UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Mexico Pacific Limited, LLC	)	FE Docket No. 22-167-LNG

Sierra Club Comments on the Draft Environmental Assessment for the Mexico Pacific Limited Facility

On behalf of the Sierra Club, please accept these comments on the Department of Energy's ("DOE") Draft Environmental Assessment ("Draft EA") for the Mexico Pacific Limited Facility; specifically, its application for authorization to export an additional 291 Bcf/d of gas to non-free-trade-agreement countries. On November 27, 2023, DOE published a notice in the Federal Register, 88 Fed Reg. 82,876, indicating that it would accept public comments on the Draft EA through December 27.

As set forth in detail below, the Draft EA fails to meet NEPA's "hard look" requirements and thus the DOE must prepare a supplemental EA or a full EIS that considers the full host of environmental impacts of this proposal. Should DOE conduct a thorough evaluation of the proposal's impacts, including but not limited to the information contained in these comments, it will be clear that increased exports of liquified natural gas ("LNG") from MPL is not in the public interest and thus the MPL application should be denied.

A. DOE should consider a broad range of issues in making its public interest determination, and DOE should include these considerations in the EA

The Draft EA offers minimal insight into the scope, depth, and content of DOE's required public interest review. DOE should reconsider its order denying the rulemaking petition and respond to the growing public interest to promulgate updated, clear policies and criteria for evaluating LNG export applications' consistency with the public interest. At a minimum, DOE

should exercise its statutory discretion to consider a broad range of relevant factors bearing on the public interest, including but not limited to climate and environmental impacts, upstream gas development, domestic gas prices, and national security interest, in determining whether the MPL export application is consistent with the public interest. The factors, standards, policies, orders, and other authorities relied on by the agency in its ultimate decision should be assessed in its NEPA review document.

DOE regulates exports of LNG under Section 3(a) of the NGA, which provides for authorization of gas export applications to countries which there is in effect a free trade agreement requiring national treatment for trade in natural gas ("non-FTA countries") unless DOE finds the exportation will not be consistent with the public interest. 15 U.S.C. § 717b(a). The statute, however, does not define "public interest" or identify criteria upon which DOE will make a public interest determination. Instead, DOE purports to consider "a range of factors" including "the domestic need for the natural gas proposed to be exported; whether the proposed exports pose a threat to the security of domestic natural gas supplies; … whether the arrangement is consistent with [the Department's] policy of promoting competition in the marketplace," and "other" factors bearing on the public interest.[1] DOE claims to evaluate "economic impacts, international impacts, security of natural gas supply, and environmental impacts, among other things" when reviewing export authorizations, but the Draft EA fails to evaluate these factors with regard to the MPL export application. Instead, DOE's review is superficial and dismissive of considerations that are, by DOE's own admission, germane to the agency's decision as to whether the proposed exports are in the public interest. DOE's public interest review reflects the

[1] *Sabine Pass Liquefaction, LLC*, DOE/FE Order No. 2961, Opinion and Order Conditionally Granting Long-term Authorization to Export Liquefied Natural Gas from Sabine Pass LNG Terminal to Non-Free Trade Agreement Nations, at 22-27, Docket No. 10-111-LNG (May 20, 2011).

agency's unreasonable reliance on outdated and unreliable policies, studies, and adjudicatory precedent that limits the scope of its public interest considerations and frustrates public participation.[2]

1. Background: 2013 Petition for Rulemaking, DOE's response, and renewed requests for public interest determination transparency

In April 2013, Sierra Club with the Center for Biological Diversity, Delaware Riverkeeper Network, Friends of the Earth, and Environment America filed a petition for rulemaking calling on DOE to promulgate regulations to develop modern policy guidelines on LNG exports and criteria for determining whether non-FTA LNG export applications are consistent with the public interest.[3] But in July 2023 – after a ten-year delay, several attempts to direct DOE's attention to the pending petition and the growing need for attention to this issue, including Petitioners' filing suit challenging the agency's unreasonable delay[4], DOE denied the petition claiming it already has "rigorous standards" for gas export approvals despite failing to identify what those standards are.[5] DOE's response to the petition for rulemaking and in the unreasonable delay litigation demonstrate the agency's reliance on an ad-hoc decision-making process and its lack of transparent, demonstrable standards for evaluating gas export proposals.

[2] *See* Sierra Club Motion to Intervene and Protest at 4-6 (Apr. 3, 2023) ("Sierra Club Protest"). Many of the arguments Sierra Club set forth in the Protest have gone unaddressed in the Draft EA. As such, the Sierra Club Protest and all attached exhibits are incorporated in their entirety and made part of these EA comments.
[3] Sierra Club, et al., Petition for Rulemaking Regarding Natural Gas Export Policy (April 8, 2023), *available at* https://www.energy.gov/fecm/articles/response-petition-rulemaking-regarding-natural-gas-export-policy-sierra-club-et-al ("Petition for Rulemaking").
[4] *In re: Sierra Club, et al.,* Petition for Writ of Mandamus, No. 23-1065 (D.C. Cir. Mar. 13, 2023). *See also* Letter from Sierra Club, et al., to Secretary Granholm, U.S. Dep't of Energy (Oct. 27, 2022); Letter from Public Citizen, Inc., et al., to Secretary Granholm, U.S. Dep't of Energy (Oct. 27, 2022).
[5] DOE/FECM, Order Denying Petition for Rulemaking on Exports of Liquified Natural Gas (July 18, 2023) ("DOE Rulemaking Denial").

A group of U.S. lawmakers recently echoed and amplified the call for DOE to update its public interest review of LNG export applications to non-FTA countries.[6] In a bicameral letter to Secretary Granholm dated November 14, 2023, U.S. Senator Jeff Merkley along with over 60 other members of Congress, stress that DOE must "assess the climate, environmental justice, and consumer impacts when determining whether exports are in the public interest" as the current approach fails to consider the negative impacts of US LNG exports fully or accurately.[7] The lawmakers identify that:

- "US LNG exports have doubled over the past four years, and projects currently under development are set to almost double exports again"[8];
- DOE's current approach relies on outdated and insufficient methods of measuring climate impacts[9];
- DOE must act consistent with the administration's Executive Order on Revitalizing our Nation's Commitment to Environmental Justice as LNG exports pollute communities along the LNG production chain and exacerbates climate change, more heavily burdening low-income communities and communities of color vulnerable to these impacts[10]; and
- LNG exports increase household energy burdens across the U.S.[11]

It is thus imperative that DOE "develop a generally-applicable approach, informed by updated climate and economic analyses, for how it will consider the aforementioned factors in LNG export permit determinations[, that is] laid out in a transparent manner in guidance or

[6] Letter from Merkley, et al., to Secretary Granholm (Nov. 14, 2023) (hereinafter, Merkley Letter) available at https://www.merkley.senate.gov/merkley-huffman-barragan-mcclellan-colleagues-new-liquified-fossil-gas-licenses-not-in-the-publics-interest/ and attached as Exhibit 1).
[7] *Id.*
[8] Merkley Letter at 1, *see* footnotes 1-3.
[9] *Id.* at 1, *see* footnotes 4-10.
[10] *Id.* at 2.
[11] *Id.* at 2 ("The EIA found that 'higher LNG exports create a tighter domestic natural gas market … increasing domestic natural gas prices' and this link was on clear display when an explosion at Freeport LNG sent domestic gas prices plummeting and its announced restarted caused them to rise sharply again.") (internal citations omitted).

rulemaking, which DOE should open to the public for comment[,]" and which is "consistently applie[d …] in its review of all LNG export applications."[12]

In the intervening decade since Sierra Club submitted the 2013 petition for rulemaking, LNG export application approvals have skyrocketed – DOE has approved over 40 non-free trade agreement LNG export applications.[13] DOE itself acknowledged that "[i]n the 10 years since the Rulemaking Petition was filed, the U.S. LNG export market has grown rapidly in both size and complexity, and it continues to evolve."[14] Yet the agency continues to skirt its responsibilities to the American public and refuses to issue updated, transparent, and comprehensive rules to articulate its public interest determinations in the gas export process. As DOE grapples with an expanding docket of export applications, the need for consistent rules defining how the agency will make public interest determinations is even more pressing. DOE should complete a rulemaking process that sets forth criteria for its public interest determinations based on new, updated information contained in comments on this and other DOE export application dockets, and considering input from the public, government officials, scientists, and experts *before considering any new export authorizations* and *before authorizing any currently pending applications*, including the subject MPL export application.

2. DOE's public interest considerations should be broadly construed and coordinated with its NEPA review

If DOE proceeds to a decision on the MPL export application, it should at least employ as broad a public interest analysis as possible to accurately account for and consider the full spectrum of public interest considerations relevant to the authorization to export more domestic gas to non-FTA countries. DOE should include a reference to and explanation of these public

[12] Merkley Letter at 1.
[13] Sierra Club Protest, at 6-7.
[14] DOE Rulemaking Denial at 3-4.

interest considerations in a supplemental NEPA review document, as it fails to do so in the subject draft EA.

These public interest factors should include, at a minimum, climate impacts, other environmental impacts, upstream gas development, domestic gas prices and supply, national security interests, and any additional, articulated relevant factors. In addition to its statutory public interest requirement under the NGA, DOE must also comply with NEPA before deciding on any non-FTA application.[15] DOE's NEPA implementing regulations require DOE to "integrate the NEPA process and coordinate NEPA compliance with other environmental review requirements to the fullest extent possible" and to "coordinate its NEPA review with its decision-making."[16] DOE's NEPA document should include its review of the application under both the NGA and NEPA public interest requirements. DOE prepared the Draft EA "to inform its decision on authorization" under the NGA and "determine how to review the potential environmental impacts associated with authorizing" MPL to export LNG to non-FTA countries.[17] DOE's public interest determination must consider, *inter alia*, environmental impacts,[18] and the scope of the agency's environmental review should compatibly be informed by the factors it applies to its public interest analysis.

DOE determined that, "consistent with E.O. 14008 and its obligations under NEPA, it is appropriate to evaluate the potential environmental impacts—including the greenhouse gas emissions—of exporting (or reexporting) U.S.-sourced LNG from the proposed MPL Facility to non-FTA countries."[19] But the subject draft EA arbitrarily limits its scope of review; it fails to

[15] 42 U.S.C. 4321 *et seq.*
[16] 10 C.F.R. §§ 1021.341(a), 1021.210(a).
[17] Notice of Availability for the Draft Environmental Assessment for the Mexico Pacific Limited Facility, 88 Fed. Reg. 82,876 (Nov. 27, 2023).
[18] *See Sierra Club v. U.S. Dep't of Energy,* 867 F.3d 189, 202 (D.C. Cir. 2017).
[19] 88 Fed. Reg. at 82,878.

include analysis of all relevant public interest criteria, *e.g.*, impacts to domestic gas prices and supply. Furthermore, its underlying environmental analysis is inadequate and flawed, at least in part because of the lacking public interest considerations. Because DOE has the statutory authority to deny authorization of non-FTA exports based on a finding of inconsistency with the public interest, the NEPA document should include and examine the issues and criteria considered by DOE in making its public interest determination. Wherein DOE's NEPA document provides one of – if not the only – opportunity for public participation in the agency's project evaluation in the decision-making process, it is imperative DOE includes ***all*** considerations germane to its decision, including a full NEPA analysis and public interest review. But DOE not only has the authority to act on information relevant to whether the proposed export is consistent or not with the public interest – it is *obligated* to at least consider such information in deciding on the public interest.

In effect, the DOE "is a 'legally relevant cause' of the direct and indirect environmental effects of [exports] it approves'—even where it lacks jurisdiction over" certain other aspects of the activity (e.g., pipelines, foreign facilities, etc.)[20]. Accordingly, DOE is not excused from identifying and considering the public interest criteria and findings in its NEPA analysis.[21]Unlike the Department of Transportation in *Public Citizen,* here, DOE is authorized and required to consider the effects of its authorization on the public interest, which should be articulated and examined in its NEPA document.

[20] *Birkhead v. FERC*, 925 F.3d 510, 519 (D.C. Cir. 2019) (holding NEPA requires FERC to evaluate indirect effects of greenhouse gas emissions, because the NGA's broad public interest determination means that FERC could deny the certificate based on those impacts) (quoting *Sierra Club v. FERC,* 867 F.3d 1357, 1373 (D.C. Cir. 2017)).

[21] *See id.; cf. Dep't of Transp. v. Public Citizen,* 541 U.S. 752 (2004) (holding where an agency lacks authority to prevent a certain effect due to its limited statutory authority over the relevant actions, it need not consider the environmental effects arising from said actions).

The decision must also be supported by evidence in the record pursuant to the Administrative Procedures Act.[22] However, the draft EA fails to include relevant information DOE requires to make an informed decision on authorization, and if anything, affirmatively illustrates that the Project is not consistent with the public interest. DOE fails to consider important aspects of the problem and the EA's findings run counter to the evidence before it.[23] In sum, DOE should deny the request for authorization to export natural gas for re-export because it is contrary to the public interest.[24] The draft EA fails to support a contrary finding and is arbitrary, capricious, an abuse of discretion, and not in accordance with the NGA and NEPA.[25]

B. DOE fails to independently verify the applicant's information, fails to seek information pursuant to NEPA, and fails to comply with 40 C.F.R. § 1502.21

Throughout the EA, it is apparent that DOE has failed to independently verify the information supplied by the applicant regarding exports of gas from the proposed MPL facility and associated environmental impacts; rather, it repeatedly accepts unsupported statements of the applicant as true. This violates DOE's obligations under the APA, the NGA, and NEPA.[26].

In *Van Abbema v. Fornell,* 807 F.2d 633 (7th Cir 1983), the court vacated and remanded in part a decision by the U.S. Army Corps of Engineers to issue a permit for construction of a facility to transload coal from trucks and barges on the Mississippi River. The court determined

[22] *Motor Vehicle Mfrs Ass'n. of U.S. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 52 (1983) (agency decisions must be supported by the record and reasonably explained); *id.* at 52 ("The agency must explain the evidence which is available, and must offer a 'rational connection between the facts found and the choice made.'") (quoting *Burlington Truck Lines, Inc. v. U.S.*, 371 U.S. 156, 168 (1962)).
[23] *Motor Vehicle Mfrs,* 463 U.S. at 43.
[24] 15 U.S.C. §717b(a).
[25] 5 U.S.C. § 706(2)(A).
[26] *See Altamont Gas Transmission Co. v. FERC*, 965 F.2d 1098, 1100–01 (D.C. Cir. 1992) (because FERC must "assess[] a project's viability in the light of conditions all the way from supplier to user, … it requires the applicant to provide information on all the links of the chain on which it depends, including interdependent applications…. [and FERC did not have] the information necessary to verify Altamont's claims about the proposed downstream facilities…"); *Birckhead*, 925 F.3d at 520 ("It should go without saying that NEPA also requires the Commission to at least *attempt* to obtain the information necessary to fulfill its statutory responsibilities.")

that the Corps relied upon certain information that was inaccurate, that the errors were brought to its attention, and that it failed to adequately respond to the challenges or independently verify the information. The court concluded that the Corps "has a duty to ensure the accuracy of information that is important to the decision making..."[27] The same is true here, as explained herein.[28]

In *Am. Rivers v. FERC*, 895 F.3d 32, 50 (D.C. Cir. 2018), the court held that FERC erred by failing to independently verify the applicant's information or seek the relevant data:

> No updated information was collected; no field studies were conducted. Nor was any independent verification of Alabama Power's estimates undertaken. Assuming Alabama Power's good faith, its estimates were entirely unmoored from any empirical, scientific, or otherwise verifiable study or source. The Commission also failed to take even the preliminary step of attempting to acquire recent or site-specific data against which Alabama Power's estimates *could* have been compared. The Commission's acceptance, hook, line, and sinker, of Alabama Power's outdated estimates, without any interrogation or verification of those numbers is, in a word, fishy. And it is certainly unreasoned.

Id. DOE has done the same thing here.

DOE has blindly accepted, hook, line, and sinker, many of the applicant's unsupported claims; for example, that no new pipelines would be required to supply the proposed level of gas exports (*i.e.*, that there is sufficient unused/available capacity in existing pipelines); and that MPL' Saguaro Energia LNG terminal and OneOk's Saguaro Connector Pipeline are not interconnected or dependent on each other.

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[27] *Van Abbema,* 807 F.2d 642; *see also Sierra Club v. Van Antwerp*, 709 F. Supp. 2d 1254, 1265 (S.D. Fla. 2009) (finding the Corps failed to independently evaluate alternatives, and instead simply accepted the applicant's information).

[28] Likewise, under the APA, DOE decisions must be supported by "substantial evidence," or "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1309 (D.C. Cir. 2015). (internal quotation marks omitted). Although an agency can make reasonable inferences, "[s]ubstantial evidence cannot be based upon an inference drawn from facts which are uncertain or speculative and which raise only a conjecture or a possibility." *Woods v. United States*, 724 F.2d 1444, 1451 (9th Cir. 1984). Many of the EA's assertions fail to meet this standard.

Similarly, the EA violates DOE's obligation under NEPA to investigate and seek out information on environmental impacts.[29] In *Sierra Club v. FERC,* the D.C. Circuit found that NEPA required FERC to consider the indirect but reasonably foreseeable impacts of natural gas pipelines which includes the downstream greenhouse gas emissions resulting from burning of gas transported by the pipeline.[30] Although FERC had claimed that it lacked information regarding the amount of gas that would be burned downstream, the Court held that FERC could "make educated assumptions" about use of gas based on its knowledge that the pipeline in that case would transport 1.1 million dekatherms per day.[31]

Here, there are many critical questions bearing on the project's impacts, which the EA fails to adequately investigate, include but not limited to: (1) to which countries and which regions would MPL's gas be exported? (2) what type of electricity generation (*e.g.*, coal, renewables, etc.) would that gas be displacing, or competing with, both in the short-term and in the 30-year timeframe of the proposed exports? (3) where would MPL's gas be sourced in the U.S.? (4) what is the upstream gas leakage rate in those areas, how much additional gas development would be induced, and what are the associated local or regional air and water quality impacts? (5) what are the life-cycle GHG emissions associated with the MPL project, expressed in terms of CO2e per year?

Furthermore, there are specific regulations that DOE must follow if its environmental review is hindered by incomplete or unavailable information that is relevant to reasonably

[29] *See Birckhead*, 925 F.3d at 519–20 (recognizing an agency's obligation to at least attempt to seek information about a project's impacts, even if there is some uncertainty).
[30] *Sierra Club v. FERC*, 867 F.3d at 1372 (D.C. Cir. 2017).
[31] *Id*. at 1374*; see also Delaware Riverkeeper Network*, 753 F.3d at 1310 ("While the statute does not demand forecasting that is not meaningfully possible, an agency must fulfill its duties to the fullest extent possible." (internal quotation marks omitted)); *see also Barnes v. U.S. Department of Transportation,* 655 F.3d 1124, 1136 (9th Cir. 2011) ("While foreseeing the unforeseeable is not required, an agency must use its best efforts to find out all that it reasonably can." (internal quotation marks omitted)).

foreseeable significant adverse effects.[32] For example, it must make clear that the information is lacking, and determine whether the overall costs of obtaining the information are unreasonable.[33] If the costs are not unreasonable, the agency must procure the information and include it in its analysis. Only if obtaining the information would be prohibitively expensive, or the means to obtaining the information are unknown might the agency be excused; but even then, the agency must explain itself by setting forth the following statements:

> (1) A statement that such information is incomplete or unavailable;
>
> (2) A statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment;
>
> (3) A summary of existing credible scientific evidence that is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment; and
>
> (4) The agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community.[34]

DOE has failed to comply with 40 C.F.R. § 1502.21 with respect to numerous areas of incomplete or unavailable information, as discussed throughout these comments.

In sum, DOE's 25-page EA fails to make a convincing case that the MPL proposal would not have significant effects such that an EIS is not required. Instead, DOE has avoided taking a hard look at many significant environmental issues, either by accepting unsupported statements of the applicant, claiming it does not have sufficient information, and/or simply failing to seek relevant information in the first place.

[32] *See* 40 C.F.R. § 1502.21.
[33] *Id*. at § 1502.21(a), (b).
[34] *Id*. at § 1502.21(c).

C. The MPL proposal and the Saguaro Pipeline are two components of an interconnected project, which DOE must evaluate together

1. The EA fails to evaluate the pending FERC application for the Saguaro Connector Pipeline as a connected action

NEPA requires DOE to evaluate all the separate components of a single project in a single EIS.[35] NEPA regulations require that connected actions should be considered in a single EIS, defining them as actions that "cannot or will not proceed unless other actions are taken previously or simultaneously," and "are interdependent parts of a larger action and depend on the larger action for their justification."[36]

The MPL project includes other connected federal actions that must be evaluated together with DOE's NEPA analysis pursuant to 40 C.F.R. § 1501.9(e), including but not limited to FERC's pending docket for the proposed Saguaro Connector Pipeline ("Saguaro" or "Saguaro Pipeline"). The Saguaro Pipeline would be a 2.8 Bcf/d gas pipeline traveling 157 miles from the Waha Hub in Texas, to a border crossing near Sierra Blanca, Texas.[37] Whereas DOE must approve MPL's export of gas via an export pipeline to a foreign country, as well as the

[35] 40 C.F.R. § 1501.9(e).

[36] *Id.; see also Delaware Riverkeeper Network v. FERC*, 753 F.3d 1304, 1307 (D.C. Cir. 2014) (holding FERC arbitrarily segmented its NEPA review of four separate components of a single pipeline project); *City of Bos. Delegation v. FERC*, 897 F.3d 241, 252 (D.C. Cir. 2018) (applying the "substantial independent utility" test to determine whether actions are connected) (quoting *Del. Riverkeeper*, 753 F.3d at 1316).

[37] Saguaro Connector Pipeline, LLC; *Notice of Application and Establishing Intervention Deadline*, 88 Fed Reg 1575 (Jan 11, 2023). Although FERC has limited its jurisdiction to the 1,000 feet of pipeline at the border, Sierra Club's position is that FERC should have jurisdiction over the entire 157-mile pipeline pursuant to Sections 3 and/or 7 of the Natural Gas Act. *See, e.g.,* Comments of Sierra Club on the Saguaro Connector Pipeline Draft Environmental Assessment, FERC Docket No. CP23-29-000 (September 25, 2023), attached as Exhibit 2 ("Saguaro EA Comments") and incorporated herein. Even if FERC's jurisdiction were properly limited to the border section, the DOE and FERC dockets are connected actions for the reasons set forth below.

subsequent re-export of the gas to other countries, FERC permits "the siting, construction, expansion, or operation" of export infrastructure.[38]

The facts overwhelmingly show that the Saguaro Connector Pipeline and the Saguaro Energia LNG terminal are interrelated projects. In short: the two projects, both named Saguaro, were proposed at the same time and each would have a capacity of 2.8 Bcf/d of gas; there is record evidence that MPL needs a dedicated pipeline, MPL has admitted it will use Saguaro for supply, and MPL has announced plans to build a pipeline connecting it to Saguaro; the Saguaro Pipeline has no other delivery points other than MPL, and its developer has stated the pipeline will not go forward unless MPL is built.

On December 28, 2022 MPL filed its application with DOE, seeking to export gas from its LNG terminal under development in Puerto Libertad, Mexico, to non-FTA countries. [39] MPL is seeking authorization to export a total of 1,046.57 Bcf/y from its LNG facility, or an average of just over 2.8 Bcf/d.[40] The LNG terminal would be called *Saguaro Energia*.[41]

According to an industry report submitted as part of Sierra Club's protest,[42] Mexico Pacific Limited "has told investors [it's proposed Saguaro Energia terminal] *would require a new dedicated 2 Bcf/d pipeline* for its completion that would go from the US border to the site, roughly 200 miles away."[43] "[S]ecuring firm access to feedgas from the US is the most

[38] 15 U.S.C. § 717b(a), (e)(1); *EarthReports, Inc. v. FERC,* 828 F.3d 949, 952-53 (D.C. Cir. 2016).
[39] MPL Application, at 8.
[40] Draft EA, at 2.
[41] Saguaro Energia LNG facility ("Saguaro LNG"), https://mexicopacific.com/saguaro-lng/saguaro-energia/
[42] *See* Sierra Club Protest, at 15-23.
[43] Commodity Insights Magazine, *LNG terminals and natural gas pipelines in Mexico* (December 2022) at 66, available at https://commodityinsights.mydigitalpublication.com/publication/?m=68710&i=770944&p=66&bt_field_name[]=utm&ver=html5 (Hereafter "Commodity Insights"), and Exhibit 20 to Sierra Club Protest.

significant hurdle" faced by proposed Mexican LNG terminals, because despite many entry points, pipeline "capacity narrows as it spreads throughout the country." [44]

Within a week of MPL's DOE application, ONEOK filed a FERC application for the proposed Saguaro Pipeline, a new pipeline proposing to transport over 2.8 Bcf/d of gas from the Waha Hub in Texas to an LNG terminal under development on the West Coast of Mexico.[45] Although the Saguaro application did not name MPL, FERC's Environmental Assessment stated that gas from the Saguaro Pipeline would be delivered to a "gas processing facility in Puerto Libertad, State of Sonora, Mexico."[46]

Soon thereafter, MPL moved to intervene in support of the Saguaro Pipeline in the Saguaro FERC docket, acknowledging that "MPL will utilize the Saguaro Connector and the Intrastate Facilities… to transport natural gas from the United States to Mexico for further delivery to the MPL Facility." [47] It also stated that MPL and Saguaro Pipeline were negotiating a precedent agreement, as of January 2023.[48] MPL has filed numerous additional documents in the FERC docket urging the Commission to approve the Saguaro pipeline and confirming that MPL will use the Saguaro Pipeline for gas supply. Saguaro Connector also stated in the FERC proceeding that MPL was "the developer of the LNG export facility that is under development on the West Coast of Mexico."[49]

[44] Commodity Insights, supra note 43 at 64.
[45] Saguaro Connector Pipeline, L.L.C., Application for Natural Gas Act Section 3 Authorization and Presidential Permit to Construct Natural Gas Pipeline Facilities at the United States of America – Mexico Border, Docket No. CP23-29-000 (Dec. 20, 2022).
[46] FERC Draft EA for the Saguaro Connector Pipeline, at 1.
[47] MPL Motion to Intervene, at 3, attached as Exhibit 3.
[48] *Id* at 3.
[49] Motion for Leave to Answer and Answer of Saguaro Connector Pipeline, L.L.C., Docket No. CP23-29-000 (Feb. 24, 2023), attached as Exhibit 4.

In the instant docket, MPL has also confirmed it will use Saguaro's gas. [50]And just last month, MPL announced it had entered into a contract for the construction of the Sierra Madre pipeline, which is the pipeline in Mexico that would connect MPL to the Saguaro Pipeline's border crossing:

> Mexico Pacific announced on Monday (11/27) that they had signed a turnkey contract for the construction of the Sierra Madre pipeline through 500 miles of the Chihuahuan and Sonoran deserts. The pipeline is intended to provide 2.8 Bcf/d of feedgas for the proposed Saguaro Energia LNG export facility. The Sierra Madre pipeline would connect with ONEOK's proposed Saguaro Connector pipeline at a new international border crossing south of Fort Hancock, Texas. Together, the two pipelines would bring natural gas from the Permian Basin to the greenfield LNG facility, which would primarily produce LNG for export to Asian markets.[51]

Meanwhile, according to industry reporting, OneOK management recently acknowledged that the Saguaro Pipeline is dependent on MPL going forward. On September 6, 2023, OneOK management said that it is waiting on the sanctioning of the MPL LNG export terminal on Mexico's Pacific Coast before proceeding with the 2.8 Bcf/d Saguaro Connector Pipeline.[52] CFO Walt Hulse said that while it expected to get approval for the Saguaro Pipeline from FERC in the fall of 2023, the firm would not make a final investment decision ("FID") on the Saguaro Pipeline unless and until the MPL LNG terminal moves forward: "we're not going to go FID on a project until the overall project, the LNG facility itself, is FID'd."[53]

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[50] *See, e.g.*, MPL Letter Supplementing Application (Jan. 24, 2023).
[51] John Abein, Contract Awarded for Pipeline to Saguaro LNG, RBN Energy, Nov. 30, 2023, available at https://rbnenergy.com/analyst-insights/contract-awarded-pipeline-saguaro-lng#:~:text=Mexico%20Pacific%20announced%20on%20Monday,Saguaro%20Energia%20LNG%20export%20facility, and attached as Exhibit 5.
[52] Baker, Andrew, *Oneok Says Saguaro Connector Pipeline Dependent on Mexico LNG Project FID*, Natural Gas Insider, September 6, 2023, available at https://rbnenergy.com/analyst-insights/contract-awarded-pipeline-saguaro-lng#:~:text=Mexico%20Pacific%20announced%20on%20Monday,Saguaro%20Energia%20LNG%20export%20facility, and attached as Exhibit 6.
[53] *Id.*

Other recent OneOk filings have made clear the two projects are interconnected. In response to the U.S. State Department request that FERC evaluate the life-cycle GHGs attributable to the Saguaro Pipeline,[54] FERC refused to do so, and instead punted that request to OneOK.[55] OneOK, in turn, pointed the finger at DOE, arguing that "DOE is the responsible agency for evaluating potential lifecycle GHG emissions," and that the lifecycle GHG analysis for Saguaro Pipeline would be included in DOE's forthcoming EA for the MPL facility.[56] By arguing DOE's EA for MPL would necessarily cover Saguaro's GHG emissions, OneOK is once again acknowledging that the two projects are interconnected.

Based on the totality of record evidence, it is beyond clear that the two projects are interconnected, and MPL has firm plans to source its gas from Saguaro, regardless of whether MPL *could have* sourced the gas elsewhere (again, there is no evidence to support this position[57]).

2. There is no evidence that any pipelines other than Saguaro will supply MPL

Despite the substantial evidence linking the two projects, the Draft EA almost entirely ignores Saguaro. Instead, it parrots language from the application to suggest it is unclear which pipeline will be supplying the MPL facility:

> The Application states that MPL plans to source natural gas from "a variety of U.S. producing basins." MPL states that it "…will export natural gas to Mexico via existing cross-border gas transmission pipelines, including an interstate natural gas pipeline owned by Sierrita Gas Pipeline LLC, and intrastate natural gas pipelines owned by Comanche Trail Pipeline, LLC, Roadrunner Gas Transmission, LLC and Trans Pecos Pipeline, LLC, all located in west Texas. Further, the Application states that MPL "has

[54] State Department email of Nov. 8, 2023, attached as Exhibit 7.
[55] FERC Data request, Nov. 13, 2023, attached as Exhibit 8.
[56] Saguaro Response to State Department, Nov. 20, 2023, attached as Exhibit 9, at pdf pages 10-12.
[57] Indeed, there is no evidence in the record that MPL has signed contracts for the construction of any connector pipelines, other than the one connecting it to the Saguaro Pipeline; nor is there any evidence that MPL has begun negotiating any agreements to source gas from anywhere other than Saguaro, let alone entered into any such agreements.

> concluded that the available pipeline capacity in both the U.S. and Mexico is more than adequate to support exports to the Facility." [58]

The EA goes on to mention Saguaro only insofar as it is one more pipeline MPL has added to the list of possible sourcing options:

> In a supplement to the Application (Supplement), MPL stated that it is adding a proposed pipeline to the several existing natural gas transportation route options for the MPL Facility. This proposed Texas intrastate pipeline, the Saguaro Connector Pipeline, L.L.C., has applied to the Federal Energy Regulatory Commission (FERC) for authorization to site and construct border crossing facilities and has requested a Presidential Permit.[59]

This is the only passing reference to the Saguaro Pipeline in the entire EA—simply adding Saguaro to a list of pipeline "options" that might supply MPL. Elsewhere, the EA accepts the application's assertion that no pipelines would be built in the US, without providing any support for that claim, and without even mentioning Saguaro:

> The Application states that the additional authorized export volume requested in the Application "will not involve or require the construction of any U.S. facilities that would yield environmental effects cognizable under NEPA."[60]

The EA's refusal to acknowledge the connection between MPL and Saguaro is based on DOE's wholesale acceptance of MPL's assertions that it *could* source its proposed 1,047 Bcf/y of gas exports via available capacity on *existing* pipelines. For example:

> Further, the Application states that MPL "has concluded that the available pipeline capacity in both the U.S. and Mexico is more than adequate to support exports to the Facility." [61]

However, there is no evidence to support MPL's claim that there is sufficient available capacity to supply 1,047 Bcf/y of exports. As Sierra Club has previously argued, looking at *total pipeline capacity* going from the U.S. to Mexico is insufficient, and does not tell us how much of

[58] Draft EA, at 3.
[59] *Id*.
[60] *Id*. at 10.
[61] Draft EA, at 3.

that capacity would be *available to MPL*. [62] Much of the capacity on those existing pipelines is unavailable, as it is already supplying other facilities (e.g., export terminals or power plants) in Mexico, and/or is located on the other side of the country. Sierra Club raised these issues in its protest, and DOE has ignored them.

MPL has also repeatedly claimed that "there was more than 12 Bcf/day of pipeline capacity available to export natural gas from the South Central region of the United States, which includes Texas, to Mexico as of 2021."[63] And the EA appears to blindly accepts this claim. [64] However, the EA is conspicuously devoid of specifics. It fails to provide state how much *total* or *available* capacity there is on existing pipelines; rather, it uses outdated information to show average export quantities from 2022.[65]

Furthermore, the EA's own Figure 4 (EA, at 11) shows the location of the 25 cross-border pipelines, and shows that approximately half of the pipelines are located on the Gulf of Mexico, all the way on the other side of the country from Puerto Libertad, and thus are almost certainly not potential sources of supply for MPL. If one compares Figure 4 with Appendix B of the EA, showing the average exports (why no data on total capacities?) of each of the cross-border pipelines, it is shows that the 12 cross-border on the Gulf Coast (east side of the country) compromise the vast majority of the total exports, whereas the total exports of from pipelines on the west side of Mexico (i.e., where Puerto Libertad is located) is less than 2 Bcf/d.

Similarly, there is no evidence in the record to support MPL's claim that it has "plans" to ship gas via the Sierrita, Comanche, Roadrunner, or Trans Pecos pipelines. Although MPL lists

[62] Sierra Club Protest, at 15-21.
[63] *See, e.g.*, MPL Answer, April 18, 2023, at 16 (citing *U.S. Pipeline State-to-State Capacity*, U.S. Energy Information Administration (Jan. 31, 2022),
available at https://www.eia.gov/naturalgas/data.php#pipelines).
[64] *See* Draft EA, at 10-11.
[65] See Draft EA, at 10.

those pipelines in the application, it has failed to provide any shipping agreements (either planned or finalized), any details of how much gas it plans to ship via any of pipelines, or any other details about these plans or potential arrangements.[66]

To the contrary, there is voluminous evidence pointing to Saguaro as the primary or even sole source of gas. As set forth above:

- MPL has told investors that the expansion of Saguaro LNG would need a new dedicated pipeline;
- MPL has admitted plans to ship gas via Saguaro;
- MPL has announced plans *to construct* the Sierra Madre Pipeline to the Saguaro border crossing;
- Saguaro is the only proposed pipeline for which MPL has intervened in support and is negotiating, or has already entered into, a shipping agreement;
- MPL is the sole delivery point for Saguaro's gas.

It is beyond clear that the 2.8 Bcf/d of Saguaro's capacity will supply the 2.8 Bcf/d of MPL's export capacity. Whether or not MPL could have secured sufficient gas elsewhere in an alternate universe is now irrelevant. If all the available evidence points to the same conclusion—that the Saguaro Pipeline would be the primary supplier of MPL's gas—DOE cannot avoid that fact by relying on unsupported claims to the contrary, that MPL could source its gas from a number of places.

This blind acceptance of MPL's assertions is arbitrary and capricious and violates DOE's obligations under NEPA to seek information on the project's impacts, and to independently verify the applicant's information, etc.[67] There is insufficient evidence in the record to support

[66] Similarly, DOE has failed to explain whether there is sufficient *available* capacity on those other pipelines, either individually or combined, to supply the full volume of proposed gas exports; or whether their capacity is already committed to other facilities in Mexico. The failure of DOE to ask MPL for any such information or seek it elsewhere violates the agency's NEPA obligations. *See* section B, *supra*.
[67] *See* section B, *supra*.

MPL's claims that it could export 1,047 Bcf/y of gas supplied by existing pipelines, in the absence of Saguaro.

3. DOE's failure to consider MPL in conjunction with Saguaro has practical consequences

The DOE's failure to evaluate the MPL application in coordination with the FERC Saguaro Connecter Pipeline docket is not just a minor technical violation of NEPA; rather, it has the significant effect of limiting both agencies' analyses of environmental impacts of these projects. If DOE and FERC had coordinated their NEPA reviews, either as connected actions in a single EA/EIS or through some other process,[68] they could share information regarding the two projects, alternatives, and their respective environmental impacts. Instead, both agencies here have taken the narrowest possible view of their NEPA obligations, siloed themselves from each other, and failed to seek or share information with the other.

One example is the agencies' efforts to pass the buck on conducting any climate analysis of the proposed MPL / Saguaro projects. The State Department, FERC, DOE, and the applicant have all pointed the finger in another direction when it comes to evaluating GHG emissions attributable to MPL / Saguaro. The other agencies' avoidance of conducting a GHG analysis raises the stakes, and makes it all the more important that DOE do so here. But, as set forth below, DOE's climate analysis fails NEPA's hard look requirement. Nowhere does the EA disclose to the public the estimated tons of CO2e that can be attributable to the MPL exports. Thus, the result is that no agency has adequately completed a GHG analysis.

[68] While 40 C.F.R. § 1501.9(e) requires MPL and Saguaro to be considered together as connected actions, these comments are not limited to the application of that regulation. Even if the connected action regulation did not apply here, DOE and FERC can and should acknowledge the interconnectedness of these two projects, and coordinate and share information bearing on the impacts of each. At the very least, DOE has an obligation to seek easily-available information from FERC about Saguaro, and/or explain why it cannot obtain any missing information. *See* section B, *supra*.

Another practical effect of the agencies' siloed approach and failure to coordinate on the review of these interconnected projects can be found in the EA's "analysis" of upstream gas development. As set forth below, DOE claims it has absolutely no idea where, aside from the entire lower 48 states, MPL's gas will come from; yet in the Saguaro FERC docket, OneOK has narrowed it down to a list of 8 potential sources of upstream gas in Texas.

Finally, FERC's EA for the Saguaro Pipeline suggest that it was precluded from evaluating any alternative locations for the border crossing, because the route and location of the Mexican portion of the pipeline had already been finalized.[69] However, in the Draft EA, DOE acknowledges that the approval process for the Sierra Madre Pipeline in Mexico is ongoing.[70]

D. The EA fails to evaluate GHG impacts and climate change impacts

Despite growing public opposition over the climate change impacts of DOE's repeated and increasing authorizations of LNG exports, the Draft EA utterly fails to conduct any meaningful analysis of greenhouse gas emissions ("GHGs") associated with the MPL proposal. The Draft EA devotes seven pages to GHGs, but that "analysis" largely just incorporates outdated studies, from 2019 and earlier, that essentially conclude LNG exports are better than coal from climate perspective. The Draft EA fails to evaluate any new information casting doubt on those conclusions, and fails to estimate the number of tons of GHGs attributable to the 2.8 Bcf/d of exports from MPL. As such, it violates NEPA.

1. The DOE must evaluate GHG impacts and climate change impacts in an EIS

NEPA requires an EIS, rather than a more abbreviated EA, for all proposed "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(C). In determining whether effects will potentially be significant, and thus whether an EIS

[69] See Exhibit 2, at 45-49.
[70] Draft EA, at 7-9.

is required, an agency must consider not only the magnitude of the effects on public health and the environment, but also the extent to which those effects are controversial, uncertain, cumulatively significant, or in potential conflict with "Federal, State, Tribal, or local law protecting the environment." 40 C.F.R. § 1501.3(b). Overall, the threshold for "significance" is "low;" an EIS must be prepared if there are even "substantial questions" regarding the severity of impacts. *Cal. Wilderness Coal. v. DOE*, 631 F.3d 1072, 1097 (quotation omitted). Where an agency seeks to avoid preparation of an EIS by claiming that impacts will be insignificant, the agency bears the burden of "mak[ing] a convincing case for its finding." *Grand Canyon Trust v. FAA*, 290 F.3d 339, 340-41 (D.C. Cir. 2002) (citations and quotations omitted).

The GHG emissions attributable to MPL's exports are significant enough to require an EIS. The EA fails to make a convincing case that the GHG emissions attributable to MPL are insignificant, such that an EIS is not required.

Furthermore, DOE has adopted a specific presumption that LNG exports require an EIS. DOE has determined that "[a]pprovals or disapprovals of authorizations to import or export natural gas" involving construction or significant modification of export facilities, or even a "major increase in the quantity of [LNG] imported or exported" from existing facilities, will "normally require [an] EIS." 10 C.F.R. Pt. 1021 Subpt., D App. D, D8-D9. "[R]egulations of this type … presume[] that an EIS will normally be prepared …, thereby imposing on the [agency] the burden of establishing why that presumption should not apply in this particular case." *Davis v. Mineta*, 302 F.3d 1104, 1117 (10th Cir. 2002).

Export-induced gas production will cause these impacts, and the record provides no basis for concluding that the contribution will be insignificant. NEPA allows an agency to avoid an

EIS only when the agency can affirmatively conclude, beyond substantial question, that the impacts will be insignificant.

2. The EA fails to adhere to CEQ's GHG / Climate Guidance

In early 2023, the Council on Environmental Quality ("CEQ") released its National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change ("GHG Guidance").[71] The GHG Guidance provides important recommendations for agencies to follow in considering GHG emissions and climate change as part of their NEPA analyses. For example, the GHG Guidance recommends, *inter alia*, that agencies:

- "quantify a proposed action's projected GHG emissions or reductions for the expected lifetime of the action, considering available data and GHG quantification tools that are suitable for the proposed action;"
- "use projected GHG emissions associated with proposed actions and their reasonable alternatives to help assess potential climate change effects;"
- "provide additional context for GHG emissions, including through the use of the best available social cost of GHG (SC–GHG) estimates, to translate climate impacts into the more accessible metric of dollars, allow decision makers and the public to make comparisons, help evaluate the significance of an action's climate change effects, and better understand the tradeoffs associated with an action and its alternatives;"
- "analyze reasonably foreseeable direct, indirect, and cumulative GHG emissions;"
- "address short and long-term climate change effects;"
- "Advising agencies to use the best available information and science when assessing the potential future state of the affected environment in NEPA analyses and providing up to date examples of existing sources of scientific information;"
- "incorporate environmental justice considerations into their analyses of climate-related effects, consistent with Executive Orders 12898 and 14008."[72]

[71] 88 Fed. Reg. 1196 (January 9, 2023). Although the document is an "interim guidance" and CEQ will issue a final version following the public comment period, it is effective upon publication and agencies are instructed to follow it to ensure NEPA compliance. *Id* at 1198.
[72] *Id*. at 1198.

On September 21, 2023, the White House issued an additional action directing federal agencies to consider the social cost of carbon (SC-GHG) in their environmental reviews pursuant to NEPA.[73]

DOE should follow these directives and GHG Guidance and thoroughly evaluate the GHG emissions and direct, indirect, and cumulative climate change impacts of the MPL export proposal. This is particularly important because many of CEQ's recommendations are new, and have not been incorporated into previous DOE NEPA documents; and there have been significant developments in climate science since the publication of the GHG studies DOE refers to in its Federal Register announcement, as explained below.

3. The EA fails to adequately consider the GHG emissions from the MPL project, including the entire LNG lifecycle

Both the NGA and NEPA require DOE to take a hard look at environmental impacts occurring throughout the entire LNG lifecycle, including but not limited to "upstream" and "downstream" greenhouse gas emissions, and to consider such impacts in the public interest determination. That analysis should include both long-term and short-term climate impacts of the proposed MPL exports.[74]

Under the NGA, DOE itself has recognized that a key consideration in its public interest determinations is the effect increased export volumes will have on gas production and use. DOE

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

[74] 88 Fed. Reg. 1206 ("When considering effects, agencies should take into account both the short and long-term adverse and beneficial effects using a temporal scope that is grounded in the concept of reasonable foreseeability… The effects analysis should cover the action's reasonably foreseeable lifetime, including anticipated GHG emissions associated with construction, operations, and decommissioning.")

therefore must consider the environmental impacts of such effects. As the D.C. Circuit has affirmed, the NGA's public interest standards provide authority and obligation to consider indirect effects on upstream gas production and downstream use of transported gas, and the environmental consequences thereof, as part of the public interest inquiry.[75]

Similarly, NEPA's statutory text requires agencies to consider the "effects" of proposed actions, which includes direct, indirect, and cumulative effects.[76] Indirect effects should thus include a life-cycle analysis of GHG emissions resulting from the extraction, transportation, and ultimate burning of the gas that would be exported via MPL.[77]

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

Here, the EA fails to satisfy DOE's obligation to evaluate the climate impacts of the MPL proposal. Instead, the EA largely just cites and incorporates its inadequate and outdated lifecycle studies it commissioned in 2014 and 2019, and attempts to pass those studies off as a NEPA analysis.[78] For example, the EA briefly describes the findings of the 2014 and 2019 studies, noting that they mainly determine LNG is preferable to coal from a climate perspective:

> The 2014 LCA GHG Report concluded that the use of U.S. LNG exports for power production in European and Asian markets would not increase global GHG emissions from a life cycle perspective, when compared to regional coal extraction in the global regions near the point of consumption, and consumption for power production.
>
> …
>
> The conclusions of the 2019 Update were consistent with those of the 2014 LCA GHG Report—that, "[w]hile acknowledging uncertainty, to the extent U.S. LNG exports are

[75] *See Sierra Club v. FERC*, 867 F.3d 1357, 1373 (D.C. Cir. 2017) (holding that indirect impacts, including indirect climate impacts, must be evaluated as part of public interest inquiry under Natural Gas Act where FERC had the ability to deny a project based on those adverse environmental impacts).
[76] 42 U.S.C. § 4332(2)(F); 40 C.F.R. 1508.1(g).
[77] *Food & Water Watch v. FERC*, 28 F.4th 277, 288 (D.C. Cir. 2022); *see also Sierra Club v. FERC*, 867 F.3d 1357, 1374 (D.C. Cir. 2017).
[78] *See* EA, at 17-25.

> preferred over coal in LNG-importing nations, U.S. LNG exports are likely to reduce global GHG emissions on a per unit of energy consumed basis for power production."
>
> …
>
> Both the 2014 LCA GHG Report and the 2019 Update are incorporated herein by reference.[79]

The EA then concludes:

> DOE has determined that the findings of the GHG Studies are applicable to assessment of the GHG emissions related to the exports proposed in the Application. DOE finds that its study of Life Cycle GHG emissions provides sufficient consideration of these emissions.[80]

As set forth below, this ignores significant new information on the life-cycle emissions of LNG exports that has been published since 2019 and which call into question the findings of the 2014 and 2019 studies. Some of this information has been previously provided to DOE, both in this docket and in other dockets, but DOE has so far ignored it. This violates DOE's obligations under NEPA, the APA, and the NGA. As such, Sierra Club is submitting the information again here and reiterating DOE's responsibility to consider it.

The majority of the EA's seven-page GHG "analysis" is devoted to addressing three areas in which it determines the MPL application may vary from the representative project modeled in the 2014 and 2019 studies:

> 1) any difference in natural gas pipeline transport distance between U.S. producing basins and the liquefaction plants and differences in emissions between Mexican pipelines and U.S. pipelines; 2) differences in the emissions associated with liquefaction in Mexico versus the U.S.; and 3) the difference in nautical distance traveled by an LNG tanker between liquefaction plants and Shanghai, China.[81]

[79] Draft EA, at 18.
[80] Draft EA, at 17.
[81] Draft EA, at 19-20. The Draft EA actually finds that MPL will emit roughly 51% more CO2e during liquefaction than the generic LNG facility modeled in its studies. Draft EA, at 23. But it fails to adequately explain how/why it still considers this project in line with those studies.

However, the EA refuses to revisit any of the base-level modeling projections found in the 2014 and 2019 studies, and fails to update those studies with new information, as set forth in more detail below.

4. The EA fails to evaluate the impacts of upstream gas production

The EA violates NEPA by failing to take a hard look at impacts from upstream gas production, including but not limited to upstream gas leakage rates and associated GHG emissions as well as air and water quality impacts from export-induced gas production. Instead, the EA relies on the outdated, inaccurate, and over-generalized 2014 and 2019 GHG studies, and claims it does not have the ability to determine where the gas would come from with any specificity:

> The natural gas to be liquefied and exported by the MPL Facility would be produced from natural gas wells in the lower-48 states. As noted in section 2.1.1, a majority of onshore natural gas produced in the lower-48 United States is from unconventional resources.
>
> …
>
> However, DOE does not have the ability to determine which specific natural gas resources would be produced to serve the MPL Facility[82]

This position is arbitrary and capricious and violates NEPA in several ways. As explained below, DOE and/or FERC does know with some level of certainty, or at the very least, have the ability to easily ascertain, where MPL's gas would be sourced from: a total of 8 possible upstream sources located within Texas' Permian Basin and accessed via OneOK's WesTex intrastate pipeline system.[83] In the FERC Saguaro Pipeline docket, Sierra Club has repeatedly argued that FERC's should exercise jurisdiction over the entire 157-mile Saguaro Pipeline because it will transport interstate gas, and is thus an interstate pipeline pursuant to NGA section

[82] Draft EA, at 12.

[83] Sierra Club does not concede or agree with OneOK's position that Saguaro will transport only intrastate gas, produced entirely within Texas.

7. However, in arguing that Saguaro is solely an intrastate gas pipeline, OneOK has stated that all of the Saguaro Pipeline's gas that will be exported to the MPL facility will come from a total of 8 possible upstream sources via its WesTex system.[84] OneOK and MPL cannot have it both ways: they cannot claim they know where the gas will come from when attempting to evade FERC jurisdiction; yet claim they do not know where the gas will come from when it comes to evaluating the upstream impacts of gas development.

The disconnect on this issue is a perfect example of why DOE and FERC should be coordinating their NEPA reviews for MPL and Saguaro, sharing information, and/or evaluating the two projects as connected actions in a single EIS.[85]

The facts in this case distinguish the MPL application from other projects where courts have held DOE and/or FERC were not required to evaluate upstream impacts because the agencies had no ability to determine where the gas would be coming from. For example, in *Sierra Club v. U.S. Dep't of Energy*, 867 F.3d 189, 199 (D.C. Cir. 2017), the court held that DOE was not required to evaluate the impacts from export-induced upstream gas production because DOE "was stumped by where, at the local level, such production might occur." Because there was nothing in the record to narrow down the upstream source of gas, DOE assumed it could from anywhere in the lower 48 states.[86] In contrast here, the applicant has stated it knows where the gas will be coming from; or, can at least narrow it down to a handful of possible sources.[87]

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[84] OneOK response to FERC data request, October 27, 2023, at 4, attached as Exhibit 10; *see also* Sierra Club Supplemental Comments (Nov. 10, 2023), at 13-15, attached as Exhibit 11.
[85] *See* section B, *supra*.
[86] *Id*. ("This means every natural-gas-producing region in the country is a potential source for new gas wells in order to meet export-induced natural gas demand."); *see also Delaware Riverkeeper Network v. FERC*, 45 F.4th 104, 109 (D.C. Cir. 2022) ("petitioners here 'have identified no record evidence that would help the Commission predict the number and location of any additional wells that would be drilled as a result of production demand created by the Project.'" (quoting *Birckhead v. FERC*, 925 F.3d 510 (D.C. Cir. 2019)).
[87] OneOK's representation of "8 potential sources of intrastate volume" is several months old, and lacked

If DOE does not know where MPL's gas will be sourced from, it is only because it has not looked or asked. As set forth above, *supra* section B, DOE has an obligation to independently verify information provided by the applicant, and to seek information regarding environmental impacts pursuant to NEPA, 40 C.F.R. § 1502.21. The EA fails to meet these obligations. DOE cannot simply say that it "does not have the ability to determine which specific natural gas resources would be produced to serve the MPL Facility" and leave it at that.[88] Rather, it must apply 40 C.F.R. § 1502.21 and at least set forth that the information is lacking, its relevance to the environmental review, and make reasonable efforts to summarize relevant and available information while all the while acknowledging the missing information.

Nonetheless, despite DOE and FERC knowing, or at least being able to easily ascertain, where the MPL gas will be sourced from the EA inexplicably uses general GHG estimates for the entire "lower--48 states" from the 2014 and 2019 studies:

> DOE finds it reasonable to apply the GHG Studies in reviewing the life cycle emissions related to exports proposed in the Application. The source of natural gas for the MPL Facility (the lower-48 states) is the same source analyzed in the GHG Studies.

As set forth below, nearly every study has found that leakage rates from the Permian Basin, where MPL is most likely to source its gas, are far higher than average U.S. leakage rates.

For these and other reasons explained in more detail in this section, the EA's analysis of upstream and downstream GHG emissions fails to satisfy NEPA, and DOE should prepare an EIS to evaluate the significant GHG impacts of the MPL proposal.

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specificity. Thus, it is likely DOE and/FERC could easily seek additional information from the applicant to narrow that number down, as Sierra Club has urged FERC to do. *See* Exhibit 11. And even if the precise nature of local impacts (e.g., local air and water pollution) are difficult to predict, DOE can and should at least estimate some upstream impacts, including but not limited to regional impacts and upstream GHG emissions based on gas leakage rates in the Permian Basin.

[88] Draft EA, at 12.

5. The EA fails to provide an actual estimate of MPL's GHG emissions

The EA acknowledges that MPL's LNG export terminal will not be constructed unless DOE grants the MPL application for an additional 291 Bcf/d of gas to be exported to non-FTA countries.[89] As such, the EA should evaluate the life-cycle GHG emissions associated with the full amount of gas to be exported from MPL.[90] The EA fails to contain this analysis.

Instead, the EA largely relies on life-cycle studies DOE had prepared in 2014 and 2019, and ultimately comes to the same conclusion it has reached with respect to every gas export proposal it has ever considered: the MPL proposal is in the public interest because it would likely substitute or displace coal and other higher carbon fuels. As set forth below, this conclusion is arbitrary and capricious for a number of reasons.

But more fundamentally, the EA's comparison to coal skips a critical step: the estimation of total GHGs attributable to MPL. Federal agencies routinely provide such estimates in their NEPA analyses. But an estimate is nowhere to be found in the EA. Instead, the EA frames the GHG analysis solely *as a comparison* to coal and/or other fuels. The EA explains:

> Because the GHG Studies examined use of fuels for power generation as a basis of comparison, emissions rates are expressed in terms of the amount of carbon dioxide-equivalent (CO2-e) of GHGs emitted per unit of electricity generated -- carbon dioxide-equivalent emissions per megawatt-hour (CO2-e/MWh).[91]

As set forth below, there is little evidence in the record to support the notion that MPL's exports will primarily displace coal or other high-carbon fuels. But regardless, the EA must first estimate

[89] *See* Draft EA, at 6 ("If the Application is not granted, DOE assumes, for the purposes of this EA, that the MPL Facility would not be operated and the potential environmental impacts from the MPL Facility would not occur."); *see also* Section H, *infra.*
[90] However, even if the EA were limited to evaluating the GHG emissions associated with the 291 Bcf/d of exports to non-FTA countries, the same arguments throughout this comment letter would apply equally.
[91] Draft EA, at 19.

the lifecycle GHGs attributable to the extraction, transportation, and end use burning of 1,046,570 Bcf/y of gas from this project.

Ultimately, the EA estimates that the gas from MPL will result in 688 kg CO2-e/MWh. The use of this metric, kg CO2-e/MWh, is useless to the public, as it would require one to determine the amount of electricity generated at a power plant in China, for example, and then conduct additional calculations. DOE does not explain why it cannot or will not express MPL's life-cycle GHG emissions in terms of *tons of GHGe per year*, as other agencies routinely do, as the GHG Guidance recommends, and as would allow an estimate of SC-GHG.

6. DOE's prior life cycle GHG analyses are not a substitute for NEPA review, and do not demonstrate that GHG emissions caused by the proposal are consistent with the public interest

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.[92] 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 current available science regarding LNG's impacts.

To satisfy NEPA's hard look mandate, the DOE must estimate the life-cycle GHG emissions associated with the full amount of gas to be exported via MPL, and provide that estimate in a context that is useful to the public and to the decisionmaker. The EA fails to do that.

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

a. The life cycle analyses ask the wrong questions

MPL seeks authorization to increase exports through 2050. 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 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?"[93] 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 thirty-year requested authorization term.

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 International Energy Agency,[94] Intergovernmental Panel on Climate Change,[95] and others. Executive Order 14,008 appropriately instructs federal agencies to work to discourage other countries from "high

[93] 84 Fed. Reg. 49,278, 49,279 (Sept. 19, 2019).
[94] International Energy Agency, Net Zero by 2050, at 101-02, Exhibit 39 to Sierra Club Protest.
[95] Intergovernmental Panel on Climate Change, *Special Report: Global Warming of 1.5 C, Summary for Policymakers* at 13-17 (May 2019), *available at* https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf, Exhibit 40 to Sierra Club Protest.

carbon investments" or "intensive fossil fuel-based energy."[96] 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.[97] Similarly, DOE has acknowledged that "U.S. LNG Exports may … compete with renewable energy … as well as efficiency and conservation measures" in overseas markets.[98] 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, and such that U.S. LNG exports are likely to increase net global GHG emissions.[99]

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

[96] Executive Order 14,008 at § 102(f), (h).
[97] U.S. EIA, 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, Exhibit 1 to Sierra Club Protest.
[98] DOE/FE Order 3638, at 202-03.
[99] 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, Exhibit 41 to Sierra Club Protest.

emissions will be offset by foregone production elsewhere. Instead, nations' commitments under the Paris Accord and similar agreements "should include greenhouse gas emissions and removals taking place within national territory and offshore areas over which the country has jurisdiction."[100] 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 must address the impact of such exports on domestic emissions specifically, in addition to including reasonable forecasting about global impacts.

At the most basic level, DOE must acknowledge that increasing the supply of US LNG exports would be expected to decrease average global LNG prices, and thereby spur an increase in global gas consumption. There is no reason to assume that US LNG exports will solely substitute for other sources of gas without increasing overall gas demand and use. Nor is there a reason to assume that, insofar as an increase in gas consumption occurs, this increase will solely be due to displacement of coal. Putting aside specific information about global energy markets, basic economics demonstrate that the lifecycle report is not looking at the whole picture.

Considering information about potential end use markets further indicates that increasing US LNG exports will meaningfully increase energy use and/or compete with renewables. Global LNG markets are abundantly supplied. According to the International Energy Agency, "Demand from traditional LNG buyers, namely Japan and Korea, is likely to be flat or decline gradually

[100] 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.ipcnggip.iges.or.jp/public/2019rf/pdf/1_Volume1/19R_V1_Ch08_Reporting_Guidance.pdf, at 8, Exhibit 42 to Sierra Club Protest.

depending on use in power generation;"[101] "demand from traditional buyers is expected to be stagnant."[102] Any growth in Asian LNG demand "is being driven by newer importers"[103] or "non-traditional emerging buyers, namely Bangladesh, China, India and Pakistan."[104] The Energy Information Administration also uses tools to estimate the extent to which foreign markets are actually likely to buy US LNG.[105]

The International Energy Agency predicts that in these likely and other markets for marginal US LNG exports, exports are likely to supply increased energy demand, rather than solely or even primarily displace existing generation.[106] EIA's International Energy Outlook predicts that global energy consumption will steadily increase in the coming decades, and that this increase will be satisfied by growth in renewables and gas, with renewables exceeding gas and coal by 2030.[107] Insofar as the primary question facing these markets is whether to meet increasing energy needs through gas or renewables, increasing international trade in LNG and other measures to increase global availability of natural gas will cause natural gas to displace use of wind, solar, or other renewables that would otherwise occur.[108] On the other hand, recent peer reviewed research concludes that US LNG exports are likely to play only a limited role in

[101] International Energy Agency, *Global Gas Security Review 2019* at 10 (Sept. 2019), *available at https://iea.blob.core.windows.net/assets/615a9f02-08af-449d-8baa-ea05198fefbc/Global_Gas_Security_Review_2019.pdf* , Exhibit 43 to Sierra Club Protest.
[102] *Id.* at 4.
[103] *Id.*
[104] *Id.* at 11.
[105] *See, e.g.,* International Energy Agency, *Assumptions to the Annual Energy Outlook* 2022 (March 2022), at 4, available at https://www.eia.gov/outlooks/aeo/assumptions/pdf/natgas.pdf, Exhibit 44 to Sierra Club Protest.
[106] International Energy Agency, *Golden Rules for a Golden Age of Gas*, Ch. 2 p. 91 (May 2012), available at https://iea.blob.core.windows.net/assets/8422ef9a-9ae8-4637-ab1c-ddb160ab7c59/WEO_2012_Special_Report_Golden_Rules_for_a_Golden_Age_of_Gas.pdf Exhibit 45 to Sierra Club Protest.
[107] EIA, *International Energy Outlook 2019* at 31 (Sept. 2019), *available at* https://www.eia.gov/outlooks/ieo/pdf/ieo2019.pdf , Exhibit 46 to Sierra Club Protest.
[108] International Energy Agency, *Golden Rules for a Golden Age of Gas, supra* note 107.

displacing foreign use of coal, and such that US LNG exports are likely to increase net global GHG emissions.[109] Although the D.C. Circuit previously upheld the Department of Energy's reliance on assumption that U.S. LNG exports would principally displace other fossil fuels and therefore have a negligible impact on global greenhouse gas emissions, this recent research and information about global energy markets was not before the agency in those cases.[110] This new information demonstrates that there are now tools to perform a more careful and informative analysis than was done in that case and DOE cannot reasonably rely on outdated precedent in the face of updated, available information on the subject.

b. The 2019 and 2014 lifecycle analyses understate emissions

In addition to asking the wrong questions, DOE's prior lifecycle analyses are factually unsupported and understate emissions, as Sierra Club and NRDC have previously explained. There are numerous studies, publications, and other credible pieces of information that call into question DOE's outdate conclusions about lifecycle GHG emissions, which the EA fails to address.

First, 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.[111] The Gas Lifecycle study concludes that "The national average CH4 emission rate is 1.24%" and further states: "This analysis uses the Environmental Protection Agency (EPA)'s GHGRP and GHGI for the 2017 reporting year to account for the venting and fugitive emissions from the

[109] Gilbert, A. Q. & Sovacool, B. K., *US liquefied natural gas (LNG) exports: Boom or bust for the global climate?, supra* note 100.
[110] *See, e.g., Sierra Club v. United States Dep't of Energy,* 867 F.3d 189, 202 (D.C. Cir. 2017).
[111] 2019 Life Cycle GHG Perspective at 27.

natural gas supply chain (with the exception of offshore production...)."[112] Thus, for the vast majority of DOE's accounting for fugitive emissions, they are not using the latest research. Instead, they are using reporting, which research has shown undercounts emissions.

The latest research has called those conclusions into question. For example, multiple studies have found the national leakage rate to be 2.3%.[113] And numerous studies published since 2019, and measuring actual emissions find much higher leak rates, particularly with respect to the Permian Basin: 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%.[114] A 2022 study found leak rates in the New Mexico Permian basin to average 9.4%, with some statistical models used placing the average as high as 11%.[115] As we have previously explained, there are many reasons to believe these atmospheric measurements are more reliable than the "bottom up" estimates used by DOE—notably, the fact that bottom up estimates poorly represent the rare but severe major leaks that constitute a large fraction of upstream emissions.[116] Every year, new research further affirms that gas production

[112] NETL, Life Cycle Analysis of National Gas Extraction and Power Generation, April 19, 2019, at 1, 17.
[113] Ramon Alvarez, et al., *Assessment of methane emissions from the U.S. oil and gas supply chain*, Science, July 13, 2018, *available at* https://www.science.org/doi/10.1126/science.aar7204 and attached as Exhibit 12; Mason Inman, Emily Grubert, Zach Weller, *The Gas Index*, December 15, 2020, *available at* https://thegasindex.org/wp-content/uploads/2020/12/Gas-Index-report-2020-final.pdf?hsCtaTracking=17ccb21f-c72b-42fe-a465-fccbcc037407%7C0537ae90-a261-4dd1-a4bf-cfc78d6c4c69 and attached as Exhibit 13.
[114] *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 and attached as Exhibit 14; *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 and attached as Exhibit 15.
[115] Chen, et al., Quantifying Regional Methane Emissions in the New Mexico Permian Basin with a Comprehensive Aerial Survey, Environmental Science and Technology (March 23, 2022), DOI: 10.1021/acs.est.1c06458, *available at* https://pubs.acs.org/doi/10.1021/acs.est.1c06458, Exhibit 49 to Sierra Club Protest.
[116] 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, Exhibit 50 to Sierra Club Protest.

emits greater amounts of methane than what DOE's analyses have assumed, despite ongoing efforts to reduce methane emissions.[117]

In fact, a (pre-peer reviewed) study in 2023 by Robert Howarth concluded that the life-cycle GHG emissions from LNG transported long distances across oceans are far higher than previously believed, such that LNG is more carbon-intensive than coal.[118] Another recent study found leakage rates to vary from 0.65% to 66.2%; that upstream gas delivered with leakage rates of 4.7% or more is on par with the life-cycle emissions from coal; and found some leakage rates "as low as 0.2%" make the gas on par with coal from a GHG standpoint.[119]

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

The 2019 GHG Analysis further underestimates emissions at other stages of the LNG lifecycle. For one, DOE cannot ignore emissions associated with transporting LNG from the import terminal to the end user. The report states that "For this analysis, it was assumed that the natural gas power plant in each of the import destinations is located close to the LNG port, so no additional pipeline transport of natural gas is modeled in the destination country."[120] This assumption is improper. Indeed, in China, LNG is being transported from terminal to end users by *truck*, a process that presumably entails significant emissions even greater than transportation by pipeline.[121] This is not a fringe or one-off occurrence: it already accounts for 12 percent of

[117] 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, Exhibit 51 to Sierra Club Protest.
[118] Robert Howarth, *The Greenhouse Gas Footprint of Liquefied Natural Gas (LNG) Exported from the United States***,** 2023, attached as Exhibit 16.
[119] Deborah Gordon, et al., 2023 Environ. Res. Lett. 18 084008, attached as Exhibit 17.
[120] 2019 Lifecycle Analysis, at 4.
[121] Murtaugh, *Welcome to Gas Pipelines on Wheels*, Bloomberg Business (Nov. 5, 2018), *available at* https://www.bloomberg.com/news/articles/2018-11-05/china-gas-craze-gets-help-from-trucks-as-pipelines-can-t-keep-up, Exhibit 52 to Sierra Club Protest.

China's LNG use, and one developer "is using it as a primary way to move LNG from its new terminal."[122] Even where LNG is moved from the terminal to end users by pipelines, the emissions can potentially be significant. Even if the journey from regasification to end use may be shorter than the journey from the well to the liquefaction terminal, the emissions per pipeline mile may be higher for this leg of the journey. The Intergovernmental Panel on Climate Change's ("IPCC") most recent "Guidelines for National Greenhouse Gas Inventories" explains that, measured against emissions in North America and Western Europe, "in developing countries and countries with economies in transition . . . there are [generally] much greater amounts of fugitive emissions per unit of activity."[123] In light of the finite number of LNG import facilities, it is inappropriate for DOE to simply assume that end users are adjacent to import terminals, rather than examine whether this is in fact the case. That is especially true here, where DOE knows where in China (and elsewhere) the LNG from MPL would be delivered.[124]

Finally, DOE's GHG reports listed in the Federal Register notice, the most recent of which is from 2019, should be revaluated in light of all the recent developments in climate science and policy as described throughout this protest, including but not limited to the following: CEQ's interim climate guidance; the Biden Administration's adoption of ambitious climate goals to reach our Paris climate goals; recent data on higher-than-expected upstream gas leakage rates; Russia's invasion of Ukraine, which has upended the global gas market; the

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[122] *Id*.
[123] Intergovernmental Panel on Climate Change, *2006 IPCC Guidelines for National Greenhouse Gas Inventories*. Vol. 2 Ch. 4, at 4.46; *available at* https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_4_Ch4_Fugitive_Emissions.pdf, Exhibit 53 to Sierra Club Protest.
[124] *See* Section D.11, *infra*.

enactment of the Inflation Reduction Act into law; and several recent IPCC reports which call for more urgent GHG reduction measures each year.

In addition, the last few years have seen an unprecedented and unexpected surge in renewable energy production and deployment, which was not considered in any of the DOE GHG studies. For example,

> The global energy crisis is driving a sharp acceleration in installations of renewable power, with total capacity growth worldwide set to almost double in the next five years, overtaking coal as the largest source of electricity generation along the way and helping keep alive the possibility of limiting global warming to 1.5 °C, the IEA says in a new report.
>
> Energy security concerns caused by Russia's invasion of Ukraine have motivated countries to increasingly turn to renewables such as solar and wind to reduce reliance on imported fossil fuels, whose prices have spiked dramatically. Global renewable power capacity is now expected to grow by 2 400 gigawatts (GW) over the 2022-2027 period, an amount equal to the entire power capacity of China today, according to *Renewables 2022*, the latest edition of the IEA's annual report on the sector.
>
> This massive expected increase is 30% higher than the amount of growth that was forecast just a year ago, highlighting how quickly governments have thrown additional policy weight behind renewables. The report finds that renewables are set to account for over 90% of global electricity expansion over the next five years, overtaking coal to become the largest source of global electricity by early 2025.[125]

Based on the rapid growth of renewables, the U.S. Energy Information Administration now predicts:

> [R]enewable energy sources will grow the most during the next two years, with about 7 gigawatts (GW) of new wind capacity and 29 GW of new solar PV capacity being installed in 2023. These additions will result in renewable energy resources other than hydropower accounting for 19% of generation in 2024 compared with 15% in 2022.[126]

[125] International Energy Agency, Renewable power's growth is being turbocharged as countries seek to strengthen energy security (Dec. 6, 2022), *available at* https://www.iea.org/news/renewable-power-s-growth-is-being-turbocharged-as-countries-seek-to-strengthen-energy-security, Exhibit 54 to Sierra Club Protest.

[126] EIA, Short-Term Energy Outlook (March 2023), available at https://www.eia.gov/outlooks/steo/pdf/steo_full.pdf, Exhibit 55 to Sierra Club Protest.

Last month, China's National Energy Administration (NEA) announced that China had installed "142.5 GW of solar in the first 10 months of this year, bringing it to nearly 540 GW of cumulative installed PV capacity by the end of October." [127] And the International Energy Agency predicts another strong year for renewables in 2024:

> Global renewable capacity additions are set to soar by 107 gigawatts (GW), the largest absolute increase ever, to more than 440 GW in 2023. This is equivalent of more than the entire installed power capacity of Germany and Spain combined. This unprecedented growth is being driven by expanding policy support, growing energy security concerns and improving competitiveness against fossil fuel alternatives. These factors are outweighing rising interest rates, higher investment costs and persistent supply chain challenges.[128]

Even if the domestic and global growth in renewable energy sources that has occurred in the last few years has been within the bounds of previous estimates; the latest *projections* for explosive growth of renewable energy sources in the decades to come have occurred since DOE's last analyses of gas exports, which has the potential to drastically alter the conclusions of those studies. DOE must consider this information in new analyses.

7. DOE must evaluate the cumulative impacts of MPL's life-cycle GHG emissions, combined with past, present, and reasonably foreseeable export authorizations

In addition to analyzing a proposed action's direct and indirect effects, NEPA and CEQ's regulations require an agency to also consider the proposed action's cumulative effects. *See* 40 CFR 1502.16, 1508.1(g)(3). Cumulative effects are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and

[127] Chinese PV Industry Brief: January-October PV Installations hit 142.5 GW (Nov. 21, 2023), *available at* https://www.pv-magazine.com/2023/11/21/chinese-pv-industry-brief-january-october-pv-installations-hit-142-5-gw/ and attached as Exhibit 18.
[128] IEA, Renewable Energy Markey Update, (June 1, 2023), *available at* https://www.iea.org/news/renewable-power-on-course-to-shatter-more-records-as-countries-around-the-world-speed-up-deployment and attached as Exhibit 19.

reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.[129]

The CEQ's GHG Guidance notes: "Given that climate change is the result of the increased global accumulation of GHGs climate effects analysis is inherently cumulative in nature." 88 Fed Reg. 1206. It further explains:

> In evaluating a proposed action's cumulative climate change effects, an agency should consider the proposed action in the context of the emissions from past, present, and reasonably foreseeable actions. When assessing cumulative effects, agencies should also consider whether certain communities experience disproportionate cumulative effects, thereby raising environmental justice concerns.

Id. at 1205-06.

The DOE should evaluate the cumulative GHG emissions of its past, present, and reasonably foreseeable LNG export authorizations; and evaluate whether additional exports like the amounts sought in the MPL application, added to the cumulative amounts, are consistent with the Biden Administration's climate goals, and the remaining carbon budget, as set forth below.[130]

Since the start of the hydraulic fracturing boom in the U.S., DOE has approved at least 40 export authorizations for LNG facilities located in the U.S.; and it presently has approximately 25 additional export applications pending before it. DOE has approved gas exports from U.S. LNG terminals in the amount of 68.44 Bcf/day of exports to FTA countries and 63.44 Bcf/day of exports to non-FTA countries. [131]

[129] 40 CFR 1508.1(g)(3).
[130] *See WildEarth Guardians v. BLM*, 457 F. Supp. 3d 880, 894 (D. Mont. 2020) (citations omitted) ("if BLM ever hopes to determine the true impact of its projects on climate change, it can do so only by looking at projects in combination with each other, not simply in the context of state and nation-wide emissions. Without doing so, the relevant 'decisionmaker' cannot determine 'whether, or how, to alter the program to lessen cumulative impacts' on climate change.")
[131] Summary of LNG Export Applications (March. 14, 2023), Exhibit 56 to Sierra Club Protest.

Although not all of the approved export projects have been built or have come online, DOE has already approved far more total gas exports than the highest amounts evaluated in its studies. For example, the 2015 Study looked at exports in the range of 12-20 Bcf/day. Although DOE's 2018 study evaluated several dozen more scenarios, including some using very high export levels, that analysis was based on 2017 data which needs to be updated for all the reasons set forth herein. An updated analysis of various scenarios, based on recent data, events, and projects, will help inform DOE decision-makers whether additional exports to non-FTA countries in the amount sought by MPL is in the public interest.

To the extent that DOE's discretion to approve or deny export applications to free-trade agreement (FTA) countries is limited, it clearly has the discretion to deny export applications to non-FTA countries based on whether the project would be in the public interest. Therefore, evaluating the cumulative effects of all past, present, and reasonably foreseeable export authorizations, for example to determine whether and to what extent they are consistent with reaching our climate goals, would be useful to DOE decisionmakers in making public interest determinations for export applications to non-FTA countries.

The DOE should also evaluate the cumulative climate impacts of past, present, and reasonably foreseeable LNG exports (*i.e.*, re-exports) it has approved out of Mexico, and/or specifically on the west coast of Mexico. This is a narrower and geographically-similar subset of all DOE-approved LNG export projects, which share or compete for the same upstream gas supply and pipeline capacity (and which will require additional pipelines, as explained above), and which are primarily designed for LNG exports to Asian markets.

As set forth above, DOE has already approved at least four export applications for LNG projects in Mexico, totaling 3.5 Bcf/y. DOE now has at least 6 more applications before it

(including the instant docket), which would authorize an additional 5.86 Bcf/y if approved. The DOE should evaluate the cumulative impacts, including but not limited to life-cycle GHG emissions and climate impacts, of these Mexican export projects.

Finally, DOE should prepare a Programmatic EIS (PEIS) to evaluate its LNG gas export authorizations writ large; and/or a PEIS that is limited to LNG gas export projects out of Mexico. CEQ's GHG Guidance explains:

> In the context of long-range energy, transportation, resource management, or similar programs or strategies, an agency may decide that it would be useful and efficient to provide an aggregate analysis of GHG emissions or climate change effects in a programmatic analysis and then incorporate it by reference into future NEPA reviews. **…**
>
> A programmatic NEPA review also may serve as an efficient mechanism in which to assess Federal agency efforts to adopt broad-scale sustainable practices for energy efficiency, GHG emissions avoidance and emissions reduction measures, petroleum product use reduction, and renewable energy use, as well as other sustainability practices. *See* E.O. 14057, *supra* note 7 (establishing government-wide and agency GHG reduction goals and targets).

88 Fed. Reg. at 1210-1211. A PEIS for DOE's overall gas export program would be useful to evaluate the environmental impacts, including but not limited to the GHG emissions, which would help determine the appropriate level of overall gas exports that would be in the public interest, and align with our GHG reduction goals.

8. DOE must quantify the GHG emissions attributable to the MPL export, and calculate the social cost

The DOE EIS for the MPL export proposal should first calculate the life-cycle GHG emissions associated with the amount of gas that MPL seeks to export. "The reasonably foreseeable indirect effects … would include effects associated with the processing, refining,

transporting, and end-use of the fossil fuel… including combustion of the resource to produce energy."[132]

As set forth in the GHG Guidance:

> [W]hen considering GHG emissions and their significance, agencies should use appropriate tools and methodologies to quantify GHG emissions, compare GHG emission quantities across alternative scenarios (including the no action alternative), and place emissions in relevant context, including how they relate to climate action commitments and goals. This approach allows an agency to present the environmental and public health effects of a proposed action in clear terms and with sufficient information to make a reasoned choice between no action and other alternatives and appropriate mitigation measures. This approach will also ensure the professional and scientific integrity of the NEPA review. *See* 40 CFR 1502.23 (requiring agencies to ensure the professional and scientific integrity of the discussions and analyses in environmental impact statements).[133]

DOE should use the specific methods described in detail by the GHG Guidance at pages 1201-02.

Next, the MPL EIS should "disclose and provide context for GHG emissions and climate effects to help decision makers and the public understand proposed actions' potential GHG emissions and climate change effects" by applying "the best available estimates of the [social cost of greenhouse gas emissions ("SC-GHG")]."[134] The GHG Guidance explains the purpose behind this requirement:

> The SC–GHG estimates allow monetization (presented in U.S. dollars) of the climate change effects from the marginal or incremental emission of GHG emissions, including carbon dioxide, methane, and nitrous oxide.
> These 3 GHGs represent more than 97 percent of U.S. GHG emissions. The SC–GHG provides an appropriate and valuable metric that gives decision makers and the public useful information and context about a proposed action's climate effects even if no other costs or benefits are monetized, because metric tons of GHGs can be difficult to

[132] 88 Fed. Reg. 1204.
[133] *Id*. at 1201.
[134] *Id*. at 1202; *see also* IWG SC–GHG, U.S. Gov't, *Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990* (Feb. 2021), *available at* https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf, Exhibit 57 to Sierra Club Protest.

> understand and assess the significance of in the abstract. The SC–GHG translates metric tons of emissions into the familiar unit of dollars, allows for comparisons to other monetized values, and estimates the damages associated with GHG emissions over time and associated with different GHG pollutants. The SC–GHG also can assist agencies and the public in assessing the significance of climate impacts. This is a simple and straightforward calculation that should not require additional time or resources.[135]

In accordance with the GHG Guidance, DOE should apply the SC-GHG calculations to the MPL export proposal, and not only simply disclose the estimated costs, but incorporate those cost estimates into the decision-making process. For example, in evaluating whether the MPL exports would be in the "public interest," DOE must weigh the SC-GHG estimates against any purported economic benefits.

9. The EA fails to evaluate whether the GHG emissions of the MPL proposal are consistent with climate goals

In evaluating the life-cycle GHG emissions of the gas associated with MPL, DOE should consider "how they relate to climate action commitments and goals."[136] The GHG analysis should "be complemented with evaluation that compares the proposed action's and reasonable alternatives' energy use against scenarios or energy use trends that are consistent with achieving science-based GHG reduction goals, such as those pursued in the *Long-Term Strategy of the United States.*"[137] The Draft EA fails to do that.

For actions "with *relatively large* GHG emissions or reductions or that will perpetuate reliance on GHG-emitting energy sources," CEQ advises agencies to explain how the proposed

[135] 88 Fed. Reg. 2203.
[136] 88 Fed. Reg at 1198.
[137] 88 Fed. Reg. at 1205, citing U.S. Dep't of State (DOS) & U.S. Exec. Off. Of the President (EOP), *The Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050* (Nov. 2021), https://www.whitehouse.gov/wp-content/uploads/2021/10/US-Long-Term-Strategy.pdf, Exhibit 58 to Sierra Club Protest.

action and alternatives would "help meet or detract from achieving relevant climate action goals and commitments."[138]

With each passing year, scientists are becoming more urgent in sounding the alarm that society needs to rapidly transition away from fossil fuels to stave off the worst effects of climate change. To do so, the U.S. and other governments around the world have implemented GHG reduction targets and other climate goals.

Current U.S. climate policy commits the U.S. to reduce GHGs by 50-52% below 2005 levels by 2030.[139] President Biden further set national goals to "achieve a carbon pollution-free electricity sector by 2035 and net-zero emissions economy-wide by no later than 2050."[140]

The GHG emissions of MPL must be evaluated in terms of whether they are consistent with these reduction goals; rather than measured against the *status quo* of burning increasing (or even current) amounts of fossil fuels. If the MPL GHG emissions would not be consistent with meeting our GHG-reduction goals, the project cannot be in the public interest.

10. The Draft EA fails to evaluate whether the GHG emissions of the MPL proposal are consistent with the remaining carbon budget

Similarly, the MPL GHG emissions must be evaluated to determine if they are consistent with staying within the remaining carbon budget. The carbon budget offers a cap on the remaining stock of GHGs that can be emitted while still keeping global average temperature rise

[138] 88 Fed. Reg. at 1203 (emphasis added).
[139] White House, "FACT SHEET: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies," (April 22, 2021), *available at* https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/ and attached as Exhibit 20.
[140] Executive Order 14057, "Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability" (Dec. 8, 2021), *available at* https://www.federalregister.gov/documents/2021/12/13/2021-27114/catalyzing-clean-energy-industries-and-jobs-through-federal-sustainability and attached as Exhibit 21.

below scientifically-established warming thresholds—beyond which climate change impacts may result in catastrophic and irreparable harm to the biosphere and humanity. The use of a carbon budget tool is essential for evaluating whether a given project would help meet or detract from achieving climate goals.

The Tenth Circuit Court of Appeals recently described the carbon budget as an accepted methodology "deriv[ing] from science suggesting the total amount of GHGs that are emitted is the key factor to determine how much global warming occurs. The carbon budget is a finite amount of total GHGs that may be emitted worldwide, without exceeding acceptable levels of global warming."[141] The court held that BLM violated the law by failing to consider the impacts of projected GHG emissions from new oil and gas well drilling approvals because it "neither applied the carbon budget method nor explained why it did not."[142]

The GHG Guidance recommends that agencies should place GHG emissions "in the context of relevant climate action goals and commitments including Federal goals, international agreements, state or regional goals, Tribal goals, agency-specific goals, or others as appropriate."[143] Perhaps the most relevant climate action commitment for purposes of CEQ's guidance is the United States' commitment to the climate change target of holding the long-term global average temperature "to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels" under the Paris Agreement.[144] The Paris Agreement established the 1.5 degree Celsius

[141] *Diné Citizens Against Ruining Our Env.*, 2023 WL 1430620 at * 16.
[142] *Id.* ("NEPA does not give BLM the discretion to ignore the impacts to the environment when there are methods for analyzing those impacts. So, while it is correct that BLM need not use any specific methodology, it is not free to omit the analysis of environmental effects entirely when an accepted methodology exists to quantify the impact of GHG emissions from the approved APDs.")
[143] 88 Fed. Reg. at 1203.
[144] United Nations Framework Convention on Climate Change, Conference of the Parties (Nov. 30-Dec. 11, 2015), Adoption of the Paris Agreement Art. 2, U.N. Doc. FCCC/CP/2015/L.9 (Dec. 12, 2015),

climate target given the evidence that 2 degrees of warming would lead to catastrophic climate harms.[145] Scientific research has estimated the global carbon budget—the remaining amount of carbon dioxide that can be emitted—for maintaining a likely chance of meeting the Paris climate targets, providing clear benchmarks for the United States and global climate action.[146]

Immediate and aggressive greenhouse gas emissions reductions are necessary to keep warming well below a 2 degrees Celsius rise above pre-industrial levels. The IPCC Fifth Assessment Report and other expert assessments have established global carbon budgets, or the total amount of carbon that can be burned while maintaining some probability of staying below a given temperature target. According to the IPCC, total cumulative anthropogenic emissions of CO_2 must remain below about 1,000 $GtCO_2$ from 2011 onward for a 66 percent probability of limiting warming to 2 degrees Celsius above pre-industrial levels, and to 400 $GtCO_2$ from 2011 onward for a 66 percent probability of limiting warming to 1.5 degrees Celsius.[147] These carbon budgets have been reduced to 850 $GtCO_2$ and 240 $GtCO_2$, respectively, from 2015 onward.[148] Most recently, an updated analysis of carbon budgets in the IPCC's Sixth Assessment Report

available at http://unfccc.int/resource/docs/2015/cop21/eng/l09.pdf ("Paris Agreement"), Exhibit 60 to Sierra Club Protest. The United States signed the Paris Agreement on April 22, 2016 as a legally binding instrument through executive agreement, and the treaty entered into force on November 4, 2016.

[145] IPCC, Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (Oct. 6, 2018), *available at* https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Full_Report_LR.pdf, attached as Exhibit 22

[146] *Id.*

[147] *Id.*

[148] The 2018 IPCC Special Report on Global Warming of 1.5 degrees Celsius estimated the carbon budget for a 66 percent probability of limiting warming to 1.5 degrees at 420 GtCO2 and 570 GtCO2 from January 2018 onwards, depending on the temperature dataset used. At the current emissions rate of 42 GtCO2 per year, this carbon budget would be expended in just 10 to 14 years. *See* IPCC, Global Warming of 1.5°C. Most recently, an updated analysis of carbon budgets in the IPCC's Sixth Assessment Report estimates that the remaining global carbon budget from the beginning of 2020 is now only 400 and 300 GtCO2 for maintaining 67 percent and 83 percent likelihoods, respectively, of limiting global warming to 1.5 degrees Celsius.

estimates that the remaining global carbon budget from the beginning of 2020 is now only 400 and 300 $GtCO_2$ for maintaining 67 percent and 83 percent likelihoods, respectively, of limiting global warming to 1.5 degrees Celsius.[149] Published scientific studies have estimated the United States' portion of the global carbon budget by allocating the remaining global budget across countries based on factors including equity principles and economics. Estimates of the remaining U.S. carbon budget consistent with meeting a 1.5°C target are negative or near zero and very limited.[150] Therefore, whatever remaining carbon budget the U.S. has left, if any, is very small and rapidly being consumed.

Notably, emissions from fossil fuels produced on federal lands represent a quarter of *all* CO_2 emissions in the U.S.[151] Carbon emissions from already leased fossil fuel resources on federal lands alone (30 to 43 $GtCO_{2e}$) would essentially exhaust the U.S. carbon budget for 1.5 degrees target if these leased fossil fuels are fully extracted and burned. The U.S. oil and gas industry is therefore on track to account for 60 percent of the world's projected growth in oil and gas production between now and 2030—the time period over which the IPCC concluded that global carbon dioxide emissions should be roughly halved to meet the 1.5 degrees Paris Agreement target.[152] Between 2018 and 2050, the United States is poised to unleash the world's

[149] IPCC, 2021: Summary for Policymakers at Table SPM.2, Exhibit 61 to Sierra Club Protest.
[150] Van den Berg, Nicole et al., Implications of various effort-sharing approaches for national carbon budgets and emission pathways, Climatic Change 162: 1805-1822 (2020), https://link.springer.com/article/10.1007%2Fs10584-019-02368-y, Exhibit 62 to Sierra Club Protest ; Dooley, Kate et al., Ethical choices behind quantifications of fair contributions under the Paris Agreement, Nature Climate Change 11: 300-305 (2021), https://www.nature.com/articles/s41558-021-01015-8, Exhibit 63 to Sierra Club Protest.
[151] Merrill, M.D., Sleeter, B.M., Freeman, P.A., Liu, J., Warwick, P.D., and Reed, B.C., Federal lands greenhouse gas emissions and sequestration in the United States—Estimates for 2005–14: U.S. Geological Survey Scientific Investigations Report 2018–5131, 31 (2018), Exhibit 64 to Sierra Club Protest.
[152] Intergovernmental Panel on Climate Change, Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (2018), *supra* note 145.

largest burst of CO_2 emissions from new oil and gas development—primarily from shale and largely dependent on fracking—estimated at 120 billion metric tons of CO_2 which is equivalent to the lifetime CO_2 emissions of nearly 1,000 coal-fired power plants. Based on a 1.5 degrees IPCC pathway, U.S. production alone would exhaust nearly 50 percent of the world's total allowance for oil and gas by 2030 and exhaust more than 90 percent by 2050. Additionally, if U.S. coal production is to be phased out over a timeframe consistent with equitably meeting the Paris goals, at least 70 percent of U.S. coal reserves in already-producing mines must stay in the ground. In short, if not curtailed, U.S. fossil fuel expansion will impede the world's ability to meet the Paris climate targets and preserve a livable planet. Agencies need to recognize these factors in their analysis of projects—particularly fossil-fuel development projects—that propose to add to the atmospheric burden of CO_{2e}. The consideration of GHG emissions and climate change must necessarily be made against this backdrop.

DOE's EIS for MPL should apply the carbon budget tool for evaluating whether MPL would help meet or detract from achieving climate goals.

Along the same lines, DOE's evaluation of the MPL export application should be measured against a "no action alternative," or baseline, that assumes a continued reduction of GHG emissions in years to come commensurate with meeting our climate reduction goals. As CEQ explains, an EIS "must identify the current and projected future state of the affected environment without the proposed action (*i.e.,* the no action alternative), which serves as the baseline for considering the effects of the proposed action and its reasonable alternatives."[153] That analysis:

> [S]hould be complemented with evaluation that compares the proposed action's and reasonable alternatives' energy use against scenarios or energy use trends that are

[153] 88 Fed. Reg. at 1204.

consistent with achieving science-based GHG reduction goals, such as those pursued in the *Long-Term Strategy of the United States.*"[154]

When assuming fossil fuel reliance decades into the future, the frequent agency conclusion is that a proposed fossil fuel project will primarily substitute for other fossil fuels instead of renewables, thus minimizing a project's climate impact. But the Paris Agreement recognizes that the status quo (i.e., current or increasing levels of fossil fuel use) is unsustainable, and will lead to disastrous global consequences. Thus, the MPL emissions should be measured against a Paris-compliant future, which would reveal significantly larger net GHG emissions resulting from approval of the MPL application.

Finally, the GHG impacts of gas exports to non-FTA countries like those requested by the MPL application should undergo particular scrutiny, considering DOE's discretion may be limited with respect to exports to FTA countries. In other words, while the GHG emissions and global climate impacts attributable to gas exports will be the same regardless of whether the exports go to FTA or non-FTA countries, DOE's ability to deny export projects based on the public interest, and based on whether the exports are consistent with our climate goals, are limited to exports to non-FTA countries. As such, denying additional exports to non-FTA countries represent the best opportunity for DOE to curb exports in order to keep GHG emissions in check.

Indeed, Congress must have had good reason to differentiate how DOE is supposed to evaluate exports to FTA versus non-FTA countries, with the latter requiring a project-by-project public interest evaluation. Nonetheless, DOE has treated exports to FTA and non-FTA countries the same and essentially ignored the statutory distinction. DOE interprets the statute as creating a presumption that gas exports are in the public interest, even for non-FTA countries. To Sierra

[154] *Id*. at 1205.

Club's knowledge, DOE has never found an instance where the public interest "presumption" was rebutted for exports to non-FTA countries; nor has it ever denied an export application to non-FTA countries. To date, DOE has approved almost the same amount of exports to non-FTA countries (63.44 Bcf/d) as exports to FTA countries (68.44 Bcf/d). DOE's equal treatment of exports to FTA and non-FTA countries is arbitrary and capricious and violates the NGA.

11. DOE cannot assume that MPL's gas exports will primarily displace coal, as opposed to renewable energy, at the end-use burning stage

In evaluating the GHG emissions and climate impacts of the MPL application, DOE cannot assume that gas exported from MPL will primarily displace coal as opposed to renewable and/or low-carbon energy sources. Instead, it must analyze how the MPL-exported gas will influence GHG emissions and what types of fuel it might displace, based on the specific location of the gas. Although one court held that DOE was not required to perform a detailed displacement analysis for exports to non-FTA nations generally because it would be too speculative and would involve too many uncertainties;[155] in contrast here, DOE can and should do so here because DOE can easily determine where MPL's proposed gas exports are primarily going: South Korea, Japan, and China. As set forth above, MPL has marketed its LNG facility as a more-cost effective option for shipping gas to Asian markets, because its location on Mexico's west coast would allow ships to forgo the Panama Canal. And MPL has announced agreements with specific companies, in specific locations, that will purchase and offload the LNG shipments from MPL. For example:

[155] *Sierra Club v. United States Dep't of Energy*, 867 F.3d 189, 202 (D.C. Cir. 2017) (holding DOE should not be required to evaluate "the dynamics of *all energy markets in LNG-importing nations*…")(emphasis added).

- In 2022, MPL announced it had entered into a sales and purchase agreement with Shell Eastern Trading (Pte) Ltd. to purchase 2.6 metric tons/year (mmty) of MPL LNG over a term of 20 years.[156]
- In addition, "China's Guangzhou Development Group Inc. also disclosed earlier [last] year it had signed a 20-year binding offtake agreement with MPL for about 2 mmty from the proposed [MPL] terminal."[157]
- MPL announced in February 2023 that it had entered into two 20-year sales and purchase agreements with ExxonMobil LNG Asia Pacific to purchase 2.0 million metric tons/year (mmty) of MPL's gas.[158]
- In July of 2023, MPL announced an offtake deal with another firm in China, Zhejiang Energy International Ltd, under which the firm agreed to purchase about 1 million metric tons/year (mmty) for 20 years.[159] "Zhejiang Energy is the sole gas distributor in Zhejiang province, one of the largest provincial economies in China, and under this new agreement, Mexico Pacific will further support the growing energy requirements of this region."

[156] Andrew Baker, *Shell Signs Binding Offtake Agreement for Mexico LNG Terminal*, Natural Gas Intelligence (July 12, 2022), *available at* https://www.naturalgasintel.com/shell-signs-binding-lng-offtake-agreement-for-mexico-lng-terminal/ Exhibit 66 to Sierra Club Protest.
[157] Jacob Dick, *Offtaker Interest Heating Up for Mexico LNG Projects*, Natural Gas Intelligence (Apr. 4, 2022), *available at* https://www.naturalgasintel.com/offtaker-interest-heating-up-for-mexico-lng-projects/ Exhibit 67 to Sierra Club Protest.
[158] Andrew Baker, *ExxonMobil Affiliate Signs Binding Offtake Deals with Mexico LNG Project*, Natural Gas Intelligence (Feb. 7, 2023), *available at* https://www.naturalgasintel.com/exxonmobil-affiliate-signs-binding-offtake-deals-with-mexico-lng-project/, Exhibit 68 to Sierra Club Protest.
[159] Andrew Baker, *Mexico Pacific Signs 20-Year Offtake Deal for Saguaro LNG Export Project*, Natural Gas Intelligence, July 5 2023, *available at* https://www.naturalgasintel.com/mexico-pacific-signs-20-year-offtake-deal-for-saguaro-lng-export-project/ and attached as Exhibit 23.

- Earlier this month, MPL announced a 20-year deal with an Australian gas firm, Woodside.[160]

Because DOE has the necessary information, DOE can and should evaluate how and to what extent MPL exports will displace coal versus other types of gas, and what level of GHG emissions will result. Even if such an analysis as applied to *all exports to non-FTA countries* would be "too speculative" and would "require consideration of the dynamics of all energy markets in LNG-importing nations", *Sierra Club,* 867 F.3d at 202; that is not true for the MPL export project, where DOE can easily determine the final destination of much, if not all, of the exported gas.

NEPA requires agencies to provide a clear basis for choice among considered alternatives,[161] and CEQ's Interim Guidance correctly notes that substitution analysis related to fossil fuel proposals has proven particularly challenging for agencies.

Even if DOE were correct in assuming the gas from MPL's exports to non-FTA countries would largely displace coal in the short-term (which Sierra Club does not concede), it is arbitrary to assume that would be true for the 30-year time-frame of the project. DOE cannot assume that economic demand for a specific commodity, such as coal, oil, or gas, will remain unchanged in the face of new supply.[162] Such assumptions are squarely at odds with the facts: plainly, both the nation and the world will be moving aggressively away from fossil fuels in the years ahead and

[160] Reuters, *Australia's Woodside Energy signs 20-year LNG deal with Mexico Pacific*, December 5, 2023, *available at* https://www.reuters.com/business/energy/australias-woodside-energy-signs-20-year-lng-deal-with-mexico-pacific-2023-12-05/?utm_medium=email&_hsmi=285778608&_hsenc=p2ANqtz--oesQNaNEecMeRpL462GKeTrskh1Bw_2oCJlYu39fX-EIRnqW2-ECpuB2VqzgdhCrdXPclAZTU3mJzAl5lZka6Msyq0zRaYcfpvp_7Eex6ozgnPyg&utm_content=285778608&utm_source=hs_email and attached as Exhibit 24.
[161] 42 U.S.C. §§ 4332(C)-(E), 40 C.F.R. 1502.14.
[162] Peter Howard and Max Sarinsky, *Best Practices for Energy Substitution Analysis*, Institute for Policy Integrity, at 3 (Dec. 2022), attached as Exhibit 25.

agencies cannot simply project today's fuels uses over decades to make useful predictions. Indeed, it is the comparison of project emissions to this unrealistic future that lays at the heart of misleading conclusions that major fossil fuel projects will have no climate impacts.

DOE's EIS should follow instructive D.C. Circuit caselaw rejecting agency attempts to dodge meaningful analysis based on vague statements related to market substitution. In its NEPA review for the Sabal Trail gas pipeline, the Federal Energy Regulatory Commission ("FERC")'s assessment of market impacts was that the project's GHG emissions "might be partially offset" by the market replacing the project's gas with either coal or other gas supply.[163] The D.C. Circuit rejected FERC's failure to study this issue, stating, "[a]n agency decisionmaker reviewing this EIS would thus have no way of knowing whether total emissions, on net, will be reduced or increased by this project, or what the degree of reduction or increase will be. In this respect, then, the EIS fails to fulfill its primary purpose."[164]

As the Ninth Circuit has made clear, despite modeling uncertainties, agencies must attempt to account for all reasonably foreseeable market changes, including changes internationally. In analyzing the effects of the Liberty oil and gas drilling project, the Bureau of Ocean Energy Management ("BOEM") concluded initially that the no action alternative – rejecting the Liberty project – would, counterintuitively, increase greenhouse gas emissions by shifting production to foreign sources with comparatively weaker environmental protections.[165] But BOEM's model assumed "foreign consumption of oil will remain static" were the Liberty project approved; crucially, this assumption ignored "basic economic principles" that are key to understanding climate impacts. As the Ninth Circuit explained, increasing the supply of fossil

[163] *Sierra Club v. Fed. Energy Regulatory Comm'n*, 867 F.3d 1357, 1375 (D.C. Cir. 2017).
[164] *Id.*
[165] *Ctr. for Biological Diversity v. Bernhardt*, 982 F.3d 723, 736 (9th Cir. 2020).

fuels such as oil (*i.e.*, approving the Liberty project) reduces prices; as price drops, foreign consumers will buy and consume more oil. *Id.* Thus, the Court concluded, emissions from predictable market responses, whether domestic or foreign, "are surely a 'reasonably foreseeable' indirect effect" that must be analyzed and disclosed under NEPA.[166]

Finally, if DOE has the discretion to approve or deny exports to non-FTA countries based on whether those exports would be in the public interest; and if DOE has made prior public interest determinations based on the assumption that the exported gas would largely displace coal and/or high carbon fuel sources; it should consider certain conditions and/or mitigation measures to ensure the exported gas will, in fact, be displacing coal. For example, DOE should consider limiting exports to non-FTA countries, or particular regions of those countries, where coal use is particularly high, and/or renewable energy use is relatively low.

12. DOE must evaluate the extent to which the MPL expansion will lock-in increased use of fossil fuels

While a GHG analysis that looks at fossil fuel emissions from fossil infrastructure projects is a useful component of a NEPA analysis, it does not tell the whole story. Agencies must also consider the extent to which construction of new fossil fuel infrastructure "locks in" long-term emissions and creates an affirmative barrier to decarbonization efforts. Privately financed infrastructure projects costing hundreds of millions if not billions of dollars will result in extraordinary pressure to continue using that infrastructure for many decades—well past the time when fossil fuel uses must be all but eliminated. And other private actors make their own investment decisions based on the existing of other infrastructure, much like the construction of a new crude oil pipeline both spurs new development projects as well as other feeder pipelines relying on that new infrastructure.

[166] *Id.*

Moreover, projects that "lock in" fossil fuels also "lock out" low carbon alternatives, "either because it uses up finite capital or to the extent that it contributes to social or political norms, building in redundancy of supply that helps to increase investor confidence in the long-term prospects of that fuel, or contributes to economies of scale for fossil fuel processing technologies."[167] Other useful questions for the agency to ask may include whether the project could be repurposed at some point for low-GHG alternatives, and at what cost. These are crucial considerations that must be disclosed in a NEPA analysis.

In short, a useful climate analysis for major infrastructure projects must go further than just disclosing lifecycle emissions. Instead, agencies should assess the extent to which the project risks becoming a stranded asset or, instead, will create pressures to continue operations for decades and/or generate other investments that promote fossil fuel use. In its final guidance CEQ should instruct agencies to disclose the risk of "locking in" GHG emissions and investments associated with fossil fuel infrastructure projects as part of their NEPA analyses.

There is increasing scrutiny of the Biden Administration's practice of permitting massive amounts of LNG exports, and growing calls for DOE to reevaluate how it measures the climate impacts of these approvals. In November of 2023, the Center for Biological Diversity published a report detailing how the climate impacts of the Biden Administration's accelerated approval of LNG exports undermine all of the progress from the Inflation Reduction Act, in terms of GHG emissions. [168] On Nov. 14, 2023, a group of over 60 U.S. Senators and Congressmen, led by

[167] Peter Erickson, Assessing the Greenhouse Gas Emissions Impact of New Fossil Fuel Infrastructure, Stockholm Env't Inst. (2013), available at https://mediamanager.sei.org/documents/Publications/SEI-DB-2013-Assessing-GHGs-fossil-fuel-infrastructure.pdf, attached as Exhibit 26.
[168] Center for Biological Diversity, *Out-Polluting Progress*, Nov. 2023, *available at* https://www.biologicaldiversity.org/programs/climate_law_institute/pdfs/Out-Polluting-Progress-Report-2023.pdf and attached as Exhibit 27.

Senator Merkley, wrote to DOE to urge the agency to update how it reviews LNG export applications, and warned that the current approach uses "outdated and insufficient methods of measuring climate impacts."[169] On November 29, 2023, Jeremy Symons submitted a memorandum to DOE titled, Updating technical analysis of GHGs from LNG, which explains how the DOE's technical approach to measuring lifecycle GHGs from LNG export proposals on a case-by-case basis should be updated using new data and methods.[170] DOE must respond to these requests, and pause its ongoing approval process for LNG export applications until it can take a hard look at the climate impacts of the program. That should start with MPL.

E. The Draft EA fails to discuss MPL's impact on domestic gas prices and supply

The EA includes no mention of the proposed action's reasonably foreseeable impact on domestic gas prices and supply. The EA's failure to discuss the non-FTA exports on domestic gas prices and supply deviates from the emphasis DOE has historically afforded to domestic needs and the potential threats exports pose to the security of domestic supplies of natural gas.[171] In its initial Motion to Intervene and Protest on MPL's supplemental non-FTA exports docket, Sierra Club discussed recent data illustrating the link between domestic gas prices to prices in the global market, "resulting in higher costs for American consumers."[172] For example, the reduction in export capacity and corresponding drop in domestic gas prices following the 2022 explosion and full shutdown at the Freeport LNG facility affirms the connection between LNG exports and

[169] Merkley Letter, Exhibit 1.
[170] Jeremy Symons, Updating DOE's Technical Analyses of GHG emissions from US LNG, Nov. 29, 2023, attached as Exhibit 28.
[171] DOE/FE Order No. 3357-B (Freeport LNG), at 10 (Nov. 14, 2014), *available at* https://www.energy.gov/sites/prod/files/2014/11/f19/ord%203357-B.pdf; 85 Fed. Reg. at 52,243 ("In evaluating the public interest, DOE takes seriously the potential economic impacts of higher natural gas prices."). *See* Sierra Club Protest, at 7.
[172] Sierra Club Protest, at 7-15.

domestic gas prices and supplies.[173] Moreover, FERC concluded that higher gas prices experienced in the winter of 2021-2021 were driven largely by competition with demand for LNG exports, which served as the primary source of additional demand driving gas price increase at that time.[174] High domestic gas prices continued into the winter of 2022-2023, and again FERC predicted a continued rise in domestic gas prices due in large part to increasing gas exports.[175] FERC's 2022 State of the Markets report again affirms its prior predicted trends including higher domestic gas prices coupled with increased LNG exports demand.[176] These high prices adversely affect both individual households and industrial energy consumers.[177]

The EA likewise fails to address Sierra Club's position and sources in support that show, "[f]rom an economic perspective, LNG exports are simply making most Americans worse off" and the DOE owes a responsibility to the American public to protect the general public interest even in the face of "net positive benefits to the U.S. economy as a whole." Sierra Club Protest at 11; 15 U.S.C. § 717b(a).[178] In this EA, DOE again avoids addressing the distributional impacts

[173] Sierra Club Protest, at 8-9. The June 8, 2022 explosion and fire at the Freeport LNG facility caused an immediate shut down of operations that the EIA estimates reduced the total U.S. LNG export capacity by approximately 2 billion cubic feet per day or 17 percent. 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, Exhibit 8 to Sierra Club Protest. Immediately after the explosion was reported, domestic gas prices fell by 16 percent. 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 Exhibit 29.

[174] 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; Exhibit 12 to Sierra Club Protest.

[175] *See* FERC Winter Energy Market and Reliability Assessment 2022-2023, at 4 (Oct. 25, 2022), *available at* https://ferc.gov/media/report-2022-2023-winter-assessment; attached as Exhibit 30.

[176] FERC 2022 State of the Markets report (Mar. 16, 2023), *available at* https://www.ferc.gov/media/report-2022-state-market; attached as Exhibit 31.

[177] The Industrial Energy Consumers of America has written DOE explaining how export-driven gas price increases harm to domestic industry. Sierra Club Protest at 11, n. 31.

[178] DOE/FE Order 3638-A (Corpus Christi) at 45 (May 26, 2016), *available at* https://energy.gov/sites/prod/files/2016/05/f32/ord3638-A.pdf.

of LNG exports insofar as it repeatedly fails to address the reality that those who suffer the harms from LNG exports are not the same as those who enjoy the benefits, and the former are both more numerous and disadvantaged than the latter.[179]

DOE should have addressed the Freeport LNG explosion, the inequitable distribution of LNG export impacts, and the demonstrated connection between LNG exports and domestic prices in its public interest analysis, but the EA fails to address these issues despite Sierra Club raising them in its initial protest. Instead, DOE continues to rely on modeling and studies based on outdated data, and which contradict the current state of energy economics expressly recognized by FERC and other institutional experts.[180] Meanwhile, U.S. consumers continue to lose as domestic prices remain high and natural gas exports are still to blame: "[u]nderlying the price surge is the decline in natural gas inventories[.]"[181] And now, near the end of 2023, "many residential utilities are still, to this day, charging their customers near-record fees for gas" while advocates call for cessation of new gas exports to quell soaring residential prices and domestic vulnerability to global price volatility.[182] As one analyst explained:

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[179] Research shows that low-income, Black, Hispanic, and Native American households face dramatically higher energy burdens than the average American household. 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, Exhibit 18 to Sierra Club Protest; *Accord* Eva Lyubich, *The Race Gap in Residential Energy Expenditures* (June 2020), *available at* https://haas.berkeley.edu/wp-content/uploads/WP306.pdf, Exhibit 19 to Sierra Club Protest.

[180] 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, Exhibit 13 to Sierra Club Protest; 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/commodityinsights/en/market-insights/latest-news/natural-gas/101421-henry-hub-could-reach-12-14-this-winter-as-capital-discipline-limits-supply-growth-platts-analytics, Exhibit 14 to Sierra Club Protest.

[181] Phil Rosen, *Natural gas prices have nearly tripled in the US over the last year amid supply fears: 'There's almost no ceiling'* (May 27, 2022), *available at* https://markets.businessinsider.com/news/commodities/natural-gas-prices-tripled-diesel-oil-2021-almost-no-ceiling-2022-5, attached as Exhibit 32.

[182] Tsvetana Paraskova, *Surging LNG Exports Expose the U.S. to Natural Gas Price Swings* (Dec. 3, 2023), *available at* https://oilprice.com/Energy/Natural-Gas/Surging-LNG-Exports-Expose-The-US-To-

> With U.S. LNG exports slated to almost double over the next 5 years, U.S. ratepayers should brace themselves for more volatility. For decades, U.S. gas markets have been largely insulated from global price movements. There simply was no way for price contagion abroad to spread to gas markets here at home. But LNG exports tie us to the volatility of international markets. A cold snap in Asia, unrest in the Middle East, or another key gas pipeline failure could cause a surge in demand for U.S. LNG exports, which in turn could put upward pressure on U.S. gas prices.
>
> There is, of course, one easy way to keep this problem from getting worse: Curtail new gas export projects. We've already dug ourselves into a hole. The smartest thing to do now is to stop digging. [183]

In fact, the DOE's own Energy Information Administration released an Annual Energy Outlook in May of 2023 that agreed with many other sources: increasing LNG exports will mean domestic gas prices will be determined by the international market, and "that higher LNG exports results in upward pressure on U.S. natural gas prices and that lower U.S. LNG exports results in downward pressure."[184]

Unfortunately, the agency charged to regulate exports repeatedly turns a blind eye to the reality facing many Americans today when considering proposals like MPL's. This EA's failure to even mention domestic gas prices and supply concerns reflects the continued disconnect between DOE's perception and the public's reality despite the overlap between DOE's NEPA effects review and NGA public interest requirements.

Natural-Gas-Price-Swings.html and attached as Exhibit 33.

[183] Clark Williams-Derry, IEEFA *LNG exports have raised natural gas prices for U.S. households* (Nov. 30, 2023), *available at* https://ieefa.org/resources/lng-exports-have-raised-natural-gas-prices-us-households, attached as Exhibit 34.

[184] Energy Information Administration, *AEO2023 Issues in Focus: Effects of Liquefied Natural Gas Exports on the U.S. Natural Gas Market* (May 2023), at page 3, *available at* https://www.eia.gov/outlooks/aeo/IIF_LNG/pdf/LNG_Issue_in_Focus.pdf and attached as Exhibit 35; see also Center for American Progress, *LNG Exports Raise Natural Gas Prices for Americans*, Nov. 6 2023, available at https://www.americanprogress.org/article/lng-exports-raise-natural-gas-prices-for-americans/ and attached as Exhibit 36; LNG Exports Cause Domestic Energy Insecurity, Public Citizen, September 2023, *available at* https://www.citizen.org/wp-content/uploads/LNG-Consumer-Cost-Fact-Sheet-09.11.23.pdf, and attached as Exhibit 37.

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 companies," with the "subsidiary purposes" of addressing "conservation, environmental, and antitrust issues."[185] DOE's dismissal of domestic consumer hardships and elevated gas prices defies its mandate to ensure reasonable prices and protect consumers. Continued approval of LNG exports without more careful consideration of impacts to the general American public betrays its public interest requirement and DOE's statutory authority and goals.

Considering the current state of domestic gas prices and supply in relation to gas exports, DOE cannot continue to rely on outdated data, policies, and adjudicatory findings at the expense of the American public interest. DOE should prepare an updated study prior to issuing any further export authorizations, including the MPL application to export to non-FTA countries. Notwithstanding the need for updated study, DOE nevertheless cannot authorize MPL's non-FTA export application on the current record because consideration of the proposal's impact on domestic gas prices and supply is material to the public interest determination.[186] Moreover, the EA's failure to adequately consider the environmental impacts and to inform the public regarding the link between exports and domestic prices frustrates DOE's public interest obligations.

Ultimately, DOE's continued failure to address the points raised in Protest and herein regarding the increasing link between LNG exports, domestic gas prices, and prices in the global market demonstrates that approving the proposed additional non-FTA exports is not in the public

[185] Sierra Club Protest, at 15 (citing *Minisink Residents for Envtl. Pres. & Safety v. FERC,* 762 F.3d 97, 101 (D.C. Cir. 2014)).
[186] 15 U.S.C. § 717b(a).

interest. This EA offers no support for a finding to the contrary. As such, DOE cannot authorize this project.

F. The Draft EA fails to take a hard look at the impacts of marine transport of LNG

The EA's discussion of impacts of the marine transportation of LNG from the MPL Facility is fatally insufficient. NEPA requires DOE to take a hard look at the environmental effects of its planned actions.[187] DOE must individually assess the application's potential to cause significant impacts on environmentally sensitive resources near the export Facility.[188] DOE must take a hard look at all foreseeable environmental impacts of the marine transport of LNG. But the EA summarily dismisses impacts related to the marine transport of LNG as minimal without proving the agency has taken the requisite hard look at these impacts and given any consideration to site-specific impacts from the production facility to anticipated destination markets.[189]

The EA only spends a few sentences – recycling the same form language used in other NEPA documents[190] – acknowledging but quickly dismissing the potential impacts of marine transport of LNG generally.[191] Ultimately, DOE concludes "the transport of natural gas by marine vessels adhering to applicable maritime safety regulations and established shipping methods and safety standards normally does not pose the potential for significant environmental impacts."[192] The EA claims that the impacts under the no action alternative would be similar to

[187] 42 U.S.C. 4321; *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 374 (1989).
[188] 10 C.F.R. § 1021(B)(4).
[189] *See Marsh*, 490 U.S. at 371 (stating that NEPA promotes a "sweeping commitment to 'prevent or eliminate damage to the environment and biosphere' by focusing Government and public attention on the environmental effects of proposed agency action.").
[190] *See, e.g.*, Environmental Assessment, NFE Altamira FLNG, S. de R.L. de C.V. (DOE/EA-2226) at 14-15 (Dec. 12, 2023), *available at* https://www.energy.gov/nepa/articles/doeea-2226-final-environmental-assessment ("Altamira Final EA").
[191] Draft EA, at 17.
[192] Draft EA, at 17 (citing 85 Fed. Reg. 78,197, 78,200 and 78,202 (Dec. 4, 2020)); *see also*, Altamira

those identified in the Marine Transport Technical Support Document because "some or all of the volume of LNG the MPL Facility would have exported could be supplied to markets from other sources."[193] But as discussed infra, DOE cannot avoid its responsibility to consider the no action alternative by assuming perfect substitution (*see* section H, *infra*), and in evaluating environmental effects, NEPA requires more – it requires DOE to take a hard look at the environmental effects of *this specific* planned action – which DOE has not done here.

DOE acknowledges that "[e]xports from the MPL Facility would occur via ocean transport" and that "[t]he potentially affected environment in marine transportation of LNG includes resources that could be impacted by a release of the LNG cargo, in liquid or gaseous form, as well as routine shipping-related risks, such as fuel leaks and engine emissions."[194] It further claims to have "considered potential impacts associated with marine transport of LNG from production facilities to destination markets," but the EA does not reflect such alleged consideration or provide any discussion of these potential impacts regarding this specific export application at issue.[195] It lacks any discussion of site-specific impacts associated with marine transport, including from the MPL Facility in the Gulf of California to anticipated receiving ports in China, Korea, Japan or elsewhere.[196] It ultimately fails to inform the public that the DOE has

Final EA at 14.

[193] Draft EA, at 17; *see also*, Altamira Final EA at 14; Sierra Club Protest at 33-34. The 2020 final rule and Marine Transport Technical Support Document arbitrarily dismissed impacts relating to marine vessel traffic as *de minimus*, claiming that because LNG exports have historically contributed only a small portion of overall U.S. ship traffic, the agency can essentially ignore the effects of future LNG export approvals. But this ignores the present and foreseeable future outlook for rapidly expanding LNG exports, dependent on authorizations such as MPL's present application.

[194] Draft EA, at 11.

[195] Draft EA, at 17.

[196] Draft EA, at 2 ("MPL adds that the MPL Facility "… [would be] particularly well positioned to supply LNG into Asian markets, including markets in Korea, Japan, and China, each of which can be supplied by vessel from the MPL Facility without having to transit the Panama Canal").

adequately considered the impacts of marine transport of LNG from the MPL Facility in Mexico to non-FTA countries overseas, primarily in Asia.

1. The EA lacks site-specific evaluation of foreseeable impacts to the Gulf of California

DOE already limits the scope of the EA to include only "those direct and indirect impacts that would occur in the United States and those that affect the global commons, such as global climate change resulting from emissions of greenhouse gases (GHGs)" and "the marine transport of LNG in international waters."[197] But in so far as it claims to include analysis of the impacts of marine transport in international waters, the discussion is conclusory and generic, without consideration of site-specific concerns relative to this particular export facility off the coast of Sonora in the ecologically significant Gulf of California.

The Gulf of California – the "aquarium of the world" – is an area of global importance for marine conservation whose islands and protected areas are a designated UNESCO Natural World Heritage Site.[198] The Gulf of California serves as a key marine mammal travel pathway within the Pacific Ocean.[199] Its islands support 39% of the entire global marine mammal species and one-third of the world's marine cetacean species.[200] This marine ecosystem supports an impressive 891 species of fish, including 90 endemic species, and 695 species of vascular plants.[201] But increased industrialization and construction in the area – including increased tanker traffic and spill risks – threaten the biodiversity and sustainability of this treasured area.

[197] Draft EA, at 7.
[198] Island and Protected Areas of the Gulf of California, designated by the United Nationals Educations, Scientific and Cultural Organization (UNESCO) as a Natural World Heritage Site in 2005. UNESCO World Heritage Convention, https://whc.unesco.org/en/list/1182/.
[199] *Id.*
[200] *Id.*
[201] *Id.*

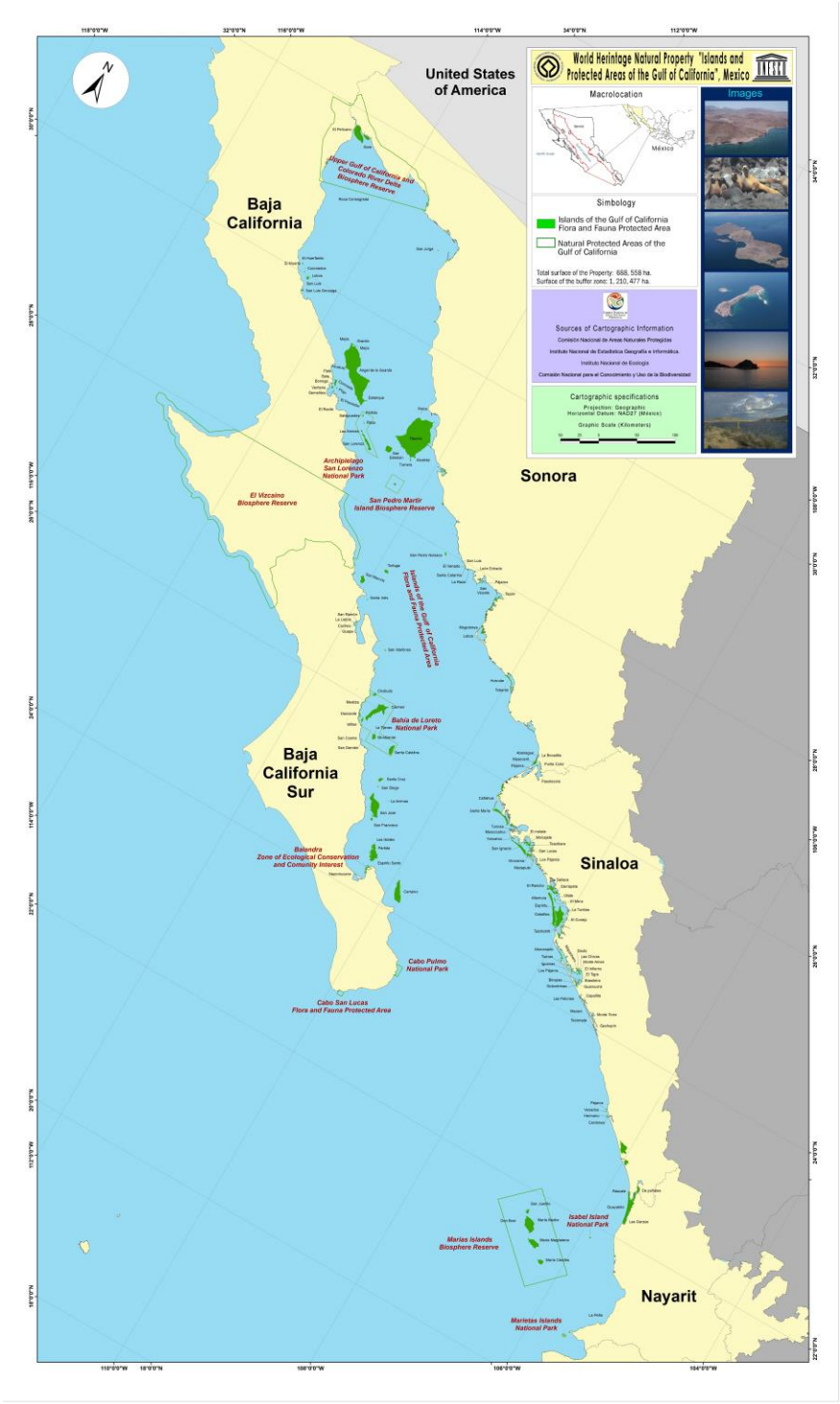

Fig. 1. UNESCO Map, Islands and Protected areas of the Gulf of California (2011), available at https://whc.unesco.org/en/list/1182/documents/.

The EA includes no consideration of the threats posed by marine transport of LNG in the Gulf of California (or elsewhere along the anticipated path of marine vessel traffic from Mexico

to Asia), such impacts include those resulting from spills and accidents from traveling marine vessels, noise pollution from the vessels that disrupts marine species' communication and feeding behavior, and impacts large marine species in a myriad of ways, for example the overall health of the species, reproduction, habitat displacement, and can lead to population decline.[202] Underwater noise can directly cause acute injury (temporary or permanent hearing damage) or even death in marine mammals.[203] Studies off the California coast reveal that underwater noise levels have doubled every decade since the 1960s.[204] Increased traffic and industrialization of the Gulf of California will severely impact migration, feeding, and reproduction routes of marine species such as gray whales, blue whales, whale sharks, humpback whales, among others. For example, the Gulf of Mexico has become more industrialized and increased industrialization and ship traffic has adversely impacted the ecosystem and marine life, as well as human activities such as fishing and tourism, and affects the health and quality of life of nearby communities.

2. The EA must consider all direct, indirect, and cumulative impacts of marine vessel transport

DOE should evaluate the effects of marine transport in the Gulf of California as direct effects, as they "are caused by the action and occur at the same time and place."[205] These may include, for example, direct effects of increased vessel traffic, noise pollution, release of the LNG cargo into the environment, fuel leaks and engine emissions, and vessel collision with marine life. DOE should also evaluate the effects of marine transport in the Gulf of California as

[202] Pirotta, Vanessa et al., Consequences of global shipping traffic for marine giants, Frontiers in Ecology and the Environment (Dec. 5, 2018), *available at* https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/fee.1987, attached as Exhibit 38.
[203] *Id.*
[204] Sujata Gupta, Software simulator tracks undersea noise pollution, NewScientist (June 8, 2011), *available at* https://www.newscientist.com/article/mg21028165-200-software-simulator-tracks-undersea-noise-pollution/, attached as Exhibit 39.
[205] 40 C.F.R. § 1508.1(g)(1).

indirect effects, as they "are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."[206] These may include any secondary effects from the operation of the MPL marine terminal and vessel traffic from the MPL Facility to receiving ports, such as decreased survival of marine megafauna from direct vessel emissions or collisions.

DOE must also evaluate the effects of marine transport as cumulative effects, as they "result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions."[207] However, the EA fails to consider cumulative effects of marine transport despite having already approved 4 export applications for LNG projects in Mexico and having another 6 projects pending.[208] DOE should evaluate the cumulative environmental and climate impacts of past, present, and reasonably foreseeable LNG exports it has approved out of Mexico and specifically on the west coast of Mexico in and around the Gulf of California.

By relying on an environmental assessment, rather than preparing an environmental impact statement, DOE concludes that all impacts from approving this non-FTA export will be insignificant. But this finding is conclusory and not supported by the EA or the record. The EA fails to take a hard look at the potential direct, indirect, and cumulative impacts of marine transport of LNG from the MPL Facility and DOE is thus unable to demonstrate that the marine transport effects will be insignificant. The EA is invalid as it fails to include specific assessment

[206] 40 C.F.R. § 1508.1(g)(2); *Marsh*, 490 U.S. at 385 (requiring agency to take a hard look at the indirect effects of a dam project including changes to water temperature on species' survival).
[207] 40 C.F.R. § 1508.1(g)(3); *Natural Res. Defense Council v. Hodel*, 865 F.2d 288, 297-98 (D.C. Cir. 1988) ("NEPA, as interpreted by the courts, and CEQ regulations both require agencies to consider the cumulative impacts of proposed actions"); *Kleppe v. Sierra Club*, 427 U.S. 390, 410 (1976) (NEPA requires consideration of "cumulative or synergistic environmental impact" and "[o]nly through comprehensive consideration of pending proposals can the agency evaluate different courses of action").
[208] Sierra Club Protest, at 16-18.

of the potential effects on environmentally sensitive resources in the Gulf of California, and DOE must at a minimum perform a subsequent, individualized assessment to determine whether impacts may be significant, and if so, prepare an environmental impact statement.

G. The EA fails to consider the impacts of increased LNG exports on our national security

As set forth above, the DOE is tasked with deciding whether to approve MPL's proposed exports to non-FTA countries, a decision which must be made based on whether the proposed exports are in the public interest. Although DOE has refused to articulate any standards for its public interest determinations, it has considered impacts to U.S. national security with respect to previous gas export proposals. The EA fails to consider an important aspect of the problem here in failing to address the impact increased LNG exports may have on our national security. In a supplemental EA or EIS, the DOE should consider the growing chorus of national security experts sounding the alarm that increasing LNG exports are a threat to our national security and are only empowering our adversaries.

DOE should address misrepresentations regarding Europe's present and foreseeable need for U.S.-produced LNG in the aftermath of Russia's invasion of Ukraine.[209] Projected supplies of LNG in the global marketplace are sufficient to meet European demand without additional projects authorized to export more U.S.-produced gas. Following Russia's invasion of Ukraine in February 2022, the Biden Administration committed an additional 15 billion cubic meters (bcm) of U.S. LNG to Europe.[210] In 2022, the U.S. delivered 56 bcm – 34 bcm more than in 2021 – to

[209] Svitlana Romanko, an award-winning Ukrainian environmental lawyer, explains how oil and gas companies are exploiting Ukraine's struggle and calls for the US to stop LNG exports, video available at https://www.instagram.com/p/Cz4sLO3ivKU/.

[210] Jeremy Symons, *Status of U.S. LNG Export Permits and Associated Greenhouse Gas Emissions,* at 11 (Nov. 2023), *available* at https://www.symonspa.com/post/report-status-of-u-s-lng-export-permits-and-associated-greenhouse-gas-emissions ("Symons Report"), attached as Exhibit 40 (citing *Joint Statement between the European Commission and the United States on European Energy Security* (Mar. 25, 2022),

Europe,[211] and more than doubled its 2022 target in 2023, keeping pace with Europe's needs.[212] Current U.S. imports to Europe have proven sufficient: European LNG imports flattened in 2023 and experts anticipate a decline in demand for LNG in Europe from 2023 through 2030 as the continent seeks to reduce gas reliance.[213] In any event, the U.S. has committed to provide Europe 50 bcm annually through 2030[214] and the demand for fossil gas may decline as Europe progresses to expand renewable energy production.[215] DOE should consider the potential of a supply glut and its impacts on security and market balance if additional export authorizations lead to a foreseeable a supply surge in the global market.[216] With Europe's energy demands met, DOE should focus on the effects of its authorizations on domestic security and how continued growth in exports of domestic gas has and will continue to harm Americans.

Additionally, DOE should consider the impact of its export authorizations on the geopolitical balance of power. Particularly, DOE should acknowledge and address how supplies

available at https://ec.europa.eu/commission/presscorner/detail/it/statement_22_2041).

[211] Symons Report at 11; The White House, *Joint Statement on U.S.-EU Task Force on Energy Security* (Apr. 3, 2023), *available at* https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/03/joint-statement-on-u-s-eu-task-force-on-energy-security/#:%7E:text=The%20United%20States%20more%20than,from%2022%20bcm%20in%202021, attached as Exhibit 41.

[212] *Id.*

[213] Symons Report at 11 (citing *Europe's LNG capacity buildout outpaces demand,* IEEFA (Oct. 31, 2023), *available at* https://ieefa.org/articles/europes-lng-capacity-buildout-outpaces-demand, attached as Exhibit 42).

[214] The White House, *FACT SHEET: United States and European Commission Announce Task Force to Reduce Europe's Dependence on Russian Fossil Fuels* (Mar. 25, 2022), *available at* https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/25/fact-sheet-united-states-and-european-commission-announce-task-force-to-reduce-europes-dependence-on-russian-fossil-fuels/, attached as Exhibit 43.

[215] Centre for Research and Energy and Clean Air, *EU solar and wind power growth displaced gas consumption worth half of Russian imports in August 2023* (Sept. 15, 2023), *available at* https://energyandcleanair.org/publication/eu-solar-and-wind-power-growth-displaced-gas-consumption-worth-half-of-russian-imports-in-august-2023/, attached as Exhibit 44.

[216] Reuters, *IEA says "unprecedented" supply surge could lead to LNG glut from 2025* (Oct. 24, 2023), *available at* https://www.reuters.com/markets/commodities/iea-says-unprecedented-supply-surge-could-lead-lng-glut-2025-2023-10-24/, attached as Exhibit 45.

of U.S.-produced gas sold to China and our other rivals cedes power to these nations at our own expense, allowing them to expand their influence over the global energy market and build more global influence all while American families pay higher energy prices at home. Experts continue to ring the alarm bell over LNG exports and the power it cedes to non-FTA countries, like China, to shape energy futures on a global scale: "China's gas buying spree is…giving the world's No. 2 economy more influence. This is China's go-to strategy when it comes to energy and commodities. From copper to rare earths, it tries to expand influence over the stuff that's vital to both the nation's economy and the world's."[217] While sending gas even to our allies leaves the U.S. at a disadvantage considering climate impacts and the lion's share of adverse impacts borne by frontline communities largely on the U.S. Gulf Coast, "[w]hen it comes to China—or any adversary—gas is a zero-sum game. The more we send this non-renewable energy, the less remains here at home."[218] China is already a leading importer of U.S. LNG[219] with significant control of the market share and ultimate destination of the product, and new projects such as CP2 in Cameron Parish, Louisiana, have contracts to export gas to Chinese companies.[220]

It is critical that the Department of Energy and the Biden administration stop the unrestricted flow of U.S.-produced energy across the globe and enact reasonable limits to ensure our national security is protected. Considering the negative impacts of exports on most Americans, the climate crisis, European needs being met for the foreseeable future, and the rise

[217] Stephen Stapczynski, *China's Gas Buying Spree Is About More Than Just Energy Security*, Bloomberg (July 3, 2023), *available at* https://www.bloomberg.com/news/newsletters/2023-07-03/china-s-gas-buying-spree-is-about-more-than-just-energy-security, attached as Exhibit 46.
[218] Russel Honoré, *Gas Exports are America's Hidden National Security Vulnerability* (Opinion), Newsweek (Sept. 13, 2023), *available at* https://www.newsweek.com/gas-exports-are-americas-hidden-national-security-vulnerability-opinion-1826171, attached as Exhibit 47.
[219] *See* EIA, U.S. liquefied natural gas exports by destination country (Jan. 2021—June 2023), *available at* https://www.eia.gov/todayinenergy/detail.php?id=60361, attached as Exhibit 48.
[220] Press Release, *Venture Global and China Gas Sign Two 20-year Long-Term LNG Agreements* (Feb. 23, 2023), *available at* https://venturegloballng.com/press/14343/, attached as Exhibit 49.

of adversarial power in the global energy market, DOE must consider the effect of its export authorizations on national security in making its public interest determination.

H. The Draft EA's alternatives analysis is arbitrary and capricious

DOE's consideration of project alternatives violates NEPA and implementing regulations, interferes with DOE's public interest analysis, and undermines the entire draft environmental assessment. NEPA requires agencies to discuss the purpose and need for the proposed action, alternatives, and environmental impacts of the proposed action and alternatives.[221] DOE is required to evaluate the no action alternative in the EA to inform the agency's decision, which must be represented in the range of alternatives assessed in the EA.[222] But here, DOE's consideration of alternatives is illusory because it assumes that the only alternative identified – the no action alternative – will result in the same environmental effects as the proposed action. It conflates MPL's non-FTA export with the no action alternative and therefore fails to assess any realistic no action alternative or consider any other reasonable alternative to the proposed action in violation of NEPA requirements. DOE's arbitrary no action alternative frustrates the entire environmental assessment because DOE lacks the necessary baseline information upon which to conduct all subsequent analysis of environmental impacts and public interest review for the proposed action.

1. The EA presents a false no action alternative

Here, DOE admits – and Sierra Club agrees – that the MPL Facility is unlikely to proceed without this non-FTA authorization. "If the Application is not granted, DOE assumes, for the purposes of this EA, that the MPL Facility would not be operated and the potential

[221] 40 C.F.R. § 1501.5(c)(2).
[222] 10 C.F.R. §§ 1021.321(c), 1021.210(d).

environmental impacts from the MPL facility would not occur."[223] Even though DOE has authorized MPL's exports to FTA countries, it appears to recognize that FTA exports alone are insufficient to support construction and operation of the MPL Facility. Only seven FTA countries have received *any* U.S. LNG exports since 2016,[224] and exports to these countries constitute only 10% of the market for U.S. exports.[225] Thus, roughly 90% of the market is made up of non-FTA exports. DOE's statement acknowledges that exports to non-FTA countries provide the true economic basis for most LNG projects and that fact should more expressly factor into the agency's public interest and NEPA review.

Even so, the EA repeatedly assumes for each potential environmental impact addressed that the no action alternative would result in the same essential conduct and corresponding effects as the proposed MPL exports and would thus have no environmental advantage over the proposed action. In presenting the no action alternative's impact on natural gas production, DOE assumes "other LNG facilities would serve incremental international demand for LNG, supplying some or all of the volume planned to the supplied by the MPL Facility" and if produced in the lower-48, "any potential impacts related to incremental natural gas production would similarly occur in the No Action Alternative".[226] For natural gas pipelines, DOE likewise assumes alternative incremental LNG production capacity constructed in the U.S. from domestically produced gas "would be similar to gas supplied to the MPL Facility" and the no action alternative "would not have a currently identifiable environmental advantage over the

[223] Draft EA, at 6.
[224] Only Chile, Dominican Republic, Jordan, Mexico, Nicaragua, Panama and South Korea have received any U.S. LNG exports since 2016. U.S. Energy Information Administration, *U.S. Natural Gas Exports and Re-Exports by Country*, http://www.eia.gov/dnav/ng/ng_move_expc_s1_a.htm, attached as Exhibit 50.
[225] In 2022, exports to FTA countries (391 bcf/yr), represented approximately 10% of total U.S. LNG exports (3,865 bcf/yr). *Id*.
[226] Draft EA, at 12-13.

Proposed Action."[227] Addressing the marine transport of LNG, DOE again assumes if MPL does not proceed, "some or all of the volume of LNG the MPL Facility would have exported could be supplied to markets from other sources" and would thus be similar to the general impacts the agency attributes to the proposed action.[228] And finally, in presenting the no action alternative's effect on GHG emissions, DOE claims "other LNG production capacity could be constructed in the United States or another country to serve some or all of the LNG demand the MPL Facility is intended to serve" and it "assume[s] that GHG emissions would be broadly similar, and, given the global nature of climate change, would have similar incremental impacts."[229]

Under DOE's reasoning, the no action alternative will result in the same environmental impacts (i.e., will have no environmental advantage over MPL's non-FTA exports) because international demand for LNG persists. In other words, DOE suggests the no action alternative is all but irrelevant because other LNG facilities would supply "some or all" of the product MPL would supply and cause the same environmental effects. But DOE cannot assume the effects of MPL's non-FTA export to be inevitable.[230] Courts have consistently rejected similar "perfect substitution" assumptions in an agency's no action alternative analyses because the assumption is irrational, contrary to basic economic principles and statutory intent.[231] DOE cannot consider

[227]Draft EA, at 16.
[228] Draft EA, at 16.
[229] Draft EA, at 24.
[230] *Davis v. Mineta*, 302 F.3d 1104, 1122-23 (10th Cir. 2002) (overruled on other grounds) ("A conclusory statement that growth will increase with or without the project, or that development is inevitable, is insufficient").
[231] *See, e.g., WildEarth Guardians v. U.S. Bureau of Land Mgmt.*, 870 F.3d 1222, 1236-38 (10th Cir. 2017) (finding the "perfect substitution assumption arbitrary and capricious because the assumption itself is irrational (i.e., contrary to basic supply and demand principles)."); *Mont. Envtl. Info. Ctr. v. U.S. Office of Surface Mining*, 274 F. Supp. 3d 1074, 1098 (D. Mont. 2017); *High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174, 1197-98 (D. Colo. 2014); *N.C. Wildlife Fed'n v. N.C. Dep't of Transp.*, 677 F.3d 596, 603 (4th Cir. 2012) ("[C]ourts not infrequently find NEPA violations when an agency miscalculates the 'no build' baseline or when the baseline assumes the existence of a proposed project."); *see also* EPA, Detailed Comments on the New Fortress Energy Floating LNG Project Draft Environmental Assessment (DOE 22-110-LNG), at 3-4 (Oct. 19, 2023), *available at*

identical alternatives and assume the existence of the proposed plan.[232] DOE also cannot assume substitution and ignore site-specific effects of the action against the no action alternative.

DOE's substitution assumption is also unreasonable insofar as it assumes the environmental effects of this action are inevitable, but DOE is responsible for approving/denying all gas exports from the U.S. Moreover, DOE is not obliged to approve applications for gas exports to non-FTA countries. Rather, not only does DOE have the authority to deny authorizing gas export applications, but it *must* deny an application if the action is inconsistent with the public interest. But here, as BLM did in *Ctr. for Biological Diversity*, DOE violates NEPA because the assumed no action substitution disregards the fact that all other gas exports from the U.S. are also subject to the statutory requirements of NEPA and the NGA, and its own authority to review non-FTA gas exports, which could impact whether the substitute projects proceed.[233] Because DOE has the discretion to deny the non-FTA export application, it must actually consider the no action alternative as a realistic outcome.[234] Under NEPA, DOE cannot escape accountability for the effects of projects it approves by assuming it would just approve other export projects if not for this one. International demand for LNG does not relieve DOE from its

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https://www.energy.gov/fecm/articles/nfe-altamira-flng-s-de-rl-de-cv-fecm-docket-no-22-110-lng ("The no-action alternative assumes that if the proposed alternative is not constructed, then another LNG facility will be constructed to meet the demand for LNG. The CEQ guidance cautions federal agencies against assuming a project with identical emissions will fill the void in the absence of the proposed project. Accordingly, EPA recommends DOE disclose any assumptions and inputs used to determine that in the absence of the proposed action, another similar LNG project with similar emissions would be constructed to meet LNG demand.").

[232] *W. Org. of Res. Councils v. U.S. Bureau of Land Mgmt.*, No. 16-cv-21-GF-BMM, 2018 WL 1475470, at *7 (D. Mont. Mar. 26, 2018) (quoting *Friends of Yosemite Valley v. Kempthorne,* 520 F.3d 1024, 1038-39 (9th Cir. 2008)); *Pac. Coast Fed'n of Fishermen's Ass'ns v. U.S. Dep't of the Interior,* 655 F. App'x 595, 598 (9th Cir. 2016) (finding a no action alternative is "'meaningless' if it assumes the existence of the very plan being proposed.").

[233] *See Ctr. for Biological Diversity v. U.S. Dep't of Interior*, 623 F.3d 633, 643-46 (9th Cir. 2010).

[234] *Cf. Anglers of the Au Sable v. U.S. Forest Serv.*, 565 F. Supp. 2d 812, 816, 834-36 (E.D. Mich. 2008) (finding the agency's consideration of alternatives faulty because "it did not take the requisite 'hard look' at the No Action alternative, since it mistakenly considered itself obligated by both policy and by the terms of Savoy's lease to adopt an action alternative").

obligation to identify and evaluate the proposed action's environmental impacts, alternatives (including the no action alternative), and inconsistency with the public interest. DOE's assumption that other LNG export projects/impacts occurring in the U.S. are inevitable is arbitrary and capricious. The EA's no action alternative is facially invalid and deprives DOE of an environmental baseline upon which to perform its mandatory environmental and public interest analysis for the entire EA.

2. The Draft EA fails to provide critical baseline information

The no action alternative provides a baseline against which the agency evaluates a project's environmental impacts.[235] It allows the agency and public to compare the environmental impacts of the status quo against the anticipated impacts of the proposed action.[236] Without an accurate view of the environmental consequences of the proposed export, DOE cannot determine whether it is consistent with the public interest.[237] But here, DOE provides no accurate baseline against which to evaluate the proposed action and other potentially reasonable alternatives in violation of NEPA. The EA fails to meet the "twin aims" of NEPA by both failing to facilitate informed agency decision-making and public involvement.[238] DOE both fails to identify a realistic no action alternative and relies on an improper presentation of the no action alternative for its mandatory review. This failure impedes the public's opportunity to meaningfully engage and appreciate the effects of the proposed action.

[235] *Ctr. for Biological Diversity,* 623 F.3d at 642.
[236] *Id.*
[237] *Id.* at 647 ("Without an accurate picture of the environmental consequences of the land exchange, the BLM cannot determine if the 'public interest will be well served by making the exchange'"); *N. Plains. Res. Council, Inc. v. Surface Transp. Bd.,* 668 F.3d 1067, 1085 (9th Cir. 2011) ("Without [accurate baseline] data, an agency cannot carefully consider information about significant environmental impacts … resulting in an arbitrary and capricious decision."); *N.C. Wildlife Fed'n,* 677 F.3d at 603.
[238] *Balt. Gas & Elec. Co. v. Natural Res. Defense Council,* 462 U.S. 87, 97 (1983).

3. DOE impermissibly limits the range of alternatives considered in the EA

Finally, DOE's consideration of alternatives is also faulty because the agency limits the range of alternatives to only those that meet MPL's project objectives by defining the purpose and need of the project so narrowly.[239] Where drafted correctly, a purpose and need statement informs the agency's consideration of reasonable alternatives.[240] It is contrary to NEPA for agencies to "contrive a purpose so slender as to define competing 'reasonable alternatives' out of consideration (and even out of existence)."[241]

Here, however, the purpose and need statement is unreasonably narrow and lacks sufficient scope to inform consideration of a reasonable range of alternatives. The EA's purpose and need statement simply parrots MPL's project description and aims:

> MPL states that it is developing a natural gas liquefaction facility, located near Puerto Libertad in the State of Sonora, Mexico (MPL Facility). MPL adds that the MPL Facility '… [would be] particularly well positioned to supply LNG into Asian markets, including markets in Korea, Japan, and China, each of which can be supplied by vessel from the MPL Facility without having to transit the Panama Canal, as well as markets in South American (in particular Chile, Colombia, and Ecuador).' MPL also raises the possibility of exports to additional countries.[242]

NEPA's aims to prevent agencies from constructing excessively narrow purpose and need statements to avoid full NEPA compliance.[243] CEQ further explains "[t]here may be times when an agency identifies a reasonable range of alternatives that includes alternatives – other than the no action alternative – that are beyond the goals of the applicant and outside the

[239] *See Anglers of the Au Sable,* 565 F. Supp. 2d at 836.
[240] 42 U.S.C. §§ 4332(2)(C), 4332(2)(E); CEQ, National Environmental Policy Act Implementing Regulations, Revisions, Final Rule, 87 Fed. Reg. 23,453, 23,459 (Apr. 20, 2022).
[241] *Simmons v. U.S. Army Corps of Engineers,* 120 F.3d 664, 666 (7th Cir. 1997) (citing 42 U.S.C. § 4332(2)E)).
[242] Draft EA, at 2 (internal citations omitted).
[243] 87 Fed. Reg. at 23,461.

agency's jurisdiction because the agency concludes that they are useful for the agency decision maker and the public to make an informed decision."[244]

But here, DOE parrots the applicant's project purpose and aims, and as reflected in DOE's flawed alternatives review, this construction impedes consideration of alternatives – including existing facilities, pipeline capacity, export volumes, alternative energy sources, etc. – that could potentially meet the purpose, need, and statutory aims, particularly in light of relevant policy and public interest considerations.

DOE fails to present sufficient evidence to "sharply defin[e] the issues and provid[e] a clear basis for choice among [alternative] options."[245] DOE's incomplete and flawed alternatives analysis prevents the agency from proceeding to a decision without supplementing the NEPA document to adequately consider a reasonable range of alternatives, including a realistic no action alternative. Because the EA fails to support a finding that the non-FTA exports will not have a significant effect on the human environment, DOE must supplement the EA or, more appropriately, prepare an EIS prior to reaching a decision on the application.[246] At a minimum, if DOE proceeds to prepare a FONSI it should allow for public review and comment before issuing a decision on the application.[247] DOE has not engaged in a "reasoned evaluation of the relevant factors" to determine whether the project may have a significant effect on the environment, and DOE must correct these failures before issuing a decision.[248]

[244] 87 Fed. Reg. at 23,459.
[245] *Wildearth Guardians*, 870 F.3d at 1235 (quoting *Citizens' Comm. to Save Our Canyons v. Krueger,* 513 F.3d 1169, 1179 (10th Cir. 2008) and 40 C.F.R. § 1502.124).
[246] 10 C.F.R. § 1021.322(a).
[247] *Id.* at § 1021.322(d).
[248] *Marsh*, 490 U.S. at 378.

CONCLUSION

For the reason set forth herein, the Draft EA fails to comply with NEPA, the NGA, or the APA. DOE must prepare a supplemental EA or full EIS prior to making a decision on MPL's application. Should DOE make a decision on the current record, it should find that MPL's proposal is not in the public interest and deny the application.

Respectfully submitted,

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Attorney for Sierra Club

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Mexico Pacific Limited, LLC.	)	FE Docket No. 22-167-LNG

SIERRA CLUB CERTIFIED STATEMENT OF AUTHORIZED REPRESENTATIVE

Pursuant to 10 C.F.R. § 590.103(b), I, Douglas Hayes, 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.

Executed at Boulder, CO on December 27, 2023.

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Attorney for Sierra Club

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY

OFFICE OF FOSSIL ENERGY

IN THE MATTER OF	)	
	)	
Mexico Pacific Limited, LLC.	)	FE Docket No. 18-145-LNG

SIERRA CLUB VERIFICATION

Pursuant to 10 C.F.R. § 590.103(b), I, Douglas Hayes, 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 Boulder, CO on December 27, 2023.

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UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
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IN THE MATTER OF	)	
	)	
Mexico Pacific Limited, LLC.	)	FE Docket No. 22-167-LNG

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 590.107, I, Douglas Hayes, 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 December 27, 2023.

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