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IN THE MATTER OF

Delfin LNG LLC

FE Docket Nos. 13-129-LNG and 13-147-LNG

Motion to Intervene and Protest of Sierra Club and the Center for Biological Diversity

On June 1, 2017, the Department of Energy (DOE) authorized Delfin LNG, LLC

("Delfin") to export liquefied natural gas to "non free trade agreement" (non-FTA) countries.¹

Consistent with DOE's standard practice, Delfin LNG's authorization required the company to

commence exports within seven years, i.e., by June 1, 2024.² Nearly seven years have passed

since Delfin's authorization and it has still not commenced construction of the approved

facility. Delfin now asks that DOE extend their export commencement date by five years, from

June 1, 2024 to June 1, 2029.

Sierra Club and the Center for Biological Diversity³ move to intervene in this docket.

Sierra Club and the Center for Biological Diversity (collectively "Environmental Advocates")

protest Delfin LNG's extension requesting the above docket, pursuant to 10 C.F.R. §§

 2 Id.

¹ Delfin LNG LLC, DOE/FE Order No. 4028, Docket No. 13–147–LNG (June 1, 2017), *reh'g denied*, Order No. 4028–A (Apr. 3, 2018), *amended by* Order No. 4028–B (Dec. 10, 2020) (extending export term), *further amended by* Order No. 4028–C (May 18, 2021) (correcting and amending location of floating LNG vessels). In addition, Delfin's export authorization was amended by DOE/FE Order No. 4641 (Dec. 18, 2020) to include short-term export authority on a non-additive basis.

³ Sierra Club has been granted intervention in the underlying docket, but Sierra Club moves to intervene again specifically in response to this extension request. The Center for Biological Diversity has previously submitted formal comments on this project.

590.303(b) and § 590.304.

DOE should deny the request for an extension. Delfin has not shown good cause for the extension, and its request runs counter to DOE's extension policy and DOE's current pause on export authorizations. Delfin's "conditional" extension request also runs counter to the status of the deepwater port license to which it cites as a basis for its extension. Specifically, on April 17, 2024, the Department of Transportation (DOT)⁴ denied Delfin LNG a final license for the project, requiring the company to submit an amended application, should it choose to proceed, as a result of significant changes to the project's ownership, design, financing and operations.⁵ Thus, denying Delfin's extension request is consistent with the action of DOE's sister agency, and the current status of the project's deepwater port license.

For the reasons stated in this intervention and protest, Delfin LNG's request to extend its operational deadline is inconsistent with the public interest and should be denied. 15 U.S.C. § 717b(a).

I. Intervention

As noted, Sierra Club intervened in the original proceeding in this docket, and again moves to intervene in this docket. The Center for Biological Diversity also requests to intervene in this docket. DOE's rules do not articulate any particular standard for timely intervention, and as such, intervention should be granted liberally. DOE merely requires would-be-intervenors to set out the "facts upon which [their] claim of interest is based" and "the position taken by the movant." 10 C.F.R. § 590.303(b)-(c). As explained in the following section, the Environmental Advocates' position is that the application should be denied or, in the alternative, cannot be approved without

⁴ The Maritime Administration (MARAD) is delegated the authority by DOT to approve or deny deepwater port export licenses. 68 Fed. Reg. 36496 (Jun. 18, 2003).

⁵ Letter from MARAD to Delfin, Re: Application of Delfin LNG, LLC for Deepwater Port License (Apr. 17, 2024), https://www.regulations.gov/document/USCG-2015-0472-0121 (attached).

additional analysis far beyond that presented in Delfin LNG's cursory application. The organizations' interests are based on the impact the proposed extension of operation commencement will have on their members and missions.

A. Sierra Club

Granting Delfin LNG's requested extension will facilitate gas exports that would not otherwise occur, resulting in harm to Sierra Club's members. The project's gas exports will cause an increase in energy prices for gas and electricity that will financially impact Sierra Club members. As DOE and the Energy Information Administration have previously explained, each marginal increase in export volumes is also expected to further increase domestic energy prices. Absent the extension, Delfin LNG's export authorization would lapse, which would prohibit the project from proceeding with construction, thereby protecting Sierra Club members from economic harm.

The requested operational deadline extension will further harm Sierra Club members by increasing gas production and associated air pollution, including (but not limited to) the emission of greenhouse gases and ozone precursors. As DOE has recognized, increasing LNG exports will increase gas production,⁶ which causes increased ozone pollution. This added pollution threatens regional air quality and public health in areas already classified as non-attainment for federal ozone standards.⁷ Ozone pollution causes significant health harms, including asthma and other respiratory

⁶ See, e.g., U.S. EIA, Effect of Increased Levels of Liquefied Natural Gas Exports on U.S. Energy Markets (Oct. 2014) at 12, *available at* https://www.eia.gov/analysis/requests/fe/pdf/lng.pdf (explaining that "[n]atural gas markets in the United States balance in response to increased LNG exports mainly through increased natural gas production," and "[a]cross the different export scenarios and baselines, higher natural gas production satisfies about 61% to 84% of the increase in natural gas demand from LNG exports," with "about three-quarters of this increased production [coming] from shale sources.").

⁷ U.S. DOE, Final Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States (Aug. 2014) at 27-32, *available at* https://www.energy.gov/sites/prod/files/2014/08/f18/Addendum.pdf.

illnesses. Sierra Club has over 3,200 members in Louisiana, including many in the Barnett Shale region and other areas that are adversely impacted by ozone pollution from fossil fuel industry pollution. These members will likely experience adverse impacts from the increased gas production induced by Delfin. Denying the project's extension request, thereby preventing construction and operation, would likely avoid such harmful effects.

The additional exports resulting from an extension of Delfin LNG's license will cause the emission of significant greenhouse gases throughout the LNG lifecycle, from production, transportation, liquefaction, and end use. While climate change already adversely impacts Sierra Club members in numerous ways, these emissions will cause additional harm to Sierra Club members. Coastal property owners risk losing property to sea level rise. Extreme weather events, including flooding and heat waves, impact members' health, recreation, and livelihoods. Increased frequency and severity of wildfires emits smoke that impacts members' health, harms ecosystems members depend upon, and threatens members' homes. Proposals, such as this one, that encourage long-term use of carbon-intensive fossil fuels will increase and prolong greenhouse gas emissions, increasing the severity of climate change and the resulting harms.

The proposed exports will require new onshore and offshore infrastructure with significant direct environmental impacts, including air pollution emissions. These emissions will adversely impact Sierra Club members and others who live, work, and/or recreate in the vicinity of the proposed project infrastructure.

Delfin LNG would require significant shipping traffic that would not occur if DOE denies the extension preventing the project from moving forward. The associated vessel or tanker traffic will emit air pollutants such as carbon monoxide and ozone-forming nitrogen oxides. Increased ship traffic will also harm wildlife that the organization's members enjoy viewing, including the recently-listed threatened giant manta ray,⁸ threatened oceanic whitetip shark,⁹ and the critically endangered Rice's whale.¹⁰

In summary, the requested extension by Delfin LNG will harm Sierra Club members in numerous ways. Sierra Club accordingly contends that the application should be denied or conditioned, as further described in the following protest.

Pursuant to 10 C.F.R. § 590.303(d), Sierra Club identifies the following person for the official service list:

Rebecca McCreary Associate Attorney 1650 38th St., Ste. 102W Boulder, CO 80301 rebecca.mccreary@sierraclub.org *Attorney for Sierra Club*

B. Center for Biological Diversity

The Center for Biological Diversity (The Center) is a national, nonprofit conservation organization committed to advancing environmental justice and safeguarding ecosystems that support the full biodiversity of life on Earth. The Center uses environmental advocacy to protect wildlife and wildlands from habitat destruction, pollution, climate change, population growth and other human activities.

The Center has long been concerned about the impacts of Delfin LNG. In June 2015, the

⁸ Final Rule to List the Giant Manta Ray as Threatened Under the Endangered Species Act, 83 Fed. Reg. 2,916 (Jan. 22, 2018).

⁹ Listing the Oceanic Whitetip Shark as Threatened Under the Endangered Species Act, 83 Fed. Reg. 4,153 (Jan. 30, 2018).

¹⁰ Technical Corrections for the Bryde's Whale (Gulf of Mexico Subspecies), 86 Fed. Reg. 47,022 (Aug. 23, 2021) (determined a genetically distinct species from the Bryde's whale, it was renamed the Rice's whale in 2021).

Center intervened against the Delfin LNG facility in FERC proceedings¹¹ and filed comments on the Final Environmental Impact Statement in 2016.¹²

The requested extension will facilitate gas exports that would otherwise not occur, threatening the interests of the Center and its members in numerous ways. Every greenlighted fossil fuel project unleashes devastating, wide-ranging harms to the climate, communities, wildlife and the air and water we all depend on while slowing the needed transition to equitable, affordable, clean renewable energy alternatives.

The Center's members on the Gulf Coast and across the country are already impacted by climate change, from rising temperatures and sea level rise to stronger storms and other harms. Expansion of LNG exports without adequate consideration of greenhouse gas emissions harms the Center's members both in the vicinity of these projects and across the nation. The Center has 291 members and more than 9,000 registered supporters in Louisiana, including in areas that will likely be impacted by increased gas production.

Construction and operation of LNG facilities for export can adversely impact protected species of concern to the Center's members through noise pollution, discharge of toxic chemicals, and physical habitat disturbance/alteration.¹³ Waste from ships and other port activities can result in loss or degradation of habitat areas and harm to marine life.

¹¹ Center For Biological Diversity, Motion to Intervene, Docket No. CP15-490-000, FERC, Jun. 11, 2015.

¹² Comments of the Center for Biological Diversity (Aug. 29, 2016), in Final Environmental Impact Statement for the Port Delfin LNG Project Deepwater Port Application, Appx C, at C-23, https://www.energy.gov/sites/default/files/2018/11/f57/final-eis-0531-port-delfin-lng-app-c-2016-11.pdf.

¹³ Ports Primer: 7.1 Environmental Impacts, U.S. EPA, https://www.epa.gov/community-portcollaboration/ports-primer-71-environmental-impacts (Jan. 13, 2022); United Nations Econ. And Soc. Comm'n for Asia and the Pacific, Assessment of the Environmental Impact of Port Development (1992), https://www.unescap.org/sites/default/files/pub 1234 fulltext.pdf.

A likely increase in ship traffic can also injure and kill a variety of marine animals. For example, the Rice's whale, which is one of the most endangered marine mammals on Earth, faces a substantial risk of harm from ship strikes that could lead to death due to the significant amount of time it spends near the surface of the water.¹⁴ The Center's members enjoy viewing, studying, etc. the Rice's whale, giant manta ray, and other species that may be harmed by expansion of LNG exports.

DOE must ensure that approval of LNG exports serves the public interest and considers appropriate environmental, and environmental justice, and macroeconomic factors. Approval of Delfin's extension request without appropriate review of these concerns would harm the Center and its members. Exports from the Delfin LNG project could also impact the Center's members by increasing consumer energy prices. Ample research from the DOE, Energy Information Administration, and others demonstrates that increases in U.S. exports has cost American consumers millions of dollars in higher energy costs.¹⁵

For these reasons, and as described in the following protest, the Center contends that DOE should deny the Delfin LNG's requested extension.

Pursuant to 10 C.F.R. § 590.303(d), the Center identifies the following persons for the official service list:

Jason C. Rylander Senior Attorney Center for Biological Diversity 1411 K Street, NW Suite 1300 Washington, DC 20005

¹⁴ Melissa Soldevilla et al., Spatial distribution and dive behavior of Gulf of Mexico Bryde's whales: potential risk of vessel strikes and fisheries interactions, 32 Endang. Species Rsch. 533 (2017) (Prior to 2021, the Rice's whale was thought to be a distinct subspecies of Bryde's whales, known as the Gulf of Mexico Bryde's whale), https://repository.library.noaa.gov/view/noaa/16050.

¹⁵ See, e.g., IEEFA, Gas Exports Cost U.S. Consumers More than \$100 Billion Over 16-Month Period (Jan. 29, 2024), https://ieefa.org/resources/gas-exports-cost-us-consumers-more-100-billion-over-16-month-period (attached).

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II. Protest

The requested license extension should be denied because Delfin has failed to demonstrate good cause for the extension and because an extension would be contrary to the public interest, 15 U.S.C. § 717b(a). As explained by DOE in other dockets, "when reviewing an application for export authorization," DOE evaluates "economic impacts, international impacts, security of natural gas supply, and environmental impacts, among others."¹⁶ This standard should apply to changes in the licensing, like the requested extension, or where there are changes to the underlying project, that alter the underlying public interest analysis. Furthermore, as explained infra, the requested extension fails to comply with DOE's "Policy Statement on Export Commencement Deadlines in Natural Gas Export Authorizations."

Here, DOE's initial authorization of the project is not determinative. As a result of the elapsed time and changed circumstances described below, each of the public interest factors weighs against granting Delfin LNG's extension request.

A. Delfin's Extension Request Fails to Comply with DOE's April 2023 Extension Policy

Delfin's extension request fails to comply with DOE's current extension policy. As

¹⁶ DOE/FE Order No. 4010, FE Docket No. 16-109-LNG at 14-15 (June 29, 2017), available at https://www.energy.gov/sites/prod/files/2017/06/f35/ord4010.pdf.

articulated in DOE's April 2023 Policy Statement reaffirming the "seven-year deadline for authorization holders to commence exports ... to non-free trade agreement (non-FTA) countries," DOE will allow authorizations to expire on the original export commencement deadline, and will not consider an application for an extension unless the authorization holder demonstrates that: (i) it has physically commenced construction on the associated export facility, and (ii) its inability to comply with the existing export commencement deadline is the result of extenuating circumstances outside of its control.¹⁷ However, even demonstrating fulfillment of these requirements does not guarantee that DOE will grant an extension.¹⁸ Delfin's request to extend its export commencement deadline by five years is also unprecedented.¹⁹

Delfin has requested that DOE "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 [floating LNG vessel] and the Deepwater Port; (3) made its positive FID [Final Investment Decision] with respect to first FLNGV; and (4) issued an unconditional, full NTP

¹⁷ U.S. Dep't of Energy, Policy Statement on Export Commencement Deadlines in Authorizations to Export Natural Gas to Non-Free Trade Agreement Countries, 88 Fed. Reg. 25,272 (Apr. 26, 2023) [hereinafter Policy Statement] (attached).

¹⁸ *Id*.

¹⁹ DOE has previously approved extension requests for six non-FTA orders: *Golden Pass LNG Terminal LLC*, DOE/FE Order No. 3978-C, Docket No. 12-156-LNG, granting an extension request for 17 months (approximately 1.4 years); *Lake Charles LNG Export Company, LLC*, DOE/FE Order Nos. 3868-A and 4010-A, Docket Nos. 13-04-LNG and 16-109-LNG, granting extension requests for 28.5 months and 17.5 months (approximately 2.3 years and 1.5 years), respectively; *Lake Charles Exports, LLC*, DOE/FE Order Nos. 3324-B and 4011-A, Dockets Nos. 11-59-LNG and 16-110-LNG, granting extension request for 28.5 months (approximately 2.3 search 2.3 years), respectively; *Lake Charles Exports, LLC*, DOE/FE Order Nos. 3324-B and 4011-A, Dockets Nos. 11-59-LNG and 16-110-LNG, granting extension request for 28.5 and 17.5 months (approximately 2.3 and 1.5 years) respectively; and *Cameron LNG, LLC*, DOE/FE Order No. 3846-A, Docket No. 15-90-LNG, granting extension request for 34 months (approximately 2.8 years).

[Notice to Proceed] for first FLNGV to the EPCI [Engineering, Procurement, Construction and Integration] contractor pursuant to the binding, executed EPCI contract."²⁰ Delfin states that, although it "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."²¹

This request runs counter to DOE's 2023 extension policy. While Delfin claims that "[m]uch of the infrastructure for [the Project] has already been constructed and is in existence, namely the large offshore natural gas pipelines that will transport feed gas to the FLNGVs,"²² this construction was already completed prior to authorization of this project, and does not demonstrate that the applicant has made forward progress in physically constructing the export facility specifically authorized under this license. The FLNGVs necessary for the offshore export facility "will be constructed in existing shipyards overseas."²³ However, the extension request provides no evidence that such construction has begun nor a timeline on when construction will begin. Simply put, Delfin has no concrete plan for moving forward with construction.²⁴

Furthermore, not only has Delfin failed to commence construction on the export "facility," its justification for failing to meet its export commencement deadline, including ongoing technological refinement, DOT licensing challenges and trade difficulties with its chosen customers, fails to satisfy DOE's extension criteria.²⁵

²⁰ Delfin Extension Request at 5; *see also id.* at 37.

 $^{^{21}}$ *Id*. at 5.

²² Request at 4.

²³ *Id.* at 4.

²⁴ *Id.* at 27-29.

²⁵ *Id.* at 3–4 (citing, e.g., "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 LNG, and significant challenges with the

B. Delfin's "Conditional" Request Conflicts with the Current Status of its Deepwater Port License

Delfin's request for a conditional extension hinges on its ability to receive its deepwater port license from the Maritime Administration (MARAD). In its Extension Request, Delfin "explains that, although it has received a favorable Record of Decision from MARAD, it has been waiting for 'nearly two years' for MARAD to issue a final deepwater license authorizing the operation of Delfin's offshore facilities.²⁶ However, this request fails to account for MARAD's recent decision denying a final license.

Specifically, on April 17, 2024, MARAD stated it will *not* issue Delfin a deepwater port license because the Record of Decision (ROD) no longer supports the issuance of a license.²⁷ MARAD determined that, significant changes in the project's ownership, design, financing, and operations no longer reflect the original project application upon which the ROD relied in authorizing the project.²⁸ Should Delfin decide to proceed, it must amend its application and undergo the statutorily-required, interagency and public review.²⁹ The review will include a Notice of Amended Application published in the Federal Register, and completion of a supplemental Environmental Assessment (EA) or Supplemental EIS (SEIS) available for public review and comment, as well as a public hearing held in each adjacent coastal state.³⁰ "A 45-day period will follow the public hearing during which the Governors may approve, approve with conditions, or

 28 *Id*.

²⁹ Id.

 30 *Id*.

MARAD licensing process'')

²⁶ 89 Fed. Reg. 22137 (Mar. 29, 2024).

²⁷ Letter from MARAD to Delfin, *supra* note 5.

disapprove the amended application, and the Environmental Protection Agency's Administrator will also be afforded an opportunity to inform the Maritime Administrator if the deepwater port as proposed would not conform with the applicable provisions of the Clean Air Act, the Clean Water Act, or the Marine Protection, Research and Sanctuaries Act. MARAD will issue a new ROD within 90 days after the final public hearing."³¹

MARAD's decision demonstrates that Delfin's licensing is far from secure. Moreover, the agency's proposed timeline for re-authorization would make it nearly impossible for Delfin to meet the nine-month licensing deadline proposed as a condition of its extension request.³² Based on these barriers alone, DOE should deny Delfin's extension request.

C. In the alternative, even if DOE concludes that Delfin LNG is working toward project completion, DOE still must revisit numerous findings underlying its initial public interest determination

Notwithstanding the above facts, even if Delfin LNG could demonstrate that it meets DOE's extension authorization criteria, and is satisfactorily working toward project completion, the agency must still determine whether the extension would alter its public interest determination underlying the initial export authorization. For the reasons explained below, significant factual changes undermine the agency's initial public interest analysis. DOE should therefore deny the extension as contrary to the public interest.

1. DOE has the authority and obligation to revisit prior determinations in deciding whether to grant the proposed extension request.

Project proponents, like Delfin LNG, are not simply entitled to a license extension,

³¹ *Id*.

³² The DWPA establishes a specific time frame of 330 days from the date of publication in the Federal Register (for notice of a complete application) for approval or denial of the deepwater port license. Three-hundred thirty days exceeds Delfin's proposed nine-month condition of extension. Moreover, the DWPA timeline is rarely, if ever met, due to a variety of reasons, including requests for additional information and delays in environmental reviews. Given that an amended application has not yet been filed or deemed complete this deadline is virtually unachievable.

otherwise what would be the purpose of the license expiration date. Circumstances change, especially when seven years have passed from the initial licensing, and construction has not yet commenced. In deciding whether to grant an extension request, DOE has authority to revisit determinations made in the initial export authorizations, whether or not circumstances have changed or those determinations have otherwise gone stale. Pursuant to 10 C.F.R. § 590.404, DOE may "attach such conditions thereto as may be required by the public interest." Thus, DOE may extend the in-operation deadline, but DOE is not required to do so. Accordingly, in deciding whether to grant an extension request, DOE should and must consider whether such a request is in the public interest based on the particular facts at issue.

Indeed, if DOE disagrees with its prior conclusions, or if changed circumstances undermine those conclusions, there is no justification for compounding the error by giving Delfin LNG additional time to complete a project that is not in the public interest. Moreover, reconsidering prior determinations in response to an extension request is not a collateral or out-of-time attack on the initial authorization. The initial authorization is still there. Insofar as Delfin LNG or any developer wishes to claim the benefit of the original authorization, they may continue to do so, provided that they meet the current in-operation deadline of June 1, 2024. But as the case is here, where a developer asks that the initial authorization be reopened for purposes of changing the operational deadline, it is appropriate to reopen it for other purposes as well. In this case, significant changes have occurred in ownership, design, financing and operations, providing further bases for revisiting the agency's initial authorization. Importantly, DOE has broad authority to "amend ... orders ... as it may find necessary or appropriate." 15 U.S.C. § 7170.

DOE has noted that "its public interest analysis supporting each non-FTA authorization under NGA section 3(a) may become stale after seven years, as the natural gas market and supporting analyses continue to evolve."³³ And, as previously stated, DOE considers "economic impacts, international impacts, security of natural gas supply, and environmental impacts, among others" when evaluating whether an application to export LNG to non-FTA countries remains in the public interest.³⁴ Here, subsequent events, such as newly proposed and permitted LNG export terminals, more recent climate studies, and additional information on threatened and endangered species, make it unreasonable for DOE to rely on its initial authorizations without further analysis of this critical information.

2. New evidence demonstrating impacts to domestic energy prices and supply demonstrates the extension is not in the public interest.

DOE has historically given particular emphasis to "the domestic need for the natural gas proposed to be exported" and "whether the proposed exports pose a threat to the security of domestic natural gas supplies."³⁵ Recent data undermines any conclusion that LNG exports have little impact on domestic natural gas prices and that Henry Hub gas prices are forecasted to remain low. To the contrary, domestic energy market responses to an explosion at the Freeport LNG facility and gas prices throughout recent winters demonstrate that the Delfin LNG project will harm U.S. consumers. DOE must revisit its prior conclusions regarding the impact of the Delfin LNG project on domestic energy prices. DOE's prior studies and Delfin's extension application fails to address this data, which demonstrate that an extension is not in the public interest.

a. The Freeport LNG explosion further affirms that the Delfin LNG project will increase domestic gas prices, harming consumers.

³³ Policy Statement, *supra* note 17, at 16-17.

 $^{^{34}}$ *Id*. at 6.

³⁵ See, e.g., DOE/FE Order No. 3357-B, available at https://www.energy.gov/sites/prod/files/2014/11/f19/ord%203357-B.pdf, at 10; 85 Fed. Reg. 53,243 (Aug. 25, 2020) ("In evaluating the public interest, DOE takes seriously the potential economic impacts of higher natural gas prices.").

A 2022 explosion and fire at the Freeport LNG facility—and the resulting drop in domestic gas prices—provides stark confirmation that increasing LNG export volumes will cause real and significant increases in domestic gas prices. The Freeport LNG explosion demonstrates that the requested extension is not in the public interest and constitutes new information requiring DOE to revisit its 2020 Policy Statement.

The EIA has estimated that the Freeport shutdown took roughly 17% (or 2 billion cubic feet per day) of the total U.S. LNG export capacity offline.³⁶ Immediately after the explosion was reported, domestic gas prices fell by 16 percent,³⁷ highlighting the direct connection between gas exports and domestic prices and supply. Despite this initial drop, domestic gas prices remain exceptionally high as a result of LNG exports, as discussed in the next section. DOE must address the Freeport LNG explosion, and the demonstrated connection between LNG exports and domestic prices, in its public interest analysis.

b. Winter 2021-2022 and 2022-2023 gas prices demonstrate that LNG exports are harming US consumers.

The price impacts of LNG exports are harming Americans *now*. Wholesale gas prices for the winter of 2021-2022 were vastly higher than for the prior winter, and FERC concluded that the increase was driven largely by competition with demand for LNG exports.³⁸ The same dynamic

³⁶ U.S. Energy Information Administration, Fire Causes Shutdown of Freeport Liquefied Natural Gas Export Terminal

⁽June 23, 2022), https://www.eia.gov/todayinenergy/detail.php?id=52859 (attached).

³⁷ Pippa Stevens, Natural Gas Plummets as Freeport Delays Facility Restart Following Explosion, CNBC (June 14, 2022), https://www.cnbc.com/2022/06/14/natural-gas-plummets-as-freeport-delays-facility- restart-following-explosion.html (attached)

³⁸ FERC, Winter Energy Market and Reliability Assessment (Oct. 21, 2021) at 2, available at https://ferc.gov/sites/default/files/2021-10/Winter%20Assessment%202021-2022%20-%20Report.pdf (attached) [hereinafter "2021-2022 Winter Assessment"]; *accord id.* at 11.

played out in the winter of 2022-2023.³⁹ The Wall Street Journal,⁴⁰ S&P Global Platts Analytics,⁴¹ the Institute for Energy Economics and Financial Analysis,⁴² Industrial Energy Consumers of America,⁴³ and others have agreed that LNG exports are driving up domestic gas prices. Indeed, FERC identified LNG exports as the "primar[y]" source of the additional demand that drove gas price increases in 2021-2022.⁴⁴ And these price increases were severe. For the winter of 2021-2022, benchmark futures prices at the Henry Hub increased 103% relative to the prior winter,⁴⁵ with larger increases elsewhere, including more than quadrupling of the price at the Algonquin Citygate outside Boston,⁴⁶ as illustrated in this chart from FERC:⁴⁷

⁴⁰ Collin Eaton & Katherine Blunt, Natural-Gas Exports Lift Prices for U.S. Utilities Ahead of Winter, WALL ST. J. (Nov. 7, 2021), *available at* https://www.wsj.com/articles/natural-gas-exports-lift-prices-for-u-s-utilities-ahead-of-winter-11636281000 (attached).

⁴¹ Kelsey Hallahan, Henry Hub could reach \$12-\$14 this winter as capital discipline limits supply growth: Platts Analytics, S&P GLOBAL PLATTS (Oct. 14, 2021), *available at* https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/101421-henry-hub-could-reach-12-14-this-winter-as-capital-discipline-limits-supply-growth-platts-analytics (attached).

⁴² See also Clark Williams-Derry, Booming U.S. natural gas exports fuel high prices, IEEFA U.S. (Nov. 4, 2021), *available at* https://ieefa.org/ieefa-u-s-declining-demand-lower-supply-dont-explain-rapidly-rising-gas-prices/ (attached); Shafiqul Alam et al., *Global LNG Outlook 2023-27*, IEEFA (Feb. 15, 2023), *available at* https://ieefa.org/resources/global-lng-outlook-2023-27 (attached).

⁴³ Letter from Paul N. Cicio to Jennifer Granholm (Nov. 22, 2021), *available at* https://www.iecaus.com/wp-content/uploads/11.22.21_LNG_-Why-a-Safety-Valve-is-Needed_FINAL.pdf (attached).

⁴⁴ 2021-2022 Winer Assessment, *supra* note 38, at 2.

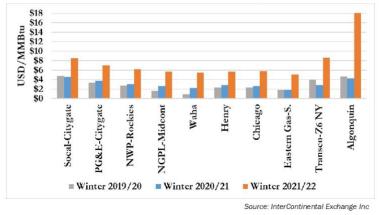
⁴⁵ *Id.* at 2, 11.

⁴⁶ *Id.* at 12.

⁴⁷ FERC, 2021-2022 Winter Energy Market and Reliability Assessment Presentation (Oct. 21,

³⁹ FERC, Winter Energy Market and Reliability Assessment (Oct. 20, 2022) at 1, 4, 5, available at https://www.ferc.gov/media/report-2022-2023-winter-assessment (attached) [hereinafter "2022-2023 Winter Assessment"].

Winter Futures Prices Increased at Nearly Every Major U.S. Trading Hub



Average U.S. Natural Gas Futures Prices Across Major Hubs for November - February

The latest report from the EIA reiterates that this connection between higher LNG exports and higher domestic gas prices will continue through 2050.⁴⁸ And the International Energy Agency's *World Energy Outlook 2023* report finds that, under the current-policy scenario, which includes a 28% increase in global LNG between 2022 and 2030, U.S. natural gas prices are expected to be 67% higher (\$4.00 per MMBtu) when compared to the net-zero scenario, which includes a 6% increase in global LNG between 2022 and 2030, (\$2.40 per MMBtu) by 2030.⁴⁹

These price increases harm both households and industrial energy consumers. The Energy Information Administration ("EIA") predicted that homes that use gas for heat would spend 30

2021) at 10, *available at* https://ferc.gov/sites/default/files/2021-10/Winter%20Assessment%202021-2022_Presentation.pdf (attached).

⁴⁸ U.S. EIA, AEO2023 Issues in Focus: Effects of Liquefied Natural Gas Exports on the U.S. Natural Gas Market (May 2023), *available at*

https://www.eia.gov/outlooks/aeo/IIF_LNG/pdf/LNG_Issue_in_Focus.pdf [hereinafter "AEO2023 Issues in Focus"] (attached) ("We project that through 2050 additional U.S. LNG exports would increase the natural gas spot price at the Henry Hub," which will "ultimately affect natural gas prices for consumers in all U.S. end-use sectors to some degree.")

⁴⁹ IEA, World Energy Outlook 2023 at 96, 135.

percent more in the winter of 2021-2022 than they spent the prior winter.⁵⁰ The Industrial Energy Consumers of America, which represents manufacturers that use at least 1 trillion Btu of energy per year,⁵¹ has repeatedly written to DOE about how export-driven gas prices increases are harming domestic industry.⁵²

From an economic perspective, LNG exports are simply making most Americans worse off: all Americans must pay energy bills, but few own shares (even indirectly, through pension plans and the like) in the gas companies that are benefiting from high gas prices and LNG sales.⁵³ DOE is charged with protecting the "public" interest, 15 US.C. § 717b(a); that is, the interest "of ... all or most of the people" in the United States.⁵⁴ DOE has previously recognized that "the distributional consequences of an authorizing decision" may be so negative as to demonstrate inconsistency with the public interest despite "net positive benefits to the U.S. economy as a whole."⁵⁵ Accordingly, unless DOE addresses distributional concerns, DOE will have failed to consider an important part of the problem. But to date, DOE has never grappled with the distributional impacts of LNG exports:

⁵² See, e.g., Letter from Paul N. Cicio to Jennifer Granholm, *supra* note 43.

⁵³ Synapse Energy Economics, Inc., Will LNG Exports Benefit the United States Economy? (Jan. 23, 2013) at 9, available at
https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/exp ort_study/Exhibits_1-20.pdf (attached) (initially submitted as Exhibit 5 to Comments of Sierra Club et al. on the 2012 NERA macroeconomic report).

⁵⁴ *Public*, Merriam-Webster Unabridged Dictionary, available at http://www.merriam-webster.com/dictionary/public (last visited Dec. 7, 2021).

⁵⁰ *Id.* at 13.

⁵¹ "Membership Info," IECA, *available at* https://www.ieca-us.com/membership-info/ (last visited Nov. 6, 2023).

⁵⁵ DOE/FE Order 3638-A (Corpus Christi) at 45 (May 26, 2016), *available at* https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/201 2/applications/12-97-LNG_CMI_Corpus_Rehearing__May_26.pdf.

DOE has acknowledged that LNG exports have some positive and some negative economic impacts,⁵⁶ but DOE has not addressed the fact that those who suffer the harms are not the same as those who enjoy the benefits, or that the former are more numerous and generally less advantaged than the latter. In particular, research shows that low-income, Black, Hispanic, and Native American households all face dramatically higher energy burdens—spending a greater portion of their income on energy bills—than the average household.⁵⁷ Increased gas prices will exacerbate the existing energy burden disparities, placing these households at even further risk. Especially in light of this administration's emphasis on environmental justice, the distributional and equity impacts of export-driven gas price increases require careful consideration.

DOE has previously relied on modeling of how energy markets will balance in response to increased LNG exports, and on studies of the macroeconomic effects of such balancing. The current surge in gas prices calls those prior analyses into question, and DOE cannot approve additional exports—or reaffirm previous findings—without carefully examining the continuing validity of those analyses. Even the latest EIA analysis⁵⁸ fails to account for the fact that winter 2021-2022 did not result in increased production offsetting, as DOE has anticipated, and there were massive price spikes as a result. At a minimum, DOE should not approve further export applications or extensions until it addresses this issue.

DOE must be particularly cautious given its refusal, to date, to exercise supervisory authority

⁵⁶ See, e.g., NERA Economic Consulting, Macroeconomic Outcomes of Market Determined Levels of U.S. LNG Exports (June 7, 2018) at 19, 21, 64, 67, available at https://cms.doe.gov/sites/prod/files/2018/12/f58/2018% 20Study.pdf.

⁵⁷ American Council for an Energy-Efficient Economy, *How High are Household Energy Burdens?* (Sept. 2020), *available at* https://www.aceee.org/sites/default/files/pdfs/u2006.pdf (attached as Attachment J); *Accord* Eva Lyubich, *The Race Gap in Residential Energy Expenditures* (June 2020), *available at* https://haas.berkeley.edu/wp-content/uploads/WP306.pdf (attached)

⁵⁸ AEO2023 Issues in Focus, supra note 48.

over already-approved exports. Indeed, DOE retains authority to amend and/or rescind existing export authorizations.^{59,60} If export applications are, in effect, a one-way ratchet on export volumes, DOE cannot carelessly issue such authorizations—or extensions of such authorizations like that at issue here.

The Natural Gas Act's "principle aim[s]" are "encouraging the orderly development of plentiful supplies of natural gas at reasonable prices and protecting consumers against exploitation at the hands of natural gas companies," with the "subsidiary purposes" of addressing "conservation, environmental, and antitrust issues."⁶¹ At present, LNG exports are not achieving these purposes. Accordingly, even putting aside the numerous and severe environmental impacts of increased LNG exports, Delfin LNG's extension application is inconsistent with the public interest and should be denied.

3. Recent global strategic interest developments demonstrate the extension is not in the public interest.

The LNG market has substantially changed since DOE issued the initial export authorization for Delfin LNG, making the completion of this project no longer commercially viable or in the public interest. Delfin LNG has acknowledged this change in the global market conditions by requesting additional time to begin construction and operations at the project site.⁶² Currently,

⁵⁹ 15 U.S.C. § 7170.

⁶⁰ See Policy Statement Regarding Long-Term Authorizations to Export Natural Gas to Non-Free Trade Agreement Countries, 83 Fed. Reg. 28,841 (June 21, 2018). Although DOE has not exercised this authority yet, DOE *should* carefully consider doing so, given the severe impact already-authorized exports are having on domestic gas prices.

⁶¹ Minisink Residents for Env't Pres. & Safety v. FERC, 762 F.3d 97, 101 (D.C. Cir. 2014) (cleaned up).

⁶² Delfin Extension Request at 33.

Delfin LNG is requesting authorization to delay its in-operation deadlines to June 2029.⁶³ Its application asserts that, the "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 LNG, and significant challenges with the MARAD licensing process."⁶⁴ Delfin fails to describe how the listed hurdles – technological refinement, chosen trade partners, MARAD licensing — are in fact extenuating circumstances. During this same window of time, other DOE-approved projects have managed to commence construction and start operation. Additionally, business has resumed throughout fossil fuel and other industrial sectors in the several years since COVID-19 restrictions hindered construction, yet Delfin's extension request fails to provide any explanation addressing how COVID-19 continues to hinder their construction and operational plans. While the project has entered into a few LNG offtake contracts, the project does not have enough support to be commercially viable.

It is clear that the need for LNG proposed for export to meet global market demands no longer exists at the rate anticipated over five years ago, and DOE must re-examine its conclusion that the project is in the public interest before doubling down on decades of additional LNG exports and related production by authorizing the requested extension. A recent report by the Institute for Energy Economics and Financial Analysis ("IEEFA") points out that "the EU is taking aggressive steps to trim gas consumption, which could render new LNG import capacity unneeded."⁶⁵ The aggressive steps being taken by the EU are part of the growing international recognition that avoiding the worst

⁶³ *Id.* at 2, 53.

⁶⁴ *Id*. at 3-4.

⁶⁵ Global LNG Outlook, *supra* note 41 at 3.

impacts of climate change requires abandoning large fossil fuel development or expansion.

As discussed infra, the 2022 National Oceanic and Atmospheric Administration ("NOAA") Report and the Intergovernmental Panel on Climate Change's ("IPCC") 6th Assessment Report provides overwhelming evidence that climate hazards are more urgent and severe than previously thought, and that aggressive reductions in emissions within the next decade are essential to avoiding the most devastating climate change harms. Similarly, the Biden administration has prioritized tackling the climate crisis, including by reinstating and expanding the United States' international commitments to reduce greenhouse gas emissions. A 2021 IEA report also reiterates that there is no place for LNG exports in a future that seeks to achieve net-zero global emissions by 2050. The report projects that natural gas traded as LNG will drop by 60 percent from 2030 to 2050 and global demand will decrease by over five percent in the 2030s alone.⁶⁶ This decrease in demand is further supported in IEEFA's analysis which concludes that "new projects coming online in 2025-27 will likely encounter weaker-than-expected demand – elevating the risk of lower prices and profits for LNG suppliers and trader."⁶⁷ Thus, European buyers recognize that LNG, long touted as a climate solution, is in fact a climate problem.⁶⁸

Additionally, Delfin LNG is not the only LNG facility experiencing these delays. A recent study by Global Energy Monitor notes that 21 export terminals totaling 265 million tonnes per annum ("MTPA") of capacity continue to report FID delays or other serious setbacks amid an uncertain

⁶⁶ International Energy Agency, Net Zero by 2050, (May 2021),

https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf (attached).

⁶⁷ Global LNG Outlook, *supra* note 42 at 3.

⁶⁸ Lydia Plante and Ted Nace, Nervous Money, Global Energy Monitor, 4 (June 2021), available at https://globalenergymonitor.org/report/nervous-money/ (attached).

market.⁶⁹ Those terminals represent 38 percent of the 700 MTPA export capacity under development worldwide. With increased delays in FIDs⁷⁰ and project construction, the probability increases that these projects, including that proposed by Delfin LNG, will become obsolete long before the end of their intended lifespans.⁷¹ These market changes underscore the absence of and/or rapidly declining demand for construction of U.S. LNG export terminals.

Given the significant changed economic, political and scientific circumstances that have developed since DOE first issued an export authorization to Delfin LNG in 2017, DOE must reevaluate its original public interest finding. This new information also "constitutes significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts,"⁷² thus triggering DOE's obligation to conduct supplemental NEPA review. At minimum, DOE must address these changed circumstances in considering Delfin's extension request.

4. New information regarding the environmental impacts of Delfin LNG demonstrate an extension is not in the public interest.

In addition to immediate harms caused by price increases, LNG exports will cause environmental harm that will last generations. These include impacts occurring across the entire LNG lifecycle that both the Natural Gas Act and NEPA require DOE to consider. As noted in the public notice, DOE must comply with its environmental review obligations, and "[n]o final decision [on the term extension] will be issued in this proceeding until DOE has met its environmental

⁶⁹ *Id*. at 3.

⁷⁰ Multiple LNG projects, including Port Arthur LNG and Cameron LNG have delayed making final investment decisions due to changes in the global LNG market, including decreased demand from LNG market oversaturation. Sempra likely to delay Texas Port Arthur LNG decision to 2022, REUTERS (May 5, 2021), https://www.reuters.com/business/energy/sempra-likely-delay-texas-port-arthur-lng-decision- 2022-2021-05-05/ (attached).

⁷¹ *Id*.

⁷² 40 C.F.R. § 1502.9(d)(1)(ii).

responsibilities."⁷³ To do so, DOE must reject the prior administration's conclusion that LNG export extension approvals could be categorically excluded from NEPA review, and DOE must revisit its deeply flawed analysis of the climate impacts of LNG exports.

a. Review of an extension request requires compliance with NEPA.

NEPA applies to all major federal actions with the potential to significantly affect the environment. The decision to grant an extension request is such an action.⁷⁴ To illustrate this point, if the extension request is denied, the significant adverse environmental consequences caused by Delfin LNG will not occur.

This does not mean that DOE must start with an entirely blank slate when reviewing the extension request. DOE can "tier" off the prior environmental assessment.⁷⁵ However, when tiering off a prior document, agencies must affirm the validity of that document – an agency cannot uncritically or unquestioningly adopt it, and that affirmation is not limited to issues where circumstances may have changed.⁷⁶ For the reasons discussed below, adoption of a categorical exclusion in this instance would be arbitrary and unlawful, and DOE cannot rely on a categorical exclusion here. Moreover, this request lacks the integral elements of an exempt project, precluding reliance on a categorical exclusion. Thus, DOE must complete a full NEPA review prior to approving Delfin LNG's requested extension.

⁷⁵ 40 C.F.R. 15-1.11(a).

⁷³ 89 Fed. Reg. 22137 at 22139.

⁷⁴ See Pit River Tribe v. U.S. Forest Serv., 469 F.3d 768, 784 (9th Cir. 2006) (extension of leases that would have otherwise expired was major federal action requiring NEPA analysis).

⁷⁶ See N. Alaska Env't Ctr. v. U.S. Dep't of the Interior, 983 F.3d 1077, 1091 (9th Cir. 2020) ("Pit River Tribe illustrates that the adequacy of analysis in previous NEPA documents for the present action may influence whether we construe those NEPA documents as covering the present action. Relatedly, *Pit River Tribe* shows that adequacy may remain relevant even after the statute of limitations has run.").

i. The 2020 Categorical Exclusion is invalid.

Adoption of the 2020 Categorical Exclusion was arbitrary, capricious, and contrary to law. Most egregiously, in promulgating the 2020 exclusion, DOE improperly excluded from NEPA review *all* impacts occurring upstream of the point of export, based on a basic and fundamental legal error. The Notice of Proposed Rulemaking argued that DOE need not consider "environmental impacts resulting from actions occurring [before] the point of export" because "the agency has no authority to prevent" these impacts, citing *Sierra Club v. FERC*, 827 F.3d 36 (D.C. Cir. 2016) ("*Freeport I*").⁷⁷ This is the exact opposite of *Freeport I*"s explicit and central holding. *Freeport I* held that **FERC** (distinct from DOE in this holding) had no authority to prevent these impacts, specifically because **DOE** retained "exclusive" authority to do so.⁷⁸ FERC had "no authority" to consider the impacts of export-induced gas production because "the Natural Gas Act places export decisions squarely and exclusively within the Department of Energy's wheelhouse."⁷⁹ Because DOE *has* such authority, the categorical exclusion was adopted unlawfully, cannot be relied upon here, and provides no evidence to suggest that all environmental effects occurring before the point of exports will be insignificant.

Nor can upstream impacts be dismissed as unforeseeable. DOE has in fact foreseen them, with EIA modeling, an environmental addendum, and a lifecycle report that extensively, although at times incorrectly, discuss these impacts. In these, DOE has broadly conceded that the climate impacts

⁷⁷ 85 Fed. Reg. at 25,341; accord Final Rule, 85 Fed. Reg. 78,197, 78,198.

⁷⁸ 827 F.3d at 40-41, 46.

⁷⁹ *Id.* at 46. In finalizing the 2020 Categorical Exclusion, DOE also erred in asserting that its approval of exports is "not interdependent" with FERC's approval of export infrastructure. 85 Fed. Reg. 78,197, 78,199. DOE's export authorization cannot be effectuated without FERC approval of export infrastructure, and vice versa; even if FERC infrastructure could proceed solely on the basis of FTA export authorization, neither this project nor any other major project in fact seeks to do so.

of upstream effects are foreseeable. And DOE's Environmental Addendum acknowledged that increased gas production "may" increase ozone levels and "may" frustrate some areas' efforts to reduce pollution to safe levels.⁸⁰ But as DOE has acknowledged, it has not made any determination as to the likelihood or significance of such impacts-the Addendum made no "attempt to identify or characterize the incremental environmental impacts that would result from LNG exports" whatsoever.⁸¹ Insofar as DOE contends that these impacts can be difficult to foresee, that affirms, rather than refutes, the need for case-by-case analysis.⁸² Even if DOE determines that upstream impacts can only be discussed generally, in something like the Environmental Addendum, this does not dictate the conclusion that the impacts are insignificant. Similarly, a conclusion that an agency can meet its NEPA obligations by tiering off an existing document (which may need to be periodically revised as facts and scientific understanding change) is different than the conclusion that NEPA review simply is not required. Moreover, the Council on Environmental Quality's regulations and guidance for NEPA review further demonstrate DOT's flawed review of project effects on climate change. Specifically, the guidelines, published in January 2023, require agencies to quantify "reasonably foreseeable" direct and indirect; upstream and downstream; and gross, net and cumulative GHG emissions changes, including increases and reductions, annually and over a project's lifetime.⁸³

⁸⁰ Final Environmental Addendum at 27-28.

⁸¹ DOE/FE Order No. 3638 (Corpus Christi LNG), at 193-194 (May 12, 2015), *available at* https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/20 12/applications/ord3638.pdf.

⁸² See also Cal. Wilderness Coal. v. DOE, 631 F.3d 1072, 1097 (9th Cir. 2011) (rejecting DOE argument that environmental impacts of designation of electric transmission corridors were too speculative to require NEPA analysis).

⁸³ National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 Fed. Reg. 1196 (Jan. 9, 2023).

The 2020 Categorical Exclusion's treatment of downstream impacts was also arbitrary. As with upstream impacts, DOE mistakenly asserted that some downstream impacts (relating to regasification and use of exported gas) were entirely outside the scope of NEPA analysis.⁸⁴ This is again incorrect: DOE has authority to consider these impacts when making its public interest determination, and DOE has not shown that these impacts are so unforeseeable that they cannot be meaningfully discussed at all. Indeed, DOE has refuted this argument itself, discussing these impacts in the life cycle analysis.

For other impacts, relating to marine vessel traffic, the preamble to the 2020 final rule arbitrarily dismissed these impacts as *de minimus*, claiming that because LNG export has historically constituted only a small share of overall U.S. shipping traffic, the effects of future LNG export approvals could be ignored.⁸⁵ This is legally and factually incorrect. LNG exports are rapidly expanding, and this expansion depends upon and is caused by authorizations like the term extension Delfin LNG has requested here. Moreover, an extension of Delfin's license would result in expanded operations through 2050, requiring DOE to examine the future prospects for marine vessel traffic in light of projected LNG development. In addition, noting that LNG traffic is a small share of the total does not demonstrate that the impact of LNG traffic in particular is insignificant: a small portion of a large problem can itself constitute a significant impact. And, even if such a fractional approach could be justified, it would require a different denominator: for example, the number of ships in the habitat of the species at issue. But DOE's analysis includes ship traffic exclusively along the West and East Coasts that is irrelevant to many Gulf-specific species, thereby erroneously inflating the denominator. LNG vessel traffic—now and in the future— constitutes a larger and growing share of

⁸⁴ 85 Fed. Reg. at 78,202.

⁸⁵ The proposed rule ignored wildlife impacts entirely.

traffic *in the Gulf of Mexico*, where many species that will be impacted by Delfin LNG's exports live, including multiple federally endangered and threatened species.

ii. The requested extension does not satisfy the "integral elements" necessary for a categorical exclusion.

Even if the 2020 Categorical Exclusion was valid, DOE would be unable to rely on it here. DOE cannot invoke a categorical exclusion without determining that the proposed action has the "integral elements" of excluded actions as defined in Appendix B to 10 C.F.R. Part 2021 Subpart D. Here, the proposal does not satisfy integral element 1, because it "threaten[s] a violation of applicable statutory [or] regulatory ... requirements for environment, safety, and health, or similar requirements of ... Executive Orders."⁸⁶ This integral element is missing whenever a proposal *threatens* a violation; if there is a possibility of such a violation, a project- specific NEPA analysis is required to evaluate that risk.

Here, increased exports via term extension threaten a violation of Executive Order 14,008, Tackling the Climate Crisis at Home and Abroad.⁸⁷ As noted, this order—like the Paris Accord, the Glasgow Pact, and other commitments—affirms that "[r]esponding to the climate crisis will require ... net-zero global emissions by mid-century or before."⁸⁸ Increasing exports through mid-century (*i.e.*, 2050) is inconsistent with any plausible trajectory for achieving this goal, as recognized by the IEA.⁸⁹ Even if DOE contends that expanded export volumes through extended export durations can somehow be reconciled with the President's climate goals and policies, that surprising contention

⁸⁶ 10 C.F.R. Part 1021 Subpart D Appendix B.

⁸⁷ 86 Fed. Reg. 7619 (Jan. 27, 2021).

⁸⁸ *Id.* § 101.

⁸⁹ IEA, Net Zero by 2050, *supra* note 66, at 102-03.

does not change the fact that expanded exports at least "threaten" a violation of those policies, such that integral element 1 is not satisfied.

The proposal also violates integral element 4, because it has "the potential to cause significant impacts to environmentally sensitive resources," which "include … [f]ederally-listed threatened or endangered species or their habitat," "state-listed" species, "[f]ederally-protected marine mammals and Essential Fish Habitat," and species proposed for listing.⁹⁰ Potentially impacted species include the eastern black rail,⁹¹ giant manta ray,⁹² oceanic whitetip shark,⁹³ and the Rice's whale.⁹⁴ The construction and operation of LNG export facilities pose a risk to the eastern black rail due to loss of necessary habitat as a result of industry, sea level rise, and erosion.⁹⁵ This project also presents significant risk to the Rice's whale, due to the vessel traffic serving the offshore terminal. The species was listed as endangered after DOE's initial export authorization. Recent science on the critically endangered Rice's whale demonstrates that increased risk of vessel strike, underwater noise, and the cumulative impacts with other existing and proposed oil and gas development operations in the region, could lead to the species' extinction.⁹⁶ The Rice's whale, considered one of the planet's most

⁹⁰ 10 C.F.R. Part 1021 Subpart D Appendix B.

^{91 85} Fed. Reg. 63,764 (Oct. 8, 2020).

⁹² 83 Fed. Reg. 2916 (Jan. 22, 2018).

⁹³ 83 Fed. Reg. 4153 (Jan. 30, 2018).

⁹⁴ 84 Fed. Reg. 15,446, 446-488 (Apr. 15, 2019); Endangered and Threatened Species; Designation of Critical Habitat for the Rice's Whale, 88 Fed. Reg. 47,453 (Jul. 24, 2023).

⁹⁵ Tristan Baurick, *The Secret Lives of Black Rails, and the Scientist Who Seek Them*, Audubon (Feb. 13, 2019), available at https://www.audubon.org/news/the-secret-lives-black-rails-and-scientists-who-seek-them.

⁹⁶ See, e.g., 84 Fed. Reg. 15,446, 446-488 (Apr. 15, 2019) (listing decision, determining that the whale is at a "high risk of extinction" under three statutory factors); *see e.g.*, NMFS, "Rice's whale," available at https://www.fisheries.noaa.gov/species/rices-whale (accessed March 2024); P.E. Rosel, P.J. Corkeron, L. Engleby, D. Epperson, K. Mullin, M.S. Soldevilla, and B.L. Taylor,

endangered marine mammals, numbers less than 50 individuals and exclusively inhabits northern Gulf of Mexico waters that are directly impacted by oil and gas export operations.^{97, 98} The Biden Administration recently proposed critical habitat for the species⁹⁹ that overlaps with proposed oil and gas export projects, like Delfin LNG, including their ongoing vessel operations.¹⁰⁰ This designation, expected to become final this year, is substantiated by the Administration's own recently published science detailing the highly imperiled status of the species and threats posed by fossil fuel infrastructure.¹⁰¹

⁹⁷ M.S. Soldevilla, A.J. Debich, L.P. Garrison, J.A. Hildebrand, and S.M. Wiggins, Rice's whales in the northwestern Gulf of Mexico: call variation and occurrence beyond the known core habitat, Endangered Species Research 48: 155-74 (2022); S.A. Hayes, E. Josephson, K. Maze-Foley, P.E. Rosel, J. McCordic, and J. Wallace, eds., U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments 2022, 114-22 (2023) (NOAA Tech. Memo. NMFS-NE-304). (According to NMFS' most recent Stock Assessment Report for the Rice's whale (2022), the minimum population size for the species is 34. And the data suggests that approximately one whale can be lost to human impacts every fifteen years.)

⁹⁸ The Deepwater Horizon oil spill disaster led to the loss of 22 percent of the Rice's whale population. NOAA Fisheries, "Rice's Whale: In the Spotlight," *available at* https://www.fisheries.noaa.gov/species/rices-whale/spotlight. Thus, the risk of oil spills from new and expanded oil export operations including from vessels and hundreds of miles of on and offshore pipeline and loading infrastructure, pose a significant threat to the species' long-term survival.

⁹⁹ "Endangered and Threatened Species; Designation of Critical Habitat for the Rice's Whale," 88 Fed. Reg. 47,453 (Jul. 24, 2023), *available at* https://www.govinfo.gov/content/pkg/FR-2023-07-24/pdf/2023-15187.pdf.

¹⁰⁰ NOAA Map of Proposed Rice's Whale Critical Habitat, comprised of the 100 – 400 meter isobaths extending throughout the northern Gulf of Mexico, *available at* https://www.fisheries.noaa.gov/s3/2023-07/Rices-Whale-Proposed-CH-Map-508-Final.pdf.

¹⁰¹ "Endangered and Threatened Wildlife and Plants; Endangered Status of the Gulf of Mexico

Status review of Bryde's whales (*Balaenoptera edeni*) in the Gulf of Mexico under the Endangered Species Act, at iv, 130-32 (2016) (NOAA Tech. Memo. NMFS-SEFSC-692); *see also* Comment from NRDC et al. *Re: Proposed critical habitat designation for Rice's whale (NOAA-2023-0028)*, available at: https://www.regulations.gov/comment/NOAA-NMFS-2023-0028-25145 (Providing a summary of the recent science on the Rice's whale and threats to the species, including evidence of the species' persistent occurrence in central and western Gulf waters and direct threats of vessel strikes, noise and spills from oil and gas development.

As with integral element 1, integral element 4 is precautionary: a categorical exclusion cannot be used if the proposed action would "have the potential to cause significant impacts," even if it is unclear whether the action's impacts will in fact rise to the level of significance. Fulfilling NEPA's purpose requires investigating such potential impacts.

Ultimately, the potential for impacts to species and other protected resources is real. Ship strikes injure marine life, including listed whales,¹⁰² sea turtles,¹⁰³ and giant manta rays.¹⁰⁴ Ship traffic also causes noise, which "can negatively impact ocean animals and ecosystems in complex ways."¹⁰⁵ Noise interferes with animals' ability to "communicate" and "to hear environmental cues that are vital for survival, including those key to avoiding predators, finding food, and navigation among preferred habitats."106 Unsurprisingly, many animals display a suite of stress-related

Bryde's Whale", 84 Fed. Reg. 15,446, 15,474-76 (Apr. 15, 2019), available at https://www.federalregister.gov/documents/2019/04/15/2019-06917/endangered-and-threatenedwildlife-and-plants-endangered-status-of-the-gulf-of-mexico-brydes-whale; NMFS, Endangered Species Act Rice's Whale Critical Habitat Report: Proposed Information Basis and Impact Considerations of Critical Habitat Designation (July 2023), available at: https://www.fisheries.noaa.gov/s3/2023-07/Critical-Habitat-Report-508-Final.pdf; Endangered and Threatened Species; Designation of Critical Habitat for the Rice's Whale, supra note 99.

¹⁰² David W. Laist et al., Collisions Between Ships and Whales, 17 MARINE MAMMAL SCIENCE 1, 35 (Jan. 2001) (describing ship strikes with large vessels as the "principal source of severe injuries to whales), available at https://www.mmc.gov/wp-content/uploads/shipstrike.pdf (attached).

¹⁰³ National Oceanic and Atmospheric Administration Fisheries, Understanding Vessel Strikes (June 25, 2017), available at https://www.fisheries.noaa.gov/insight/understanding-vessel-strikes (attached).

¹⁰⁴ National Oceanic and Atmospheric Administration Fisheries, *Giant Manta Ray*, https://www.fisheries.noaa.gov/species/giant-manta-ray (attached).

¹⁰⁵ National Oceanic and Atmospheric Administration, *Cetacean & Sound Mapping: Underwater* Noise and Marine Life (attached).

¹⁰⁶ Id.; see also Erbe C., Dunlop R., Dolman S., Effects of Noise on Marine Mammals, Effects of Anthropogenic Noise on Animals, Springer Handbook of Auditory Research, Vol. 66 (2018) (attached) ("Underwater noise can interfere with key life functions of marine mammals (e.g.

responses to increased noise. Because the requested license extension will increase the magnitude of impacts on already stressed and vulnerable species, the proposal does not satisfy integral element 4.

b. DOE must consider substantial new information released by the IPCC and NOAA.

DOE must also address mounting scientific evidence highlighting the substantial risk of extreme weather events facing infrastructure like Delfin LNG along the Gulf Coast, and the urgent need to curb greenhouse gas emissions. Specifically, DOE must address the 2022 National Oceanic and Atmospheric Administration ("NOAA") Report on sea level rise and three recent documents from the IPCC's 6th Assessment Report ("AR6")—issued after DOE's 2020 Policy Statement— that paint a staggering picture of a climate-destabilized future absent urgent and aggressive carbon emission reductions.

i. 2022 NOAA Report on sea level rise

In its 2022 report, NOAA concluded sea level will rise by one foot by 2050 as a result of climate change.¹⁰⁷ The 2022 NOAA sea level rise data represents significant new information. Louisiana has the highest relative rise in sea level of anywhere in the U.S.;¹⁰⁸ storms and hurricanes are common in Louisiana and could happen at any time, as aptly demonstrated by the 2020 and 2021 hurricane seasons; and the onshore components of Delfin LNG are at risk of serious flooding.¹⁰⁹ The

foraging, mating, nursing, resting, migrating) by impairing hearing sensitivity, masking acoustic signals, eliciting behavioral responses, or causing physiological stress.")

¹⁰⁷ See U.S. coastline to see up to a foot of sea level rise by 2050, National Oceanic and Atmospheric Administration, available at http://www.noaa.gov/news-release/us-coastline-to-see-up-to-foot-of-sea-level-rise-by-2050 (Feb. 15, 2022) (attached) (hereinafter "U.S. Sea Level Rise").

¹⁰⁸ "[A] federal study from NOAA . . . points out that the Gulf of Mexico from Texas to Louisiana is likely to see the highest sea-level rise in the contiguous United States. And flooding will likely become more intense and more frequent." *See* Mike Lee, *U.S. LNG surge may have a flood problem*, E&E News (June 8, 2022) (attached).

¹⁰⁹ "Hurricane Laura pushed a 17-foot-high wall of water onto the Louisiana coastline . . . The storm tide surged nearly 30 miles up the Calcasieu River and flooded large swaths of Lake

2022 NOAA report also predicts an "increase in the frequency of coastal flooding, even in the absence of storms or heavy rainfall."¹¹⁰ This, combined with a subsidence rate of over 22 mm per year—the highest rates along the western Gulf states—makes sea level rise a climate and safety problem.¹¹¹ DOE must consider the 2022 NOAA report in its public interest analysis and NEPA review.

ii. IPCC's 6th assessment report

Similarly, the IPCC's August 2021 *The Physical Science Basis* report confirms that "[h]umaninduced climate change is already affecting many weather and climate extremes in every region across the globe."¹¹² Evidence demonstrating the link between human greenhouse gas emissions and "changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones . . . has strengthened since" the prior IPCC report.¹¹³ In addition to exacerbating extreme weather, "[h]eating of the climate system has caused global mean sea level rise through ice loss on land and thermal expansion from ocean warming."¹¹⁴ The IPCC forecasts with *high confidence* that flooding will become more likely in coastal cities due to "the combination of more frequent extreme sea level events (due to sea level rise and storm surge)."¹¹⁵ Even under deep emission reductions scenarios that

Charles." Id.

¹¹² See Climate Change 2021: The Physical Science Basis, Summary for Policymakers, IPCC, available at https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf (Oct. 2021) (attached) (hereinafter "IPCC Physical Science Summary").

¹¹³ *Id.* at 8, A.3.

¹¹⁴ *Id.* at 11, A.4.3.

¹¹⁵ *Id.* at 25, C2.6.

¹¹⁰ U.S. Sea Level Rise, *supra* note 107.

¹¹¹ Dokka, R., Shinkle K., *Rates of vertical displacement at benchmarks in the lower Mississippi Valley and the North Gulf Coast*, NOAA (July 2004), http://geodesy.noaa.gov/heightmod/NOAANOSNGSTR50.pdf (attached).

keep global warming to within 1.5°C, the report finds that "heavy precipitation and associated flooding are projected to intensify and be more frequent in most regions," including North America (*medium to high confidence*).¹¹⁶

Looking to the future, *The Physical Science Basis* also concludes that cutting greenhouse gas emissions now is critical because "there is a near-linear relationship" between human-caused greenhouse gas emissions and related global warming, meaning that each additional increment of global warming exacerbates changes in extreme weather events. For example, the IPCC forecasts that each additional 1°C of global warming will cause about a 7 percent increase in the intensity of extreme daily precipitation events (*high confidence*).¹¹⁷ Based on this demonstrated relationship, the IPCC concludes that "reaching net zero anthropogenic CO2 emissions is a requirement to stabilize humaninduced global temperature increase at any level."¹¹⁸

Additionally, the IPCC's February 2022 report—on *Impacts, Adaptation, and Vulnerability*— highlights the increasing climate-related risks to coastal and nearshore infrastructure like Delfin LNG. Because "[c]limate change impacts and risks are becoming increasingly complex and more difficult to manage," it is increasingly likely that "[m]ultiple climate hazards will occur simultaneously, . . . compounding overall risk[.]"¹¹⁹ Noting that "[w]idespread, pervasive impacts to

¹¹⁸ *Id.* at 28, D.1.1.

¹¹⁶ *Id.* at C.2.2. With 2°C or more of global warming, changes in droughts and heavy and mean precipitation will be even more dramatic. *Id.* at C.2.3.

¹¹⁷ *Id.* at 16, B.2.4. The IPCC reports that "every additional 0.5°C of global warming causes clearly discernible increases in the intensity and frequency of hot extremes, including heatwaves (*very likely*), and heavy precipitation (*high confidence*), as well as agricultural and ecological droughts in some regions (*high confidence*)." *Id.* at 15, B.2.2.

¹¹⁹ See IPCC, Climate Change 2022 Impacts, Adaptation and Vulnerability, Summary for Policy Makers at 18, B.5, available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymake rs.pdf (Feb. 2022) (attached) (hereinafter "IPCC Impacts Summary").

ecosystems, people, settlements, and infrastructure have resulted from observed increases in the frequency and intensity of climate and weather extremes," ¹²⁰ the IPCC also predicts, with high to very high confidence, that climate change will cause increasing adverse impacts from flood/storm damages in coastal areas, damage to key infrastructure, and damage to key economic sectors in North America.¹²¹ Moreover, "[u]navoidable sea level rise will bring cascading and compounding impacts resulting in losses of coastal ecosystems and ecosystem services, groundwater salinisation, flooding and damages to coastal infrastructure that cascade into risks to livelihoods, settlements, health, wellbeing, food and water security, and cultural values in the near to long-term (high confidence)." ¹²²

The IPCC again concludes, with *very high confidence*, that "[t]he magnitude and rate of climate change and associated risks depend strongly on near-term mitigation and adaptation actions, and projected adverse impacts and related losses and damages escalate with every increment of global warming."¹²³ If overall global warming reaches 1.5°C in the near-term, there would be "unavoidable increases in multiple climate hazards" that would "present multiple risks to ecosystems and humans (very high confidence)." Although "[n]ear-term actions that limit global warming to close to 1.5°C would substantially reduce projected losses and damages related to climate change in human systems

¹²⁰ *Id.* at SPM.B.1.1; *see also id.* at SPM.C.2.5 ("Natural river systems, wetlands and upstream forest ecosystems reduce flood risk by storing water and slowing water flow, in most circumstances (high confidence). Coastal wetlands protect against coastal erosion and flooding associated with storms and sea level rise where sufficient space and adequate habitats are available until rates of sea level rise exceeds natural adaptive capacity to build sediment (very high confidence).").

¹²¹ *Id.* at Figure SPM.2. Risks from climate change to "key infrastructure will rise rapidly in the mid- and long-term with further global warming, especially in places . . . along coastlines, or with high vulnerabilities (high confidence)." *Id.* at SPM.B.4.5.

¹²² Id. at SPM.B.5.2.

¹²³ *Id.* at SPM.B.4.

and ecosystems," the IPCC confirmed (with very high confidence) that, at this point, those actions cannot eliminate all of the harms.¹²⁴

Because climate change impacts cannot be eliminated entirely, the IPCC also highlights critical adaptation strategies, including restoring wetlands to "further reduce flood risk (medium confidence)."¹²⁵ Noting that "siting of infrastructure" and other factors have "contributed to the exposure of more assets to extreme climate hazards increasing the magnitude of the losses (high confidence)," ¹²⁶ the IPCC also concludes that "[a]ctions that focus on sectors and risks in isolation and on short-term gains often lead to maladaptation if long-term impacts of the adaptation option and long-term adaptation commitment are not taken into account (high confidence)."¹²⁷

Lastly, the IPCC's April 2022 *Mitigation of Climate Change* report¹²⁸ further demonstrates that LNG exports will need to be significantly curtailed well before 2050. For example, the IPCC concludes that, to remain consistent with current internal climate pledges, global greenhouse gas emissions reductions must undergo "an unprecedented acceleration" between 2030 and 2050 (medium confidence).¹²⁹ Without additional abatement, projected greenhouse gas "emissions over the lifetime of existing and currently planned fossil fuel infrastructure" will result in global warming over 1.5°C.¹³⁰ Moreover, to reduce greenhouse gas emissions, the energy sector will "require[] major

¹²⁶ IPCC Impacts Summary, *supra* note 119, at SPM.B.1.6.

¹²⁷ *Id.* at SPM.C.4.1.

¹²⁹ *Id.* at B.6.3.

¹³⁰ *Id.* at B.7.

¹²⁴ *Id.* at SPM.B.3.

¹²⁵ *Id.* at SPM.C.2.1.

¹²⁸ See IPCC, Climate Change 2022: Mitigation of Climate Change, Summary for Policy Makers, available at https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_SPM.pdf (Apr. 2022) (attached).

transitions, including a substantial reduction in overall fossil fuel use, the deployment of lowemission energy sources, switching to alternative energy carriers, and energy efficiency and conservation."¹³¹ On the other hand, "[t]he continued installation of unabated fossil fuel infrastructure will 'lock-in' [greenhouse gas] emissions" (high confidence).¹³² The required transition in the energy sector "is projected to reduce international trade in fossil fuels."¹³³ Because limiting warming to 2°C "could strand considerable fossil fuel infrastructure," the IPCC estimates that gas assets "are projected to be more at risk of being stranded towards mid-century" (high confidence),¹³⁴ reiterating the risk that new LNG facilities like Delfin must not come online or cease operations well before 2050.

In short, the IPCC's AR6 reports add to the mounting evidence demonstrating the dual climate risks associated with the licensing and operation of Delfin LNG facility: (1) that the facility's staggering greenhouse emissions will fuel climate change, and (2) that the climate-driven hazards at the project sites will increase the risk of significant contamination being released into the surrounding communities and ecosystems. DOE must consider this significant new information in its public interest analysis and in supplemental NEPA review.

II. Conclusion

For the reasons stated above, the Environmental Advocates' motion to intervene in this docket should be granted. The proposed export extension is not consistent with the public interest

¹³² *Id.*

¹³³ *Id.* at C.4.4.

¹³⁴ *Id*.

¹³¹ *Id.* at C.4.

and DOE's extension policy, and should be denied. Any approval of Delfin LNG's application – the requested license extension or a revised application reflecting significant project changes – must review current gas price spikes compared to DOE's prior analyses and assumptions about the effects of increased exports on domestic gas production and prices. Finally, DOE cannot approve the application without taking a hard look at foreseeable environmental impacts occurring throughout the LNG lifecycle.

Respectfully submitted April 29, 2024.

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IN THE MATTER OF

Delfin LNG LLC

FE Docket Nos. 13-129-LNG and 13-147-LNG

SIERRA CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

Pursuant to 10 C.F.R. § 590.103(b), I, Rebecca McCreary, hereby certify that I am a duly authorized representative of the Sierra Club, and that I am authorized to sign and file with the Department of Energy, Office of Fossil Energy and Carbon Management, on behalf of the Sierra Club, the foregoing documents and in the above captioned proceeding.

Dated at Boulder, CO this 29th day of April, 2024

Rebecca McCreary Associate Attorney 1650 38th St., Ste. 102W Boulder, CO 80301 rebecca.mccreary@sierraclub.org *Attorney for Sierra Club*

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IN THE MATTER OF

Delfin LNG LLC

FE Docket Nos. 13-129-LNG and 13-147-LNG

CENTER FOR BIOLOGICAL DIVERSITY CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

Pursuant to 10 C.F.R. § 590.103(b), I, Jason C. Rylander, hereby certify that I am a duly authorized representative of the Center for Biological Diversity, and that I am authorized to sign and file with the Department of Energy, Office of Fossil Energy and Carbon Management, on behalf of the Center for Biological Diversity, the foregoing documents and in the above captioned proceeding.

Dated at Washington, DC this 29th day of April, 2024

Jason C. Rylander Senior Attorney Center for Biological Diversity 1411 K Street, NW Suite 1300 Washington, DC 20005 jrylander@biologicaldiversity.org

Attorney for Center for Biological Diversity

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IN THE MATTER OF

Delfin LNG LLC

FE Docket Nos. 13-129-LNG and 13-147-LNG

SIERRA VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Rebecca McCreary, hereby verify under penalty of

perjury that I am authorized to execute this verification, that I have read the foregoing document,

and that the facts stated therein are true and correct to the best of my knowledge.

Executed in Boulder, CO this 29th day of April, 2024

Rebecca McCreary Associate Attorney 1650 38th St., Ste. 102W Boulder, CO 80301 rebecca.mccreary@sierraclub.org *Attorney for Sierra Club*

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IN THE MATTER OF

Delfin LNG LLC

FE Docket Nos. 13-129-LNG and 13-147-LNG

CENTER FOR BIOLOGICAL DIVERSITY VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Jason C. Rylander, hereby verify under penalty of

perjury that I am authorized to execute this verification, that I have read the foregoing document,

and that the facts stated therein are true and correct to the best of my knowledge.

Executed in Washington, DC this 29th day of April, 2024

Jason C. Rylander Senior Attorney Center for Biological Diversity 1411 K Street, NW Suite 1300 Washington, DC 20005 jrylander@biologicaldiversity.org

Attorney for Center for Biological Diversity

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IN THE MATTER OF

Delfin LNG LLC

FE Docket Nos. 13-129-LNG and 13-147-LNG

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 590.107, I, Rebecca McCreary, hereby certify that I caused the above documents to be served on the persons included on the official service list for this docket, as provided by DOE/FE, on April 29, 2024.

Rebecca McCreary Associate Attorney 1650 38th St., Ste. 102W Boulder, CO 80301 rebecca.mccreary@sierraclub.org *Attorney for Sierra Club*