United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued March 15, 2024

Decided July 30, 2024

No. 23-1064

New Jersey Conservation Foundation, et al., Petitioners

v.

FEDERAL ENERGY REGULATORY COMMISSION, RESPONDENT

NEW JERSEY DIVISION OF RATE COUNSEL, ET AL., INTERVENORS

Consolidated with 23-1074, 23-1077, 23-1129, 23-1130, 23-1137

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

Moneen Nasmith argued the cause for petitioners. With her on the briefs were Megan C. Gibson, Kacy C. Manahan, Marissa Lieberman-Klein, and Ann Jaworski. Kathryn M. Schroeder entered an appearance.

Jeffrey A. Schwarz argued the cause for intervenor in support of petitioners. With him on the briefs were Scott H. Strauss and Anree G. Little.

Jennifer Danis and Libby Dimenstein were on the brief for amicus curiae the Institute for Policy Integrity at New York University School of Law in support of petitioners.

Matthew J. Platkin, Attorney General, Office of the Attorney General for the State of New Jersey, Paul Youchak, Deputy Attorney General, Robert W. Ferguson, Attorney General, Office of the Attorney General for the State of Washington, and Megan Sallomi and Aurora Janke, Assistant Attorneys General, were on the brief for amici curiae New Jersey, et al. in support of petitioners.

Lona T. Perry, Deputy Solicitor, Federal Energy Regulatory Commission, argued the cause for respondent. With her on the brief were Matthew R. Christiansen, General Counsel, and Robert H. Solomon, Solicitor. Scott R. Ediger, Attorney Advisor, entered an appearance.

Elizabeth U. Witmer argued the cause for intervenor Transcontinental Gas Pipe Line Company, LLC in support of respondent. With her on the brief was Patrick F. Nugent.

Michael L. Murray and Matthew J. Agen were on the brief for amicus curiae American Gas Association in support of respondent.

Joan Dreskin, Michael Diamond, and Michael R. Pincus were on the brief for amicus curiae the Interstate

Natural Gas Association of America and the American Petroleum Institute in support of respondent.

Before: PILLARD, CHILDS, and GARCIA, Circuit Judges.

Opinion for the Court filed by Circuit Judge CHILDS.

CHILDS, Circuit Judge: The Federal Energy Regulatory Commission ("FERC" or "the Commission") issued a certificate allowing the Transcontinental Gas Pipe Line Company, LLC, ("Transco") to construct and operate a pipeline running through New Jersey, New York, Delaware, Maryland, and Pennsylvania. The New Jersey Conservation Foundation, New Jersey League of Conservation Voters, Aquashicola Pohopoco Watershed Association, Delaware Riverkeeper Network, Sierra Club, Food & Water Watch, Catherine Folio, and Maya van Rossum (collectively "Petitioners") argue that in approving the pipeline, FERC arbitrarily overlooked significant environmental consequences. In addition, Petitioners and Intervenor for Petitioners, New Jersey Division of Rate Counsel ("Rate Counsel"), contend that FERC failed to adequately consider evidence suggesting a lack of market need for the pipeline's additional capacity and New Jersey state laws mandating reductions in natural gas consumption. We agree, so grant the petitions, vacate FERC's orders, and remand the case to the Commission for appropriate action. See Allina Health Servs. v. Sebelius, 746 F.3d 1102, 1110 (D.C. Cir. 2014).

I. Background

A. Federal Statutory and Regulatory Background

1. The Natural Gas Act

The Natural Gas Act ("NGA") provides FERC with the authority "to regulate the transportation and sale of natural gas in interstate commerce." *City of Oberlin v. FERC*, 937 F.3d 599, 602 (D.C. Cir. 2019). The NGA was enacted with the primary purpose of "encourag[ing] the orderly development of plentiful supplies of . . . natural gas at reasonable prices," *NAACP v. Fed. Power Comm'n*, 425 U.S. 662, 669–70 (1976), and "protect[ing] consumers against exploitation at the hands of natural gas companies." *Fed. Power Comm'n v. Hope Nat. Gas Co.*, 320 U.S. 591, 610 (1944). Under Section 7 of the NGA, an entity seeking to construct or extend an interstate pipeline must obtain a certificate of public convenience and necessity ("Certificate") from FERC. 15 U.S.C. § 717f(c).

FERC lays out the steps for approving applications in its Certificate Policy Statement. See 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). At the first step, FERC considers "whether the project can proceed without subsidies from [the applicant's] existing customers." 88 FERC ¶ 61,745. "To ensure that a project will not be subsidized by existing customers, the applicant must show that there is market need for the project." Myersville Citizens for a Rural Cmty., Inc. v. FERC, 783 F.3d 1301, 1309 (D.C. Cir. 2015) (emphasis added). Relevant factors for determining market need may include, but are not limited to, "precedent agreements, demand projections, potential cost savings to consumers, or a comparison of projected demand with the amount of capacity currently serving the market." 88 FERC \$61,747.

If FERC finds a market need, it moves on to the second step, where it must determine whether adverse impacts are outweighed by public benefits. FERC must "evaluate all factors bearing on the public interest." Atl. Refin. Co. v. Pub. Serv. Comm'n of N.Y., 360 U.S. 378, 391 (1959). The adverse impacts FERC considers include effects on "existing customers of the pipeline proposing the project, existing pipelines in the market and their captive customers, or landowners and communities affected by the route of the new pipeline," if they are likely. Env't Def. Fund v. FERC, 2 F.4th 953, 961 (D.C. Cir. 2021); see 15 U.S.C. § 717f(e). If adverse impacts are likely, FERC must determine whether they are outweighed by public benefits. Env't Def. Fund, 2 F.4th at 961. Public benefits of a project can include "meeting unserved demand, eliminating bottlenecks, access to new supplies, lower costs to consumers, providing new interconnects that improve the interstate grid, providing competitive alternatives, increasing electric reliability, or advancing clean air objectives." Id. If the purported public benefits outweigh the proposed project's adverse impacts, FERC's obligations under NEPA are triggered. 88 FERC ¶ 61,745.

2. The National Environmental Policy Act

The National Environmental Policy Act ("NEPA") is a procedural statute requiring all agencies to prepare a detailed environmental impact statement ("EIS") on "reasonably foreseeable environmental effects" of a proposed "major Federal action[] significantly altering the quality of the human environment." 42 U.S.C. § 4332(2)(C); see id. § 4336(b)(1). An EIS must address, among other things, the adverse effects of the proposal as well as a reasonable range of feasible

alternatives that meet the proposal's purpose and need. *Id.* § 4332(2)(C); *Sierra Club v. FERC*, 38 F.4th 220, 226 (D.C. Cir. 2022). NEPA demands that agencies "take a hard look at the environmental consequences before taking a major action." *Ctr. for Biological Diversity v. FERC*, 67 F.4th 1176, 1181 (D.C. Cir. 2023) (quoting *Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983)). An agency has taken a "hard look" at environmental consequences if the EIS "contains sufficient discussion of the relevant issues and opposing viewpoints, and . . . the agency's decision is fully informed and well-considered." *Nevada v. Dep't of Energy*, 457 F.3d 78, 93 (D.C. Cir. 2006) (internal quotation marks omitted).

The objective of an EIS "is to ensure agencies consider the environmental impacts of their actions in decision making." 40 C.F.R. § 1502.1 (2020). ¹ The EIS must "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." *Id.* § 1502.13 (2022). Courts may only set aside an agency's

¹ An "impact[]" is a potential "change[] to the human environment from the proposed action or alternatives that [is] reasonably foreseeable." 40 C.F.R. § 1508.1(g) (2022). It is "reasonably foreseeable" if the environmental impact is "sufficiently likely to occur such that a person of ordinary prudence would take it into account in reaching a decision." *Id.* § 1508.1(aa). The Center for Environmental Quality regulations cited here and elsewhere in this opinion have since been amended, but those amendments did not take effect until after the Commission entered the challenged orders. *See* National Environmental Policy Act Implementing Regulations Revisions Phase 2, 89 Fed. Reg. 35,442 (May 1, 2024) (effective July 1, 2024). Thus, we cite and apply the regulations in effect at the time of the orders. *See Ctr. For Biological Diversity*, 67 F.4th at 1181 n.2.

action on NEPA grounds if the EIS does not "contain[] sufficient discussion of the relevant issues and opposing viewpoints and the agency's decision is [not] fully-informed and well-considered." *Gulf Restoration Network v. Haaland*, 47 F.4th 795, 799–800 (D.C. Cir. 2022) (internal quotation marks omitted).

B. New Jersey's Regulatory Background

The New Jersey Board of Public Utilities ("the Board") is the state entity charged with "general supervision and regulation of and jurisdiction and control over all public utilities" and protecting New Jersey utility customers from "unjust, unreasonable, insufficient or unjustly discriminatory or preferential" rates. N.J.S.A. §§ 48:2–13(a), 48:2–21(b)(1).

In February 2019, the Board opened an investigation to determine if the state had sufficient gas capacity to meet future New Jersey customer needs. In re Exploration of Gas Capacity and Related Issues, New Jersey Board of Public Utilities Docket Nos. GO19070846 & GO20010033, 1 (Jun. 29, 2022) ("Board Order"). As part of this investigation, the Board commissioned an independent study. The study concluded that the state has sufficient gas capacity, and that there was no need for any additional capacity for the state's gas utilities through 2030. London Econ. Int'l, Final Report: Analysis of Natural Gas Capacity to Serve New Jersey Firm Customers (Nov. 5, 2021) ("New Jersey Agencies Study"). The Board formally adopted these findings in its June 2022 final order. The order also found support "against the need for additional interstate pipeline capacity," noting that "under most demand scenarios, barring a major catastrophic event impacting one or more primary paths on a major interstate pipeline, New Jersey is well positioned with available interstate [natural gas] supply beyond 2030." Board Order at 11.

C. Procedural Background

In March 2021, while the New Jersey gas capacity proceedings were pending, Transco applied to FERC for a Section 7 Certificate to construct and operate the Regional Energy Access Expansion Project ("the Project") to expand delivery of gas by 829,400 dekatherms per day. Order Issuing Certificate and Approving Abandonment P 1, Transcontinental Gas Pipe Line Co., 182 FERC ¶ 61,006 ("Certificate Order"). The Project would consist of building approximately 22.3 miles of 30-inch-diameter lateral gas pipeline and 13.8 miles of 42-inch-diameter loop pipeline in Pennsylvania; one new gasfired compressor station in New Jersey; modifications to five existing compressor stations in Pennsylvania and New Jersey; and the modification and addition of other ancillary facilities. Certificate Order P 4. 73.5% of the Project's gas would be delivered to locations in New Jersey, with the rest going to New York, Delaware, Maryland, and Pennsylvania. Id. P 7-8. In support of its proposal, Transco submitted a market study ("Transco Study") seeking to demonstrate market need, and seven of the Project's shippers submitted comments in support.

All Petitioners successfully intervened in the proceedings before FERC. Intervenor Rate Counsel contested the gas utilities' assertions, based on the New Jersey Agencies Study, that the Project was needed to serve New Jersey rate payers. For their part, Petitioner New Jersey Conservation Foundation ("the Foundation") and Rate Counsel submitted evidence to FERC that the Project would impose unnecessary costs on New Jersey ratepayers, and that New Jersey's current gas infrastructure is more than able to meet current and future demand.

In March 2022, FERC issued a draft EIS to the parties for comments. Petitioners and the Environmental Protection

("EPA") commented that the Commission's environmental analysis was not consistent with the Council for Environmental Quality's ("CEQ") regulations interpreting NEPA. However, FERC released its final EIS four months later without incorporating Petitioners' or the EPA's feedback. In January 2023, FERC authorized the Project. The Certificate Order conditioned its approval of the Project on (1) Transco's compliance with the various mitigation measures set forth in the EIS, and (2) Transco's completion of construction by January 11, 2026. Certificate Order P 86. The Commission asserted that the Project satisfied Section 7 of the NGA because Transco had precedent agreements, which are "long-term contracts in which gas shippers agree to buy the proposed pipeline's transportation services," Allegheny Def. Project v. FERC, 964 F.3d 1, 19 (D.C. Cir. 2020), in place with eight shippers for all of the Project's capacity. FERC concluded that the Project's public benefits outweighed its harm, and in doing so, incorporated the findings of its Final EIS into the Certificate Order.

In March 2023, all Petitioners requested rehearing of FERC's Certificate Order, and some Petitioners also requested a stay, arguing that FERC had arbitrarily and capriciously found a market need for the Project, inappropriately credited evidence proffered by Transco while ignoring contrary evidence, relied on a deficient EIS, and performed an impermissibly skewed balancing of the Project's benefits and adverse impacts. Rate Counsel joined in the Foundation's Request for Rehearing and Motion for Stay. The Board and Rate Counsel further filed a Motion for Clarification requesting that FERC acknowledge and adopt the New Jersey agencies' findings that existing pipeline capacity is sufficient to meet natural gas demand in New Jersey, and for FERC to recognize that prudency determinations are left to state jurisdiction.

FERC denied the requests for rehearing and memorialized its reasons in the Rehearing Order.

In the Rehearing Order, FERC confirmed its finding of market need. At the same time, FERC noted that its findings do not preclude the New Jersey agencies' use of their study to support their own findings in matters related to their jurisdiction. Rehearing Order ("Reh'g Order") P 24. FERC also denied the motions to stay and the pending motion for an evidentiary hearing. A week later, FERC authorized all construction activities related to the Project. On April 3, 2023, a special panel on this Circuit denied the Foundation's motion for a stay pending review. Timely petitions for review were filed on May 12 and May 25, 2023.

II. Jurisdiction

This Court has jurisdiction over the petitions for review under the NGA, which vests this Court with jurisdiction to review an objection to FERC's orders when "such objection . . . [has] been urged before the Commission in the application for rehearing." 15 U.S.C. § 717r(b). Petitioners present the same arguments on appeal as they set forth in their rehearing request. *See* J.A. 623–43; J.A. 704–09; J.A. 678–84; J.A. 779–80.

We are also assured that Petitioners have met their burden of establishing Article III standing. To establish organizational standing to sue on their members' behalf, Petitioners must show that "(1) at least one of [their] members would have standing to sue in his or her own right; (2) the interests [they] seek[] to protect are germane to the organization's purpose; and (3) neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit." *Sierra Club v. FERC*, 827 F.3d 59, 65 (D.C. Cir. 2016) (internal

quotation marks and citations omitted). Here, the record shows that members of at least one of the organizational Petitioners live in the affected area, and that their use and enjoyment of their homes will continue to be harmed by the pipeline. *See id.* at 85–89; *id.* at 102–10.

We turn to the merits with the threshold jurisdictional questions being settled.

III. Standard of Review

This Court reviews FERC's NGA decisions and NEPA analyses under the Administrative Procedure Act ("APA"). *Env't Def. Fund*, 2 F.4th at 967–68. We will uphold FERC's decision against an arbitrary and capricious challenge if it was "reasoned, principled, and based upon the record." *Myersville*, 783 F.3d at 1308 (quoting *Am. Gas. Ass'n v. FERC*, 593 F.3d 14, 19 (D.C. Cir. 2010)). FERC must fully spell out the basis for its decision. *Id.* In doing so, it must articulate a rational connection between its factual findings and its decision. *FERC v. Elec. Power Supply Ass'n*, 577 U.S. 260, 292 (2016). We accept FERC's factual findings as conclusive if they are "supported by substantial evidence." 15 U.S.C. § 717r(b).

Under NEPA, this Court's role is "simply to ensure that the agency has adequately considered and disclosed the environmental impact of its actions and that its decision is not arbitrary or capricious." *Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97–98 (1983). We review an EIS's selection of alternatives and statement of purpose under the "rule of reason," *Theodore Roosevelt Conservation P'ship v. Salazar*, 661 F.3d 66, 73 (D.C. Cir. 2011), meaning that FERC must "take a hard look at the environmental consequences before taking a major action." *Balt. Gas & Elec. Co.*, 462 U.S. at 97 (internal quotation marks omitted). An agency has taken a

"hard look" at environmental consequences if the EIS "contains sufficient discussion of the relevant issues and opposing viewpoints, and . . . the agency's decision is fully informed and well-considered." *Nevada*, 457 F.3d at 93 (D.C. Cir. 2006).

IV. Petitioners' NEPA Claims

We hold that the Commission failed to adequately explain its decision to not make a significance determination regarding greenhouse gas ("GHG") emissions and failed to discuss possible mitigation measures. However, we reject Petitioners' claims that the Commission erred in failing to calculate both upstream emissions from added gas extraction as well as downstream emissions stemming from ozone or ozone precursors, and that the Commission's definition of the Project's purpose and need was flawed.

A. Significance Determinations

The Commission's decision not to make a case-specific determination about the significance of the Project's anticipated GHG emissions, in light of its own stated precedent that it can do so, nor to explain why it believed it could not do so, was arbitrary and capricious.

In *Northern Natural Gas Co.*, the Commission acknowledged its own earlier position that it had been "unable to assess the significance of a project's GHG emissions or those emissions' contribution to climate change," but announced that, "[u]pon reconsideration, we no longer believe that to be the case." *N. Nat. Gas Co.*, 174 FERC ¶ 61,189 P 29 (2021). On the heels of *Northern Natural*, the Commission here reverts without acknowledgement or explanation to its prior stance that it cannot assess the significance of the Project's expected GHG

emissions. See Reh'g Order P 104 & n.340 (citing Northern Natural and noting Petitioners' call for a significance determination). The failure to make a significance determination or even to acknowledge a change in position is unreasonable. See FCC v. Fox Television Stations, Inc., 556 U.S. 502, 515 (2009) ("An agency may not, for example, depart from a prior policy sub silentio or simply disregard rules that are still on the books.").

Here, the Commission's own estimates anticipate that the Project will spur enormous GHG emissions and associated costs. See EIS at 4-173-4-180. The Commission notes that "the construction and operation of the Project would increase the atmospheric concentration of GHGs, in combination with past, current, and future emissions from all other sources globally, and would contribute incrementally to future climate change impacts." EIS at 4-175. Further, based on the national levels of CO₂e emissions from 2020, the Commission estimates that construction and operation could potentially increase current and future CO₂e emissions. See EIS at 4-176. The EIS contextualizes these findings on a state level, concluding that the Project's construction and operation would increase downstream emissions in Delaware, Maryland, New Jersey, New York, and Pennsylvania by varying percentage levels. Id.

Unlike in previous cases, in which the Commission refused to even calculate the Social Costs of Carbon, see Ctr. for Biological Diversity, 67 F.4th at 1184, the Commission made strides to quantify the effects of GHG emissions stemming from this Project. Using this metric, the Commission calculated that the Project's GHG emissions will impose social costs of \$46 billion. EIS at 4-180. The EIS reports that construction of the Project could produce up to 43,548 metric tons of CO₂e, and its operation up to 562,044 metric tons of CO₂e per year. See id. at 4-175. Downstream

combustion of the 829,400 Dth/d of gas would result in 16.02 million metric tons of CO₂e per year. *Id.* The Project's "upper bound downstream emissions alone would occupy roughly 39% of the total annual emissions budget across the[] two states" it is principally designed to serve—New Jersey and Maryland. J.A. 211 (EPA comment).

Having reported such figures, the Commission asserted that it had met its NEPA obligations and "appropriately label the emissions as to significant or insignificant"—in part because it "is actively conducting a generic proceeding to determine whether and how the Commission will conduct significance determinations going forward." Reh'g Order P 106 & n.345 (citing Consideration of GHG Emissions in Nat. Gas Infrastructure Project Reviews, 178 FERC ¶ 61,108 (2022), changed to draft status, Certification of New Interstate Nat. Gas Facilities, 178 FERC ¶ 61,197, at P 2 (2022)); Certificate Order P 73. Commission did not explain, however, how the pendency of that generic proceeding affects its ability in the meantime to make a case-specific determination here, when it was able to do so in *Northern Natural*. The anticipated emissions from this Project are more than a hundredfold higher than the 100,000 metric tons per year of CO₂e that the Commission's interim guidance suggests as a significance threshold. See FERC, Fact Sheet, Interim GHG (GHG) Emissions Policy Statement (PL21-3-000) (Feb. 17, 2022). Nor did the Commission address why it would have been arbitrary to conclude that, "[h]owever the Commission's approach to significance analysis evolves, the reasonably foreseeable GHG emissions associated with th[e] project" could be categorized as significant. *N. Nat. Gas Co.*, 174 FERC ¶ 61,189 P 33.

FERC turns to this Court's recent decision in Food & Water Watch v. FERC, 104 F.4th 336 (D.C. Cir. 2024), to

support its arguments on appeal. But that case does not control the issue raised before us now. The question in that case was whether NEPA or the applicable CEQ regulation requires FERC to label GHG emissions as either "significant" or "insignificant," and the Court affirmed FERC's decision to not label downstream GHG emissions as "significant" or "insignificant" under NEPA because it disclosed and contextualized the emissions. Id. at 346. Here, in the orders under review and in the briefing, FERC has not disputed the premise that it is generally obligated to make a significance determination for each category of emissions. Indeed, it is established that, where "significance" has material effects in a particular case, most notably as triggering the obligation to prepare an EIS, it is "essential" under NEPA that FERC make a significance determination notwithstanding the pendency of any generic proceeding to set a numeric significance threshold. See Food & Water Watch, 104 F.4th at 346 (citing 40 C.F.R. § 1508.9(a)(1) (2022)); see also Healthy Gulf v. FERC, No. 23-1069, 2024 WL 3418863 at *3 n.2 (D.C. Cir. July 16, 2024), (clarifying that Food & Water Watch does not affect a case where FERC does "not dispute the premise that it must make a significance determination absent a sufficient explanation for not doing so in a particular proceeding").²

Instead, FERC argues that it was *unable* to do so. *See* Reh'g Order PP 104–07. Yet, as explained above, FERC provides no justification for why it cannot determine significance here, when it was able to do so in *Northern*

² Although we did not reach the issue in *Healthy Gulf*, we also noted that *Food & Water Watch* did not address certain FERC regulations that Healthy Gulf and others argued independently required FERC to make a binary significance determination for GHG emissions. *See Healthy Gulf*, 2024 WL 3418863, at *3 n.2 (citing 18 C.F.R. §§ 380.7(a),(d)).

Natural.³ Even if FERC is not required to make a significance determination, choosing not to do so on the basis of an arbitrary and capricious explanation is nevertheless a violation of the APA. Because FERC does not advance the same argument in this case as it did in Food & Water Watch, we cannot resolve the issue of significance determinations now before us on the basis of that case.

For these reasons, the Commission violated NEPA by failing to assess significance regarding GHG emissions.

B. Mitigation Measures

"Implicit in NEPA's demand that an agency prepare a detailed statement on 'any adverse environmental effects which cannot be avoided should the proposal be implemented,' is an understanding that the EIS will discuss the extent to which adverse effects can be avoided." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351–52 (1989) (citing 42 U.S.C. § 4332(C)(ii)).

Here, the Commission relies on the fact that "Transco [did] not indicate[] any mitigation for GHG emissions" to sidestep its obligation to assess mitigation strategies for the adverse environmental effects flowing from its approval of the Project. Certificate Order P 74. This is inconsistent with NEPA's regulations, which require an EIS to discuss "[e]nergy

³ In *Northern Natural*, FERC also confirmed that "[i]n future proceedings, [it] will continue to consider all appropriate evidence regarding the significance of a project's reasonably foreseeable GHG emissions and those emissions' contributions to climate change," and weigh significant GHG effects "along with many other factors when determining whether a project is required by the public convenience and necessity" under the NGA. *N. Nat. Gas Co.*, 174 FERC ¶ 61,189 P 36.

requirements and conservation potential of various alternatives and mitigation measures," "[n]atural or depletable resource requirements and conservation potential of various alternatives and mitigation measures," and "[m]eans to mitigate adverse environmental impacts." See 40 C.F.R. § 1502.16(a)(6), (7), (9) (2020); see also Sierra Club v. FERC, 867 F.3d 1357, 1374 (D.C. Cir. 2017) ("As we have noted, [GHG] emissions are an indirect effect of authorizing [a] project, which FERC could reasonably foresee, and which the agency has legal authority to mitigate." (citing 15 U.S.C. § 717f(e)).

C. Upstream and Downstream Emissions

The Commission contends both that the Project is unlikely to spur additional gas production because it is only an incremental change to an existing interstate pipeline and, alternatively, even if it could spur production, that the Commission does not have sufficient information to determine the origin of transported gas to make an estimate of upstream emissions. See Reh'g Order P 97; id. P 100; id. P 94 & n.298. While the Commission's argument that the new pipeline will not spur additional production is questionable, our skepticism is not enough for Petitioners to prevail on this claim. Here, as in Birckhead v. FERC, 925 F.3d 510, 517 (D.C. Cir. 2019), Petitioners have not identified any record evidence that would help the Commission tie any new production of gas to demand created by this Project. Nor do they claim that "the Commission's failure to seek out additional information constitutes a violation of its obligations under NEPA." Id. at 518.

Petitioners also do not prevail on their challenge to the Commission's failure to calculate downstream emission levels of ozone or ozone precursors stemming from the Project. The Commission contends that it lacks the necessary information about end uses to estimate either the production of ozone precursors, or the complex estimation of how those precursors would react in the atmosphere to generate ozone. Reh'g Order at P 119. Here, too, Petitioners "make[] no claim that the Commission should have further developed the record" with respect to ozone or its precursors. Food & Water Watch v. FERC, 28 F.4th 277, 288 (D.C. Cir. 2022). "The question before us is thus whether, given the information available to it, the Commission reasonably declined to assess downstream consumption effects." Id. Because foreseeability of downstream emissions depends in part on information about the "destination and end use of the gas in question," id. (quoting Birckhead, 925 F.3d at 519), and because the Commission concludes (and Petitioners do not dispute) that there is no record evidence about these uses, see Reh'g Order P 118; Pet. Reply Br. 46-48 (challenging only the Commission's view on the reliability of predictive models for ozone), the Commission did not act arbitrarily in refusing to make a finding on this point.

D. Definition of Project Purpose and Need

In fulfilling its NEPA obligations, an agency may not "define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action." Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 196 (D.C. Cir. 1991). Such a narrow purpose would turn the EIS into a "foreordained formality." *Id.* Conversely, the agency may not "frame its goals in terms so unreasonably broad that an infinite number of alternatives would accomplish goals." Id. The relevant question before us is whether the Commission's purpose statement is so narrowly defined as to

foreclose an alternative that Petitioners would prefer or that the Commission should reasonably have considered.

We conclude that FERC's definition of the Project did not foreclose consideration of the sole alternative Petitioners urge here: denial of the Certificate. The EIS describes the Project's purpose of delivering "an incremental 829,400 dekatherms per day (Dth/d) of year-round firm transportation capacity from the Marcellus Shale production area in northeastern Pennsylvania to delivery points in Pennsylvania, New Jersey, and Maryland." EIS at 1-2.

To be sure, the Project's purpose could hardly have been more narrowly described. The Commission specified the proposed gas pipeline's capacity down to the dekatherm. But Petitioners do not argue that the Project's narrow definition foreclosed FERC's consideration of the no-action alternative; their objection, rather, is that FERC acted arbitrarily and contrary to law by failing to embrace that alternative. Where, as here, the way a gas pipeline project is defined neither affects Petitioners' opposition to it nor bears on their support for the no-action alternative, that narrow definition is not a material flaw.

Petitioners now argue that FERC should have considered non-gas alternatives. See Pet. Br. 71–72; Rate Counsel Br. 30–31. They assert the Commission's purpose should have been "[e]nsur[ing] reliable energy provision to this particular part of the country." See Oral Arg. Tr. 86:10–13. However, Petitioners failed to specify to the Commission any non-gas alternative it should have considered, apart from denial of the certificate. See Reh'g Order PP 82, 85; Oral Arg. Tr. 87:23–88:14 (failing to identify non-gas alternatives or modifications to the Project). See also Vt. Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 551 (1978) (An agency need not consider

"every alternative device and thought conceivable by the mind of man"). As Petitioners have not suggested any non-gas alternatives (other than no-action), we express no view on the scope of FERC's authority or obligation to consider them. *See generally City of Alexandria v. Slater*, 198 F.3d 862 (D.C. Cir. 1999); *Nat. Res. Def. Council v. Morton*, 458 F.2d 827 (D.C. Cir. 1972), *see also* NEPA Implementing Regulations, 87 Fed. Reg. 23,453, 23,459 (April 20, 2022).

Inasmuch as Petitioners dispute the underlying need for the Project, their challenge to the Commission's determination of market need is addressed under the NGA. Acknowledging comments "questioning the need for gas in the delivery area and that other proposed projects might be capable of delivering gas to the same general area," the EIS explained that whether the Project is needed "will be assessed by the Commission in its Orders" rather than in the NEPA analysis. See section V.A infra; see also EIS at 1–2.

V. Petitioners' Natural Gas Act Claims

Pursuant to Section 7 of the NGA, Transco needed to obtain a Certificate from FERC to move forward with the Project. To issue a Certificate, FERC must first "ensure that a project will not be subsidized by existing customers" by finding a "market need for the project." *Myersville*, 783 F.3d at 1309. If FERC finds a market need, it must then balance any potential adverse impacts of the project against its purported public benefits. *Env't Def. Fund*, 2 F.4th at 961. *See generally* section I.A.1 *supra*; 92 FERC ¶ 61,094 (2000).

A. Market Need

We hold that FERC acted arbitrarily in granting the Certificate Order because it did not respond to some of the material challenges to its finding of market need for the Project. FERC failed to (1) explain why it entirely discredited the findings of two market studies showing that current capacity is sufficient to meet the New Jersey ratepayers' natural gas demands beyond 2030; (2) explain how precedent agreements with local gas distribution companies ("LDCs") provide assurance of market need if those same companies can pass on fixed pipeline construction costs to existing captive ratepayers while profitably selling any excess capacity to others, perhaps even at below-market prices; and (3) give weight to New Jersey state-law requirements of sizeable and continuous reductions to natural gas usage by public utilities, and instead described those requirements as unenforceable.

1. Market Studies

The Commission arbitrarily discredited the New Jersey Agencies Study on the critical issue of whether ratepayers' gas demand can be met with existing gas supply over the coming years, as it has been for decades, by contracts for off-system peaking resources.⁴ While we generally afford great deference to Commission determinations about the market it regulates based on its technical expertise and experience, *Minisink*, 762 F.3d at 111, in the orders under review, FERC stopped short of making or supporting any prediction that off-peaking supplies are in fact likely to become scarcer in the future or suffer new uncertainty or increased variability. It gestured at "the potential for extreme weather events" as jeopardizing New Jersey LDCs' access to off-system supply sources, Reh'g Order P 65, but provided no source for its climatological

⁴ Off-system peaking resources are third party supplies of natural gas purchased under short-term contracts and used by LDCs to supplement their own storage and pipeline transportation entitlements. *See* Certificate Order P 29.

hypothesis. FERC failed to clarify why the current supply of off-system peaking sources is insufficient to meet the potential demand created by extreme weather events and to provide a basis for its claim that the potential for extreme weather creates uncertainty in the availability of these resources to New Jersey LDCs.

In evaluating the competing market studies before it, the Commission faulted the New Jersey Agencies Study in part for relying on the continuing availability of 619 MDth/d of offsystem delivered gas peaking resources. See Reh'g Order P 38. In the Commission's view, the continued availability of those resources "is uncertain because it is not contracted for on a long-term firm basis" but under "relatively short-term [contracts]... dependent on pipeline capacity being available year-to-year." Id. The Commission did not, however, identify any past event in which such resources—despite being subject to short-term contracts—were unavailable when needed. In fact, the Commission recognized that "downstream capacity has been available to New Jersey shippers in the past through short-term peaking contracts and may be available in the future on the same short-term basis." Id. P 40. The Commission concluded that the Transco Study is more consistent with LDC supply planning practices, even though it conceded that the Study is limited in that it discounts current short-term contracts' ability to meet downstream capacity. See id. P 41. Notwithstanding that acknowledgement, FERC still concluded that the continued availability of off-system supply resources was uncertain. Even as the Commission admitted that the Transco Study might, in contrast, be overly conservative in its

⁵ Under a firm service contract, service is expected without interruption under almost all operating conditions. Firm customers pay a monthly reservation charge regardless of whether they use their capacity.

off-system peaking projections, *id.* P 40, it treated the latter study as more authoritative, *id.* P 41. To support its conclusion, FERC pointed to one New Jersey gas utility's unsubstantiated suggestion that its contracts for off-system peaking resources would decline from 230.7 MDth/d in 2020 and 2021 to zero from 2022 forward—figures FERC treated as an indicator that those resources would somehow suddenly become unavailable, *id.* PP 64–65. FERC did not acknowledge the New Jersey Study's explanation that the utility's reported "decline" reflects the reality "of the short-term nature of the contracts, which need to be renewed or replaced annually," so may count as zero only until they are renewed or replaced, nor did the Commission account for the Study's contrastingly steady projected reliance on off-system peaking resources. *See* New Jersey Agencies Study at 98–99.

Similarly, the Commission discounted the Skipping Stone Study because the study assumed that firm capacity held by downstream customers would nevertheless be available to New Jersey LDCs. Reh'g Order P 45. The Commission found that "this assumption ignores the fact that if the downstream firm capacity customers exercise their rights to the capacity during a time of high demand in New Jersey, the capacity will not be available for use by the New Jersey LDCs." *Id.* While under some circumstances this might be a legitimate concern, the record is devoid of evidence of any shortages for this reason in the decades that New Jersey LDCs have relied on such capacity, and the Commission provided no practical explanation for why it believed the unprecedented scenario it described appropriately guided its discretion.

Petitioners also contend that FERC's stated concerns about potential interruptible demand from gas-fired electricity generators were not a material basis for its finding of market need. FERC explained in its Rehearing Order that the

pipeline's ability to help meet interruptible demand⁶ from sources like gas-fired electricity generators is an added benefit of the Project, but that the Commission did not rely on it as evidence of market need. See Reh'g Order P 63 (acknowledging that design day⁷ planning appropriately focuses on firm demand, but that the Commission may consider service to interruptible loads in assessing a project's benefits); see also Oral Arg. Tr. 38:20–39:8 (counsel for FERC clarifying that the Rehearing Order treated interruptible demand as a separate benefit of the Project rather than evidence of market need).

2. Precedent Agreements

Precedent agreements are "always... important evidence of demand for a project." *See Minisink*, 762 F.3d at 111 n.10 (internal citations omitted). However, the mere existence of precedent agreements does not allow FERC to disregard contradictory evidence showing a lack of market need for a project. FERC must consider such contradictory evidence. *Env't Def. Fund*, 2 F.4th at 972. Here, because the Commission

⁶ Interruptible or non-firm customers pay lower rates, receive gas only if transportation capacity is available, and are subject to curtailment or interruption if the capacity is needed to serve firm customers. While the gas system is designed to meet peak firm demand, interruptible customers help to balance supply and demand during peak times.

⁷ "Design day" "reflects the highest gas demand a [gas utility] expects to be obligated to serve on an extremely cold winter day." Certificate Order P 21 n.41. The method of calculating design day is at the discretion of each gas utility, but generally each utility uses data from historical "peak" demand days during a given winter season and adjusts those values in various ways to estimate projected future demand growth. *Id*.

failed to respond to Petitioners' challenges to its reliance on precedent agreements with LDCs who subscribed to a majority of the pipeline's capacity, we hold that it acted arbitrarily.

In approving pipeline construction, the Commission must find that the proposed new pipeline "is or will be required by the present or future public convenience and necessity." 15 U.S.C. § 717(e). The Commission found market need for the Project based largely on precedent agreements with LDCs in New Jersey. Reh'g Order PP 33–34. Petitioners contend that New Jersey LDCs' contracts for the pipeline capacity fail to assure that the Project will not contravene FERC's policy against "subsidization from its existing customers" for the benefit of the utilities' own shareholders. 88 FERC ¶ 61,746. See Pet. Br. 63–67; Rate Counsel Br. 27–29. As Rate Counsel explains, LDCs' ability to pass on pipeline firm transportation charges to their customers can create perverse incentives, and therefore their precedent agreements may not reflect genuine market need. 8

The Commission fails to provide a non-arbitrary response, asserting only that if "there is ample supply of transportation capacity in New Jersey making the [pipeline] project redundant, then there would be no market for [an LDC] to 'offload' its capacity to, let alone above market prices." Reh'g Order P 65. That logic ignores the concern that an LDC's captive ratepayers might pay for added pipeline capacity the LDC does not use to serve those customers. If ratepayers

⁸ Rate Counsel Reply Br. 18 ("[Local gas distribution companies] might buy unneeded capacity either to resell it for a profit or to hold as extra reliability insurance . . . If the [local gas distribution companies] expected to be able to pass through the costs, deeming the disallowance risk to be low, they would have had little incentive" to scrutinize their actual capacity needs.).

assume the cost even when they do not need the capacity, LDCs can afford to contract for additional unneeded capacity, which they can then resell at a profit, even in a soft capacity market. Because the Commission failed to respond to that challenge to its reliance on precedent agreements with LDCs who subscribed to a majority of the pipeline's capacity, the Commission acted arbitrarily. ⁹

3. New Jersey Law

The Commission, on rehearing, acknowledged New Jersey's statutory requirements for annual reductions in natural gas use but failed to substantiate its claim that "there are as yet no mandated mechanisms to implement these goals." *See* Reh'g Order P 26. FERC also arbitrarily misconstrued New Jersey's energy efficiency laws—which mandate sizeable and continuous reductions to natural gas usage by public utilities—as unenforceable. To the contrary, New Jersey law is mandatory and includes mechanisms for its enforcement. ¹⁰

⁹ This Circuit has accepted FERC's reliance on precedent agreements with LDCs to demonstrate market need for new pipelines where appropriate. *See, e.g., City of Oberlin,* 937 F.3d at 605–06; *Myersville,* 783 F.3d at 1311. But the challenge raised here was not made in those cases. Here, Petitioners and Rate Counsel question whether precedent agreements with LDCs serving captive ratepayers are probative of market need for new capacity, and the Commission fails to adequately dispel that concern.

FERC also analogizes New Jersey law to the New York statute in *Food & Water Watch*, which set GHG emission-reduction goals without specifying how to meet them or necessarily mandating reductions in natural gas use, *see* 104 F.4th at 347–48. But New Jersey law requires specific annual natural gas-use reductions. N.J.S.A. § 48:3–87.9(A). In the context of evaluating market need for greater natural gas capacity, FERC needed to properly consider the effects of the New Jersey statute.

The state statutes and the Board Order implementing them both use mandatory language. See New Jersey Board of Public Utilities, Order Directing the Utilities to Establish Energy Efficiency and Peak Demand Reduction Programs at 2 (June 10, 2020) (noting that the Board is directed to require 0.75% The New Jersey Clean Energy Act of 2018 provides that, "[e]ach natural gas public utility shall be required to achieve annual reductions in the use of natural gas of 0.75 percent of the average annual usage in the prior three years within five years of implementation of its gas energy efficiency program." N.J.S.A. § 48:3–87.9(a). As to the state's energy efficiency program, the statute provides: "[e]ach electric public utility and gas public utility shall establish energy efficiency programs and peak demand reduction programs to be approved by the [B]oard no later than 30 days prior to the start of the energy year in order to comply with the requirements of this section." Id. § 48:3–87.9(d)(1).

FERC acknowledges that it neither had the authority nor the intention to "constrain the state's review of the prudency of purchases by New Jersey LDCs." Reh'g Order P 28. However, FERC's treatment of New Jersey law as merely suggestive was erroneous, and that mistake led it to arbitrarily discount the effect of the state's energy laws in assessing market demand for the Project. Reh'g Order P 70; see also id. PP 40–41 (noting that the Transco Study fails to consider the impact of New Jersey's energy efficiency laws on demand forecasts but nevertheless concluding that it more reliably reflects future demand).

B. Balancing of Public Benefits and Adverse Impacts

Under Section 7, the Commission may "issue a certificate of public convenience and necessity only if a project's public

benefits (such as meeting unserved market demand) outweigh its adverse effects (such as deleterious environmental impact on the surrounding community)." *City of Oberlin*, 937 F.3d at 602. Here, because the Commission's public interest determination relied in part on a deficient market-need assessment, the determination itself is necessarily arbitrary and capricious. *See Vecinos para el Bienestar de la Comunidad Costerea v. FERC*, 6 F.4th 1321, 1331 (D.C. Cir. 2021) ("Where the Commission rests a decision, at least in part, on an infirm ground, we will find that decision arbitrary and capricious.").

Moreover, Petitioners argue that "the Project's climate impacts render [FERC's] conclusion in the Certificate Order that the Project is 'environmentally acceptable' arbitrary, capricious, and contrary to the [NGA]," Pet. Br. 97, and Rate Counsel contends that, even if there were a clear market need for the Project, the Order is arbitrary and capricious because it overlooked important harms in its balancing-most prominently the harms from increased GHG emissions. Meanwhile, FERC and Transco insist that GHGs and climate impacts were included in the balancing. FERC asserts that it adequately weighed the potential environmental harms of the Project just by disclosing the Project's reasonably foreseeable See Reh'g Order P 106. It calculated GHG emissions. anticipated GHG emissions, listed harms expected due to climate change generally, and identified climate policy goals at international, national, and state levels—then seemingly swept the issue under the rug in its balancing, stopping short of explaining how anticipated GHG emissions factored in weighing the potential adverse impact against the potential benefit of the Project.

FERC's failure to conduct any meaningful balancing falls short of what is required by the NGA and this Court's

precedent. "[A] passing reference to relevant factors . . . is not sufficient to satisfy the Commission's obligation to carry out 'reasoned' and 'principled' decisionmaking." Am. Gas. Ass'n, 593 F.3d at 19; see also TransCanada Power Mktg. Ltd. v. FERC, 811 F.3d 1, 12 (D.C. Cir. 2015) ("It is well established that the Commission must respond meaningfully to the arguments raised before it." (internal quotation marks In Environmental Defense Fund, we held that omitted)). simply pointing to evidence in the record was insufficient balancing, but rather that FERC must show its reasoning such that we can conclude that they have sufficiently evaluated the record evidence. 2 F.4th at 966, 975. Here, as in Environmental Defense Fund, FERC made a conclusory decision that the benefits will outweigh potential adverse impacts without conducting the needed analysis.

The Project is a substantial gas pipeline expected to transport large quantities of natural gas from points of extraction to points of use for decades to come. See EIS at 4–1. The record estimates enormous GHG emissions from the Project for the next half century. FERC disclosed the estimated emissions and its Social Cost of Carbon analysis. ¹¹ But it then walked away from the relevant issues with a fatalistic shrug, asserting that "it is unable to determine how individual projects will affect international, national, or statewide GHG emissions reduction targets or whether a project's GHG emissions comply with those goals." *Id.* at 4–178.

Simply put, in its Certificate Order, the Commission discusses climate change and GHG emissions, including its

¹¹ We examine FERC's acknowledgment of the Project's GHG emissions and its Social Cost of Carbon analysis in our discussion regarding the failure to make significance determinations, *see* section IV.A *supra*.

projections for those emissions. See Certificate Order PP 67– 74. But the Certificate Order nowhere explains whether and how the Commission considered those emissions among the adverse effects it balanced and found to be outweighed by the pipeline's expected benefits. Instead, the Order's conclusions merely refer back to its equivocal EIS, stating that it agrees with the "conclusions presented in the final EIS and find that the project, if implemented as described in the final EIS, is an environmentally acceptable action." Id. P 81. On rehearing, FERC "simply asserted that 'the Commission balanced the concerns of all interested parties," Rate Counsel Br. 34, followed by a summary of various land impacts and mitigation measures other than those stemming from GHG emissions and climate change. These broad-brush statements do not provide assurance that the Commission balanced the climate-related emissions to which the Commission refused to assign a significance label.

VI. Remedy

FERC and Transco ask that the petitions for review be denied and that the challenged FERC orders be affirmed. But in the event that we determine that Petitioners' claims have merit, Transco asks us to remand to FERC without vacatur. For reasons explained below, we hold that vacatur is appropriate here.

"Vacatur 'is the normal remedy' when we are faced with unsustainable agency action." *Bhd. of Locomotive Eng'rs & Trainmen v. Fed. R.R. Admin.*, 972 F.3d 83, 117 (D.C. Cir. 2020) (quoting *Allina Health Servs.*, 746 F.3d at 1110). We employ a two-factor test to determine if the challenged agency action is unsustainable. *Xo Energy Ma v. FERC*, 77 F.4th 710, 719 (D.C. Cir. 2023). We must evaluate (1) "the likelihood that 'deficiencies' in an order can be redressed on remand" and

(2) "the 'disruptive consequences' of vacatur." *Black Oak Energy v. FERC*, 725 F.3d 230, 244 (D.C. Cir. 2013) (quoting *Allied-Signal, Inc. v. Nuclear Regul. Comm'n*, 988 F.2d 146, 150 (D.C. Cir. 1993)).

It is far from clear that FERC's failure here is only one of explanation. Petitioners have identified consequential deficiencies in the Certificate Order's requisite considerations of market need and balance of public benefits and harms. See Allied-Signal, 988 F.2d at 150. Therefore, at this stage we cannot say it is sufficiently likely that FERC "will be able to substantiate its decision on remand." Id. at 151. The Certificate Order's deficiencies go to the core of FERC's finding that the Project complies with Section 7 of the NGA. On remand, FERC will have to revisit its underlying market need finding to properly consider the New Jersey Agencies Study and New Jersey state-law requirements of sizeable and continuous reductions to natural gas usage, which may require it to assess its ultimate Section 7 balancing. What is more, as discussed above, see section IV supra, FERC failed to meet certain obligations under NEPA. See Oglala Sioux Tribe v. Nuclear Regul. Comm'n, 896 F.3d 520, 536 (D.C. Cir. 2018).

We next evaluate whether vacatur will result in "disruptive consequences." *Allied-Signal*, 988 F.2d at 150. Transco argues that vacatur here would present:

severe and disruptive consequences because Transco has received authorization from FERC to place certain Project facilities in service and to provide firm transportation service for roughly 54% of the Project's capacity on an interim basis, and since the interim service is fully subscribed, customers are counting on [the Project] for the 2023/2024 heating season.

Transco Br. 30. While these consequences certainly warrant our consideration, they are not dispositive.

Where a pervasively deficient agency action is remanded, only in rare instances do the disruptive consequences alone determine whether the order is vacated. See North Carolina v. EPA, 550 F.3d 1176, 1178 (D.C. Cir. 2008). previously vacated the Commission's decision to issue a certificate of public convenience and necessity even when the pipeline was already partially operational. See Env't Def. Fund, 2 F.4th at 976. In fact, this Court's review of Certificate Orders for pipeline projects often occurs at least one year after the pipeline's construction has begun. See, e.g., id. (Certificate Order issued August 2019, opinion issued June 2021); Vecinos Para el Bienestar de la Comunidad Costera v. FERC, 6 F.4th 1321, 1326-27 (D.C. Cir. 2021) (Certificate Orders issued November 2019, opinion issued August 2021); Food & Water Watch, 28 F.4th at 282–83 (Certificate Order issued December 2019, opinion issued March 2022). Petitioners correctly point out that "it is hard to imagine a scenario in which a gas company has not engaged in constructive activity or begun service by the time a reviewing court concludes that the approval was in error." Pet. Reply Br. 51 (emphasis in the original).

We have previously recognized that while "there may be some disruption as a result of the . . . de-issuance of the Certificate, caused by vacatur," *Env't Def. Fund*, 2 F.4th at 976, serious deficiencies in the Certificate Order and Rehearing Order nevertheless merit vacatur because "the second *Allied-Signal* factor is weighty only insofar as the agency may be able to rehabilitate its rationale." *Id.* (quoting *Comcast Corp. v. FCC*, 579 F.3d 1, 9 (D.C. Cir. 2009)). Similarly, here, the disruption vacatur would cause to the pipeline's operations is significantly outweighed by the core deficiencies in FERC's

orders. Accordingly, we vacate and remand FERC's orders granting a certificate of public convenience and necessity for the Project.

For the foregoing reasons, we grant the petitions for review, vacate FERC's orders, and remand to the Commission for appropriate action.

So ordered.