ORAL ARGUMENT NOT YET SCHEDULED

No. 20-1045

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

VECINOS PARA EL BIENESTAR DE LA COMUNIDAD COSTERA; SIERRA CLUB; CITY OF PORT ISABEL; SAVE RGV FROM LNG; CYNTHIA HINOJOSA; GILBERTO HINOJOSA,
Petitioners,

v.

FEDERAL ENERGY REGULATORY COMMISSION,
Respondent

RIO GRANDE LNG, LLC; RIO BRAVO PIPELINE COMPANY, LLC,
Intervenors for Respondent.

On Petition for Review of Orders of the Federal Energy Regulatory Commission 169 FERC ¶ 61,131 (Nov. 22, 2019) and 170 FERC ¶ 61,046 (Jan. 23, 2020)

PETITIONERS' PROOF JOINT OPENING BRIEF

Dated: June 10, 2020

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CERTIFICATE AS TO PARTIES, RULINGS, & RELATED CASES

A. Parties

1. Petitioners

Vecinos para el Bienestar de la Comunidad Costera

Sierra Club

Save RGV from LNG

City of Port Isabel

Gilberto Hinojosa

Cynthia Hinojosa

2. Respondent

Federal Energy Regulatory Commission

3. Respondent-Intervenors

Rio Bravo Pipeline Company, LLC

Rio Grande LNG, LLC

B. Rulings Under Review

1. Order Granting Authorizations Under Sections 3 and 7 of the Natural Gas Act, *Rio Grande LNG, LLC & Rio Bravo Pipeline Company, LLC*, 169 FERC ¶ 61,131 (Nov. 22, 2019), and

2. Order on Rehearing and Stay, Rio Grande LNG, LLC & Rio Bravo Pipeline Company, LLC, 170 FERC ¶ 61,046 (Jan. 23, 2020).

C. Statement of Related Cases

Pursuant to Circuit Rule 28(a)(1)(C), the undersigned states that some of the issues raised in this case are similar to the issues raised in the following cases:

1. *Vecinos para el Bienestar v. FERC*, D.C. Circuit Case No. 20-1093 (Concerning Annova LNG, FERC Dkt. CP16-480).

2. *Vecinos para el Bienestar v. FERC*, D.C. Circuit Case No. 20-1094 (Concerning Texas LNG, FERC Dkt. CP16-116).

PETITIONERS' RULE 26.1 STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1 and Circuit Rule 26.1, Petitioners make the following disclosures:

Vecinos para el Bienestar de la Comunidad Costera: Vecinos para el Bienestar de la Comunidad Costera ("Vecinos") has no parent companies, and there are no publicly held companies that have a 10 percent or greater ownership interest in Vecinos.

Vecinos, an association organized and existing under the laws of the State of Texas, is an unincorporated nonprofit association dedicated to protecting and improving the health, standard of living, and economic development of the coastal community in the Rio Grande Valley of South Texas.

Sierra Club: Sierra Club has no parent companies, and there are no publicly held companies that have a 10 percent or greater ownership interest in Sierra Club.

Sierra Club, a corporation organized and existing under the laws of the State of California, is a nonprofit organization dedicated to the protection and enjoyment of the environment.

Save RGV from LNG: Save RGV from LNG has no parent companies, and there are no publicly held companies that have a 10 percent or greater ownership interest in Save RGV from LNG.

Save RGV from LNG is a nonprofit corporation organized and existing under the laws of the State of Texas, dedicated to protecting the Rio Grande Valley of South Texas from the harmful impacts of LNG exports.

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GLOSSARY

The following acronyms and abbreviations used in this brief:

bcf/d	Billion cubic feet per day
CEQ	Counsel on Environmental Quality
EIS	Environmental Impact Statement
EJ	Environmental Justice
EPA	Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse gas
LNG	Liquefied Natural Gas
mtpa	Million tons per annum
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NGA	Natural Gas Act
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
OMB	Office of Management and Budget
ppb	Parts per billion
VOC	Volatile Organic Compounds

JURISDICTIONAL STATEMENT

Petitioners seek review of two Federal Energy Regulatory Commission ("FERC") orders:

The "certificate order," issued under sections 3(e) and 7(c) of the Natural Gas Act, 15 U.S.C. §§ 717b(e) and 717f(c), authorizing construction and operation of the Rio Bravo Pipeline and Rio Grande LNG projects, R1314.

The "rehearing order," issued under section 19(a), 15 U.S.C. § 717r(a), R1349.

Petitioners intervened in and were parties to proceedings before FERC. R720 (Sierra Club), R737 (Vecinos), R751 (Port Isabel), R754 (Gilberto and Cynthia Hinojosa), R1183 (Save RGV from LNG); *see* R1314, P14 [JA____-____] (noting that all motions to intervene were granted). Petitioners filed a timely request for rehearing of the certificate order, R1329, which the rehearing order denied. Petitioners now seek review under 15 U.S.C. § 717r(b).

ISSUES FOR REVIEW

In approving the Rio Bravo pipeline and Rio Grande LNG export terminal:

1. Did FERC violate the National Environmental Policy Act, 42 U.S.C. § 4332 *et seq*., ("NEPA"), by:

    a. refusing to supplement the environmental impact statement ("EIS") after the applicants signed contracts for design and construction of a terminal with capacity at least 22% greater than what FERC analyzed in the EIS?

    b. concluding that, along with other projects concurrently approved by FERC, the projects would increase ambient ozone levels to 76.5 parts per billion, well above the threshold used by the National Ambient Air Quality Standard, without providing any analysis of the location, frequency, or duration of harmful ozone levels would occur, or how many people would be exposed?

c. concluding "it is not possible" that minority and low-income communities could be disproportionately harmed by the projects because they make up all of the affected populations, without analyzing the geographic extent of the projects' impacts or unique factors that amplify harms to these environmental justice communities?

d. providing *no* analysis of the severity and significance of the projects' greenhouse gas emissions, despite acknowledging that the social cost of carbon protocol is a tool generally accepted in the scientific community, built on assessment of incremental physical impacts, that other agencies have used in project-specific analyses?

2. Was FERC's conclusion that the projects were in the public interest for purposes of the Natural Gas Act arbitrary where FERC conceded that some adverse impacts were significant, where others harms were not evaluated, and where FERC failed to explain how it weighed these harms against project benefits?

STATUTES AND REGULATIONS

Pertinent statutes and regulations are reproduced in an addendum.

STATEMENT OF THE CASE

I. Introduction

Petitioners challenge FERC's approval of the Rio Bravo pipelines and Rio Grande LNG projects. The Rio Bravo pipelines are twin 135-mile pipelines that will deliver 4.5 billion cubic feet per day ("bcf/d") of natural gas to the Rio Grande LNG terminal, at the southern tip of Texas. The Rio Grande LNG terminal will chill this gas and load the resulting liquefied natural gas ("LNG") onto ships for export.

FERC approved these projects but shirked its obligation to fully scrutinize environmental and health impacts. FERC ultimately determined that the projects would contribute to ozone pollution significantly exceeding the Environmental Protection Agency's 70 parts per billion ("ppb") threshold. But FERC provided no analysis where, for how long, or how often harmful ozone levels would occur, instead baselessly concluding that the projects would not adversely affect

human health. FERC also improperly concluded that environmental justice communities would not be disproportionately susceptible to or affected by ozone pollution and other harms caused by the projects. And FERC admits that it did not evaluated the consequences, severity, or significance of the projects' emissions of 9 million tons per year of carbon dioxide equivalent.

FERC further shirked its obligation to scrutinize the proposed project designs. The EIS ignored petitioners' contention that the pipelines and terminal were oversized relative to the purported target capacity. When, a month after the EIS was finalized, applicants publicly stated that the project capacity would be at least 22% higher than what the EIS had assumed, FERC made no inquiry into what had changed or why, and FERC refused to supplement the EIS. FERC never evaluated whether a smaller terminal or pipeline could meet the project purpose or the impacts of using the increased capacity applicants actually plan to build.

Finally, FERC failed to conduct a serious inquiry into whether these projects are in the public interest. The projects will have concededly significant adverse impacts, in addition to the impacts that

FERC failed to fully evaluate—yet FERC failed to explain how the projects' purported benefits outweigh these harms. FERC's conclusory assertions that the pipelines' precedent agreement with an affiliate demonstrated a public benefit, and that the adverse impacts were "acceptable," falls short of the balancing required by the Natural Gas Act and FERC's certificate policy statement.

II. **Legal Framework**

A. Natural Gas Act

The projects here implicate FERC's authority under Natural Gas Act sections 3 and 7, 15 U.S.C. §§ 717b, 717f.

Under section 7 of the Natural Gas Act, any company seeking to construct a pipeline that will transport gas in interstate commerce must first obtain approval from FERC. 15 U.S.C. § 717f(c).[1] FERC may only authorize a pipeline if it determines that it is "required by the present or future public convenience and necessity." § 717f(e). This standard

[1] Pipelines that do not cross state lines, but that transport gas that does, are subject to this provision. *Associated Gas Distributors v. FERC*, 899 F.2d 1250, 1255 (D.C. Cir. 1990).

requires consideration of "conservation" and "environmental" issues, as well as impacts on gas consumers and "development" of gas supplies. *Minisink Residents for Envtl. Pres. & Safety v. FERC*, 762 F.3d 97, 101 (D.C. Cir. 2014) (internal quotations omitted). In particular, FERC must consider climate change impacts, including both direct and reasonably foreseeable indirect emissions. *Sierra Club v. FERC,* 867 F.3d 1357, 1373 (D.C. Cir. 2017) ("*Sabal Trail*").

FERC's "Certificate Policy Statement" interprets the public convenience and necessity standard. *Certification of New Interstate Natural Gas Pipeline Facilities,* 88 FERC ¶ 61,227 (Sept. 15, 1999), *clarified,* 90 FERC ¶ 61,128 (Feb. 9, 2000), *further clarified,* 92 FERC ¶ 61,094 (July 28, 2000). Under this statement, "the Commission will issue a certificate … only if a project's public benefits (such as meeting unserved market demand) outweigh its adverse effects (such as a deleterious environmental impact on the surrounding Community)." *City of Oberlin, Ohio v. FERC*, 937 F.3d 599, 602 (D.C. Cir. 2019). Issuance of the certificate provides the right to exercise eminent domain to acquire any land for the pipeline. *Id.*, 15 U.S.C. § 717f(h).

Separate from FERC's section 7 authority for pipelines, under section 3 of the Natural Gas Act, FERC regulates "the siting, construction, expansion, or operation" of LNG infrastructure. 15 U.S.C. § 717b(e)(1), *EarthReports, Inc. v. FERC*, 828 F.3d 949, 952-53 (D.C. Cir. 2016). FERC interprets this provision to apply the standard provided by 15 U.S.C. § 717b(a): that FERC must approve the project unless it finds that it would be inconsistent with the public interest. R1314, P18, P22 [JA____, ____]. As with section 7, evaluation of the "public interest" under section 3 requires consideration of "conservation" and "environmental" impacts. *Sierra Club v. United States Dep't of Energy*, 867 F.3d 189, 202 (D.C. Cir. 2017) ("*Freeport II*").

B. National Environmental Policy Act

NEPA aims to protect the environment by requiring agencies to look before they leap. Before taking action significantly affecting the environment, an agency must prepare an "Environmental Impact Statement" ("EIS"), which includes considerations such as "the environmental impact of the proposed action," "any adverse environmental effects which cannot be avoided should the proposal be

implemented," and "alternatives to the proposed action." 42 U.S.C. § 4332(C).

NEPA requires a broad perspective, considering both foreseeable indirect effects, connected actions, and similar actions. 40 C.F.R. § 1508.8(b), *Delaware Riverkeeper Network v. FERC*, 753 F.3d 1304, 1309 (D.C. Cir. 2014) (citing 40 C.F.R. § 1508.25), *City of Davis v. Coleman*, 521 F.2d 661 (9th Cir. 1975). Agencies must also account for "cumulative impacts … which result[] from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions." 40 C.F.R. § 1508.7.

Taking a hard look at environmental impacts also requires considering "environmental justice," *e.g.*, 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. 7,629 (Feb. 11, 1994)). Both the Council on Environmental Quality ("CEQ") and the Environmental Protection Agency ("EPA") have promulgated guidance interpreting this obligation. CEQ, *Environmental Justice: Guidance Under the National Environmental Policy Act* (1997), ("CEQ Guidance"); EPA, *Promising*

Practices for EJ Methodologies in NEPA Reviews: Report of the Federal Interagency Working Group on Environmental Justice & NEPA Committee (2016) ("EJ-IWG Guidance"); EPA, *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* (1998) ("EPA Guidance").

NEPA's procedural requirements have "twin aims:" to ensure that the agency's decisions are fully informed, and to facilitate public participation by ensuring "that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking." *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 97 (1983) (citation omitted).

III. **Factual Background**

A. Project Description

The Rio Bravo pipelines and Rio Grande LNG terminal are intended to be, in the applicants' own words, "the largest LNG export solution linking Permian Basin associated gas to the global LNG market." R1285, Ex. 1 at 4 [JA____]; *accord id.* at 9, 14 [JA____, ____],

R669, 22 [JA____]. They are the highest-capacity pipeline project and second-largest terminal applications FERC has ever approved.[2]

The Rio Bravo pipelines are a pair of 42 inch diameter parallel pipelines that will receive gas from Texas's Agua Dulce hub and travel 135 miles to the Brownsville Shipping Channel, at the southern tip of Texas. R1314, P2 [JA____], R1277, 1-2 [JA____-_____] (map). The pipelines will be 25 feet apart, with an additional 25 foot operational buffer on either side, for a 75 foot permanent right-of-way. "Approximately 66 percent of the pipeline right-of-way would be collocated with or adjacent or parallel to existing pipeline, roadway, railway, or utility rights-of-way." R1349, P22 [JA____]. However, FERC has not discussed how much of the right-of-way may need to be condemned using eminent domain. *Id.*[3] Together, the pipelines will have a capacity of 4.5 bcf/d. R1314, P5 [JA____].

[2] *See* https://www.ferc.gov/industries/gas/indus-act/pipelines/approved-projects.asp and https://ferc.gov/industries/gas/indus-act/lng/lng-approved-export-new.pdf.

[3] Even where the route is collocated with an existing right-of-way, the existing easement may not authorize a gas pipeline, and condemnation may be required.

The sole purpose of the pipelines is to deliver gas to the proposed Rio Grande LNG terminal, which in turn has the purpose of "export[ing] 27 [million tons per annum, or "mtpa"] of natural gas … to the global market." R1277, 1-4 [JA____]. The terminal is located along the Brownsville Shipping Channel, near two other concurrently-approved LNG export terminals. *Id.* 3-1 [JA____] (map).[4] The terminal's principal components are six liquefaction units, called "trains." *Id.* 2-4 [JA____] (diagram). Each liquefaction train includes components to remove impurities from pipeline gas, refrigeration units that condense the gas into a liquid, and two gas-fired turbines that power the refrigerators. *Id.* 2-5 - 2-6 [JA____-____]. As described in the application, each train has the nominal capacity to produce 4.5 mtpa of LNG. R669, 3 [JA____]. This is equivalent to 0.62 bcf/d of output per train. R1349, P4 n.9 [JA____]. Of the 27 mtpa nameplate capacity, Rio Grande has received authorization to export 26.1 mtpa, or 3.6 bcf/d, *id.*, and plans to

[4] The application for a fourth proposal shown on this map, Gulf Coast LNG, has been withdrawn. R1277, 4-413 [JA____].

load up to 0.4 mtpa onto trucks for use as vehicle fuel in Texas. R1277, 1-18 [JA____].

In 2016, Sierra Club filed a protest with FERC questioning these capacities. R738 [JA____]. Sierra Club noted that after construction, other FERC-approved terminals increased output significantly beyond nameplate capacity. R738, 4 [JA____]. Notably, the Freeport, Texas facility, which used the same liquefaction train design proposed here—"Air Products and Chemicals C3MR" 4.5 mtpa nominal-capacity trains—had increased its output by at least 17%. *Id.*, R1277, 2-6, 3-7 [JA____, _____]. In addition, here, applicants' proposed ratio of pipeline capacity to terminal output is significantly higher than for other facilities, suggesting a plan to expand exports beyond the stated volume. R738, 4 [JA____]. In response, the applicants demurred, insisting that the terminal capacity estimates "leave[] little room for improvement through debottlenecking refinements." R781, 15 [JA_____]. Neither the applicants nor FERC offered any facts distinguishing Freeport or other facilities. Nonetheless, FERC relied on the 4.5 mpta per train value. R1277, 2-5 [JA____], R1314, P6 [JA____], R1349, P3 [JA____].

B. Surrounding Community & Environment

The terminal site is in Cameron County, approximately 2.2 miles from the City of Port Isabel and 9.8 miles east of the City of Brownsville. R1277, 2-2 [JA____]. East of the terminal is the Gulf Coast beach town of South Padre Island. *See id.* 1-2 [JA____] (map). The pipelines travel through Cameron, Willacy, Kenedy, Kleberg, and Jim Wells Counties. *Id.* 4-209 [JA____].

The communities closest to the terminal are predominantly Hispanic/Latino with a high percentage of residents living below the poverty line. R1277, 4-235 - 4-238 [JA____-____]. Cameron County is 88.5% Hispanic/Latino and 29.6% of its residents live below the poverty line. *Id.* The populations near the pipelines have similar demographic make-ups. *Id.*

The area is a major tourist destination. Cameron County is 11th out of all 254 Texas Counties for visitor spending and the Brownsville-Harlingen metropolitan statistical area is 7th in the number of days tourists spend visiting. *Id.* 4-214 [JA____]. The majority of area tourists engage in outdoor recreation, including wildlife viewing and visits to the

beach, local, state, and national parks. *Id.* 4-214 [JA____]. The pipelines cross several recreational areas including National Wildlife Refuges, a boat launch, four birding trails, and areas under existing and planned conservation agreements. *Id.* 5-10 [JA____]. The area hosts one of the two remaining ocelot populations in the United States, and may host jaguarundi. *Id.* ES-8 [JA____]. Roughly 23.6% of all tourists to the Brownsville-Harlingen area participate in outdoor sports such as recreational fishing. *Id.*

The local economies depend on tourism, fishing, and shrimping. Tourism to South Padre Island provides roughly 36% of all employment to Port Isabel, and contributes approximately $370 million a year to Cameron County's economy. R1200, 28 [JA____]. Ecotourism in the Rio Grande Valley, which includes Hidalgo, Willacy, and Cameron Counties, generates $100 to $170 million annually and employs several thousand people. *Id.* 26 [JA____]. The two ports nearest the terminal, the Port of Brownsville and Port Isabel, combined are the second largest fishing port by value along the Gulf of Mexico, and the seventh largest by weight. R1277, 4-104 [JA____]. Many of fishing and shrimping boats

must pass the terminal site when traveling the Brownsville Shipping Channel between port and their fishing grounds. R1277, 4-221 [JA____].

C. Impacts

The pipelines and terminal, in conjunction with the other two planned adjacent LNG terminals, will have wide-reaching impacts on the environment and surrounding communities.

The terminal will be a major source of air pollution, annually emitting roughly 3,000 tons each of nitrogen oxides and carbon monoxide, as well as 647.7 tons of volatile organic compounds. R1277, 4-252, 4-263 [JA____, ____]. The largest sources of air pollutants are the gas turbines incorporated into the liquefaction trains and the thermal oxidizers used to destroy impurities removed from pipeline gas; LNG ships are another significant pollution source. *Id.* 4-262 [JA_____]. Although the EIS concluded that the impact of these emissions would be "minor," the rehearing order concluded that operation of the three approved terminals could cumulatively cause a 19.6 ppb increase in ambient ozone levels, to 76.5 ppb, exceeding the 70 ppb threshold set by the national ambient air quality standard ("NAAQS") and, in FERC's view, a "significant" increase. R1349, P55 [JA____-____].

The projects will also impact fishing and tourism. In particular, LNG vessels could obstruct all other boat traffic, as the Coast Guard may require an exclusion zone around moving LNG vessels that is wider than the Brownsville Shipping Channel. LNG vessels serving Rio Grande LNG would therefore block the channel for other boats 30 hours per week; the three concurrently-approved terminals would cumulatively obstruct the channel for 39 hours per week. R1277, 4-465 – 4-467 [JA____-____]. Because of this impact and others, the cumulative impact on commercial fisheries will be "permanent and moderate." *Id.*

The projects would also contribute to a significant permanent impact on visual resources, together with the concurrently-approved terminals. *Id.* 5-1 [JA____]. The resulting change in the landscape's character "could cause some visitors to choose to vacation elsewhere or alter their recreation activities to destinations in the region that are further from the Brownsville LNG project sites." *Id.* 5-21 [JA____]. For this and other reasons, the cumulative impact on tourism would also be "permanent and moderate."

The projects would also harm wetlands, habitat, and other aspects of the landscape. Construction of the pipelines will destroy 145.3 acres of wetlands. R1277, 4-60 [JA____]. The applicants will attempt to restore these wetlands after construction is complete, but construction will last three years, and restoration will take several more. *Id.* 4-64 [JA____]. The terminal will permanently impact an additional 182.4 acres of wetland. *Id.* 4-60 [JA____].

The projects are "likely to adversely affect" endangered ocelots, as a result of habitat modification and increased vehicle strikes from construction traffic. R1277, 4-160 [JA____]. Although the Fish and Wildlife Service concluded that the projects would not jeopardize the survival or recovery of ocelots, FERC acknowledges that impacts on ocelots are nonetheless significant. R1314, P22, P85 [JA____, ____]. The projects would also significantly impact the endangered jaguarundi and northern aplomado falcon. *Id.*

Finally, the proposed projects have higher greenhouse gas emissions than nearly every other project FERC has reviewed. Together, they will directly emit 9.07 million tons of carbon dioxide equivalent every year, for twenty years. R1314, P108 [JA_____], R1277,

1-1 [JA____]. Indirect emissions resulting from upstream production and downstream use of exported gas will likely be ten times higher. *See, e.g.*, R1212, Ex. 99 at 1676 [JA____] (estimating life-cycle emissions of at least 25 million tons per year of carbon dioxide equivalent per bcf/d of U.S. LNG exports).

D. Request for a Supplemental EIS

FERC circulated the draft EIS in October 2018, and the final EIS in April 2019. R1021, R1277. FERC assumed that each liquefaction train would produce 4.5 mtpa of LNG. R1277, 2-5 [JA____].

The next month, the applicants signed contracts with Bechtel for the engineering and construction of the first three liquefaction trains, with a capacity that "is expected to be up to 5.87 mtpa with average annual production of up to 5.5 mtpa" each. R1288, Ex.2, 5-6 [JA____-____]. Also in May 2019, the applicants released a "corporate presentation" stating that Rio Grande would export 5.5 mtpa from each of the six liquefaction trains after "debottlenecking," and presenting earnings forecasts based on 33 mtpa of total output. R1285, Ex.1, 24-25 [JA____-____].

Environmental petitioners asked FERC to prepare a supplemental EIS in light of this information about increased capacity. R1285, R1288. The applicants responded, but did not dispute that the terminal would be capable of reliably producing 22% more LNG than what was considered in the EIS: 5.5 mtpa per train, or 33 mtpa in total. Applicants maintained that this change was due to "evolution and refinement" of the design. R1286, 2, 5 [JA____, ____]. However, applicants insisted that they "do[] not intend" to use this extra capacity. *Id.* at 2 [JA____].

In November 2019, FERC approved the projects and denied the requests for a supplemental EIS. R1314, P131 [JA____-____]. Nothing in the record indicates that FERC made any inquiry into how the design had changed, when the applicants became aware of this change, what the environmental consequences of this change would be, or how the applicants' assertion that they did not intend to use this extra capacity could be reconciled with earnings forecasts based on the additional capacity.

Petitioners requested rehearing of this approval. FERC denied the request, and petitioners filed for review.

SUMMARY OF ARGUMENT

FERC failed to take a hard look at the projects' capacity and design. FERC arbitrarily refused to supplement the EIS after the applicants admitted that the project would be able to produce at least 22% more LNG than assumed in the EIS. Part II.A. FERC failed to rigorously explore whether the projects' stated purpose of producing 27 mtpa of LNG could be achieved by a smaller, less impactful terminal and/or pipeline. Part II.B. The applicants will foreseeably seek to use the terminal's full technical capacity, and NEPA required considering the impacts of such an increase now. Part II.C.

FERC admitted that the project would contribute to unhealthy ozone levels, but failed to address where, how often, how many people would be affected, or whether this would lead to a change in the region's attainment status. This is not a hard look. Part III.

FERC's conclusion that the project would not disproportionately harm minority and low-income communities was unsupported, where FERC failed to properly evaluate the "affected communities" who would

be exposed to project impacts or those communities' susceptibility to such impacts. Part IV.

FERC's failure to evaluate the impact of greenhouse gas emissions, based on a purported lack of necessary information, violated 40 C.F.R. § 1502.22(b)(4), which requires use of "methods generally accepted in the scientific community." The social cost of carbon protocol is such a method, and FERC's refusal to use it was arbitrary. Part V.

FERC violated Natural Gas Act sections 3 and 7 by failing to explain whether and how it determined that the projects' benefits outweighed their adverse impacts. Without such balancing, FERC could not rationally conclude that the projects were in the public interest. Part VI.

STANDING

Vecinos para el Bienestar de la Comunidad Costera and Sierra Club are non-profit organizations with members who live, work, and recreate in areas that will be affected by the construction and operation of the projects. Addendum 22-61. This Court can redress the harm to these members by vacating the Certificate Order and remanding to FERC. *See Sabal Trail, 867 F.3d at 335*. Save RGV is not a membership organization, but is led, guided, and funded by persons who also recreate in areas affected by the projects, and Save RGV has standing to sue on their behalf. Addendum 45-61. *Flyers Rights Educ. Fund, Inc. v. United States Dep't of Transportation*, 957 F.3d 1359, 1361-62 (D.C. Cir. 2020).

The City of Port Isabel has standing because it will be impacted by, *inter alia*, traffic and disruption of the fishing and tourism industries. Addendum 62-67. *City of Bos. Delegation v. FERC*, 897 F.3d 241, 250 (D.C. Cir. 2018).

Gilberto and Cynthia Hinojosa own property near the pipeline route, and their use and enjoyment of the property will be impacted by the projects. Addendum 68-73.

ARGUMENT

I. Standard of Review

FERC's decision "will be set aside as arbitrary and capricious if it is not the product of reasoned decisionmaking." *Del. Riverkeeper*, 753 F.3d at 1313. The court must determine whether the agency has "examine[d] the relevant data" and made "a rational connection between the facts found and the choices made." *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (internal quotation marks omitted). While this Court will accord deference to FERC's "relevant or scientific expertise," "[t]he technical complexity of the analysis does not relieve the agency of the burden to consider all relevant factors and to identify the stepping stones to its final decision." *Gas Appliance Mfrs. Ass'n, Inc. v. DOE*, 998 F.2d 1041, 1046 (D.C. Cir. 1993).

II. FERC Failed to Take a Hard Look at Project Design and Capacity

The EIS relies on assumptions about the terminal that are, by the applicants' own admission, incorrect. The EIS ignored Sierra Club's

contention that the applicants understated the projects' capacity, implicitly accepting the applicants' assertion that the design left no room for future increases. Then, shortly after the EIS was finalized, the applicants publicized contracts for construction of a design that increases capacity by at least 22% beyond the volume considered in the EIS. R1288, Ex.2 at 25 [JA____]. This increase amounts to 6 mtpa in total—more than the *entire* capacity of the concurrently approved Texas LNG project, which received its own EIS. *Texas LNG Brownsville LLC*, 169 FERC ¶ 61130 P4 (Nov. 22, 2019).

FERC violated NEPA and the Natural Gas Act by not taking a hard look at the infrastructure the applicants actually plan to build. First, FERC arbitrarily refused to prepare a supplemental EIS. FERC failed to investigate the design change; and without this, FERC could not reasonably conclude that the EIS remained valid. Second, the "new" liquefaction train design further demonstrates that smaller terminal and pipeline alternatives would meet the project's originally-stated purpose while reducing environmental impacts. Third, FERC failed to address the environmental impacts of the applicants' foreseeable future plans to use the extra capacity.

A. FERC's Refusal to Prepare a Supplemental EIS Was Arbitrary

FERC's refusal to prepare a supplemental EIS in light of the applicants' post-EIS statements about capacity was arbitrary. An agency "shall" supplement an otherwise "final" EIS when there is "significant new … information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § 1502.9(c)(1)(ii). "When new information comes to light the agency must consider it, evaluate it, and make a reasoned determination whether it is of such significance as to require implementation of formal NEPA filing procedures." *People Against Nuclear Energy v. U.S. Nuclear Regulatory Comm'n*, 678 F.2d 222, 234 (D.C. Cir. 1982), *rev'd on other grounds sub nom. Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766 (1983) (quotation omitted). In reviewing the reasonableness of an agency's analysis, courts consider:

> [1] the environmental significance of the new information,
>
> [2] [its] probable accuracy …
>
> [3] the degree of care with which the agency considered the information and evaluated its impact, and

> [4] the degree to which the agency supported its decision not to supplement with a statement of explanation or additional data.

Id. (quotation omitted).

Each factor weighs against FERC. First, the applicants' disclosure of a design "evolution" that enables a 22% increase in output is environmentally significant. It calls basic conclusions of the EIS into question. For example, the air pollution analysis rests on the specific facility design, operating conditions, and practices. R1277, 4-260 to 4-263 [JA____-_____]. The applicants do not explain what the design changes are or whether they impact the air analysis. *See Lemon v. McHugh*, 668 F. Supp. 2d 133, 140-42 (D.D.C. 2009) (holding that when the plan for redevelopment of Army base changed to increase intensity beyond what was considered in EIS, refusal to supplement was arbitrary). This information also highlights the feasibility of unconsidered alternative, less-harmful designs, like a smaller terminal footprint. *Infra* p.29. And it indicates that applicants will foreseeably seek to increase exports, with corresponding increases in shipping and other associated environmental impacts. *Infra* p.35.

Second, there is no dispute regarding accuracy. The applicants contracted for a design that has at least a 22% higher capacity than what the EIS considered, *and* the applicants themselves say that the terminal design has changed. Nor do applicants dispute that they presented earnings forecasts based on use of this increased capacity, or that the projects will be technically capable of producing this much LNG.

Third, FERC did not exercise any meaningful care in evaluating this information. The applicants initially argued to FERC that the design would leave no room for future output increases. R781, 15 [JA____]. Once the EIS was complete, however, applicants bragged to the public (but not FERC) about exactly such increases. R1288, Ex.2, 5-6 [JA____-____]. Although petitioners alerted FERC to this change, FERC made *no* inquiry, instead simply shrugging this information off. R1314, PP130-131 [JA____-____].

Fourth, FERC's decision not to supplement is not supported by explanation or data. *Cf. Warm Springs Dam Task Force v. Gribble*, 621 F.2d 1017, 1025 (9th Cir. 1980) (upholding decision not to supplement in response to information about previously unexamined seismic fault,

when agency provided thorough explanation of why hazards from new fault were less than others already considered). FERC's speculation that alternative designs may be infeasible, and FERC's argument that possible expansion can be ignored until applicants seek approval therefore, are unreasonable as explained *infra*, and cannot support FERC's refusal to prepare a supplement. And separately, FERC provided no explanation or data as to whether the design's "evolution" undermines the EIS's analysis of air pollution or other impacts.

For these reasons, FERC's decision not to supplement the EIS was arbitrary.

B. FERC Failed to Rigorously Explore Alternative Designs Tailored to the 27 mtpa Project Purpose

FERC failed to rigorously explore viable alternative designs for the pipeline and terminal. The admission that the Bechtel-design trains can process more gas than initially disclosed highlights this failure.

Consideration of alternatives "is the heart of the environmental impact statement." 40 C.F.R. § 1502.14. Agencies must "[r]igorously explore and objectively evaluate all reasonable alternatives." *Id.* The "universe" of reasonable alternatives is "delimit[ed]" by the goals of the

action. *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195 (D.C. Cir. 1991). Here, the project purpose is "to export 27 MTPA of natural gas." R1277, 1-4 [JA____]. The applicants' signing of the Bechtel contract, and statement that they expect the proposed six-train design actually have 33 mtpa of capacity, demonstrates that the purpose of exporting only 27 mtpa could be met by 1) a terminal using only five liquefaction trains, and/or 2) a smaller pipeline system providing less than the approved 4.5 bcf/d capacity. Both alternatives would reduce the projects' footprint, construction time, and environmental impacts. FERC's failure to consider these alternatives violated NEPA.

1. Smaller Terminal

The Bechtel design could achieve the project purpose of exporting 27 mtpa with only five liquefaction trains. Specifically, the applicants selected a liquefaction train design that they state will reliably produce 5.5 mtpa per train. By simple arithmetic, five 5.5 mtpa trains provide 27.5 mtpa of capacity, more than the 27 mtpa target stated in the EIS. R1277, 1-4 [JA____]. This alternative would, *inter alia*, allow for reduction of the facility footprint, reducing wetland and habitat

impacts, and reduce traffic, noise, and other construction impacts by shortening total terminal construction time by six months and reducing the intensity of construction activity for another two and a half years. *Id.* 2-33, 5-11 [JA____, ____].

FERC offers two unsupported arguments for rejecting a five-liquefaction-train design. R1349, P26 [JA____]. First, FERC speculates that five trains might not provide an adequate "design margin[]." *Id.* This is pure conjecture unsupported by any facts, such as what design margins are industry-standard or would be appropriate here. And the applicants' own earnings projections and other statements reveal that they believe the Bechtel design, with a stated capacity of 5.87 mtpa, will reliably output 5.5 mtpa per train.[5]

[5] FERC notes that the applicants' Securities and Exchange Commission filings describe the total facility as having a capacity of 27 mtpa, even though the first three trains will produce 5.87 mtpa each. R1349, P27 [JA____]. Nothing in the record suggests that the second three trains will differ from the first three, or that six Bechtel-design trains might only produce 27 mtpa. Applicants' response to petitioners' request for a supplement did not dispute the full facility's capability of producing 33 mtpa; applicants merely disclaimed their intention to do so. R1286, 2 [JA____].

Second, FERC argues that the design Rio Grande presented "in its application" did "not represent an overbuild." R1349, P26 [JA____]. Regardless of whether that was an appropriate evaluation of the application, the Bechtel contract reveals that the applicants' contracted-for design could reliably produce 33 mtpa, and is thus an overbuild for a 27 mtpa project.[6]

FERC's refusal to evaluate a five-liquefaction-train alternative is not supported by any "logically coherent explanation," and is therefore arbitrary. *High Country Conservation Advocates v. United States Forest Serv.*, 951 F.3d 1217, 1224–25, 1227 (10th Cir. 2020).

2. Lower-Capacity Pipeline System

Like the terminal, the pipelines are oversized for a 27 mtpa facility, and FERC failed to explore whether a smaller capacity alternative could meet the project purpose while reducing environmental impacts.

[6] A five-train, 27.5 mtpa design could accommodate both the proposed exports and applicants' proposal to produce 0.4 mtpa of LNG for truck refueling. R1349, P4 n.9, P24 [JA____, ____-____].

The Rio Bravo project involves a pair of 42 inch pipelines, each with 2.25 bcf/d of capacity, sited 25 feet apart and constructed in sequence. R1277, 2-21, 2-32 - 2-33 [JA____, ____-____]. This 4.5 bcf/d of pipeline capacity is far more than would ordinarily be required for the proposed 3.6 bcf/d of export. Pipeline capacity usually exceeds terminal output, as gas is needed to power liquefaction equipment, but for comparable FERC-approved terminals, pipeline capacity is only 7% to 11% higher than LNG production volumes, as opposed to the 25% difference proposed here. R738, 4 [JA____], R1200, 9 [JA____], R1329, 10-13 [JA____]. Nowhere in the record has FERC disputed that a lower-capacity pipeline system would be feasible here.

Comparable projects indicate that, if pipeline capacity was reduced below 4.5 bcf/d, the proposed pair of pipelines could be replaced with a single pipe, reducing both pipeline footprint (and thus wetland, habitat, and landowner impacts) and construction time. For example, the approved Driftwood LNG project uses a single pipeline to deliver 4.0 bcf/d of gas, 11% more than the export volume proposed here. R1329, 12 [JA____]. Here, the EIS concluded that a single pipeline large enough to deliver 4.5 bcf/d would be technically infeasible, but the EIS did not

evaluate whether a single pipeline could deliver 4.0 bcf/d or some other smaller amount of gas. R1277, 3-26 [JA____]. Although a single pipeline would not provide the reliability of a paired pipeline, many other LNG projects rely on a single pipeline, demonstrating that such reliability is not essential or even expected. The applicants may prefer the benefits of a twin pipeline, but preference, without more, is not a basis for excluding alternatives from NEPA analysis. *N. Buckhead Civic Ass'n v. Skinner*, 903 F.2d 1533, 1542 (11th Cir. 1990).

Ultimately, FERC's refusal to explore alternative pipeline designs reveals a profound misunderstanding of NEPA and FERC's role. FERC states that it "does not independently design systems for pipeline companies; rather, the Commission ensures that any proposed design is or will be required by the public convenience and necessity, based on an evaluation of adequacy, reliability, safety, environmental impacts, and other factors in the public interest." R1349, P25 [JA____]. Refusing to even analyze an alternative because it is not what the applicant proposed eviscerates the alternatives analysis. FERC does not have to design pipeline systems, but it *does* have to rigorously explore whether alternative designs are feasible and less impactful. Nor can FERC

determine whether a proposal is "required" by the public necessity, or whether modifications of a proposal are warranted, 15 U.S.C. § 717f(e), if FERC has not evaluated whether less harmful alternatives would provide the same public benefit.

C. FERC Ignored Foreseeable Future Increases in Export

Third, FERC violated NEPA by failing to analyze the impacts that would result from full utilization of the 33 mtpa capacity. Increasing exports will, at a minimum, increase LNG ship traffic, increasing impacts on other users of the shipping channel and air pollution from ship operations.

FERC argues that analysis of the impacts of exports beyond 27 mtpa can wait until the applicants seek authorization for such additional exports. R1349, P27 [JA____]. FERC precedent and NEPA caselaw prohibit this approach. FERC has explained that its authorizations should "reflect the maximum or peak capacity at optimal conditions as such a level represents the actual potential production of LNG." *Sabine Pass Liquefaction, LLC*, 146 FERC ¶ 61117, P12 (Feb. 20,

2014).[7] NEPA prohibits FERC from "'segment[ing]' … connected, cumulative, or similar federal actions into separate projects." *City of Bos. Delegation*, 897 F.3d at 251 . Future use of the full 33 mtpa capacity is a "connected" action: applicants have not offered any justification for a sixth Bechtel-design train other than to increase output beyond 27.5 mtpa. 40 C.F.R. § 1508.25(a)(1)(iii). It is also "cumulative" and "similar," in that expanding output will compound the effects of LNG vessel traffic, and is reasonably foreseeable—a "person of ordinary prudence" would expect the applicants to seek to fully use infrastructure they propose to build. *Id.* § 1508.25(a)(2)-(3); *Sabal Trail*, 867 F.3d at 1370.

The record provides no justification for building six Bechtel-design liquefaction trains other than to support 33 mtpa of output. That 22% increase over the output analyzed in the EIS will have foreseeable environmental impacts, such as the impact of additional ships on air

[7] FERC's speculation that the terminal will not actually be capable of exports beyond 27 mtpa is unsupported, as stated *supra*.

pollution and fishing. FERC's refusal to analyze that foreseeable future increase violates NEPA.

III. FERC Failed to Take A Hard Look at Ozone Impacts

FERC predicts that the projects, together with the two concurrently-approved neighboring LNG terminals, will cumulatively contribute to ozone levels of 76.5 ppb, exceeding the 70 ppb threshold set by the NAAQS. R1349, P55 [JA____]. FERC's conclusion that "the projects would [nonetheless] not have a significant adverse impact on human health" is arbitrary. *Id.* P60 [JA____]. FERC suggests that few people may be exposed to this pollution, that this level of pollution isn't actually that bad, and that applicants have acceptably mitigated impacts. But FERC failed to actually analyze any of these issues, and as such, failed to take a hard look.

FERC's stunted analysis presumably results from the fact that FERC *drastically* revised its ozone analysis in the rehearing order. The EIS relied on analyses prepared for the terminal's applications for "prevention of significant deterioration" air permits, supplemented by FERC's own analysis of cumulative impacts from the other

concurrently-approved LNG terminals. R1349, PP52-53 [JA____-____]. These analyses only considered emissions from stationary sources, ignoring mobile emissions from LNG ships. *Id.* P53, P55 [JA____, ____]. However, accounting for LNG ships increases Rio Grande's emissions of nitrogen oxides ("NO_x"), the primary contributor to ozone here, *by nearly 50%*. R1277, 4-262 – 4-263 [JA____-____]. Ships contribute an even larger proportion of the other terminals' emissions. R1349, P55 n.175 [JA____]. Thus, whereas the EIS had concluded that the project would result in a 11.6 ppb increase in ambient ozone levels, to 68.6 ppb, and that cumulative impacts would raise ozone levels to 69.76 ppb, the rehearing order predicts when ships are accounted for, the cumulative increase is 19.6 ppb, to 76.5 ppb. *Id.* PP52-55 [JA____-____]. FERC did not address whether emissions from Rio Grande LNG and its associated ships alone would raise ozone levels above the 70 ppb threshold.

For the other pollutant which FERC predicts will exceed the NAAQS threshold, nitrogen dioxide ("NO_2"), FERC conducted modeling showing exceedances would occur "between the fence lines of the Rio Grande LNG and Texas LNG Terminals," where it was "unlikely" that anyone would be exposed. R1277 4-475 [JA____]. FERC further

disclosed what level of pollution would occur for the closest residential areas, *id.*, and concluded that the localized NO_2 exceedances "will not cause the re-designation of the attainment status" for NO_2 regionally. R1349, P50 [JA____].

In contrast, FERC's ozone discussion merely states that "the nearest residential areas are approximately 2.2 miles from the site of the Rio Grande LNG Terminal," and that "people in the surrounding communities *might* experience the health effects of ozone exposure." R1349 P62 [JA____] (emphasis added). This juxtaposition misleadingly suggests that ozone impacts will or may be limited to the immediate and uninhabited vicinity of the terminal. However, ozone is a regional pollutant. For example, the estimate underpinning FERC's ozone analysis—that Rio Grande's stationary sources will raise ozone levels by 11.6 ppb—is an estimate of the impact that will occur 6.2 miles from the terminal. R947, Air Quality Analysis at 90 [JA____]. This radius squarely encompasses Port Isabel and other residential communities.

Taking a hard look requires more than merely acknowledging that ozone levels may reach 76.5 ppb sometime, somewhere. *Kern v. U.S. Bureau of Land Management*, 284 F.3d 1062, 1075 (9th Cir. 2002)

("General statements about 'possible' effects and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive information could not be provided."). The impact of ozone on communities depends not just on the maximum concentration, but also on how often, for how long, and by how much ozone levels exceed the 70 ppb threshold. FERC must also address whether the newly predicted ozone violations would lead to re-designation of Cameron County's attainment status for ozone and the ramifications of possible re-designation. FERC has acknowledged that potential re-designation was a key issue for both NO_2 and ozone, but FERC did not revisit the issue in light of the rehearing order's revised ozone analysis. R1277, 4-269 [JA____]; R1349, P50 [JA____].

FERC separately attempts to minimize the impacts of this level of pollution. FERC acknowledges that ozone levels "close to or beyond the NAAQS threshold" can cause serious harmful health impacts, including "decreased lung function and airway inflammation, with respiratory symptoms including coughing, throat irritation, chest tightness, wheezing or shortness of breath," and an exacerbation of existing respiratory disease such as asthma or chronic obstructive pulmonary

disease. R1349, P61 [JA____]. However, FERC undermines that acknowledgment by stating that "[f]or context, the exceedance would be only slightly higher than the 2008 8-hour ozone NAAQS of 75 ppb." *Id.* P62 [JA____]. EPA adopted the 70 ppb standard in 2015 *precisely because* the 2008 standard "was not at a level requisite to protect public health." *Murray Energy Corp. v. Env'l Prot. Agency*, 936 F.3d 597, 606 (D.C. Cir. 2019).

Finally, FERC credits the applicants for "tak[ing] steps to mitigate ozone emissions." R1349, P56 [JA____]. FERC must take a hard look at the impacts that will occur despite such mitigation and independently evaluate whether further mitigation is possible. *Sabal Trail*, 867 F.3d at 1375. Moreover, the mitigation measures FERC refers to solely concern stationary emissions, and thereby ignore the substantial LNG ship emissions that led FERC to revise the ozone analysis in the first place. FERC has not discussed potential mitigation of these emissions. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351-52 (1989) ("[O]ne important ingredient of an EIS is the discussion of steps that can be taken to mitigate adverse environmental consequences.").

The rehearing order admitted, for the first time, that the projects will foreseeably cause "a serious NAAQS violation–one with real potential to make people sick." R1349, Dissent P28 [JA____]. But FERC provides no analysis of who will be exposed, where, how often, how severely, or with what consequence. This falls short of the hard look NEPA requires.

IV. FERC Failed to Take A Hard Look at Environmenal Justice Impacts

A. Environmental Justice Analysis Methodology

A NEPA environmental justice ("EJ") analysis first requires the agency to identify any minority or low-income populations ("EJ populations") in the project affected area ("identification process"); then, the agency must analyze whether a project's impacts are significant or exceed accepted norms, and whether those impacts will have disproportionately high and adverse effects on the EJ community ("impacts analysis"). CEQ Guidance at 9, 25-27; EJ-IWG Guidance at 21-46; EPA Guidance §§2.1, 2.2. FERC identifies this as a "three step process" but recognizes the two steps of the impacts analysis overlap. R1349, P63, P69 [JA____-____, JA____-____]. An agency's determination

of disproportionality should consider both the demographics of the affected areas and unique factors that may amplify a project's effects in EJ populations. CEQ Guidance at 9. Identification of a comparison population ("comparison group") can highlight disproportionate impacts on EJ populations. EJ-IWG Guidance at 40.

B. FERC's EJ Analysis

FERC indentified minority and low-income populations in four census block groups[8] in a two-mile radius of the terminal. R1277, 4-234 - 4-236 [JA___-____]. The Hispanic/Latino population ranges from 25-99%, and in three of the census block groups, exceeds 50% of the population. *Id.* 4-235 - 4-236 [JA___-____]. In three of the census block groups, the population living below the poverty line exceeds 20%. *Id.* 4-235 [JA____].[9] Cameron County is also majority Hispanic/Latino and more than 20% of residents live below the poverty line. *Id.*

[8] FERC refers to these areas as "block groups" in the text but as "tracts" in the demographic table. *See* R1277, 4-235 - 4-236 [JA___ - ____]; *see also* R1349, P64. It is unclear which geographic unit is accurate as no map or other information is provided.

[9] FERC incorrectly states that all four census block groups have poverty rates above 20%. R1277, 4-236 [JA____].

FERC then conducts a cursory impacts analysis of very few of the identified adverse effects from the terminal, and perplexingly finds that the *only* impacts on EJ populations would be "minor and temporary traffic delays and potential impacts on public schools during construction." *Compare* R1277, 4-237, 4-468 - 4-469 [JA____, ____-____], *with id.* 5-1 - 5-22 [JA____-____].

FERC then cryptically concludes "these impacts would apply to *everyone* and not be focused on or targeted to any particular demographic group," and without engaging in any additional analysis, concludes that the terminal "would not have disproportionate adverse effects on minority and low-income residents in the area." *Id.* 4-237 [JA____] (emphasis added); *accord. id.* 4-469 [JA____]. In its rehearing order, FERC doubled-down, explaining that:

> [b]ecause here all project-affected populations are minority or low-income populations, or both, it is not possible that impacts will be disproportionately concentrated on minority and low-income populations versus on some other project-affected comparison group.

R1349, P69 [JA____-____].

FERC then acknowledges for the first time that even if the entire affected area contains EJ populations, harms may be disproportionate if a project's impacts are "amplified by factors unique to that population." *Id.* After finding that cumulative ozone levels could exceed the NAAQS, FERC includes a limited recitation of statewide and national data about prevalence of respiratory conditions based on race, and concludes that the "information does not show that the anticipated exposure to ozone … would result in a disproportionately high and adverse impact to [minority and low-income] communities." *Id.* P77 [JA____-____].

C. FERC Failed To Take A Hard Look At Whether Adverse Impacts To EJ Populations Are Disproportionate

FERC does not take a hard look at whether adverse impacts fall disproportionately on EJ populations. First, FERC fails to justify its choice of project affected populations and comparison groups for determining whether adverse impacts fall disproportionately on EJ populations. Second, FERC failed to consider factors unique to the affected EJ populations that may heighten the terminal's adverse impacts.

Moreover, by stopping its EJ impacts analysis at the conclusion that all project affected populations are EJ communities, FERC signals to project developers that they can avoid a hard look at EJ impacts by simply locating their facilities where the effects will *only* fall on minority or low-income communities. This is an absurd application of FERC's obligation to take a hard look at a project's impacts on EJ communities. Instead, EPA specifically cautions that an agency "should be sensitive" to this exact situation: "locations along the United States-Mexico border … where minority populations represent a majority of the population in the county." EPA Guidance §3.2.1. A methodology so contrary to the purpose of Executive Order 12898 to "focus Federal attention on the environmental and human health conditions" in EJ populations cannot be grounded in reason. *See* White House, *Memorandum For the Heads of All Departments and Agencies* (Feb. 11, 1994).

1. FERC failed to justify its methodology for selecting "project affected populations" and a comparison group

Agency determinations of affected and comparison populations in an EJ analysis must be adequately explained and based on relevant data. *See Communities Against Runway Expansion, Inc. v. F.A.A.*, 355 F.3d 678, 689 (D.C. Cir. 2004) (affirming the agency's "reasonable and adequately explained" methodology for its choice of affected and comparison populations).

The geographic areas for determining project affected populations and comparison groups should be based on the specific impacts of a project and may vary for different types of impacts. *See* EJ-IWG Guidance 15; EPA Guidance §1.2 ("The effects of the proposed action will often vary depending on the distance of the affected community from the action and the type of effect created by the action."); *see, e.g.*, *Communities Against Runway Expansion*, 355 F.3d at 689 (affirming the agency's methodology of comparing populations based on the distance of existing versus increased noise impacts from an airport expansion).

Here, FERC refers to different "project affected populations" or comparison groups generally but fails to define them or justifies how it chose those areas based on the project's specific impacts. *See* R1349, P69 [JA____-____].

For example, FERC never explains its methodology for determining the populations affected by increased ozone exposure. In the rehearing order, FERC appears to use a project affected population within a two-mile radius of the terminals. *See* R1349, P76 n.234 [JA____-_____]. This localized area is contrary to the regional nature of ozone pollution and the much larger distances used in the applicant's ozone modeling. *See supra* pp.37-42. Yet FERC offers no justification for the apparent discrepancy between the geographic scope of harms from ozone and its chosen project affected population, nor does it explain its comparison group. If FERC had instead looked regionally to define the population affected by increased ozone (such as the populations of Cameron or adjacent counties) and then compared the demographics to a larger comparison group (such as the state or other communities along the Gulf Coast), then it's conclusion that "all project-affected

populations are minority or low-income populations" would likely not have held true. *See* R1277, 4-235 [JA____].

Without justifying its chosen affected populations for each impact, FERC makes it impossible to evaluate the basis for its conclusion that the terminal's impacts would "apply to everyone" and "not be targeted to any particular demographic group." *See* R1277, 4-237 [JA___]. Unlike in *Communities Against Runway Expansion*, FERC did not just choose one reasonable analytical methodology over another. *Cf.* 355 F.3d at 689. Instead, FERC did not articulate *any* reasonable methodology in violation of NEPA's "hard look" requirement.

2. FERC failed to consider unique factors that may result in disproportionate impacts to EJ communities

Regardless of whether the entire project affected area may be deemed an EJ community, an impacts analysis must consider EJ communities' unique characteristics. Agencies should "recognize the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action." CEQ Guidance at 9.

FERC did not take a hard look at factors that likely enhance the impacts to EJ communities from air pollution and disruption of the local economy. *See Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, 255 F.Supp.3d 101, 140 (D.D.C.2017) (finding USACE's "cursory" EJ analysis failed to meet the criteria for a "hard look" under NEPA when it ignored unique social and economic factors within the EJ community).

i. Unique factors related to ozone pollution

In its rehearing order, FERC concluded that Hispanic/Latino children are less likely to suffer from asthma or other respiratory diseases than white children by comparing national and statewide data. R1349, P77 [JA_____-_____]. It further found that Cameron County has a lower mortality rate from chronic lower respiratory disease than other Texas counties. *Id.* Based on this data alone, FERC concluded that exposure to increased levels of ozone would not disproportionately impact EJ communities. *Id.*

FERC failed to analyze three factors that could result in disproportionate impacts on EJ communities from exposure to ozone

levels above national standards: (1) levels of existing asthma or respiratory disease by income, (2) age disparities, and (3) lack of access to health care. *See* EPA Guidance §2.3, Exhibit 3 (identifying age, income level, and access to health care as factors associated with risks from environmental hazards).

First, FERC did not analyze *any* information about or even mention the prevalence of existing respiratory problems by income level. This alone fails NEPA's "hard look" requirement as FERC did not evaluate the potential for disproportionate impacts to one of two identified EJ communities – low-income communities. *See* EJ-IWG Guidance at 30 (finding minority and low-income populations "may be differently affected by past, present, or reasonably foreseeable future impacts than the general population.")

Second, both the elderly and children are populations at greater risk of health effects from ozone exposure. NAAQS for Ozone, 80 Fed. Reg. 65292, 65310 (October 26, 2015). FERC recognizes that Cameron County has a higher proportion of both children and elderly than the general population of Texas. R1349, P77 n.237 [JA_____]. Despite recognizing proportionately larger at-risk populations in the potential

affected area, FERC did not analyze whether the prevalence of these populations results in disproportionate impacts from increased ozone exposure on either minority or low-income communities.

Third, lack of access to healthcare is a recognized factor that heightens a community's risk of environmental hazards. EPA Guidance §2.3, Exhibit 3. In 2013, 1 in 4 individuals in Cameron County were uninsured – twice the national average. R708, 1 [JA_____]. The county-wide inaccessibility of healthcare is heighted in the immediate vicinity of the terminal as there are no hospitals in the closest towns of Port Isabel or Laguna Heights. *See* R669, RR5-102 [JA_____]. Residents of these towns must travel to Brownsville to seek hospital care. R1200, 15-16 [JA____-_____]. FERC recognizes individuals with asthma or chronic obstructive pulmonary disease may require increased healthcare or hospitalization from ozone levels above the NAAQS. R1349, P61 [JA_____-_____]. Despite this evidence, FERC failed to analyze whether the lack of access to healthcare in identified EJ communities would result in disproportionate impacts from ozone pollution.

ii. Unique factors related to other air pollution

For air pollutants other than ozone, FERC determined the terminal "would not have significant adverse air quality impacts" on the affected populations because air pollution levels would be below the NAAQS. R1277, 4-237 [JA_____]. FERC inappropriately refused to evaluate the severity of impacts or who may be impacted by increased exposure to air pollution by relying on the NAAQS to minimize the terminal's effects. *Cf. Sabal Trail*, 867 F.3d at 1369 (finding challenges to FERC's EJ analysis would be stronger if FERC "had refused entirely to discuss the demographics of the populations that will feel the pipeline's effects, and had justified this refusal by pointing to the limited intensity, extent, and duration of those effects"); *see also Friends of Buckingham v. State Air Pollution Control Bd.*, 947 F.3d 68, 86 (4th Cir. 2020) (finding the Board's state law EJ analysis under incomplete when it failed to consider "the potential degree of injury to the local population independent of NAAQS").

Here, health data in the record shows that Volatile Organic Compounds (VOCs) from the terminal may disproportionately impact the identified EJ communities even below the NAAQS. Adverse health

effects of VOCs include birth defects such as neural tube defects and other abnormal brain development. R708, 6 [JA_____]. Cameron County has the highest number of neural tube defects in infants in Texas and has the second highest rate of infants born without a brain. *Id.* 2 [JA_____]. This is likely tied to the already existing VOCs (which levels do not currently exceed the NAAQS in Cameron County) from agricultural production in the area. *Id.* 5-6 [JA____-____]. FERC did not analyze the prevalence of VOC-related birth defects in the identified EJ populations.

FERC's conclusion that there would be no adverse impacts to EJ populations because air pollution levels would not violate the NAAQS ignores evidence to the contrary and fails to analyze whether existing health conditions may result in disproportionate impacts to identified EJ communities from increased air pollutants.

iii. Unique factors related to the Local Economy

Socioeconomic factors, including dependency on natural resources for income, can also amplify a project's impacts on EJ populations. EPA Guidance §2.1.1; EJ-IWG at 16. Despite how important commercial

fishing and tourism are economically to the communities closest to the terminal, FERC failed to analyze whether the permanent and moderate adverse impacts to these industries would have disproportionate impacts on identified EJ communities. R1277, 4-467 [JA_____].

Many nearby residents work in tourism or fishing and thus rely on the affected environment near the terminal for their livelihoods. *See supra* pp.16-19, R751, 1-2 [JA____]. For example, more than a third of all employment in Port Isabel and Laguna Vista, the two closest towns to the terminal, depends on the nearby tourism economy. R1200, P28 [JA____].

Despite evidence in the record that local populations are dependent on affected natural resources for employment, FERC made no attempt to analyze whether adverse effects to these industries would disproportionately impact EJ populations. Instead, in its EJ analysis, FERC only references its findings of the project's broader economic *benefits*, and stops there. R1277, 4-237 [JA____]. However, a finding of an "overall potentially beneficial impact to the general population" does not justify a refusal to analyze possible adverse impacts to local affected EJ populations. *See* EJ-IWG Guidance at 34. By refusing to engage in

any analysis of possible localized adverse economic impacts, FERC failed to take a hard look at EJ impacts.

V. FERC's Refusal to Use Social Cost of Carbon Despite Not Providing Any Other Evaluation of Climate Impacts Was Arbitrary

By FERC's admission, it provided *no* evaluation of the impact of the Projects' greenhouse gas emissions. R1277, 4-482 [JA____], R1314, P109 [JA____], R1349, P108 [JA____]. FERC's refusal to use the "social cost of carbon" protocol to provide this concededly missing analysis violated, *inter alia*, 40 C.F.R. § 1502.22(b)(4). Although this tool was withdrawn by Executive Order 13,783, 82 Fed. Reg. 16,093 (Mar. 28, 2017), FERC "do[es] not dispute that" it remains "generally accepted in the scientific community." *Fla. Se. Connection, LLC*, 164 FERC ¶ 61,099 P35 (Aug. 10, 2018). If FERC had chosen to address the impacts and significance of the projects' greenhouse gas emissions using some other "generally accepted" method, 40 C.F.R. § 1502.22(b)(4), that choice of methodology would have been reviewed deferentially. However, FERC cannot refuse to consider the issue entirely when available tools enable

FERC to do so. *See N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1085 (9th Cir. 2011).

Although this Court upheld FERC's refusal to use the social cost of carbon tool in *EarthReports*, 828 F.3d at 956, the validity of agency decisions must be evaluated on the record in a particular case and the particular claims advanced. *Sabal Trail*, 867 F.3d at 1375. (distinguishing *EarthReports* and holding that FERC had failed to justify failure to use social cost of carbon in that case). Here, FERC repeats the same three criticisms of the social cost of carbon advanced in *Earthreports*, but the record here does not support these criticisms. R1349, P104 [JA____]. FERC's orders assert that the protocol does not evaluate physical effects, but the record demonstrates, and the EIS's response to comments concedes, that the protocol is built upon such an evaluation. FERC complains that there is no consensus on a single discount rate, but agencies routinely calculate impacts using multiple rates. FERC frets that no criteria establish a general "significance" threshold for monetized values, but where FERC admits it did not otherwise evaluate significance, FERC must present available information and use its judgement.

Fundamentally, FERC complains that analyzing climate impacts is hard. Neither NEPA nor administrative law permit an agency faced with a hard problem to simply throw up its hands. "Agencies are often called upon to confront difficult administrative problems armed with imperfect data." *Montana Wilderness Ass'n v. McAllister*, 666 F.3d 549, 559 (9th Cir. 2011); 40 C.F.R. § 1502.22. FERC's refusal to use available tools here was arbitrary.

A. The Social Cost of Carbon Is a Tool that Assesses Physical Effects

FERC's principal argument is that, in general, FERC cannot "determine a project's incremental physical impacts on the environment caused by GHG emissions," R1314, P109 [JA____], *accord* R1277, 4-481 [JA____], R1349, P108 [JA____], and that the social cost of carbon in particular "does not measure the actual incremental impacts of a project on the environment." R1349, P104 [JA____]. This is both incorrect and a red herring.

The record contradicts FERC's assertion in the rehearing order that the social cost of carbon does not measure physical impacts. Indeed, the only discussion of the social cost of carbon in the EIS flatly

contradicts this assertion: "FERC staff acknowledge[d] the [social cost of carbon] methodology *does* constitute a tool that can be used to estimate incremental physical climate change impacts," including "global and regional physical climate change impacts *from Project-related GHG emissions*." R1277, Appendix R CO8-1 [JA____-____] (emphases added).[10] FERC agrees that federal agencies can reasonably model the physical impacts of large changes in global emissions. R1277, 4-481 [JA____], *see* R1212, Ex. 80 at 138, 197-98, 343 [JA____, ____-____, ____]. The social cost of carbon effectively apportions these physical changes *pro rata* to differences in emissions. R1212, Ex. 82 at 24-25 [JA____-____]. In this way, the tool accounts for the impacts of greenhouse gas emissions on temperature, sea level rise, ecosystem services, agriculture, human health, *etc. Id.* at 6-8 [JA____-____]. Although the tool then monetizes the harm associated with those impacts, its methodology could be used to estimate the underlying

[10] *See also Mountain Valley Pipeline, LLC*, 163 FERC ¶ 61,197 P290 (June 15, 2018) (social cost of carbon "constitute[s] a tool that can be used to estimate incremental physical climate change impacts"), *Fla. Se. Connection*, 162 FERC ¶ 61,233 P48 (same).

physical impacts themselves, as FERC acknowledged in response to petitioners' comments. R1277, Appendix R CO8-1, CO9-66, [JA____-____, ____] And as FERC has acknowledged elsewhere, and provides no reason to doubt here, the tool remains "generally accepted in the scientific community," 40 C.F.R. § 1502.22(b)(4), notwithstanding the fact that the tool has been withdrawn by executive order. *Fla. Se. Connection*, 162 FERC ¶ 61,233 P48 ;[11] *accord High Country Conservation Advocates v. United States Forest Serv.*, 52 F. Supp. 3d 1190 (D. Colo. 2014) (holding that "the social cost of carbon protocol" is a "[s]tandardized protocol designed to measure factors that may contribute to climate change, and to quantify climatic impacts."). Insofar as FERC contends that forecasts of the physical impacts of this project's incremental emissions are essential to further discussion of the severity and significance of project emissions, FERC has the tools to provide these forecasts.

[11] Executive Order 13,783 did not identify any specific defect in or disagreement with the social cost of carbon protocol.

In responding to petitioners' comments on the draft EIS, however, FERC contended that forecasts of incremental physical impacts would not actually be useful. R1277, Appendix R CO8-1 [JA____]. FERC stated that it would be unable to determine "what potential increase in atmospheric GHG concentration, rise in sea level, rise in sea water temperatures, and other calculated physical impacts would be significant for a particular pipeline project." *Id.* Some further context is needed, and the social cost of carbon protocol provides that context by providing a dollar value illustrating the consequences of seemingly minor global changes.[12]

B. Agencies Routinely Exercise Judgment to Choose a Discount Rate, and Routinely Use Multiple Rates

[12] For example, the National Highway Transportation Administration determined that stricter vehicle fuel economy standards adopted in 2012 would avoid only 0.0074 to 0.0176 °C in global temperature increases, relative to no-action, but that this seemingly small change would produce $170 billion in benefits, when calculated with a 3% discount rate. 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 Fed. Reg. 62,624, 62,897, 62,929 (Oct. 15, 2012).

FERC complains that "no consensus exists on the appropriate discount rate" to use in addressing future impacts. R1349, P104 [JA____]. The choice of discount rate is not solely a scientific question: it reflects a policy judgment about the extent to which we care about our future selves and future generations. R1212, Ex. 82, 17-23 [JA____-____]. Nor is this issue unique to climate problems: for every action in which costs and benefits accrue at different times, agencies must decide whether and how to discount future impacts.

Nonetheless, in deciding how to "mov[e] from the facts and probabilities on the record to [a] policy conclusion" about the weight to afford to future impacts, FERC does not write on a blank slate, and need not reinvent the wheel. *Motor Vehicle Mfrs. Ass'n,* 463 U.S. at 52. In 2003, the Office of Management and Budget ("OMB") released still-operative regulatory impact analysis guidance on, *inter alia*, the choice of discount rate. Office of Management and Budget, Circular A-4, 31-37 (Sept. 17, 2013).[13] OMB explained that for widely distributed and

[13] https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4.pdf.

intergenerational impacts, a discount rate of 3% or less is generally appropriate. *Id.* However, OMB encourages agencies to present their analyses using multiple rates. *Id.*; *see also, e.g.,* EPA, Proposed Requirements for Cooling Water Intake Structures at Phase III Facilities, 69 Fed. Reg. 68,444, 68,499 (Nov. 24, 2004) (presenting analyses using both 3% and 7% discount rates).[14]

In 2010, the Interagency Working Group on Social Cost of Carbon, which created the federal social cost of carbon protocol, and of which OMB was a member, provided further guidance specific to climate impacts. Building on, *inter alia*, OMB's prior conclusion that distributed, intergenerational effects should be discounted at 3% or less, the group reached consensus on 2.5, 3, and 5 percent rates as "span[ning] a plausible range" and "reflect[ing] reasonable judgments."

[14] FERC mistakenly suggests that the choice of discount rate is harder or more impactful for project-level review than in "rulemakings … using cost-benefit analyses where the same discount rate is consistently applied." R1349, P104 [JA____]. The choice of discount rate matters in that context as well. *Nat. Res. Def. Council, Inc. v. Herrington*, 768 F.2d 1355, 1414 (D.C. Cir. 1985) (in reviewing energy efficiency standards, choice between 5%, 7%, or 10% discount rate "substantially" changed conclusion of regulations' benefits).

R1212, Ex.82 at 17-18, 23 [JA____-____, ____]. Insofar as agencies were concerned about uncertainty over which rate was best, the group encouraged agencies to use all three.

Had FERC chosen one particular discount rate, courts would review that choice deferentially. *Corrosion Proof Fittings v. E.P.A.*, 947 F.2d 1201, 1218-20 (5th Cir. 1991); *Nat. Res. Def. Council, Inc. v. Herrington*, 768 F.2d 1355, 1414 (D.C. Cir. 1985). If FERC had chosen to present estimates using the range of rates suggested by the Interagency Working Group, that also would have been consistent with federal agency practice and with NEPA's command to, *inter alia*, summarize existing credible evidence and to evaluate impacts using generally accepted methods. 40 C.F.R. § 1502.22(b)(3)-(4). But by failing to present any estimate at all, or to provide any other evaluation of the severity of climate impacts, FERC failed "to take a hard and honest look at the environmental consequences of [its] decision[]." *Am. Rivers v. FERC*, 895 F.3d 32, 49 (D.C. Cir. 2018). *See Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.,* 538 F.3d 1172, 1200 (9th Cir. 2008) ("[W]hile ... there is a range of values," the impact of "carbon emissions … is certainly not zero.").

C. Monetized Costs Provide Important and Otherwise Absent Information about Severity and Significance of Impacts

Finally, FERC frets that "there are no established criteria identifying the monetized values that are to be considered significant for NEPA reviews." R1349, P104 [JA____]. There are two problems with this excuse. First, the climate harms disclosed by use of the social cost of carbon for a project of this magnitude are on their face worth paying attention to. Using the range established by the Interagency Working Group, one ton of carbon dioxide emitted in 2015 causes $14 to $68 in present-value damages.[15] R1212, Ex.84 at 16 [JA____]. *Id.* Thus, these projects' 9 million tons-per-year of direct greenhouse emissions are expected to cause *at least* $126,000,000 in climate-related harm per year for twenty years, or more than $2,500,000,000 in present value terms.[16] Simply disclosing this low-end estimate informs the public that the climate impacts of this project are consequential.

Second, although NEPA requires agencies to determine whether impacts are "significant," the issue is not merely whether impacts cross

[15] Emissions in later years carry higher present-day costs.
[16] 9 million tons per year * $14/ton * 20 years.

this threshold. NEPA requires a hard look at the "ecological …, aesthetic, historic, cultural, economic, social, [and] health" effects of an agency's actions, 40 C.F.R. § 1508.8, including the "severity" of these effects. *Robertson*, 490 U.S. at 352. Although NEPA does not require cost-benefit analyses, monetization of costs may be required where "alternative mode[s] of [NEPA] evaluation [are] insufficiently detailed to aid the decision-makers in deciding whether to proceed, or to provide the information the public needs to evaluate the project effectively." *Columbia Basin Land Prot. Ass'n v. Schlesinger*, 643 F.2d 585, 594 (9th Cir. 1981). As FERC acknowledged in its response to comments, disclosing the physical effects of an individual project's contribution to climate change will not meaningfully inform decision making, because the significance of a thousandth-of-a-degree increase in global temperature or a nanometer rise in sea levels is not self-evident. R1277, Appendix R CO8-1 [JA____-____]. *See also Nat. Res. Def. Council, Inc. v. U. S. Nuclear Regulatory Comm'n*, 685 F.2d 459, 487 n.149 (D.C. Cir. 1982), *rev'd on other grounds sub nom. Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 106-107 (1983) (an EIS's

"audience cannot be expected to convert curies or mrems into such costs as cancer deaths, or social disturbance.").

Assigning a dollar value to climate impacts provides otherwise missing but essential information even without a full cost benefit analysis. Although the tool was originally developed specifically for use in regulatory impact analysis, the Environmental Protection Agency, courts, and FERC itself have recognized that the tool can be appropriate for evaluating project-level impacts. *High Country,* 52 F.Supp.3d at 1190 (noting EPA's suggestion to use the tool for evaluating impacts of Keystone XL pipeline, and holding that Forest Service's refusal to use tool in land management decision was arbitrary), *Mountain Valley Pipeline,* 163 FERC ¶ 61,197, P281 (June 15, 2018). A ton of carbon dioxide emitted by an individual project has the same impact as a ton emitted as a result of a changed regulation. Using the social cost of carbon to provide otherwise absent information about the severity of climate impacts is useful even without a full cost benefit analysis; indeed, the EIS has already determined that it is appropriate to discuss

some impacts in monetary terms but not others. *See, e.g.*, R1277, 4-212 – 4-213 [JA____-____].[17]

Here, FERC has the authority and obligation to examine whether the projects' greenhouse gas effects, together or in combination with other adverse impacts, warrant denial or modification of the projects. *Sabal Trail*, 867 F.3d at 1373. While FERC contends that it is difficult to meaningfully evaluate the impacts of the projects' greenhouse gas emissions, "the proper response to that problem is for [FERC] to do the best it can with the data it has, not to ignore the [issue] completely." *Montana Wilderness*, 666 F.3d at 559. The social cost of carbon protocol is a tool that can assist in that evaluation, and FERC failed to state why this tool would be inappropriate for project-level review here. Accordingly, FERC's refusal to use this tool violates NEPA.

[17] FERC has argued that social cost of carbon is an appropriate tool for NEPA analyses by agencies "whose responsibilities are tied more directly to fossil fuel production or consumption," R1277, Appendix R CO8-1 [JA____-____], or who "directly control whether some quantity of fossil fuels is burned." *Mountain Valley Pipeline*, 163 FERC ¶ 61,197 P281. Whatever merit this argument may have in other contexts, here, FERC "directly controls" whether these FERC-jurisdictional projects will emit 9 million tons per year of greenhouse gases.

VI. FERC's Conclusion That The Projects Are In The Public Interest Was Arbitrary

FERC violated the Natural Gas Act by failing to demonstrate that it meaningfully weighed project benefits against project harms. Determining whether the projects are in the public interest requires more than merely concluding that the projects will provide some public benefits. FERC must determine the magnitude of both the projects' benefits and the projects' harms, and weigh one side against the other. *See* 88 FERC ¶ 61,227 at 61,749. Although FERC purports to have engaged in such balancing here, R1314 P22, P25, P32 [JA____-____, ____-____], FERC failed to "identify the stepping stones" on its path to these conclusions. *Sierra Club v. Costle*, 657 F.2d 298, 333 (D.C. Cir. 1981). FERC provided no details regarding the extent of many harms, such as eminent domain, ozone pollution, and climate impacts. Rather than show how these harms were evaluated, FERC states that such evaluation is irrelevant. FERC's reasoning, insofar as it was explained at all, amounts to the conclusion that because the projects will have some benefits, the projects are in the public interest. This falls short of the inquiry the Natural Gas Act requires.

For example, FERC provides no analysis of the use of eminent domain. FERC's certificate policy statement mandates particular scrutiny of this issue, and explains that where a pipeline will require significant use of eminent domain, this can render the pipeline contrary to the public interest even where the pipeline would provide public benefits. 88 FERC ¶ 61,227 at 61,749. The issue is how much condemnation may occur *despite* the developers' efforts to negotiate with landowners; assessing the developers' negotiation "is not [itself] intended to be a decisional step in the process." *Id.* at 61,745. What ultimately matters is the amount of condemnation that may occur, and not just whether the pipeline will provide benefits, but whether the benefits are *sufficient to offset* the potential use of eminent domain. *Id.* at 61,749. Here, however, FERC has provided *no* discussion whatsoever of the extent to which eminent domain may be required. R1349, P22 [JA____]. Nor has FERC assessed the magnitude of the pipelines' benefits. Absent such discussion, the court cannot "discern a reasoned path" to FERC's conclusion that landowner impacts will be "minimal," or that these impacts, together with concededly significant environmental adverse impacts, do not tip the balance against the

public interest. *FPL Energy Marcus Hook, L.P. v. FERC*, 430 F.3d 441, 449 (D.C. Cir. 2005) (citing *E. Tex. Elec. Coop. v. FERC*, 218 F.3d 750, 755 (D.C. Cir. 2000) and *K N Energy, Inc. v. FERC*, 968 F.2d 1295, 1303-04 (D.C. Cir. 1992)); *see* R1277 4-465, 5-1 [JA____, _____] (identifying adverse impacts).

Similarly, FERC has not explained why the projects' benefits justify exposing surrounding communities to ozone exceeding EPA's air quality standards. FERC concludes that the "precedent agreements" for pipeline capacity demonstrate that the pipeline will provide public benefits, including "growth of the economy and support [for] domestic jobs in gas production, transportation, and distribution." R1349, P19 [JA____]. But FERC provides no analysis of how much growth or how many jobs area residents are being exposed to unhealthy ozone for.

Rather than engage in the required balancing, FERC assumes that the precedent agreement between two private companies demonstrates that the pipelines provide public benefits, and treats that public benefit as conclusively proving that the pipelines are in the public interest, without any evaluation of the magnitude of the benefit, magnitude of the harm, or comparison of the two. R1314, P10, P32

[JA____, _____]. Similarly, FERC treats the Department of Energy's approval of exports as meaning that all environmental impacts of the terminal are "acceptable." R1349, P123 [JA_____]. FERC explicitly admits that it does not engage in balancing when discussing climate impacts: FERC concluded that "the benefits of the project show that the project is not inconsistent with the public interest" and that in light of this showing, FERC's professed inability to evaluate climate impacts was irrelevant. *Id.* P111 [JA____]. This method of analysis "entirely failed to consider an important aspect of the problem," *State Farm*, 463 U.S. at 43: whether FERC should "deny [the projects] on the ground that [they] would be too harmful to the environment." *Sabal Trail,* 867 F.3d at 1373.

FERC admits that these projects will have significant cumulative impacts on air quality, endangered species, and the aesthetics and visual resources of an environmental justice community that depends on ecotourism. FERC has not explained how it determined that these impacts do not render the projects contrary to the public interest here. Nor does anything in the record here explain how the facts would need to change for FERC to conclude that the projects were contrary to the

public interest. Would FERC approve a project with these adverse effects that provided only 50%, or only 10%, of the benefit of these projects? Would FERC approve these projects if the resulting ozone levels were 80 ppb, instead of 76? The fact that the record sheds no light on what set of facts would lead to denial shows that either FERC failed to provide a reasonably discernable path illustrating how it balanced impacts, or that FERC simply failed to engage in such balancing altogether.

CONCLUSION

For these reasons, the Court should vacate the Certificate Order and remand to FERC.

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CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rule of Appellate Procedure Rule 32, I certify that this motion complies with the type-volume limitations of Rule 32(a)(7) because it contains 12,840 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).

/s/ Nathan Matthews
Nathan Matthews

CERTIFICATE OF SERVICE

I hereby certify that on 10th day of June, 2020, I electronically filed the foregoing Petitioners' Proof Joint Opening Brief with the Clerk of the Court using the CM/ECF system, which will send notice of such filing to all registered CM/ECF users.

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