

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued October 21, 2024

Decided April 15, 2025

No. 20-1503

SIERRA CLUB,
PETITIONER

v.

UNITED STATES DEPARTMENT OF ENERGY,
RESPONDENT

ALASKA GASLINE DEVELOPMENT CORPORATION AND ALASKA
LNG PROJECT LLC,
INTERVENORS

Consolidated with 23-1214

On Petitions for Review of
Orders of the Department of Energy

Moneen Nasmith argued the cause for petitioner. With her on the briefs were *Erin Colón*, *Jason C. Rylander*, *Nathan Matthews*, and *Ann Jaworski*.

John L. Smeltzer, Attorney, U.S. Department of Justice, argued the cause for respondent. With him on the brief were *Todd Kim*, Assistant Attorney General, and *Justin D. Heminger*, Attorney.

Howard L. Nelson argued the cause for intervenors. With him on the joint brief were *Jennifer Brough* and *Kenneth M. Minesinger*.

Before: WALKER and GARCIA, *Circuit Judges*, and RANDOLPH, *Senior Circuit Judge*.

Opinion for the court filed by *Senior Circuit Judge RANDOLPH*.

RANDOLPH, *Senior Circuit Judge*: No person may build or operate facilities in the United States for the purpose of exporting domestic natural gas without the authorization of FERC – the Federal Energy Regulatory Commission.¹ And no person may export natural gas using those approved facilities without obtaining the Department of Energy’s authorization.

The statute governing natural gas exports, 15 U.S.C. § 717b(a), is derived from the Natural Gas Act of 1938. The provision reads: “The Commission shall issue such [authorization] order upon application, unless, after opportunity for hearing, it finds that the proposed exportation or importation will not be consistent with the public interest.”²

¹ FERC is an “independent agency” within the Department of Energy. 42 U.S.C. § 717n(b).

² The word “Commission” may be confusing. When enacted, “Commission” in section 717b(a) meant the Federal Power Commission. In 1977, Congress “transferred to” the Department of Energy and the newly-created FERC, “the function of the Federal Power Commission,” 42 U.S.C. § 7151(b), thereby abolishing that agency. FERC assumed the authority to authorize interstate pipelines. 15 U.S.C. § 717f(c). The proposed Project here does not include an “interstate” pipeline – the pipeline would be entirely within Alaska. In 2006, the Energy Department delegated to FERC the authority “to approve or disapprove the construction and operation” of facilities used to export natural gas. *See Sierra Club v. FERC*, 827 F.3d 36, 40-41 (D.C. Cir. 2016). The Department retained for itself the authority to authorize exports (and imports) of natural gas.

In 2014, the Alaska LNG³ Project⁴ sought the Energy Department's authorization to export up to twenty million metric tons of LNG per annum for thirty years. *See* 79 Fed. Reg. 55,764 (Sept. 17, 2014). Within a short time, and in compliance with the Natural Gas Act, the Department authorized the Project to export LNG to free-trade countries.⁵ Dep't of Energy, Order No. 3554, Dkt. 14-96-LNG (Nov. 21, 2014). That final Order, issued on November 21, 2014, is not at issue in this case.

A year or so later, the Energy Department authorized the Project to export Alaskan LNG to countries lacking the requisite free trade agreement but with which trade is not prohibited. Dep't of Energy, Order No. 3643, Dkt. 14-96-LNG (May 28, 2015). The approval of exports to these non-free trade countries was conditional, subject to the Energy Department's consideration of environmental impacts, if any.

Nine years later, in April 2023, the Department issued an order approving the Project's export application. The Department did not find that approving this application would not be consistent with the public interest, an awkward phrasing but one in keeping with the language of section 717b(a). Dep't

³ "LNG" means liquefied natural gas – that is, natural gas refrigerated and turned into liquid at very low sustained temperatures in order to reduce its volume and to facilitate its storage and its transportation.

⁴ The Alaska LNG Project, an intervenor here, is a limited liability company whose members are ExxonMobil Alaska LNG, ConocoPhillips Alaska LNG Company, and Hilcorp Alaska LNG.

⁵ Applications to export natural gas to nations with which the United States has a "free trade agreement requiring national treatment for trade in natural gas, shall be deemed to be consistent with the public interest, and applications for such . . . exportation shall be granted without modification or delay." 15 U.S.C. § 717b(c). The free trade nations were, at the relevant time, Australia, Bahrain, Canada, Chile, Colombia, Dominican Republic, El Salvador, Guatemala, Jordan, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, Singapore, and South Korea.

of Energy, Order No. 3643-C, Dkt. 14-96-LNG (Apr. 13, 2023).

Petitioners Sierra Club and Center for Biological Diversity, organizations that intervened at different stages in these agency proceedings, claim that the Energy Department misconceived “the public interest” and failed to comply with the National Environmental Policy Act (NEPA).

I.

To appreciate the arguments on both sides of this protracted controversy, additional background information is needed.

The natural gas the Project intends to export comes from the North Slope of Alaska. In cooperation with the State of Alaska,⁶ the Project sought FERC’s permission to build a gas treatment plant on the North Slope, an 800-mile pipeline across the State ending in the vicinity of Cook Inlet, a liquefaction plant on the Kenai Peninsula,⁷ and a terminal for loading the LNG onto specially-designed, ocean-going tankers destined for foreign ports where the LNG would be “regassified” and distributed mainly for electric power generation.⁸

FERC authorized this immense undertaking after determining that the Project’s construction and operation would not be contrary to “the public interest.” 15 U.S.C. § 717b(a). Before reaching this conclusion and approving the Project’s application, FERC prepared the customary environmental impact statement. Our court in *Center for Biological Diversity v. FERC*, 67 F.4th 1176 (D.C. Cir. 2023), held that FERC had complied with NEPA. *Id.* at 1188.

⁶ The State of Alaska created a public corporation to work with Alaska LNG Project. This corporation—Alaska Gasline Development Corporation—has intervened in this case.

⁷ For a description of this area, see *United States v. Alaska*, 422 U.S. 184 (1975).

⁸ The Kenai Peninsula already has a terminal from which natural gas has been exported since 1967. *Phillips Petrol. Co. and Marathon Oil Co.*, 37 FPC ¶ 777 (Apr. 19, 1967).

FERC's 1,500-page impact statement⁹ "analyzed the Project along a number of dimensions, including the potential impacts on wetlands, marine mammals, fish, drinking water, carbon dioxide levels, rivers, soils, permafrost, vegetation, the aesthetics of Denali National Park, and Alaskan socioeconomics." *Biological Diversity*, 67 F.4th at 1180. The statement "evaluated alternatives to the Project and analyzed mitigation measures that could help reduce certain environmental impacts." *Id.* FERC "authorized the Project subject to 165 environmental conditions" to mitigate the "range of temporary, long-term, and permanent environmental impacts" the Project might cause. *Id.* at 1180-81.

After its 2015 conditional approval of the Project's export application, the Energy Department participated in FERC's environmental review and adopted the March 2020 final impact statement. In August 2020 the Energy Department issued a final order approving the Project's export application, Dep't of Energy, Order No. 3643-A, Dkt. 14-96-LNG (Aug. 20, 2020), having adopted FERC's impact statement and "incorporat[ing] the reasoning contained in" it. *Id.* at 32; 85 Fed. Reg. 17,328 (Mar. 27, 2020). The Department relied on *Sierra Club v. Department of Energy*, 867 F.3d 189, 202-03 (D.C. Cir. 2017), to reject Sierra Club's arguments that it could not approve exporting the LNG without analyzing "the impact of U.S. LNG on other fuel sources in importing countries." Order No. 3643-A at 34. The Department concluded that "such an analysis would be too speculative to inform the public interest determination." *Id.*

Sierra Club filed a Request for Rehearing in September

⁹ In 2023, Congress amended NEPA. One of the added provisions, 42 U.S.C. § 4336a(e), set page limits on environmental impact statements:

(e) Page limits

(1) Environmental impact statements

(A) In general

Except as provided in subparagraph (B), an environmental impact statement shall not exceed 150 pages, not including any citations or appendices.

(B) Extraordinary complexity

An environmental impact statement for a proposed agency action of extraordinary complexity shall not exceed 300 pages, not including any citations or appendices.

2020. The Energy Department withheld acting on the rehearing request until after the Presidential election and Inauguration Day, January 20, 2021. On that day, newly-elected President Biden issued Executive Order 13990 directing agencies to “immediately review” any of the previous administration’s regulations, orders and other actions that might affect the environment. 86 Fed. Reg. 7037 (Jan. 25, 2021).¹⁰

“To comply” with this Executive Order 13990 and another January 2021 Executive Order, the Energy Department granted partial rehearing.¹¹ Dep’t of Energy Order No. 3643-B, Dkt. 14-96-LNG, at 13 (Apr. 12, 2021); *see also* Dep’t of Energy, Alaska LNG Project, Final Supplemental Environmental Impact Statement, vol. 1, at 1.2.1 (Jan. 2023) (“Final SEIS”). Some two years later, the Department reported the results of its rehearing in a 275-page supplemental environmental impact statement, including appendices, issued after notice and comment. *See* 88 Fed. Reg. 1571 (Jan. 13, 2023). The Department reaffirmed its August 20, 2020 Order approving the Project’s export application with one minor modification dealing with reporting. Dep’t of Energy, Order No. 3643-C, Dkt. 14-96-LNG, at 27 (Apr. 13, 2023).¹²

¹⁰ On Inauguration Day, January 20, 2025, President Trump revoked President Biden’s Executive Order 13990. *See* Executive Order 14154, § 4(a)(i), 90 Fed. Reg. 8353 (Jan. 29, 2025).

¹¹ The Department did not act within thirty days of Sierra Club’s filing, so, pursuant to 15 U.S.C. § 717r(a), the rehearing request was “deemed to have been denied.” The Department issued a notice acknowledging its statutory denial. Dep’t of Energy, Notice Providing Further Consideration of Req. for Reh’g, Dkt. 14-96-LNG (Oct. 20, 2020). The notice cited section 717r(a), which provides that “the Commission may . . . deem proper, modify or set aside” any such “finding or order” before the “record in a proceeding shall have been filed in a court of appeals.” *Id.* When the Department later granted rehearing it relied on that part of section 717r(a). Dep’t of Energy Order No. 3643-B, Dkt. 14-96-LNG, at 11-12 (Apr. 12, 2021). Sierra Club filed its petition for review with this court on December 16, 2020, months before the Department granted partial rehearing. But because it did not file the administrative record, the Department retained its authority to act on the rehearing application. *Allegheny Def. Project v. FERC*, 964 F.3d 1, 17 (D.C. Cir. 2020).

¹² Sierra Club, now joined by the Center for Biological Diversity, again sought rehearing of this rehearing order. The Department denied their motion. Dep’t of Energy, Order No. 3643-D, Dkt. 14-96-

7

II.**A.**

We begin our discussion of the merits with several factors that have an important bearing on our judgment.

The first is that, with respect to exporting natural gas, the Natural Gas Act is not neutral. Congress expressed a preference for permitting exports, so long as our nation has an abundance of this natural resource, as it does.¹³ Congress did so by framing the “public interest” standard in section 717b(a) in terms of a presumption favoring export applications. *See Biological Diversity*, 67 F.4th at 1188; *see also W. Va. Pub. Servs. Comm’n v. Dep’t of Energy*, 681 F.2d 847, 858-59 (D.C. Cir. 1982).

Another consideration is that petitioners’ arguments, if accepted, would give rise to regulatory dissonance. Our court has already determined that one agency in the Energy Department—FERC¹⁴—properly found that it was not inconsistent with “the public interest” to build and operate an 800-mile-long pipeline and associated facilities for the purpose of transporting and liquefying Alaskan natural gas and shipping it overseas. Yet petitioners say that it would be inconsistent with “the public interest” to do exactly what our court has already sanctioned.

It is also significant that the Energy Department, in granting rehearing in 2020 of its approval order, did not say it was doing so because of any defect in its “public interest”

LNG (June 14, 2023).

¹³ There is no shortage of Alaskan natural gas. *See* U.S. Energy Info. Admin., [https://www.eia.gov/energyexplained/natural-gas/how-much-gas-is-left.php]. The Alaska Natural Gas Transportation Act of 1976 requires that “before any Alaska natural gas in excess of 1,000 Mcf per day may be exported to any nation other than Canada or Mexico, the President must make and publish an express finding the such exports will not diminish the total quantity or quality nor increase the total price of energy available to the United States.” 15 U.S.C. § 719j. President Reagan made and published such a finding on January 12, 1988. 53 Fed. Reg. 999 (Jan. 15, 1988). That finding remains in effect. *See* Dep’t of Energy, Order No. 3643-A, Dkt. 14-96-LNG, at 35 (Aug. 20, 2020).

¹⁴ *See supra* note 1.

analysis. Nor did the Department suggest that FERC’s impact statement, which it had adopted, failed to comply with NEPA. Instead, the Department granted rehearing and issued a supplemental impact statement in order to comply with President Biden’s Executive Order 13990. *See supra* note 11. But “an executive order is not ‘law’ within the meaning of the Constitution.” *California v. EPA*, 72 F.4th 308, 318 (D.C. Cir. 2023). And Executive Orders are not judicially enforceable. *See, e.g., Marin Aududon Soc’y v. FAA*, 121 F.4th 902, 913 (D.C. Cir. 2024); *California v. EPA*, 72 F.4th at 318. Section 8(c) of President Biden’s Executive Order 13990 makes this as clear as can be: “This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.” 86 Fed. Reg. at 7042.

In addition, it is important to stress a particular consequence of our opinion in *Biological Diversity*. We held that FERC’s impact statement—which the Energy Department properly adopted¹⁵—complied with NEPA. *Biological Diversity*, 67 F.4th at 1188. As intervenors point out, “principles of finality and issue preclusion” therefore leave the two petitioners—both of which were the petitioners in *Biological Diversity*—with little left to challenge in this case. Intervenors’ Br. 5-6, ECF No. 2054127. In FERC’s massive environmental impact statement, the only environmental impact it did not evaluate was the effect of “downstream emissions . . . when end users burn natural gas.” *Biological Diversity*, 67 F.4th at 1185. Our court held that because FERC had no jurisdiction over export approvals, it had no obligation under NEPA to evaluate those downstream effects. *Id.*¹⁶

¹⁵ The Natural Gas Act designates FERC as the “the lead agency for the purposes of coordinating all applicable Federal authorizations and for the purposes of complying with the National Environmental Policy Act.” 15 U.S.C. § 717n(b)(1).

¹⁶ By a parity of reasoning, one might conclude that the Department had no NEPA obligation to analyze the Project’s upstream impacts. That is because it had no authority to approve or disapprove the construction and operation of the export terminal on the Kenai Peninsula, and the 800-mile pipeline from Cook Inlet to the North Slope. *See supra* note 2.

B.

As to those downstream impacts, the Energy Department, complying with President Biden's Executive Orders, conducted an additional environmental study. The supplemental impact statement considered greenhouse gas¹⁷ emissions from exported LNG and determined that "there is inherent uncertainty regarding the particular present or future supply and demand responses that would lead to net changes in production and consumption, and associated emissions, of LNG and oil that would be produced on the North Slope in association with the Project."¹⁸ In its final Order, the Department found that "there is substantial uncertainty regarding the magnitude of those environmental impacts, particularly [greenhouse gas] emissions and climate impacts. Because of the uncertainties in the global energy markets and the extent to which the Project may substitute for other emitting power generation, DOE has determined that it cannot draw a definitive conclusion about the magnitude of climate impacts associated with Alaska LNG's exports." Dep't of Energy, Order No. 3643-C, Dkt. 14-96-LNG, at 22 (Apr. 13, 2023).

Throughout their brief petitioners repeat, in one form or another, their objection to the Department's finding. They say that "the Department inflated the uncertainty regarding the Project's contribution to climate-changing [greenhouse gases] and claimed that uncertainty prevented it from drawing conclusions about the Project's harms." Pet'rs' Br. 13. Petitioners' objection is not well-founded.

The Energy Department confronted a classic instance of "Knightian uncertainty."¹⁹ In simplified terms, "Knightian uncertainty" recognizes the impossibility of assigning

¹⁷ Carbon dioxide is the most notorious greenhouse gas but water vapor is the most important, accounting "for more than 90 percent of the atmosphere's ability to intercept heat." Dr. Steven E. Koonin, UNSETTLED: WHAT CLIMATE SCIENCE TELLS US, WHAT IT DOESN'T AND WHY IT MATTERS 50-51 (2021). Other greenhouse gases include methane, nitrous oxide, ozone, and chlorofluorocarbons. Final SEIS at S.3.19.2.

¹⁸ Final SEIS at S.2.2.

¹⁹ See Frank H. Knight, RISK, UNCERTAINTY, AND PROFIT 20-21 (1921).

probabilities to possible outcomes, as compared to risk assessment in which “it is possible to identify outcome[s] and assign probabilities to them.”²⁰ It is thus understandable why petitioners do not quantify—indeed cannot quantify—the degree of uncertainty they would deem acceptable.

In addition to Knightian uncertainty, the law of this circuit and principles of judicial review foreclose petitioners’ objection. *Sierra Club v. Department of Energy* was a case very much like this one, not just in name, but in its factual setting and in the parties’ arguments. 867 F.3d 189 (D.C. Cir. 2017). As here, FERC had authorized the construction and operation of LNG facilities,²¹ which was followed by the Energy Department’s development of an environmental impact statement and grant of an export license. *Id.* at 192. As here, when the Department authorized the export of LNG it declined to offer projections based on the sort of modeling petitioners are advocating in this case. *Id.* at 202. The Department explained that the “many uncertainties in modeling . . . market dynamics” for LNG would render any analysis “too speculative to inform the public interest determination” under section 717b(a). *Id.* at 199; *see also* 42 U.S.C. § 4332(C)(i) (requiring the preparation of “a detailed statement” on the “reasonably foreseeable environmental effects” of all “major Federal actions significantly affecting the quality of the human environment”). As stated above, *see supra* page 5, the Department in this case relied on our 2017 *Sierra Club* opinion.

Judicial review here is pursuant to 15 U.S.C. § 717r(b). That provision states: “The finding of the Commission as to the facts, if supported by substantial evidence, shall be

²⁰ Cass R. Sunstein, *Knightian Uncertainty in the Regulatory Context*, Behav. Pub. Pol’y 1, 2 (2024); *see Maine Lobstermen’s Ass’n v. Nat’l Marine Fisheries Serv.*, 70 F.4th 582, 599-600 (D.C. Cir. 2023).

²¹ *Sierra Club (Freeport) v. FERC*, 827 F.3d 36 (D.C. Cir. 2016), upheld FERC’s approval of the construction and operation of the LNG export facilities.

conclusive.”²² The Department’s finding of uncertainty is a finding of fact, not a legal determination. *See, e.g., Ass’n of Data Processing Serv. Orgs., Inc. v. Board of Governors of the Fed. Rsrv. Sys.*, 745 F.2d 677, 690 (D.C. Cir. 1984) (Scalia, J.). And there is substantial evidence, indeed there is overwhelming evidence, supporting that finding in the hundreds of pages in the Department’s and FERC’s Orders and environmental impact statements.²³

In short, the impacts of downstream emissions in foreign countries are not reasonably foreseeable and so any alleged failure to quantify those impacts does not amount to a violation of NEPA. Nor does the alleged failure to weigh those impacts overcome the presumption in section 717b(a) in favor of granting export authorization.²⁴

²² In this case, “Commission” in section 717r(b) means the Energy Department. *See supra* note 2.

²³ In 2020, the Department updated its NEPA implementing procedures relating to Natural Gas Act authorizations. 85 Fed. Reg. 78,197 (Dec. 4, 2020). During the rulemaking process, it determined that “downstream emissions at the point of consumption are too attenuated to be reasonably foreseeable and do not have a reasonably close causal relationship to the granting of an export authorization.” *Id.* at 78,200. This led the Department to revise one of its categorical exclusions, B5.7, to exempt from environmental review all effects of natural gas export, except those relating to marine transport. 10 C.F.R. pt. 1021, subpt. D, app. B, B5.7; *see also Louisiana v. Biden*, No. 2:24-CV-00406, 2024 WL 3253103, at *3 (W.D. La. July 1, 2024). This rule was in effect when the Department granted rehearing but it was not applied.

²⁴ Petitioners complain that the Department overstated the possible benefits from the Project. They contend that if the Project is not built there will be no benefits. Petitioner Reply Br. 17. That is true but irrelevant. If no Alaska LNG is exported, there will be neither harms nor benefits. Furthermore, the Department found that Sierra Club did not challenge the assessment of benefits from the project in its initial rehearing request. For that reason, the Department did “not address many of Intervenors’ arguments that belatedly take issue with the economic and other public benefits associated with Alaska LNG’s

12

C.

As to upstream effects of the Project, petitioners contend that the Department dismissed impacts that would occur only if the Department authorized the Project. Pet'rs' Br. 36-38. But FERC did consider that prospect in its environmental impact statement, which the Energy Department adopted as its own. The Department's supplemental impact statement did not alter FERC's analyses. And our court in *Biological Diversity* ruled that FERC had complied with NEPA. 67 F.4th at 1185-86. Sierra Club and Biological Diversity were petitioners in that case and are therefore precluded from raising the arguments that they made or could have made in that case. *See Mexichem Fluor, Inc. v. EPA*, 760 F. App'x 6, 8 (D.C. Cir. 2019) (citing *Faucett Assocs., Inc. v. AT&T*, 744 F.2d 118, 125 (D.C. Cir. 1984)).

* * *

We have considered and rejected petitioners' other arguments and see no need for further discussion.

The petitions for review are denied.

exports . . .” Dep’t of Energy, Order No. 3643-D, Dkt. 14-96-LNG, at 56 & n.290 (June 14, 2023).