

ORAL ARGUMENT NOT YET SCHEDULED

No. 23-1069 (consolidated with No. 23-1071)

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

HEALTHY GULF, *et al.*,
Petitioners,

v.

FEDERAL ENERGY REGULATORY COMMISSION,
Respondent,

COMMONWEALTH LNG, LLC,
Respondent-Intervenor.

On Petition for Review of Orders of the
Federal Energy Regulatory Commission

**JOINT PROOF OPENING BRIEF OF PETITIONERS
HEALTHY GULF, et al.**

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**CERTIFICATE AS TO PARTIES, RULINGS,
AND RELATED CASES**

Pursuant to D.C. Circuit Rule 28(a)(1), Petitioners certify as follows:

(A) Parties

The parties in No. 23-1069 are petitioners Healthy Gulf, Center for Biological Diversity, Louisiana Bucket Brigade, Sierra Club, and Turtle Island Restoration Network; respondent Federal Energy Regulatory Commission; and intervenor Commonwealth LNG, LLC.

The parties in No. 23-1071 are petitioner Natural Resources Defense Council; respondent Federal Energy Regulatory Commission; and intervenor Commonwealth LNG, LLC.

(B) Ruling Under Review

The petitions for review challenge the Federal Energy Regulatory Commission's November 17, 2022 order granting authorization of the Commonwealth Liquefied Natural Gas Export Project under Section 3 of the Natural Gas Act, 15 U.S.C. § 717b(e). 181 FERC ¶ 61,143.

(C) Related Cases

As of the date of this filing, the undersigned is aware of one case pending before this Court that may be related to this case within the meaning of Circuit Rule 28(a)(1)(C):

- *Alabama Municipal Distributors Group v. FERC*, D.C. Circuit Case No. 22-1101 (L), **argument scheduled September 5, 2023**

/s/ Nathan Matthews

Nathan Matthews

RULE 26.1 DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1 and D.C. Circuit Rule 26.1, petitioners Healthy Gulf, Center for Biological Diversity, Louisiana Bucket Brigade, Sierra Club, Turtle Island Restoration Network, and Natural Resources Defense Council are non-profit environmental organizations. Each petitioner states that it has no parent corporation and that no publicly held company holds 10% or more of its stock.

/s/ Nathan Matthews

Nathan Matthews

TABLE OF CONTENTS

Certificate as to Parties, Rulings, and Related Cases.....	i
Rule 26.1 Disclosure Statement.....	iii
Table of Contents	iv
Table of Authorities.....	vii
Glossary	xiii
Jurisdictional Statement.....	1
Statutes and Regulations.....	2
Issues for Review.....	2
Statement of the Case	3
I. Introduction	3
II. Legal Framework.....	7
A. Natural Gas Act	7
B. National Environmental Policy Act.....	8
C. Clean Air Act.....	10
III. Factual Background.....	13
A. The Commonwealth Terminal and surrounding communities	13
B. FERC’s review and approval	15
1. Greenhouse gases	15
2. Air quality and environmental justice	17
3. Wetlands and habitat	18
4. Alternatives	19
5. Public interest.....	20

C. Rehearing before FERC and petitions before this Court....	21
Summary of Argument.....	21
Standing	23
Argument.....	25
I. Standard of Review	25
II. FERC’s Consideration of the Terminal’s Direct Greenhouse Gas Emissions Was Arbitrary and Capricious	26
A. FERC refused to determine whether the Terminal’s greenhouse gas emissions were significant.....	27
B. FERC arbitrarily rejected two methods to fulfill its obligation to consider greenhouse gas emissions	30
1. FERC’s interim greenhouse gas significance threshold	30
2. Social cost of carbon	32
C. FERC’s refusal to determine the significance of the Terminal’s greenhouse gas emissions impeded other parts of its analysis	35
III. FERC Failed to Take a Hard Look at Air Impacts, Particularly in Environmental Justice Communities.....	38
A. FERC failed to take a hard look at cumulative air impacts.....	39
B. FERC’s reliance on Significant Impact Levels as dispositive to its air and environmental justice impact analyses was arbitrary and capricious	46
C. Healthy Gulf timely raised challenges to FERC’s use of Significant Impact Levels	52
IV. FERC Arbitrarily Rejected Multiple Alternative Terminal Designs That Would Have Reduced Environmental Impacts	53

A. FERC arbitrarily rejected efficient on-site electricity generation	55
B. FERC arbitrarily rejected reverting to Commonwealth’s initially-proposed liquefied natural gas storage tank volume	60
C. FERC arbitrarily dismissed carbon capture and sequestration.....	64
V. FERC’s Public Interest Finding under Section 3 of the Natural Gas Act Was Arbitrary and Capricious	67
VI. The Court Should Vacate the Authorization Order and Final EIS	71
Conclusion	73
Certificate of Compliance	75
Certificate of Service	76

TABLE OF AUTHORITIES

Cases

<i>Allied-Signal, Inc. v. Nuclear Regul. Comm’n</i> , 988 F.2d 146 (D.C. Cir. 1993).....	71, 72
<i>Am. Radio Relay League, Inc. v. FCC</i> , 524 F.3d 227 (D.C. Cir. 2008).....	29, 71
<i>Am. Trucking Ass’ns v. EPA</i> , 283 F.3d 355 (D.C. Cir. 2002).....	11
<i>Am. Wild Horse Pres. Campaign v. Perdue</i> , 873 F.3d 914 (D.C. Cir. 2017).....	37
<i>AT&T v. FCC</i> , 978 F.2d 727 (D.C. Cir. 1992).....	33
<i>Atl. Refining Co. v. Pub. Serv. Comm’n</i> , 360 U.S. 378 (1959).....	70
<i>Balt. Gas & Elec. Co. v. NRDC</i> , 462 U.S. 87 (1983).....	37
<i>Bhd. of Locomotive Eng’rs & Trainmen v. Fed. R.R. Admin.</i> , 972 F.3d 83 (D.C. Cir. 2020).....	70, 71
<i>Calvert Cliffs’ Coordinating Comm. v. U.S. Atomic Energy Comm’n</i> , 449 F.2d 1109 (D.C. Cir. 1971).....	43, 48, 49
<i>City of Miami v. FERC</i> , 22 F.4th 1039 (D.C. Cir. 2022)	33
<i>Comcast Corp. v. FCC</i> , 579 F.3d 1 (D.C. Cir. 2009).....	72
<i>Ctr. for Biological Diversity v. FERC</i> , 67 F.4th 1176 (D.C. Cir. 2023)	34, 58

<i>Del. Riverkeeper Network v. FERC</i> , 45 F.4th 104 (D.C. Cir. 2022)	34
<i>Duncan’s Point Lot Owners Ass’n v. FERC</i> , 522 F.3d 371 (D.C. Cir. 2008).....	34
<i>EarthReports, Inc. v. FERC</i> , 828 F.3d 949 (D.C. Cir. 2016).....	8, 33, 34, 67
<i>Envtl. Def. Fund v. FERC</i> , 2 F.4th 953 (D.C. Cir. 2021)	68, 72
<i>Envtl. Health Tr. v. FCC</i> , 9 F.4th 893 (D.C. Cir. 2021)	29
<i>Food & Water Watch v. FERC</i> , 28 F.4th 277 (D.C. Cir. 2022)	27
<i>Friends of Buckingham v. State Air Pollution Control Bd.</i> , 947 F.3d 68 (4th Cir. 2020).....	52
* <i>Grand Canyon Trust v. FAA</i> , 290 F.3d 339 (D.C. Cir. 2002).....	41, 42, 45
<i>Gulf S. Pipeline Co., LP v. FERC</i> , 955 F.3d 1001 (D.C. Cir. 2020).....	52
<i>High Sierra Hikers Ass’n v. Blackwell</i> , 390 F.3d 630 (9th Cir. 2004).....	41
<i>Kern v. BLM</i> , 284 F.3d 1062 (9th Cir. 2002).....	41
<i>Mont. Wilderness Ass’n v. McAllister</i> , 666 F.3d 549 (9th Cir. 2011).....	35
<i>Motor Vehicle Mfrs. Ass’n of U.S. v. State Farm Mut. Auto. Ins. Co.</i> , 463 U.S. 29 (1983).....	25

<i>Myersville Citizens for a Rural Cmty., Inc. v. FERC</i> , 783 F.3d 1301 (D.C. Cir. 2015).....	54
<i>N.M. ex rel. Richardson v. BLM</i> , 565 F.3d 683 (10th Cir. 2009).....	60
<i>NRDC v. Hodel</i> , 865 F.2d 288 (D.C. Cir. 1988).....	5, 39, 41
<i>O'Reilly v. U.S. Army Corps of Eng'rs</i> , 477 F.3d 225 (5th Cir. 2007).....	41
<i>Ohio Valley Env't Coal. v. Aracoma Coal Co.</i> , 556 F.3d 177 (4th Cir. 2009).....	41
<i>Physicians for Soc. Resp. v. Wheeler</i> , 956 F.3d 634 (D.C. Cir. 2020).....	71
<i>Prairie Band Potawatomi Nation v. Yellen</i> , 63 F.4th 42 (D.C. Cir. 2023)	64
<i>Robertson v. Methow Valley Citizens Council</i> , 490 U.S. 332 (1989).....	8, 28, 35, 36, 37
<i>Sierra Club v. Costle</i> , 657 F.2d 298 (D.C. Cir. 1981).....	29
<i>Sierra Club v. EPA</i> , 705 F.3d 458 (D.C. Cir. 2013).....	13
* <i>Sierra Club v. FERC</i> , 867 F.3d 1357 (D.C. Cir. 2017) (<i>Sabal Trail</i>).....	9, 10, 23, 24, 27, 58
<i>Sierra Club v. U.S. Dep't of Energy</i> , 867 F.3d 189 (D.C. Cir. 2017).....	8
<i>Spiller v. White</i> , 352 F.3d 235 (5th Cir. 2003).....	34

<i>Standing Rock Sioux Tribe v. Army Corps of Eng’rs</i> , 985 F.3d 1032 (D.C. Cir. 2021).....	72
<i>Union Neighbors United, Inc. v. Jewell</i> , 831 F.3d 564 (D.C. Cir. 2016).....	8, 60
<i>United States v. Ameren Mo.</i> , 421 F. Supp. 3d 729 (E.D. Mo. 2019).....	47
<i>United Steel v. Mine Safety & Health Admin.</i> , 925 F.3d 1279 (D.C. Cir. 2019).....	71
<i>Vecinos para el Bienstar de la Comunidad Costera v. FERC</i> , 6 F.4th 1321 (D.C. Cir. 2021)	25, 26, 27, 28, 68

Statutes

* 15 U.S.C. § 717b.....	1, 3, 8, 27, 36, 43, 53, 54
15 U.S.C. § 717r.....	1, 52
42 U.S.C. § 4332	2, 9, 53
42 U.S.C. § 7409	10, 11
42 U.S.C. § 7475	11, 42

Regulations

18 C.F.R. § 380.1	9
18 C.F.R. § 380.7	28, 36
18 C.F.R. § 385.713	52
40 C.F.R. § 1501.3	49, 50
40 C.F.R. § 1502.1	53

40 C.F.R. § 1502.14	9, 53, 60, 63
40 C.F.R. § 1502.16	4, 9, 28, 34
40 C.F.R. § 1502.21	28
40 C.F.R. § 1508.1	9, 39, 40, 42, 43
40 C.F.R. § 50.11	11
40 C.F.R. § 51.165	11, 12

FERC Orders

Adelphia Gateway, LLC,

171 FERC ¶ 61,049 (Apr. 17, 2020).....	34
--	----

Consideration of Greenhouse Gas Emissions in Natural Gas

Infrastructure Project Reviews, 178 FERC ¶ 61,108 (Feb. 18, 2022)

<i>(Interim GHG Policy)</i>	4, 9, 26, 30, 31, 32
-----------------------------------	----------------------

Jordan Cove,

171 FERC ¶ 61,136 (May 22, 2020).....	36
---------------------------------------	----

N. Nat. Gas Co.,

174 FERC ¶ 61,189 (Mar. 22, 2021).....	31
--	----

Order on Draft Policy Statements,

178 FERC ¶ 61,197 (Mar. 24, 2022).....	10, 31
--	--------

Rio Grande LNG, LLC,

170 FERC ¶ 61,046 (Jan. 23, 2020).....	41
--	----

Other Authorities

Executive Order 12,898,

59 Fed. Reg. 7629 (Feb. 11, 1994)	10
---	----

Prevention of Significant Deterioration for Particulate Matter,
75 Fed. Reg. 64,864 (Oct. 20, 2010)..... 12

Primary National Ambient Air Quality Standards for Nitrogen Dioxide,
75 Fed. Reg. 6,474 (Feb. 9, 2010) 47, 49

Pub. L. No. 118-5, § 321, 137 Stat. 10 (June 3, 2023)9

GLOSSARY

Authorization Order	<i>Commonwealth LNG, LLC</i> , Order Granting Authorization Under Section 3 of the Natural Gas Act, 181 FERC ¶ 61,143 (Nov. 17, 2022), R526 [JA___-___]
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
JA___	Joint Appendix page(s)
µg/m ³	Micrograms per cubic meter
NEPA	National Environmental Policy Act
NAAQS	National Ambient Air Quality Standards
P__	Paragraph in a FERC order
R__	Administrative Record item
Rehearing Order	<i>Commonwealth LNG, LLC</i> , Order Addressing Arguments Raised on Rehearing, 183 FERC ¶ 61,173 (June 9, 2023), R549, [JA___-___]
Terminal	Commonwealth LNG Terminal

JURISDICTIONAL STATEMENT

In these consolidated cases, petitioners Healthy Gulf, Center for Biological Diversity, Louisiana Bucket Brigade, Sierra Club, Turtle Island Restoration Network, and Natural Resources Defense Council (collectively, Healthy Gulf) seek review of the Federal Energy Regulatory Commission's (FERC) authorization of the Commonwealth Liquefied Natural Gas Export Project (the Terminal or Commonwealth Terminal) under Section 3 of the Natural Gas Act, 15 U.S.C. § 717b(e). *See* Order Granting Authorization Under Section 3 of the Natural Gas Act, 181 FERC ¶ 61,143 (Nov. 17, 2022) (Authorization Order) [JA___]. The Natural Gas Act grants this Court jurisdiction because Healthy Gulf intervened in the proceeding before FERC, filed timely requests for rehearing of the Authorization Order under 15 U.S.C. § 717r(a), and filed their petitions for review with this Court within 60 days of FERC's January 19, 2023 rehearing denial. *See* 15 U.S.C. § 717r(b).

STATUTES AND REGULATIONS

Pertinent statutes and regulations are reproduced in an addendum.

ISSUES FOR REVIEW

1. Did FERC violate the National Environmental Policy Act (NEPA), 42 U.S.C. § 4332, by:
 - a. Refusing to determine whether the Commonwealth Terminal's greenhouse gas emissions would be significant, despite two tools available with which to determine significance?
 - b. Concluding that the Terminal would not have significant air quality impacts, including in environmental justice communities, based on an analysis that ignored cumulative impacts and the context of the affected communities?
 - c. Dismissing reasonable design alternatives for the Terminal without demonstrating that those alternatives would be infeasible and without rigorously exploring their environmental impacts?

2. Did FERC violate Section 3 of the Natural Gas Act, 15 U.S.C. § 717b, and the Administrative Procedure Act, 5 U.S.C. § 706, by failing to articulate or apply a coherent standard in making the public interest determination of whether the Commonwealth Terminal's adverse impacts outweighed its benefits?

STATEMENT OF THE CASE

I. INTRODUCTION

Healthy Gulf challenges FERC's approval, under Section 3 of the Natural Gas Act, of the Commonwealth Terminal, a liquefied natural gas export terminal and associated infrastructure proposed for Cameron Parish, Louisiana. In approving the Terminal, FERC repeatedly violated NEPA and the Natural Gas Act by stopping its analyses short, denying itself information that might have caused it to deny a permit or require mitigation that would lessen the Terminal's impacts.

FERC's shortcomings are particularly apparent in its treatment of greenhouse gas emissions. FERC concluded that the Terminal would emit 100 million tons of carbon dioxide equivalent in its 30-year lifespan, Authorization Order P74 [JA___], causing \$3.6 *billion* in harms through 2050, FEIS 4-397 [JA___]. But FERC stopped its

analysis there, and refused to determine—as NEPA required—whether these emissions were “significant,” 40 C.F.R. § 1502.16(a)(1), or to otherwise pass judgment on them.

FERC’s refusal was arbitrary. The Terminal’s greenhouse gas emissions here are *thirty-six times* greater than FERC’s proposed threshold for significance. *Consideration of Greenhouse Gas Emissions in Natural Gas Infrastructure Project Reviews*, 178 FERC ¶ 61,108 PP79, 93-95 (Feb. 18, 2022) (*Interim GHG Policy*). The emissions here plainly exceed any reasonable threshold FERC could apply. FERC’s sole reason for refusing to consider its own estimate of the social cost of greenhouse gas emissions—that there is no consensus threshold for when monetized harm becomes significant—fares no better. Order Addressing Arguments Raised on Rehearing, 183 FERC ¶ 61,173 P40 (June 9, 2023) (Rehearing Order) [JA_____]. Agencies routinely make judgment calls without the benefit of such criteria, and no nuanced guidance is needed to determine whether \$3.6 billion of societal harm is worth taking seriously. By refusing to determine whether the Terminal’s greenhouse gas emissions were significant, FERC both

compromised consideration of potential mitigation and deprived the public of the informed, transparent decisionmaking NEPA requires.

For non-climate air pollutants, FERC violated NEPA by failing to support its conclusion that the Terminal's nitrogen dioxide pollution would have insignificant impacts. Air quality modeling showed that the Terminal would increase nitrogen dioxide concentrations in surrounding communities. But FERC stopped its analysis once it concluded that, where total nitrogen dioxide concentrations would exceed U.S. Environmental Protection Agency (EPA) ambient air quality standards, the Terminal's individual contribution to those concentrations fell below the so-called "Significant Impact Level" proposed by EPA for use under a separate Clean Air Act permitting program. Authorization Order P63 [JA___]. NEPA required more. For NEPA purposes, individually insignificant impacts can be cumulatively significant. *NRDC v. Hodel*, 865 F.2d 288, 297-98 (D.C. Cir. 1988). And NEPA, unlike the Clean Air Act, requires consideration of the context in which the impact would occur. Here, the Terminal would increase nitrogen dioxide pollution in low income and minority environmental justice communities that are particularly vulnerable to this pollution.

See Authorization Order, Glick Concurrence P5 [JA__-__]. FERC acknowledged this context, but arbitrarily excluded it from its analysis.

FERC similarly cut its analysis of multiple alternatives short. Perhaps because of its failure to recognize the significance of the Terminal's air pollution, FERC dismissed a design for the Terminal's onsite power plant that could reduce the Terminal's total air pollution by up to 10%. Rehearing Order P26 [JA__-__]. FERC concluded that this alternative would not be environmentally beneficial, because it would also increase the Terminal's footprint. *Id.* But NEPA did not permit FERC to halt its analysis as soon as FERC concluded that an alternative would have an environmental disadvantage. Instead, NEPA required FERC to identify *by how much* the footprint would increase (which FERC entirely failed to do), and to address whether this tradeoff was worthwhile. The arbitrariness of FERC's treatment of this alternative is underscored by FERC's mirrored, equally-arbitrary treatment of another alternative, one that would reduce the Terminal to its originally-proposed storage tank capacity. FERC found that the reduced-storage alternative could cut the Terminal's footprint by several acres, but rejected it because it would entail an unspecified

increase in air pollution. *Id.* P30 [JA__-__]. FERC’s dismissal of a third alternative, carbon capture and sequestration, as infeasible was also arbitrary, where FERC itself concluded it did not have information to support that conclusion. *Cf. id.* P28 [JA__]; FEIS 4-399 [JA__].

Finally, FERC was left to rely on a flawed environmental impact analysis to determine, under the Natural Gas Act, whether the Terminal is in the public interest. But it is unclear whether FERC even considered environmental harms as part of its public interest analysis. FERC merely stated that the Commonwealth Terminal is not inconsistent with the public interest; it provided no decisionmaking framework that the public, this Court, or even every FERC Commissioner could identify.

For these reasons, and as detailed below, this Court should grant the petition, vacate, and remand to FERC.

II. LEGAL FRAMEWORK

A. Natural Gas Act

FERC exercises delegated authority under Natural Gas Act Section 3 to “approve or deny an application for the siting, construction,

expansion, or operation” of liquefied natural gas infrastructure. 15 U.S.C. § 717b(e)(1); *EarthReports, Inc. v. FERC*, 828 F.3d 949, 952-53 (D.C. Cir. 2016). Under that authority, FERC will approve a liquefied natural gas project unless the project is inconsistent with the public interest. *EarthReports*, 828 F.3d at 953. The “public interest” standard is broad and includes consideration of “environmental” and “conservation” impacts. *Sierra Club v. U.S. Dep’t of Energy*, 867 F.3d 189, 202-03 (D.C. Cir. 2017).

B. National Environmental Policy Act

NEPA “declares a broad national commitment to protecting and promoting environmental quality.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989). While “essentially procedural,” the statute is “intended to ensure ‘fully informed and well-considered’ decisionmaking.” *Union Neighbors United, Inc. v. Jewell*, 831 F.3d 564, 568 (D.C. Cir. 2016) (cleaned up). In short, NEPA requires agencies to look before they leap.

To serve that goal, NEPA mandates that federal agencies prepare an environmental impact statement (EIS) before taking any major federal action that significantly affects the environment. 42 U.S.C.

§ 4332(2)(C) (2022).¹ In the EIS, the agency must “take a ‘hard look’ at the environmental consequences of its actions,” *Sierra Club v. FERC*, 867 F.3d 1357, 1367 (D.C. Cir. 2017) (*Sabal Trail*), including alternatives to the proposed action, 40 C.F.R. § 1502.14, the cumulative impacts of the action, *id.* § 1508.1(g)(3), and the “significance” of the impacts, *id.* § 1502.16(a)(1). FERC has adopted the Council on Environmental Quality’s NEPA regulations. 18 C.F.R. § 380.1.

In February 2022, recognizing NEPA’s mandate that agencies assess the significance of project impacts, FERC issued an interim policy that, among other things, established a rebuttable presumption that proposed Natural Gas Act-regulated projects with 100,000 metric tons of annual carbon-dioxide equivalent emissions would be deemed to have significant impacts under NEPA. *Interim GHG Policy*, 178 FERC ¶ 61,108 PP79, 93-95. In March 2022, FERC reverted the interim policy to a “draft policy,” explaining that FERC would not apply the policy to new or pending applications until FERC finalizes it. *Order on Draft*

¹ Congress amended NEPA, including 42 U.S.C. § 4332, nine months after FERC issued its final EIS. *See* Pub. L. No. 118-5, § 321, 137 Stat. 10, 38-45 (June 3, 2023). Those amendments are immaterial here.

Policy Statements, 178 FERC ¶ 61,197 P2 (Mar. 24, 2022). FERC has not yet finalized the policy.

Taking a hard look at environmental impacts also requires considering “environmental justice,” *i.e.*, whether projects “will have a ‘disproportionately high and adverse’ impact on low-income and predominantly minority communities.” *Sabal Trail*, 867 F.3d at 1368 (citing Executive Order 12,898, 59 Fed. Reg. 7629 (Feb. 11, 1994)). The Council on Environmental Quality and EPA have promulgated guidance interpreting this obligation.²

C. Clean Air Act

This case also indirectly implicates certain aspects of Clean Air Act permitting, which FERC relies on in its analysis. Under the Clean Air Act, EPA sets National Ambient Air Quality Standards (NAAQS) for numerous pollutants. 42 U.S.C. § 7409. These are set at a level

² See Council on Environmental Quality, *Environmental Justice: Guidance Under the National Environmental Policy Act* (1997), https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf; EPA, *Promising Practices for EJ Methodologies in NEPA Reviews* (2016) (*Promising Practices*), https://www.epa.gov/sites/default/files/2016-08/documents/nepa_promising_practices_document_2016.pdf.

“requisite to protect the public health,” including “an adequate margin of safety,” *id.* § 7409(b)(1), although EPA is not required to set NAAQS at levels “below which [pollutants] are known to be harmless.” *Am. Trucking Ass’ns v. EPA*, 283 F.3d 355, 360, 369-70 (D.C. Cir. 2002). For the primary pollutant at issue here—nitrogen dioxide—EPA has set a NAAQS for one-hour periods at 100 parts per billion, 40 C.F.R. § 50.11(b), which equals 188 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), FEIS 4-392 [JA___].

Under the Clean Air Act’s Prevention of Significant Deterioration program, new major stationary sources (like the Commonwealth Terminal) must, *inter alia*, “demonstrate” that their emissions will “not cause, or contribute” to any NAAQS violation. 42 U.S.C. § 7475(a)(3). EPA allows permitting agencies to use so-called “Significant Impact Levels” to help determine when new sources cause or contribute to a NAAQS violation. While EPA has issued regulations codifying Significant Impact Levels for some NAAQS, *see* 40 C.F.R. § 51.165(b)(2), it has not for its one-hour nitrogen dioxide standard. Instead, EPA has

issued guidance³ suggesting an interim Significant Impact Level of four parts per billion, or 7.5 µg/m³. FEIS 4-231 [JA___].

Significant Impact Levels are a helpful tool, but not dispositive to a “cause or contribute” finding. EPA’s regulations provide that a project “will be considered to cause or contribute to a [NAAQS] violation” when its emissions would (a) exceed the regulatory Significant Impact Level for the relevant pollutant (b) at “any locality that does not or would not meet the applicable” NAAQS. 40 C.F.R. § 51.165(b)(2). On the other hand, where a project’s impacts fall below the Significant Impact Level, the permitting agency can still find that a project causes or contributes to a NAAQS violation based on other factors. *See* Prevention of Significant Deterioration for Particulate Matter, 75 Fed. Reg. 64,864, 64,892 (Oct. 20, 2010) (explaining “permitting authorities should determine when it may be appropriate to conclude” that impacts below Significant Impact Levels “‘cause or contribute’ to an air quality problem”); *see also* *Sierra Club v. EPA*, 705 F.3d 458, 465-66 (D.C. Cir.

³ EPA, *Guidance Concerning the Implementation of the 1-hour NO₂ NAAQS for the Prevention of Significant Deterioration Program* Att. 1 (2010 SIL Guidance), at 12 (June 29, 2010), <https://www.epa.gov/sites/default/files/2015-07/documents/appwno2.pdf>.

2013) (granting voluntary remand and vacatur of regulatory text that did not give permitting agencies that discretion).

III. FACTUAL BACKGROUND

A. The Commonwealth Terminal and surrounding communities

Commonwealth LNG, LLC proposes to build and operate a liquefied natural gas export facility with a nominal capacity of 390 billion cubic feet per year. Authorization Order P3 [JA__-__]. The design includes a dedicated, on-site electric power plant; “pretreatment” facilities that remove impurities from incoming pipeline gas before it is cooled; six liquefaction “trains,” each powered by its own turbine, to refrigerate the gas; six liquefied natural gas storage tanks, each with capacity of 50,000 cubic meters; one marine berth; and a three-mile, 42-inch-diameter natural gas supply pipeline. *Id.* The permanent footprint of these facilities would be roughly 150 acres. *Id.* P14 [JA__-__]; *see also* Site Plan, R.179 App’x D [JA__].

The Terminal would be located at the mouth of the Calcasieu River, in southwest Louisiana. FEIS 1-2 [JA__-__] (map). The site lies

within “the Gulf Coast Prairie Bird Conservation Region and the Chenier Plain Important Bird area.” *Id.* ES-6 [JA___]. “The wetland and chenier habitats in the Project area are especially important as potential habitat for migratory bird species, including songbirds, colonial nesting waterbirds, and raptors.” *Id.* However, the area also has “a long history of heavy industrialization, with the attendant consequences for ... surrounding communities.” Authorization Order, Glick Concurrence P5 [JA___]. Recently, that industrialization has included numerous other liquefied natural gas export terminals. Three such terminals are already operating in the surrounding area, and FERC has approved four more. FEIS 3-28, 4-347 to -349 [JA___, ___-___]. An eighth proposal, CP2 LNG, is currently undergoing FERC review and would be sited only two miles from the Commonwealth Terminal. *Id.*

Many residents of the surrounding area are low-income or minority. More than 61% of the census block groups that could be affected by the Terminal are environmental justice communities. FEIS 4-191 [JA___]. “[M]any of the communities in the area exhibit rates of

cancer, asthma, and other serious ailments that are well above the national average.” Authorization Order, Glick Concurrence P5 [JA___].

B. FERC’s review and approval

FERC issued its draft EIS for the Terminal in March 2022. R.33 [JA___]. Healthy Gulf’s comments raised concerns about the Terminal, including greenhouse gas emissions, R.389 at 20-23 [JA___-___]; air quality and environmental justice impacts, *id.* at 28-30, 36-41 [JA___-___, ___-___]; alternatives, *id.* at 5-15, 24-26 [JA___-___, ___-___]; and its consistency with the public interest under the Natural Gas Act, *id.* at 6 [JA___]. *See also* R.388 at 18-29 [JA___-___], R.361 [JA___]. On September 9, 2022, FERC published its final EIS, [JA___], and on November 17, 2022, FERC issued the Authorization Order. But these documents failed to resolve Healthy Gulf’s concerns.

1. Greenhouse gases

FERC concluded that the Terminal would release nearly 3.6 million tons of carbon dioxide equivalent greenhouse gases each year of its 30 years of expected operation. Authorization Order P74 [JA___]. This is the equivalent of around 700,000 new cars on the road,

Authorization Order, Glick Concurrence P4 [JA___], and would increase Louisiana's total greenhouse gas emissions by nearly two percent, FEIS 4-396 [JA___]. FERC also used interagency guidance on the "social cost of greenhouse gases" to estimate the total social cost of the Terminal's emissions. *Id.* 4-397 [JA___]. This "social cost of greenhouse gases" incorporates "the value of all climate change impacts," including human health effects, changes in agricultural productivity, and property and ecosystem damages.⁴ Applying a three percent discount rate, FERC estimated the Terminal's greenhouse gas emissions would have a total social cost of nearly \$3.6 billion through 2050. *Id.*

Despite providing these numbers, FERC refused to determine whether the Terminal's climate impacts were "significant" under NEPA. Authorization Order P75 [JA___]; FEIS 4-396 [JA___].

⁴ Interagency Working Group on Social Cost of Greenhouse Gases, *Tech. Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990*, at 2 (Feb. 2021), https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf, discussed at FEIS 4-397 [JA___].

2. Air quality and environmental justice

FERC found that the Terminal (including related mobile sources) would emit around 550 tons of nitrogen dioxide each year. FEIS 4-224 [JA___]. FERC relied on modeling conducted under the Clean Air Act's Prevention of Significant Deterioration program, which FERC instructed Commonwealth to supplement to include mobile sources, to determine whether those emissions would have significant impacts. *Id.*

This modeling showed the Terminal could increase nearby nitrogen dioxide concentrations by up to 124 $\mu\text{g}/\text{m}^3$ —around two-thirds of the one-hour NAAQS. FEIS 4-227 [JA___]. Because that exceeded EPA's proposed Significant Impact Level of 7.5 $\mu\text{g}/\text{m}^3$, FERC then modeled the Terminal's emissions along with background concentrations and projected emissions from other sources in the area (including existing and approved, not-yet-constructed FERC-regulated facilities). *Id.* 4-228, -231 [JA___, ___]. That second round of modeling projected hundreds of exceedances of the one-hour nitrogen dioxide NAAQS. *See id.* 4-231, H-5 to -16, App'x I fig.6 [JA___, ___-___, ___]. Most of these exceedances would be within environmental justice communities. Authorization Order P63 [JA___].

FERC nonetheless concluded that air quality and related environmental justice impacts would be insignificant under NEPA because the Terminal's "contribution" to any potential NAAQS violation would "be less than the significant impact level [of 7.5 $\mu\text{g}/\text{m}^3$] at each exceedance location." FEIS 4-198 [JA___]; *see also id.* 4-232 [JA___]; Authorization Order P63 [JA___].

3. Wetlands and habitat

Construction of the Terminal would permanently disturb 152.8 acres. FEIS 2-8 [JA___]. This includes 89.6 acres of wetlands. *Id.* 5-405 [JA___]. FERC concluded that because permanent wetland impacts would be mitigated under the Clean Water Act, wetland impacts were insignificant. *Id.* 5-406 [JA___].

The remaining impacted area includes wildlife habitat. FERC concluded that impacts to this habitat would also be insignificant, relying on Commonwealth's commitment to protect surrounding habitat from other impacts, and on the Fish and Wildlife Service's conclusion that the Terminal would not jeopardize the continued existence of threatened species. FEIS 5-408, -412 [JA___, ___].

4. Alternatives

As pertinent here, FERC discussed three alternative designs.

First, FERC discussed replacing the on-site electric power plant with a more efficient design. FEIS 3-48, [JA___]. FERC concluded that this could reduce “overall site ... emissions ... by less than ten percent.” *Id.* FERC asserted that this alternative would also require “significant,” but unspecified, additional land use, impacting additional “habitat and wetlands.” *Id.* FERC concluded that on balance, this alternative did “not provide a significant environmental advantage.” *Id.*

Second, FERC discussed omitting one of the Terminal’s six proposed storage tanks. FEIS 3-46 [JA___]. This could reduce the footprint by up to 2.3 acres, while still providing more storage capacity than Commonwealth had originally proposed. *Id.* But FERC asserted that this alternative would increase air pollution, by requiring additional startup and shutdown events. *Id.* FERC did not discuss how many more such events would occur, or the emissions associated therewith. *Id.* Nonetheless, FERC concluded that the proposed design was environmentally “preferable” to this alternative. *Id.*

Finally, FERC discussed capturing and sequestering carbon dioxide from the gas pretreatment process. FEIS 4-264 to -265, 4-398 to -399 [JA___-___, ___-___]. Although capturing these emissions was feasible, FERC noted that Commonwealth had asserted that post-capture sequestration of these emissions would be infeasible, citing a lack of existing sequestration infrastructure. *Id.* 4-398 [JA___]. But the FEIS explained that Commonwealth's assertion was in tension with the fact that the neighboring proposed CP2 LNG export project had proposed to sequester carbon dioxide in a new site three miles offshore. *Id.* 4-399 [JA___]. The EIS concluded that “[w]ithout additional information, [FERC was] unable to evaluate the feasibility of CP2 LNG’s sequestration site for the Commonwealth Project.” *Id.*

5. Public interest

FERC concluded that the Commonwealth Terminal was “not inconsistent with the public interest.” Authorization Order P18 [JA___]. FERC refused to consider commenters’ questions about the lack of need for, or benefit of, the Terminal. *Id.* P11-13 [JA___-___]. Instead, FERC relied on a presumption in favor of approval, and asserted that environmental impacts did not outweigh this presumption. *Id.* P14-15

[JA___-___]. Two Commissioners lamented that in so doing, FERC failed to offer a “clear framework” to explain its public interest determination. *Id.*, Glick Concurrence P7 [JA___], Clements Concurrence P5 [JA___].

C. Rehearing before FERC and petitions before this Court

The Healthy Gulf petitioners jointly requested rehearing of the Authorization Order on December 19, 2022. R.533 [JA___]. This request was deemed denied after FERC failed to timely respond. R.535 [JA___]. Healthy Gulf then petitioned this Court for review, in two separately-filed suits. The Court consolidated the petitions, Dkt. No. 1991509, denied FERC’s motion for an abeyance, and ordered the agency to file the index to the record by June 9, Dkt. No. 2000940. Just before filing the record index, *see* Dkt. No. 2003055, FERC issued an order responding to Healthy Gulf’s rehearing request and affirming the Authorization Order. Rehearing Order [JA___].

SUMMARY OF ARGUMENT

NEPA and the Natural Gas Act required FERC to take a hard look at the Commonwealth Terminal’s greenhouse gas emissions,

including passing judgment on whether these emissions would be “significant.” The shifting justifications FERC proffered for failing to do so were arbitrary: FERC’s plan to develop a future policy did not excuse FERC’s present obligations, and FERC failed to demonstrate that it was incapable of deciding significance here.

FERC further violated NEPA by concluding that the Terminal’s nitrogen dioxide emissions would not have significant impacts. FERC rested solely on the claim that the Terminal’s contribution to air pollution would not exceed the “Significant Impact Level” EPA proposed under the Clean Air Act. But FERC’s analysis ignored that individually insignificant actions can have cumulatively significant consequences. And NEPA, unlike the Clean Air Act, requires consideration of the context in which such pollution will occur; here, that context includes environmental justice communities. Healthy Gulf timely raised their criticisms of FERC’s reliance on Significant Impact Levels at the rehearing stage.

FERC arbitrarily rejected three reasonable alternative Terminal designs. For two, FERC arbitrarily rejected the alternative based on purported environmental disadvantages without even identifying the

magnitude of those harms. For a third, FERC dismissed the alternative as infeasible even though the EIS concluded that FERC did not have information to support this determination.

Finally, FERC violated the Natural Gas Act by concluding that the Commonwealth Terminal would not be inconsistent with the public interest without articulating or applying a coherent standard for how it reached that determination.

STANDING

Petitioners are non-profit organizations with members who live, work, and recreate in areas that would be affected by the construction and operation of the Terminal. *See* Allaire Decl. ¶¶ 5-7; Greenwald Decl. ¶¶ 3, 9; Grenter Decl. ¶¶ 4-5; Robertson Decl. ¶¶ 5-6; Steinhaus Decl. ¶¶ 3-4, 9; Yoder Decl. ¶¶ 5-6 (Add. 33-73). The Terminal would harm these members' "concrete aesthetic and recreational interests." *Sabal Trail*, 867 F.3d at 1365 (cleaned up). One member lives adjacent to the Terminal property and is concerned that the Terminal's construction would cause irreversible damage to his property through increased flooding and erosion; decrease his and his family's ability to use and enjoy his property, due to increased noise and light pollution;

and reduce native animal populations that he hunts, observes, or otherwise enjoys. Allaire Decl. ¶¶ 11-22 (Add. 36-43). Another member regularly visits Holly Beach—a few miles from the Terminal—to relax, watch birds, and exercise. Roberston Decl. ¶ 9 (Add. 57). She is concerned the Terminal would reduce her aesthetic enjoyment of Holly Beach and decrease, through noise and air pollution as well as wetland destruction, the bird populations she enjoys watching. *Id.* ¶¶ 9-11 (Add. 57-59). These members’ harms satisfy Article III’s injury-in-fact requirement. *See Sabal Trail*, 867 F.3d at 1366. And the Court can redress these harms by vacating the Authorization Order. *Id.* at 1367.

Petitioners also meet the other requirements for associational standing. These petitions are germane to petitioners’ organizational interests. *See Allaire Decl.* ¶¶ 5-7 (Add. 33-34); *Greuter Decl.* ¶¶ 4, 7 (Add. 50-52); *Trujillo Decl.* ¶¶ 6-9 (Add. 60-78); *Yoder Decl.* ¶¶ 5-6 (Add. 72-73). And there is no “reason why ... individual members would need to join the petition in their own names.” *See Sabal Trail*, 867 F.3d at 1366.

ARGUMENT

I. STANDARD OF REVIEW

The Administrative Procedure Act provides the standard of review for claims under NEPA and the Natural Gas Act. *See Vecinos para el Bienstar de la Comunidad Costera v. FERC*, 6 F.4th 1321, 1327, 1331 (D.C. Cir. 2021). The Administrative Procedure Act states that courts “shall ... hold unlawful and set aside” any agency action that is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2). FERC must have “examine[d] the relevant data” and made “a rational connection between the facts found and the choice made.” *Motor Vehicle Mfrs. Ass’n of U.S. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 30, 43 (1983) (cleaned up). Where FERC “rests a decision, at least in part, on an infirm ground, [the Court] will find the decision arbitrary and capricious.” *Vecinos*, 6 F.4th at 1331.

II. FERC'S CONSIDERATION OF THE TERMINAL'S DIRECT GREENHOUSE GAS EMISSIONS WAS ARBITRARY AND CAPRICIOUS

Operation of the Commonwealth Terminal would emit over 3.6 million tons of carbon dioxide equivalent greenhouse gases per year, for 30 years. Authorization Order P74 [JA___]. NEPA required FERC to take a hard look at these emissions, and the Natural Gas Act required FERC to consider these emissions and their impact in its public interest analysis. *Vecinos*, 6 F.4th at 1326, 1331. But even though the Terminal's annual emissions would be *36 times* greater than FERC's proposed threshold for "significant" greenhouse gas emissions, *Interim GHG Policy*, 178 FERC ¶ 61,108 P3, and even though FERC estimated that through 2050, these emissions would cause \$3.6 *billion* in social harm, FEIS 4-397 [JA___],⁵ FERC refused to decide whether these emissions—more than 100 million tons over the life of the project—were "significant." And FERC refused to explain whether or how these

⁵ This is FERC's estimate using the central, 3% rate for discounting future harm. FERC's estimates also ignored a sixth of the anticipated emissions: FERC expects the Terminal to operate through 2056, but did not estimate social cost for emissions beyond 2050. FEIS 4-397 [JA___].

emissions factored into its public interest analysis and consideration of potential mitigation. Authorization Order P75 [JA___]; Rehearing Order, Clements Dissent P2 [JA__]. FERC had at least two tools it could have used to inform this analysis: FERC's proposed 100,000 ton per year significance threshold and the social cost of carbon. FERC's reasons for refusing to use these tools were arbitrary.

A. FERC refused to determine whether the Terminal's greenhouse gas emissions were significant

Both the Natural Gas Act and NEPA required FERC to weigh the importance of the Terminal's greenhouse gas emissions. The "public interest" protected by the Natural Gas Act encompasses environmental effects, including from greenhouse gas emissions. *Food & Water Watch v. FERC*, 28 F.4th 277, 288 (D.C. Cir. 2022); *Sabal Trail*, 867 F.3d at 1373-74. FERC's Natural Gas Act Section 3 authority to approve or deny the Terminal, or to require modifications thereof, 15 U.S.C. § 717b(e), therefore included the authority and obligation to consider the Terminal's direct greenhouse gas emissions. *Vecinos*, 6 F.4th at 1329. And because FERC has authority to consider greenhouse gas emissions, NEPA requires that FERC take a hard look at these

“environmental impacts ... *and the significance of those impacts.*” 40 C.F.R. § 1502.16(a)(1) (emphasis added); *accord* 18 C.F.R. § 380.7(a) (requiring disclosure of “significant environmental impacts of the proposed action”); *Robertson*, 490 U.S. at 352 (NEPA requires agencies to explain the “severity” of effects). Faced with these obligations, FERC cannot simply throw up its hands: if FERC claims that information is unavailable, it must nonetheless use methods “generally accepted in the scientific community” to evaluate the impacts. 40 C.F.R. § 1502.21(c)(4); *accord Vecinos*, 6 F.4th at 1328.

FERC nonetheless refused to determine whether the Terminal’s greenhouse gas emissions were significant. Authorization Order P75 [JA___]. And the record is silent as to whether or how FERC factored greenhouse gas emissions into its public interest determination.⁶ *See* Rehearing Order, Clements Dissent P2 [JA___].

⁶ FERC did not dispute here, and has not disputed in any prior order, its Natural Gas Act authority over direct greenhouse gas emissions from export infrastructure. While FERC has disputed its authority to consider indirect emissions relating to gas production and overseas use when approving export infrastructure, Authorization Order P13, 81-82 [JA__, __-__], *Healthy Gulf* does not raise any claims regarding those “lifecyle” emissions in this case.

FERC's silence on these key points renders its decisions arbitrary and capricious. *See Envtl. Health Tr. v. FCC*, 9 F.4th 893, 906 (D.C. Cir. 2021). One might want to assume that FERC determined that these emissions were not significant, did not render the Terminal contrary to the public interest, or did not warrant additional mitigation. But FERC never says that. Nothing in the record explains, for example, whether FERC concluded that these emissions were so limited that they were no cause for concern; whether FERC instead concluded that they were a grave problem that was nonetheless outweighed by a compelling demonstration of public benefit; or whether FERC simply failed to consider the issue at all. FERC's failure to "identify the stepping stones" on the path to its conclusions about the impacts of greenhouse gas emissions, consideration of relevant alternatives, and the public interest violated basic principles of administrative law. *Sierra Club v. Costle*, 657 F.2d 298, 333 (D.C. Cir. 1981); *accord Am. Radio Relay League, Inc. v. FCC*, 524 F.3d 227, 241 (D.C. Cir. 2008) (holding agency's "conclusory statement" on a critical question "provides neither assurance that the [agency] considered the relevant factors nor a discernable path to which the court may defer.").

B. FERC arbitrarily rejected two methods to fulfill its obligation to consider greenhouse gas emissions

Healthy Gulf identified two methods FERC could have used to inform its analysis: FERC's interim greenhouse gas policy, which proposes a 100,000 ton per year significance threshold for emissions, and the social cost of carbon. R.533 at 33-37 [JA__-__]. FERC's reasons for refusing to employ these methods were arbitrary.

1. FERC's interim greenhouse gas significance threshold

Perhaps the simplest solution would have been for FERC to consider its own proposal that emissions of 100,000 tons per year or more of carbon dioxide equivalent are significant. *Interim GHG Policy*, 178 FERC ¶ 61,108, P79. The Terminal, after all, would emit *36 times* that amount each year. Authorization Order P74 [JA__].

FERC's interim (now draft) policy explained the threshold's proposed use and context. The threshold would not preclude FERC from approving projects that would exceed this level of emissions, *Interim GHG Policy*, 178 FERC ¶ 61,108, P108; it would merely identify emissions that needed to be carefully considered, *id.* P79, and that were worth mitigating, *id.* P106. The policy further explained that this

100,000-ton-per-year threshold would be higher than similar thresholds set by EPA and other agencies. *Id.* P93-95. And FERC recognized its authority and obligation to exercise its own judgment in determining what impacts were significant. *Id.* P25-26 (collecting cases).

The Authorization and Rehearing Orders did not explain why FERC cannot apply its reasoning for the proposed 100,000-ton threshold to the Terminal's emissions. Although FERC, after it published the interim policy, decided not to apply it until it is finalized, 178 FERC ¶ 61,197 P2, FERC has not disagreed with any of the findings or statements therein. And while FERC may be reconsidering whether the threshold should be lower or higher—perhaps 75,000 tons per year, or 150,000—such revision would not matter here. In an analogous case concerning modification of a natural gas pipeline, FERC explained that although it had not yet adopted a general test for the significance of greenhouse gas emissions, the emissions at issue (only 351 metric tons per year) fell well below any threshold FERC might ultimately adopt. *N. Nat. Gas Co.*, 174 FERC ¶ 61,189 PP29, 33 (Mar. 22, 2021). The converse is true here. Direct emissions from the Commonwealth Terminal are an order of magnitude above any

significance threshold FERC or any other agency has proposed. *See Interim GHG Policy*, 178 FERC ¶ 61,108, P93-95. The fact that some other case might pose a difficult question does not excuse FERC's failure to answer the easy question before it here.

2. Social cost of carbon

In the alternative, or in conjunction with consideration of its proposed threshold, FERC could have used the interagency protocols for estimating the social cost of greenhouse gases (the “social cost of carbon”). Although FERC estimated the social cost of the Terminal's direct greenhouse gas pollution as nearly \$3.6 *billion*, FEIS 4-397 [JA___], it said it did so only “for informational purposes,” Rehearing Order P40 [JA___]. FERC rejected using this estimate to inform its own decisionmaking, but its reasons for doing so shifted over time.

The Authorization Order stated that because FERC had disclosed the social cost of the Terminal's greenhouse gas emissions, and because it was “conducting a generic proceeding to determine how [FERC] will conduct significance determinations for [greenhouse gases] going forward,” FERC would not characterize the Commonwealth Terminal's greenhouse gas emissions as significant or insignificant. Authorization

Order, P75 [JA___]. But FERC’s aspirations for future proceedings—however well-intentioned—cannot justify FERC’s decision to approve the Commonwealth Terminal without having taken a hard look at the Terminal’s climate impacts. *See City of Miami v. FERC*, 22 F.4th 1039, 1043 (D.C. Cir. 2022) (“[A]n agency faced with a claim that a party is violating the law ... cannot resolve the controversy by promising to consider the issue in a prospective legal framework.” (citing *AT&T v. FCC*, 978 F.2d 727, 731-32 (D.C. Cir. 1992))).

In the Rehearing Order, FERC walked back its suggestion that its plan to develop a general greenhouse gas policy excused it from making a significance determination here. Rehearing Order P40 [JA___]. Instead, the Rehearing Order offered a new, single criticism of the social cost of carbon tool, not articulated in the Authorization Order: the claim that the social cost of carbon is not useful because “there are no criteria to identify what monetized values are significant for NEPA purposes.” *Id.* P40 [JA___].⁷

⁷ In this regard, the Rehearing Order differs from FERC’s prior criticisms of the social cost of carbon, which also claimed that the tool did not reflect physical impacts, and that there was not a consensus as to a single discount rate. *See EarthReports*, 828 F.3d at 956; *Del.*

FERC's new rationale cannot justify its decision to punt on the important question of the significance of the Terminal's greenhouse gas emissions. No court has held that questions about how to translate monetized social costs into environmental significance, standing alone, are enough to justify not using the tool. *See, e.g., EarthReports*, 828 F.3d at 956. And they are not. "The NEPA process involves an almost endless series of judgment calls." *Duncan's Point Lot Owners Ass'n v. FERC*, 522 F.3d 371, 376 (D.C. Cir. 2008) (cleaned up). FERC has the authority to make this judgement call on what level of monetized harm is significant enough that it should weigh in FERC's public interest determination and analysis of alternatives and mitigation. *Spiller v. White*, 352 F.3d 235, 244 n.5 (5th Cir. 2003) ("[D]etermining whether significance exists inherently involves some sort of a subjective judgment call."). And under NEPA, this is FERC's obligation. 40 C.F.R. § 1502.16(a)(1) ("discussion shall include ... the significance"); *accord*

Riverkeeper Network v. FERC, 45 F.4th 104, 111 (D.C. Cir. 2022) (affirming *Adelphia Gateway, LLC*, 171 FERC ¶ 61,049, P95 (Apr. 17, 2020); *Ctr. for Biological Diversity v. FERC*, 67 F.4th 1176, 1184 (D.C. Cir. 2023). Whether because of FERC's expanded understanding of the tool, a response to *Vecinos*, or for some other reason, FERC no longer faults the tool in these regards.

Robertson, 490 U.S. at 352. There are few, if any, bright-line criteria for determining significance for *any* types of environmental impacts; yet NEPA requires agencies to make informed judgments “the best it can with the data it has.” *Mont. Wilderness Ass’n v. McAllister*, 666 F.3d 549, 559 (9th Cir. 2011). While some cases may present a close call whether monetized costs are worth worrying about, here, where FERC estimated the social cost of the Terminal’s direct greenhouse gas emissions would approach \$3.6 billion, FEIS 4-397 to 4-398 [JA__-__], it was arbitrary to simply shrug them off and provide them no explicit weight in the public interest calculus.

C. FERC’s refusal to determine the significance of the Terminal’s greenhouse gas emissions impeded other parts of its analysis

By not concluding whether the Commonwealth Terminal’s greenhouse gas emissions are significant, FERC both foreclosed potential mitigation of adverse effects and deprived the public of informed, transparent decisionmaking in violation of NEPA.

Determining the significance of environmental impacts is a critical step in the NEPA analysis. An EIS must “contain a detailed discussion of possible mitigation measures” to address adverse environmental

impacts, *Robertson*, 490 U.S. at 351, and—per FERC’s regulations—disclose “[a]ny significant environmental impacts of the proposed action that cannot be mitigated,” 18 C.F.R. § 380.7(d). The Natural Gas Act, in turn, provides FERC broad authority to require implementation of mitigation measures, *see* 15 U.S.C. § 717b(e)(3)—authority FERC can use to condition approval of a project on mitigation. *See, e.g.*, Authorization Order Appendix A [JA___-___] (requiring Commonwealth to comply with mitigation measures as conditions of its approval).

FERC’s refusal to determine the significance of the Terminal’s greenhouse gas emissions effectively discounted the benefits of mitigating those impacts. Mitigation can be appropriate for insignificant impacts, but FERC has argued that its inability to determine the significance of greenhouse gas emissions prevented FERC from determining appropriate levels of mitigation. *See, e.g.*, *Jordan Cove Energy Project*, 171 FERC ¶ 61,136, P254 (May 22, 2020) (concluding, because it could not “reach a significance determination” for greenhouse gas emissions, that “we see no way to establish appropriate levels of potential mitigation or no way to ensure project-level mitigation measures would be effective”). FERC’s failure is

material in this case, where there were alternatives presented that could meaningfully reduce the Terminal's greenhouse gas emissions—alternatives that FERC rejected without any consideration of those impacts. *See infra* Parts IV.A, IV.C.

FERC's failure also denied the public of information necessary "to properly evaluate the severity of the adverse effects" of the Terminal. *Robertson*, 490 U.S. at 351. One of NEPA's "twin aims" is "ensur[ing] that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process." *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97 (1983). FERC had everything it needed to make a significance determination. It simply refused. This "head-in-the-sand approach ... is the antithesis of NEPA's requirement that an agency's environmental analysis candidly confront the relevant environmental concerns." *Am. Wild Horse Pres. Campaign v. Perdue*, 873 F.3d 914, 931 (D.C. Cir. 2017).

III. FERC FAILED TO TAKE A HARD LOOK AT AIR IMPACTS, PARTICULARLY IN ENVIRONMENTAL JUSTICE COMMUNITIES

The Commonwealth Terminal would emit hundreds of tons of air pollution, including more than 550 tons of nitrogen dioxide, during each year of operation. FEIS 4-224 [JA___]. These emissions would increase ambient nitrogen dioxide pollution—in some cases by 66% of the one-hour NAAQS. *Id.* 4-227, 4-231 [JA___, ___] (explaining the Terminal would increase pollution by up to 124.54 $\mu\text{g}/\text{m}^3$, whereas the NAAQS is 188 $\mu\text{g}/\text{m}^3$). Modeling further predicts that, in numerous locations affected by the Terminal's emissions, air quality would violate the nitrogen dioxide NAAQS. *Id.* App'x I fig. 6 [JA___]. Most of these violations would take place in environmental justice communities. Authorization Order P63 [JA___].

FERC nonetheless arbitrarily concluded that the Terminal's air impacts would be insignificant and would not have a disproportionately high and adverse impact on environmental justice communities. FEIS 4-198, -232 [JA___, ___]. These conclusions rest on FERC's claim that on days when air quality would exceed the NAAQS, the NAAQS would be violated anyway, and the Terminal's individual contribution would be

lower than EPA's interim Significant Impact Level. FEIS 4-198 [JA___]; Authorization Order P63 [JA___]. But NEPA required FERC to take a hard look at cumulative effects, which FERC cannot dismiss solely by arguing that the Terminal's incremental contribution to the cumulative whole is insignificant. *NRDC*, 865 F.2d at 297-98; *see also* 40 C.F.R. § 1508.1(g)(3). Moreover, FERC's reliance on Significant Impact Levels as a NEPA threshold was unreasonable and failed to account for important context here, including impacts on environmental justice communities. FERC's arbitrary dismissal of these air and environmental justice impacts also affected other parts of its decisionmaking, leading FERC to conclude that alternatives that would reduce these impacts would not provide a meaningful environmental benefit, and causing FERC to disregard these impacts in its public interest determination.

A. FERC failed to take a hard look at cumulative air impacts

NEPA requires agencies to consider “cumulative effects, which are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions.” 40 C.F.R. § 1508.1(g)(3). The Council on

Environmental Quality has emphasized the importance of cumulative effects:

Evidence is increasing that the most devastating environmental effects may result not from the direct effects of a particular action, but from the combination of individually minor effects of multiple actions over time. ... The fact that the human environment continues to change in unintended and unwanted ways in spite of improved federal decisionmaking resulting from the implementation of NEPA is largely attributable to this incremental (cumulative) impact.⁸

The Council's regulations make clear that "[c]umulative effects can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.1(g)(3).

Courts agree that a project's incremental and cumulative effects, while related, are separate inquiries. This Court has held that an EIS violates NEPA's hard look requirement "when it consider[s] only the incremental impacts" of a project and ignores how those impacts may build upon existing harms. *Grand Canyon Trust v. FAA*, 290 F.3d 339,

⁸ Council on Environmental Quality, *Considering Cumulative Effects Under the National Environmental Policy Act*, at 1 (Jan. 1997), <https://www.energy.gov/nepa/articles/considering-cumulative-effects-under-national-environmental-policy-act-ceq-1997>.

341, 345-47 (D.C. Cir. 2002); *see also NRDC*, 865 F.2d at 297-98 (holding that individually insignificant actions can have a collectively significant effect). Similarly, other Circuits have recognized that “[c]umulative impacts that result from individually minor but collectively significant actions are the crux of what the regulations implementing NEPA seek to avoid.” *High Sierra Hikers Ass’n v. Blackwell*, 390 F.3d 630, 645 (9th Cir. 2004); *see also O’Reilly v. U.S. Army Corps of Eng’rs*, 477 F.3d 225, 235 (5th Cir. 2007) (rejecting analysis that assumed mitigating project’s impacts to individually insignificant levels showed an absence of significant cumulative effects); *Ohio Valley Env’t Coal. v. Aracoma Coal Co.*, 556 F.3d 177, 208 (4th Cir. 2009) (agreeing with *O’Reilly*, but finding the Corps adequately analyzed cumulative effects there). Analysis of cumulative impacts protects against “the tyranny of small decisions,” *Kern v. BLM*, 284 F.3d 1062, 1078 (9th Cir. 2002) (cleaned up), by confronting the possibility that agency action may contribute to cumulatively significant impacts even where impacts appear insignificant in isolation. Indeed, FERC itself has previously concluded that three neighboring liquefied natural gas export terminals could have a cumulatively significant impact, even

though FERC concluded that each project's individual impact would be insignificant. *See, e.g., Rio Grande LNG, LLC*, 170 FERC ¶ 61,046, P55 (Jan. 23, 2020).

Here, however, FERC arbitrarily concluded that because it found the Terminal's individual nitrogen dioxide impacts insignificant, cumulative impacts were also insignificant. Authorization Order P63 [JA___]; FEIS 4-198, 4-323, 4-392 [JA___, ___, ___]. This focus solely on incremental impacts violated NEPA. *Grand Canyon Trust*, 290 F.3d at 345-47; 40 C.F.R. § 1508.1(g)(3).

FERC's reliance on Clean Air Act provisions that focus on incremental impacts led it to ignore cumulative impacts, in violation of NEPA. The Clean Air Act's Prevention of Significant Deterioration program generally prohibits construction of any stationary source that would "cause[] or contribute to" a NAAQS violation. 42 U.S.C. § 7475(a)(3). EPA interprets this provision "to mean that a source must have a 'significant impact' on air quality in order to cause or contribute to a violation."⁹ EPA's Significant Impact Levels thus focus on the

⁹ EPA, *Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting*

source's incremental contribution to total pollution concentrations, not the cumulative impacts of those concentrations.¹⁰ NEPA, on the other hand, is specifically concerned with how individually minor actions can have cumulatively significant outcomes. 40 C.F.R. § 1508.1(g)(3). NEPA further requires FERC to consider the environmental impacts that can result despite compliance with other laws. *Calvert Cliffs' Coordinating Comm. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109, 1122-25 (D.C. Cir. 1971) (rejecting agency's attempt to "exclude" from NEPA review impacts addressed by "standards of other agencies"). And the Natural Gas Act gives FERC broad authority to act on that information. *See* 15 U.S.C. § 717b(e)(3).

The record shows that if FERC had considered cumulative nitrogen dioxide impacts, as NEPA required, it would have found them

Program, at 4 (Apr. 17, 2018), https://www.epa.gov/sites/production/files/2018-04/documents/sils_policy_guidance_document_final_signed_4-17-18.pdf.

¹⁰ Notably, EPA has explained that where modeling indicates that a violation will occur but that a proposed source's contribution will be small, the project may be approved but the violation must be addressed in other ways. Mem. from Gerald Emison, EPA Office Air Quality, to Thomas Maslany, EPA Air Mgmt. Div., "Air Quality Analysis for Prevention of Significant Deterioration," at 2 (July 5, 1988), <https://www.epa.gov/sites/default/files/2015-07/documents/reaffirm.pdf>.

significant. Here, as in prior cases, FERC used the NAAQS as a metric for evaluating NEPA significance. Authorization Order P63 [JA___]; Rehearing Order P48 [JA___]. Thus, FERC excused as insignificant modeling showing that the Terminal's emissions sometimes would exceed—by orders of magnitude—EPA's one-hour nitrogen dioxide Significant Impact Level, FEIS 4-227 [JA___], because no exceedance coincided with a NAAQS violation, *see* FEIS 5-416 [JA___]. At the same time, even though FERC admitted that the Terminal would make many NAAQS violations worse, FEIS App'x H at 5-16 [JA___-___], FERC concluded impacts were insignificant because the Terminal's individual contributions to those NAAQS violations would not exceed the Significant Impact Level, FEIS 4-231 [JA___]. But having chosen the NAAQS as a threshold for significance, FERC cannot claim that cumulative pollution levels that violate the NAAQS are insignificant just because it believes the Terminal's contribution to any such violation is small. *See also Considering Cumulative Effects, supra* note 8, at 42 (suggesting that cumulative impacts that violate a NAAQS

threshold are significant).¹¹ FERC's assertion otherwise wrongly conflates incremental and cumulative impacts, in violation of NEPA. *See Grand Canyon Trust*, 290 F.3d at 342-43, 345-46.

FERC's dismissal of cumulative impacts also had important consequences for the rest of its analysis. The Council on Environmental Quality has explained that "the results of cumulative effects analysis can and should contribute to refining alternatives and designing mitigation." *Considering Cumulative Effects*, *supra* note 8, at vii. Here, FERC's dismissal of cumulative air impacts may have contributed to FERC's failure to take a hard look at alternatives that would reduce those impacts, as discussed *infra* Part IV. And FERC's method of analysis obscured the fact that FERC has regulatory authority over many of the sources contributing to the cumulative problem. *See* FEIS 4-349, 4-359 to -360 [JA____, ____-____] (identifying ten nearby projects that FERC retains jurisdiction over, including the proposed CP2 project

¹¹ Healthy Gulf contends that air pollution that does not exceed a NAAQS can be significant for NEPA purposes, especially for pollutants—like nitrogen dioxide—with no known health-impact threshold or where environmental justice concerns are implicated—like the Terminal location. However, the Court need not reach this issue here.

located roughly two miles from the Terminal). The cumulative impact of just these projects may be significant, and something FERC could ameliorate by requiring pollution reduction or mitigation. But by halting its analysis once it concludes that each project's air impacts are individually insignificant, FERC would never have to account for these significant cumulative impacts.

B. FERC's reliance on Significant Impact Levels as dispositive to its air and environmental justice impact analyses was arbitrary and capricious

Even if FERC's conflation of incremental and cumulative effects were somehow reasonable, its reliance on EPA's interim Significant Impact Level as a threshold in that analysis was not. Compliance with Significant Impact Levels does not satisfy NEPA's distinct inquiry. FERC's analysis thus ignored important context for the Terminal's impacts, particularly to the environmental justice communities nearby.

As explained above, the Terminal would emit substantial volumes of nitrogen dioxide, which would raise pollution levels in surrounding, predominantly environmental justice, communities. FEIS 4-224, -227, -231 [JA___, ___, ___]. FERC concluded that this pollution would be insignificant because, when the one-hour NAAQS would be exceeded, all

such exceedances would occur without the Terminal's emissions, Rehearing Order P52 [JA___], and the Terminal's contribution to those exceedances would be lower than EPA's Significant Impact Level, Authorization Order P63 [___].

FERC erred in asserting that the Terminal's impact was insignificant because the NAAQS would be exceeded anyways. FEIS 4-231 [JA___]; Rehearing Order P52 [JA___]. NAAQS are neither a floor nor a ceiling for health impacts. Indeed, EPA has explained that "there is little evidence of any effect threshold" for short-term nitrogen dioxide exposures and that the relationship between exposures and adverse impacts "appear linear within the observed range of data." Primary National Ambient Air Quality Standards for Nitrogen Dioxide, 75 Fed. Reg. 6,474, 6,480 (Feb. 9, 2010). This means, for any incremental increase in nitrogen dioxide levels in the air, there is an incremental increase in risk to the surrounding community. *See United States v. Ameren Mo.*, 421 F. Supp. 3d 729, 774 (E.D. Mo. 2019) (adopting U.S. government's argument on that point as to another pollutant, particulate matter). Moreover, each step beyond the NAAQS would

make it that much harder to correct any violation. FERC's claim that NAAQS violations would occur anyway is thus irrelevant.

FERC's reliance on EPA's interim Significant Impact Level guidance for one-hour nitrogen dioxide under the Clean Air Act as a threshold for NEPA significance, *see* FEIS 4-392 [JA___], was also arbitrary. FERC predicted that the Terminal's maximum contribution to an exceedance would be 2.7979 $\mu\text{g}/\text{m}^3$ on a day when the NAAQS would be exceeded by 3.2 $\mu\text{g}/\text{m}^3$, FEIS H-13 [JA___], but deemed those emissions from the Terminal insignificant because they would not exceed EPA's interim Significant Impact Level of 7.5 $\mu\text{g}/\text{m}^3$, FEIS 4-231 to -232 [JA___-___]. Even if this Significant Impact Level argument were appropriate under the Clean Air Act,¹² it did not answer the questions NEPA posed. As this Court explained in *Calvert Cliffs*, compliance with other laws may not fully ameliorate a project's environmental harms. 449 F.2d at 1123. Where an agency like FERC has broad authority to deny or modify a project, the agency must decide

¹² Several petitioners here have separately challenged the Clean Air Act permits for the Terminal, in Fifth Circuit case no. 23-60234, and in a protective suit in Louisiana state court, *see* R.547, Petition for Review in 19th Judicial District Court, at 1 n.1 [JA___].

whether the residual harms that exist despite compliance with other laws “outweigh ... the benefits.” *See id.* at 1123-25. NEPA requires that this analysis be informed by a hard look at these residual impacts. *See id.* The “significance” of these impacts will “var[y] with the setting of the proposed action,” and the agency must consider, *inter alia*, “[e]ffects on public health and safety.” 40 C.F.R. § 1501.3(b)(1), (b)(2)(iii). Thus, FERC’s obligations under NEPA were analytically distinct from Commonwealth’s obligations under the Prevention of Significant Deterioration program.

EPA’s suggested Significant Impact Level, moreover, is not even helpful evidence in meeting FERC’s NEPA obligations. In this regard, the Significant Impact Level is different than the NAAQS. EPA adopted the one-hour nitrogen dioxide NAAQS after a close review of the health impacts that resulted from short-term nitrogen dioxide exposures at different levels. *See* 75 Fed. Reg. at 6,479-84. EPA did not engage in any comparable analysis or expert judgment in proposing the interim one-hour nitrogen dioxide Significant Impact Level. *See generally* 2010 *SIL Guidance*, *supra* note 3, at 11-13. EPA did not provide any evidence demonstrating, for example, that an increase above the NAAQS of less

than 7.5 $\mu\text{g}/\text{m}^3$ would not have measurable or important health impacts on exposed populations. *Id.* Instead, EPA proposed the Significant Impact Level at 4% of the NAAQS simply because that is what EPA had done when setting levels for other pollutants, and because EPA wanted to reduce administrative burdens. *Id.* at 12. Thus, while the NAAQS itself may reflect EPA's considered judgment about the point at which cumulative pollution levels becomes unacceptably harmful, the Significant Impact Level does not reflect any similar evidence or expertise.

Nor does the Significant Impact Level reflect how impacts may be influenced by the Commonwealth Terminal's particular setting. 40 C.F.R. § 1501.3(b)(1). Consideration of a project's context is especially vital where, as here, the project will primarily affect environmental justice communities. Authorization Order P63 [JA___]. EPA has recognized that low income and minority populations may be disproportionately susceptible to environmental impacts, such that an impact could be "significan[t] to minority populations and low-income populations in the affected environment, despite having no significant impact to the general population." EPA, *Promising Practices*, *supra* note

2, at 34. This may occur because of, for example, “special vulnerabilities, *e.g.* pre-existing health conditions that exceed norms among the general population” or “unique routes of exposure.” *Id.*

While FERC acknowledged some of these environmental justice factors, it did not actually consider them. FERC purportedly agrees that “local health risk factors, disease prevalence, and access (or lack thereof) to adequate care” can exacerbate the impacts of air pollution. Authorization Order P63 [JA___]; *accord id.* at Glick Concurrence P5 [JA___] (acknowledging that cancer and asthma rates in the surrounding communities exceed the national average). And that “environmental justice communities in the study area would experience cumulative impacts on air quality.” Authorization Order P63 [JA___]. These factors, however, played no role in FERC’s actual analysis. FERC simply concluded that because the Terminal’s contributions to any NAAQS exceedance would fall below the Significant Impact Level, there was no need for further inquiry.

FERC’s myopic focus on the Significant Impact Level under the Clean Air Act to determine NEPA significance was arbitrary. “[E]nvironmental justice is not merely a box to be checked.” *Friends of*

Buckingham v. State Air Pollution Control Bd., 947 F.3d 68, 92 (4th Cir. 2020). But box-checking, divorced from the environmental justice realities of the Terminal's impacts, is exactly what FERC did here. This violated NEPA's hard look requirement.

C. Healthy Gulf timely raised challenges to FERC's use of Significant Impact Levels

Contrary to FERC's Rehearing Order, Healthy Gulf did not waive challenges to FERC's reliance on Significant Impact Levels by failing to articulate those challenges prior to the rehearing stage. *Contra* Rehearing Order P51 [JA___-___]. While the Natural Gas Act limits judicial review to issues raised on rehearing, it does not limit requests for rehearing to issues previously presented to the agency. 15 U.S.C. § 717r(a)-(b). Nor do FERC's regulations contain any such limitation. *See* 18 C.F.R. § 385.713. Indeed, this Court has previously rejected FERC's claim that issues not raised before rehearing are waived, holding that even when an argument is raised for the first time in rehearing, this "adequately apprised" FERC of the objection, and the Court could (and did) consider the objection on appeal. *Gulf S. Pipeline Co., LP v. FERC*, 955 F.3d 1001, 1012-13 n.2 (D.C. Cir. 2020). FERC

was clearly “adequately apprised” of Healthy Gulf’s arguments here— despite briefly asserting waiver, Rehearing Order P51 [JA___], FERC then spent six paragraphs responding to Healthy Gulf’s argument. *Id.* P52-57 [JA___-___].

IV. FERC ARBITRARILY REJECTED MULTIPLE ALTERNATIVE TERMINAL DESIGNS THAT WOULD HAVE REDUCED ENVIRONMENTAL IMPACTS

The heart of an EIS is the discussion of alternatives: agencies must “[e]valuate reasonable alternatives to the proposed action” and “[d]iscuss each alternative considered in detail ... so that reviewers may evaluate their comparative merits.” 40 C.F.R. § 1502.14(a)-(b); 42 U.S.C. § 4332(C)(iii). In particular, the alternatives analysis must “inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts.” 40 C.F.R. § 1502.1. This analysis informs FERC’s decisionmaking, including whether to require modifications to a proposed terminal. 15 U.S.C. § 717b(e)(3)(A). FERC’s alternatives analysis follows a three-step framework: first screening out alternatives that would not meet the project purpose, second screening out alternatives that would be technologically or economically infeasible, and third examining the environmental impacts of

remaining alternatives. FEIS 3-25 [JA___]; see *Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1323 (D.C. Cir. 2015).

Here, FERC violated these requirements with regard to three design alternatives that would lessen the Terminal's environmental impacts while meeting the project's purpose and need. FERC rejected two alternatives that FERC conceded would be reasonable and that would reduce some environmental impacts, based on an assertion that each would increase other environmental impacts. FEIS 3-46, -48 [JA___, ___]. But for each, FERC failed to provide any discussion of *by how much* adverse impacts would increase. Merely pointing out that an alternative presents tradeoffs, rather than being purely beneficial, is not enough, because FERC and the public must be able to determine whether these tradeoffs are worthwhile. Nor can identifying an unquantified drawback justify FERC's conclusion that requiring the alternative would not be a "necessary and appropriate" exercise of FERC's Natural Gas Act authority. 15 U.S.C. § 717b(e)(3)(A). For a third alternative—partial capture and sequestration of the Terminal's carbon dioxide emissions—FERC's order contradicted its own final EIS: FERC ultimately dismissed this alternative as infeasible, although the

EIS concluded that FERC did not have information sufficient to support that conclusion. FEIS 4-399 [JA___]; Rehearing Order P28 [JA___].

A. FERC arbitrarily rejected efficient on-site electricity generation

In their comments, Healthy Gulf explained that the Terminal could reduce emissions by replacing the on-site powerplant with a more efficient design. Even though this alternative could reduce air pollution by 10%, FERC arbitrarily rejected it based on speculation that it would require an unspecified increase in the Terminal's footprint.

The Terminal includes a powerplant to generate 120 megawatts of electricity for on-site use. FEIS 2-6 [JA___]; Site Plan, R.179 App'x D [JA___]. The approved design uses three simple-cycle combustion turbines to generate this electricity. FEIS 2-6 [JA___]. During operation, these turbines would be responsible for much of the Terminal's air pollution, including 25% of its greenhouse gas emissions and 12% of its nitrogen oxides. FEIS 4-224 [JA___]. Healthy Gulf pointed out that these emissions could be reduced if the powerplant was replaced with a more efficient, combined-cycle facility. R.385 at 11-12 [JA___-___]; R.533 at 16-23 [JA___-___]. A combined-cycle plant

generates electricity from a gas turbine, but then also uses the heat from turbine exhaust to generate additional electricity. R.533 at 17 [JA___].¹³ This allows the plant to produce the same amount of electricity while burning less gas, with commensurately lower emissions. In addition, combined-cycle plants are more amenable to certain pollution-control technologies. R.533 at 17-18 [JA___-___]. Thus, per unit of gas burned, a combined-cycle plant makes more electricity while also producing less pollution than a simple-cycle plant.

FERC's reason for rejecting a combined-cycle alternative was FERC's speculation that it would require a larger terminal footprint. FERC did not dispute that using a combined-cycle plant would meet the project purpose. FEIS 3-48 [JA___]. Nor did FERC dispute that combined-cycle electricity generation was technically and economically feasible. *Id.* [JA___]; Rehearing Order P26 [JA___]. And FERC admitted that replacing the proposed simple-cycle turbines with combined-cycle units would reduce air pollution. Rehearing Order P26 [JA___].

¹³ See also FERC, *Market Assessments Glossary*, <https://www.ferc.gov/industries-data/market-assessments/overview/glossary#C> (defining "Combined-cycle power plant").

Specifically, FERC found that this alternative could reduce total terminal operating emissions by up to 10%, *id.*, that is, by up to 350,000 tons per year of carbon dioxide equivalent, 38 tons per year of nitrogen oxides, *etc.*, FEIS 4-224 [JA___]. Yet FERC rejected the combined-cycle alternative purely based on the claim that it would take more space than the simple-cycle powerplant, and therefore increase the Terminal footprint and impact additional wetlands and/or habitat for the threatened black rail. FEIS 3-48 [JA___]; Rehearing Order P26 [JA___].

Nothing in the record supports FERC's claim that a combined cycle alternative would require a bigger footprint. Neither the final EIS nor FERC's orders explained how much space the proposed simple-cycle powerplant requires. And although the waste heat recovery equipment for combined-cycle plants takes up space, this does not necessarily require a larger overall footprint, especially because the turbine itself can be smaller. Healthy Gulf explained that existing combined-cycle plants with capacity like that needed here had footprints of only 2.9 and 3.4 acres, R.533 at 21-22 [JA___-___], or about 3% of the approved Terminal footprint, FEIS ES-3 [JA___]. FERC did not dispute that

those designs, or equivalent footprints, would be adequate here.

Rehearing Order P26 [JA___].

Even if the record supported FERC's assertion that combined-cycle electricity generation would require *some* additional space, NEPA required FERC to take a hard look at *how much* extra space would be needed. Where this Court has upheld an agency's conclusion that an alternative would have adverse environmental impacts, the agency actually assessed the extent of the impact. *Ctr. for Biological Diversity*, 67 F.4th at 1183 (affirming FERC's rejection of alternatives that "would impose substantially more environmental harm," where FERC explained that, *e.g.*, alternatives would have disturbed "more than 6,000 additional acres"); *Sabal Trail*, 867 F.3d at 1369 (affirming FERC's conclusion that alternatives would not reduce environmental justice impacts, where FERC concluded that they "would affect a relatively similar percentage of environmental justice populations"). This Court has never affirmed rejection of an alternative solely based on an entirely unquantified or unexamined environmental impact. And FERC *did* estimate the change in terminal footprint that would be associated with other alternatives, just not this one. *See* Part IV.B.

FERC's unexplained assertion that reductions in air pollution would be outweighed by harms to wetlands and habitat is particularly absurd given FERC's treatment of resources elsewhere. Looking solely at greenhouse gases, combined-cycle electricity generation could reduce emissions by 350,000 tons per year. That *reduction* is three times greater than FERC's proposed significance threshold for greenhouse gases, *supra* Part II.B.1, and reducing facility greenhouse gas emissions by 10% would avoid roughly \$360 million in social harm through 2050, FEIS 4-397 [JA___]. On the other hand, FERC concluded that the impact of the *entire* Terminal footprint is insignificant. For example, although the Terminal would permanently impact almost 90 acres of wetlands, FERC concluded that this impact would be mitigated and is insignificant. FEIS 5-405 to -406 [JA___-___]. Even assuming that the combined-cycle alternative would require an extra two or three acres of wetland impact, it is hardly self-evident that a 3% increase in impacts that FERC concluded were insignificant outweighs the benefits of a substantial reduction in air pollution. NEPA requires "substantive, comparative environmental impact information" regarding reasonable alternatives. *N.M. ex rel. Richardson v. BLM*, 565 F.3d 683, 708 (10th

Cir. 2009). FERC's analysis failed to "sharply defin[e] the issues and provid[e] a clear basis for choice among options," falling short of what NEPA requires. *Union Neighbors United*, 831 F.3d at 577 (quoting 40 C.F.R. § 1502.14).

B. FERC arbitrarily rejected reverting to Commonwealth's initially-proposed liquefied natural gas storage tank volume

FERC similarly failed to justify its conclusion that an alternative that would omit one of the proposed liquefied natural gas storage tanks was not environmentally beneficial. This alternative would reduce the terminal footprint and thus impacts to wetland or habitat. But FERC rejected it because it would cause an unspecified increase in air emissions. FEIS 3-46 [JA___].

This alternative would provide Commonwealth with more liquefied natural gas storage that Commonwealth initially proposed. R.117 at 6 [JA___]. Commonwealth initially proposed six liquefied natural gas storage tanks, each with 40,000 cubic meters of capacity. *Id.* In July 2021, Commonwealth proposed to redesign these tanks to better comply with safety standards. R.190 at 4 [JA___]. As part of this redesign, Commonwealth also proposed to increase the capacity of each

tank to 50,000 cubic meters, apparently entirely incidental to the safety improvements. Indeed, Commonwealth did not identify any need for, or benefit arising from, the additional capacity. *Id.* Thus, Commonwealth could *exceed* its initially-identified need for 240,000 cubic meters of storage by using five 50,000 cubic meter tanks, and use the space freed up by the omitted sixth tank to reduce the terminal footprint. R.198 at 4-5 [JA___]

As with the electricity generation alternative, FERC's reason for rejecting the storage tank alternative was the claim of adverse impacts. FERC speculated that additional storage capacity provided a buffer that would allow the terminal to continue operating even when weather prevented shipping vessels from reaching the terminal, and that with a smaller buffer, the terminal (or some unspecified components thereof) would need to start up and shut down more often, increasing air pollution impacts. FEIS 3-46 [JA___]. On the other hand, FERC agreed that this alternative could reduce wetland or habitat impacts by up to 2.3 acres. *Id.*¹⁴ FERC concluded that the potential for increased air

¹⁴ The Rehearing Order mistakenly asserts that "Commonwealth stated that the project's footprint would not be reduced by eliminating

pollution outweighed the benefit of the smaller footprint, such that this alternative was not environmentally beneficial. *Id.*; Rehearing Order P30 [JA___].

But as with electricity generation, FERC provided no detail regarding the environmental impact—this time, air pollution—that purportedly justified FERC’s decision. FERC did not even suggest how much more often the Terminal might need to shut down and restart with the five-tank alternative. FEIS 3-46 [JA___]. Commonwealth identified 33 times that the nearby shipping channel was closed in 2021, Rehearing Order P31 [JA___] (citing R.265 at 37-39 [JA___-___]), but neither Commonwealth nor FERC explained how many of these channel closures would have required shutdowns under a five-tank alternative, or how many of those shutdowns would have been avoided

one of the six storage tanks.” Rehearing Order P31 n.86 [JA___] (citing R.265 at 36 [JA___]). The cited document does not make this counterintuitive statement. Commonwealth argued that its design was already space efficient, but did not dispute that omitting one of the tanks would free up space and allow the Terminal footprint to be reduced.

with the six-tank proposal.¹⁵ Nor did FERC discuss how much air pollution would be emitted by these additional shutdown and startup events. FEIS 3-46 [JA___]; Rehearing Order P30 [JA___-___]. By failing to provide any information about air pollution impacts from the five-tank alternative, FERC failed to provide the public with information necessary to compare these alternatives, 40 C.F.R. § 1502.14, and failed to support its conclusion that air pollution impacts outweigh potential benefits to wetlands or habitat.

FERC's dismissal of the five-tank alternative is particularly absurd when juxtaposed with its treatment of the combined-cycle generation alternative. For the former, a small, alleged increase in wetland impacts from the alternative overrode a substantial reduction in air pollution. But for the latter, a similar-sized reduction in wetland impacts from the alternative was not enough to overcome an undetermined, alleged increase in air pollution. Evaluating tradeoffs between different environmental resources can be difficult, with few

¹⁵ Failure to provide this information also means there is no factual support for Commonwealth's assertion that the additional storage tank provides a meaningful operational benefit. *Contra* Rehearing Order P31 [JA___].

clear bright lines. This is all the more reason why agencies must explain their reasoning. Here, FERC has not concluded that air impacts are categorically more important than wetlands or habitat, or vice versa: FERC chose one alternative that would protect wetlands at the expense of air, and one that protected air at the expense of wetlands. But FERC failed to reconcile these two choices with one another. *See Prairie Band Potawatomi Nation v. Yellen*, 63 F.4th 42, 47 (D.C. Cir. 2023) (finding, “[a]bsent further explanation,” agency decision that “treats similar situations in disparate ways contrary to the principles of reasoned decision making” (cleaned up)).

C. FERC arbitrarily dismissed carbon capture and sequestration

A third alternative that FERC failed to rigorously explore, and that FERC did not justify rejecting, is carbon capture and sequestration. The Rehearing Order concluded that carbon capture and sequestration would be infeasible. Rehearing Order P28 [JA___]. However, the neighboring CP2 liquefied natural gas terminal—which would be sited only 1.5 miles from the Commonwealth Terminal—has, under FERC’s supervision, determined that this technology is feasible

and is actively pursuing this option. FEIS 4-399 [JA___]. FERC did not offer any explanation as to why sequestration that was feasible for CP2 would be infeasible for the Commonwealth Terminal; to the contrary, the final EIS concluded that FERC did not have enough information to dismiss carbon capture and sequestration as infeasible. Because FERC did not identify any additional information before dismissing this alternative in its orders, that dismissal was arbitrary.

The only reason FERC gave for rejecting carbon capture and sequestration was concern over the feasibility of sequestration. FERC agreed that the “carbon capture” part of the process was feasible. FEIS 4-398 [JA___]. Indeed, liquefied natural gas terminals can implement partial carbon capture cheaply and more easily than most other facilities, because the “pretreatment” process export facilities must use to remove impurities from pipeline gas inherently produces a relatively pure stream of carbon dioxide amenable to sequestration, regardless of whether the facility plans to actually sequester that carbon. FEIS 4-264 to -265, 4-398 [JA___-___, ___]. Unsurprisingly, multiple liquefied natural gas export terminals therefore propose to capture and sequester this source of carbon dioxide. And the potential emission reduction is

substantial. Here, the pretreatment process would emit 566,334 tons per year of carbon dioxide equivalent, most of which could be captured. *Id.* 4-224, 4-265 [JA___, ___]. FERC agreed that the “capture” part of carbon capture and sequestration would be feasible for these emissions, and the record would not have permitted FERC to conclude otherwise.

The final EIS, however, reported that “*Commonwealth states that due to a lack of [existing] sequestration infrastructure, carbon capture and sequestration are not feasible for this project.*” FEIS 4-398 [JA___] (emphasis added). But the EIS “note[d]” that the CP2 liquefied natural gas project, only 1.5 miles away, had determined that sequestration *was* feasible. *Id.* 4-399 [JA___]. Although the CP2 project did not rebut Commonwealth’s claim that *existing* sequestration infrastructure was inadequate, CP2 proposed constructing a short new pipeline that would connect the terminal to an offshore sequestration site only three miles away. *Id.* The EIS’s discussion of carbon capture and sequestration concluded with the statement that “[w]ithout additional information, [FERC was] unable to evaluate the feasibility of CP2 LNG’s sequestration site for the Commonwealth Project.” *Id.*

That additional information never came. Whereas the EIS carefully attributed the claim of infeasibility to Commonwealth without adopting it as FERC's own, the Rehearing Order asserted that sequestration is infeasible, without discussing whether Commonwealth could use CP2's sequestration site. Rehearing Order P28 [JA____].¹⁶ FERC failed to demonstrate—or even assert—that it would be infeasible for the Commonwealth Terminal to sequester its pretreatment carbon dioxide emissions at the same site the neighboring CP2 terminal proposes to use. Without this analysis, FERC's conclusion that sequestration was infeasible was arbitrary.

V. FERC'S PUBLIC INTEREST FINDING UNDER SECTION 3 OF THE NATURAL GAS ACT WAS ARBITRARY AND CAPRICIOUS

In deciding whether to approve export infrastructure under Natural Gas Act Section 3(e), FERC borrows the standard from Section 3(a): FERC will approve a proposal “unless” it would be “[in]consistent with the public interest.” 15 U.S.C. § 717b(a), (e); see *EarthReports*, 828 F.3d at 953. Here, FERC found that, considering the full record before

¹⁶ The Authorization Order failed to discuss the feasibility of carbon sequestration at all.

it, including the EIS, the Terminal is not inconsistent with the public interest. Authorization Order P18 [JA___]; Rehearing Order P11 [JA___]. This finding was unlawful for two reasons.

First, because FERC violated NEPA by failing to take a hard look at impacts and potential mitigation, FERC lacked a rational basis for concluding that those impacts did not render the Terminal contrary to the public interest, or that modification of the Terminal was not appropriate. *Vecinos*, 6 F.4th at 1331.

Second, FERC failed to reasonably explain its public interest finding—or, as two Commissioners put it, failed “to provide a clear framework for the Commission to make its public interest determination.” Authorization Order, Clements Concurrence P5 [JA___]; *see also id.* Glick Concurrence P5 [JA___]; Rehearing Order, Clements Dissent P1-4 [JA___-___]. FERC’s failure to “provide a cogent explanation for how” it made its public interest determination violates the Administrative Procedure Act’s requirement for reasoned decisionmaking. *See Env’tl. Def. Fund v. FERC*, 2 F.4th 953, 975 (D.C. Cir. 2021).

FERC provided no explanation of how it weighed the Terminal's purported benefits against the harms to public resources. *See* Authorization Order, Glick Concurrence PP2, 6 [JA____, ____]. On the benefits side of the scale, FERC refused to consider commenters' questions about the economic need for, or benefit of, the Terminal. Authorization Order P11-13 [JA____]; Rehearing Order P10 [JA____].

As to harms, FERC did not discuss climate impacts in its public interest analysis, Authorization Order P10-18 [JA____-____]; Rehearing Order P9-11 [JA____-____], despite the Terminal's substantial carbon pollution—millions of tons per year—and related social costs—more than \$100 million per year, *supra* Part II. As Commissioner Clements explained in her dissent from the Rehearing Order:

The Environmental Coalition argues that the Commission is required to consider climate impacts in its public interest determination under section 3 of the [Natural Gas Act]. If the Commission had done so, one would expect it to say as much in response. But the Order does not say the Commission considered climate impacts in its public interest determination... Did climate impacts factor into the public interest determination at all? If so, how? Neither the parties nor a reviewing court can discern from the Order whether the Commission even agrees that it must consider climate impacts and, if so, whether

and how it weighed them in its public interest determination.

Rehearing Order, Clements Dissent P2 [JA___]. If a FERC Commissioner cannot understand how FERC is making its decisions, how can the public or this Court?

FERC leaned heavily on the Natural Gas Act's presumption in favor of authorizations. Rehearing Order P9 [JA___]. But FERC failed to justify its conclusion that the presumption "was not overcome" here. *Id.* P10 [JA___]. FERC provided no indication what the presumed public interest benefits are, whether they are corroborated—or undermined—by record evidence, and how they compare to record evidence of public harm. How FERC gets from recognizing Terminal impacts to the Terminal not being inconsistent with the public interest is simply a black box. *See Bhd. of Locomotive Eng'rs & Trainmen v. Fed. R.R. Admin.*, 972 F.3d 83, 117 (D.C. Cir. 2020) (rejecting agency's "total explanatory void" on important determination). FERC failed to demonstrate that it weighed "all factors bearing on the public interest" against the presumption, *see Atl. Refining Co. v. Pub. Serv. Comm'n*, 360 U.S. 378, 391 (1959), and to explain its conclusion in a way that allows meaningful judicial review, *see Physicians for Soc. Resp. v.*

Wheeler, 956 F.3d 634, 644 (D.C. Cir. 2020). Such “conclusory” treatment of a “critical” issue “cannot substitute for a reasoned explanation, for it provides neither assurance that [FERC] considered the relevant factors nor a discernable path to which the court may defer.” *Am. Radio Relay League*, 524 F.3d at 241 (citation omitted).

VI. THE COURT SHOULD VACATE THE AUTHORIZATION ORDER AND FINAL EIS

Vacatur is the “ordinary” remedy for unlawful agency action. *United Steel v. Mine Safety & Health Admin.*, 925 F.3d 1279, 1287 (D.C. Cir. 2019) (citing 5 U.S.C. § 706(2)); *accord Bhd. of Locomotive Eng’rs*, 972 F.3d at 117. Departure from this default is not warranted here. *See Allied-Signal, Inc. v. Nuclear Regul. Comm’n*, 988 F.2d 146, 150-51 (D.C. Cir. 1993).

First, FERC’s errors are “serious[.]” *Id.* at 150. FERC failed to take a hard look at impacts from two of the Terminal’s most serious pollutants, *supra* Parts II-III, errors compounded by its failure to rationally evaluate alternatives that could have mitigated those impacts, *supra* Part IV. FERC, moreover, did not provide a coherent

explanation for its conclusion that the Terminal, considering its environmental impacts, was not inconsistent with the public interest. *Supra* Part V. Given these critical gaps in FERC’s analysis, “it is far from certain that FERC ‘chose correctly’” in authorizing any version of the Terminal, much less the specific alternative selected. *See Env’tl. Def. Fund*, 2 F.4th at 976 (quoting *Allied-Signal*, 988 F.2d at 150).

Second, the “disruptive consequences” of vacatur, *Allied-Signal*, 988 F.2d at 150-51, are “weighty only insofar as the agency may be able to rehabilitate its rationale,” *Env’tl. Def. Fund*, 2 F.4th at 976 (quoting *Comcast Corp. v. FCC*, 579 F.3d 1, 9 (D.C. Cir. 2009)). Since it is not clear FERC will be able to do so, this factor also favors vacatur. *Id.* This is especially true in a NEPA suit, like this one, where “remanding without vacatur ... would give [FERC] incentive to allow ‘build[ing] first and conduct[ing] comprehensive reviews later.’” *Id.* (quoting *Standing Rock Sioux Tribe v. Army Corps of Eng’rs*, 985 F.3d 1032, 1052 (D.C. Cir. 2021)). The Court should accordingly apply the normal remedy, vacate the Authorization Order and final EIS, and remand to FERC.

CONCLUSION

For the foregoing reasons, the Court should grant the petition and vacate the Authorization Order and final EIS.

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Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rule of Appellate Procedure Rule 32(g)(1), I certify that the foregoing brief complies with:

1. the type-volume limitations of Rule 32(a)(7) because it contains 12,930 words, excluding the parts of the brief exempted by Rule 32(f); and
2. the typeface requirements of Rule 32(a)(5) and the type style requirements of Rule 32(a)(6) because it has been prepared in a proportionally spaced typeface (14-point) using Microsoft Word (the same program used to calculate the word count).

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CERTIFICATE OF SERVICE

I hereby certify that on this 10th day of July, 2023, I have served the foregoing Opening Brief for Petitioners Healthy Gulf, Center for Biological Diversity, Louisiana Bucket Brigade, Sierra Club, Turtle Island Restoration Network, and Natural Resources Defense Council, including the Addendum thereto, on all registered counsel through the Court's electronic filing system (ECF).

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