UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

Motion to Intervene and Protest of Fishermen Involved in Sustaining our Heritage (FISH), For a Better Bayou, Habitat Recovery Project, Healthy Gulf, Louisiana Bucket Brigade, Micah Six Eight Mission, The Vessel Project of Louisiana, and Sierra Club

Sabine Pass Liquefaction, LLC and Sabine Pass Liquefaction Stage V, LLC (collectively "Sabine Pass"), subsidiaries of Cheniere Energy Partners, L.P. ("Cheniere"), are proposing to develop a liquified natural gas ("LNG") export facility ("Sabine Pass Stage 5") that would drastically expand the export capacity of an existing LNG export facility located roughly 6 miles southeast of Port Arthur, TX along the Sabine-Neches Waterway in Cameron Parish, Louisiana. Fishermen Involved in Sustaining our Heritage (FISH), For a Better Bayou, Habitat Recovery Project, Healthy Gulf, Louisiana Bucket Brigade, Micah Six Eight Mission, the Vessel Project of Louisiana, and Sierra Club (collectively "Environmental Advocates") request to intervene in Docket No. 24-27-LNG related to Sabine Pass's application for authorization from the Department of Energy ("DOE") to export LNG from the Stage 5 Project to "non-free trade agreement" ("non-FTA") countries. The Environmental Advocates herein also protest Sabine Pass's application in the above docket, pursuant to 10 C.F.R. §§ 590.303(b) and § 590.304.

Sabine Pass previously obtained DOE authorization to export LNG from the Sabine Pass LNG Project to countries with which the U.S. has a free trade agreement, as well as "non-free trade agreement" ("non-FTA") countries.[1] DOE previously amended those authorizations to

[1] Sabine Pass Liquefaction, LLC & Sabine Pass Liquefaction Stage V, LLC, Application for Long-Term Authorization to Export Liquefied Natural Gas to Free Trade Agreement Nations and Non-Free Trade Agreement Nations at App'x A, DOE/FE Dkt. No. 24-27-LNG (Mar. 1, 2024) (hereinafter "Application") (summarizing prior DOE orders).

accommodate prior expansions at the Sabine Pass LNG export facility, making Sabine Pass one of the largest LNG export facilities in the U.S. On March 1, 2024, Sabine Pass again requested DOE to expand its export authorization by *roughly 50%* to account for an additional 899.46 billion cubic feet per year ("Bcf/yr") from its proposed Stage 5 project.[2] This new application is the subject of this motion to intervene and protest. This is a massive expansion: if approved, the roughly 17.76 metric tonnes per annum ("MTPA") of LNG produced by the Stage 5 project—alone—would represent the 7th largest LNG export project in the U.S. and its lifecycle greenhouse gas emissions would account for roughly 110 million metric tons of carbon dioxide equivalent (CO2e) per year, equivalent emissions to about 28 coal-burning power plants or 26 million cars.[3]

On January 26, 2024, recognizing that "climate change is the existential threat of our time," the Biden administration and DOE initiated a temporary pause on all pending non-FTA LNG export applications, including the application at issue here, while it updates underlying analyses.[4] This pause is critical to ensure that DOE has the space to conduct the thorough review needed; as the administration recognized, "[t]he current economic and environmental analyses DOE uses to underpin its LNG export authorizations are roughly five years old and no longer adequately account for considerations like potential energy cost increases for American consumers and manufacturers beyond current authorizations or the latest assessment of the impact of greenhouse gas emissions."[5] But a pause alone is not enough. The scientific consensus is already clear—increasing reliance on fossil fuels is not in the public interest. DOE must ensure

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[2] *Id.* at 3.

[3] GHG equivalency calculations are based on the 20-year global warming potential equivalency estimates from *Life Cycle Greenhouse Gas Emissions from U.S. Liquified Natural Gas Exports: Implications for End Uses*, https://pubs.acs.org/doi/suppl/10.1021/es505617p/suppl_file/es505617p_si_001.pdf (Attachment 1) (hereinafter "LNG Lifecycle GHG") and *Greenhouse Gas Equivalences Calculator*, EPA, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.

[4] White House, Fact Sheet: Biden-Harris Administration Announces Temporary Pause on Pending Approvals of LNG Exports (Jan. 26, 2024), https://www.whitehouse.gov/briefing-room/statements-releases/2024/01/26/fact-sheet-biden-harris-administration-announces-temporary-pause-on-pending-approvals-of-liquefied-natural-gas-exports/ (hereinafter "Fact Sheet on Temporary Pause") (Attachment 2); DOE to Update Public Interest Analysis to Enhance National Security, Achieve Clean Energy Goals and Continue Support for Global Allies (Jan. 26, 2024), https://www.energy.gov/articles/doe-update-public-interest-analysis-enhance-national-security-achieve-clean-energy-goals (Attachment 3).

Sabine Pass acknowledges that these updated studies will apply to its application. Application at 4-5 n. 9.

[5] Fact Sheet on Temporary Pause (Attachment 2).

that its updated analysis incorporates the latest science and addresses the significant flaws in prior studies. And DOE must conduct a project-specific review of *Stage 5's* potential impacts.

Contrary to Sabine Pass's claims, the world's transition away from fossil fuels is accelerating rapidly. As the Biden administration has repeatedly affirmed, our global strategic interests—including helping Ukraine and other European allies avoid reliance on Russian fossil fuels—requires the U.S. and the world to transition off of fossil fuels entirely as quickly as possible.[6] The International Energy Agency ("IEA") recently concluded that, through the 2040s, there will be no need for LNG exports beyond those already under construction.[7] The transition away from fossil fuels is also essential to avoid catastrophic climate change: the IEA has explained that even LNG export projects that are already under construction cannot be part of the path to net-zero emissions.[8] The Stage 5 project, which would not export gas until the early 2030s, is not a part of any solution to our short, middle, or long term problems.

DOE must review this new application based on current information and data in this docket[9] —along with any new data and information resulting from updates to its now-stale economic and lifecycle impact studies.[10] This must include the mounting evidence demonstrating the harm LNG exports cause to domestic consumers, surrounding communities, and the environment. For these reasons, as explained below, the Stage 5 project is inconsistent with the public interest, and Sabine Pass's application should be denied. 15 U.S.C. § 717b(a).

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[6] *See, e.g.*, Remarks by President Biden Announcing U.S. Ban on Imports of Russian Oil, Liquefied Natural Gas, and Coal (Mar. 8, 2022), https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/03/08/remarks-by-president-biden-announcing-u-s-ban-on-imports-of-russian-oil-liquefied-natural-gas-and-coal/ (Attachment 4); *see also* Jen Psaki, https://twitter.com/PressSec/status/1500587980699971586?s=20, ("real energy security comes from reducing our dependence on fossil fuels.") (Attachment 5).

[7] International Energy Agency, World Energy Outlook 2023 at 139 (Oct. 2023), *available at* https://www.iea.org/reports/world-energy-outlook-2023 (Attachment 6) (hereinafter "IEA, World Energy Outlook 2023").

[8] *Id.*; *see also* International Energy Agency, Net Zero by 2050 at 102 (May 2021), https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf (Attachment 7) (hereinafter "IEA, Net Zero by 2050").

[9] Policy Statement on Export Commencement Deadlines in Authorizations To Export Natural Gas to Non-Free Trade Agreement Countries, 88 Fed. Reg. 25,277 (Apr. 26, 2023) ("[N]ew DOE decisions regarding non-FTA exports, such as actions in response to the pending expiration of an authorization holder's export commencement deadline, should be made on the basis of the latest market information and analytical approaches available at the time of DOE's decision."); 10 C.F.R. § 590.106 ("The FE shall maintain a docket file of each proceeding under this part, which shall contain the official record upon which all orders provided for in subparts D and E shall be based.")

[10] *See* Fact Sheet on Temporary Pause (Attachment 2).

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I. Intervention

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 additional analysis far beyond that presented in Sabine Pass's cursory application. The organizations' interests are based on the impact the proposed Stage 5 project will have on their members and missions.

1. Sierra Club

Sierra Club seeks to intervene in this proceeding due to the harm the Stage 5 project will cause to its members. [11] The proposed Stage 5 project will harm Sierra Club's members by increasing the prices they pay for energy, including both gas and electricity, over a longer term. The Stage 5 project represents a drastic increase in the volume of LNG Sabine Pass proposes to export—a volume larger than many standalone LNG facilities. And no project of this scale has moved forward without *both* the free-trade agreement ("FTA") and non-FTA authorizations requested here. Thus, granting this application would facilitate gas exports that would otherwise not occur. 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. *See infra* Section II.A. Sierra Club's members will pay more for energy if DOE grants this application.

The requested LNG exports will further harm Sierra Club members by increasing gas production and associated air pollution, including (but not limited to) emission of greenhouse gases and ozone precursors. Increasing LNG exports will increase gas production,[12] and

[11] Although Sierra Club intervened in prior dockets related to the Sabine Pass LNG Project (e.g., Docket Nos. 10-111-LNG and 15-63-LNG), DOE has created a new docket in response to Sabine Pass's application for a new non-FTA export authorization from Stage 5. Therefore, in an abundance of caution, Sierra Club additionally seeks intervention in the newest docket related to exports from the project.

[12] *See, e.g.*, U.S. EIA, Effect of Increased Levels of Liquefied Natural Gas Exports on U.S. Energy Markets at 12 (Oct. 2014), 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.") (Attachment 8).

increasing gas production increases ozone pollution, including risking creation of new or expanded ozone non-attainment areas or exacerbating existing non-attainment.[13] As noted, these impacts are unlikely to occur unless DOE grants Sabine Pass's application. Sierra Club has over 2,800 members in Louisiana and over 22,700 members in Texas, including many in the Permian, Haynesville, and Eagle Ford production regions and other areas that will likely be impacted by increased gas production.

The proposed Stage 5 project will also require significant shipping traffic.[14] This 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 Sierra Club's members enjoy viewing, etc., including the threatened giant manta ray,[15] threatened oceanic whitetip shark,[16] and endangered Rice's whale (formerly designated as the Gulf of Mexico population of the Bryde's whale).[17]

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

Finally, increasing LNG exports by granting this application will impact Sierra Club and its members because of the additional greenhouse gases emitted throughout the LNG lifecycle, from production, transportation, liquefaction, and end use. *See infra Section* II.C.4. The impacts from climate change are already harming Sierra Club members in numerous ways. Coastal property owners risk losing property to sea level rise. Extreme weather events—including hurricanes, flooding and heat waves—impact members' health, recreation, homes, 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

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

[14] Application at 10 (acknowledging the project will add 160 vessel trips each year).

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

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

[17] Technical Corrections for the Bryde's Whale (Gulf of Mexico Subspecies), 86 Fed. Reg. 47,022 (Aug. 23, 2021).

prolong greenhouse gas emissions, increasing the severity of climate change and thus of these harms.

In summary, the requested export authorizations 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 persons for the official service list:

Louisa Eberle
Staff Attorney
1536 Wynkoop St. Suite 200
Denver, CO 80202
louisa.eberle@sierraclub.org
415-977-5753

Nathan Matthews
Senior Attorney
2101 Webster St., Suite 1300
Oakland, CA 94612
nathan.matthews@sierraclub.org
415-977-5695

2. Fishermen Involved in Sustaining our Heritage (FISH)

Fishermen Involved in Sustaining our Heritage (FISH) is a Louisiana-based, indigenously-led nonprofit organization and coalition of dedicated commercial fishermen. FISH's mission is to passionately advocate for environmental preservation, safeguarding against LNG threats, and championing the rights of commercial fishermen to flourish and prosper. FISH also raises awareness and extends direct mutual aid to uplift and support the vibrant community of Gulf Coast commercial fishermen. The construction and operation of the Stage 5 project will impact FISH's work and mission by producing harmful air and water pollution that will deter members from engaging in fishing and shrimping activities in the region. The project will also harm FISH's members: commercial fishermen who would be affected in economic impact to their livelihoods, health implications, and direct damages from LNG tankers and operations.. FISH states that the exact name of the movant is Fishermen Involved in Sustaining our Heritage.

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

Travis Dardar
DardarTravis68@gmail.com

Alyssa Portaro
Habitat Recovery Project
1636 Arledge Rd
Vinton, LA 70668
alyssaportaro@gmail.com
973-632-1695

3. For a Better Bayou

For a Better Bayou is a community-based organization in Southwest Louisiana which is raising awareness and building a community-based movement to ensure protections for a sustainable bayou. Its mission is to build a movement in Southwest Louisiana that holds the fossil fuel industry accountable for the harm it causes to people and the environment, and transforms the regional economy to one based in love, culture, and environmental stewardship. For a Better Bayou hosts events to educate community members on the global climate crisis and how that impacts Southwest Louisiana and the bayous in the region, which provide a myriad of benefits to the surrounding communities. For a Better Bayou also hosts outings such as bird walks to educate the community on the value of a robust and diverse ecosystem. The construction and operation of the Stage 5 project will impact For a Better Bayou's work and mission by producing harmful air and water pollution that will deter members from engaging in outdoor activities in the region. For the same reasons articulated above by Sierra Club, For a Better Bayou will be impacted by the operation of the Stage 5 project. For a Better Bayou states that the exact name of the movant is For a Better Bayou.

Pursuant to 10 C.F.R. § 590.303(d), For a Better Bayou identifies the following person for the official service list:

James Hiatt
Director, For a Better Bayou
PO Box 7262
Lake Charles, LA 70606
337-515-0655
James@betterbayou.net

4. Habitat Recovery Project

Habitat Recovery Project states that the exact name of the movant is Habitat Recovery Project, and the movant's principal place of business is 1636 Arledge Rd, Vinton, LA 70668. Habitat Recovery Project is a 501(c)(3) organization and represents a community-focused conservation movement dedicated to restoring, regenerating, and conserving wildlife habitats in

contaminated communities, through supporting and benefiting the communities around them. This work will be directly affected by the construction and operation of the Stage 5 project. For the same reasons articulated above by Sierra Club, Habitat Recovery Project will be impacted by the operation of the Stage 5 project.

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

Alyssa Portaro
Habitat Recovery Project
1636 Arledge Rd
Vinton, LA 70668
alyssaportaro@gmail.com
973-632-1695

5. Healthy Gulf

Healthy Gulf is a 501(c)(3) organization with several hundred members in Louisiana. Healthy Gulf also employs staff members, primarily based in Louisiana, who work to protect the integrity of wetlands, waters, wildlife, and other ecological resources throughout Louisiana and the Gulf Region. This work will be directly affected by the construction and operation of the proposed Stage 5 project. For the same reasons articulated above by Sierra Club, Healthy Gulf will be impacted by the operation of the Stage 5 project. Healthy Gulf states that the exact name of the movant is Healthy Gulf, and the movant's principal place of business is 935 Gravier Street, Suite 700, New Orleans, LA 70112.

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

Scott Eustis
Community Science Director
Healthy Gulf
PO Box 2245
New Orleans, LA 70176
scott@healthygulf.org
504 525 1528 x212

6. Louisiana Bucket Brigade

Louisiana Bucket Brigade states that the exact name of the movant is Louisiana Bucket Brigade, and the movant's principal place of business is 3416 B Canal Street, New Orleans, LA 70119. Louisiana Bucket Brigade is a 501(c)(3) organization with several hundred members in Louisiana, including members in the southwest Louisiana who will be impacted by the Stage 5

project. The Louisiana Bucket Brigade works with communities across the state that are disproportionately impacted by industrial pollution, with the goal of addressing environmental injustices and holding large polluters accountable. Stage 5 is yet another threat to southwest Louisiana's communities which are already overburdened with toxic emissions from numerous fossil fuel and petrochemical facilities, and we request DOE to reject this export authorization application. It also employs staff members, primarily based in Louisiana, who work to inform Louisiana residents on the adverse environmental impacts of the petrochemical and oil and gas industry. For the same reasons articulated above by Sierra Club, Louisiana Bucket Brigade will be impacted by the operation of the Stage 5 project.

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

Anne Rolfes, Executive Director
Laurie Cook, Southwest Louisiana Program Coordinator
3416B Canal St
New Orleans, LA 70130
(504) 484-3433
anne@labucketbrigade.org
lori@labucketbrigade.org

7. Micah Six Eight Mission

Micah Six Eight Mission states that the exact name of the movant is Micah Six Eight Mission, and the movant's principal place of business is 624 W. Verdine, Sulphur, LA 70663. Micah Six Eight Mission is a 501(c)(3) organization serving the communities in Calcasieu and Cameron parishes. Micah Six Eight Mission, our staff, board and volunteers will be impacted by the Project. We work to inform Louisiana residents on the adverse environmental impacts of the petrochemical and oil and gas industry. Micah Six Eight Mission also supports communities in Calcasieu and Cameron parishes whose health and homes are devastated by the petrochemical industry as well as the oil and gas industry. For the same reasons articulated above by Sierra Club, Micah Six Eight Mission will be impacted by the operation of the Stage 5 project.

Pursuant to 10 C.F.R. § 590.303(d), Micah Six Eight Mission identifies the following person for the official service list:

Cynthia P. Robertson
Executive Director
Micah Six Eight Mission
624 W. Verdine
Sulphur, LA 70663
cindy@micah68mission.org
337-888-6652

8. The Vessel Project of Louisiana

The Vessel Project of Louisiana is a grassroots mutual aid and disaster relief organization founded in Southwest Louisiana. The Vessel Project of Louisiana's founder lives in Southwest Louisiana and works to provide emergency relief to the most vulnerable communities in this region, such as Black and Indigenous people of color as well as low income individuals. This work will be directly affected by the construction and operation of the proposed facility by the release of toxic pollutants into the air and water which decrease the health and wellness of the nearby communities. Moreover, the lifecycle greenhouse gas emissions from the operation of the Stage 5 facility will contribute to climate change which will increase storm intensity requiring additional aid and disaster relief. Moreover, The Vessel Project of Louisiana will be impacted by the operation of the Stage 5 project for the reasons articulated above by Sierra Club. The Vessel Project of Louisiana states that the exact name of the movant is The Vessel Project of Louisiana.

Pursuant to 10 C.F.R. § 590.303(d), The Vessel Project of Louisiana identifies the following person for the official service list:

Roishetta Ozane
Director
vesselproject@gmail.com
(337)502-9322

II. Protest

The application should be denied because it is contrary to the public interest. 15 U.S.C. § 717b(a). As DOE previously explained, "when reviewing an application for export authorization," DOE evaluates "economic impacts, international impacts, security of natural gas supply, and environmental impacts, among others."[18] DOE has made clear that "new DOE decisions regarding non-FTA exports" like this "should be made on the basis of the latest market information and analytical approaches at the time of DOE's decision."[19] Based on current circumstances and the latest market information and analytical approaches available, each of the public interest factors weighs against granting Sabine Pass's application for the Stage 5 project.

We appreciate that DOE recently acknowledged that the prior studies underlying its public interest reviews fail to properly account for LNG's impacts on (1) domestic prices and supply, (2) global strategic interests, and (3) climate and environmental justice impacts.[20] We also recognize that, unlike notices for prior applications,[21] DOE's Federal Register notice did not identify any of DOE's prior studies as being part of DOE's evaluation of the Stage 5 application. Because Sabine Pass relies heavily on these flawed and outdated prior studies,[22] however, we reiterate here why DOE should not rely on those prior studies. While we hope that DOE's addresses the prior studies' limitations in the upcoming updates, conducting analysis in a generic study will not offset DOE's obligation to conduct the project-specific analysis of the Stage 5 project. That project-specific review will demonstrate that the project's economic, strategic, and environmental harms render the project contrary to the public interest, for the reasons discussed below.

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[18] *See, e.g.*, Order No. 4010, at 14-15.

[19] 88 Fed. Reg. 25,277.

[20] *See* Fact Sheet on Temporary Pause (Attachment 2) (recognizing that the existing studies are stale and need to be updated); *see also* DOE/FE Order No. 3643-D (Alaska LNG Project) at 51 (June 14, 2023), https://www.energy.gov/sites/default/files/2023-06/ord3643-D_unlocked.pdf (stating that a nine-year old report on global market demand for U.S. LNG is outdated) (Attachment 9).

[21] *See, e.g.*, Notice of Application, 88 Fed. Reg. at 60,671 (indicating that DOE intends to consider the 2014 Addendum, 2014 Life Cycle Perspective, 2018 Macroeconomic Outcomes study, and 2019 Life Cycle Update when reviewing Lake Charles LNG's application); 88 Fed. Reg. at 88,602-03 (same for Magnolia LNG application); 87 Fed. Reg. 1133 (same for CP2 LNG application).

[22] *See, e.g.*, Application at 22-25, 30-31.

A. Stage 5 Is Contrary to the Public Interest Because It Will Raise Domestic Energy Prices and Jeopardize Domestic Supply.

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."[23] Sabine Pass's application leans heavily on DOE's historic focus on "market competition" as inherently justifying all LNG exports.[24] But even if Sabine Pass is correct that there is robust international demand for LNG exports from Stage 5 (there is not, *see infra* Section B.2), *global* markets do not inherently protect the *American* public. The fact that a foreign buyer is willing to outbid American consumers for U.S. gas does not demonstrate that exporting that gas will help the American public. To the contrary, LNG exports are increasing energy prices by the billions for American families—domestic consumers will pay "$14.3 billion in higher annual natural gas costs in 2050 as a result of LNG exports."[25] In addition, domestic energy markets have not consistently responded as DOE expected them to, and American consumers—particularly low-income households—are facing increasing energy burdens. Thus, DOE must scrutinize the harm that Stage 5's exports will cause to the American public, regardless of whether a foreign buyer might want U.S. LNG.

DOE has acknowledged this reality, observing that "agency intervention may be necessary to protect the public in the event there is insufficient domestic natural gas for domestic use, or as a result of other facts or circumstances[.]"[26] As such, DOE has "recognize[d] the need to monitor market developments closely as the impact of successive authorizations of LNG exports unfolds."[27] Acknowledging that its prior assessments of market impacts are stale, DOE

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[23] *See, e.g.*, DOE/FE Order No. 3357-B (Freeport LNG Expansion) at 10 (Nov. 14, 2014), https://www.energy.gov/sites/prod/files/2014/11/f19/ord%203357-B.pdf; 85 Fed. Reg. 52,243 (Aug. 25, 2020) ("In evaluating the public interest, DOE takes seriously the potential economic impacts of higher natural gas prices.").

[24] *See, e.g.*, Application at 20.

[25] Tyson Slocum, *LNG Exports Cause Domestic Energy Insecurity*, Public Citizen (Sept. 2023), https://www.citizen.org/wp-content/uploads/LNG-Consumer-Cost-Fact-Sheet-09.11.23.pdf (Attachment 10); *see also* Jeremy Symons, *The Oil & Gas Lobby is Panicking*, Climate Insider (Jan. 25, 2024), https://jeremysymons.substack.com/p/the-oil-and-gas-lobby-is-panicking (hereinafter "Oil & Gas Lobby is Panicking") (Attachment 11).

[26] *See, e.g.*, DOE/FE Order 4961 (Freeport LNG Expansion) at 71 (Mar. 3, 2023), https://www.energy.gov/sites/default/files/2023-03/ord4961.pdf; DOE/FE Order Denying Petition for Rulemaking on Exports of Liquefied Natural Gas at 25 (July 18, 2023), https://www.energy.gov/sites/default/files/2023-07/DOE%20Response%20to%20Sierra%20Club%27s%20Petition%20for%20Rulemaking%207.18.2023%20%28002%29.pdf (quoting Order 4961).

[27] Order 4961 at 71.

has stated that "It is imperative to know what these greatly expanded exports mean for affordable and stable prices for American consumers and industries."[28]

While DOE has promised to re-examine the harm additional LNG exports pose to domestic consumers and supply, Sabine Pass continues to rely heavily on DOE's prior, now-invalid studies. Out of an abundance of caution, therefore, we reiterate the prior studies' flaws and highlight new evidence demonstrating that Stage 5's exports are contrary to the public interest. As discussed in the following sections, gas prices throughout recent winters, domestic energy market responses to an explosion at the Freeport LNG facility, interference with gas supplies for domestic consumers, and economic harms caused by LNG operations demonstrate that the Stage 5 project's proposed LNG exports are not in the public interest.

1. Winter 2021-2022 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.[29] The same dynamic played out in the winter of 2022-2023.[30] The Wall Street Journal,[31] S&P Global Platts Analytics,[32] the Institute for Energy Economics and Financial Analysis,[33] Industrial Energy

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[28] U.S. Department of Energy, Unpacking the misconceptions surrounding the DOE's LNG update (Feb. 8, 2024), https://www.energy.gov/articles/unpacking-misconceptions-surrounding-does-lng-update (Attachment 12) (hereinafter "Unpacking Misconceptions").

[29] FERC, Winter Energy Market and Reliability Assessment (Oct. 21, 2021) at 2, 11 https://ferc.gov/sites/default/files/2021-10/Winter%20Assessment%202021-2022%20-%20Report.pdf (hereinafter "FERC, 2021-2022 Winter Assessment") (Attachment 13).

[30] FERC, Winter Energy Market and Reliability Assessment (Oct. 20, 2022) at 1, 4, 5, https://www.ferc.gov/media/report-2022-2023-winter-assessment (hereinafter "FERC, 2022-2023 Winter Assessment") (Attachment 14).

[31] Collin Eaton & Katherine Blunt, Natural-Gas Exports Lift Prices for U.S. Utilities Ahead of Winter, WALL ST. J. (Nov. 7, 2021), https://www.wsj.com/articles/natural-gas-exports-lift-prices-for-u-s-utilities-ahead-of-winter-11636281000 (Attachment 15).

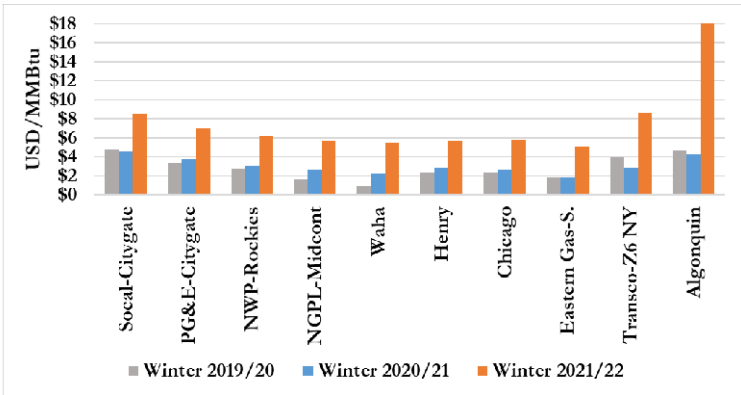
[32] Kelsey Hallahan, Henry Hub could reach $12-$14 this winter as capital discipline limits supply growth: Platts Analytics, S&P GLOBAL PLATTS (Oct. 14, 2021), https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/101421-henry-hub-could-reach-12-14-this-winter-as-capital-discipline-limits-supply-growth-platts-analytics (Attachment 16).

[33] *See, e.g.*, Clark Williams-Derry, *Booming U.S. natural gas exports fuel high prices*, IEEFA (Nov. 4, 2021), https://ieefa.org/ieefa-u-s-declining-demand-lower-supply-dont-explain-rapidly-rising-gas-prices/ (Attachment 17); Shafiqul Alam et al., *Global LNG Outlook 2023-27*, IEEFA (Feb. 15, 2023), https://ieefa.org/resources/global-lng-outlook-2023-27 (Attachment 18) (hereinafter "IEEFA, Global LNG Outlook 2023-2027").

Consumers of America,[34] 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.[35] 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,[36] with larger increases elsewhere, including more than quadrupling of the price at the Algonquin Citygate outside Boston,[37] as illustrated in this chart from FERC:[38]

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



Source: InterContinental Exchange Inc

DOE has already acknowledged the need to address the latest evidence of domestic price impacts before approving any further LNG exports.[39]

The U.S. Energy Information Administration's ("EIA") 2023 LNG market report reiterates that this connection between higher LNG exports and higher domestic gas prices will

[34] Letter from Paul N. Cicio to Jennifer Granholm (Nov. 22, 2021), https://www.ieca-us.com/wp-content/uploads/11.22.21_LNG_-Why-a-Safety-Valve-is-Needed_FINAL.pdf (Attachment 19).

[35] FERC, 2021-2022 Winter Assessment at 2 (Attachment 13).

[36] *Id.* at 2, 11.

[37] *Id.* at 12.

[38] FERC, 2021-2022 Winter Energy Market and Reliability Assessment Presentation (Oct. 21, 2021) at 10, *available at* https://ferc.gov/sites/default/files/2021-10/Winter%20Assessment%202021-2022_Presentation.pdf (Attachment 14).

[39] Unpacking Misconceptions (Attachment 12) ("Updating our analysis using the latest data will help mitigate risks of future decisions that could cause domestic consumers and manufacturers to face higher energy prices.") (hereinafter "DOE LNG Update").

continue through 2050.[40] Specifically, "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."[41] The International Energy Agency's ("IEA") *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) by 2030 when compared to the net-zero scenario, which includes only a 6% increase in global LNG between 2022 and 2030 ($2.40 per MMBtu).[42]

Industry insiders are also acknowledging the connections between LNG exports and higher domestic prices. In 2022, the Dallas Federal Reserve surveyed 134 oil and gas firms, and 84% of oil & gas executives "expect the age of inexpensive U.S. natural gas to come to an end" as liquefied natural gas exports grow.[43] Most of the executives (69%) expect this impact to occur "by year-end 2025."[44]

These price increases harm both households and industrial energy consumers. A recent analysis by IEEFA found that, "If domestic gas prices had remained at their long-term average, U.S. consumers would have spent roughly $111 billion less on wholesale natural gas purchases from September 2021 through December 2022." [45] In other words, LNG-export-driven price spikes cost U.S. gas consumers over $100 billion.[46] That number may be even higher when accounting for the $50 billion in increased gas spending by the electricity industry, some or most of which may have been passed along to consumers. While the IEEFA report didn't estimate this pass-through, many U.S. electric utilities have pass-through mechanisms that put utility customers, not the companies or their shareholders, on the hook for gas costs. The EIA

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[40] U.S. EIA, AEO2023 Issues in Focus: Effects of Liquefied Natural Gas Exports on the U.S. Natural Gas Market (May 2023), https://www.eia.gov/outlooks/aeo/IIF_LNG/pdf/LNG_Issue_in_Focus.pdf (hereinafter "EIA, AEO2023 Issues in Focus") (Attachment 21).

[41] *Id.* at 8.

[42] IEA, World Energy Outlook 2023 (Attachment 6) at 96, 135.

[43] Federal Reserve Bank of Dallas, *Dallas Fed Energy Survey: Special Questions*, https://www.dallasfed.org/research/surveys/des/2022/2203#tab-questions (Sept. 28, 2022) (Attachment 22).

[44] *Id.*

[45] Clark Williams-Derry, 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 (Attachment 23).

[46] *Id.*

determined that U.S. residential customers paid 5% more for their electricity bills in 2022, due largely to a 34% increase in the costs of fuel—including gas—to supply power plants.[47] As analysts at S&P Ratings have explained, "rising natural gas prices affects [sic] virtually every customer across North America" and "[e]ventually utilities will have to recover these higher costs from customers on an ongoing basis, raising the customer bill, and pressuring the customer's affordability."[48] The Industrial Energy Consumers of America, which represents manufacturers that use at least 1 trillion Btu of energy per year,[49] has repeatedly written to DOE about how export-driven gas prices increases are harming domestic industry.[50]

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.[51] DOE is charged with protecting the "public" interest, 15 US.C. § 717b(a); that is, the interest of "ordinary people in society in general" in the United States.[52] 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."[53] Accordingly, unless DOE addresses distributional concerns, DOE will have failed to consider an important part of the problem.

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[47] EIA, Today in Energy (May 31, 2023), https://www.eia.gov/todayinenergy/detail.php?id=56660 (Attachment 24).

[48] S&P Global, Comments: Although Commodity Costs Are A Pass Through For Utilities, They Still Affect Credit Quality (Sept. 6, 2023), https://www.spglobal.com/ratings/en/research/articles/230906-although-commodity-costs-are-a-pass-through-for-utilities-they-still-affect-credit-quality-12802759 (Attachment 25).

[49] "Membership Info," IECA, https://www.ieca-us.com/membership-info/ (last visited June 14, 2024) (Attachment 26).

[50] *See*, *e.g.*, Letter from Paul N. Cicio to Jennifer Granholm (Attachment 19).

[51] Synapse Energy Economics, Inc., *Will LNG Exports Benefit the United States Economy?* (Jan. 23, 2013) at 9, https://www.energy.gov/sites/default/files/2022-03/Synapse%2C%20LNG%20Exports%20Economic%20Report.pdf (Attachment 27) (initially submitted as Exhibit 5 to Comments of Sierra Club *et al.* on the 2012 NERA macroeconomic report).

[52] *Public*, Oxford Learner's Dictionary, https://www.oxfordlearnersdictionaries.com/us/definition/english/public_2 (last visited June 14, 2024) (Attachment 28).

[53] DOE/FE Order 3638-A (Corpus Christi), at 45 (May 26, 2016), https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/applications/12-97-LNG_CMI_Corpus_Rehearing__May_26.pdf.

To date, DOE has never grappled with the distributional impacts of LNG exports: DOE has acknowledged that LNG exports have some positive and some negative economic impacts,[54] 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.[55] Increased gas prices will exacerbate the existing energy burden disparities, placing these households at even further risk.[56] 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.

We hope DOE's updated general studies scrutinize these distributional impacts and recognize that energy markets have not balanced in response to increased LNG exports as DOE expected. Even the latest EIA analysis[57] 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 must ensure that its planned analysis updates address this issue. DOE must be particularly cautious given DOE's refusal, to date, to exercise supervisory authority over already-approved exports. Although DOE retains authority to amend and/or rescind existing export authorizations,[58] DOE has stated its reluctance to exercise such authority.[59] But if export applications are, in effect, a one-way ratchet on export volumes, DOE cannot issue such authorizations carelessly.

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[54] *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, *t* https://www.energy.gov/sites/prod/files/2018/06/f52/Macroeconomic%20LNG%20Export%20Study%202018.pdf (Attachment 29) (hereinafter "NERA Economic Consulting").

[55] American Council for an Energy-Efficient Economy, *How High are Household Energy Burdens?* (Sept. 2020), https://www.aceee.org/sites/default/files/pdfs/u2006.pdf (Attachment 30); *accord* Eva Lyubich, The Race Gap in Residential Energy Expenditures (June 2020), https://haas.berkeley.edu/wp-content/uploads/WP306.pdf (Attachment 31); Eric Scheier & Noah Kittner, *A measurement strategy to address disparities across household energy burdens*, 13:288 NATURE COMMUNICATIONS at 6 (2022), https://rdcu.be/dpQlK (hereinafter "Energy Burden Measurement Tools") (Attachment 32) ("Households in communities of color experience energy poverty at a rate 60% greater than those in white communities.").

[56] Energy Burden Measurement Tools at 7 (Attachment 32) ("Changes in the unit price of energy or slight differences in consumption patterns matter more to those with low incomes than those with higher incomes.").

[57] EIA, AEO2023 Issues in Focus (Attachment 21).

[58] 15 U.S.C. § 717o.

[59] *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,

Not only do LNG exports increase prices, they expose U.S. consumers to drastically higher price volatility. Deputy Energy Secretary David Turk warned that intertwining the US and global gas markets could both drastically increase prices and de-stabilize the domestic market: gas prices in Europe and Asia have been five to six times higher than U.S. prices and "about 50-100% more volatile."[60] Various "market participants," including Continental Resources Inc., have also acknowledged the "potential for considerable price volatility within the domestic market" as the U.S. exports more LNG.[61] In addition to impacting consumers directly, these increased prices and volatility will harm U.S. electric utilities, threatening their balance sheets and credit ratings as companies determine how to recover increasing gas costs from customers.[62]

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."[63] At present, LNG exports are not achieving these purposes. DOE's uniform approval of all export applications to date has not protected consumers from exploitation at the hands of gas companies, and LNG exports are not leading to reasonable gas prices or stable domestic markets. Accordingly, even putting aside the numerous and severe environmental impacts of increased LNG exports, Sabine Pass's application is inconsistent with the public interest and should be denied.

2. The Freeport LNG explosion and unit outage further affirms the Stage 5 project will increase domestic gas prices, harming consumers.

DOE has yet to address the price interconnection demonstrated by the Freeport LNG outage in 2022. A 2022 explosion and fire at the Freeport LNG facility—and the resulting drop

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DOE should consider doing so, given the severe impact already-authorized exports are having on domestic gas prices.

[60] Testimony of David Turk, U.S. Senate Committee on Energy and Natural Resources at 3 (Feb. 8, 2024), https://www.energy.senate.gov/services/files/12C4B00D-BFF3-4D11-9CD7-E462B156BF61 (Attachment 33) (hereinafter "Testimony of David Turk"); *see also* Trey Cowan, IEEFA, *U.S. Residential Gas Consumers Bear Brunt of LNG Exports* (Mar. 2024), https://ieefa.org/sites/default/files/2024-03/US%20Consumers%20Bear%20Brunt%20of%20LNG%20Exports_March%202024.pdf (Attachment 34).

[61] Jeremy Beaman, Continental Resources positive on LNG but wary of related gas price volatility, A&P Capital IQ (May 17, 2024), https://www.capitaliq.spglobal.com/apisv3/spg-webplatform-core/news/article?id=81734506&KeyProductLinkType=58&utm_source=MIAlerts (Attachment 35).

[62] Commodity Costs Affect Credit Quality (Attachment 25).

[63] *Minisink Residents for Envtl. Pres. & Safety v. FERC*, 762 F.3d 97, 101 (D.C. Cir. 2014) (cleaned up).

in domestic gas prices—provide further confirmation that increasing LNG export volumes will cause real and significant increases in domestic gas prices. While we hope that DOE's updated general studies address this event, DOE must analyze the implications that it has for LNG exports' price impacts before determining whether Stage 5 is in the public interest.

On June 8, 2022, an explosion and fire at the Freeport LNG facility caused an immediate shut down of operations.[64] In November 2022, PHMSA released a heavily redacted consultant's report that blamed inadequate operating and testing procedures, human error, and fatigue for the explosion.[65] Ultimately, the Freeport facility remained shut down for about eight months, and it only resumed full operations in May 2024.[66]

The Freeport explosion demonstrates a clear and significant connection between U.S. LNG exports and domestic gas prices. 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.[67] Immediately after the explosion was reported, domestic gas prices fell by 16 percent,[68] highlighting the direct connection between gas exports and domestic prices and supply. Despite this initial drop, domestic gas prices quickly rebounded to exceptionally high levels as a result of LNG exports. And more recent data following a Freeport LNG unit outage in January 2024 reiterates this connection between LNG exports and domestic natural gas prices.[69]

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[64] U.S. Energy Information Administration, *Fire Causes Shutdown of Freeport Liquefied Natural Gas Export Terminal* (June 23, 2022), *available at* https://www.eia.gov/todayinenergy/detail.php?id=52859 (hereinafter "EIA, Freeport Fire") (Attachment 36).

[65] Mike Soraghan, Mike Lee, Carlos Anchondo, *Fatigue contributed to Texas LNG explosion, probe says*, E&E News, (Nov. 16, 2022), *available at* https://www.eenews.net/articles/fatigue-contributed-to-texas-lng-explosion-probe-says/ (Attachment 37)

[66] Reuters, Ships queue at Freeport LNG plant in Texas as full operations resume (May 15, 2024), https://www.reuters.com/markets/commodities/ships-queue-freeport-lng-plant-texas-full-operations-resume-2024-05-15/ (Attachment 38).

[67] EIA, Freeport Fire (Attachment 36).

[68] Pippa Stevens, Natural Gas Plummets as Freeport Delays Facility Restart Following Explosion, CNBC (June 14, 2022), *available at* https://www.cnbc.com/2022/06/14/natural-gas-plummets-as-freeport-delays-facility-restart-following-explosion.html (Attachment 39).

[69] Myra Saefong, *Natural-gas futures drop over 8% biggest fall in nearly 2 weeks*, Morningstar, *available at* https://www morningstar.com/news/marketwatch/20240129159/natural-gas-futures-drop-over-8-biggest-fall-in-nearly-2-weeks (Jan. 29, 2024) (Attachment 40); *see also* Scott DiSavino, *US natgas prices drop 8% on contract expiry, Freeport LNG unit outage*, Nasdaq, *available at* https://www nasdaq.com/articles/us-natgas-prices-drop-8-on-contract-expiry-freeport-lng-unit-outage (Jan. 29, 2024) (Attachment 41).

This event, which post-dates DOE's 2018 study entitled *Macroeconomic Outcomes of Market Determined Levels of U.S. LNG Exports*,[70] undermines DOE's prior conclusions on this issue. DOE must address the Freeport LNG explosion and subsequent outages and the demonstrated connection between LNG exports and domestic prices, in its public interest analysis.

3. Stage 5's exports threaten domestic supplies.

Sabine Pass also argues that increased LNG exports will not threaten domestic gas supplies because domestic gas consumption is forecasted to decrease.[71] It is clear that the U.S. grid *can* and *should* transition to zero-emitting technologies—e.g., renewables, battery storage, energy efficiency, and demand response.[72] And there is already sufficient fossil-fuel infrastructure to serve global energy needs through 2050.[73] While we agree with President Biden that the U.S.—and the world—must transition away from fossil fuels, DOE cannot simply assume that gas demand will in fact decline immediately. The gas industry is continuing to promote domestic gas uses, utilities are continuing to propose gas-fired plants to generate electricity, and new demand from AI and data-centers may drive gas consumption both on and off the grid.[74] A recent forecast from Wood Mackenzie, for example, more than doubled its forecast for how much US gas demand will increase by the early 2040s due largely to increasing demand from data centers and AI.[75] As a result, Wood Mackenzie's gas price forecast through

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[70] NERA Economic Consulting (Attachment 29).

[71] Application at 26-28.

[72] IPCC, The evidence is clear: the time for action is now. We can halve emissions by 2030. (Apr. 4, 2024), https://www.ipcc.ch/2022/04/04/ipcc-ar6-wgiii-pressrelease/ (Attachment 42); International Energy Agency, *The energy world is set to change significantly by 2030, based on today's policy settings alone* (Oct. 24, 2023), https://www.iea.org/news/the-energy-world-is-set-to-change-significantly-by-2030-based-on-today-s-policy-settings-alone (Attachment 43) ("The transition to clean energy is happening worldwide and it's unstoppable. It's not a question of 'if', it's just a matter of 'how soon' – and the sooner the better for all of us.").

[73] Fergus Green et al., No new fossil fuel projects: The norm we need, Science Policy Forum (May 30, 2024), https://www.science.org/doi/10.1126/science.adn6533 (Attachment 44) ("[E]xisting fossil fuel infrastructure is sufficient to meet energy demand in the vast majority of scenarios consistent with the 1.5°C objective.").

[74] Adam Aton, *States' emerging climate dilemma: Data centers*, CLIMATEWIRE (June 4, 2024), https://www.eenews.net/articles/states-emerging-climate-dilemma-data-centers/ (Attachment 45)

[75] Simon Flowers et al., *Could US data centres and AI shake up the global LNG market?*, WOOD MACKENZIE (May 23, 2024), https://www.woodmac.com/news/the-edge/could-us-data-centres-and-ai-shake-up-the-global-lng-market/?utm_campaign=the-edge (Attachment 46).

the 2040s is 45% higher than the same forecasts two years ago.[76] These higher domestic use forecasts mean both that LNG exports are potentially taking domestic gas away from domestic consumers and higher export prices may further erode global demand for U.S. LNG. Nor is it clear that the U.S. has the supply to meet domestic and global demand. Increased LNG exports could overwhelm domestic gas supplies, particularly in the Haynesville Shale region,[77] one of the regions from which Sabine Pass plans to supply Stage 5. So long as the industry keeps pushing domestic gas use, DOE cannot find additional exports to be in the public interest.

4. Sabine Pass will serve corporate greed, not local economic gain.

Beyond the need to scrutinize the distributional and price impacts of LNG exports, DOE must carefully review the project's alleged local economic benefits. Doing so here will show that Sabine Pass's claim of local economic benefits is fantasy.

If the Sabine Pass facility—or any of the other LNG terminals in Cameron Parish—could actually deliver the type of economic gains that Sabine Pass claims, the reality in Cameron Parish would look very different than it does now. Cameron Parish currently lacks many important services, including a public library. And local fishermen and shrimpers have reported reduced an 80% reduction in catches since LNG facilities have been operating in nearby Cameron, Louisiana.

Extensive tax subsidies further undermine any argument that tax revenue from the Stage 5 project will provide economic benefits. Sabine Pass has already received tax exemptions for $24 billion in investments since 2009, which has resulted in $5.2 billion in lost revenue to Cameron Parish through 2032.[78] This includes nearly $1.5 billion in lost school funding, over $1 billion in lost law enforcement funding, and over $2.7 billion in lost funding for other parish services. In total, these tax exemptions have cost over $4.8 million per permanent job at Sabine Pass. While the company has not yet applied for additional tax incentives for the Stage 5 project, there is no reason to believe the company will not pursue this huge windfall. Sabine Pass has already received 33 separate exemptions from ad valorem (property) taxes. The staggering

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[76] *Id.*

[77] Art Berman, *Draining America First—The Beginning of the End for Shale Gas* (Jan. 23, 2024), https://www.artberman.com/blog/draining-america-first-the-beginning-of-the-end-for-shale-gas/#:~:text=The%20United%20States%20is%20the,permitting%20and%20funding%20will%20allow (Attachment 47).

[78] Together Louisiana, Analysis of Sabine Pass Investment Tax Exemptions (June 2024) (Attachment 48).

amount of forgone revenue in Cameron Parish—and the strong likelihood that Stage 5 will receive similar tax breaks—severely undermine any benefits Sabine Pass alleges will result from an increase in tax revenues.[79]

Sabine Pass is not alone in receiving staggering amounts of tax abatements for its LNG project. In 2021, Cameron Parish only levied $58.2 million in property taxes, but a whopping $704.8 million in otherwise-collectible revenue was exempted under the state's Industrial Tax Exemption Program.[80] In other words, more than 12 times as much tax revenue was exempted in Cameron Parish as the parish collected in 2021. And Sabine Pass's corporate parent, Cheniere, also saved over $1.2 billion in tax abatements for its Corpus Christi LNG project.[81] Venture Global received over $187 million in tax abatements in 2023, despite netting over $10 billion in profits.[82] Louisiana has agreed not to collect any industrial property tax revenue from the proposed Driftwood LNG project, a tax break worth between $1.4 and $2.4 billion.[83] These tax abatements require analysis because they undermine the purported tax revenue benefits of these projects, potentially stretching local governments and emergency responders too thin to support the increased load on government services. [84]

Stage 5's contribution to the climate crisis (*see infra* Section II.C.4) will also take a tangible economic toll on the local and national economy that DOE must address. For example,

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[79] Application at 33.

[80] Louisiana Legislative Auditor, Industrial Tax Exemption Program (Oct. 2022), https://app.lla.la.gov/publicreports nsf/0/cc7686f9911ead8b862588d80069d4bb/$file/summary00028368d.pdf (Attachment 49).

[81] AutoCase Economic Advisory & Coastal Alliance to Protect Our Environment, Tax Abatement Economic Analysis Study: Corpus Christi, Nueces County, and San Patricio County at 7, Table 1 (Sept. 2022), *available at* https://www.wepaytheyprofit.com/_files/ugd/62ab5a_2898254d8d784e4a995256d8663d7e94.pdf (Attachment 50).

[82] Wesley Muller, *More than $187 million in Louisiana business tax breaks approved*, Louisiana Illuminator (July 15, 2023), *available at* https://lailluminator.com/2023/07/15/more-than-187-million-in-louisiana-business-tax-breaks-approved/ (Attachment 51).

[83] Sharon Kelly, *Louisiana Offers Fossil Fuel Exporter 'Single Largest' Local Tax Giveaway in American History*, DESMOG (Dec. 20, 2018), *available at* https://www.desmog.com/2018/12/20/louisiana-calcasieu-driftwood-lng-export-tellurian-tax-break/ (Attachment 52).

[84] *See, e.g.*, Commonwealth LNG Project Implementation Plan Volume 2.1, Appendix V2.1-1, Excerpts from meeting notes between Commonwealth LNG and Cameron Parish Fire District #10, FERC Dkt. CP19-502 (Sept. 22, 2023) (Accession 20230922-5047) (fire department chief "stated that his Department is not staffed to provide coverage for an LNG Terminal beyond the coverage they are already providing, i.e., dealing with a non-industrial fire or emergency on a plot of land" and "he is concerned that providing first-responder support for the Terminal would negatively impact their ability to respond to the needs of the surrounding community and put firefighters at greater risk than normal for a community fire department").

the impacts of climate-driven extreme weather events like hurricanes is not limited to destroying buildings; a recent study found that nearly half of people living in an area "hit by a major U.S. hurricane lost income because their employer was forced to close or cut back operations."[85] These impacts largely hit hourly employees in lower-paying jobs, i.e., those who are less equipped to withstand a loss of income.[86]

Climate change is also triggering an astronomical increase in risks to buildings and insurance rates, making it prohibitively expensive and potentially destabilizing the industry.[87] For example, "[o]ver 12,195 individual Federal buildings and structures could be inundated under ten feet of sea level rise, with total combined replacement cost of over $43.7 billion."[88] Louisiana already faces the worst threat of any state in the country from increasing property and flood insurance costs, driven in part by climate-driven extreme weather events.[89] Moody's Investors Service recently projected that Louisiana will experience a "severe" loss of working-age residents due in part to the susceptibility to natural disasters and expensive insurance.[90] Such an exodus could weaken Louisiana's economy, and unaffordable property insurance rates could reduce housing prices, and in turn reduce revenue for local governments.[91] These reductions will make it even more difficult for local governments to respond to extreme weather events; and climate change will require increased levels of government support that may overwhelm the nominal tax revenue available after accounting for subsidies.[92] For example, the Coastal

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[85] Thomas Frank, *Storms destroy homes and cars. They also sap paychecks.*, CLIMATEWIRE (May 14, 2024), https://subscriber.politicopro.com/article/eenews/2024/05/14/storms-destroy-homes-and-cars-they-also-sap-paychecks-00156461 (Attachment 53).

[86] *Id.*

[87] Thomas Frank & E&E News, *Climate Change Is Destabilizing Insurance Industry*, SCIENTIFIC AMERICAN (Mar. 23, 2023), https://www.scientificamerican.com/article/climate-change-is-destabilizing-insurance-industry/ (Attachment 54); Leslie Kaufman, *Climate Change Is Causing an Insurance Crisis in Louisiana*, BLOOMBERG (Sept. 11, 2023), https://www.bloomberg.com/news/articles/2023-09-11/louisiana-insurance-market-in-crisis-from-climate-fueled-storms (Attachment 55).

[88] White House Briefing, *Quantifying Risks to the Federal Budget from Climate Change* (Apr. 4, 2022), https://www.whitehouse.gov/omb/briefing-room/2022/04/04/quantifying-risks-to-the-federal-budget-from-climate-change/ (Attachment 56) (hereinafter "White House, Quantifying Risks").

[89] Thomas Frank, *Leaving Louisiana: Disasters, insurance hikes could spur mass exodus*, CLIMATEWIRE (Apr. 25, 2024), https://subscriber.politicopro.com/article/eenews/2024/04/25/leaving-louisiana-disasters-insurance-hikes-could-spur-mass-exodus-00154180 (Attachment 57).

[90] *Id.*

[91] *Id.*

[92] *See* National Oceanic and Atmospheric Administration, National Centers for Environmental Information, *Billion-Dollar Weather and Climate Disasters: Time Series*, https://www ncei noaa.gov/access/billions/time-series (last visited June 14, 2024) (Attachment 58) (summarizing billion-dollar disaster events since 1980 and nothing that

Protection and Restoration Authority and the Army Corps are currently working on the Southwest Coastal Louisiana Project—estimated to cost upwards of *$3 billion*—to decrease the risk of storm damage by elevating 800-1000 structures and doing other shoreline stabilization, marsh creation, and coastal restoration projects.[93] Looking nationally, the Biden administration has explained that "[t]he fiscal risk of climate change is immense. One analysis estimates that more frequent hurricanes could incur federal spending of "between $22 billion and $94 billion annually by the end of the century."[94] A recent federal budget analysis concluded that, "under current policy pathways, climate change could reduce U.S. GDP by 3 to 10 percent by the end of this century."[95]

Without examining these economic realities, DOE cannot determine that there will be net economic benefits to local communities from the Stage 5 project.

B. Geopolitical Strategy Supports Finding the Application is Not in the Public Interest.

1. Any short-term European demand related to Russia's invasion of Ukraine does not justify new LNG exports commencing in the 2030s.

In its application, Sabine Pass erroneously invokes Russia's unprovoked invasion of Ukraine as justifying its proposal to increase LNG exports.[96] Insofar as this global situation is pertinent to the request here, authorizing Stage 5's new exports to come online the 2030s[97] is irrelevant to decreasing Europe's reliance on Russian gas. DOE has already acknowledged that

"[t]he number and cost of disasters are increasing over time due [in part] to . . . climate change . . . increasing the frequency of some types of extremes that lead to billion-dollar disasters.").

[93] Southwest Coastal Louisiana Project (LA-0020), Calcasieu Parish Coastal Projects, CPRA, *available at* https://cims.coastal.louisiana.gov/outreach/factsheets/Parishes/parish_factsheet?parish=Calcasieu (Attachment 59) (last visited Feb. 7, 2024); *see also* Southwest Coastal Louisiana Project Nonstructural Coastal Storm Damage Risk Reduction, CPRA, *available at* https://cims.coastal.louisiana.gov/outreach/Projects/SWCoastal (Attachment 60) (last visited Feb. 7, 2024).

[94] White House, Quantifying Risks (Attachment 56).

[95] *Id.*

[96] Application at 35-37.

[97] Sabine Pass acknowledges that the Stage 5 project will not come online until 2030 at the very earliest. Application at 13. More realistically, Stage 5 will not commence exports until later in the 2030s. Even if Sabine Pass immediately commenced construction in October 2025 (its requested FERC approval date), the company has projected a 6-year construction period, placing gas exports coming online by 2031 at the earliest. *Id.*

existing LNG exports are sufficient to satisfy geopolitical interests; there is no need for more LNG exports to serve short-term global needs.[98]

Broadly speaking, providing energy security for our allies would best be accomplished by getting them off of fossil fuels entirely, rather than by getting them to rely on U.S. LNG. Whether its low water levels in the Panama Canal preventing LNG tanker traffic,[99] piracy/terrorism in the Red Sea causing LNG tankers to re-route,[100] or something else, relying on LNG imports for fuel is going to be less reliable that not having to import fuel at all. As Secretary Granholm has stated, "Perhaps renewable energy is the greatest peace plan this world will ever know." [101]

With respect to Europe—which is the primary basis for Sabine Pass's geopolitical rationale[102]—Sabine Pass ignores a fundamental timing disconnect between its application and any European need for gas. Although Europe may need additional LNG *for a few years*, by 2030—the earliest possible time Stage 5 could provide *any* exports[103]—Europe will have other, better options. Yet, this project may operate for 30-50 years, [104] locking in dirty fossil-fuel infrastructure well beyond the Biden administration's commitment, and global consensus, to achieve net zero emissions by 2050.[105] Sabine Pass does not hide the ball: it expressly requests

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[98] Fact Sheet on Temporary Pause (Attachment 2) (acknowledging that the pause in LNG export authorizations will not impact supplying U.S. allies with LNG in the near term).

[99] Curtis Williams, *Cheniere shunning Panama Canal for longer LNG routes to Asia*, Reuters (July 10, 2023), *available at* https://www reuters.com/business/energy/cheniere-shunning-panama-canal-longer-lng-routes-asia-2023-07-11/ (Attachment 61).

[100] *See* EIA, *Red Sea attacks increase shipping times and freight rates*, (Feb. 1, 2024), *available at* https://www.eia.gov/todayinenergy/detail.php?id=61363 (Attachment 62).

[101] *See, e.g.*, Ben Lefebvre, *DOE Declares an Energy War*, POLITICO (Apr. 28, 2022), *available at* https://www.politico.com/newsletters/morning-energy/2022/04/28/doe-declares-an-energy-war-00028380 (hereinafter "DOE declares an Energy War") (Attachment 63).

[102] Application at 35-38 (discussing Europe with a single vague paragraph about worldwide demand, without identifying any other specific market that would provide geopolitical benefits).

[103] *Id.* at 13.

[104] *Id.* at 14.

[105] Executive Order 14,008, "Tackling the Climate Crisis at Home and Abroad," 86 Fed. Reg. 7619 (Jan. 27, 2021); FACT SHEET: Renewed U.S. Leadership in Glasgow Raises Ambition to Tackle Climate Crisis (Nov. 13, 2021), https://www.whitehouse.gov/briefingroom/statements-releases/2021/11/13/fact-sheet-renewed-u-s-leadership-in-glasgow-raisesambition-to-tackle-climate-crisis/ (hereinafter "Glasgow Fact Sheet") (Attachment 64).

an export term that could extend into the 2050s and asserts that a shorter term could render the Stage 5 project not commercially viable. [106]

Sabine Pass's application also ignores that European allies do no need or want any more U.S. LNG. On January 25, 2024, 60 members of the European Parliament and national parliaments in Europe told President Biden that "Europe should not be used as an excuse to expand LNG exports that threaten our shared climate and have dire impacts on US communities."[107] Europe's current consumption of fossil gas is already being met under current import levels and with existing infrastructure. Even with current demand, the utilization rate for European LNG import infrastructure was less than 60% in 2023,[108] suggesting that there is likely no infrastructure bottleneck impeding U.S. LNG from reaching EU markets. Looking ahead, and enshrined in several EU policies, European fossil gas demand is set to structurally decline as the continent continues to invest in energy efficiency and renewable energy, and to electrify its power, buildings and industrial sectors.[109] European leaders urge that "the European public's economic, social and environmental interests are best served by policies that accelerate renewable energy and transition away from oil and gas, not by fossil fuel infrastructure build-out that is increasingly out of touch with demand realities."[110] The European Union Institute for Security Studies has also pushed back on claims that DOE's temporary pause on new LNG export approvals—including Sabine Pass's new application—will jeopardize European security, calling those concerns "vastly overblown as it is highly unlikely that this decision will put Europe's energy security at risk."[111] Members of the U.S. Congress and the European Parliament

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[106] Application at 15. Specifically, Sabine Pass requests a term through the later of 2050 or 20 years from when it commences exports in the 2030s. Application at 13-14.

[107] La letter de 60 parlementaires de toute l'Europe à Joe Biden, Marie Toussaint, https://www.marietoussaint.eu/actualites/lettre-joe-biden (hereinafter "Letter of Marie Toussaint") (Attachment 65); *see also* Letter from European Civil Societys to President Biden, Food and Water Europe, *available at* https://www.foodandwatereurope.org/wp-content/uploads/2024/01/Europe-CSOs-letter-on-LNG-25Jan2024-1.pdf (hereinafter "Letter from European Civil Societies") (Attachment 66).

[108] IEEFA, Global LNG Outlook 2024-2028 at 27 (Apr. 2024), https://ieefa.org/sites/default/files/2024-04/Global%20LNG%20Outlook%202024-2028_April%202024%20%28Final%29.pdf (Attachment 67) (hereinafter "IEEFA, Global LNG Outlook 2024-2028").

[109] La letter de 60 parlementaires de toute l'Europe à Joe Biden (Attachment 65).

[110] *Id.*

[111] Lukas Trakimavicius, *The US Pause on LNG Terminals Will Not Put Europe at Risk*, EUISS, https://www.iss.europa.eu/content/us-pause-lng-terminals-will-not-put-europe-risk (Attachment 68).

have emphasized that, notwithstanding the need to assist Europe in transitioning off of Russian gas, no new gas infrastructure or exports should be approved.[112]

Recent evidence is showing Europe's ability to transition off of gas in the near term. The IEA has concluded that heat pumps, building efficiency, and similar measures can significantly reduce the European Union's gas use, and thus the impact of Russian energy, with increasing reductions each year.[113] Some analyses conclude that the EU can entirely eliminate reliance on Russian gas by 2025, with efficiency and renewable energy making up for two thirds of the former Russian supply.[114] Similarly, the United Kingdom's Energy & Climate Intelligence Unit has concluded that *all* of the UK's gas demand that was previously met by Russian gas could be eliminated through installation of heat pumps and better installation within five years.[115]

This transition is well under way. The IEA has concluded that European gas consumption peaked in 2021; and recognizing that "the gas crisis reinforced the structural drivers accelerating the decline in gas demand over the medium term," the IEA forecasts that European demand will decline 1% each year from 2022-2026.[116] This forecast has proved an underestimate; according to the European Union Agency for the Cooperation of Energy Regulators ("ACER"), overall gas demand in Europe dropped by 14% in 2022 and another 8% in 2023.[117] The largest reductions occurred in power generation, where gas consumption dropped 18% due in part to a 15% increase in wind and solar generation and an overall decrease in electricity demand.[118] These

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[112] Jared Huffman et al., Letter to U.S. President Biden and E.C. President Von der Leyen (May 19, 2022), https://huffman house.gov/imo/media/doc/Letter%20Regarding%20the%20EU-US%20Joint%20Energy%20Security%20Statement_5.19.22.pdf (Attachment 69).

[113] International Energy Agency, A 10-Point Plan to Reduce the European Union's Reliance on Russian Natural Gas (March 3, 2022), https://www.iea.org/reports/a-10-point-plan-to-reduce-the-european-unions-reliance-on-russian-natural-gas (Attachment 70).

[114] Briefing: EU Can Stop Russian Gas Imports by 2025, https://www.e3g.org/wp-content/uploads/Briefing_EU-can-stop-Russian-gas-imports-by-2025.pdf (Attachment 71).

[115] Harry Cockburn, Heat Pumps and Insulation 'Fastest Way to End Reliance on Russian Gas,' The Independent (March 9, 2022), https://www.independent.co.uk/climate-change/news/heat-pumps-russian-gas-north-sea-b2032017.html (Attachment 72); *see also* Energy & Climate Intelligence Unit, Ukraine Conflict and Impacts on UK Energy, https://eciu.net/analysis/briefings/uk-energy-policies-and-prices/briefing-ukraine-conflict-and-impacts-on-uk-energy (last updated Mar. 8, 2022 (Attachment 73).

[116] IEA, Medium-Term Gas Report 2023 at 6, https://iea.blob.core.windows.net/assets/f2cf36a9-fd9b-44e6-8659-c342027ff9ac/Medium-TermGasReport2023-IncludingtheGasMarketReportQ4-2023.pdf (Attachment 74).

[117] European Union Agency for the Cooperation of Energy Regulators, *Analysis of the European LNG market developments* (Apr. 19, 2024), https://www.acer.europa.eu/sites/default/files/documents/Publications/ACER_2024_MMR_European_LNG_market_developments.pdf (Attachment 75) (hereinafter "ACER, Analysis of European LNG market").

[118] *Id.* at 18.

results are consistent with findings from IEEFA. Between 2021 and 2023, IEEFA concludes that European gas demand fell 20%—to its lowest level in a decade—due to fuel switching, increased nuclear and hydropower generation, mild weather and energy efficiency measures.[119] Between 2023 and 2030, IEEFA forecasts European gas demand will decline by 11%, with European imports of LNG peaking in 2025.[120] In the electric sector, renewable development has outpaced fossil fuels, generating 41% of Europe's electricity in 2023, with gas generation accounting for only 17% of the European Union's fuel mix.[121]

Looking forward, the European Union also increased its binding renewable energy target last year to 42.5% by 2030, locking in these structural changes in the EU power sector.[122] European Energy Commissioner Kadri Simson has emphasized that Europe remains committed to renewable energy goals, and is looking to additional gas imports only for the short term.[123] This is consistent with findings from the E.U. Agency for the Cooperation of Energy Regulators ("ACER"), which concludes that European LNG demand will likely peak in 2024.[124] Europe will be over-supplied with gas starting in 2027[125]—years before Stage 5 comes online. And this forecast only accounts for LNG export projects that are already under construction or that have reached a final investment decision, which Stage 5 has not done. Thus, Stage 5 represents incremental over-contracted LNG volumes that are even further at risk.

We recognize that the U.S and European Commission have nonetheless proposed for EU member states to "work … toward the goal of ensuring, until at least 2030, demand for approximately 50 bcm/year," equivalent to approximately 4.8 bcf/d, "of additional U.S. LNG that is consistent with our shared net-zero goals."[126] This goal is ill-advised and self-refuting, as

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[119] IEEFA, Global LNG Outlook 2024-2028 (Attachment 67) at 5.

[120] *Id.* at 24.

[121] *Id.* at 26.

[122] European Commission, Renewable Energy Targets, https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-targets_en (last visited June 13, 2024) (Attachment 76).

[123] *See, e.g.*, DOE Declares an Energy War (Attachment 63).

[124] *Id.* at 22.

[125] ACER, Analysis of European LNG market at 36 & Fig. 29 (Attachment 75).

[126] White House, Fact Sheet: United States and European Union Commission Announce Task Force to Reduce Europe's Dependence on Russian Fossil Fuels (Mar. 25, 2022), https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/25/fact-sheet-united-states-and-european-commission-announce-task-force-to-reduce-europes-dependence-on-russian-fossil-fuels/ (Attachment 77).

increased production and use of LNG through 2030 cannot be made consistent with the shared net-zero goals. But even if this goal is pursued, it does not support DOE's authorization of the additional LNG exports here. Some of this additional demand can be satisfied by existing, already-operating facilities. Some existing facilities sell gas on spot markets, and even facilities with long-term contracts with Asian buyers may be interested in redirecting cargoes.[127] Moreover, previously-approved non-FTA exports from *facilities under construction* will already provide an additional 12.08 bcf/d of U.S. export supply.[128] Further LNG exports from Sabine Pass are completely unnecessary, as the U.S. exceeded its annual delivery targets to the E.U. in each of the past two years.[129] And even if this additional demand required additional LNG exports in the near term, this goal only calls for European demand for LNG through 2030, *i.e.*, the first year Stage 5 could optimistically commence its 30+ year project lifespan.

Finally, if DOE contends that the exports at issue here are in the public interest because Europe will need the gas, then DOE should ensure that the gas actually goes to Europe. DOE has broad authority to grant the requested additional authorization "in whole or in part, with such modification and upon such terms and conditions as [DOE] find[s] necessary or appropriate." 15 U.S.C. § 717b(a). If providing additional gas to Europe is the justification for these exports, DOE should explore whether to impose conditions that ensure that the authorization is actually used for that purpose. If DOE fails to impose such conditions, DOE must take a hard look at whether the exports are likely to actually assist Europe, and if not, whether this undermines any conclusion that the exports are consistent with the public interest.

2. Fundamental, medium- and long-term shifts in the global LNG market demonstrate that the application is not in the public interest.

Looking into the 2030s and later—the more relevant period for Stage 5's exports—structural changes in global energy markets are driving the transition away from fossil fuels,

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[127] *See, e.g.,* Reuters, Europe draws more LNG from Asia as China imports slump (Apr. 28, 2022), https://www.reuters.com/markets/commodities/europe-draws-more-lng-asia-china-imports-slump-2022-04-28/ (Attachment 78); Bloomberg, *China Looks to Sell Spare LNG as Virus Lockdowns Hit Demand* (Apr. 24, 2022), *available at* https://www.bloomberg.com/news/articles/2022-04-25/china-looking-to-sell-spare-lng-as-virus-lockdowns-hit-demand (Attachment 79).

[128] *See* U.S. Energy Info. Admin., U.S. Liquefaction Capacity (Mar. 29, 2024), https://www.eia.gov/naturalgas/U.S.liquefactioncapacity.xlsx (Attachment 80).

[129] Fact Sheet on Temporary Pause (Attachment 2).

including LNG.[130] DOE has acknowledged that "[a]cross the globe there is an unprecedented build-out of clean energy and increased climate commitments by our allies" and "this increased deployment of clean energy that is in turn driving updated estimates of fossil fuel demand and usage over time."[131] Accounting for these developments, long-term global LNG demand does not support new projects like Stage 5, and DOE should deny this application as contrary to the public interest.

Looking at long-term European prospects, buyers already recognize that LNG, long touted as a climate solution, is in fact a climate problem. *See supra* Section II.B.2. And as noted, European leaders have recognized that "European fossil gas demand is set to structurally decline as the continent continues to invest in energy efficiency and renewable energy, and to electrify its power, buildings and industrial sectors."[132] As a result, even if there were some short-term need for LNG in Europe (there is not), there is *no* European demand from the 2030s through the 2050s, despite Sabine Pass's focus on that market for the Stage 5 project.[133] Nor should DOE assume that Europe can easily re-sell excess LNG to other markets; doing so undermines the justification of support for *European* allies, and regardless, Europe cannot sell gas if there is no global demand. In fact, "[t]he largest buyers from new U.S. LNG facilities are . . . are large oil and gas traders speculating on their ability to re-sell LNG at a profit."[134] Thus, LNG exports serve corporate greed rather than American allies abroad.

The lack of demand for LNG beyond 2030 applies to Asian markets as well, due to both climate goals and sheer economics. According to Wood Mackenzie, solar energy costs in Asia reached an all-time low in 2023, making it the cheapest power source in the region.[135]

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[130] Reuters, *U.S. LNG projects face more reluctant buy side amid new concerns* (Oct. 22, 2023), https://www.reutersevents.com/downstream/engineering-and-construction/us-lng-projects-face-more-reluctant-buy-side-amid-new-concerns &utm_medium=email&utm_source=Eloqua (Attachment 81).

[131] DOE, Unpacking Misconceptions (Attachment 12).

[132] Letter of Marie Toussaint (Attachment 65); *see also* Letter from European Civil Societies (Attachment 66).

[133] *See, e.g.*, Application at 35-37; *see also* Table Summarizing Stage 5 Contract Destinations (Attachment 82). While the contracts listed are technically able to deliver gas from Corpus Christi LNG or any of the Sabine Pass LNG trains, these contracts were filed in the Stage 5 DOE docket.

[134] Sam Reynolds & Ana Maria Jaller-Makarewicz, *The U.S. pause on LNG export permits does not threaten energy security in Europe and Asia*, IEEFA (Feb. 8, 2024), https://ieefa.org/resources/us-pause-lng-export-permits-does-not-threaten-energy-security-europe-and-asia (Attachment 83).

[135] Wood Mackenzie, *Solar inflation reverses as renewable costs in Asia reach all-time low* (Feb. 29, 2024), https://www.woodmac.com/press-releases/asia-lcoe/ (Attachment 84) (hereinafter "Asia Renewable Costs Reach All-Time Low").

Renewable energy costs in general are plummeting and forecasted to continue declining: in 2023, renewable energy cost 13% less than conventional coal and renewable energy costs are forecasted to drop 32% by 2030.[136] Japan, historically a big player in the LNG import market, plans to cut GHG emissions by 46% by 2030 via boosting renewable energy to double 2019 levels and cutting the share of LNG in the national electricity mix by 1% by 2030.[137] In 2023, Japan's LNG imports dropped 8% to their lowest levels since 2009.[138] Rather than absorbing LNG from the global market, Japan has tripled its sales of LNG to other countries since 2018.[139] Like Japan, South Korea's LNG imports dropped 4.9% in 2023,[140] and it plans to cut LNG back to just 9.3% of the country's power mix by 2036, down from almost 30% in 2021."[141] China, the world's largest LNG importer in 2023,[142] added more renewable energy in 2023 than any other country—accounting for 51% of new solar power and 60% of new wind power globally.[143] And renewable energy cost declines are even more pronounced in China than in the rest of Asia: utility solar, onshore wind, and offshore wind were 40-70% cheaper in China compared with other Asia Pacific markets. [144] Even if Chinese gas demand continues, LNG imports will likely remain less attractive than cheaper, piped gas alternatives.[145] Overall, China is not projected to

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[136] *Id.*

[137] IEEFA, Global LNG Outlook 2023-2027 (Attachment 18) at 20 ; Reuters, *Japanese utilities want G7 to allow countries to set their own paths to energy transition* (Mar. 19, 2023), https://www.reuters.com/business/energy/japanese-utilities-want-g7-allow-countries-set-their-own-paths-energy-transition-2023-03-17/ (Attachment 85); U.S. Energy Info. Admin., Today in Energy, Nuclear reactor restarts in Japan have reduced LNG imports for electricity generation (Feb. 8, 2024), https://www.eia.gov/todayinenergy/detail.php?id=61386 (Attachment 86).

[138] IEEFA, Global LNG Outlook 2024-2028 (Attachment 67) at 27.

[139] *Id.*

[140] *Id.* at 29.

[141] *Id.* at 20; Charles Lee, S&P Global Insights, *South Korea to cut LNG in power mix to 9.3% in 2036, sharply raises role of nuclear energy* (Jan. 12, 2023), https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/lng/011223-south-korea-to-cut-lng-in-power-mix-to-93-in-2036-sharply-raises-role-of-nuclear-energy (Attachment 87).

[142] IEEFA, Global LNG Outlook 2024-208 at 32 (Attachment 67).

[143] Associated Press, *Electricity from clean energy sources reaches 40% of global total*, ENERGYWIRE (May 9, 2024), https://subscriber.politicopro.com/article/eenews/2024/05/09/electricity-from-clean-sources-reaches-30-of-global-total-00156837 (Attachment 88) (hereinafter "Electricity from clean sources reaches 30% of global total").

[144] Asia Renewable Costs Reach All-Time Low (Attachment 84).

[145] IEEFA, Global LNG Outlook 2024-2028 at 33 (Attachment 67).

need any new LNG contracts, at least through 2035.[146] Looking to other parts of Asia, emerging Asian markets declined by 15% in 2022.[147] India, Pakistan, and Bangladesh experienced an overall 16% reduction in LNG imports in 2022.[148] IEEFA has downgraded prospects for medium-term LNG demand growth in that region, previously thought to be an emerging LNG market.[149] Southeast Asia faces a similar decline in LNG demand forecasts and uptick in renewable energy development.[150] IEEFA concludes that to be successful long-term, the LNG industry must manufacture demand in emerging Asian nations to "not only replace shrinking imports from developed markets, but also absorb the massive volume of new supplies coming online"; thus, the industry is "increasingly reliant on markets with less-creditworthy buyers, riskier business environments and greater sensitivity to high prices."[151]

Overall, mounting evidence demonstrates the erosion of global LNG demand. Combined LNG imports in Japan, South Korea, and Europe—which collectively account for more than half of the world's LNG demand—fell in 2023 and will likely continue to fall through 2030.[152] And as discussed in Sections II.B.A and II.C.3-5, the international community is recognizing that climate hazards are more urgent and severe than previously understood and that aggressive reductions in emissions within the next decade are essential to avoiding the most devastating climate change harms. International commitments made in Paris[153] and Glasgow,[154] and at COP28[155] all reinforce the global transition away from fossil fuels. Meeting those international commitments, and more, is critical: cutting GHG emissions now is critical because "there is a

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[146] IEEFA, Global LNG Outlook 2023-2027 (Attachment 18) at 26, 30.

[147] *Id.*

[148] *Id.* at 31.

[149] *Id.*

[150] *Id.* at 38, 40-41.

[151] IEEFA, Global LNG Outlook 2024-2028 (Attachment 67) at 6.

[152] *Id.* at 4.

[153] Anthony Blinken, The United States Officially Rejoins the Paris Agreement, U.S. Department of State, https://www.state.gov/the-united-states-officially-rejoins-the-paris-agreement/ (Feb. 19, 2021) (Attachment 89).

[154] Glasgow Fact Sheet (Attachment 64).

[155] White House, Statement from President Joe Biden on Agreement Reached at COP28, https://www.whitehouse.gov/briefing-room/statements-releases/2023/12/13/statement-from-president-joe-biden-on-agreement-reached-at-cop28/ (Dec. 13, 2023) (Attachment 90) ("Today, at COP28, world leaders reached another historic milestone – committing, for the first time, to transition away from the fossil fuels that jeopardize our planet and our people, agreeing to triple renewable energy globally by 2030, and more.").

near-linear relationship" between human-caused GHG emissions and related global warming, meaning that each additional increment of global warming exacerbates changes in extreme weather events.[156] Based on this demonstrated relationship, the IPCC concludes that "reaching net zero anthropogenic CO2 emissions is a requirement to stabilize human-induced global temperature increase at any level." [157] The IPCC concludes, with *very high confidence*, that the severity of climate change risks "depend[s] strongly on near-term mitigation and adaptation actions" and projected risks and losses "escalate with every increment of global warming."[158] To remain consistent with current internal climate pledges, global GHG emissions reductions must undergo "an unprecedented acceleration" between 2030 and 2050.[159] Moreover, to reduce GHG emissions, the energy sector will "require[] major transitions, including a substantial reduction in overall fossil fuel use, the deployment of low-emission energy sources, switching to alternative energy carriers, and energy efficiency and conservation." [160]

This fundamental shift is already taking shape: in 2023, roughly 30% of electricity worldwide was produced from clean energy sources.[161] 2023 represented the 19th consecutive year that solar power was the fastest-growing source of electricity generation worldwide.[162] And the benefits of achieving the transition are profound: the International Monetary Fund recently estimated that "making an orderly transition to net-zero by 2050 could result in global gross domestic product being 7 percent higher than under current policies."[163]

Like the IPCC, the IEA has consistently recognized the need for a global transition away from new LNG infrastructure: "hav[ing] a fighting chance of . . . limiting the rise in global

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[156] *See, e.g.*, IPCC, *Climate Change 2021: The Physical Science Basis, Summary for Policymakers* at 15, B.2.2 & 16, B.2.4 https://www.ipcc.ch/report/ar6/wg1/ (Oct. 2021) (hereinafter "IPCC Physical Science Summary") (Attachment 91).

[157] *Id.* at 28, D.1.1, *available at* https://www.ipcc.ch/report/ar6/wg1/ (Oct. 2021).

[158] IPCC, *Climate Change 2022: Impacts, Adaptation and Vulnerability, Summary for Policymakers* at SPM.B.4, https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf (Feb. 2022) (hereinafter "IPCC Impacts, Adaptation and Vulnerability") (Attachment 92).

[159] IPCC, *Climate Change 2022: Mitigation of Climate Change, Summary for Policy Makers* at B.6.3, https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_SPM.pdf (Apr. 2022) (Attachment 93).

[160] *Id.* at C.4.

[161] Electricity from clean sources reaches 30% of global total (Attachment 88).

[162] *Id.*

[163] Jens Mehrhoff, International Monetary Fund, *Chart of the Week: Benefits of Accelerating the Climate Transition Outweigh the Costs*, https://www.imf.org/en/Blogs/Articles/2023/12/05/benefits-of-accelerating-the-climate-transition-outweigh-the-costs (Dec. 5, 2023) (Attachment 94).

temperatures to 1.5°C. . . requires nothing short of a total transformation of the energy systems that underpin our economies."[164] In its Net Zero by 2050 report, IEA projects that from 2020 to 2050, natural gas traded as LNG will fall by 60%, and global demand will decrease by more than 5% on average in the 2030s alone.[165] In order for the global energy sector to reach net zero emissions by 2050, many of the LNG facilities currently under construction or at the planning stage cannot be built.[166]

The IEA reiterates these findings in its 2023 World Energy Outlook, downgrading its forecasts for gas demand in 2040 compared with its 2021 forecasts, due a faster move away from gas in advanced economies, an upward revision to the outlook for renewables, and slower projected growth in emerging market and developing economies.[167] The IEA also lowers its 2050 LNG demand projections by nearly 15% and overall natural gas demand by 20% in the 2023 report versus its outlook in 2021.[168] The report forecasts that, "[s]ince natural gas demand peaks in all [forecasted] scenarios by 2030, there is little headroom remaining for either pipeline or LNG trade to grow beyond then."[169] Based on the LNG capacity already *in operation or under construction*, the IEA concludes that "global LNG markets look amply supplied in the [business as usual scenario] until at least 2040."[170] Under a scenario wherein all countries meet their aspirational GHG reduction targets, "LNG demand peaks by 2030 and projects under construction today are sufficient to meet demand." [171] And in the scenario where countries achieve net zero energy by 2050, "a global supply glut forms in the mid-2020s and under construction projects are no longer necessary."[172] Even projects *already under construction* are at significant risk of not recovering their initial capital investments: "While the sponsors of all LNG projects currently under construction can expect to fully recover their initial capital

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[164] IEA, Net Zero by 2050 at 3 (Attachment 7).

[165] *Id.*

[166] *Id.* at 102–03.

[167] IEA, World Energy Outlook 2023 at 77 (Attachment 6).

[168] *Id.* at 78.

[169] *Id.* at 139; Reuters, *IEA says "unprecedented" supply surge could lead to LNG glut from 2025* (Oct. 24, 2023), https://www reuters.com/markets/commodities/iea-says-unprecedented-supply-surge-could-lead-lng-glut-2025-2023-10-24/ (Attachment 95).

[170] IEA, World Energy Outlook 2023 at 139 (Attachment 6).

[171] *Id.*

[172] *Id.*

investment in the [business as usual scenario], around two-thirds of these projects are at risk of not doing so in the [achieving aspirational targets scenario], and up to 75% could fail to do so in the [net zero by 2050 scenario]."[173] Projects like Stage 5—which has not reached a final investment decision let along begun construction—are at extreme risk of being stranded when demand plummets. Like the IEA, IEEFA has forecasted an impending LNG supply glut.[174] IEEFA's latest analysis anticipates that "LNG liquefaction capacity coming online through 2028 exceeds IEA long-term demand scenarios."[175] Under the stated policies scenario, at least two years before Stage 5 could come online, the world will already have 38% more LNG than it will need through 2050.[176] These forecasts are fundamentally inconsistent with Sabine Pass's application; the company does not even plan to commence exports until the 2030s and makes clear that Stage 5 will only be able to move forward if it can operate into the 2050s.[177]

To the extent that Sabine Pass claims it has contracts to sell LNG from Stage 5, those contracts do not demonstrate the project will support U.S. allies. At best, Stage 5 appears poised to serve gas speculators, not American geopolitical interests. Thus, current geopolitical circumstances do not support this project. To the contrary, the unprecedented, global transition away from fossil fuels demonstrates that Sabine Pass's application is not in the public interest.

3. Additional LNG exports will exacerbate global security concerns and disrupt global trade.

Even if global markets supported the development of additional LNG exports (they don't), DOE must broadly consider harms climate change will cause to the U.S.'s global strategic interests. Climate change will, for example, induce significant national and global security threats that DOE must consider. The Department of Defense considers addressing climate change to be a "a critical national security threat and a threat multiplier."[178] As Secretary of Defense Lloyd Austin III has explained, "The unprecedented scale of wildfires, floods, droughts, typhoons, and other extreme weather events of recent months and years have damaged

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[173] *Id*. at 140.

[174] *Id.* at 5.

[175] IEEFA, Global LNG Outlook 2024-2028 (Attachment 67) at 6.

[176] *Id.*

[177] Application at 13-14.

[178] U.S. Department of Defense, DoD Climate Assessment Tool, https://www.acq.osd.mil/eie/eer/cr/cc/index html (last visited June 14, 2024) (Attachment 96).

our installations and bases, constrained force readiness and operations, and contributed to instability around the world."[179] In 2023, for example, excessive heat in the U.S. contributed to more deaths than in any year on record.[180] The security implications of climate change can stem directly from climate hazards, primary impacts, or secondary impacts. The Department of Defense has summarized examples of these connections between climate impacts and security implications in the figure below:[181]

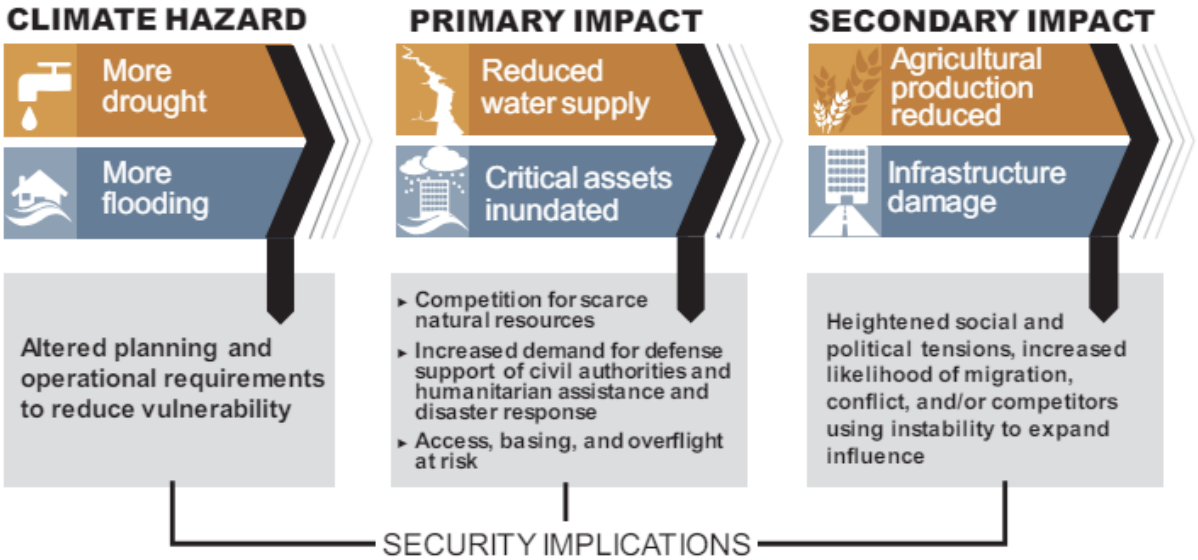

Figure 1. Examples of connections between climate hazards, primary and secondary climate impacts, and security implications.

Aside from strict security concerns, climate change will also disrupt global trade. Global trade in goods and commodities occurs overwhelmingly (80%) through waterways.[182] While global trade can be impacted by various climate-driven extreme weather, severe droughts are of particular concern. Droughts that reduce water volumes available for ship transport through critical waterways can cause major disruption to global trade routes. The Panama Canal, for example, plays an essential role in global trade. Roughly half of trades from Asia to the U.S. East

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[179] U.S. Department of Defense, Climate Risk Analysis (Oct. 2021), https://media.defense.gov/2021/Oct/21/2002877353/-1/-1/0/DOD-CLIMATE-RISK-ANALYSIS-FINAL.PDF (Attachment 97) (hereinafter "DOD Climate Risk Analysis").

[180] *2023 set record for US heat deaths, AP analysis finds*, E&E NEWS PM, https://subscriber.politicopro.com/article/eenews/2024/05/31/2023-set-record-for-us-heat-deaths-ap-analysis-finds-00161068 (May 31, 2024) (Attachment 98).

[181] DOD Climate Risk Analysis (Attachment 97).

[182] Amin Mohseni-Cheraghlou & Sophia Busch, *Climate, drought, and the disrupted future of global trade*, Atlantic Council, https://www.atlanticcouncil.org/blogs/econographics/climate-drought-and-the-disrupted-future-of-global-trade/ (Mar. 1, 2024) (Attachment 99).

Coast travel through the Panama Canal, and the Canal services roughly $500 billion in yearly merchandise value—two thirds of which goes to the United States.[183] In 2023, a severe drought reduced the number of vessels passing through the Panama Canal by 50%.; some vessels re-routed around South America, increasing shipping costs by about 14%.[184] The Panama Canal is not the only river or canal impacted by climate-induced drought.[185] And operations at seaports are also being disrupted. The Atlantic Council estimates that "severe climate events" cause "around $7.5 billion" in damage to global ports each year.[186] Moreover, "0.8 to 1.8 percent of world's maritime trade—$200 to $450 billion in value per year—is facing disruption risks because of severe weather events, and Small Island Developing States face about four times higher trade risks that of other economies."[187] Increasing severity and frequency of extreme weather events will only exacerbate these risks to global trade and the U.S.'s global strategic interests.

DOE cannot ignore the devastating impact that climate change will have on the U.S.'s global strategic interests. Approving additional LNG exports that exacerbate the climate crisis is contrary to protecting U.S. security interests and international trade.

C. Stage 5's Substantial Environmental Harms Demonstrate the Project Is Not in the Public Interest.

In addition to the immediate harms caused by price increases and inconsistency with global strategic interests, LNG exports will cause environmental harm lasting for generations. Those harms include impacts occurring across the entire LNG lifecycle that both the Natural Gas Act and NEPA require DOE to consider.

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[183] *Id.*

[184] *Id.*

[185] *Id.* (discussing recent droughts disrupting trade along the Mississippi River, China's Yangtze River, Rhine River, and others).

[186] *Id.*

[187] *Id.*

1. DOE must ensure Stage 5's impacts are evaluated in a supplemental EIS.

While FERC, as the lead agency, has not yet commenced NEPA review,[188] DOE must "give appropriate consideration to the environmental effects" of the Stage 5 project, and "[n]o final decision will be issued" on Sabine Pass's application "until DOE has met its environmental responsibilities."[189] *See Vecinos para el Bienestar de la Comunidad Costera v. FERC*, 6 F.4th 1321 (D.C. Cir. 2021). To comply with its NEPA obligations, DOE must ensure there is a Supplemental Environmental Impact Statement ("SEIS") accounting for the extensive new circumstances and information related to the Stage 5 project. Alternatively, DOE and FERC conduct a new Environmental Impact Statement ("EIS") for the Stage 5 project due to its significant environmental impacts.

Although agencies can sometimes meet their NEPA obligations, in whole or in part, by tiering off a valid prior analysis,[190] significant new circumstances or information require supplementation. 40 C.F.R. § 1502.9(d). Supplementation is required whenever there is *any* new information or circumstances bearing on the project's impacts, or when there have been *any* pertinent changes to the project, provided that some "major Federal action remains to occur." [191] The question is not simply whether the proposed federal action *itself* constitutes such a change or new circumstance.[192] Rather, "[w]hen new information comes to light the agency must consider it, evaluate it, and make a reasoned determination whether it is of such significance as to require implementation of formal NEPA filing procedures."[193]

Supplementation is undoubtedly required for the Stage 5 project. The Stage 5 project has never been addressed under NEPA. Stage 5 is an entirely new project that will drastically increase LNG exports from Sabine Pass and from the U.S. in general. The project will involve

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[188] Notice Accepting Application, Dkt No. CP24-75-000 (Accession No. 20240325-3071) (Mar. 25, 2024).

[189] 89 Fed. Reg. 28,763 (Apr. 19, 2024).

[190] 40 C.F.R. § 1501.11.

[191] 40 C.F.R. § § 1502.9(d).

[192] 40 C.F.R. § 1502.9(d)(1)(ii) (requiring supplementation when there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts").

[193] *People Against Nuclear Energy v. U.S. Nuclear Regulatory Comm'n*, 678 F.2d 222, 234 (D.C. Cir. 1982), *rev'd on other grounds sub nom. Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766 (1983) (quotation omitted); *N. Alaska Env't Ctr. v. U.S. Dep't of the Interior*, 983 F.3d 1077, 1096 (9th Cir. 2020) (agencies retain the "obligation … to analyze new circumstances and new information under the supplementation rubric").

construction of two new natural gas liquefaction trains, one boil off gas re-liquefaction unit, and two full-containment, above-ground 220,000 cubic meter ("m3") LNG storage tanks and supporting infrastructure.[194] At an estimated 2.46 Bcf/d, Stage 5 is larger than many of the other, standalone projects for which FERC/DOE have done an EIS, including for example Cameron LNG (1.7 Bcf/d), Commonwealth LNG (1.21 Bcf/d), Port Arthur LNG (1.91 Bcf/d), Corpus Christi LNG (2.1 Bcf/d), and Lake Charles LNG (2.33 Bcf/d).[195] In fact, Stage 5 is larger than the initial application for Sabine Pass (2.2 bcf/d) and twice the scale of Magnolia LNG (1.23 Bcf/d).[196] As explained further below, the sheer scale of this project and its potential impacts necessitates an SEIS here. The drastic development in scientific understandings since 2014—when the last NEPA analysis of constructing new trains at Sabine Pass was conducted[197]—as detailed below, reiterates the need for an SEIS.

DOE must also conduct thorough NEPA analysis to the extent that DOE wants to incorporate any findings about environmental impacts from its updated general studies. We appreciate that DOE recently acknowledged that its existing lifecycle analyses fail to properly account for LNG's climate and environmental justice impacts.[198] We hope that DOE's forthcoming update of the lifecycle analyses addresses these gaps; we provide further detail below on the prior lifecycle analyses' limitations to inform DOE's updated analysis. But updating the analysis to address the prior analyses' flaws is not a silver bullet; DOE will still have to meet its NEPA obligation to conduct a project-specific analysis of the Stage 5 project. To do so, DOE must properly incorporate any non-NEPA general studies into a NEPA review, supplement the general studies with available project-specific information, conduct the requisite project-specific analysis including of alternatives and mitigation, and make that NEPA analysis available for public comment. 40 C.F.R. § 1502.9. Taking the requisite hard look at Stage 5 will

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[194] Application at 10.

[195] U.S. Department of Energy, Long Term Applications Received by DOE to Export Domestically Produced LNG, CNG, CGL from the Lower-48 States (as of April 17, 2024), https://www.energy.gov/sites/default/files/2024-04/Summary%20of%20LNG%20Export%20Applications_04.17.24.pdf.

[196] *Id.*

[197] Sabine Pass Liquefaction, LLC & Sabine Pass Liquefaction Stage V, LLC, Application for Authorizations Under Section 3 And Section 7 of the Natural Gas Act at 11-12, FERC Dkt. No. CP24-75-000 (Accession No. 20240229-5307) (Feb. 29, 2024) (summarizing prior projects at Sabine Pass and FERC's associated NEPA analysis).

[198] Fact Sheet on Temporary Pause (Attachment 2) (recognizing that the existing studies "no longer adequately account for considerations . . . the latest assessment of the impact of greenhouse gas emissions").

demonstrate that the project's environmental harms render the project contrary to the public interest, for the reasons explained below.

2. Stage 5 will exacerbate extensive cumulative impacts, causing unacceptable harm to environmental justice communities.

DOE has rightfully acknowledged the importance of guarding "against risks to the health of our communities, especially frontline communities in the United States who disproportionately shoulder the burden of pollution from new export facilities."[199] A key aspect of protecting frontline communities is conducting the requisite analysis of environmental justice impacts. While FERC has typically analyzed environmental justice impacts of the terminal infrastructure in its role as lead agency for NEPA review, DOE can and must supervise how FERC is implementing its delegated authority.[200] With respect to environmental justice in particular, FERC has fallen well short of the mark. EPA has raised repeated concerns with how FERC conducts environmental justice analyses.[201]

The location of Sabine Pass in Cameron Parish, Louisiana, within roughly 30 miles of three other LNG terminals, and within 5 miles of Port Arthur, Texas raises serious environmental justice concerns. Port Arthur is over 82% people of color.[202] Port Arthur already suffers from the highest rate of cancer risk stemming from industrial air pollution in the United States—with air pollution 190 times the EPA's acceptable risk.[203] Port Arthur's refineries are the largest in the U.S.[204] In the county surrounding Port Arthur, the cancer mortality rate for Black people is about 40% higher than the state average.[205]

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[199] *Id.*

[200] *Contra Ctr. for Biological Diversity v. FERC*, 67 F.4th 1176, 1185 (D.C. Cir. 2023) (holding that FERC's NEPA obligations are limited by the narrow nature of its delegated authority). Unlike FERC, DOE has authority over the entire process of LNG exports and should exercise that authority—and conduct requisite NEPA reviews—accordingly.

[201] *See, e.g.*, FERC Dkt. CP19-502, Accession No. 20220523-5182 at 5-6 (May 23, 2022); FERC Dkt. CP22-21, Accession No. 20230314-5012 (Mar. 14, 2023).

[202] Robert D. Bullard Center for Environmental & Climate Justice, *Liquefying the Gulf Coast a Cumulative Impact Assessment of LNG Buildout in Louisiana and Texas* at 22 (May 2024), https://assets.website-files.com/614d88a190900e498857f581/664604a23f64fa6444dd2a2b_Bullard%20Center%20Liquefying%20the%20Gulf%20Coast%20Report.pdf (Attachment 100) (hereinafter "Bullard Center, Liquefying the Gulf Coast"). at 22.

[203] *Id.* at 6.

[204] *Id.* at 22.

[205] *Id.*

Across the border in Louisiana, cumulative air quality violations are already impacting environmental justice communities in the region. In 2021, Johnson Bayou High School, the closest Louisiana school to Sabine Pass, ranked in the 5th percentile (1 being worst) for air toxics nationally and 23rd percentile (with 1 being worst) statewide, with an air toxics concentration 4.18 times the national average.[206] To make matters worse, multiple additional LNG terminals and other industrial infrastructure have been proposed, approved, or in some cases, come online in the region in the last several years. So, DOE must ensure that FERC conducts an appropriate cumulative impacts analysis accounting for the extensive air pollution and other environmental harms in the area. DOE should ensure, for example, that any cumulative impacts analysis accounts for recent air dispersion modeling indicating that the Lake Charles area is violating the health-based National Ambient Air Quality Standards ("NAAQS") for at least nitrogen dioxide ("NO_2"). 42 U.S.C. § 7409. In fact, the latest modeling predicts violations at least eight times the NAAQS.[207] And many of the violations are predicted to occur in low-income and predominantly communities of color.[208] DOE must ensure FERC conducts a new analysis considering all reasonably foreseeable cumulative sources in the area to understand potential impacts under today's more polluted baseline. More broadly, DOE must conduct environmental justice impact analyses—or ensure that FERC properly conducts one—that accounts for these new sources. Doing so is necessary to comply with DOE's legal obligations as well as the Biden administration's commitment to "adequately guard against risks to the health of our communities, especially frontline communities in the United States who disproportionately shoulder the burden of pollution from new export facilities."[209]

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[206] Political Economy Research Institute Air Toxics School Search (Attachment 101).

[207] Steven Klafka, P.E., BCEE, Commonwealth LNG, Cameron Parish, Louisiana, *Evalutation of Compliance with the 1-hour NAAQS for NO_2*, at 6 (May 24, 2022) (hereinafter Klafka Modeling Report) (Attachment 102).

[208] *Id*. at 9-10.

[209] Fact Sheet on Temporary Pause (Attachment 2).

3. Stage 5 will impact the newly-listed Rice's Whale through a nearly 28% increase in Sabine Pass's vessel traffic.

The Stage 5 project—and Sabine Pass's operations overall—has the potential to adversely affect the Rice's whale, which is one of the most endangered whales in the world.[210] The Rice's whale was listed under the Endangered Species Act in 2019. If put into operation, the Stage 5 project will increase vessel traffic by nearly 28% or 160 LNG tanker trips annually[211] through proposed critical habitat for the Rice's whale. Neither FERC nor DOE, however, have ever evaluated or engaged in Section 7 consultation regarding the potential impacts on the Rice's whale of the Sabine Pass facility—or the Stage 5 project. Before proceeding with Stage 5 project review, therefore, DOE must conduct Section 7 consultation and a new or Supplemental EIS.[212]

The Rice's whale faces a myriad of threats, with the most significant threats being "energy exploration and development, oil spills and spill response, vessel strikes, ocean noise, ocean debris, aquaculture, and entanglement in fishing gear."[213] Because there are likely less than 100 individual Rice's whales throughout the Gulf, "the death of a single whale due to any of these stressors could have devastating consequences for the population's recovery."[214] DOE must take a hard look at the Rice's whale's vulnerability to these threats, including vessel strikes and noise pollution, which will increase if the Stage 5 project is approved.

As depicted in the map below, the critical habitat designation proposed by NOAA in July 2023 includes the vast majority of routes to carry LNG from Southwest Louisiana to the global market—likely including the routes Cheniere will need to use to carry gas from the Sabine Pass facility.[215]

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[210] Rice's Whale, NOAA, https://www fisheries.noaa.gov/species/rices-whale (last visited June 14, 2024) (Attachment 103) (hereinafter "Rice's Whale, NOAA").

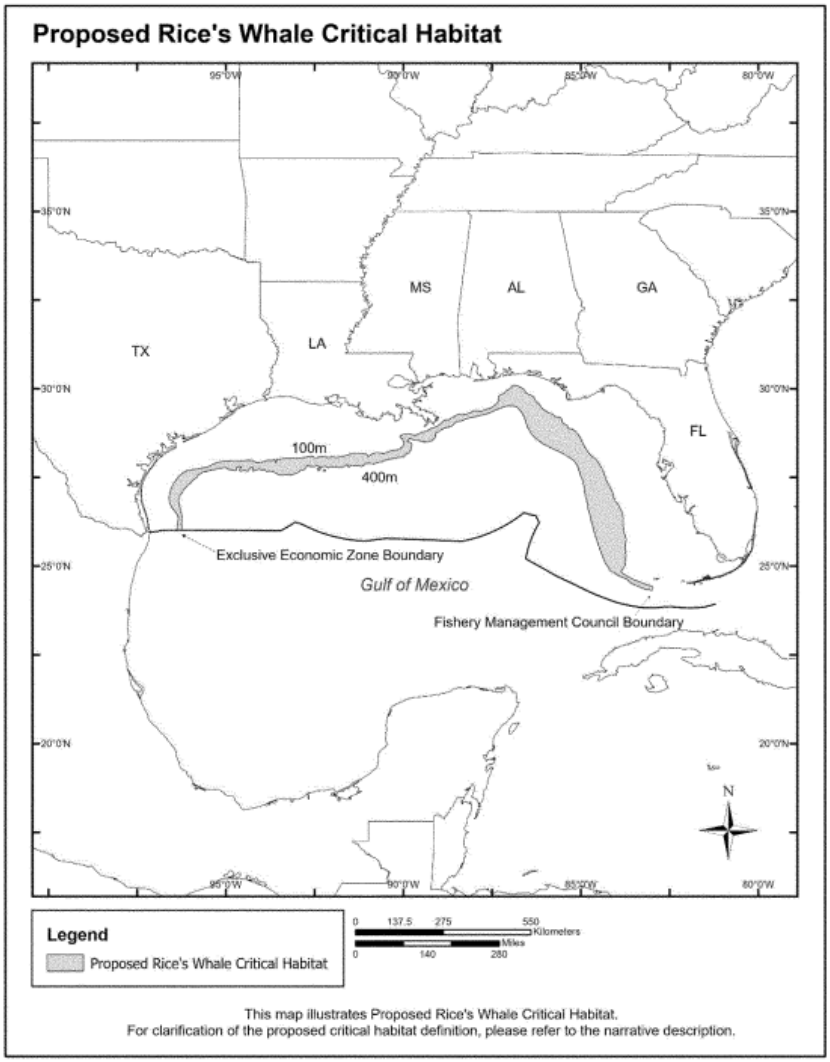
[211] Application at 10.

[212] As explained in Section II.C.6.a, DOE must evaluate the Stage 5 project because it has "the potential to cause significant impacts to environmentally sensitive resources"—here, the federally-protected Rice's whale.

[213] Rice's Whale, NOAA (Attachment 103).

[214] *Id.*

[215] Endangered and Threatened Species; Designation of Critical Habitat for the Rice's Whale, 88 Fed. Reg. 47,453, 47,472 (July 24, 2023).



The Rice's whale's habitat already experiences a high amount of vessel traffic.[216] Given the location of this critical habitat along any direct routes from Louisiana through the Gulf of Mexico, the incremental LNG tankers serving the Stage 5 project will cross through Rice's whale habitat. Vessel traffic coupled with the "size and speed of transiting vessels, the overlap between key habitats and shipping lanes, and the animal's diving behavior and time spent near the surface" all contribute to the probability of ship strikes.[217] Rice's whales are particularly vulnerable to ship strikes given that results from a tagged Rice's whale individual shows that it

[216] Rice's Whale, NOAA (Attachment 103).

[217] Aaron N. Rice, *Possible Risks to Marine Protected Species from the Construction and Operation of the Delfin LNG Offshore Terminal*, at 23 (Feb. 2, 2022) (hereinafter "Possible Risks to Marine Protected Species") (Attachment 104).

spent 70% of its time within 15 m of the surface.[218] Moreover, there has been at least one documented ship strike fatality of a Rice's whale.[219] In addition to being at risk of vessel strikes, the Rice's whale is also negatively impacted by noise pollution. The increase in vessel traffic will create low frequency noise which overlaps with the hearing range of the Rice's whale and likely inhibits its performance of critical life functions such as "communication, navigation, finding a mate, locating prey, and predator avoidance."[220]

DOE therefore must consider the proximity of the vessel routes to the Rice's whales' habitat as well as the fact that the Rice's whale may venture closer to shore and outside of their core area.[221] DOE must also evaluate the implementation of adequate mitigation measures to avoid vessel strikes at night and increases in noise near the Rice's whale core habitat. Because the Rice's whale was listed recently, new information and data related to the species is regularly being released; DOE should incorporate updated information into its analysis as it becomes available. In order for DOE to determine the effects of the Stage 5 project on the species it must: (1) engage in Section 7 consultation and (2) conduct a new EIS or a SEIS taking into consideration the species critical habitat.

4. Stage 5's significant greenhouse gas emissions render the project contrary to the public interest.

Sabine Pass seeks authorization to export gas through at least 2050.[222] DOE must take a hard look at the environmental impact of expanded exports of LNG across that twenty-year time period, with the long-term gas production and use such exports necessarily entail. While DOE did not reference its prior lifecycle greenhouse gas studies in its notice of Stage 5's application, Sabine Pass urges DOE to rely heavily on those prior, outdated studies.[223] Moreover, DOE is conducting this protest period before the updated studies are complete. Because DOE may choose to explicitly incorporate its generic lifecycle analyses into its NEPA analysis of this

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[218] *Id.* at 23.

[219] *Id*. (cetacean fatalities from vessel strikes are often difficult to document).

[220] Rice's Whale, NOAA (Attachment 103) ("As ocean noise levels increase, the resulting habitat degradation and disruption to these life functions can result in adverse physical and behavioral effects to Rice's whales.").

[221] *Id*.

[222] Application at 13.

[223] *Id.* at 22-25.

application, we reiterate the flaws with DOE's prior approach to incorporating generic studies. Any generic analyses (whether old or updated) are procedurally insufficient to meet DOE's NEPA and Natural Gas Act obligations here. More fundamentally, DOE's prior lifecycle analyses both ask the wrong questions and do not reflect available science regarding LNG's impacts. While we hope that DOE addresses these gaps in its updated analyses, we reiterate our substantive concerns here out of an abundance of caution.

a) DOE Must Consider Impacts from the Entire LNG Lifecycle.

As DOE has repeatedly recognized, and as President Biden affirmed in the recent announcement regarding the need to update DOE's studies,[224] DOE cannot approve LNG exports without taking a hard look at the entire LNG lifecycle, including effects on gas production and use. Such upstream and downstream changes are reasonably foreseeable, as are the environmental effects thereof. However, this recognition, while frequent, has not been uniform. In promulgating the 2020 categorical exclusion—which DOE can and should rescind—DOE mistakenly contended that it was not required to consider these lifecycle issues.[225] And DOE has previously argued that although it was required to consider these issues under the Natural Gas Act, that these issues were somehow outside the scope of DOE's NEPA responsibilities.[226] In the face of such occasional equivocation, we emphasize that both the Natural Gas Act and NEPA require DOE to take a hard look at environmental impacts occurring throughout the entire LNG lifecycle, and to consider such impacts in the public interest determination.

Under the Natural Gas Act, DOE itself has recognized that a key consideration in its public interest determinations is the effect increased export volumes will have on gas production and use.[227] DOE therefore must consider the environmental impacts of such effects. Similarly, NEPA requires DOE to take a hard look at reasonably foreseeable impacts across the LNG

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[224] DOE, Unpacking Misconceptions ("[T]his action is a recognition that LNG exports result in greenhouse gas emissions – CO2 and methane – and we must have the best information to fully understand and evaluate its effects on communities at home and examine the role of natural gas and LNG in a net zero economy.").

[225] 85 Fed. Reg. 78,197-01, 78,202 (Dec. 4, 2020).

[226] *See* Freeport LNG Expansion L.P., et al., DOE/FE Order No. 3282-C, FE Docket No. 10-161-LNG, Final Opinion and Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Freeport LNG Terminal on Quintana Island, Texas, to Non-Free Trade Agreement Nations, at 73 (Nov. 14, 2014).

[227] 85 Fed. Reg. at 78,202.

lifecycle, including upstream impacts relating to the production and supply of the gas that is exported, and downstream impacts relating to transportation and use of exported LNG. These reasonably foreseeable impacts include greenhouse gas emissions. Specifically, although non-climate impacts may be location-dependent and therefore difficult to foresee, location is in many ways irrelevant to the analysis of greenhouse gas emissions, as DOE has admitted.[228] In a closely related context regarding FERC's approval of interstate gas pipelines, the D.C. Circuit has repeatedly affirmed that the Natural Gas Act and NEPA require analysis of reasonably foreseeable upstream and downstream effects. *Sierra Club v. FERC*, 867 F.3d 1357, 1373 (D.C. Cir. 2017) ("*Sabal Trail*"); *Food & Water Watch v. FERC*, 28 F.4th 277, 288-89 (D.C. Cir. 2022).

These holdings apply with equal force to DOE's approval of LNG exports. The D.C. Circuit did not hold otherwise in *Sierra Club v. Dep't of Energy*, 867 F.3d 189 (2017) ("*Freeport II"*), decided shortly before *Sabal Trail*. In some recent orders, DOE has suggested that *Freeport II* categorically excused DOE from considering exports' effects caused by increased gas production; but DOE has mischaracterized that case.[229] *Freeport II* first noted that Sierra Club had not disputed that DOE could rely on materials other than the EIS to meet DOE's NEPA obligations, and the Court therefore assumed, without deciding, that such reliance was permissible.[230] 867 F.3d at 197. *Freeport II* then credited DOE for examining upstream impacts in the Addendum and LNG Lifecycle report. *Id.* at 198, 200, 202. The issue was not whether "effects pertaining to increased [natural] gas production were not reasonably foreseeable" *at all*;[231] the issue was whether DOE acted arbitrarily in concluding that these effects could not be foreseen *in additional detail*. Thus, DOE must examine the indirect and direct GHG impacts of the Stage 5 project before approving this application.

More broadly, effects occurring upstream and downstream of the point of export are plainly the types of indirect effects that NEPA requires agencies to consider. In determining what

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[228] *E.g.*, U.S. DOE, Final Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States (Aug. 2014) at 2, https://www.energy.gov/sites/prod/files/2014/08/f18/Addendum.pdf (hereinafter "Final Environmental Addendum") ("W*ith the exception of greenhouse gases (GHG) and climate change*, potential impacts of expanded natural gas production and transport would be on a local or regional level.") (emphasis added).

[229] *See, e.g.*, Order 3909-C at 20-21; Order 3878-e at 19-22.

[230] We challenge such reliance here, as explained *infra*.

[231] Order 3909-C at 21 (quoting *Freeport II*, 867 F.3d at 198).

effects can be attributed to the proposed action, and that therefore must be included in the scope of NEPA review, courts have analogized the concept of "proximate cause" in tort law. *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 754 (2004). Thus, at a minimum, NEPA requires analysis of the "normal consequence[s]" of the action under review, regardless of whether a link in the chain of events is a third party acting predictably. Restatement (Second) of Torts §§ 440-443 (1965). The NEPA regulations DOE must apply here reflect this principle by requiring analysis of "reasonably foreseeable" indirect effects, including "growth-inducing" effects. 40 C.F.R.§ 1508.1(i)(2) (effective July 1, 2024). Here, while outdated, DOE's prior studies all predict that exports will lead to increased gas production; an increase in production is a normal, and often intended, consequence of additional exports.[232]

Sabine Pass's application does not dispute that DOE must consider the project's lifecycle impacts. In fact, Sabine Pass conducted its own lifecycle analysis—while the company's analysis is deeply flawed, as discussed below, the existence of this analysis demonstrates that these impacts are, in fact, foreseeable and must be evaluated here.[233] A different analysis by the Institute for Policy Integrity concludes that the gross lifecycle climate costs from additional LNG exports without carbon, capture, and sequestration "range from 1.93 to 18.85 times the consumer welfare benefit, depending on the climate-damage valuation and supply scenario." [234] Especially because this balancing is so lopsided, looking at the lifecycle impacts from LNG provides important context demonstrating that additional LNG exports are not in the public interest.

In summary, both the Natural Gas Act and NEPA require DOE to evaluate and weigh environmental impacts occurring through the LNG life cycle.

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[232] *See, e.g.*, U.S. EIA, Effect of Increased Levels of Liquefied Natural Gas Exports on U.S. Energy Markets (Oct. 2014) at 12, https://www.eia.gov/analysis/requests/fe/pdf/lng.pdf (Attachment 8) (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.").

[233] Application at 42.

[234] Minhong Xu & Max Sarinsky, Institute for Policy Integrity, *The Climate Costs and Economic Benefits of LNG Export* (Jan. 2024), https://policyintegrity.org/files/publications/LNG_Policy_Brief_2024.01.26.pdf (Attachment 105) (hereinafter "IPI, Climate Costs and Economic Benefits for LNG Export").

b) DOE's Life Cycle Greenhouse Gas Analyses Are Not a Substitute for NEPA Review.

Procedurally, even robust generic lifecycle analyses that account for the latest data are not a substitute for NEPA review, as DOE has consistently recognized.[235] Because NEPA is a procedural statute, agencies are not free to ignore NEPA's required procedures or substitute their own. And one of NEPA's procedural requirements is that the analysis of environmental impacts actually be discussed in the EIS or a Supplemental EIS. DOE can incorporate other materials, but it must do so explicitly, and these materials must be summarized in the EIS or Supplemental EIS.[236] Put differently, an agency cannot cure a defective NEPA analysis by pointing in its final order to other material not properly incorporated into a NEPA document and subject to the NEPA public review process.[237]

Although generic lifecycle analyses can inform NEPA review, DOE must address the impacts of this and other LNG proposals within the NEPA framework. This includes addressing whether such impacts are consistent with the United States' climate goals. They are not. But the 2014 and 2019 lifecycle analyses do not address this issue—a fact that Sabine Pass ignores.[238] That is, the analyses do not provide any discussion of whether increasing or extending LNG exports will help or hinder achievement of the long-term drastic emission reductions that are essential to avoiding the most catastrophic levels of climate change. Nor do they provide *any* analysis of environmental or energy justice impacts resulting from the LNG buildout generally, or Stage 5 in particular. Moreover, DOE's prior non-NEPA general studies (and, we anticipate, the updated general studies being prepared during DOE's pause on approvals) do not contain all of the information NEPA requires regarding the GHG impacts of the Stage 5 project, in part because they omit project-specific review. For example, although DOE previously concluded that it was difficult to predict where gas would come from or where it would go for exports in general, here, DOE has the benefit of Sabine Pass's statements that it is focused heavily on

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[235] *E.g.,* 85 Fed. Reg. at 78,202 (The life cycle "reports are not part of DOE's NEPA review process").

[236] *See* 40 C.F.R. § 1502.21 (2019) (material incorporated by reference "shall be cited in the statement and its content briefly described").

[237] *Dubois v. U.S. Dep't of Agric.*, 102 F.3d 1273, 1289 (1st Cir. 1996); *Com. of Ky. ex rel. Beshear v. Alexander*, 655 F.2d 714, 718-19 (6th Cir. 1981); *I-291 Why? Ass'n v. Burns*, 517 F.2d 1077, 1081 (2d Cir. 1975).

[238] Application at 22-27.

securing supplies from the Permian, Haynesville, and Eagle Ford regions.[239] Similarly, DOE has the benefit of Sabine Pass's statements about the Stage 5 exports will go: namely, China, Europe, and South Korea.[240] And DOE must examine opportunities for mitigation and a rigorous exploration of alternatives that might reduce environmental impacts of the Stage 5 project in particular. DOE must address whether available project-specific information enables a more detailed or particularized analysis than DOE has conducted in its general studies.

c) The Impact of U.S. LNG Exports on Domestic GHG Emissions Is Foreseeable, and DOE Must Analyze It Here.

Even if DOE was incapable of reasonably forecasting how increased exports will influence *overseas* emissions (it is not, as discussed below), there would be no doubt that increasing exports will increase *domestic* emissions associated with gas production and liquefaction.[241] DOE's prior lifecycle analyses cited studies indicating that if the 900 bcf/year of exports proposed here draw entirely on new gas production, this production will emit nearly 6.2 million metric tons per year of carbon dioxide equivalent.[242] In contrast, FERC recently proposed to treat projects with lifecycle CO2e emissions above 100,000 tpy as significant.[243] Stage 5's upstream emissions alone are 62 times higher than this significance threshold; they are also roughly equivalent to the annual emissions from 1.6 coal plants or 1.5 million gas-powered cars.[244] To the extent that Stage 5's 900 bcf/y of exports are supplied by displacement of other domestic gas demand (e.g., gas-to-coal shifting in the electric sector), rather than an increase in domestic production, the impact on domestic emissions will likely be even higher.[245]

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[239] Application at 11.

[240] Application at 12; Table Summarizing Sabine Pass Stage 5 Contracts (Attachment 82).

[241] *See, e.g.,* Final Environmental Addendum at 44; *see also* Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States: 2019 Update at 23, https://www.energy.gov/sites/prod/files/2019/09/f66/2019%20NETL%20LCA-GHG%20Report.pdf (hereinafter "2019 Lifecycle GHG Update") (Attachment 106).

[242] Final Environmental Addendum at 44 (estimating 6.8 million metric tons of CO2e emissions per trillion cubic feet of gas produced); *but see* 2019 Lifecycle GHG Update (acknowledging changes to estimates used in the 2014 Final Environmental Addendum).

[243] FERC, Interim Policy Statement on Consideration of Greenhouse Gas Emissions in Natural Gas Infrastructure Reviews, Dkt. PL21-3, 187 FERC ¶ 61,108 P79 (Feb. 18, 2022).

[244] EPA, Greenhouse Gas Equivalencies Calculator, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results (last visited June 14, 2024).

[245] *See, e.g.*, EIA, Effects of Increased Natural Gas Exports on Domestic Energy Markets, at 18-19 (Jan. 2012), *available at* https://www.eia.gov/analysis/requests/fe/pdf/fe_lng.pdf (Attachment 107); Jean Chemnick, *Here's how EPA sees the future power grid*, ClimateWire (May 8, 2024),

Cumulative upstream emissions from LNG exports are immense. To date, the Department has authorized 17.8 trillion cubic feet per year of exports to non-free trade agreement countries (excluding Magnolia LNG's now-expired authorization).[246] Producing the gas to supply these exports will collectively increase domestic emissions by roughly 121 million metric tons of carbon dioxide equivalent per year. These cumulative upstream emissions are roughly equivalent to annual emissions from over 31 coal plants or 13.6 million gas-powered cars.[247] DOE must disclose and analyze the entirely foreseeable and presumptively-significant volume of upstream emissions; it cannot refuse to do so "just because the emissions in question might be partially offset by reductions elsewhere." *Sierra Club v. FERC*, 867 F.3d 1357, 1374-75 (D.C. Cir. 2017) ("Sabal Trail"); *accord WildEarth Guardians v. U.S. Bureau of Land Mgmt.*, 870 F.3d 1222, 1236 (10th Cir. 2017).

Even if it was certain that U.S. LNG would solely displace other fossil fuels (it will not), DOE would still need to discuss these impacts on domestic emissions. The U.S.'s own emission reduction goals, and international climate agreements to which the U.S. is a party, specifically call on the U.S. to address territorial emissions, regardless of whether domestic emission increases might be offset by foreign emission reductions.[248] Compliance with Paris Accord commitments, for example, is evaluated based on "greenhouse gas emissions and removals taking place within national territory and offshore areas over which the country has jurisdiction."[249] There are sound policy reasons for these agreements' focus on domestic emissions. As DOE itself acknowledges, impacts on domestic emissions can be more reasonably verified than impacts in other countries; asking each country to demonstrate reductions in domestic emissions improves both accuracy and accountability. In addition, it would be unfair

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https://subscriber.politicopro.com/article/eenews/2024/05/08/heres-how-epa-sees-the-future-power-grid-00156662 (Attachment 108) ("Coal's longer, slower death on the grid isn't a function of any changes EPA made between its draft and final rules. Instead, it's mostly down to where the EIA sees gas prices going.").

[246] 88 Fed. Reg. at 25,274.

[247] EPA, Greenhouse Gas Equivalencies Calculator, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results (last visited June 14, 2024).

[248] *See* Sierra Club Comments on 2019 Lifecycle Report at 8-9, https://fossil.energy.gov/app/DocketIndex/docket/DownloadFile/604 (hereinafter "Sierra Club 2019 Lifecycle Comments") (Attachment 109); Sierra Club Comments on 2014 Lifecycle Report at 12-14, *available at* https://fossil.energy.gov/app/DocketIndex/docket/DownloadFile/180 (Attachment 110).

[249] Intergovernmental Panel on Climate Change, 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 8: Reporting and Tables, at 8.2.1, https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/1_Volume1/19R_V1_Ch08_Reporting_Guidance.pdf (Attachment 111).

and thus nonstrategic for the U.S. to argue that although the world must transition away from fossil fuels as quickly as possible for climate reasons, the U.S. can enjoy the purported economic benefits of increased fossil fuel production, based on the argument that our increased emissions will be offset by other nations' reductions. And other countries are generally more likely to meet their GHG reduction commitments if the U.S. satisfies our own.

President Biden has acknowledged that "climate change is the existential threat of our time"[250] and tackling the climate crisis must be a priority for the actions and decisions of all federal agencies.[251] Accordingly, Executive Order 14,008, Tackling the Climate Crisis at Home and Abroad, explicitly instructs federal agencies to discourage "high carbon investments" or "intensive fossil fuel-based energy."[252] Executive Order 14,008 also affirms that "[r]esponding to the climate crisis will require … net-zero global emissions by mid-century or before."[253] As an interim step, President Biden has announced a "commitment to reduce U.S. emissions by 50-52% from 2005 levels in 2030."[254]

Increasing LNG exports is likely to interfere with achieving these goals, and that interference is both contrary to the public interest, as interpreted for purposes of the Natural Gas Act, and an effect that must be analyzed under NEPA. At least one recent report has already concluded that, when accounting for fossil fuel exports, U.S. greenhouse gas emissions from energy are expected to remain above 2005 levels through 2050.[255] This blatantly conflict with the U.S.'s commitment to net zero energy by 2050. But DOE has so far entirely failed to consider the impact of LNG exports, individually or cumulatively, on efforts to attain U.S. emission reduction targets. Although DOE previously concluded that it was difficult to predict where gas would come from in general, DOE has recognized the importance of fully analyzing

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[250] Fact Sheet on Temporary Pause, *supra* note 12.

[251] Exec. Order 14008, Tackling the Climate Crisis at Home and Abroad (Jan. 27, 2021), 86 Fed. Reg. 7619 (Feb. 1, 2021).

[252] *Id.* at § 102(f), (h).

[253] *Id.* § 101.

[254] Glasgow Fact Sheet (Attachment 64).

[255] Jeremy Symons, Exporting Carbon, at 7-16, Politico (Sept. 2023), *available at https://subscriber.politicopro.com/eenews/f/eenews/?id=0000018a-954d-dd5e-abfe-9fcf6fd70000* (Attachment 112) (hereinafter "Exporting Carbon"); *see also* Bill McKibben, *A Smoking Gun for Biden's Big Climate Decision?*, THE NEW YORKER (Oct. 31, 2023), *available at* https://www.newyorker.com/news/daily-comment/a-smoking-gun-for-bidens-big-climate-decision (hereinafter "McKibben, A Smoking Gun") (Attachment 113).

upstream impacts like this in its updated lifecycle analysis.[256] Moreover, here, DOE has the benefit of Sabine Pass's statements that it anticipates obtaining supply gas from the Permian, Eagle Ford, and Haynesville production regions.[257] Sabine Pass cannot dodge accountability for these express expectations of supply sources by inserting vague disclaimers that the source of its gas might shift over time. DOE must utilize the best estimates it has. *See, e.g.*, *Mont. Wilderness Ass'n v. McAllister*, 666 F.3d 549, 559 (9th Cir. 2011). Those estimates indicate that gas to serve Stage 5 will likely come from some of the highest-methane-emitting regions in the country.[258] DOE must account for that likelihood in its environmental and public interest analysis.

When examining upstream emissions (both for Stage 5 and the general lifecycle updates), DOE must account for significantly higher methane leakage rates than it has used previously. For example, the 2019 analysis assumes that the "upstream emission rate" or "leak rate" of U.S. LNG exports—the amount of methane that is emitted to the atmosphere during production, processing, and transportation of gas to the export facility—is 0.7% of the gas delivered.[259] Studies measuring actual emissions find much higher leak rates: a 2020 study that found that oil and gas production in the Permian Basin had a leak rate of roughly 3.5% or 3.7%.[260] Aerial measurement surveys from a 2023 study showed leakage rates up to 66.2%.[261] And a 2024 study estimates the weighted average leakage of 2.95%, with up to 9.63% in region like Permian with

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[256] Testimony of David Turk at 4 (Attachment 33).

[257] Application at 11.

[258] *See* Anna Roberton et al., New Mexico Permian Basin Measured Well Pad Methane Emissions Are a Factor of 5–9 Times Higher Than U.S. EPA Estimates, 54 Environ. Sci. Technol. 13926–13934 (2020) https://pubs.acs.org/doi/10.1021/acs.est.0c02927 (Attachment 114) (hereinafter "Robertson, Permian Basin Leakage") (Permian Basin measured well pad methane emissions are a factor of 5–9 times higher than U.S. EPA estimates).

[259] 2019 Lifecycle GHG Update (Attachment 106) at 27.

[260] *See* Yuzhong Zhang *et al.*, *Quantifying methane emissions from the largest oil-producing basin in the United States from space*, SCIENCE ADVANCES (Apr. 22, 2020), https://advances.sciencemag.org/content/6/17/eaaz5120/tab-pdf (Attachment 115); *see also* Environmental Defense Fund, *New Data: Permian Oil & Gas Producers Releasing Methane at Three Times National Rate* (Apr. 7, 2020), https://www.edf.org/media/new-data-permian-oil-gas-producers-releasing-methane-three-times-national-rate (Attachment 116); Mark Omara et al., *Methane emissions from US low production oil and natural gas well sites*, 13 NATURE COMMUNICATIONS (Apr. 19, 2022), https://www.nature.com/articles/s41467-022-29709-3#Abs1 (finding low-production wells have leakage rates >10%) (Attachment 117).

[261] Deborah Gordon et al., Evaluating net life-cycle greenhouse gas emissions intensities from gas and coal at varying methane leakage rates, Environmental Research Letters (July 17, 2023), *available at* https://iopscience.iop.org/article/10.1088/1748-9326/ace3db (hereinafter "Evaluating net life-cycle GHG emissions") (Attachment 118).

expanding, oil-focused development.[262] As we have previously explained, there are many reasons to believe these atmospheric measurements are more reliable than the "bottom up" estimates used by DOE—notably, the fact that bottom up estimates poorly represent the rare but severe major leaks that constitute a large fraction of upstream emissions.[263] Every year, new research further affirms that gas production emits greater amounts of methane than what DOE's analyses have assumed, despite ongoing efforts to reduce methane emissions.[264] And several studies have indicated that LNG may have higher lifecycle emissions than coal, depending on the leakage rate.[265] Nor could any voluntary efforts by Cheniere to allegedly reduce GHG emissions across its facilities mitigate these concerns;[266] they are non-binding, and Sabine Pass doesn't even commit to implement them at Stage 5 in particular.

Sabine Pass erroneously implies that reductions in upstream leakage rates stemming from the EPA's new methane rule should eliminate concern about its upstream emissions.[267] While the EPA rule will have significant nationwide benefits in controlling oil and gas methane pollution, it will not and cannot eliminate those emissions. DOE therefore cannot disregard Stage 5's upstream impacts. In fact, Stage 5 is sourcing gas from at least one region that has shown enormously high emission rates in the past, far higher than the national average.[268] With such a high baseline level of emissions, even a notable percentage reduction in methane leaks from the Permian Basin would still leave very large amounts of gas released into the atmosphere.

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[262] Evan Sherwin et al., *US oil and gas system emissions from nearly one million aerial site measurements*, 627 Nature, 328-334 (Mar. 13, 2024) https://www nature.com/articles/s41586-024-07117-5 (Attachment 119).

[263] Sierra Club 2019 Lifecycle Comments (Attachment 109) at 6-8.

[264] *See* NRDC, *Sailing to Nowhere: Liquefied Natural Gas Is Not an Effective Climate Strategy* (Dec. 2020), https://www nrdc.org/sites/default/files/sailing-nowhere-liquefied-natural-gas-report.pdf (Attachment 120); Kayrros, *U.S. Methane Emissions from Fossil Fuels at Risk of Worsening In 2022, Extending 2021 Trend* (June 2022), https://www kayrros.com/u-s-methane-emissions-from-fossil-fuels-at-risk-of-worsening-in-2022-extending-2021-trend/ (Attachment 121); *see also* McKibben, A Smoking Gun (Attachment 113).

[265] Evaluating net life-cycle GHG emissions (Attachment 118) ("Numerous scenarios run in this study indicate that the benefits of gas do not outweigh coal at certain methane leakage rates."); McKibben, A Smoking Gun (Attachment 113); Benjamin Storrow, *Is LNG dirtier than coal? It's complicated.*, CLIMATEWIRE (Feb. 5, 2024), https://subscriber.politicopro.com/article/eenews/2024/02/05/is-lng-dirtier-than-coal-its-complicated-00139191 (Attachment 122) (hereinafter "Storrow").

[266] Application at 43.

[267] *Id.* at 45.

[268] Robertson, Permian Basin Leakage (Attachment 114).

DOE should also reject reliance on carbon tag programs, like the one Sabine Pass touts in its application.[269] Most fundamentally, carbon tags are irrelevant to the domestic gas prices and energy burden issues discussed above. Nor does calculating upstream methane emissions do anything to actually reduce those emissions, or to eliminate the myriad other, significant environmental harms caused throughout the lifecycle of LNG exports. Carbon tags also fail to address downstream emissions and global competition with renewable energy: the entire concept entirely ignores that additional LNG exports—even if they are relatively low-emission—simply have no place in a zero-carbon future. *See supra* Section II.B. Cheniere's carbon tag program specifically has numerous flaws. The company relies on unrealistically low methane leakage rates and fails to account for potentially high levels of gas supply from the Permian Basin,[270] one of the highest-methane emitting regions in the country.[271] Even if Cheniere were properly accounting for its emissions, offsets cannot displace the essential transformation of the energy sector away from fossil fuels. And if Cheniere can determine sources of supply with sufficient detail and specificity to assign carbon tags, DOE should be able to forecast upstream emissions for NEPA purposes.[272] DOE cannot rely on such a flawed program to justify LNG exports that will clearly conflict with the U.S.'s domestic greenhouse gas reduction targets.

d) Globally, DOE Can Foresee That Increased LNG Exports Are Incompatible with Emission Reduction Targets and Additional U.S. LNG Exports Will Increase Global Emissions Even in the Intermediate Term.

As the White House recently noted when announcing the need to update its analyses, "climate change is the existential threat of our time – and we must act with the urgency it demands to protect the future for generations to come."[273] Globally, avoiding catastrophic climate change by limiting global warming to 1.5° C—or even 2° C—will require drastic reductions in global emissions, which can only be achieved by phasing out fossil fuels as quickly as possible—we need "rapid, deep and sustained reductions in global greenhouse gas

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[269] Application at 43.

[270] OilChange International & Greenpeace, Madness Is the Method: How Cheniere is greenwashing its LNG with new cargo emission tags (Aug. 2022), https://www.greenpeace.org/usa/wp-content/uploads/2022/08/Cheniere-final-v1.pdf (Attachment 123).

[271] *Id.*

[272] *Id.*

[273] Fact Sheet on Temporary Pause (Attachment 2).

emissions."[274] The world must transition to net-zero emissions by 2050, and reduce global carbon dioxide (CO2) emissions by 45 percent by 2030.[275]

As noted, achieving these targets means that global LNG export volumes, specifically, must *decline* below present levels in just the next few years: as the International Energy Agency recently affirmed, further expansion of LNG export facilities cannot be part of the path to net-zero emissions.[276] And even under the business as usual scenario, LNG export facilities already *in operation or under construction* provide "ample" global supply until at least 2040.[277] More and more countries are adopting climate targets that are fundamentally inconsistent with continuing (or expanded) reliance on fossil fuels, including LNG. *See supra* Section II.B.2. And beyond climate considerations, global investment in clean energy has extensive momentum: the IEA's 2024 World Energy Investment Report highlights that global investment in clean energy is setting new records, with almost two dollars now spent on clean energy for each dollar going into fossil fuels.[278] Globally, more money is being invested in solar photovoltaics than all other electricity generation technologies combined.[279] This massive global investment in clean energy is "underpinned by strong economics," "continued cost reductions," and "considerations of energy security," as well as "industrial policy" wherein "major economies compete for advantage in new clean energy supply chains."[280]

Despite this broad consensus and global momentum, DOE has solely compared U.S. LNG exports to the energy landscape from the last decade, asking "How does exported LNG from the United States compare with" other fossil fuels (coal or other gas) currently used "in Europe and Asia, from a life cycle [greenhouse gas] perspective?"[281] DOE has never before considered whether the exports requested here, which would continue into the 2050s, would

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[274] U.N. Framework Convention on Climate Change Secretariat, Glasgow Climate Pact at ¶17, https://unfccc.int/sites/default/files/resource/cop26_auv_2f_cover_decision.pdf (Attachment 124) (hereinafter "Glasgow Climate Pact"); *see also, e.g.*, IPCC Physical Science Summary (Attachment 91).

[275] Glasgow Climate Pact at ¶17 (Attachment 124).

[276] IEA, Net Zero by 2050 (Attachment 7) at 21, 102.

[277] IEA, World Energy Outlook 2023 (Attachment 6) at 139.

[278] International Energy Agency, *Investment in clean energy this year is set to be twice the amount going to fossil fuels*, https://www.iea.org/news/investment-in-clean-energy-this-year-is-set-to-be-twice-the-amount-going-to-fossil-fuels (June 6, 2024) (Attachment 125) (hereinafter "IEA, Clean Energy Investment").

[279] *Id.*

[280] *Id.*

[281] 84 Fed. Reg. 49,278, 49,279 (Sept. 19, 2019).

make it less likely that other countries will achieve the emissions reductions necessary to limit global warming to these levels. We hope that DOE's forthcoming update to its studies begins to tackle this question; but in the meantime, DOE has failed to consider an important factor weighing on the public interest. And so long as DOE continues to refuse to address this issue in a NEPA document, it will continue to fail to take the hard look required by NEPA.

While DOE has, to date, fundamentally failed to ask the right questions in its general studies, multiple sources of evidence enable DOE to reasonably forecast where additional LNG from the Stage 5 project might go. Here, DOE has the benefit of Sabine Pass's delivery contracts for Stage 5, which indicate exports will primarily go to Europe, China, and South Korea.[282] But as noted, Europe, China, and South Korea are all working to drastically reduce its gas consumption and build extensive new renewable energy. *See supra* Section II.B.2. In 2023, China, the E.U. and the U.S. combined accounted for over two-thirds of global clean energy investment, highlighting the risk that exports to China and Europe will displace renewable energy rather than other fossil fuels.[283] Even if DOE cannot reach general conclusions about LNG displacing renewable energy globally, project-specific information in this record therefore contradicts DOE's prior assumptions that LNG exports will only displace other fossil fuels.

Sabine Pass nevertheless asserts—erroneously—that the Stage 5 exports will provide climate benefits by displacing global coal use.[284] Peer reviewed research concludes that U.S. LNG exports are likely to play at most a limited role in displacing foreign use of coal.[285] Sabine Pass claims that LNG imports have already offset coal use in Asia—but that entirely ignores evidence that Asian countries are shifting to zero-emitting technologies to replace coal, rather than LNG. *See supra* Section II.B.2. Even if LNG will largely displace other fossil fuels, DOE

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[282] Table Summarizing Stage 5 Contract Destinations (Attachment 82). While the contracts listed are technically able to deliver gas from Corpus Christi LNG or any of the Sabine Pass LNG trains, these contracts were filed in the Stage 5 DOE docket.

[283] IEA, Clean Energy Investment (Attachment 125).

[284] Application at 7, 37-41.

[285] Gilbert, A. Q. & Sovacool, B. K., *US liquefied natural gas (LNG) exports: Boom or bust for the global climate?* Energy (Dec. 15, 2017), https://www.sciencedirect.com/science/article/abs/pii/S0360544217319564 (Attachment 126). *See also* Jake Schmidt, *Liquified Natural Gas has Limited Impact in Displacing Coal Emissions*, NRDC (Jan. 24, 2024), https://www nrdc.org/bio/jake-schmidt/us-liquified-natural-gas-has-limited-impact-coal (Attachment 127).

must consider recent evidence that LNG may be as or more polluting than coal.[286] To the extent that Sabine Pass argues (without support) that increased LNG exports will better facilitate adoption of renewable energy globally,[287] that premise is contradicted by the extensive evidence demonstrating that LNG is competing with, rather than supporting, renewable energy adoption globally. And even if some gas consumption is necessary, U.S. LNG is expensive and higher-polluting than LNG exports from at least 18 other countries.[288]

Even if, after taking a hard look at this additional information, DOE reaffirms its assertion that it cannot reasonably forecast how, individually or cumulatively, additional U.S. LNG exports will displace coal, other gas, renewables, or conservation, DOE must provide additional analysis of the range of possible outcomes. Until now, DOE's general studies have juxtaposed U.S. LNG with other sources of fossil fuels, but have failed to provide similar juxtaposition for renewables and conservation. This is inconsistent with recent forecasts that increasingly anticipate global reliance on renewable energy. *See* Section II.B.2. Providing only one comparison but not the other presents a misleadingly incomplete picture, especially where DOE concedes that *some* displacement of renewables will occur.

If DOE were to provide this analysis—as it should in the pending updates to these studies—it would show that even if the difference between U.S. LNG and other fossil fuels may not be great, the difference between LNG and renewables or conservation is stark. This analysis would reveal what percentage of exported LNG must displace other fossil fuels to avoid increasing emissions, relative to the status quo. Simply identifying that threshold would provide meaningful information to the public and to decisionmakers. If, for example, DOE were to determine that the breakeven point is 98% displacement of other fossil fuels, the public and decisionmakers could form judgments about whether additional LNG exports could plausibly have that little of an impact on renewables and conservation, even absent specific forecasts. A recent Institute for Policy Integrity analysis attempting to weigh LNG exports' supposed

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[286] Evaluating net life-cycle GHG emissions (Attachment 118) ("Numerous scenarios run in this study indicate that the benefits of gas do not outweigh coal at certain methane leakage rates."); McKibben, A Smoking Gun (Attachment 113); Storrow (Attachment 122).

[287] Application at 39.

[288] Al Johnson-Kurts, Oil Change International,, *U.S. Gas Industry Claims Are False: Analysis of IEA Methane Tracker Finds U.S. Oil & Gas Sector Lags Behind Eighteen Other Countries on Emissions Intensity* (May 16, 2024), https://priceofoil.org/2024/05/16/u-s-gas-industry-claims-are-false-analysis-of-iea-methane-tracker-finds-u-s-oil-gas-sector-lags-behind-eighteen-other-countries-on-emissions-intensity/ (Attachment 128).

economic benefits against their climate costs—using DOE's now-stale analysis—concluded that, without widespread adoption of carbon capture and sequestration, over 90% of U.S. LNG exports would need to displace other fossil fuels in order to have a chance that economic benefits would outweigh climate costs.[289] Even assuming full use of carbon capture technology, 77% of LNG exports would have to displace other fossil fuels.[290] In estimates involving domestic supply, however, the federal government has estimated much lower displacement levels. For example, only 66.2% of offshore gas would displace alternative fossil-fuel sources.[291] This raises serious doubt that displacement of other fossil fuels could justify the staggering climate costs of LNG exports. And even assuming sufficient displacement levels to provide some net benefit, like DOE's prior studies, this analysis omits the distributional impacts of the climate (and economic) costs of LNG exports. DOE must conduct its own analysis of these issues based on the latest science.

e) DOE Must Scrutinize the Project's Contribution to Climate Change and Related Environmental and Health Risks.

Because DOE's prior studies have wrongly refused to acknowledge that LNG exports increase global GHG emissions, DOE has also failed to account for the harms caused by those increased GHG emissions. Mounting scientific evidence demonstrates that the consequences of and risk to LNG infrastructure from catastrophic climate change are even more severe than previously assumed. Continuing LNG exports through 2050 is inconsistent with reaching any of the Biden administration's climate targets and preventing the worst impacts from catastrophic climate change. Moreover, new information and analytical tools have emerged in recent years that better facilitate DOE evaluating the Stage 5 project's climate impacts. DOE must conduct the requisite NEPA analysis and make its public interest determination based on these current circumstances and latest analytical tools.

NEPA requires DOE to use, *inter alia*, "theoretical approaches or research methods generally accepted in the scientific community." 40 C.F.R. § 1502.21(c)(4). One such method is the social cost of greenhouse gas protocol. *See, e.g.*, *Vecinos para el Bienestar de la Comunidad Costera v. FERC*, 6 F.4th 1321 (D.C. Cir. Aug. 3, 2021) (holding that FERC's failure to evaluate

[289] IPI, Climate Costs and Economic Benefits for LNG Export (Attachment 105) at 8-9.

[290] *Id.* at 10.

[291] *Id.* at 9 n. 51.

the significance of greenhouse gas emissions was arbitrary when FERC failed to address whether social cost of carbon was such a method). Significant recent developments in the use of this tool reiterate that DOE must utilize it here. For example, in January 2021, President Biden issued Executive Order 13,990, which established and directed an Interagency Working Group to evaluate and update the social cost of greenhouse gases based on the best available science, building on the recommendations of the National Academies from 2017. Consistent with this directive, the working group recently released interim social cost estimates in its "Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide" (Feb. 2021).[292] In September 2023, President Biden instructed all federal agencies to use social costs in budgeting, procurement, and NEPA reviews.[293] And in December 2023, the EPA released its own social cost of greenhouse gas values, which incorporate recent scientific advances.[294] These developments demonstrate that using social cost to estimate the impact of greenhouse gas emissions is generally accepted. And consistent with President Biden's directive and the latest available science, DOE should utilize the social cost of greenhouse gases, or identify another tool, to evaluate the significance of the Stage 5 project's greenhouse gas emissions here. While the company has not yet provided—and no agency has yet evaluated—GHG emissions estimates for the Stage 5 project, lifecycle emissions estimates based on the project's capacity indicate it will emit 110 million metric tons of CO2e annually.[295] Roughly speaking, that equates to a roughly $22.5 billion social cost of carbon in 2030 alone, based on EPA's central estimates.[296] More broadly, applying the social cost of carbon to LNG exports indicates that climate damages

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[292] Interagency Working Group on Social Cost of Greenhouse Gases, United States Government, Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates Under Executive Order 13990, (February 2021), https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf. (Attachment 129)

[293] FACT SHEET: Biden-Harris Administration Announces New Actions to Reduce Greenhouse gas Emissions and Combat the Climate Crisis (Sept. 21, 2023), https://www.whitehouse.gov/briefing-room/statements-releases/2023/09/21/fact-sheet-biden-harris-administration-announces-new-actions-to-reduce-greenhouse-gas-emissions-and-combat-the-climate-crisis/ (Attachment 130).

[294] EPA, Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances (Nov. 2023), https://www.epa.gov/system/files/documents/2023-12/epa_scghg_2023_report_final.pdf (Attachment 131).

[295] GHG equivalency calculations are based on the 20-year global warming potential equivalency estimates from LNG Lifecycle GHG (Attachment 1).

[296] *Calculating the Social Cost of Greenhouse Gases*, Institute for Policy Integrity, https://costofcarbon.org/calculator (last visited June 16, 2024) (estimating 110,000,000 metric tons of CO2 based on EPA's value at a 2% discount rate for a 2024 analysis with emissions in 2030) (Attachment 132).

in 2050 resulting from U.S. fossil fuel exports will be $2 and $6 trillion more under the "high oil and gas supply" scenario (between $6.1 and $18.7 trillion total) than under the "low oil and gas supply" scenario.[297] These staggering social costs plainly demonstrate that the project is not in the public interest.

5. Climate and sea level rise hazards mean coastal infrastructure poses additional environmental risks.

The latest science continues to demonstrate that coastal infrastructure—like Stage 5—will face increasingly significant risks from more frequent and more severe extreme weather as global temperatures rise. Particularly relevant to projects like this along the Gulf Coast, 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)."[298] DOE must evaluate the effects that increasingly severe extreme weather will have on (1) LNG tankers transporting exported gas and (2) the new Stage 5 infrastructure. Even if DOE dismisses concerns about risks to latter as within FERC's purview, DOE must still discuss the impacts to upstream production and LNG tankers transporting exported gas.

Global temperatures are rising drastically. By the beginning of 2024, each month from June to December 2023 "were each their hottest on record."[299] Through "July, August, and September, global temperatures were more than 1.0°C (1.8°F) above the long-term average—the first time in NOAA's record any month has breached that threshold."[300]

These rising temperatures will exacerbate extreme weather events[301] and sea level rise—and Sabine Pass's location is at high risk. NOAA's 2022 *Sea Level Rise Technical Report*

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[297] Exporting Carbon (Attachment 112) at 10.

[298] IPCC Physical Science Summary (Attachment 91) at 25, C2.6.

[299] Rebecca Lindsey and Luann Dahlman, *Climate Change: Global Temperature*, NOAA (Jan. 18, 2024), https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature#:~:text=According%20to%20NOAA's%202023%20Annual,0.20%C2%B0%20C)%20per%20decade. (Attachment 133).

[300] *Id*.

[301] Roxana Bardan, *NASA Analysis Confirms 2023 as Warmest Year on Record*, NASA News Release (Jan. 12, 2024, https://www.nasa.gov/news-release/nasa-analysis-confirms-2023-as-warmest-year-on-record/ ("'NASA and NOAA's global temperature report confirms what billions of people around the world experienced last year; we are facing a climate crisis,' said NASA Administrator Bill Nelson. 'From extreme heat, to wildfires, to rising sea levels, we can see our Earth is changing.'") (Attachment 134).

forecasts that Louisiana will experience the highest relative sea level rise in the country. [302] In recent years, the Gulf of Mexico has had above-average hurricane seasons. In 2020, twenty tropical cyclones made landfall in the United States, breaking a record set in 1916. Twenty-one named storms, four of which were major hurricanes, occurred in 2021.[303] During the most recent 2023 hurricane season, there were 20 named storms, seven of these were hurricanes and three intensified into major hurricanes.[304] And NOAA recently issued its highest-ever Atlantic tropical storm and hurricane forecast for 2024.[305]

The increase in sea level rise and hurricanes will impact LNG tanker traffic, as the EIA has recognized.[306] In fact, Sabine Pass itself had to halt LNG exports during Hurricane Laura in August 2020.[307] Sea level rise will increase the height of both storm surge and waves[308]—leading to more severe storms. And increased hurricanes will result a disruption of global gas supplies leading to price volatility[309] as well as higher emissions as LNG tankers are forced to wait for storms to pass to reach their destinations.[310] DOE must examine the extent of the risk posed to LNG tankers throughout the lifespan of the Stage 5 project.

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[302] *U.S. coastline to see up to a foot of sea level rise by 2050*, NOAA, https://www noaa.gov/news-release/us-coastline-to-see-up-to-foot-of-sea-level-rise-by-2050 (Feb. 15, 2022) (Attachment 135) (hereinafter "NOAA News Release"); *see also Global and Regional Sea Level Rise Scenarios for the United States*, NOAA, https://aambpublicoceanservice.blob.core.windows net/oceanserviceprod/hazards/sealevelrise/noaa-nos-techrpt01-global-regional-SLR-scenarios-US.pdf (Feb. 2022) (Attachment 136) (hereinafter "NOAA Report").

[303] *Active 2021 Atlantic hurricane season officially ends*, NOAA, https://www noaa.gov/news-release/active-2021-atlantic-hurricane-season-officially-ends (Nov. 30, 2021) (Attachment 137).

[304] *2023 Atlantic Hurricane Season Wraps Up*, NOAA, https://www.nesdis.noaa.gov/news/2023-atlantic-hurricane-season-wraps (Nov. 28, 2023) (Attachment 138).

[305] Karin Rives, *Forecast for 2024 hurricane season includes record number of Atlantic storms*, Capital IQ, https://www.capitaliq.spglobal.com/apisv3/spg-webplatform-core/news/article?id=81802434 (May 23, 2024) (Attachment 139).

[306] EIA, *Today in Energy: Forecast strong hurricane season presents risk for U.S. oil and natural gas industry*, https://www.eia.gov/todayinenergy/detail.php?id=62104 (May 22, 2024) (Attachment 140) ("Although LNG facilities generally have many layers of protection from direct impact, hurricanes can damage electrical and marine infrastructure and hamper ship movement.").

[307] *Id.*

[308] NOAA News Release (Attachment 135) ("[T]he sea level rise expected by 2050 will create a profound increase in the frequency of coastal flooding, even in the absence of storms or heavy rainfall.").

[309] Kevin Crowley, *Hurricane Risk Adds to Global Gas Price Volatility*, Bloomberg (Aug. 29, 2023), https://www.bloomberg.com/news/newsletters/2023-08-29/atlantic-hurricane-season-adds-to-global-lng-price-volatility (Attachment 141).

[310] Scott DiSavino, *LNG vessels wait in Gulf of Mexico for Hurricane Delta to pass*, Reuters (Oct. 7, 2020), https://www.reuters.com/article/usa-lng-vessels-storm/lng-vessels-wait-in-gulf-of-mexico-for-hurricane-delta-to-pass-idUSL1N2GY0QE/ (Attachment 142).

Climate change will also pose risks to the Stage 5 project's export facilities which will inherently impact frontline communities in Southwest Louisiana. The Sabine Pass facility already demonstrated that extreme weather can exacerbate impacts on the surrounding area: in 2020, for example, Sabine Pass experienced significant unplanned emission releases due to Hurricane Laura—including 51.5 tons of methane, 7.5 tons of nitrogen oxide, and 64.4 tons of carbon monoxide.[311] And Sabine Pass is not the only major industrial facility to increase air pollution during hurricanes: Winter Storm Uri's impact on the Texas grid caused an estimated 3.5 million pounds of additional toxic air pollution at refineries and chemical plants—at many of the same facilities that released toxic air pollution during shutdown and start-up in response to Hurricane Harvey.[312]

As noted in Section II.C.1, DOE has acknowledged the importance of prioritizing the health of frontline communities,[313] which cannot be achieved without addressing climate change and the impact of climate driven storms. Sea level rise exacerbates the intensity of storms, the extent of impacts (e.g. height of waves and storm surge), and the need for mitigation (i.e. height of docks, levees, etc.).[314] NOAA projects that "sea levels along the coastline will rise an additional 10-12 inches by 2050[.]"[315] The report also predicts an "increase in the frequency of coastal flooding, even in the absence of storms of heavy rainfall."[316] 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 that DOE must address in determining whether the Stage 5 project is in the public interest.[317]

Consideration of the effects of sea-level rise (relative sea-level rise) is well within the scope of DOE's environmental impacts analysis. This recent evidence demonstrates that the myriad of risks to coastal infrastructure associated with sea-level rise will only get worse. For example, as outlined by the Coastal Protection and Restoration Authority ("CPRA") since

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[311] Bullard Center, Liquefying the Gulf Coast (Attachment 100) at 28.

[312] *Id.*

[313] Fact Sheet on Temporary Pause (Attachment 2).

[314] *See* NOAA Report (Attachment 136) at xiii, 2, 41, 60.

[315] NOAA News Release (Attachment 135).

[316] *Id.*

[317] Dokka, R., Shinkle K., *Rates of vertical displacement at benchmarks in the lower Mississippi Valley and the North Gulf Coast*, NOAA, http://geodesy noaa.gov/heightmod/NOAANOSNGSTR50.pdf (July 2004) (Attachment 143).

2016,[318] Louisiana's coastal wetlands are vulnerable to sea-level rise as a result of its low-lying shorelines and adjacent coastal environments. The CPRA has stated that 75 percent of Louisiana's land loss will be attributed to rising seas through 2067.[319] Coastal Louisiana faces some of the world's highest rates of relative sea-level rise, at 12±8 mm per year.[320] The sea-level is rising more rapidly along the Gulf Coast because coastal lands are sinking, compounding the impacts of sea-level rise in these areas. Louisiana has been losing roughly 25 square miles of land per year in recent decades.[321]

More broadly, the IPCC's February 2022 report highlights the increasing climate-related risks to coastal infrastructure like Sabine Pass and Stage 5. Because "[c]limate change impacts and risks are becoming increasingly complex and more difficult to manage," it is increasingly likely that "multiple climate hazards will occur simultaneously, . . . compounding overall risk[.]"[322] Noting that "[w]idespread, pervasive impacts to ecosystems, people, settlements, and infrastructure have resulted from observed increases in the frequency and intensity of climate and weather extremes," [323] 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.[324]

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[318] Governor's Advisory Commission on Coastal Protection, Restoration, and Conservation May 25, 2023 - 2023 Louisiana's Comprehensive Master Plan for Sustainable Coast, *available at* https://coastal.la.gov/wp-content/uploads/2023/06/230531_CPRA_MP_Final-for-web_spreads.pdf (hereinafter "2023 Coastal Master Plan") (Attachment 144).

[319] "Haase said state land-loss modeling concluded that 75% of the marsh loss [modeled from 2017 to 2067] was attributed to rising water levels." *See* Mark Schleifstein, *'We're screwed': The only question is how quickly Louisiana wetlands will vanish, study says*, NOLA.com (May 22, 2020), https://www.nola.com/news/environment/article_577f61aa-9c26-11ea-8800-0707002d333a html (Attachment 145).

[320] Jankowski, K., Tornqvist, T. & Fernandes, A., *Vulnerability of Louisiana's coastal wetlands to present-day rates of relative sea-level rise*, Nat. Commun. 8, 14792 (2017) https://www.nature.com/articles/ncomms14792 (Attachment 146); *see also* 2023 Coastal Master Plan (Attachment 144) at 42 (predicting "sea level rise of up to 2.5 ft over the next 50 years.").

[321] EPA, *What Climate Change Means for Louisiana*, Aug. 2016, https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-la.pdf (Attachment 147).

[322] *See* IPCC Impacts, Adaptation and Vulnerability (Attachment 92) at 18, B.5.

[323] *Id.* at SPM.B.1.1; *see also id.* at SPM.C.2.5 ("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).").

[324] *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.

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, well-being, food and water security, and cultural values in the near to long-term (high confidence)." [325] 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)."[326] The IPCC also highlights that "siting of infrastructure" has already "contributed to the exposure of more assets to extreme climate hazards increasing the magnitude of the losses (high confidence)." [327]

DOE must address these increasingly severe risks in determining whether the Stage 5 project is in the public interest. Even if DOE dismisses concerns about risks to the LNG terminal itself as within FERC's purview, DOE must still consider the increasing frequency and intensity of severe storms will ultimately impact the safety of LNG tanker traffic needed to transport the Stage 5 exports to the global market.

6. DOE cannot categorically exclude the application from NEPA review.

DOE previously adopted a categorical exclusion for LNG exports not involving new construction, codified at 10 C.F.R. Part 1021 Part D Appendix B, B5.7.[328] In December 2020, DOE modified that categorical exclusion to cover LNG export approvals and any associated transportation by marine vessel, without reference to construction of infrastructure.[329] DOE cannot invoke the B5.7 categorical exclusion because its adoption was arbitrary and unlawful. Alternatively, this proposal lacks the integral elements of an exempt project, precluding reliance on a categorical exclusion here.

a) 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

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[325] *Id.* at SPM.B.5.2.

[326] *Id.* at SPM.C.2.1.

[327] *Id.* SPM.B.1.6.

[328] 10 C.F.R. Part 1021 Part D Appendix B, B5.7 (2018).

[329] 10 C.F.R. Part 1021 Part D Appendix B, B5.7 (2021).

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*").[330] This is the exact opposite of *Freeport I*'s explicit and central holding. *Freeport I* held that **FERC** had no authority to prevent these impacts, specifically because **DOE** had retained "exclusive" authority to do so.[331] 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."[332] 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 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.[333] 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.[334] Insofar as DOE contends that these impacts can be

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[330] 85 Fed. Reg. at 25,341; *accord* Final Rule, 85 Fed. Reg. 78,197, 78,198.

[331] 827 F.3d at 40-41, 46.

[332] *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.

[333] U.S. DOE, Final Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States (Aug. 2014) at 27-28.

[334] 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/2012/applications/ord3638.pdf.

difficult to foresee, that affirms, rather than refutes, the need for case-by-case analysis.[335] 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.

The 2020 Categorical Exclusion's treatment of downstream impacts was also arbitrary. As with upstream impacts, DOE mistakenly asserted that some downstream impacts (downstream impacts relating to regasification and use of exported gas) were entirely outside the scope of NEPA analysis.[336] 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.[337] This is legally and factually incorrect. LNG exports are rapidly expanding, and this expansion depends upon and is caused by authorizations like the additional exports Sabine Pass has requested here. 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.[338] And even is such a fractional approach could be justified, it would require a different denominator: the number of ships in the habitat of the species at issue. LNG traffic—now and in the future—constitutes a larger and growing share of traffic *in the Gulf of Mexico*, where many of the species that will be impacted by Stage 5's proposed exports, including multiple listed species, live. Ship

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[335] *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).

[336] 85 Fed. Reg. at 78,202.

[337] The proposed rule ignored wildlife impacts entirely.

[338] *Sw. Elec. Power Co. v. EPA*, 920 F.3d 999, 1032 (5th Cir. 2019) (even a "very small portion" of a "gargantuan source of . . . pollution" may "constitute[] a gargantuan source of . . . pollution on its own terms.").

traffic to the West and East Coasts inflates the denominator but is irrelevant to many of these species.

b) The Proposed Exports Do 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."[339] This integral element is missing whenever a proposal *threatens* a violation; if there a possibility of such a violation, a project-specific NEPA analysis is required to evaluate that risk.

Here, increased exports threaten a violation of Executive Order 14,008, Tackling the Climate Crisis at Home and Abroad.[340] As noted, this order—like the Paris Accord, recent Glasgow Pact, and other commitments—affirms that "Responding to the climate crisis will require … net-zero global emissions by mid-century or before."[341] Increasing exports through mid-century (*i.e.*, 2050) is inconsistent with any plausible trajectory for achieving this goal, as recognized by the International Energy Agency.[342] Even if DOE somehow contends that giving a lifeline to gas exports can somehow be reconciled with the President's climate goals and policies, that surprising contention 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 … Federally-listed threatened or endangered species or their habitat," "state-listed" species, "Federally-protected marine mammals and Essential Fish Habitat," and species proposed for listing.[343] Potentially

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[339] 10 C.F.R Part 1021 Subpart D Appendix B.

[340] 86 Fed. Reg. 7619.

[341] *Id.* § 101.

[342] IEA, Net Zero by 2050 (Attachment 7), at 102-03.

[343] 10 C.F.R Part 1021 Subpart D Appendix B.

impacted species include the black rail, giant manta ray,[344] oceanic whitetip shark,[345] and Rice's whale (formerly designated as the Gulf of Mexico population of the Bryde's whale).[346] These species are all at risk from ship strikes and noise from vessel traffic related to the Stage 5 project—impacts that will be avoided unless DOE approves this application.[347] 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 to impact species and other protected resources is real. Ship strikes injure marine life, including listed whales,[348] sea turtles,[349] and giant manta rays.[350] Ship traffic also causes noise, which "can negatively impact ocean animals and ecosystems in complex ways."[351] 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."[352] Unsurprisingly, many animals display a suite of stress-related responses to increased noise. Because the proposed Stage 5 project will cause these impacts that would otherwise not occur, the proposal does not satisfy integral element 4.

In sum, DOE cannot categorically exclude this application from NEPA review. Rather, DOE must conduct a new or Supplemental EIS to evaluate the impacts of Stage 5's proposed LNG exports.

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[344] 83 Fed. Reg. 2916 (Jan. 22, 2018).

[345] 83 Fed. Reg. 4153 (Jan. 30, 2018).

[346] 86 Fed. Reg. 47,022 (Aug. 23, 2021).

[347] The potential for impacts to these species further violates integral element 1, because it threatens a violation of the Endangered Species Act and similar laws.

[348] David W. Laist et al., Collisions Between Ships and Whales, 17 MARINE MAMMAL SCIENCE 1, 35 (Jan. 2001), https://www mmc.gov/wp-content/uploads/shipstrike.pdf (Attachment 148) (describing ship strikes with large vessels as the "principal source of severe injuries to whales).

[349] National Oceanic and Atmospheric Administration Fisheries, Understanding Vessel Strikes (June 25, 2017), https://www fisheries.noaa.gov/insight/understanding-vessel-strikes (Attachment 149).

[350] National Oceanic and Atmospheric Administration Fisheries, Giant Manta Ray, https://www.fisheries noaa.gov/species/giant-manta-ray (Attachment 150).

[351] National Oceanic and Atmospheric Administration, Cetacean & Sound Mapping: Underwater Noise and Marine Life (Attachment 151).

[352] Id.

D. DOE Should Conduct a New Protest and Intervention Period After Completing Its Updated General Studies.

On January 26, 2024, DOE announced a temporary pause on pending non-FTA applications while DOE "take[s] a hard look at the impacts of LNG exports on energy costs, America's energy security, and our environment."[353] The Environmental Advocates embrace DOE's decision to take a more rigorous review of these impacts. As noted, the current DOE studies lack the information necessary to inform a robust public interest analysis. While we appreciate DOE's commitment to accept public comment on its updated general studies, we urge DOE to re-open the protest/intervention period in all impacted non-FTA application dockets to enable public commenters the opportunity to raise project-specific concerns that may be informed by DOE's updated general studies. That applies to Sabine Pass's application along with all of the non-FTA applications currently pending with DOE.

E. In the Alternative, If DOE Does Authorize Stage 5 Exports, It Must Impose the Standard 7-year Commencement Deadline.

For the reasons stated above, DOE should reject Sabine Pass's application to export LNG from the new Stage 5 project. If DOE nevertheless decides to authorize these exports, it must apply its standard seven-year commencement deadline. Sabine Pass acknowledges this DOE practice and does not contest that it should apply to Stage 5.[354] Nevertheless, Sabine Pass asks for its authorization to "commenc[e] on the earlier of the date of first export or seven years from the date the requested authorization is granted by DOE/FECM." While this references a seven-year period, the phrasing could be read to imply that the authorization could "commence" at the seven-year mark, whether or not Stage 5 is actually in operation. DOE should ensure that any authorization will *expire* if Stage 5 has not commenced exports within seven years.

The same basic reasoning for the seven-year deadline applies to Stage 5: DOE must ensure that the underlying analyses remain valid and that old, stale projects do not cloud the regulatory or market analysis of potential new entrants.[355] Any narrow exception for "uprate"

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[353] Statement from President Biden on LNG Export Pause (Jan. 26, 2024), *https://www.whitehouse.gov/briefing-room/statements-releases/2024/01/26/statement-from-president-joe-biden-on-decision-to-pause-pending-approvals-of-liquefied-natural-gas-exports/* (Attachment 152).

[354] Application at 13 & n.21.

[355] 88 Fed. Reg. 25,276-77.

amendments[356] does not apply because, for example, Stage 5: (1) requires new construction of significant new project infrastructure, (2) is subject to a separate "final investment decision" by Cheniere, and (3) represents an entirely new project that is larger than most other, standalone LNG projects. Because Stage 5 poses the same risks as other major LNG expansion projects,[357] DOE should subject Stage 5 to the standard seven-year commencement deadline.

III. Conclusion

For the reasons stated above, Fishermen Involved in Sustaining our Heritage (FISH), For a Better Bayou, Habitat Recovery Project, Healthy Gulf, Louisiana Bucket Brigade, Micah Six Eight Mission, The Vessel Project of Louisiana, and Sierra Club's motion to intervene should be granted. The proposed application is not consistent with the public interest and should be denied. The Russian invasion of Ukraine demonstrated yet another reason why the world needs to transition away from fossil energy as quickly as possible; Sabine Pass's proposal for a project that will not start exports until the 2030s is not part of a solution to current geopolitical issues. And DOE must not approve the application without addressing evidence that recent gas price spikes call into question DOE's prior analyses and assumptions about the effects of increased exports on domestic gas production and prices. Finally, DOE cannot approve the applications without taking a hard look at foreseeable environmental impacts occurring throughout the LNG lifecycle.

Ultimately, the United States and nations around the globe have set ambitious but necessary goals for reducing greenhouse gas emissions during the proposed authorization period. Increasing gas exports and use cannot be reconciled with those goals, and this proposal should be denied.

Submitted this 18th day of June, 2024,

/s/ Louisa Eberle
Louisa Eberle
Staff Attorney
Sierra Club

Lori Cooke
SWLA Program Coordinator
Louisiana Bucket Brigade
lori@labucketbrigade.org

[356] 88 Fed. Reg. 25272-01, 25,275 n. 34 ("If an authorization holder has already commenced export operations from its facility and is requesting to export additional volumes, this term is unnecessary and is therefore omitted from successive orders.").

[357] *See, e.g.*, Corpus Christi Liquefaction Stage III, LLC, DOE/FE Order 4490 at 49, https://www.energy.gov/sites/prod/files/2020/02/f71/ord4490.pdf; Freeport LNG Expansion, DOE/FE Order 4374 at 48, https://www.energy.gov/sites/prod/files/2019/05/f63/ord4374.pdf.

1536 Wynkoop St. Suite 200
Denver, CO 80202
louisa.eberle@sierraclub.org
415-977-5753

Travis Dardar
FISH
DardarTravis68@gmail.com

James Hiatt
Director
For a Better Bayou
PO Box 7262
Lake Charles, LA 70606
337-515-0655
James@betterbayou.net

Alyssa Portaro
Founder/Director
Habitat Recovery Project
1636 Arledge Rd
Vinton, LA 70668
alyssaportaro@gmail.com
973-632-1695

(337) 853-4051

Cynthia P. Robertson
Executive Director
Micah Six Eight Mission
624 W. Verdine
Sulphur, LA 70663
cindy@micah68mission.org
337-888-6652

Roishetta Ozane
Director
The Vessel Project of Louisiana
vesselproject@gmail.com
(337)502-9322

Scott Eustis
Community Science Director
Healthy Gulf
PO Box 2245
New Orleans, LA 70176
scott@healthygulf.org
504 525 1528 x212

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

SIERRA CLUB CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

Pursuant to 10 C.F.R. § 590.103(b), I, Louisa Eberle, 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 Denver, CO this 18th day of June, 2024

/s/ Louisa Eberle
Louisa Eberle
Staff Attorney
1536 Wynkoop St. Suite 200
Denver, CO 80202
louisa.eberle@sierraclub.org
415-977-5753
Attorney for Sierra Club

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

SIERRA CLUB VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Louisa Eberle, 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 at Denver, CO this 18th day of June, 2024

/s/ Louisa Eberle
Louisa Eberle
Staff Attorney
1536 Wynkoop St. Suite 200
Denver, CO 80202
louisa.eberle@sierraclub.org
415-977-5753
Attorney for Sierra Club

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 590.107, I, Louisa Eberle, 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 June 18, 2024.

/s/ Louisa Eberle
Louisa Eberle
Staff Attorney
1536 Wynkoop St. Suite 200
Denver, CO 80202
louisa.eberle@sierraclub.org
415-977-5753
Attorney for Sierra Club

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
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IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

FISHERMAN INVOLVED IN SUSTAINING OUR HERITAGE CERTIFIED
STATEMENT OF AUTHORIZED REPRESENTATIVE

Pursuant to 10 C.F.R. § 590.103(b), I, Travis Dardar, hereby certify that I am a duly authorized representative of Fisherman Involved in Sustaining our Heritage (FISH), and that I am authorized to sign and file with the Department of Energy, Office of Fossil Energy and Carbon Management, on behalf of Fishermen Involved in Sustaining our Heritage, the foregoing documents and in the above captioned proceeding.

Dated at Cameron, LA this 18th day of June, 2024

/s/ Travis Dardar
Travis Dardar
FISH
DardarTravis68@gmail.com

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

FISHERMAN INVOLVED IN SUSTAINING OUR HERITAGE VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Travis Dardar, 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 at Cameron, LA this 18th day of June, 2024

/s/ Travis Dardar
Travis Dardar
FISH
DardarTravis68@gmail.com

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

FOR A BETTER BAYOU CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

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

Dated at Lake Charles, LA this 18th day of June, 2024

/s/ James Hiatt
James Hiatt
Director, For a Better Bayou
PO Box 7262
Lake Charles, LA 70606
337-515-0655
James@betterbayou.net

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

FOR A BETTER BAYOU VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, James Hiatt, 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 at Lake Charles, LA this 18th day of June, 2024

/s/ James Hiatt
James Hiatt
Director, For a Better Bayou
PO Box 7262
Lake Charles, LA 70606
337-515-0655
James@betterbayou.net

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
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IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

HABITAT RECOVERY PROJECT CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

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

Dated at Vinton, LA this 18th day of June, 2024

/s/ Alyssa Portaro
Alyssa Portaro
Founder/Director
Habitat Recovery Project
1636 Arledge Rd
Vinton, LA 70668
alyssaportaro@gmail.com
973-632-1695

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

HABITAT RECOVERY PROJECT VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Alyssa Portaro, 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 at Vinton, LA this 18th day of June, 2024

/s/ Alyssa Portaro
Alyssa Portaro
Founder/Director
Habitat Recovery Project
1636 Arledge Rd
Vinton, LA 70668
alyssaportaro@gmail.com
973-632-1695

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
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IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

HEALTHY GULF CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

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

Dated at New Orleans, LA this 18th day of June, 2024

/s/ Scott Eustis
Scott Eustis
Community Science Director
Healthy Gulf
PO Box 2245
New Orleans, LA 70176
scott@healthygulf.org
504 525 1528 x212

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

HEALTHY GULF VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Scott Eustis, 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 at New Orleans, LA this 18th day of June, 2024

/s/ Scott Eustis
Scott Eustis
Community Science Director
Healthy Gulf
PO Box 2245
New Orleans, LA 70176
scott@healthygulf.org
504 525 1528 x212

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
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IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

LOUISIANA BUCKET BRIGADE CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

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

Dated at Sulphur, LA this 18th day of February, 2024

/s/ Lori Cooke
Lori Cooke
SWLA Program Coordinator
Louisiana Bucket Brigade
lori@labucketbrigade.org
(337) 853-4051

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

LOUISIANA BUCKET BRIGADE VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Lori Cooke, 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 at Sulphur, LA this 18th day of June, 2024

/s/ Lori Cooke
Lori Cooke
SWLA Program Coordinator
Louisiana Bucket Brigade
lori@labucketbrigade.org
(337) 853-4051

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
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IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

MICAH SIX EIGHT MISSION CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

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

Dated at Sulphur, LA this 18th day of June, 2024

/s/ Cynthia P. Robertson
Cynthia P. Robertson
Executive Director
Micah Six Eight Mission
624 W. Verdine
Sulphur, LA 70663
cindy@micah68mission.org
337-888-6652

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

MICAH SIX EIGHT MISSION VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Cynthia Robertson, 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 at Sulphur, LA this 18th day of June, 2024

/s/ Cynthia P. Robertson
Cynthia P. Robertson
Executive Director
Micah Six Eight Mission
624 W. Verdine
Sulphur, LA 70663
cindy@micah68mission.org
337-888-6652

UNITED STATES OF AMERICA
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IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
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THE VESSEL PROJECT OF LOUISIANA CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

Pursuant to 10 C.F.R. § 590.103(b), I, Roishetta Ozane, hereby certify that I am a duly authorized representative of The Vessel Project of Louisiana, 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 Vessel Project of Louisiana, the foregoing documents and in the above captioned proceeding.

Dated at Lake Charles, LA this 18th day of June, 2024

/s/ Roishetta Ozane
Roishetta Ozane
Director
The Vessel Project of Louisiana
vesselproject@gmail.com
(337)502-9322

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Sabine Pass Liquefaction, LLC	)	
and Sabine Pass Liquefaction Stage V, LLC	)	FE Docket No. 24-27-LNG

THE VESSEL PROJECT OF LOUISIANA VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Roishetta Ozane, 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 at Lake Charles, LA this 18th day of June, 2024

/s/ Roishetta Ozane
Roishetta Ozane
Director
The Vessel Project of Louisiana
vesselproject@gmail.com
(337)502-9322