLNG design as a derivative of the Delfin FLNGV design. The Cedar LNG project partners successfully developed the first phase and subsequently the Cedar LNG project was further

developed by Haisla and Pembina Pipeline Corporation, which purchased Delfin's interest in the project in June of 2021. Currently the FLNG project has very strong support from Canadian regulators, is in full execution mode by SHI and B&V and is likely to become the first FLNGV project in North America. The successful development of Cedar FLNG with minimal impacts on an environmentally sensitive region represents another important step in the maturation of FLNG technology.

B. Significant Commercial Progress with Off-Takers and Investors

LNG markets began to improve by late 2021. Then, following Russia's invasion of Ukraine in February 2022 and the resulting European energy crisis, the need around the world for additional export of the abundant, low-cost, and clean-burning U.S. natural gas supplies increased dramatically. The improved market environment led to significant commercial progress for Delfin.

On July 13, 2022, Delfin announced that it has entered into a binding LNG sale and purchase agreement ("SPA") with the Americas-based affiliate of Vitol, which is the world's largest trader of energy. ²⁸ The SPA is for 0.5 MTPA of LNG delivered free on-board at the Delfin LNG deepwater port for a 15 year period, and is valued at approximately \$3 billion of revenue over its 15-year term. ²⁹ At the same time, Vitol Americas Corp. also entered into an Investment Agreement with Delfin, providing an investment and loan and acquiring certain preferred equity options in connection with the financing of Delfin's first FLNGV. In the related press announcement, Vitol management commented:

²⁸ See Press Release, Delfin Midstream Signs LNG Sale and Purchase Agreement With Vitol Inc., available at: https://www.globenewswire.com/news-release/2022/07/13/2478651/0/en/Delfin-Midstream-Signs-LNG-Sale-and-P urchase-Agreement-With-Vitol-Inc.html Delfin Midstream is the parent company of Delfin LNG.

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²⁹ In accordance with the terms of its export authorizations, Delfin submitted to DOE a full and non-redacted copy of its SPA with Vitol on a confidential basis, along with public summary of the material terms of the agreement, on August 11, 2022.

We are delighted to conclude this agreement with Delfin. Global LNG demand is experiencing tremendous growth and Vitol continues to strengthen its position to safely and reliably deliver cost effective, flexible solutions to our customers around the world. Vitol's commitment and investment grade rating will help Delfin on its path to financial close of this exciting project....

We have seen extensive changes to the global energy landscape this year, further underscoring the importance of US liquefaction in meeting the world energy needs. Delfin's innovative solution provides a reliable, low cost alternative for the world's LNG needs.³⁰

On August 15, 2022, Delfin's parent company executed a Heads of Agreement ("HOA") with Centrica, providing for Centrica to purchase 1.0 MTPA of LNG from Delfin for a 15-year term. In the announcement of the HOA, the Centrica Group Chief Executive explained:

Against a challenging geopolitical and macroeconomic environment Centrica has been working to bolster the UK and Ireland's energy security both now and over the longer term....
[T]his £7bn agreement with Delfin, which starts in 2026, will underpin the expansion of US LNG export capacity, an increasingly important source of stable, reliable future gas supply.

Natural gas has now been recognized as an essential transition fuel on the path to net zero just at the point geopolitical uncertainty is impacting the global gas market. Additional US gas export capacity will help increase UK, European and global energy security, reflecting the increasing importance of LNG in the global gas supply chain. I'm delighted to sign this Heads of Agreement with Delfin as we continue to deliver our new strategy, growing Centrica's LNG portfolio and ensuring that we increase our access to a diversified range of reliable gas supplies for our customers.³¹

In addition, in the announcement the UK Secretary of State for Business and Energy commented:

A key component of our Energy Security Strategy is that natural gas is a key transition fuel on the road to clean, affordable, homegrown energy. From renewables to nuclear, we have ambitious plans for greater energy independence, but we are also realistic about our energy needs now and in the years ahead. That means we

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³⁰ Vitol Press Release, *supra*. note 28.

³¹ Centrica Press Release, Centrica signs LNG Heads of Agreement with Delfin (Aug. 2, 2022), available at: https://www.centrica.com/media-centre/news/2022/centrica-signs-lng-heads-of-agreement-with-delfin/.

need to secure more diverse and reliable sources of natural gas from friends, allies and strategic partners. Today's deal between Centrica and Delfin is positive news for the UK, helping to ensure our diversity of supply from reliable sources - like our friends in the United States - for many years to come.³²

That Centrica HOA, of course, led to the SPA finalized and executed in July 2023 that remains in place and is a central underpinning of Delfin's first FLNGV, as well as of Centrica's plans for U.K. energy security as Europe moves away, permanently, from dependence on Russian gas.³³ Centrica's public announcement of the SPA explained "This agreement will see Centrica take delivery of around 14 LNG cargoes per year and could provide enough energy to heat 5% of UK homes for 15 years. The deal, with a market value of \$8bn, marks an additional move by Centrica to build further resilience in the UK's energy security," adding that "As a foundation customer of the Delfin LNG project, Centrica's offtake underpins investment in the next wave of incremental LNG supply from the US."³⁴ Centrica's Group Chief Executive further explained:

This agreement is good news for our customers and the country. The last year has demonstrated the critical importance of investing in the UK's energy security. Addressing the immediate impact of the energy crisis on our customers has been one of our biggest priorities, but I'm acutely aware that we also need to look ahead to manage future risks and secure our supplies.

Natural Gas is an essential transition fuel in the move to net zero and securing international agreements such as this are vital to the UK's energy security. As well as strengthening the trade links between the UK and US, this deal...shows that Centrica is investing heavily to future-proof the UK's energy supply and address one of the underlying causes of the energy crisis.³⁵

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³² *Id*.

³³ Delfin submitted to DOE a full and non-redacted copy of its SPA with Centrica on a confidential basis, along with public summary of the material terms of the agreement, on July 20, 2023.

³⁴ Centrica Press Release, Centrica signs major LNG supply agreement (July 11, 2023), available at: https://www.centrica.com/media-centre/news/2023/centrica-signs-major-lng-supply-agreement/.

³⁵ *Id*.

Also in August 2022, Delfin entered into an investment agreement with Plyetech Capital, a European-based, independent, private, multi-industry group of companies active in the shipping, energy, information technology, real estate and logistic sectors. That agreement involved funding for Delfin in exchange for a convertible note giving Plyetech certain additional rights to invest in Delfin.

In September 2022, Delfin and Devon Energy Corporation ("Devon") -- a leading oil and gas producer in the U.S. with a premier multi-basin portfolio headlined by a world-class acreage position in the Permian Basin -- announced an LNG export partnership with an HOA providing for Devon to contract for long-term liquefaction. ³⁶ Delfin has not yet finalized a definitive, binding offtake agreement with Devon but continues to expect that it will – resulting in additional commercial support beyond that already fully committed and detailed in this Request.

Delfin's significant commercial progress continued throughout 2023. On April 21, 2023, Delfin entered into its second long-term SPA, with Hartree Partners Power & Gas Company (UK) Limited ("Hartree"), a leading global energy and commodities firm with one of the world's largest investment funds as majority shareholder.³⁷ The Hartree SPA is for 0.6 MTPA of LNG for a 20-year term. In the public announcement of the SPA, one of Hartree Founding Managing Directors explained: "We are excited about partnering with Delfin LNG and to strengthen their progress toward reaching Final Investment Decision and look forward to a successful and collaborative long-term relationship. This deal will also support our wider strategy of delivering

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³⁶ See Devon Press Release, "Delfin Midstream and Devon Energy Enter into LNG Export Partnership" (Sept. 5, 2022), available at:

 $[\]frac{https://www.devonenergy.com/news/2022/Delfin-Midstream-and-Devon-Energy-Enter-into-LNG-Export-Partnership.}{}$

³⁷ See Delfin and Hartree Joint Press Release, "Delfin Signs LNG Sale and Purchase Agreement with Hartree" (April 24, 2023), available at: https://delfinmidstream.com/news/delfin-signs-lng-sale-and-purchase-agreement-with-hartree/. Delfin submitted to DOE a full and non-redacted copy of its SPA with Hartree on a confidential basis, along with public summary of the material terms of the agreement, on May 18, 2023.

low cost, tailor-made and reliable LNG supply chain solutions that meet the specific requirements of our customers."³⁸

In June 2023, Delfin entered into a strategic investment agreement with Mitsui O.S.K. Lines, Ltd. ("MOL"), a global leading shipping company operating about 800 ships.³⁹ The agreement included MOL's investment in Delfin's parent company, with a MOL representative joining its Board of Directors, and MOL's right to invest directly in Delfin's FLNGVs and to assist in their construction and operation. In the announcement of this development, the President and CEO of MOL stated:

We are delighted to announce our partnership with Delfin, marking the beginning of a fruitful endeavor together. Drawing on our extensive expertise gained from previous LNG Carrier and FSRU projects and other ventures, we anticipate collaborating with Delfin to successfully drive forward this project toward our initial shared goal of quickly making Final Investment Decision on the first FLNG vessel. 40

In November 2023, Delfin entered into two SPAs with a subsidiary of the Gunvor Group Ltd. ("Gunvor"), one of the world's largest independent commodities trading houses by turnover which has been trading LNG since 2010 and has grown to become the largest independent LNG trading company in the world.⁴¹ The two SPAs are each for 0.6 MTPA for a 20-year term, but one of them allowed Gunvor to assign all (but no less than all) of its rights under the SPA, or to

³⁸ *Id*.

³⁹ Delfin and MOL Joint Press Release, "Delfin Enters Strategic Investment Agreement with Mitsui O.S.K. Lines" (June 8, 2023), available at: https://delfinmidstream.com/wp-content/uploads/2023/06/Delfin-MOL-Investment-8-june-2023.pdf.

⁴⁰ *Id*.

⁴¹ See Gunvor Press Release, Delfin Midstream Signs Long-Term LNG Supply Agreement with Gunvor (Nov. 29, 2023), available at: https://gunvorgroup.com/news/delfin-midstream-signs-long-term-lng-supply-agreement-with-gunvor/. Regarding Gunvor's role in LNG, see also: https://gunvorgroup.com/moving-energy/trading/liquefied-natural-gas/.

novate the SPA in its entirety.⁴² In February 2024, Gunvor exercised that ability and Chesapeake Energy Company, the Oklahoma-based leading natural gas producer, has become Delfin's customer under one of the SPAs, purchasing the LNG produced by Delfin and then delivering it to Gunvor.⁴³

All of these positive developments positioned Delfin very well, commercially, to reach FID in 2023 on its first FLNGV, with the second to follow soon behind it. This FID has been the expectation not only of Delfin, its investors, and off-takers, but also of knowledgeable market observers. For instance, the investment bank Stifel's "America's – Energy Infrastructure Industry Update" dated September 10, 2023, opined at page 2: "While a number of [LNG] projects have made progress recently, we expect there is likely to be only one of two more projects which are able to make final investment decisions before year-end. Specifically, Delfin LNG should almost certainly be positioned to FID at least their first 3.5 mtpa unit to operate offshore Louisiana, and perhaps a second." More recently, Poten & Partners observed: "Much of the [liquefaction] financing activity witnessed in 2023 is expected to focus on North America again. A handful of LNG export projects had been targeting 2023 for final investment decisions (FIDs) and they are likely to get the greenlight in 2024. They include Delfin FLNG1, Delfin FLNG2...."

FINGS

FINGS

**This FID target has 1.5 market in 2023 in

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⁴² Delfin submitted to DOE full and non-redacted copy of the Gunvor SPAs on a confidential basis, along with public summary of the material terms of the agreements, on Dec. 22, 2023. The assignment or novation right was disclosed in a footnote of the public summary.

⁴³ See Gunvor Press Release, "Chesapeake Energy Corporation, Delfin LNG and Gunvor sign long-term LNG liquefaction offtake agreement indexed to JKM" (Feb. 13, 2024), available at: https://gunvorgroup.com/news/chesapeake-energy-corporation-delfin-lng-and-gunvor-sign-long-term-lng-liquefaction-offtake-agreement-indexed-to-ikm/.

⁴⁴ Poten & Partners, "Record Liquefaction Funding Gets US Boost," extract from *LNG Finance in World Markets* (Jan. 5, 2024), available at: https://www.poten.com/business-intelligence-products/lng-finance-world-markets-featured-

slipped from 2023 into 2024" while forecasting that Delfin's first FLNGV will reach FID in 2024 "based on Delfin FLNG's success to date in securing firm offtakers and strategic partners." 45

The delay in Delfin's FID from 2023 into 2024 resulted from regulatory delay.

C. The Quest for Final License Issuance By MARAD

DOE summarized the MARAD DWP license process for Delfin when issuing its non-FTA authorization. ⁴⁶ As explained there, the process culminated in the MARAD ROD approving the project in 2017. With the parallel siting, construction, and operation approval for an on-shore LNG terminal issued by FERC under NGA Section 3 (which like Delfin's ROD issued by MARAD sets the stage for non-FTA authorization by DOE), construction could then move forward subject only to implementation filings and approvals to proceed by FERC Staff. For MARAD, another regulatory step was needed: final license issuance. Unfortunately, that step has been more complex and time-consuming than could possibly have been anticipated, even though made challenging by the fact that MARAD has not issued any final DWPA licenses since the heyday of U.S. LNG imports. ⁴⁷

Delfin has been diligently pursing its final license for nearly two years now. On April 11, 2022, Delfin provided MARAD and the USCG with a written summary of the current status of its project, and then participated in a virtual meeting with the agencies on May 10, 2022. In

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⁴⁵ S&P Global, "Liquefaction project FID outlook for 2024" (Jan. 22, 2024) at p. 3.

⁴⁶ DOE/FE Order No. 4028, Docket No. 13-147-LNG at 126-135 (June 1, 2017)

⁴⁷ See the MARAD Deepwater Licensing Program website at: https://www.maritime.dot.gov/ports/deepwater-ports-and-licensing/approved-applications, describing the approved projects and showing the most recent DWPA final license being issued in 2010 to Port Dolphin (a proposed LNG import project proposed offshore Florida that was never constructed and surrendered its license) and, before that, in 2007, to Northeast Gateway, the still operating LNG import project offshore Massachusetts.

response to MARAD's request at that meeting, Delfin provided the regulators on June 14, 2022 a written letter detailing the engineering refinements to the project: this letter is provided for reference as **Attachment 1** to this Request. In that letter, Delfin explained that in its 2020 FEED with SHI and B&V the design goal was to use the best available technology consistent with the concepts evaluated in the Project's Final Environmental Impact Statement ("EIS") issued pursuant to the National Environmental Policy Act ("NEPA"). Delfin explained its engineering refinements that reduced air emissions (by incorporating waste heat recovery effectively resulting in a combined-cycle power generation on the FLNGV) and a change in mooring systems that reduced construction impacts and seabed disturbance, as well as showing a host of smaller differences between the current FEED and the EIS analysis. Delfin also stated in that June 2022 submission to MARAD (at page 1) that it was "prepared to move forward with the actions needed for MARAD to issue the Deepwater Port license" and that it "look[ed] forward to working with the agencies to this end in the coming months."

In the months that followed, Delfin had various communications with MARAD, updating it on the project's significant commercial progress (regarding the relevant developments summarized in the preceding section of this Request) as well as minor permitting updates concerning its onshore facilities (such as a FERC extension and the September 2022 reissuance by the U.S. Army Corps of Engineers of Delfin's Section 10/404 Wetlands and Waterbody Construction permit), and repeatedly seeking status updates. Then, on March 30, 2023, MARAD directed Delfin to submit an Environmental Assessment ("EA") addressing the changes to the project since the Final EIS so that MARAD and USCG could evaluate whether a Supplemental EIS is needed. Delfin responded rapidly, updating an EA its environmental consultants had already prepared in January 2023, and submitting it to MARAD on April 7, 2023. The

submission letter along with the EA requested by MARAD is provided as **Attachment 2** to this Request.

The letter and the EA demonstrate that there are no substantial changes to the project or significant new circumstances relevant to environmental concerns that require supplemental NEPA analysis, and that Delfin's engineering refinements use the best available technology (which is required under the DWPA) and result in equal or lesser level environmental impacts than those analyzed in the Final EIS. In its April 7, 2023 letter (at page 3), Delfin also expressed disappointment at the time taken by MARAD to request the EA, reviewed the project's strong commercial momentum and negotiation of the EPCI Agreement with SHI and B&V, and explained: "In short, all aspects of the Project are advancing well, positioning us for a Final Investment Decision for at least our first FLNGV in the coming months. Obviously, issuance of our DWPA license is a crucial part of that process."

On June 23, 2023, Delfin then, on its own initiative and seeking to be proactive in facilitating the review process, submitted to MARAD an additional supplemental environmental analysis prepared by its consultants focused on GHG emissions. This letter and the accompanying GHG analysis are provided as **Attachment 3** to this Request. That analysis details the significant *reductions* in the project's direct emissions compared to the Final EIS analysis based on the preliminary design considered in the ROD. The analysis includes detailed, updated calculations of the Project's estimated direct GHG emissions during construction and operations, analysis of projected net GHG emissions, and monetization of the emissions using Social Cost of GHG estimates. While explaining that MARAD legally need not consider downstream GHG emissions overseas, the analysis nevertheless addressed life-cycle GHG

emissions and explained that DOE's study of that issue in 2014⁴⁸ (which had been discussed in the ROD) was updated by DOE in 2019,⁴⁹ and then estimated that Delfin's project will result in a *net decrease* of 200 million metric tons of carbon dioxide equivalents being emitted over the life of the Project as a result of fuel switching overseas.

On July 19, 2023, Delfin submitted to MARAD, on a confidential basis, voluminous financial data and related contracts intended to satisfy the condition in the ROD that Delfin show "financial responsibility" and the ability to construct and operate the jurisdictional Deepwater Port (which has a total cost of under \$500 million, considerably less than the costs of the first FLNGV that Delfin is also ready to finance). The confidential financial submission included copies of SPAs and investment agreements described in Section III.B above, plus more, including a business plan, projected costs and revenue for the Deepwater Port and a financial model, and estimates of eventual decommissioning costs when the project is no longer in-service.

On August 17, 2023, MARAD wrote the U.S. Fish & Wildlife Service ("FWS") to reinitiate consultation under the Endangered Species Act ("ESA"), and requested FWS concurrence with MARAD's determination that the Delfin project "may affect but is not likely to adversely affect Federally-listed threatened and endangered species and designated critical habitat." The FWS promptly concurred in that determination, on September 29, 2023.

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⁴⁸ 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.

⁴⁹ 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/FE's responses to comments on the 2019 GHG Study on January 2, 2020. 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).

⁵⁰ Based on the "cc" list on this consultation letter, Staff in DOE/FECM received a copy of it.

On October 27, 2023, MARAD sent a similar letter to the National Marine Fisheries Service ("NMFS") to reinitiate ESA consultation with it.⁵¹ The letter explains that MARAD determined, using the best scientific and commercial data available that the Delfin Project is not likely to adversely affect any listed species or critical habitat under NMFS jurisdiction, and requested NMFS concurrence with this determination. While Delfin has provided additional information to MARAD to respond to NMFS' follow-up inquires, Delfin's understanding is that NFMS still has not yet completed its consultation with MARAD.

In summary, for much of the past year, Delfin has been hoping and expecting its final license to be issued by MARAD, and has done everything it can devise to further that goal.

Unfortunately, MARAD's final license issuance process – uniquely applicable to Delfin among all LNG export projects with non-FTA authorization – is clearly outside of Delfin's control.

Delfin still expects MARAD to issue its final license soon. Of course, Delfin will update DOE/FECM in a supplemental submission in support of this Request as soon as the DWPA license is issued by MARAD.

In a much more efficient and stream-lined regulatory process, Delfin filed with FERC on July 21, 2023, for a four-year extension of the FERC-jurisdictional portion of the Project, and FERC granted that extension as requested on October 4, 2023.⁵² FERC concluded that "Delfin's continued efforts to enter into commercial agreements and finalization of the design of the deepwater port are sufficient evidence of continued commitment to proceeding with the project and demonstrate good cause for granting the requested extension of time to construct the

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⁵¹ Again, based on the "cc" list on this consultation letter, Staff in DOE/FECM received a copy of it.

⁵² Delfin LNG LLC, 185 FERC ¶ 61,009 (2023). This extension allows Delfin until September 28, 2028 to place in-service its on-shore facilities that will interconnect with the existing pipeline grid and flow directly into the offshore pipeline owned by Delfin (the former "UTOS" pipeline) that is part of the deepwater port subject to MARAD jurisdiction. Delfin will place those facilities in-service, in compliance with FERC's implementation process, in advance of its first FLNGV.

Onshore Project and place it into service."⁵³ FERC also noted, quoting from a previous extension of time that it had granted Delfin, that it would not "act in a way that will unilaterally undermine the decisions of the Coast Guard and MARAD regarding the deepwater port, by denying an extension of time for construction of our component."⁵⁴ The DOE similarly should be sensitive to this possibility of its actions undermining MARAD and the USCG in the exercise of their jurisdiction over Deepwater Ports.

IV. REMAINING STEPS NEEDED FOR DELFIN'S FID

In addition to receiving the final regulatory authorizations needed to proceed with its first FLNGV (*i.e.*, MARAD final license issuance and the requested conditional extension of time from DOE), Delfin needs to complete two major tasks, along with a few minor ones: (1) finalize and execute the Lump-Sum Turn-Key EPCI contract with SHI to construct the FLNGV and (2) finalizing financing. All of these tasks are on course and have essentially been on-hold while Delfin pursued the final DWP license issuance. The limited time period proposed by Delfin after DOE's granting of the requested conditional extension for Delfin to satisfy the conditions proving that the Project is moving forward is intended to allow Delfin the time to complete these tasks.

As previously explained, Delfin's FLNGVs will be constructed at existing shipyards. There are few shipbuilders in the world with the requisite expertise and experience for this task, and none are located in the United States. Delfin has been working since 2019 with the South Korean major shipbuilder SHI, which is the leading yard in the world for FLNGV construction, including on the FEED study completed in 2020. Like all shipyards, SHI has limited capacity to

in. at ii. 37, citing and quoting from Deym Livo LLC, 161 FERC | 01,144 at 1-12 (2022).

⁵³ *Id.* at P 12.

⁵⁴ *Id.* at n. 39, citing and quoting from *Delfin LNG LLC*, 181 FERC ¶ 61,144 at P 12 (2022).

build vessels and seeks to maximize use of the yard's capacity with constant throughput. Therefore, shipyards plan in advance for the construction, assembly, integration and completion activities of vessel in so-called "yard slots." Together with SHI, Delfin developed, and nearly agreed-upon the EPCI contract; but finalization and execution of it has been held up by uncertainty about the timing of Delfin's FID. During 2023, Delfin in consultation with SHI had identified a few specific yard slots available for building its first FLNGV; but as the MARAD process dragged on (as detailed in Section III.C. above), Delfin missed those available yard slots, which were allocated by SHI to others.

In anticipation of the receipt of the DWP final License imminently and intending to commence construction of its first FLNGV as soon as possible, Delfin is negotiating a Slot Reservation Agreement with SHI. As previously noted, this Slot Reservation Agreement, when executed, will give Delfin an exclusive right to the yard slot needed for the construction and delivery in 2028 of the first FLNG Vessel. In approximately 57 months the FLNVG will be completed, under the EPCI Agreement with SHI at the shipyard, which would be followed by a transit period, when the FLNGV sails from the shipyard to Delfin's Deepwater Port in the Gulf of Mexico, where final commissioning and testing will be done, and the first LNG will be exported. The EPCI Agreement also provides for assistance from SHI with the FLNGV transportation and hook up with the Deepwater Port and its direction and supervision of all aspects of commissioning, start-up and testing of the FLNGV as well as providing a completion guarantee subject to LNG liquefaction performance testing. The timing under the EPCI Agreement will enable Delfin to commence first export of LNG in early 2029 (but not before then).

Delfin and SHI plan to finalize and execute the EPCI Agreement in the coming months, and for Delfin to issue a LNTP under it. The LNTP is an instruction to the shipyard, issued by Delfin, to start execution under the EPCI scope by commencing the first activities needed for construction of the FLNGV, comprising engineering works and procurement preparations. Delfin will later issue the unconditional, full NTP to the shipyard to continue the full execution of the EPCI contract, after receipt of the MARAD final license and DOE conditional extension as well as completion of financing arrangements.

That financing has been progressing positively, but also cannot be finalized in advance of the MARAD Deepwater Port final license issuance. For Delfin's Deepwater Port (MARAD's financial focus), the FLNGV project company will contract with Delfin for the port services and make payments to fund the port construction and operations. In addition, the financing for the Port is fully supported by Delfin's existing shareholders and commercial counterparts. MOL and Vitol for example, have given written confirmation of their interest in providing the funding toward the completion of the port.

For the larger task of financing its first FLNGV, Delfin is following a very well-trodden path laid out by previous U.S. LNG export projects that have reached FID in recent years. To date, U.S. LNG export projects have been predominantly financed through project financing where approximately \$100 billion has been raised and have materially contributed towards the execution of nearly all those LNG projects. Delfin similarly is working towards a project finance solution, but its funding requirement is smaller compared to land based liquefication terminals, particularly for just Delfin's the first FLNGV which will be built separately and independently from its other FLNGVs. Thus, the debt financing will need the participation of fewer banks. For each FLNGV that Delfin builds, it expects that up to 6 banks will be sufficient; in contrast,

recent land-based projects have required 20 or more banks participation at closing with subsequent syndication expanding the groups to more than 40 banks. In order to gauge interest in financing its FLNGVs, Delfin conducted a significant bank outreach during 2023 to get an indication of banks' contribution towards the project finance of its project, and the feedback from banks indicated funding interest well in excess of Delfin's funding requirement.

Delfin's FLNGV financing ability is further enhanced through assistance from its prominent investor the Japanese shipping company MOL, which owns the largest LNG shipping fleet in the world. Delfin's relationship with MOL has also resulted in attracting the attention of the major Japanese banks, most of whom are already major contributors to financing U.S. LNG terminals. Additionally, Delfin management have extensive experience in financing floating assets such that, in addition to project finance, they have also financed vessels through sale and leaseback structures and asset backed financing. While the resulting financing structure will be determined by the terms of the financing, the strong interest in Delfin by project finance banks, its connection with major Japanese financiers and the financing options available to Delfin by virtue of the FLNGV being a floating asset, provides Delfin high confidence in executing the debt financing for its FLNGVs.

Delfin is also confident in securing the equity required to supplement its debt funding. As noted in Section III.B. above, some of Delfin's existing agreements provide certain contractual rights to participate in any equity raising for its FLNGVs. Delfin also has engaged in detailed negotiations with other equity investors, and the recent, large equity investments in land-based LNG projects demonstrate that such investment opportunities remain compelling, particularly with the comparative advantages of the Delfin project (include cost competitiveness, speed to market, and the advantages of FLNG summarized in Section III.A of this Request).

While Delfin's FID has been delayed, it continues to work with equity investors and is confident in securing the needed financing, once the regulatory matters are resolved.

The smaller tasks that also must be completed include the selection and contracting for the FLNGV mooring system that will be part of Delfin's Deepwater Port, preparing works for the small offshore pipeline additions, and for the construction and operation of the limited onshore facilities. Delfin is executing a tender with candidate suppliers for the supply of the mooring system and is expecting to select and award this in the first half of 2024. Delfin is also finalizing selection of partners to begin construction of shore-based FERC regulated infrastructure. Given the much shorter time required for these tasks, compared to for the FLNVG construction, completion of them is not time critical. Nevertheless, Delfin has been working diligently on these items as well and will finalize the arrangements in advance of FID, and thus prior to the satisfaction of the condition Delfin proposes on its requested extension.

V. REQUEST FOR CONDITIONAL EXTENSION OF TIME

NGA Section 3(a) provides both that DOE may impose terms and conditions in export authorizations that it "may find necessary or appropriate" and that DOE may "for good cause shown, make such supplemental order in the premises that it may find necessary or appropriate." DOE has uniformly imposed in its non-FTA export authorizations a condition to commence export operations within seven years after the authorization order. The seven-year commencement deadline is intended "to ensure that other entities that may seek similar authorizations are not frustrated in their efforts to obtain those authorizations by authorization

⁵⁵ 15 U.S.C. § 717b(a); see also 10 C.F.R. § 590.404.

⁵⁶ See Commencement Extension Policy, 88 Fed. Reg. at 25,274-75.

holders that are not engaged in actual export operations."⁵⁷ DOE has found "good cause" to grant an extension of the commencement deadline for a number of LNG projects. ⁵⁸

Delfin requests that the (already past) commencement deadline in its FTA authorization (Order No. 3393, as amended) be eliminated entirely. This approach is consistent with both DOE precedent⁵⁹ and the statutory requirement of NGA Section 3(c) applications that exports of natural gas, including LNG, to a nation with which there is in effect a FTA requiring national treatment for trade of natural gas be "deemed to be consistent with the public interest" and that such authorizations be "granted without modification or delay."⁶⁰ DOE has recently explained that, with a term that ends on the definitive date at the end of 2050, there is no purpose for a specific date by when exports under an FTA authorization must start.⁶¹ Accordingly, the deadline in Delfin's FTA authorization should be eliminated.

With respect to its non-FTA authorization (Order No. 4028, as amended), Delfin proposes that its commencement deadline be extended by five years, to June 1, 2029, consistent with the timeline under its EPCI contract discussed above. As noted at the outset of this Request, and further discussed below, Delfin proposes that this extension be conditional. Delfin

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⁵⁷ *Id.* at 25,275 & n. 28, quoting from Sabine Pass Liquefaction, LLC, DOE/FE Order No. 2961, Docket No. 10-111-LNG at 33 (May 20, 2011).

⁵⁸ *Id.* at 25,275-6, discussing extensions granted to Golden Pass LNG, Lake Charles LNG, and Cameron LNG; *see also Port Arthur LNG, LLC*, Order Nos. 3698-C/4372-B, Docket No. 15-53-LNG, *et al.* (Apr. 21, 2023).

⁵⁹ See Port Arthur LNG, LLC, Order Nos. 3698-C/4372-B, Docket No. 15-53-LNG, et al. at 5 (Apr. 21, 2023); NFE Altamira FLNG, S. de R.L. de C.V., DOE/FECM Order No. 4960 at 15-16 (Mar. 3, 2023) (Ordering Para. A with no commencement deadline in FTA authorization).

⁶⁰ 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."). Given the statute, Delfin could simply request a new FTA export authorization with no commencement deadline, and DOE would be statutorily required to grant it without modification or delay. No purpose would be served by such additional hoop-jumping however, leading Delfin to request this change to its FTA authorization as part of this Request.

⁶¹ Port Arthur LNG, LLC, Order Nos. 3698-C/4372-B, Docket No. 15-53-LNG, et al. at 5 (Apr. 21, 2023);

also notes that, under the extension with no change in the end-date of the authorization (December 31, 2050) and the fixed level of annual authorized exports, the result of the extension will be that Delfin will have five years fewer to export LNG for a significant decrease in the total volumes of LNG exports under the authorization than was previously authorized.⁶²

In considering extensions, DOE has recognized the "continuing uncertainty that all or even most of the proposed LNG export projects will ever be realized because of the time, difficulty, and expense of commercializing, financing, and constructing LNG export terminals, as well as the uncertainties and competition inherent in the global market for LNG." In addressing this issue further in the Commencement Extension Policy, DOE explained:

Further, in monitoring market developments as the impact of successive authorizations of LNG exports unfolds, DOE has recognized new challenges involving the growing volume of approved non-FTA exports associated with facilities that are not currently operating or under construction. Over time, as more authorization holders are authorized to export or re-export U.S.-sourced LNG to non-FTA countries—but are not engaged in actual export or re-export operations—this approval gap, or "authorization overhang," has widened, with detrimental effects....⁶⁴

When DOE's cumulative volume of approved non-FTA exports is greater than the physical capacity to export these volumes, there is no assurance of when the full export capacity will be available, or whether it will become available at all. This uncertainty has become increasingly disruptive to DOE's planning, economic forecasting, and market analysis of the U.S. LNG export market as reviews of non-FTA export applications continue.... With the non-FTA volumes already approved and these applications for new non-FTA exports under review, it is important for DOE to have a clear picture of the U.S. LNG export market, including what amount of export capacity may be commercialized within seven years. Further, DOE has become aware of the challenges this

⁶² See id. at 13 (noting this perceived advantage of an extension of time for Port Arthur LNG).

⁶³ Commencement Extension Policy, 88 Fed. Reg. at 25,276 & n. 54, *quoting from Freeport LNG Expansion, L.P., et al.*, DOE/FECM Order No. 4961, Docket No. 21-98-LNG at 71 (March 3, 2023).

⁶⁴ *Id*.

continuing uncertainty presents to participants in the U.S. and global LNG export markets, including U.S. allies and trading partners. The authorization overhang also may serve to discourage or delay potential new entrants to the U.S. export market....⁶⁵

In the Commencement Extension Policy, DOE/FECM announced its policy establishing two prerequisites for extensions of time: (1) that the authorization holder has physically commenced construction of its export facility and (2) the authorization holder's inability to comply with its deadline is the result of extenuating circumstances outside of its control.⁶⁶

Delfin submits that it has satisfied these requirements.

Again, Delfin's construction needs are different from essentially every other LNG project subject to this policy, which are all land-based projects. Its liquefaction project will be constructed in an overseas shipyard, which of course already exists and need not be constructed. That construction, however, must fit within a limited number of yard slots, which requires certainty about the desired timing. Furthermore, Delfin notes again that much of its export facility – the offshore feed gas pipelines – have already been constructed. Delfin has committed significant resources on these pipelines, for instance to acquire the former-UTOS pipeline (with associated liabilities) and to maintain it in active service in compliance with U.S. Department of Transportation pipeline safety regulations.⁶⁷ If and to the extent that Delfin does not fully satisfy the construction prong of the Commencement Extension Policy as it was envisioned, that fact

⁶⁵ *Id.* at 25,276-7.

⁶⁶ *Id.* at 25,277.

⁶⁷ Delfin has contracted with Manta Ray Gathering Company ("Manta Ray," a wholly owned subsidiary of Genesis Energy which owns HIOS) to provide the personnel and equipment necessary to conduct routine operations and maintenance activities on this pipeline on behalf of Delfin, with Delfin staff also performing necessary oversight and independent monitoring of the pipeline condition and regulatory compliance status. Under that contract, Manta Ray is performing required operations and maintenance activities, including the periodic testing and inspecting of the pipeline required by federal and state regulations. The most recent federal compliance audit for the pipeline was completed in November 2021 by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA).

results from the unique nature of its project. Moreover, Delfin proposes a *conditional* extension to satisfy the purposes of the policy statement by confirming that the project is indeed moving forward (whereas the construction requirement appears to be intended as a less definitive indicia of such progress).

Delfin detailed as part of the facts presented in Section III of this Request the extenuating circumstances outside of Delfin's control that have delayed its project. In summary, those circumstances include:

- the new and evolving nature of FLNG technology;
- the need for Delfin to refine its project repeatedly to reflect advances being made in the FLNG industry, to comply with the "best technology" requirements of the DWPA, market demand and expectation, and the desire to improve efficiency and environmental performance;
- the reasonable efforts centered on a China-focused first FLNGV, which was then rendered impossible by the U.S.-China trade war at the time;
- COVID-19 and the corresponding material slow-down in the LNG market developments;
- The need to secure limited slots in expert shipyards qualified to construct a FLNGV and associated timing complications; and
- The unique regulatory requirements of the MARAD final licensing process, with a muti-faceted and time-consuming regulatory review not applicable to other projects.

The application of the MARAD regulatory process – unique to Delfin among all non-FTA authorization holders – presents an independent and compelling reason for DOE to grant the extension requested by Delfin. Once Delfin finally completes the MARAD licensing process, it will be the first Deepwater Port to obtain a final license since 2010, only the second since 2007, and *the only* authorized and licensed LNG export deepwater port. Were DOE then to deny Delfin's request for an extension of time, it would fundamentally undermine and frustrate the regulation of MARAD, and the USCG, over a project within their jurisdiction, and on which

they have focused significant regulatory efforts. As noted previously, the FERC cited this concern as one reason justifying its own extension of time granted to Delfin, and of course FERC's extension provides additional support for Delfin's extension request. DOE has rejected arguments that a FERC extension of its construction and in-service deadline for a land-based LNG project is sufficient reason for it to extend its own export commencement deadline. Yet, a MARAD final DWPA license, issued after a searching regulatory process lasting approximately two years and constituting that agency's first such issuance in well over a decade is an entirely different sort of precedent than an extension that FERC grants routinely.

Furthermore, as explained in Section II above, in the unlikely future event that U.S. LNG exports become not economic or not in the public interest as a result of changed circumstances, Delfin is the only project with a Non-FTA export authorization that can relocate its project for use elsewhere. Thus, DOE's approval of Delfin's requested extension of time, in the unique circumstances of an FLNG project developed as the relevant technologies were just coming to maturation, will help address any concerns related to LNG export facilities potentially becoming stranded assets.

For all of these reasons, Delfin believes that good cause would justify an unconditional extension of time for its project. Yet, to address fully DOE's concern that motivated the

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⁶⁸ Delfin LNG LLC, 185 FERC ¶ 61,009 at n. 39 (2023); Delfin LNG LLC, 181 FERC ¶ 61,144 at P 12 (2022).

⁶⁹ Lake Charles LNG Export Co., LLC, DOE/FECM Order Nos. 3668-C/4010-C, Docket No. 13-04-LNG, et al. at 33 (Jun. 21, 2023).

⁷⁰ See, e.g., Driftwood LNG LLC, 186 FERC ¶ 61,112 (2024) (finding good cause and granting a three-year extension of time); Rio Grande LNG, 181 FERC ¶ 61,032 (2022) (finding good cause and granting two-year extension of time for LNG export facilities); Port Arthur LNG, LLC, 181 FERC ¶ 61,024 (2022) (finding good cause and granting 50-month extension of time for LNG export facilities); Freeport LNG, 181 FERC ¶ 61,023 (2022) (finding good cause and granting 26-month extension of time for LNG export facilities, as a second extension of time); Trunkline Gas Co., LLC, 179 FERC ¶ 61,086 (2022) (finding good cause and granting a three-year extension of time for LNG export facilities, as a second extension of time); Corpus Christi LNG Stage III, LLC, 179 FERC ¶ 61,087 (2022) (finding good cause and granting 31-month extension of time for LNG export facilities).

Commencement Extension Policy about the "regulatory overhang" and in light of the admittedly lengthy duration of Delfin's requested extension, Delfin proposes that DOE/FECM grant only a *conditional* extension. The condition would require Delfin to certify by no later than nine (9) months after DOE/FECM's order that it has: (1) obtained the final DWPA license (to the extent that this has not occurred prior to DOE/FECM action); (2) secured necessary financing arrangements to construct its first FLNGV and the Deepwater Port; (3) made its positive FID decision with respect to first FLNGV; and (4) issued an unconditional, full NTP for first FLNGV to the EPCI contractor pursuant to the binding, executed EPCI contract.

This condition – whether satisfied by Delfin as it hopes and expects, or not -- will soon eliminate uncertainty whether Delfin's LNG export project will be realized. There will be no regulatory overhang with respect to Delfin and DOE will know definitively the status of Delfin's project, as will all participants in U.S. and global LNG markets, including perhaps most importantly the U.S. allies and trading partners that have contracted for supply from Delfin, including the U.K.'s largest energy supplier.⁷¹

VI. THE LATEST AVAILABLE INFORMATION CONFIRMS THAT DELFIN'S EXPORTS REMAIN NOT INCONSISTENT WITH THE PUBLIC INTEREST

In the Commencement Extension Policy, DOE also stated that the public interest analysis supporting its non-FTA authorizations may become "stale" and explained that its decisions regarding LNG exports, including regarding extensions, "should be made on the basis of the latest market information and analytic approaches available at the time of DOE's decision."⁷²

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⁷¹ Cf. Lake Charles LNG Export Co., LLC, DOE/FECM Order Nos. 3668-C/4010-C, Docket No. 13-04-LNG, et al.

at 21 and 44 (Jun. 21, 2023) (denying extension request for a project "in continuous limbo" and where DOE was "unable to find convincing evidence that [the project] would actually commence exports, if its deadline were extended again").

⁷² See Commencement Extension Policy, 88 Fed. Reg. at 25,277; see also Lake Charles LNG Export Co., LLC, DOE/FECM Order Nos. 3668-C/4010-C, Docket No. 13-04-LNG, et al. at 22 (Jun. 21, 2023) (denying extension request where the application was relying on out-of-date facts).

For this reason, Delfin has included here all the latest, and very detailed, information about its project. Moreover, MARAD's extensive regulatory process associated with its DWPA final license issuance, including an updated environmental analysis, eliminates any potential concern that the environmental review of Delfin's project could be seen as stale.

With respect to the factors that DOE considers when authorizing exports of LNG to non-FTA nations, all of them continue to demonstrate that exports of LNG are not inconsistent with the public interest. ⁷³ DOE, of course, already found that the proposed exports by Delfin are consistent with the public interest. In authorizing Delfin's non-FTA exports, DOE discussed in detail and at great length its studies conducted in 2014 and 2015 of the macroeconomic impacts of increasing U.S. LNG exports. ⁷⁴ In 2018, DOE released an updated study of the macro-economic impacts of LNG exports. ⁷⁵ DOE took that 2018 Study into consideration when it extended the term of Delfin's export authorizations through 2050, ⁷⁶ and Delfin incorporates the 2018 Study by reference into this Request as well.

In its subsequently issued non-FTA export authorizations, DOE/FECM has repeatedly explained the methodology and results of the 2018 Study and found them to be sound and

⁷³ 15 U.S.C. § 717b(a) (2006). The phrasing in NGA Section 3(a) 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 demonstration that the proposed export is inconsistent with the public interest. *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). *E.g.*, *Sierra Club v. U.S. Dep't of Energy*, 867 F.3d 189 at 203 (D.C. Cir. 2017).

⁷⁴ Delfin LNG LLC, DOE/FE Order No. 4028 at 49-89.

⁷⁵ The 2018 study is available at: https://fossil.energy.gov/app/docketindex/docket/index/10; see also "Study on Macroeconomic Outcomes of LNG Exports: Response to Comments Received on Study," 83 Fed. Reg. 67,251 (Dec. 28, 2018).

⁷⁶ Delfin LNG LLC, Order No. 3393-A/Order No. 4028-B at 6-7 (Dec. 10, 2020).

supporting of authorizing LNG exports.⁷⁷ 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 United States experiences net economic benefits from LNG exports.⁷⁸ In those recent orders, DOE/FECM further recognized that the 2018 Study's findings remain consistent with more current assessments of current and future natural gas supply, demand, and prices.⁷⁹ The assessments that have been considered by DOE/FECM include EIA's 2022 Annual Energy Outlook ("AEO 2022") as well as the EIA Short-Term Energy Outlooks issued in March 2022 and February 2023.⁸⁰ DOE/FECM concluded that these more recent EIA 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. ⁸¹

Even more recent market EIA data reinforces this same conclusion. 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

⁷⁷ 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).

⁷⁸ See citations in the prior footnote.

⁷⁹ Sabine Pass Liquefaction, LLC, Order No. 4800 at 47-48; Freeport LNG Expansion, L.P., et al., Order No. 4961 at 55-58.

⁸⁰ See Order No. 4800 at 47 (March 16, 2022); Freeport LNG Expansion, L.P., et al., Order No. 4961 at 56

⁸¹ See citations in the prior footnote.

2022-50.⁸² 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.⁸³ The AEO2023 thus concluded that "continued growth in U.S. production ... combined with relatively little growth in domestic consumption, allows the United States to remain a net exporter of ... natural gas through 2050 in all AEO2023 cases." These 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 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. 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. Study.

Furthermore, as a result of the increasing production and abundant reserves, domestic natural gas prices have remained relatively low as U.S. natural gas exports have increased. From 2015 through 2020, natural gas prices were historically low.⁸⁷ Domestic natural gas prices did

⁸² 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.

⁸³ *Id*.

⁸⁴ AEO 2023 at p. 6.

⁸⁵ See Table 13 for AEO 2017 is available at: https://www.eia.gov/outlooks/aeo/data/browser/#/?id=13-AEO2017&cases=ref2017&sourcekey=0.

⁸⁶ 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).

⁸⁷ 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 gas prices were the lowest in decades," (Jan. 7, 2021), available at: https://www.eia.gov/todayinenergy/detail.php?id=46376.

increase some in 2021 and then more dramatically in 2022.⁸⁸ In 2023, however, natural gas prices returned to low levels, with the Henry Hub natural price averaging just \$2.57 per MMBtu,⁸⁹ 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."⁹⁰

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). EIA's most recent, shorter-term projections have significantly lowered price projects in the short-term, and now project Henry Hub prices of \$2.65 in 2024 and \$2.94 in 2025; 92 but that 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

⁸⁸ EIA reports annual Henry Hub spot prices over time at: https://www.eia.gov/dnav/ng/hist/rngwhhdA.htm. 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.

⁸⁹ EIA, Today in Energy, "U.S. Henry Hub natural gas prices in 2023 were the lowest since mid-2020" (Jan. 4, 2024), available at: https://www.eia.gov/todayinenergy/detail.php?id=61183#.

⁹⁰ *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.

⁹¹ 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.

⁹² EIA, Short-Term Energy Outlook at 2 (Feb. 2024), available at: https://www.eia.gov/outlooks/steo/pdf/steo_full.pdf.

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 dollars. Thus, the latest available EIA pricing data is even more supportive of LNG exports that 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. Thus, all the latest market data continues to show that LNG exports are consistent with the public interest, and Delfin's requested extension of time in no way alters that central finding.

Delfin's non-FTA authorization also included a detailed discussion of DOE's 2014 Life Cycle GHG perspective on exporting LNG from the US. ⁹⁵ In 2019, DOE announced the availability for public review and comment of a new report updating the 2014 GHG Study, ⁹⁶ and subsequently published comments on the 2019 GHG Study on January 2, 2020. ⁹⁷ Delfin also incorporates by reference those most recent DOE analyses of GHG emissions, as well as its own project-specific analysis of that topic provided as Attachment 4. Taking into consideration its

⁹³ 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).

⁹⁴ 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, available at: https://www.eia.gov/outlooks/aeo/IIF_LNG/pdf/LNG_Issue_in_Focus.pdf..

⁹⁵ Delfin LNG, DOE/FE Order No. 4028 at 100-125, addressing DOE, DOE/NETL-2014/1649, *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States* (May 14, 2014), available at: http://www.energy.gov/sites/prod/files/2014/05/f16/Life%20Cycle%20GHG%20Perspective%20Report.pdf.

⁹⁶ 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.

⁹⁷ 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). DOE/FE concluded there that "natural gas is one part of an environmentally preferable global energy portfolio" and reiterated 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."

2019 GHG analysis, DOE has consistently found LNG exports to be consistent with the public interest, and Delfin's requested extension of time in no way alters that conclusion.

Delfin recognizes that DOE/FE is currently undertaking a new analysis of the macro-economic impacts of LNG exports as well as related GHG issues. But the new studies, and DOE's pause on new non-FTA authorizations, is not applicable to this request for an extension for export volumes *already authorized by DOE*. 98

VII. ATTACHMENTS

As previously noted, the following Attachments are included as part of this Request:

Attachment 1: June 30, 2022 submission to MARAD detailing design refinements

Attachment 2: April 7, 2023 submission to MARAD with Environmental Assessment

Attachment 3: June 23, 2023 submission to MARAD re. GHGs

In accordance with DOE regulations, Delfin has also attached to this Request a

Verification and a Certificate of Service. If DOE/FECM would like copies of any other

materials mentioned in this Request, or has any questions regarding the Request, Delfin will

promptly respond to any requests for information. In addition, as noted in the Request, Delfin

expects that it may supplement this filing with additional support as available.

VIII. CONCLUSION

WHEREFORE, for all the foregoing reasons, Delfin respectfully requests that DOE/FE issue an order modifying its existing export authorizations to allow Delfin to commence export operations from the Delfin Deepwater Port by no later than June 1, 2029, with no other changes in the existing authorizations, as more fully described in this Request.

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⁹⁸ See note 8 supra.

Respectfully submitted,

Dudley Poston Chief Executive Officer Delfin Midstream LLC 609 Main Street, Suite #2500 Houston, TX 77002 (713) 824-1597 poston@delfinlng.com

William H. Daughdrill Chief Operating Officer Delfin LNG LLC 25 W. Cedar Street, Suite 215 Pensacola, FL 32502 (850) 933-1720 w.daughdrill@delfinlng.com

Dated: March 1, 2024

/s/ J. Patrick Nevins

J. Patrick Nevins Latham & Watkins LLP 555 11th Street, NW Washington, D.C. 20004-1304 (202) 637-3363 patrick.nevins@lw.com

Counsel for Delfin LNG LLC

Verification

State of Florida)	
)	SS:
City of Pensacola)	

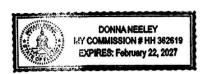
William H. Daughdrill, being first duly sworn on his oath deposes and says: that he is the Chief Operating Officer of Delfin LNG LLC; that he is duly authorized to make this Verification; that he has read the foregoing submittal and is familiar with the contests thereof; that all the statements and matters contained therein are true and correct to the best of his information, knowledge and belief; and that he is authorized to execute and file the same with the U.S. Department of Energy.

William H. Daughdrill Chief Operating Officer Delfin LNG LLC

Sworn to and subscribed before me this 28th day of February, 2024

Notary Public In and For said City.

My Commission Expires:



CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day served the foregoing document upon each person designated on the official service list compiled for this proceeding.

Dated at Washington, D.C., this 1st day of March, 2024.

/s/ J. Patrick Nevins

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