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910 Julia Street New Orleans, LA 70113 TEL.: (305) 336-2258

July 19, 2023

U.S. Department of Energy Office of Fossil Energy and Carbon Management Office of Resource Sustainability Division of Natural Gas Regulation

RE: Magnolia LNG, LLC Amendment Request (FE Docket No. 13-132-LNG) To whom it may concern:

Sierra Club, Healthy Gulf, For A Better Bayou, The Vessel Project of Louisiana, and Micah 6:8 Mission (hereinafter collectively "Sierra Club") respectfully resubmit the attached protest and intervention. Sierra Club has already intervened in this docket and although resubmission is not necessary, Sierra Club has done so out of an abundance of caution. Should the Department of Energy ("DOE") conclude that re-intervention is necessary, the Department must provide notice and an opportunity to do so. Failing that, Sierra Club requests that DOE treat this submission as a late-filed intervention on the amendment.

On May 20, 2023, Magnolia LNG, LLC ("Magnolia") filed its Answer in Opposition to the Sierra Club's protest and intervention. In its Answer in Opposition Magnolia requested an authorization extension of 60 months (5 years), which is 31.5 months (approximately 2.6 years) more than originally requested. On June 20, 2023, the DOE promptly informed Magnolia that its new commencement extension constituted a material change and required an amendment to Magnolia's pending request or a new request for an extension. Instead on July 11, 2023, Magnolia submitted a letter to the DOE requesting that the Department consider portions of its May 20, 2023



filing an amendment to its original extension request. This directly conflicts with the DOE's standard operating procedures, which requires that the applicant amend its application whenever there are changes in material facts. *See* 10 C.F.R. § 590.204. Accordingly, DOE should deny Magnolia's July 11, 2023 request without prejudice, as procedurally improper, and permit Magnolia to submit a proper amendment request.

Should the DOE instead treat Magnolia's May 20 filing as an amendment, the DOE should issue public notice and allow a new opportunity for public interventions, protests, and other comments. Existing movant-intervenors must have an opportunity to supplement prior filings with opposition to the increased duration of this extension. Interested stakeholders who did not previously intervene or protest should have an opportunity to do so. Entities that may not have previously intervened or have been concerned about Magnolia's requested extension into 2025 may very well be concerned about a 60-month extension into 2028.

Below is a brief summary of some of the issues presented by Magnolia's proposed amendment, which Sierra Club protests. As previously stated in Sierra Club's protest and intervention, Magnolia estimated that it will take 36 months from the start of construction to first export. However, Magnolia is not in a position to start construction as it has not made a final investment decision, appears not to have the contract to support such a decision, and has not informed DOE of its expected schedule. None of this is addressed in Magnolia's Answer in Opposition. Given this complete lack of activity or explanation, Magnolia is not entitled to its initially-requested *28.5-month* request, let alone an unprecedented *60-month* extension request.

Magnolia's request to extend its export commencement deadline by 60 months (5 years) is unprecedented.¹ A request of this magnitude would give Magnolia 12 years from its initial

¹ DOE has previously approved extension requests for 6 non-FTA orders: *Golden Pass LNG Terminal*

authorization on November 30, 2016, to commence exports. DOE recently denied Lake Charles Exports, LLC's second extension request, which when coupled with their first extension would have given them an additional 5.5 years to commence exports under Order No. 3324-A and nearly 4.5 years under Order No. 4011. The lengthiness of these two requests was a contributing factor in DOE's denial of Lake Charles Exports, LLC's request. Here, Magnolia attempts to circumvent DOE's seven-year commencement deadline and public interest analysis, which DOE has acknowledged becomes stale after seven years, by requesting an additional five years from the get go. Due to the lengthy nature of this request and the evolving nature of natural gas market and its supporting analyses, Magnolia's amendment request should be denied.

Additionally, Magnolia submitted this alleged amendment to its extension after the DOE issued its Policy Statement on Export Commencement Deadlines in Authorizations to Export Natural Gas to Non-Free Trade Agreement Countries ("Policy Statement"). While the DOE stated its intention to treat Magnolia's pending 28.5-month extension request as exempt from the Policy Statement, Magnolia is now attempting to avoid application of the Policy Statement to a second, 31.5-month extension by belatedly shoehorning it into this prior extension. This represents an abuse of the DOE's limited exemption and runs counter to the rationale established in the Policy Statement itself. Because Magnolia submitted this amendment after the Policy Statement was issued, the Policy Statement should apply to Magnolia's amendment request. And consistent with the Policy Statement, DOE should deny Magnolia's 60-month extension request because it would

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

contribute to the authorization overhang and the inaccurate picture of investment-backed commitments involving U.S. LNG.

For the reasons stated above and further elaborated upon in Sierra Club's attached intervention and protest, DOE should deny Magnolia's initial and amended request for commencement extension.

Sincerely,

/s/ Lisa M. Diaz Lisa M. Diaz, La. Bar No. 39418 910 Julia Street New Orleans, LA 70113 lisa.diaz@sierraclub.org (305)336-2258 (tel) Attorney for Sierra Club

UNITED STATES OF AMERICA DEPARTMENT OF ENERGY OFFICE OF FOSSIL ENERGY

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-LNG

Motion to Intervene and Protest of Sierra Club, Healthy Gulf, For A Better Bayou, The Vessel Project of Louisiana, and Micah 6:8 Mission

In an order issued November 30, 2016,¹ DOE authorized Magnolia LNG to export liquefied natural gas to "non free trade agreement" or ("non-FTA") countries, with an authorization valid for a term of 20 years.² DOE authorized Magnolia LNG to export liquified natural gas to non-FTA countries, with a requirement to commence commercial operations by November 30, 2023.³

Nearly five and a half years have passed since Magnolia LNG's authorization and it has still not commenced construction of the approved facility. Magnolia LNG, LLC now asks that the DOE extend their export commencement date by 29 months, from November 30, 2023 till April 15, 2026. Sierra Club has been granted intervention in this docket, but in an abundance of caution, Sierra Club moves to intervene again specifically in response to this extension request. Healthy Gulf, For A Better Bayou, The Vessel Project of Louisiana, and Micah 6:8 Mission move to intervene now. Sierra Club, Healthy Gulf, For A Better Bayou, The Vessel Project of Louisiana, and Micah 6:8 Mission (collectively "Environmental Advocates") protest the request filed by Magnolia LNG, LLC in the above docket, pursuant to 10 C.F.R. §§ 590.303(b) and § 590.304.

DOE should deny the request for an extension. Magnolia has not shown good cause for the extension, has not yet started construction, and makes only general and threadbare reference to the COVID-19 pandemic in purported justification for its delay. Magnolia requests a 29-month extension

https://www.energy.gov/sites/prod/files/2020/12/f81/Magnolia%20Ext.%20Ord.pdf

³ Order 3909 at 161.

¹ DOE/FE Order 3909, available at https://www.energy.gov/sites/prod/files/2016/11/f34/ord3909.pdf

² Order 3909 at 161. On December 10, 2020, DOE granted Magnolia LNG, LLC's request to extend the term for authorizations to free trade and non-FTA countries through December 2050. *See* DOE, *Order Extending Export Term for Authorizations to Free Trade and Non-Free Trade Agreement Nations Through December 31, 2050, and Amending Pending Amendment Application*, available at

but its final environmental impact statement states that it will take the company a minimum of 36 months to place its first liquefaction train into service.⁴ Thus, Magnolia LNG will ultimately require an additional extension from both DOE and the Federal Energy Regulatory Commission.

The Environmental Advocates submit these comments at a time when 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.⁵ This shift to transition off fossil fuels is apparent by the EU's aggressive steps toward ensuring energy security and reducing emissions.⁶ This transition by not only the EU but the world is also essential to avoiding catastrophic climate change: the International Energy Administration ("IEA") has explained that further expansion of global LNG exports cannot be part of the path to net-zero emissions.⁷ Magnolia LNG's request to extend its construction timeline is not part the solution.

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

I. Intervention

As noted, Sierra Club has already intervened in this docket. Healthy Gulf, For A Better Bayou, The Vessel Project of Louisiana, and Micah 6:8 request to intervene in this docket. DOE's rules do not articulate any particular standard for timely intervention, and as such, intervention should be granted liberally. DOE merely requires would-be-intervenors to set out the "facts upon

⁴ FERC, *Final Environmental Impact Statement for Magnolia LNG and Lake Charles Expansion Projects under CP14-*347 et al., at 2-24 (eLibrary no. 20151113-4001) (Nov. 13, 2015) (hereinafter "FERC FEIS"). As of April 30, 2023, no construction had commenced at the Magnolia LNG export site. *See* FERC, *Magnolia LNG, LLC submits Monthly Report no. 83 covering the period April 1, 2023, to April 30, 2023 for the Magnolia LNG Liquefaction Project under CP 14-347, et al.*, at 3 (eLibrary no. 20230501-5395) (May 1, 2023).

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

⁶ IEEFA, Global LNG Outlook 2023-27, available at https://ieefa.org/resources/global-lng-outlook-2023-27 (Feb. 2023) ("through 2030 EU gas demand could fall by 40% or more, driven by legally binding emissions reduction targets, policy measures to ensure energy security and demand destruction stemming from high prices.") (hereinafter "Global LNG Outlook") (attached as Attachment A).

⁷ International Energy Agency, Net Zero by 2050, at 102 (May 2021), available at https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf (hereinafter "IEA, Net Zero by 2050") (attached as Attachment B).

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 Magnolia LNG's cursory application. The organizations' interests are based on the impact the proposed extension of operation commencement will have on their members and missions.

A. Sierra Club

The requested extension will harm Sierra Club's members by increasing the prices they pay for energy, including both gas and electricity. Absent the requested extension, Magnolia LNG's export authorization would lapse, preventing the project from reaching financial investment decision or being constructed. Thus, the requested extension will essentially 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. Sierra Club's members will pay more for energy as a result.

The requested commencement extension 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. As DOE has recognized, increasing LNG exports will increase gas production,⁸ and increasing gas production increases ozone pollution, including risking creation of new or expanded ozone non-attainment areas or exacerbating existing non-attainment.⁹ As noted these impacts are unlikely to occur without the requested extension. Sierra Club has over 3,200 members in Louisiana, including many in the Barnett Shale region and other areas that will likely be impacted by increased gas production.

The proposed Magnolia LNG project will also require significant shipping traffic that would

⁸ See, e.g., U.S. EIA, Effect of Increased Levels of Liquefied Natural Gas Exports on U.S. Energy Markets (Oct. 2014) at 12, *available at* https://www.eia.gov/analysis/requests/fe/pdf/lng.pdf (explaining that "[n]atural gas markets in the United States balance in response to increased LNG exports mainly through increased natural gas production," and "[a]cross the different export scenarios and baselines, higher natural gas production satisfies about 61% to 84% of the increase in natural gas demand from LNG exports," with "about three-quarters of this increased production [coming] from shale sources.").

⁹ U.S. DOE, Final Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States (Aug. 2014) at 27-32, *available at* https://www.energy.gov/sites/prod/files/2014/08/f18/Addendum.pdf.

not occur if DOE denies the extension and the project does not move forward. The associated vessel or tanker traffic will emit air pollutants such as carbon monoxide and ozone-forming nitrogen oxides. Increased ship traffic will also harm wildlife that each organization's members enjoy viewing, etc., including the recently-listed threatened giant manta ray,¹⁰ threatened oceanic whitetip shark,¹¹ and endangered Rice's whale (formerly designated as the Gulf of Mexico population of the Bryde's whale).¹² The proposed facility will also potentially destroy essential habitat for the eastern black rail,¹³ a recently-listed threatened marsh bird.

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, exports from the Magnolia LNG project that will be enabled by the requested extension 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 Section II.4.b below*. 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 flooding and heat waves, impact members' health, recreation, and livelihoods.¹⁴ Increased frequency and severity of wildfires emits smoke that impacts members' health, harms ecosystems members depend upon, and threatens members' homes. Proposals, such as this one, that encourage long-term use of carbon-intensive fossil fuels will increase and prolong greenhouse gas emissions, increasing the severity of climate change and thus of these harms.

In summary, the requested extension by Magnolia LNG will harm Sierra Club its members in numerous ways. Sierra Club accordingly contends that the application should be denied or

¹⁰ Final Rule to List the Giant Manta Ray as Threatened Under the Endangered Species Act, 83 Fed. Reg. 2,916 (Jan. 22, 2018).

¹¹ Listing the Oceanic Whitetip Shark as Threatened Under the Endangered Species Act, 83 Fed. Reg. 4,153 (Jan. 30, 2018).

¹² Technical Corrections for the Bryde's Whale (Gulf of Mexico Subspecies), 86 Fed. Reg. 47,022 (Aug. 23, 2021).

¹³ Threatened Species Status for Eastern Black Rail With a Section 4(d) Rule, 85 Fed. Reg. 63,764 (Oct. 8, 2020).

¹⁴ Zahra Hirji and Brianna Sacks, *This Louisiana Town Is A Bleak Forecast Of America's Future Climate Crisis*, BuzzFeedNews.com (June 21, 2021), available at https://www.buzzfeednews.com/article/zahrahirji/lake-charles-hurricane-disaster-recovery-climate-change (attached as Attachment C).

conditioned, as further described in the following protest.

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

Lisa Diaz Associate Attorney 910 Julia Street New Orleans, LA 70113 lisa.diaz@sierraclub.org (305)336-2258

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

B. 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 facilities. 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), Sierra Club identifies the following person for the official service list:

Naomi Yoder Staff Scientist P.O. Box 6626 Houston, TX 77266 naomi@healthygulf.org (504)525-1528 ext. 213

Raleigh Hoke Campaign Director 935 Gravier Street, Ste. 700 New Orleans, LA 70112 (504)525-1528 ext. 204

C. 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. For A Better Bayou hosts events to educate community members on the world-wide 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 Magnolia LNG facility will impact For A Better Bayou's work and mission by producing harmful air and water pollution which will deter members from engaging in outdoor activities in the region. 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 P.O. Box 7262 Lake Charles 70606 james@betterbayou.net (337)515-0655

D. 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 Magnolia LNG facility will contribute to climate change which will increase storm intensity requiring additional aid and disaster relief. 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

E. Micah 6:8 Mission

Micah 6:8 Mission is a 501(c)(3) organization in Sulphur, Louisiana. Micah 6:8 Mission employees two employees who work with unhoused and low-income individuals to ensure that their basic needs are being met, providing tents, blankets, over the counter medication, toiletries, and food. Micah 6:8 Mission also provides meals to the community they serve in Sulphur on Saturdays and Sundays. In addition to Micah 6:8 Mission's humanitarian work the organization employs several independent contractors as educators, hosting community events such as shrimp boils and nature walks, educating the community on the toxic effects facilities like Magnolia LNG will have on land, water, and air quality. This work will be directly affected by the construction and operation of the proposed facility through the increase in greenhouse gases which will fuel stronger natural disasters and degrade the air and water quality in the region, detrimentally impacting the health and well-being of the community. Micah 6:8 Mission states that the exact name of the movant is Micah 6:8 Mission, and the movant's principal place of business is 624 West Verdine Street, Sulphur, LA 70663.

Pursuant to 10 C.F.R. § 590.303(d), Micah 6:8 Mission identifies the following person for the official service list:

Cynthia Robertson Director 624 West Verdine Street Sulphur, LA 70663 cindy@micah69mission.org

II. Protest

The requested extension of the in-operation deadline should be denied because Magnolia has failed to demonstrate good cause for the extension and because an extension would be contrary to the public interest. 15 U.S.C. § 717b(a). Magnolia LNG's cursory application relies on FERC's approval of a similar extension request.¹⁵ But as DOE recently explained in denying Lake Charles

¹⁵ FERC, Letter order granting Magnolia LNG, LLC's et al 09/11/2020 request of extension of time until and including

LNG's indistinguishable extension application, the fact that FERC has granted an extension does not mean that DOE will, or should be expected to, grant a parallel extension.¹⁶ More broadly, "when reviewing an application for export authorization," DOE evaluates "economic impacts, international impacts, security of natural gas supply, and environmental impacts, among others."¹⁷ This standard should apply to amendments that alter the underlying public interest analysis, like the requested extension. Here, as a result of the elapsed time and changed circumstances since the initial authorization was issued, that authorization is not determinative, and each of the public interest factors weighs against granting Magnolia LNG's request.

A. Magnolia LNG fails to demonstrate good cause for the requested extension

1. Magnolia is not working to complete the project.

The DOE has previously examined whether there was "good cause" for granting in-operation extensions.¹⁸ To do so, DOE considered whether, among other things, the company was "working to complete the export facilities necessary to commence its approved exports[.]"¹⁹ Additionally, the DOE issued a policy statement on April 21, 2023, addressing extensions to export commencement deadlines in non-FTA orders.²⁰ Although Magnolia LNG submitted its request before the issuance of the policy statement, the reasoning from the policy statement should apply to this request.²¹ Here,

¹⁸ DOE/FE ORDER 3252-B, 3868-A, 4010-A, available at https://www.energy.gov/sites/prod/files/2020/10/f79/ord3252b%2C%203868a%2C%204010a.pdf.

¹⁹ *Id*. at 6.

^{04/15/2026} to complete construction etc. of the Magnolia LNG and Lake Charles Expansion Projects under CP14-347 et al., (eLibrary no. 20201007-3041) (Oct. 7, 2020).

¹⁶ DOE/FE Order No. 3868-C, at 18, available at https://www.energy.gov/sites/default/files/2023-04/ord3868-C_4010-B.pdf

¹⁷ DOE/FE Order No. 4010, FE Docket No. 16-109-LNG at 14-15 (June 29, 2017), available at https://www.energy.gov/sites/prod/files/2017/06/f35/ord4010.pdf.

²⁰ See U.S. Dep't of Energy, Policy Statement on Export Commencement Deadlines in Authorizations to Export Natural Gas to Non-Free Trade Agreement Countries, 88 Fed. Reg. 25,272 (forthcoming) (signed on Apr. 21, 2023), available at https://www.energy.gov/sites/default/files/2023-04/Commencement%20Ext.%20Policy%20Statement%20-%20FINAL%2004-21-23%20signed%20with%20blurb_0.pdf (hereinafter "Policy Statement").

²¹ DOE/FECM ORDER 3868-B, 4010-B, at 5 n. 26, available at https://www.energy.gov/sites/default/files/2023-04/ord3868-C_4010-B.pdf.

Magnolia LNG's request fails to demonstrate that it is working to complete the project, therefore their request should be denied for failing to show good cause.

Magnolia LNG argues that the delay is justified because of "unforeseeable developments in the global LNG market" blaming the COVID -19 pandemic and "its resulting impacts on the global energy economy" for its failure in entering into long-term offtake contracts.²² This change in market conditions may have impacted the wisdom of proceeding with the project, but nothing in this request demonstrates that it impacted Magnolia LNG's ability to do so. In fact, Magnolia LNG states that in May 2020 it was purchased by a subsidiary of Glenfarne, "an infrastructure and energy asset investor, developer, owner, and operator with longstanding experience in the energy sector and a solid financial foundation[.]"²³ However, even under the ownership of an experienced infrastructure and energy asset investor Magnolia LNG has failed to reach final investment decision ("FID") in the last three years and has only been able to obtain non-binding purchase contracts.²⁴ Thus, where there are steps that an applicant could be taking to proceed with a project such as reaching FID, but where the applicant chooses not to do so, there is not good cause for an extension.

Although DOE does not require a strict barrier to completion or evidence that Magnolia LNG was truly prevented from meeting their November 2023 deadline, DOE should nonetheless require more from applicants to demonstrate good cause. Here, Magnolia LNG has not demonstrated that the COVID-19 pandemic impacted its ability to proceed in any way other than by reducing global demand for LNG. In its request, Magnolia did not allege nor did it demonstrate that it was ready to begin construction but was unable to due to public health concerns relating to workforce, supply chain issues, etc. Instead, Magnolia stated that it slowed its efforts to "effectively market its LNG."²⁵ However, as DOE noted in its policy statement, Venture Global Calcasieu Pass, LLC constructed and began operating its LNG export facility within three years from the date it received its non-FTA

²² Magnolia LNG, LLC, Request of Magnolia LNG, LLC for Limited Extension to Start Date of Term of Authorization, Docket No. 13-132-LNG (Mar. 20, 2023) at 7 (hereinafter "Magnolia Extension Request").

²³ Id.

²⁴ *Id.* at 7; Sierra Club, U.S. LNG Export Tracker, available at https://www.sierraclub.org/dirty-fuels/us-lng-export-tracker (last visited May 10, 2023).

²⁵ Magnolia Extension Request, *supra* note 22 at 7.

authorization in spite of the hurdles placed by the COVID-19 pandemic.²⁶

There are simply no particular facts in Magnolia's request to support the conclusion that, even if Magnolia LNG had wanted to, it would have been unable to proceed on the approved schedule and meet the current deadline. In fact, Magnolia LNG's current cursory request is inadequate as it falls short of explaining anything the company has done. The request fails to state whether the company has secured any long-term offtake contracts nor does it identify any steps taken to construct the project and it does not describe any efforts taken by Magnolia to complete the project. Thus, the request does not support good cause for granting an extension.

2. Magnolia will need an unprecedent second extension.

In its recent decision denying Lake Charles LNG's request for an extension, DOE explained that the agency had not previously granted a second extension for a single project. Magnolia LNG, if it moves forward at all, would also need such an unprecedented second extension.

Magnolia requests that its deadline for first exports be extended to April 15, 2026. Magnolia does not argue that it will actually be able to export gas by that time, nor could it. Even if Magnolia were to start construction today, it would not meet this target: Magnolia estimates that it will take 36 months from the start of construction to first export.²⁷ But Magnolia is not in a position to start construction any time soon: it has not made a final investment decision, appears not to have the contracts it would need to support such a decision, and has not informed DOE of its expected schedule.

Magnolia's failure to even suggest (much less demonstrate) that it would actually be able to export gas by the requested extended deadline further undermines Magnolia's argument that it has good cause for an extension. The record plainly demonstrates that even if DOE were to grant this extension, Magnolia would need another one as well. But as DOE has recognized, DOE has never issued multiple extensions for a single export authorization, and Magnolia offers no more facts or argument in support of such an extension than what DOE appropriately found to be insufficient in its recent Lake Charles order.

²⁶ Policy Statement, *supra* note 20 at 13.

²⁷ FERC FEIS, *supra* note 4 at 2-24.

B. In the alternative, even if DOE concludes that Magnolia LNG is working towards project completion, DOE still must revisit numerous findings underlying its initial public interest determinations.

Even if DOE believes that Magnolia LNG has shown that it is still working to complete the project (it has not), DOE must still determine whether the extension would alter the public interest determination underlying the export authorizations. For the reasons explained below, significant factual changes have undermined DOE's initial public interest analysis, therefore DOE should deny the extension as contrary to the public interest.

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

In deciding whether to grant the requested extension, nothing prohibits DOE from revisiting determinations made in the initial export authorizations, whether or not circumstances have changed or those determinations have otherwise gone stale. No one is entitled to an extension request. Pursuant to 10 C.F.R. § 590.404, DOE may "attach such conditions thereto as may be required by the public interest." Thus, DOE may extend the in-operation deadline, but DOE is not required to do so. Accordingly, in deciding whether to grant an extension request, DOE therefore should and must consider whether such a request is in the public interest based on the particular facts at issue.

If DOE agrees with its prior determinations and their bases remain valid, such consideration would be straightforward. But if DOE disagrees with those prior conclusions, or if changed circumstances undermine those conclusions, there is no justification for compounding the error by giving Magnolia LNG additional time to complete a project that is not in the public interest. Reconsidering prior determinations in response to an extension request is not a collateral or out-of-time attack on the initial authorization. The initial authorization is still there. Insofar as Magnolia LNG or any developer wishes to claim the benefit of the original authorization, they may continue to do so, provided that they meet the current in-operation deadline in November 2023. But where, as here, a developer asks that the initial authorization be reopened for purposes of changing the commencement of operations deadline, it is appropriate to reopen it for other purposes as well. DOE has broad authority to "amend … orders … as it may find necessary or appropriate." 15 U.S.C. §

717*o*. And if DOE were to deny an extension request after reconsidering one or more conclusions from a prior order, this would not inherently amend the prior order at all.

The DOE has noted that "its public interest analysis supporting each non-FTA authorization under NGA section 3(a) may become stale after seven years, as the natural gas market and supporting analyses continue to evolve."²⁸ As previously stated, the DOE considers "economic impacts, international impacts, security of natural gas supply, and environmental impacts, among others" when evaluating whether an application to export LNG to non-FTA counties remains in the public interest.²⁹ Here, subsequent events make it unreasonable to rely on its initial authorizations without further analysis.

Under the Administrative Procedure Act, courts must set aside agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."³⁰ The Supreme Court has explained that agency actions are arbitrary and capricious "if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise."³¹ Thus, in light of this significant new data contradicting DOE's prior conclusions, DOE must critically evaluate the findings in its initial authorizations and decline to blindly approve Energy Transfer's extension request. DOE must examine whether the request complies with the public interest based on the facts in this record.

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

DOE has historically given particular emphasis to "the domestic need for the natural gas proposed to be exported" and "whether the proposed exports pose a threat to the security of domestic natural gas supplies."³² Recent data undermines any conclusion that LNG exports have little impact

²⁸ Policy Statement, *supra* note 20 at 16-17.

²⁹ *Id.* at 6.

³⁰ 42 U.S.C. § 7607(d)(9)(A).

³¹ Motor Vehicle Mfrs. Ass'n of the United States v. State Farm Mut. Auto. Ins. Co., 461 U.S. 29, 43 (1983).

³² See, e.g., DOE/FE Order No. 3357-B, available at https://www.energy.gov/sites/prod/files/2014/11/f19/ord%203357-B.pdf, at 10; 85 Fed. Reg. 53,243 (Aug. 25, 2020) ("In evaluating the public interest, DOE takes seriously the potential

on domestic natural gas prices and that Henry Hub gas prices are forecasted to remain low. To the contrary, domestic energy market responses to an explosion at the Freeport LNG facility and gas prices throughout 2021-2022 demonstrate that DOE's must revisit its prior conclusions regarding the impact of the Magnolia LNG project on domestic energy prices. Magnolia LNG's applications fail to address this data, which demonstrate that an extension is not in the public interest.

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

In June 8, 2022, an explosion and fire occurred at the Freeport LNG facility – and the resulting drop in domestic gas prices – provided stark confirmation that increasing LNG exports will cause real and significant increases in domestic gas prices. Thus, the Freeport LNG explosion demonstrates that the requested extension is not in the public interest and constitutes new information requiring DOE to revisit its 2020 Policy Statement.

The EIA has estimated that the Freeport shutdown took roughly 17% (or 2 billion cubic feet per day) of the total U.S. LNG export capacity offline.³³ Immediately after the explosion was reported, domestic gas prices fell by 16 percent,³⁴ highlighting the direct connection between gas exports and domestic prices and supply. Despite this initial drop, domestic gas prices remain exceptionally high as a result of LNG exports, as discussed in the next section. DOE must address the Freeport LNG explosion, and the demonstrated connection between LNG exports and domestic prices, in its public interest analysis.

b. Winter 2021-2022 gas prices demonstrate that LNG exports are harming U.S. 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

economic impacts of higher natural gas prices.").

³³ U.S. Energy Information Administration, Fire Causes Shutdown of Freeport Liquefied Natural Gas Export Terminal (June 23, 2022), https://www.eia.gov/todayinenergy/detail.php?id=52859 (attached as Attachment D).

³⁴ Pippa Stevens, Natural Gas Plummets as Freeport Delays Facility Restart Following Explosion, CNBC (June 14, 2022), https://www.cnbc.com/2022/06/14/natural-gas-plummets-as-freeport-delays-facility- restart-following-explosion.html (attached as Attachment E).

increase was driven largely by competition with demand for LNG exports.³⁵ The Wall Street Journal,³⁶ S&P Global Platts Analytics,³⁷ the Institute for Energy Economics and Financial Analysis, and others agreed that LNG exports were driving up domestic gas prices. Indeed, FERC identified LNG exports as the "primar[y]" source of the additional demand that drove the gas price increases.³⁸ And these price increases were severe. For the winter of 2021-2022, benchmark future prices at the Henry Hub increased 103% relative to the prior winter,³⁹ with larger increases elsewhere, including more than quadrupling of the price at the Algonquin Citygate outside Boston,⁴⁰ as illustrated in this chart from FERC:⁴¹

³⁹ *Id.* at 2, 11.

⁴⁰ *Id.* at 12.

³⁵ FERC, Winter Energy Market and Reliability Assessment (Oct. 21, 2021) at 2, *available at* https://ferc.gov/sites/default/files/2021-10/Winter%20Assessment%202021-2022%20-%20Report.pdf (attached as Attachment F) (hereinafter "Winter Energy Market Assessment"); *accord id. at 11. See also* Clark Williams-Derry, IEEFA, U.S.: Booming U.S. natural gas exports fuel high prices, IEEFA.ORG (Nov. 4, 2021), https://ieefa.org/ieefa-us-declining-demand-lower- supply-dont-explain-rapidly-rising-gas-prices/ (attached as Attachment G).

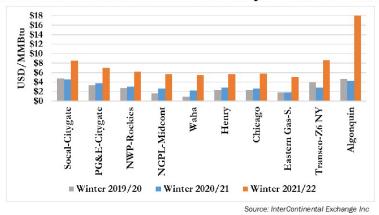
³⁶ Collin Eaton & Katherine Blunt, Natural-Gas Exports Lift Prices for U.S. Utilities Ahead of Winter, WALL ST. J., Nov. 7, 2021, https://www.wsj.com/articles/natural-gas-exports-lift-prices-for-u-s-utilities- ahead-of-winter-11636281000.

³⁷ 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.

³⁸ Winter Energy Market Assessment, *supra* note 35 at 2.

⁴¹ 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 (attached as Attachment H).

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

These price increases harm both households and industrial energy consumers. The Energy Information Administration ("EIA") predicted that homes that use gas for heat would spend 30% more in the winter of 2021-2022 than they spent the prior winter.⁴² The Industrial Energy Consumers of America, which represents manufacturers that use at least 1 million MMBtu of energy per year,⁴³ has repeatedly written to DOE about how export-driven gas prices increases are harming domestic industry.⁴⁴

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.⁴⁵ DOE is charged with protecting the "public" interest, 15 US.C. § 717b(a); that is, the interest "of ... all or most of the people" in the United States.⁴⁶ DOE has previously recognized that "the distributional

⁴² Id. at 13.

⁴³ "Membership Info," IECA, https://www.ieca-us.com/membership-info/ (last accessed Dec. 7, 2021).

⁴⁴ See, e.g., Letter from Paul N. Cicio to Jennifer Granholm (Nov. 22, 2021), available at https://www.ieca-us.com/wp-content/uploads/11.22.21_LNG_-Why-a-Safety-Valve-is- Needed_FINAL.pdf.

⁴⁵ Synapse Energy Economics, Inc., *Will LNG Exports Benefit the United States Economy?* (Jan. 23, 2013) at 9, *available at*

https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/export_study/Exhibits_ 1-20.pdf (attached as Attachment I) (initially submitted as Exhibit 5 to Comments of Sierra Club *et al.* on the 2012 NERA macroeconomic report).

⁴⁶ Public, Merriam-Webster Unabridged Dictionary, available at http://www.merriam-webster.com/dictionary/public

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."⁴⁷ Accordingly, unless DOE addresses distributional concerns, DOE will have failed to consider an important part of the problem. But to date, DOE has never grappled with the distributional impacts of LNG exports: DOE has acknowledged that LNG exports have some positive and some negative economic impacts,⁴⁸ 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.⁴⁹ Increased gas prices will exacerbate the existing energy burden disparities, placing these households at even further risk. Especially in light of this administration's emphasis on environmental justice, the distributional and equity impacts of export-driven gas price increases require careful consideration.

DOE has previously relied on modeling of how energy markets will balance in response to increased LNG exports, and on studies of the macroeconomic effects of such balancing. The current surge in gas prices calls those prior analyses into question, and DOE cannot approve additional exports—or blindly follow previous findings, including its conclusions the 2020 Policy Statement— without carefully examining the continuing validity of those analyses. We understand that DOE and the EIA are currently revisiting the 2012 and 2014 LNG export studies; an updated analysis was expected in the spring of 2022, but appears not to have been released yet.⁵⁰ At a minimum, DOE

⁽last visited Dec. 7, 2021).

⁴⁷ DOE/FE Order 3638-A (Corpus Christi) at 45 (May 26, 2016), available at

https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/2012/applications/12-97-LNG_CMI_Corpus_Rehearing__May_26.pdf.

⁴⁸ See, e.g., NERA Economic Consulting, Macroeconomic Outcomes of Market Determined Levels of U.S. LNG Exports (June 7, 2018) at 19, 21, 64, 67, available at https://cms.doe.gov/sites/prod/files/2018/12/f58/2018%20Study.pdf.

⁴⁹ American Council for an Energy-Efficient Economy, *How High are Household Energy Burdens?* (Sept. 2020), *available at* https://www.aceee.org/sites/default/files/pdfs/u2006.pdf (attached as Attachment J); *Accord* Eva Lyubich, *The Race Gap in Residential Energy Expenditures* (June 2020), *available at* https://haas.berkeley.edu/wp-content/uploads/WP306.pdf (attached as Attachment K).

⁵⁰ https://www.energy.senate.gov/hearings/2021/11/full-committee-hearing-on-domestic-and- international-energy-price-trends (testimony of Stephen Nalley at 47:50 to 48:15).

should not approve further export applications or extensions until this study is complete.

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,⁵¹ DOE has stated its reluctance to exercise such authority.⁵² But if export applications are, in effect, a one-way ratchet on export volumes, DOE cannot issue such authorizations—or extensions of such authorizations like that at issue here— carelessly.

The NGA'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."⁵³ At present, LNG exports are not achieving these purposes. DOE's uniform approval of all export applications has not protected consumers from exploitation at the hands of gas companies, and LNG exports are not leading to reasonable gas prices. Similarly, DOE's conclusion in its 2020 Policy Statement that LNG exports had not increased domestic gas prices⁵⁴ is clearly outdated and must be revisited. Accordingly, even putting aside the numerous and severe environmental impacts of increased LNG exports, Magnolia LNG's application is inconsistent with the public interest and should be denied.

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

The LNG market has substantially changed since DOE issued the initial export authorization for Magnolia LNG, making the completion of this project no longer commercially viable or in the public interest. Magnolia LNG has acknowledged this change in the global market conditions by requesting additional time to begin construction and operations at the project site.⁵⁵ Currently

⁵¹ 15 U.S.C. § 7170.

⁵² See Policy Statement Regarding Long-Term Authorizations to Export Natural Gas to Non-Free Trade Agreement Countries, 83 Fed. Reg. 28,841 (June 21, 2018). Although DOE has not exercised this authority yet, DOE *should* carefully consider doing so, given the severe impact already-authorized exports are having on domestic gas prices.

⁵³ Minisink Residents for Env't Pres. & Safety v. FERC, 762 F.3d 97, 101 (D.C. Cir. 2014) (cleaned up).

⁵⁴ 2020 Policy Statement at 52,244.

⁵⁵ Magnolia Extension Request, *supra* note 22 at 7.

Magnolia LNG is requesting authorization to delay its in-operation deadlines to April 2026.⁵⁶ Its application asserts that, "unforeseeable developments in the global LNG market have affected Magnolia's ability to enter into long-term LNG offtake contracts with international customers."⁵⁷ However, Magnolia LNG seems to be unable to enter into long-term LNG offtake contracts at a time when other proposed LNG terminals have been entering them with ease due to the Ukraine War.⁵⁸

It is clear that the need for LNG proposed for export to meet global market demands no longer exists at the rate anticipated over five years ago, and DOE must re-examine its conclusion that the project is in the public interest before doubling down by authorizing the requested extension. A recent report by the Institute for Energy Economics and Financial Analysis ("IEEFA") points out that "the EU is taking aggressive steps to trim gas consumption, which could render new LNG import capacity unneeded."⁵⁹ The aggressive steps being taking by the EU is part of the growing international recognition that avoiding the worst impacts of climate change requires abandoning large fossil fuel development or expansion.

As discussed in Section 4.c, the 2022 National Oceanic and Atmospheric Administration ("NOAA") Report and the Intergovernmental Panel on Climate Change's ("IPCC") 6th Assessment Report provides overwhelming evidence that climate hazards are more urgent and severe than previously thought, and that aggressive reductions in emissions within the next decade are essential to avoiding the most devastating climate change harms. Similarly, the Biden administration has prioritized tackling the climate crisis, including by reinstating and expanding the U.S.'s international commitments to reduce greenhouse gas emissions. A 2021 IEA report also reiterates that LNG exports cannot be part of a net-zero by 2050 future, projecting that natural gas traded as LNG will drop by 60 percent from 2030 to 2050 and global demand will decrease by over five percent in the 2030s alone.⁶⁰ This decrease in demand is further supported in IEEFA's analysis which concludes that "new

⁵⁶ *Id.* at 1, 5, 7-9.

⁵⁷ *Id.* at 7.

⁵⁸ "One terminal that Sempra Energy has been trying to build in Port Arthur, Texas, since 2019, for example, announced in January 2023 that it has secured contracts covering 80% of its output for the next 20 years, smoothing the path for construction." Amy Westervelt, *US energy firms use Ukraine war to lock in long-term contracts, report says*, The Guardian (Feb. 22, 2023).

⁵⁹ Global LNG Outlook, *supra* note 6 at 3.

⁶⁰ Net Zero by 2050, *supra* note 7.

projects coming online in 2025-27 will likely encounter weaker-than-expected demand – elevating the risk of lower prices and profits for LNG suppliers and trader."⁶¹ Thus, European buyers recognize that LNG, long touted as a climate solution, is in fact a climate problem.⁶²

Additionally, Magnolia LNG is not the only LNG facility experiencing these delays. A recent study by Global Energy Monitor notes that 21 export terminals totaling 265 million tonnes per annum ("MTPA") of capacity continue to report FID delays or other serious setbacks amid an uncertain market.⁶³ Those terminals represent 38 percent of the 700 MTPA export capacity under development worldwide. With increased delays in FIDs⁶⁴ and project construction, the probability increases that these projects, including that proposed by Magnolia LNG, will become obsolete long before the end of their intended lifespans.⁶⁵ These market changes underscore the absence of and/or rapidly declining demand for construction of U.S. LNG export terminals.

Given the significant changed economic, political and scientific circumstances that have developed since DOE first issued an export authorization to Magnolia LNG in 2016, DOE must reevaluate its original public interest finding. This new information also "constitutes significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts"⁶⁶ and therefore triggers DOE's obligation to conduct a supplemental NEPA review. At a minimum, DOE must address these changed circumstances in considering Magnolia's extension request.

⁶³ Id. at 3.

⁶⁵ Id.

⁶¹ Global LNG Outlook, *supra* note 6 at 3.

⁶² Lydia Plante and Ted Nace, Nervous Money, Global Energy Monitor, 4 (June 2021), available at https://globalenergymonitor.org/report/nervous-money/ (attached as Attachment L).

⁶⁴ Multiple LNG projects, including Port Arthur LNG and Cameron LNG have delayed making final investment decisions due to changes in the global LNG market, including decreased demand from LNG market oversaturation. Sempra likely to delay Texas Port Arthur LNG decision to 2022, REUTERS (May 5, 2021), https://www.reuters.com/business/energy/sempra-likely-delay-texas-port-arthur-lng-decision- 2022-2021-05-05/ (attached as Attachment M).

^{66 40} C.F.R. § 1502.9(d)(1)(ii).

4. New information regarding Magnolia LNG project's environmental impacts demonstrate an extension is not in the public interest.

In addition to immediate harms caused by price increases, LNG exports will cause environmental harm lasting for generations. These include impacts occurring across the entire LNG lifecycle that both the Natural Gas Act and NEPA require DOE to consider. As noted in the public notice, DOE must comply with its environmental review obligations, and "[n]o final decision [on the term extension] will be issued in this proceeding until DOE has met its environmental responsibilities."⁶⁷ To do so, DOE must reject the prior administration's conclusion that LNG export extension approvals could be categorically excluded from NEPA review, and DOE must revisit its deeply flawed analysis of the climate impacts of LNG exports.

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

NEPA applies to all major federal actions with the potential to significantly affect the environment. The decision to grant an extension request is such an action.⁶⁸As a practical matter, if the extension request is denied, the adverse impacts caused by the Magnolia LNG project will not occur. Magnolia LNG acknowledges that it has not been able to reach FID and be unable to do so without the requested extension of nearly two and a half years.⁶⁹

This does not mean that DOE must start with an entirely blank slate when reviewing the extension request. DOE can "tier" off the prior environmental assessment.⁷⁰ However, when tiering off a prior document, agencies must affirm the validity of that document – an agency cannot uncritically or unquestioningly adopt it, and that affirmation is not limited to issues where circumstances may have changed.⁷¹ For the reasons discussed below, adoption of a categorical

⁶⁷ 88 Fed. Reg. 23,020.

⁶⁸ See Pit River Tribe v. U.S. Forest Serv., 469 F.3d 768, 784 (9th Cir. 2006) (extension of leases that would have otherwise expired was major federal action requiring NEPA analysis).

⁶⁹ Policy Statement, *supra* note 20 at 7.

⁷⁰ 40 C.F.R. 15-1.11(a).

⁷¹ See N. Alaska Env't Ctr. v. U.S. Dep't of the Interior, 983 F.3d 1077, 1091 (9th Cir. 2020) ("Pit River Tribe illustrates that the adequacy of analysis in previous NEPA documents for the present action may influence whether we construe those NEPA documents as covering the present action. Relatedly, *Pit River Tribe* shows that adequacy may remain relevant even after the statute of limitations has run.").

exclusion in this instance would be arbitrary and unlawful, and DOE cannot rely on a categorical exclusion here. Moreover, this request lacks the integral elements of an exempt project, precluding reliance on a categorical exclusion. Thus, DOE must complete a full NEPA review prior to approving Magnolia LNG's requested extension.

i. The 2020 Categorical Exclusion is invalid.

Adoption of the 2020 Categorical Exclusion was arbitrary, capricious, and contrary to law. Most egregiously, in promulgating the 2020 exclusion, DOE improperly excluded from NEPA review *all* impacts occurring upstream of the point of export, based on a basic and fundamental legal error. The Notice of Proposed Rulemaking argued that DOE need not consider "environmental impacts resulting from actions occurring [before] the point of export" because "the agency has no authority to prevent" these impacts, citing *Sierra Club v. FERC*, 827 F.3d 36 (D.C. Cir. 2016) ("*Freeport P*").⁷² This is the exact opposite of *Freeport I*'s explicit and central holding. *Freeport I* held that **FERC** had no authority prevent these impacts, specifically because **DOE** had retained "exclusive" authority to do so.⁷³ 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."⁷⁴ 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

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

⁷³ 827 F.3d at 40-41, 46.

⁷⁴ *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.

reduce pollution to safe levels.⁷⁵ 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.⁷⁶ Insofar as DOE contends that these impacts can be difficult to foresee, that affirms, rather than refutes, the need for case-by-case analysis.⁷⁷ 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.⁷⁸ 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.⁷⁹ This is legally and factually incorrect. LNG exports are rapidly expanding, and this expansion depends upon and is caused by authorizations like the term extension

⁷⁸ 85 Fed. Reg. at 78,202.

⁷⁵ Final Environmental Addendum at 27-28.

⁷⁶ 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/ord3 638.pdf. (attached as Attachment N).

⁷⁷ 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).

⁷⁹ The proposed rule ignored wildlife impacts entirely.

Magnolia LNG has requested here. Moreover, the term extension here will result in expanded operations through 2050, requiring DOE to examine the future prospects for marine vessel traffic in light of projected LNG development. In addition, noting that LNG traffic is a small share of the total does not demonstrate that the impact of LNG traffic in particular is insignificant: a small portion of a large problem can itself constitute a significant impact. And even 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 Magnolia LNG's proposed exports, including multiple listed species, live. Ship traffic to the West and East Coasts inflates the denominator but is irrelevant to many of these species.

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

Even if the 2020 Categorical Exclusion was valid, DOE would be unable to rely on it here. DOE cannot invoke a categorical exclusion without determining that the proposed action has the "integral elements" of excluded actions as defined in Appendix B to 10 C.F.R. Part 2021 Subpart D. Here, the proposal does not satisfy integral element 1, because it "threaten[s] a violation of applicable statutory [or] regulatory ... requirements for environment, safety, and health, or similar requirements of ... Executive Orders."⁸⁰ 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 via a term extension threaten a violation of Executive Order 14,008, Tackling the Climate Crisis at Home and Abroad.⁸¹ As noted, this order—like the Paris Accord, the Glasgow Pact, and other commitments—affirms that "[r]esponding to the climate crisis will require ... net-zero global emissions by mid-century or before."⁸² Increasing exports through mid-century (*i.e.*, 2050) is inconsistent with any plausible trajectory for achieving this goal, as recognized by the

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

⁸¹ 86 Fed. Reg. 7619 (Jan. 27, 2021).

⁸² Id. § 101.

IEA.⁸³ Even if DOE somehow contends that expanded export volumes through extended export durations 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 ... [f]ederally-listed threatened or endangered species or their habitat," "state-listed" species, "[f]ederally-protected marine mammals and Essential Fish Habitat," and species proposed for listing.⁸⁴ Potentially impacted species include the eastern black rail,⁸⁵ giant manta ray,⁸⁶ oceanic whitetip shark,⁸⁷ and Rice's whale (formerly designated as the Gulf of Mexico population of the Bryde's whale).⁸⁸ The construction and operation of LNG export facilities poses a risk to the eastern black rail due to loss of necessary habitat as a result of industry, sea level rise, and erosion.⁸⁹ Whereas the listed aquatic species are at risk from ship strikes and noise from vessel traffic, impacts that will be increased by the proposed extended duration of exports.⁹⁰ 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

⁸³ IEA, Net Zero by 2050, *supra* note 7, at 102-03.

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

⁸⁵ 85 Fed. Reg. 63,764 (Oct. 8, 2020).

⁸⁶ 83 Fed. Reg. 2916 (Jan. 22, 2018).

⁸⁷ 83 Fed. Reg. 4153 (Jan. 30, 2018).

⁸⁸ 86 Fed. Reg. 47,022 (Aug. 23, 2021).

⁸⁹ Tristan Baurick, *The Secret Lives of Black Rails, and the Scientist Who Seek Them*, Audubon (Feb. 13, 2019), available at https://www.audubon.org/news/the-secret-lives-black-rails-and-scientists-who-seek-them.

⁹⁰ 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.

injure marine life, including listed whales,⁹¹ sea turtles,⁹² and giant manta rays.⁹³ Ship traffic also causes noise, which "can negatively impact ocean animals and ecosystems in complex ways."⁹⁴ 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."⁹⁵ Unsurprisingly, many animals display a suite of stress-related responses to increased noise. In addition to an increase in ship traffic, the construction of the Magnolia LNG project will ultimately require dredging which will also contribute to noise pollution and impact bottle nose dolphins in the Calcasieu ship channel.⁹⁶ Because the proposed export extension will increase the duration and magnitude of these impacts, the proposal does not satisfy integral element 4.

b. DOE's prior lifecycle greenhouse gas analyses are not a substitute for NEPA review, and do not demonstrate that greenhouse gas emissions are consistent with the public interest.

⁹³ National Oceanic and Atmospheric Administration Fisheries, *Giant Manta Ray*, https://www.fisheries.noaa.gov/species/giant-manta-ray (attached as Attachment Q).

⁹⁴ National Oceanic and Atmospheric Administration, *Cetacean & Sound Mapping: Underwater Noise and Marine Life* (attached as Attachment R).

⁹⁵ Id.; see also Erbe C., Dunlop R., Dolman S., Effects of Noise on Marine Mammals, Effects of Anthropogenic Noise on Animals, Springer Handbook of Auditory Research, Vol. 66 (2018) (attached as Attachment S) ("Underwater noise can interfere with key life functions of marine mammals (e.g. foraging, mating, nursing, resting, migrating) by impairing hearing sensitivity, masking acoustic signals, eliciting behavioral responses, or causing physiological stress.")

⁹¹ David W. Laist et al., *Collisions Between Ships and Whales*, 17 MARINE MAMMAL SCIENCE 1, 35 (Jan. 2001) (describing ship strikes with large vessels as the "principal source of severe injuries to whales), available at https://www.mmc.gov/wp-content/uploads/shipstrike.pdf (attached as Attachment O).

⁹² National Oceanic and Atmospheric Administration Fisheries, *Understanding Vessel Strikes* (June 25, 2017), available at https://www.fisheries.noaa.gov/insight/understanding-vessel-strikes (attached as Attachment P).

⁹⁶ Kenny Lopez, '*Pinky' the rare Louisiana dolphin is said to be a mom to a pink baby dolphin!*, WGNO, https://wgno.com/news/pinky-the-rare-louisiana-dolphin-is-said-to-be-mom-to-a-pink-baby-dolphin/ (May 7, 2019); *see also Rare pink bottlenose dolphin surfaces in Louisiana lake*, The Guardian,

https://www.theguardian.com/environment/2009/mar/03/pink-albino-dolphin-louisiana (Mar. 3, 2009); see also David Nield, Pinky The Rare Pink Dolphin Has Been Spotted in Louisiana Water, Science Alert,

https://www.sciencealert.com/louisiana-s-rare-pink-dolphin-appears-almost-unique-amongst-the-species (Sept. 11, 2015); see e.g. Loulla-Mae Eleftheriou-Smith, *Pink dolphin spotted swimming in Louisiana river*,

https://www.independent.co.uk/news/world/americas/pink-dolphin-louisiana-river-spotted-swimming-the-calcasieu-ship-channel-a7884751.html (Aug. 9, 2017).

One way or another, DOE must revisit its prior analyses of the greenhouse gas impact of LNG exports. Procedurally, the 2014 and 2019 lifecycle analyses are not a substitute for NEPA review, as DOE continues to recognize.⁹⁷ Although the lifecycle analyses can inform NEPA review, DOE must address the impacts of this and other LNG proposals within the NEPA framework. More fundamentally, the lifecycle analyses both ask the wrong questions and do not reflect available science regarding LNG's impacts.

i. The lifecycle analyses ask the wrong questions.

Magnolia LNG's request if granted would authorize it to export gas through 2050 – an authorization that would otherwise expire. DOE therefore must take a hard look at the environmental impact of expanded exports of LNG across that thirty-year time period, with the long-term gas production and use such exports necessarily entail. This includes addressing whether such impacts are consistent with the United States' climate goals. They are not. But the lifecycle analyses do not address this issue. That is, the analyses do not provide any discussion of whether increasing or extending LNG export will help or hinder achievement of the long-term drastic emission reductions that are essential to avoiding the most catastrophic levels of climate change.

Instead, the analyses look only to the short term. The only questions asked by the analyses are "How does exported LNG from the United States compare with" other fossil fuels (coal or other gas) used in used "in Europe and Asia, from a life cycle [greenhouse gas] perspective?"⁹⁸ DOE has attempted to justify this narrow focus by arguing that in the present moment, LNG primarily competes with other sources of fossil fuel. But DOE has not contended, nor can it, that this will be true throughout the 2040s, when the requested term extension would become relevant.

Limiting global temperature rise to 1.5 degrees Celsius will require dramatic emission reductions in the near and long term, reductions which are inconsistent with further development of long-lived fossil fuel infrastructure in the U.S. or abroad, as confirmed by the IEA,⁹⁹ IPCC,¹⁰⁰ and

⁹⁷ E.g., 85 Fed. Reg. at 78,202 (The life cycle "reports are not part of DOE's NEPA review process").

⁹⁸ 84 Fed. Reg. 49,278, 49,279 (Sept. 19, 2019).

⁹⁹ IEA, Net Zero by 2050, *supra* note 7, at 101-02.

¹⁰⁰ Intergovernmental Panel on Climate Change, Special Report: Global Warming of 1.5 C, Summary for Policymakers at 13-17 (May 2019), available at

others. Executive Order 14,008 appropriately instructs federal agencies to work to discourage other countries from "high carbon investments" or "intensive fossil fuel-based energy."¹⁰¹ The lifecycle analyses argue that the infrastructure needed to receive and use U.S. LNG is not higher emitting than other sources of fossil fuel, but the analyses do not inform decisionmakers or the public whether facilities to use U.S. LNG are nonetheless such a "high-carbon," "intensive" source of emission that they must be discouraged.

Even for the short term, the lifecycle analyses ignore important parts of the question of how DOE's decision to authorize additional U.S. LNG exports will affect greenhouse gas emissions. DOE has recognized, for example, that increasing LNG exports will both cause some gas-to-coal shifting in the U.S. electric sector.¹⁰² Similarly, DOE has acknowledged that "U.S. LNG Exports may … compete with renewable energy … as well as efficiency and conservation measures" in overseas markets.¹⁰³ As discussed in Section 3 above, Europe is already taking steps to increase renewable energy and conservation in order to reduce its reliance on gas from any source. Indeed, while DOE has refused to address the likely share of U.S. LNG exports that will be displace fossil fuels, peer reviewed research concludes that such exports are likely to play only a limited role in displacing foreign use of coal, such that U.S. LNG exports are likely to increase net global GHG emissions.¹⁰⁴

Finally, while it is important to address foreseeable overseas impacts of LNG exports, DOE also needs to examine the impact of increased exports specifically on domestic or territorial emissions. The world must transition away from fossil fuel development as quickly as possible. It is inappropriate, unfair, and nonstrategic for the U.S. to argue that it can nonetheless increase fossil fuel production, and enjoy the purported economic benefits thereof, because the associated emissions will be offset by foregone production elsewhere. Instead, nations' commitments under the Paris Accord

¹⁰³ DOE/FE Order 3638 at 202-03.

 $https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf (attached as Attachment T).$

¹⁰¹ Executive Order 14,008 at § 102(f), (h).

¹⁰² U.S. Energy Information Agency, Effect of Increased Levels of Liquefied Natural Gas Exports on U.S. Energy Markets (Oct. 2014) at 12, 19, available at https://www.eia.gov/analysis/requests/fe/pdf/lng.pdf (attached as Attachment U).

¹⁰⁴ Gilbert, A. Q. & Sovacool, B. K., US liquefied natural gas (LNG) exports: Boom or bust for the global climate?, ENERGY (Dec. 15, 2017), available at https://doi.org/10.1016/j.energy.2017.11.098 (attached as Attachment V).

and similar agreements "should include greenhouse gas emissions and removals taking place within national territory and offshore areas over which the country has jurisdiction."¹⁰⁵ Requiring nations to measure and report territorial emissions also ensures the reliability of emission calculations, as nations can only directly regulate emissions within their borders. Estimates of emissions from activities within the U.S. are also likely to be more accurate than estimates that seek to trace the lifecycle of fuels combusted in an end use country. For all of these reasons, a hard look at the climate impact of increasing U.S. LNG exports, including via term extensions like that requested by Magnolia LNG, must address the impact of such exports on domestic emissions specifically, in addition to including reasonable forecasting about global impacts.

ii. The 2019 and 2014 lifecycle analyses underestimate emissions.

In addition to asking the wrong questions, DOE's prior lifecycle analyses are factually unsupported and understate emissions, as Sierra Club and the Natural Resources Defense Council have previously explained. 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.¹⁰⁶ Studies measuring actual emissions find much 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%.¹⁰⁷ 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

¹⁰⁵ Witi, J. & Romano, D., 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 8: Reporting and Tables, *available at* https://www.ipcc-

 $nggip.iges.or.jp/public/2019rf/pdf/1_Volume1/19R_V1_Ch08_Reporting_Guidance.pdf, at 8.4 (attached as Attachment W).$

¹⁰⁶ Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States: 2019 Update at 27, available at https://fossil.energy.gov/app/docketindex/docket/index/21.

¹⁰⁷ 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), DOI: 10.1126/sciadv.aaz5120, available at

https://advances.sciencemag.org/content/6/17/eaaz5120/tab-pdf (attached as Attachment X); *see also* Environmental Defense Fund, New Data: Permian Oil & Gas Producers Releasing Methane at Three Times National Rate (Apr. 7, 2020), *available at* https://www.edf.org/media/new-data-permian-oil-gas-producers- releasing-methane-three-times-national-rate (attached as Attachment Y).

emissions.¹⁰⁸ 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.¹⁰⁹ At a minimum, DOE must review and to respond to this research before approving any further LNG export applications.

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

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

i. 2022 NOAA Report on sea level rise

In its 2022 report, NOAA concluded sea level will rise due to climate change by one foot by 2050.¹¹⁰ The 2022 NOAA sea level rise data is significant new information because Louisiana has the highest relative rise in sea level of anywhere in the U.S.; ¹¹¹ storms and hurricanes are common in Louisiana and could happen at any time, as aptly demonstrated by the 2020 and 2021 hurricane seasons; and Magnolia LNG is at risk of serious flooding.¹¹² The 2022 NOAA report also predicts

¹⁰⁸ Sierra Club, Comment on 2019 Update to Life Cycle Greenhouse Gas Perspective, at 6-8 (Oct. 21, 2019), *available at* https://fossil.energy.gov/app/DocketIndex/docket/DownloadFile/604 (attached as Attachment Z).

¹⁰⁹ See NRDC, Sailing to Nowhere: Liquefied Natural Gas Is Not an Effective Climate Strategy (Dec. 2020), available at https://www.nrdc.org/sites/default/files/sailing-nowhere-liquefied-natural-gas- report.pdf (attached as Attachment AA); Kayrros, U.S. Methane Emissions from Fossil Fuels at Risk of Worsening In 2022, Extending 2021 Trend (June 2022) (attached as Attachment BB).

¹¹⁰ See U.S. coastline to see up to a foot of sea level rise by 2050, National Oceanic and Atmospheric Administration, available at http://www.noaa.gov/news-release/us-coastline-to-see-up-to-foot-of-sea-level-rise-by-2050 (Feb. 15, 2022) (attached as Attachment CC) (hereinafter "U.S. Sea Level Rise").

¹¹¹ "[A] federal study from NOAA . . . points out that the Gulf of Mexico from Texas to Louisiana is likely to see the highest sea-level rise in the contiguous United States. And flooding will likely become more intense and more frequent." *See* Mike Lee, *U.S. LNG surge may have a flood problem*, E&E News (June 8, 2022) (attached as Attachment DD).

¹¹² "Hurricane Laura pushed a 17-foot-high wall of water onto the Louisiana coastline . . . The storm tide surged nearly 30 miles up the Calcasieu River and flooded large swaths of Lake Charles." *Id.*

an "increase in the frequency of coastal flooding, even in the absence of storms or heavy rainfall."¹¹³ 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.¹¹⁴ DOE must consider the 2022 NOAA report in its public interest analysis and NEPA review.

ii. IPCC's 6th assessment report

Similarly the IPCC's August 2021 *The Physical Science Basis* report confirms that "[h]umaninduced climate change is already affecting many weather and climate extremes in every region across the globe."¹¹⁵ Evidence demonstrating the link between human greenhouse gas emissions and "changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones . . . has strengthened since" the prior IPCC report.¹¹⁶ In addition to exacerbating extreme weather, "[h]eating of the climate system has caused global mean sea level rise through ice loss on land and thermal expansion from ocean warming."¹¹⁷ 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)."¹¹⁸ Even under deep emission reductions scenarios that keep global warming to within 1.5°C, the report finds that "heavy precipitation and associated flooding are projected to intensify and be more frequent in most regions," including North America (*medium to high confidence*).¹¹⁹

Looking to the future, The Physical Science Basis also concludes that cutting greenhouse gas

¹¹⁶ *Id.* at 8, A.3.

¹¹⁷ *Id.* at 11, A.4.3.

¹¹⁸ *Id.* at 25, C2.6.

¹¹³ U.S. Sea Level Rise, *supra* note 110.

¹¹⁴ Dokka, R., Shinkle K., *Rates of vertical displacement at benchmarks in the lower Mississippi Valley and the North Gulf Coast*, NOAA (July 2004), http://geodesy.noaa.gov/heightmod/NOAANOSNGSTR50.pdf (attached as Attachment EE).

¹¹⁵ See Climate Change 2021: The Physical Science Basis, Summary for Policymakers, IPCC, available at https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf (Oct. 2021) (attached as Attachment FF) (hereinafter "IPCC Physical Science Summary").

¹¹⁹ *Id.* at C.2.2. With 2°C or more of global warming, changes in droughts and heavy and mean precipitation will be even more dramatic. *Id.* at C.2.3.

emissions now is critical because "there is a near-linear relationship" between human-caused greenhouse gas emissions and related global warming, meaning that each additional increment of global warming exacerbates changes in extreme weather events. For example, the IPCC forecasts that each additional 1°C of global warming will cause about a 7 percent increase in the intensity of extreme daily precipitation events (*high confidence*).¹²⁰ 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."¹²¹

Additionally, the IPCC's February 2022 report—on *Impacts, Adaptation, and Vulnerability*— highlights the increasing climate-related risks to coastal infrastructure like Magnolia LNG. Because "[c]limate change impacts and risks are becoming increasingly complex and more difficult to manage," it is increasingly likely that "[m]ultiple climate hazards will occur simultaneously, . . . compounding overall risk[.]"¹²² 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," ¹²³ 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. ¹²⁴ Moreover, "[u]navoidable sea level rise will bring cascading and compounding impacts resulting in losses of coastal ecosystems and ecosystem services, groundwater salinisation, flooding

¹²⁰ *Id.* at 16, B.2.4. The IPCC reports that "every additional 0.5°C of global warming causes clearly discernible increases in the intensity and frequency of hot extremes, including heatwaves (*very likely*), and heavy precipitation (*high confidence*), as well as agricultural and ecological droughts in some regions (*high confidence*)." *Id.* at 15, B.2.2.

¹²¹ *Id.* at 28, D.1.1.

¹²² See IPCC, Climate Change 2022 Impacts, Adaptation and Vulnerability, Summary for Policy Makers at 18, B.5, available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf (Feb. 2022) (attached as Attachment GG) (hereinafter "IPCC Impacts Summary").

¹²³ *Id.* at SPM.B.1.1; *see also id.* at SPM.C.2.5 ("Natural river systems, wetlands and upstream forest ecosystems reduce flood risk by storing water and slowing water flow, in most circumstances (high confidence). Coastal wetlands protect against coastal erosion and flooding associated with storms and sea level rise where sufficient space and adequate habitats are available until rates of sea level rise exceeds natural adaptive capacity to build sediment (very high confidence).").

 $^{^{124}}$ *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.

and damages to coastal infrastructure that cascade into risks to livelihoods, settlements, health, wellbeing, food and water security, and cultural values in the near to long-term (high confidence)."¹²⁵

The IPCC again concludes, with *very high confidence*, that "[t]he magnitude and rate of climate change and associated risks depend strongly on near-term mitigation and adaptation actions, and projected adverse impacts and related losses and damages escalate with every increment of global warming."¹²⁶ If overall global warming reaches 1.5°C in the near-term, there would be "unavoidable increases in multiple climate hazards" that would "present multiple risks to ecosystems and humans (very high confidence)." Although "[n]ear-term actions that limit global warming to close to 1.5°C would substantially reduce projected losses and damages related to climate change in human systems and ecosystems," the IPCC confirmed that, at this point, those actions cannot eliminate all of the harms (very high confidence). ¹²⁷

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)."¹²⁸ Noting that "siting of infrastructure" and other factors have "contributed to the exposure of more assets to extreme climate hazards increasing the magnitude of the losses (high confidence)," ¹²⁹ the IPCC also concludes that "[a]ctions that focus on sectors and risks in isolation and on short-term gains often lead to maladaptation if long-term impacts of the adaptation option and long-term adaptation commitment are not taken into account (high confidence)."¹³⁰

Lastly, the IPCC's April 2022 *Mitigation of Climate Change* report¹³¹ further demonstrates that LNG exports will need to be significantly curtailed well before 2050. For example, the IPCC

¹²⁵ *Id.* at SPM.B.5.2.

¹²⁶ *Id.* at SPM.B.4.

¹²⁷ *Id.* at SPM.B.3.

¹²⁸ *Id.* at SPM.C.2.1.

¹²⁹ IPCC Impacts Summary, *supra* note 122, at SPM.B.1.6.

¹³⁰ *Id.* at SPM.C.4.1.

¹³¹ See IPCC, Climate Change 2022: Mitigation of Climate Change, Summary for Policy Makers, available at https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_SPM.pdf (Apr. 2022) (attached as Attachment HH).

concludes that, to remain consistent with current internal climate pledges, global greenhouse gas emissions reductions must undergo "an unprecedented acceleration" between 2030 and 2050 (medium confidence).¹³² Without additional abatement, projected greenhouse gas "emissions over the lifetime of existing and currently planned fossil fuel infrastructure" will result in global warming over 1.5°C.¹³³ Moreover, to reduce greenhouse gas 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."¹³⁴ On the other hand, "[t]he continued installation of unabated fossil fuel infrastructure will 'lock-in' [greenhouse gas] emissions" (high confidence).¹³⁵ The required transition in the energy sector "is projected to reduce international trade in fossil fuels."¹³⁶ Because limiting warming to 2°C "could strand considerable fossil fuel infrastructure," the IPCC estimates that gas assets "are projected to be more at risk of being stranded towards mid-century" (high confidence),¹³⁷ reiterating the risk that new LNG facilities like Magnolia must cease operations well before 2050.

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

 137 Id

¹³² *Id.* at B.6.3.

¹³³ *Id.* at B.7.

¹³⁴ *Id.* at C.4.

¹³⁵ Id.

¹³⁶ Id. at C.4.4.

III. Conclusion

For the reasons stated above, Sierra Club, Healthy Gulf, For A Better Bayou, The Vessel Project of Louisiana, and Micah 6:8 Mission's motion to intervene should be granted. The proposed extension is not consistent with the public interest and should be denied. Recent events in the Ukraine demonstrated why the world needs to transition away from fossil fuel-based energy as quickly as possible; Magnolia LNG's request to extend its in-operation export deadline to 2026 (which is not feasible given the information provided in its final environmental impact statement) is not part of a solution to current geopolitical problems. Moreover, DOE must not approve the request without reviewing whether recent gas price spokes 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 request 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 authorized period. Extending gas exports and use cannot be reconciled with those goals. Consequently, this request should be denied.

/s/ Lisa Diaz

Lisa Diaz Sierra Club 910 Julia Street New Orleans, LA 70113 (305) 336-2258 Lisa.diaz@sierraclub.org *Attorney for Sierra Club*

Raleigh Hoke Healthy Gulf 935 Gravier Street, Ste. 700 New Orleans, LA 70112 (504)525-1528 ext. 204 Louisiana raleigh@healthygulf.org Campaign Director for Healthy Gulf James Hiatt For A Better Bayou P.O. Box 7262 Lake Charles 70606 (337)515-0655 james@betterbayou.net Director of For A Better Bayou

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

Cynthia Robertson Micah 6:8 Mission 624 West Verdine Street Sulphur, LA 70663 cindy@micah68mission.org Director of Micah 6:8 Mission

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-LNG

SIERRA CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

Pursuant to 10 C.F.R. § 590.103(b), I, Lisa Diaz, 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 New Orleans, LA this 15 day of May, 2023

<u>/s/ Lisa Diaz</u> Lisa Diaz Sierra Club 910 Julia Street New Orleans, LA 70113 (305) 336-2258 Lisa.diaz@sierraclub.org *Attorney for Sierra Club*

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-LNG

SIERRA VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Lisa Diaz, 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 on May 15, 2023

<u>/s/ Lisa Diaz</u> Lisa Diaz Sierra Club 910 Julia Street New Orleans, LA 70113 (305) 336-2258 Lisa.diaz@sierraclub.org *Attorney for Sierra Club*

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-LNG

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 590.107, I, Lisa Diaz, 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 May 15, 2023.

<u>/s/Lisa Diaz</u> Lisa Diaz Sierra Club 910 Julia Street New Orleans, LA 70113 (305) 336-2258 Lisa.diaz@sierraclub.org *Attorney for Sierra Club*

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-LNG

HEALTHY GULF CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

Pursuant to 10 C.F.R. § 590.103(b), I, Raleigh Hoke, hereby certify that I am a duly authorized representative of the 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 the Healthy Gulf, the foregoing documents and in the above captioned proceeding.

Dated at New Orleans, LA this 15 day of May, 2023

<u>/s/ Raleigh Hoke</u> Raleigh Hoke Healthy Gulf 935 Gravier Street, Ste. 700 New Orleans, LA 70112 (504)525-1528 ext. 204 raleigh@healthygulf.org *Campaign Director for Healthy Gulf*

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-LNG

HEALTHY GULF VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Raleigh Hoke, 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 on May 15, 2023

<u>/s/ Raleigh Hoke</u> Raleigh Hoke Healthy Gulf 935 Gravier Street, Ste. 700 New Orleans, LA 70112 (504)525-1528 ext. 204 raleigh@healthygulf.org *Campaign Director for Healthy Gulf*

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-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 the 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 the For A Better Bayou, the foregoing documents and in the above captioned proceeding.

Dated at Lake Charles, LA this 15 day of May, 2023

<u>/s/ James Hiatt</u> James Hiatt For A Better Bayou P.O. Box 7262 Lake Charles 70606 james@betterbayou.net (337)515-0655 Director of For A Better Bayou

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-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 on May 15, 2023

<u>/s/ James Hiatt</u> James Hiatt For A Better Bayou P.O. Box 7262 Lake Charles 70606 james@betterbayou.net (337)515-0655 Director of For A Better Bayou

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-LNG

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 15 day of May, 2023

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

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-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 on May 15, 2023

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

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-LNG

MICAH 6:8 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 the Micah 6:8 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 the Micah 6:8 Mission, the foregoing documents and in the above captioned proceeding.

Dated at Sulphur, LA this 15 day of May, 2023

<u>/s/ Cynthia Robertson</u> Cynthia Robertson Micah 6:8 Mission 624 West Verdine Street Sulphur, LA 70663 cindy@micah68mission.org Director of Micah 6:8 Mission

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IN THE MATTER OF

Magnolia LNG, LLC

FE Docket Nos. 13-132-LNG

MICAH 6:8 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 on May 15, 2023

<u>/s/ Cynthia Robertson</u> Cynthia Robertson Micah 6:8 Mission 624 West Verdine Street Sulphur, LA 70663 cindy@micah68mission.org Director of Micah 6:8 Mission