

**United States Court of Appeals**  
FOR THE DISTRICT OF COLUMBIA CIRCUIT

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Argued May 17, 2024

Decided August 6, 2024

No. 23-1174

CITY OF PORT ISABEL, ET AL.,  
PETITIONERS

v.

FEDERAL ENERGY REGULATORY COMMISSION,  
RESPONDENT

RIO BRAVO PIPELINE COMPANY, LLC AND RIO GRANDE LNG,  
LLC,  
INTERVENORS

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Consolidated with 23-1221

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

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*Nathan Matthews* argued the cause for petitioners. With him on the joint briefs were *Lisa M. Diaz*, *Tom Gosselin*, and *Gilberto Hinojosa*. *Eric E. Huber* entered an appearance.

*Robert M. Kennedy*, Senior Attorney, Federal Energy Regulatory Commission, argued the cause for respondent. With him on the brief were *Matthew R. Christiansen*, General Counsel, and *Robert H. Solomon*, Solicitor. *Jason Perkins*, Attorney, entered an appearance.

*Varu Chilakamarri* argued the cause for intervenors Rio Bravo Pipeline Company, LLC and Rio Grande LNG, LLC in support of respondent. With her on the joint briefs were *Jeremy C. Marwell*, *Matthew X. Etchemendy*, *David L. Wochner*, and *John Longstreth*. *James Dawson*, *Timothy J. Furdyna*, *James D. Seegers*, and *Paul M. Teague* entered appearances.

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No. 23-1175

CITY OF PORT ISABEL AND SIERRA CLUB,  
PETITIONERS

v.

FEDERAL ENERGY REGULATORY COMMISSION,  
RESPONDENT

TEXAS LNG BROWNSVILLE, LLC,  
INTERVENOR

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Consolidated with 23-1222

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

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*Nathan Matthews* argued the cause for petitioners. With him on the joint briefs were *Lisa M. Diaz*, *Tom Gosselin*, and *Gilberto Hinojosa*.

*Robert M. Kennedy*, Senior Attorney, Federal Energy Regulatory Commission, argued the cause for respondent. With him on the brief were *Matthew R. Christiansen*, General

Counsel, *Robert H. Solomon*, Solicitor, and *Jason Perkins*, Attorney.

*Michael R. Pincus* argued the cause for intervenor Texas LNG Brownsville, LLC in support of respondent. With him on the brief were *Paul Korman* and *Mosby Perrow*.

Before: SRINIVASAN, *Chief Judge*, CHILDS and GARCIA, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge* GARCIA.

GARCIA, *Circuit Judge*: In 2021, petitioners challenged the Federal Energy Regulatory Commission's authorization of two liquefied natural gas export terminals in Cameron County, Texas, and a pipeline that would carry natural gas to one of those terminals. In related decisions, we granted the petitions for review in part and remanded without vacatur. *Vecinos para el Bienestar de la Comunidad Costera v. FERC* ("*Vecinos P*"), 6 F.4th 1321, 1325 (D.C. Cir. 2021); *Vecinos para el Bienestar de la Comunidad Costera v. FERC* ("*Vecinos IP*"), No. 20-1045, 2021 WL 3716769 (D.C. Cir. Aug. 3, 2021) (unpublished opinion). On remand, the Commission issued orders reauthorizing the projects.

Petitioners now challenge the reauthorization orders. They argue that the Commission failed to comply with certain National Environmental Policy Act and Natural Gas Act requirements. Once again, we agree in part. The Commission erroneously declined to issue supplemental environmental impact statements addressing its updated environmental justice analysis for each project and its consideration of a carbon capture and sequestration system for one of the terminals. It also failed to explain why it declined to consider air quality data from a nearby air monitor. We deny the petitions in all

other respects. Given the nature and severity of the flaws in the Commission’s second effort to properly assess the projects, we vacate the reauthorization orders and remand to the Commission for further consideration.

## I

### A

Under Section 3 of the Natural Gas Act (“NGA”), the Commission exercises authority delegated from the Department of Energy “to approve or deny an application for the siting, construction, expansion, or operation of” facilities used to export liquefied natural gas (“LNG”). 15 U.S.C. § 717b(e)(1); *see EarthReports, Inc. v. FERC*, 828 F.3d 949, 952–53 (D.C. Cir. 2016). The Commission “shall” approve such an application unless it finds that the project “will not be consistent with the public interest.” 15 U.S.C. § 717b(a); *see EarthReports*, 828 F.3d at 953.

Under Section 7 of the NGA, the Commission reviews applications for the construction and operation of pipelines that transport natural gas in interstate commerce. 15 U.S.C. § 717f(c); *Allegheny Def. Project v. FERC*, 964 F.3d 1, 4 (D.C. Cir. 2020). The Commission “shall” authorize such a pipeline if it “is or will be required by the present or future public convenience and necessity.” 15 U.S.C. § 717f(e); *see Allegheny Def. Project*, 964 F.3d at 4.

“Before authorizing the construction and operation of a proposed LNG facility or pipeline, the Commission must conduct an environmental review under” the National Environmental Policy Act (“NEPA”). *Vecinos I*, 6 F.4th at 1325. If, as here, the Commission determines that approval of the facility constitutes a “major Federal action[] significantly affecting the quality of the human environment,” the

Commission must prepare an Environmental Impact Statement (“EIS”). 42 U.S.C. § 4332(2)(C); *see id.* § 4336(b)(1). Among other things, the EIS must address the “reasonably foreseeable environmental effects” of the proposed action as well as “a reasonable range of alternatives . . . that are technically and economically feasible, and meet the purpose and need of the proposal.” *Id.* § 4332(2)(C)(i), (iii). The EIS “forces the [Commission] to take a ‘hard look’ at the environmental consequences of its actions” and “ensures that [those] consequences, and the [Commission’s] consideration of them, are disclosed to the public.” *Sierra Club v. FERC* (“*Sabal Trail*”), 867 F.3d 1357, 1367 (D.C. Cir. 2017).

## B

This case concerns two proposed natural gas projects. On March 30, 2016, Texas LNG Brownsville LLC (“Texas LNG”) filed a Section 3 application for authorization to construct and operate an LNG export terminal on the northern shore of the Brownsville Shipping Channel in Cameron County, Texas. On May 5, 2016, Rio Grande LNG, LLC (“Rio Grande”) filed a Section 3 application for authorization to construct and operate its own LNG export terminal at a different site on the same shore. Rio Bravo Pipeline Company, LLC (“Rio Bravo”) simultaneously filed a related Section 7 application for authorization to construct and operate a new interstate pipeline system to deliver natural gas from existing grid interconnects in Nueces County, Texas, to the Rio Grande terminal. The Rio Grande terminal and Rio Bravo pipeline together form the Rio Grande project.<sup>1</sup>

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<sup>1</sup> Rio Grande and Rio Bravo are both wholly owned subsidiaries of NextDecade LNG, LLC, a U.S. energy project development and management company.

After publishing a final EIS for each project, on November 22, 2019, the Commission issued orders authorizing the projects. *See* Order Granting Authorizations Under Sections 3 and 7 of the Natural Gas Act, *Rio Grande LNG, LLC & Rio Bravo Pipeline Co.*, 169 FERC ¶ 61,131 (Nov. 22, 2019); Order Granting Authorization Under Section 3 of the Natural Gas Act, *Texas LNG Brownsville LLC*, 169 FERC ¶ 61,130 (Nov. 22, 2019) (collectively, the “2019 Approval Orders” or “authorization orders”).

Petitioners—environmental groups, residents, and the nearby city of Port Isabel—intervened in the Commission’s proceedings and sought rehearing of the authorization orders. They argued that the Commission’s analyses of the projects’ ozone emissions and impacts on climate change and environmental justice communities were deficient under NEPA and the Administrative Procedure Act (“APA”). They also claimed that the Commission failed to justify its determinations of public interest and convenience under the NGA. Regarding the Rio Grande project, petitioners further argued that the Commission violated NEPA by failing to adequately analyze alternative project designs.

After the Commission denied their rehearing requests, petitioners sought review in our court. On August 3, 2021, we addressed petitioners’ challenges to the authorization orders in two companion decisions. *Vecinos I*, 6 F.4th 1321; *Vecinos II*, 2021 WL 3716769.

In *Vecinos I*, we held that the Commission failed to adequately justify its decision to examine environmental justice impacts within only a two-mile radius of the projects, when some environmental impacts of the projects would extend beyond that area. *See* 6 F.4th at 1330–31. Thus, we instructed the Commission to either better explain its reasoning

or analyze the projects' impacts within a different radius. *Id.* at 1331. We also directed the Commission to respond to petitioners' argument that 40 C.F.R. § 1502.21(c) (2020)<sup>2</sup> required it to use the social cost of carbon protocol or some other generally accepted methodology to assess whether the climate impact of the projects' greenhouse gas ("GHG") emissions would be significant or not. *See id.* at 1328–30. Given the deficiencies in the Commission's environmental analyses, we further directed the Commission to reconsider its NGA public interest determinations for the projects. *Id.* at 1331 (citing 15 U.S.C. §§ 717b(a), 717f(e)). Ultimately, we remanded without vacatur because we found it likely that the Commission could remedy the deficiencies while reaching the same result. *Id.* at 1332.

In *Vecinos II*, we "denied in all respects" the other challenges petitioners raised to the authorization orders. 2021 WL 3716769, at \*1.

In November 2021, in response to our remand, Rio Grande filed on a separate docket a proposal to add a carbon capture and sequestration ("CCS") system to its terminal design. The system would employ processes to remove carbon dioxide emissions during natural gas liquefaction and then transport those emissions by pipeline to an EPA- and state-authorized underground injection well for sequestration. Rio Grande projected that the system would capture at least 90% of the

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<sup>2</sup> The Council on Environmental Quality regulations cited here and elsewhere in the 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 v. FERC*, 67 F.4th 1176, 1181 n.2 (D.C. Cir. 2023).

carbon dioxide produced at the terminal. The company asked the Commission to consider the CCS proposal at the same time it considered reauthorization of the existing project. Commission staff initially anticipated issuing an environmental assessment of the CCS system in May 2023 but suspended those plans after Rio Grande failed to provide “complete and timely responses” to several data requests by the agency. Notice Suspending Environmental Review Schedule of the Proposed Carbon Capture and Sequestration System Amendment, 88 Fed. Reg. 24,407 (Apr. 20, 2023).

On April 21, 2023, the Commission issued orders reauthorizing the projects. *See* Order on Remand and Amending Section 7 Certificate (“No. 23-1174 Remand Order”), *Rio Grande LNG, LLC & Rio Bravo Pipeline Co.*, 183 FERC ¶ 61,046 (Apr. 21, 2023); Order on Remand (“No. 23-1175 Remand Order”), *Texas LNG Brownsville LLC*, 183 FERC ¶ 61,047 (Apr. 21, 2023) (collectively, the “Remand Orders”). Petitioners filed timely requests for rehearing, but after the Commission failed to respond within thirty days, the requests were deemed denied by operation of law.

On July 10, 2023, petitioners asked this court to review the Remand Orders. *City of Port Isabel v. FERC*, No. 23-1174 (D.C. Cir.) (Rio Grande project); *City of Port Isabel v. FERC*, No. 23-1175 (D.C. Cir.) (Texas project). We granted Rio Grande, Rio Bravo, and Texas LNG leave to intervene. On October 27, 2023, while the petitions were pending, the Commission issued orders addressing the rehearing requests and sustaining the reauthorizations. *See* Order Addressing Arguments Raised on Rehearing (“No. 23-1174 Rehearing Order”), *Rio Grande LNG, LLC & Rio Bravo Pipeline Co.*, 185 FERC ¶ 61,080 (Oct. 27, 2023); Order Addressing Arguments Raised on Rehearing (“No. 23-1175 Rehearing Order”), *Texas LNG Brownsville LLC*, 185 FERC ¶ 61,079 (Oct. 27, 2023).

## II

We review petitioners' claims under the familiar "arbitrary and capricious" standard. *Nevada v. U.S. Dep't of Energy*, 457 F.3d 78, 87 (D.C. Cir. 2006); *Vecinos I*, 6 F.4th at 1331. "Our role is not to flyspeck an agency's environmental analysis, looking for any deficiency no matter how minor, but instead 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." *Birckhead v. FERC*, 925 F.3d 510, 515 (D.C. Cir. 2019) (per curiam) (citations and quotation marks omitted). We therefore ask whether the agency "examine[d] the relevant data and articulate[d] a satisfactory explanation for its action[,] including a rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Ass'n, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (citation and quotation marks omitted).

Petitioners challenge several aspects of the Commission's orders. We consider each in turn.

### A

We begin with the Commission's environmental justice analysis. "In conducting NEPA reviews of proposed natural gas projects, the Commission follows Executive Order 12[, ]898, which directs federal agencies to identify and address 'disproportionately high and adverse human health or environmental effects' of their actions on minority and low-income populations (i.e., environmental justice communities)." No. 23-1174 Remand Order ¶ 103 (quoting Executive Order 12,898, 59 Fed. Reg. 7,629 (Feb. 11, 1994)); see *Sabal Trail*, 867 F.3d at 1368. The Commission's methodology considers: "(1) whether environmental justice communities . . . exist in the project area; (2) whether impacts on environmental justice

communities are disproportionately high and adverse; and (3) possible mitigation measures.” No. 23-1174 Remand Order ¶ 104.

In *Vecinos I*, we held that the Commission’s environmental justice analysis of the projects was arbitrary. The Commission did not adequately explain why, despite its “determination that environmental effects from the project would extend well beyond two miles from the project sites,” it nonetheless “chose to analyze the projects’ impacts only on communities . . . within two miles of the project sites.” 6 F.4th at 1330, 1331. We remanded for the Commission to either provide such an explanation “or else analyze the projects’ impacts on communities within a different radius of each project site.” *Id.* We also required the Commission to “explain whether its finding that ‘all project-affiliated populations are minority or low-income populations,’ is still justified, and, if so, whether its conclusion that the projects ‘would not have disproportionate adverse effects on minority and low-income residents in the area’ still holds.” *Id.* (quoting the 2019 Approval Orders).

On remand, the Commission generated a new and significantly expanded environmental justice analysis for each project. It first issued several information requests to the developers, seeking updated demographic information for census block groups within fifty kilometers (thirty-one miles) of the project and updated models for emissions within that same geographic scope. “Commission staff” then “conducted a new environmental justice analysis.” No. 23-1174 Remand Order ¶ 102; No. 23-1175 Remand Order ¶ 26. The Commission did not prepare its analysis in the form of a supplemental environmental impact statement (“supplemental EIS”). Doing so would have required the agency to publish a draft supplemental EIS, provide a forty-five-day period for

public comment on that draft, and allow interested parties to intervene—procedural steps the Commission skipped here. *See* 40 C.F.R. §§ 1502.9(d)(3), 1506.11(d) (2020); 18 C.F.R. § 380.10(a)(1)(i).

Petitioners argue that the Commission’s choice not to issue a supplemental EIS for its environmental justice analysis was arbitrary and capricious and prejudiced their ability to comment meaningfully on the Commission’s new environmental justice analysis. We agree.

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NEPA regulations require a supplemental EIS when “[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. § 1502.9(d)(1)(ii) (2020). This requirement applies to new circumstances or information that “will ‘affect the quality of the human environment’ in a significant manner or to a significant extent not already considered,” *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 374 (1989) (quoting 42 U.S.C. § 4332(2)(C)) (cleaned up), or that “provides a seriously different picture of the environmental landscape,” *Stand Up for California! v. Dep’t of Interior*, 994 F.3d 616, 629 (D.C. Cir. 2021) (quoting *Friends of Cap. Crescent Trail v. Fed. Transit Admin.*, 877 F.3d 1051, 1060 (D.C. Cir. 2017)) (emphasis omitted).

Here, the pertinent “new information” includes the updated demographic and environmental data submitted by the developers, as well as the Commission’s entirely new analysis and interpretation of that data, which are substantially different from the previously conducted environmental justice analysis in the final EIS. *See* No. 23-1174 Remand Order ¶¶ 102–206; No. 23-1175 Remand Order ¶¶ 26–82; *see also* No. 23-1175 J.A. 126 (Chairman Phillips’s concurrence describing that the

Commission “conducted a full review of the projects’ impacts on environmental justice communities” in response to remand). Contrary to the Commission’s view, the scope and nature of that new information and analysis “provide[] a seriously different picture of the environmental landscape” and require a supplemental EIS. *Stand Up*, 994 F.3d at 629 (emphasis and quotation omitted).

To begin, the previous environmental justice analysis in the final EIS analyzed the projects’ impacts on communities within a two-mile radius of the projects, which included four to five census blocks. *See* No. 23-1174 J.A. 266; No. 23-1175 J.A. 237. On remand, the Commission analyzed the projects’ impacts on communities within a fifty-kilometer (or thirty-one-mile) radius, which covered over 373 census block groups of environmental justice communities. No. 23-1174 Remand Order ¶¶ 204–05 (286 block groups impacted by Rio Grande terminal and eighty-seven impacted by Rio Bravo pipeline); No. 23-1175 Remand Order ¶ 82 (279 block groups impacted by Texas project). The new analysis expanded the discussion from a mere five pages to forty-six pages for the Rio Grande project, with a similar increase for the Texas project. *Compare* No. 23-1174 J.A. 263–68 (Rio Grande project’s five-page final EIS analysis), *and* No. 23-1175 J.A. 236–39, 273–74 (Texas project’s five-page final EIS analysis), *with* No. 23-1174 Remand Order ¶¶ 102–206 (Rio Grande’s forty-six-page new analysis), *and* No. 23-1175 Remand Order ¶¶ 26–82 (Texas project’s twenty-six-page new analysis). In those pages, the new analysis acknowledges, for example, that “potential impacts on the identified environmental justice communities may relate to wetlands, recreational and subsistence fishing, tourism, socioeconomics, road and marine traffic, noise, safety, air quality, and visual resources,” No. 23-1174 Remand Order ¶ 110; No. 23-1175 Remand Order ¶ 35, and proceeds to analyze those categories of impacts and more through the

environmental justice lens. That new analysis also relied on updated cumulative air emissions data. *See* No. 23-1174 Remand Order ¶ 137; No. 23-1175 Remand Order ¶ 76.

The Commission's new environmental justice analysis also arrived at different conclusions. Most fundamentally, prior to remand, the Commission found that the projects would not have any "disproportionate adverse effects" on environmental justice communities. No. 23-1174 J.A. 267–68; No. 23-1175 J.A. 239. Yet in its updated analysis, the Commission concluded that "the impacts on environmental justice populations from the project would be disproportionately high and adverse because they would be predominately borne by the environmental justice communities identified and, specifically, communities in the areas near the [projects] may experience significant visual impacts, as well as significant cumulative visual impacts." No. 23-1175 Remand Order ¶ 83; No. 23-1174 Remand Order ¶ 207. Moreover, the Commission ordered additional mitigation measures, beyond what it originally ordered, to address certain potential air quality impacts at public recreational areas close to the project sites. *See* No. 23-1174 Remand Order ¶¶ 140–41; No. 23-1175 Remand Order ¶¶ 68–69.

The combination of these factors persuades us that a supplemental EIS was required. This case is meaningfully different from those in which we have not disturbed agencies' decisions not to issue a supplemental EIS, such as where the "new" information was only updated information about an issue that the agency had already considered adequately and to a similar extent, *see Friends of Cap. Crescent Trail*, 877 F.3d at 1060–61; *Stand Up*, 994 F.3d at 629; *Nat'l Comm. for the New River v. FERC*, 373 F.3d 1323, 1330 (D.C. Cir. 2004); *Vecinos II*, 2021 WL 3716769, at \*2, and cases in which the agency was presented with new information from an outside

party and did not trust the validity of that information at all, *see Friends of the River v. FERC*, 720 F.2d 93, 109 (D.C. Cir. 1983); *Marsh*, 490 U.S. at 374. Here, the Commission not only trusted the validity of the new demographic and emissions data but used that data to “conduct[] a new environmental justice analysis” for a significantly expanded geographic scope and arrived at new conclusions. No. 23-1174 Remand Order ¶ 102; No. 23-1175 Remand Order ¶ 26.

For its part, the Commission stated that it “was not required to prepare a supplemental EIS because the issues addressed on remand did not result in any new significance determinations,” insofar as Commission staff “concluded that there would be no significant impact on air quality from the project.” No. 23-1175 Rehearing Order ¶ 31; No. 23-1174 Rehearing Order ¶ 42 (similar).

That explanation is inadequate for two related reasons. First, neither the regulations nor case law condition the requirement to issue a supplemental EIS on a new determination that a particular environmental impact is significant. As stated above, our cases describe the requirement as triggered by a “seriously different picture of the environmental landscape,” *Stand Up*, 994 F.3d at 629 (emphasis and quotation omitted), not solely whether the agency makes a new significance finding. Indeed, NEPA requires an EIS if any significant impacts “*might* result” from the proposed action, not only when it definitively concludes that a significant impact *will* result. *Grand Canyon Trust v. FAA*, 290 F.3d 339, 340 (D.C. Cir. 2002) (quoting *Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C. Cir. 1983)) (emphasis added). The same logic applies to the issuance of a supplemental EIS, and that logic contradicts the Commission’s bright-line approach.

Second, the unavoidable implication of the Commission’s argument is that environmental justice analyses—even new and dramatically expanded ones—are not important enough to require a supplemental EIS unless they also disclose significant impacts to the physical environment. *See* No. 23-1174 Rehearing Order ¶¶ 42–43; No. 23-1175 Rehearing Order ¶¶ 31–32. But environmental justice analyses and impacts can be sufficiently meaningful to require a supplement on their own.

The requirement for a supplemental EIS itself states that there must be “significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. § 1502.9(d)(1)(ii) (2020). Effects on environmental justice communities are certainly “impacts” that are “relevant to environmental concerns”: NEPA regulations define relevant “impacts” to mean “changes to the human environment from the proposed action” including “ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health” effects. 40 C.F.R. § 1508.1(g) (2022); *see id.* § 1508.1(m).<sup>3</sup>

In fact, CEQ and EPA guidance—on which the Commission relies—reinforces the notion that effects on

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<sup>3</sup> Indeed, the new regulations effective July 1, 2024, explicitly add “disproportionate and adverse effects on communities with environmental justice concerns” to this list of relevant effects, 40 C.F.R. § 1508.1(i)(4), and the CEQ explained that the change was designed to “provide[] further specificity” and “not [to] expand the scope of the definition of ‘effects,’” National Environmental Policy Act Implementing Regulations Revisions Phase 2, 89 Fed. Reg. at 35,539.

environmental justice communities can be independently significant. *See, e.g.*, CEQ, *Environmental Justice: Guidance Under the National Environmental Policy Act*, at 10 (Dec. 10, 1997), <https://perma.cc/773N-3WXX> (“Agency consideration of impacts on low-income populations, minority populations, or Indian tribes may lead to the identification of disproportionately high and adverse human health or environmental effects that are significant and that otherwise would be overlooked.” (emphasis added)); EPA, *Promising Practices for EJ Methodologies in NEPA Reviews*, at 33 (2016), <https://perma.cc/ZQ8H-YA4H> (“The impacts of a proposed action on minority populations and low-income populations should inform the determination of whether impacts are significant.”).

Therefore, at least where, as here, the Commission issued an entirely new and significantly expanded environmental justice analysis that reached new conclusions, we hold that the Commission needed to issue a supplemental EIS. Its failure to do so was arbitrary and capricious.<sup>4</sup>

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<sup>4</sup> Petitioners separately argue that a supplemental EIS is always required to remedy a deficient EIS, regardless of whether the new information meets the standard articulated in 40 C.F.R. § 1502.9(d)(1)(ii)—that is, regardless of whether there are “significant new circumstances or information relevant to environmental concerns.” *See* No. 23-1174 Petitioners’ Brief 25. The only case petitioners cite for that argument is *Idaho Sporting Congress Inc. v. Alexander*, 222 F.3d 562 (9th Cir. 2000), but even there, the Ninth Circuit found that the new information requiring a supplemental EIS was “significant,” *id.* at 567, and explained that the rule is that “once an agency determines that new information is significant, it must prepare a supplemental EA or EIS,” *id.* at 566. Accordingly, we reject petitioners’ argument and instead assess,

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The Commission attempts to save itself from remand by arguing that even if it were required to issue a supplemental EIS, its failure to do so was harmless. Our court has recognized the APA’s “‘rule of prejudicial error’ . . . in the NEPA context when the agency has undertaken the required analysis but ‘failed to comply precisely with NEPA procedures,’” *Oglala Sioux Tribe v. U.S. Nuclear Regul. Comm’n*, 45 F.4th 291, 300 (D.C. Cir. 2022) (quoting *Nevada*, 457 F.3d at 90), and we will not remand if it would be “utterly pointless,” *NRDC v. U.S. Nuclear Regul. Comm’n*, 879 F.3d 1202, 1212 (D.C. Cir. 2018). We decline to apply that rule here because the Commission’s error prejudiced petitioners’ and the public’s ability to comment on the Commission’s environmental justice analysis.

The Commission did solicit public comment as to some of the data underlying its environmental justice analysis, but it did not permit comment on all the relevant data. Even though the Commission opened a fifteen-day window to receive public comments on the developers’ responses (including Rio Grande’s cumulative air emissions data), it did not solicit any public comment on the final cumulative air emissions model upon which the Commission eventually relied in its analysis. *See* No. 23-1174 Remand Order ¶¶ 82–85 (summarizing comment process); *id.* ¶ 137 (explaining reliance on new model); No. 23-1175 Remand Order ¶¶ 10–12, 76 (similar). That final model, which contained substantially different results from the prior model, was submitted to the Commission on January 6, 2023, after the public comment period closed on

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consistent with the regulation and our precedent, whether there are “significant new circumstances or information relevant to environmental concerns” requiring issuance of a supplemental EIS.

November 4, 2022. *Compare* No. 23-1175 J.A. 457 (April 29, 2022 analysis showing five NAAQS exceedances for the Texas project), *with* No. 23-1175 J.A. 504–05 (January 6, 2023 analysis predicting zero NAAQS exceedances for the Texas project). Indeed, petitioners point out discrepancies in the final model that they would have investigated further and submitted comments on had they been given the chance. *See* No. 23-1174 Petitioners’ Brief 35; No. 23-1175 Petitioners’ Brief 29–30. The fact that petitioners challenge the validity and interpretation of the underlying data differentiates this case from *Oglala Sioux*, where we did not remand because the parties did “not dispute the reasonableness or accuracy” of the agency’s findings. 45 F.4th at 301.

More importantly, the Commission did not permit any public comment on its *analysis*. Because the comment period was limited to the developers’ responses, the public was not able to comment on the Commission’s analysis of those responses. *See* No. 23-1175 J.A. 498–505 (Texas LNG’s developer response with data but no explanation). But NEPA’s purpose is to allow the public to see and comment on the agency’s interpretation of data, not just the underlying data itself. *See Friends of the River*, 720 F.2d at 106–07 (explaining that a supplemental EIS should “present evidence and discussion relevant to [the agency’s] environmental decisionmaking in one comprehensive document”).

In sum, the Commission’s error is prejudicial because it deprived petitioners and the public of an adequate “springboard for public comment.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). The Commission provided only a fifteen-day comment period on the developer responses, while the typical NEPA process would have afforded a forty-five-day comment period on a draft supplemental EIS—which would have included not just the developer responses but the

later-submitted air modeling data and the Commission's proposed analysis—and required FERC to “address comments” in the final version. *See* 40 C.F.R. §§ 1502.9(b)–(d), 1506.11(d) (2020). The Commission responds by arguing that parties could still file letters on the Commission's docket after the comment period ended or on rehearing. But filing letters on the docket (with no guarantee that the Commission will consider them) is no substitute for commenting on a draft supplemental EIS because NEPA requires the public to be able to comment “at a meaningful time.” *Marsh*, 490 U.S. at 371. We therefore hold that the Commission's failure to issue a supplemental EIS for its environmental justice analysis was arbitrary and capricious and prejudicial.

## B

Next, petitioners argue that, before reauthorizing the Rio Grande terminal on remand, the Commission needed to consider the company's CCS proposal as part of its environmental review of the terminal. Petitioners advance two grounds for this argument: (1) the CCS system is a “connected action” under 40 C.F.R. § 1501.9(e)(1)(ii) (2020); and (2) inclusion of the CCS system qualifies as an alternative to the terminal as initially proposed. Both are correct.

## 1

NEPA regulations state that, in addition to assessing the project under review, an EIS “shall consider . . . connected actions.” 40 C.F.R. § 1501.9(e)(1) (2020). As relevant here, petitioners claim that the CCS proposal is an action “connected” to the Rio Grande terminal because it “will not proceed unless” the terminal is constructed “previously or simultaneously.” *Id.* § 1501.9(e)(1)(ii).

To assess whether actions are connected, and thus must be considered together, we consider whether they have “substantial independent utility” and whether they overlap temporally. *City of Bos. Delegation v. FERC*, 897 F.3d 241, 252 (D.C. Cir. 2018) (quotation omitted). Here, both factors support finding the actions connected.

At the outset, the parties disagree on the test for substantial independent utility. The Commission and Rio Grande insist that two projects are not connected whenever *one* of the projects has utility independent of the other. In their view, because the terminal is useful separate and apart from the CCS system, the projects are not connected actions. Petitioners, by contrast, contend that projects have substantial independent utility in the relevant sense only if *both* projects are independently useful. For three reasons, petitioners have the better argument.

First, the relevant regulation states that “[a]ctions are connected if they . . . [c]annot or will not proceed unless other actions are taken previously or simultaneously.” 40 C.F.R. § 1501.9(e)(1)(ii) (2020). Read plainly, the regulation suggests that if any one action cannot or will not proceed without the other(s), those actions are connected.

Second, the Commission’s view would undermine the undisputed purpose of the regulation: to stop an agency from impermissibly segmenting “connected . . . federal actions into separate projects and thereby fail[ing] to address the true scope and impact of the activities that should be under consideration.” *Del. Riverkeeper Network v. FERC*, 753 F.3d 1304, 1313 (D.C. Cir. 2014). That concern would obviously be implicated if projects could escape consolidated review whenever one of them could proceed without the other. For example, imagine that an applicant proposed an initial project to build an LNG

terminal with four liquefaction trains. Suppose the applicant then proposes to add—as a distinct project—a fifth liquefaction train to the terminal (and perhaps a sixth, seventh, and so on). Assume the initial project could stand on its own, but the other liquefaction-train projects could proceed only if the initial project were completed. Under the Commission’s reading of the regulation, those formally distinct projects—though clearly parts of the same functional development—would be deemed unconnected for NEPA purposes, allowing the Commission to segment the projects’ environmental reviews and avoid addressing their collective environmental impact. That result would defy the commonsense policy behind the connected-action regulation.

Third, our previous decisions have already gestured toward the more stringent test. Although we have not directly addressed the Commission’s argument, in cases where we have found substantial independent utility satisfied, we have noted that each project could proceed without the other(s). *See Food & Water Watch v. FERC*, 28 F.4th 277, 291 (D.C. Cir. 2022) (“The Commission found that each project would have gone forward absent the other.”); *City of Bos. Delegation*, 897 F.3d at 252 (“[T]he projects do not depend on the other[s] for access to the natural gas market.” (second alteration in original)); *Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1326 (D.C. Cir. 2015) (“[T]he Commission in this case made clear that the Allegheny Storage Project and the Cove Point LNG terminal are unrelated, and that neither depends on the other for its justification.”).

Accordingly, we hold that projects have substantial independent utility for purposes of the connected-action inquiry only when both projects are independently useful. Applied here, that factor favors connectedness because, as neither the Commission nor Rio Grande disputes, the proposed

CCS system is entirely dependent on the Rio Grande terminal for its utility.

The temporal-overlap factor also supports finding that the CCS system is a connected action. This factor generally asks whether the projects are “either under construction” or “pending before the Commission for environmental review and approval” at the same time. *Del. Riverkeeper*, 753 F.3d at 1308. Here, the Commission emphasizes that it completed its initial environmental analysis of the Rio Grande terminal and approved that project in November 2019, two years before the company filed its CCS proposal. But that is not the whole story. Rio Grande submitted its CCS proposal specifically in response to our 2021 remand—which required the Commission to revisit aspects of its environmental analysis and its ultimate approval of the project—such that both approval requests were pending before the Commission at the same time. Indeed, Rio Grande implored the Commission to consider the CCS proposal as part of the reauthorization process precisely because it viewed the two actions as related and thought that the CCS proposal’s ability to capture most of the terminal’s GHG emissions would make reauthorization more likely. *See* No. 23-1174 J.A. 715.

The Commission’s view that the Rio Grande terminal and the proposed CCS system are not connected actions is both arbitrary and contrary to law. On remand, the Commission must consider the actions together in its environmental analysis before deciding whether to reauthorize the terminal.

Even if Rio Grande decides on remand that it does not wish to proceed with the CCS proposal (thereby mooting the connected-action issue), the Commission must, at the very

least, analyze the proposal as an alternative via a supplemental EIS before reauthorizing the Rio Grande terminal.

NEPA regulations require an agency to “[e]valuate reasonable alternatives to the proposed action.” 40 C.F.R. § 1502.14(a) (2020). As we have already discussed, those regulations also require an agency to prepare a supplemental EIS “if a major Federal action remains to occur” and “there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” *Id.* § 1502.9(d)(1)(ii) (2020). Here, petitioners correctly argue that Rio Grande’s determination that CCS is a reasonable and feasible alternative to the terminal as proposed constitutes significant new information under the regulations.

The feasibility of CCS as an alternative “provides a seriously different picture of the environmental landscape,” *Stand Up*, 994 F.3d at 629 (emphasis and quotation omitted), and “will affect the quality of the human environment . . . to a significant extent not already considered,” *Marsh*, 490 U.S. at 374 (alteration and quotation omitted). In its application to the Commission, Rio Grande represented that its proposed CCS system would “capture and sequester at least 90%” of the carbon dioxide produced by the terminal. No. 23-1174 J.A. 714. It also estimated that the system would reduce conventional air pollution (*e.g.*, sulfur dioxide emissions) by 94.8% and fine particulate matter emissions by 49.2%. *See* No. 23-1174 J.A. 683. Indeed, the Commission agreed at oral argument that had the CCS system been proposed at the same time as the terminal, the Commission would have been required, as part of its EIS, to consider inclusion of the system as a reasonable alternative. *See* Oral Argument Tr. 36:22–37:6.

The Commission offers two procedural arguments to justify its decision to not analyze the CCS proposal as part of the terminal reauthorization. Both are meritless.

The Commission asserts that *res judicata* precludes petitioners' claim because we already rejected in *Vecinos II* petitioners' challenges to the adequacy of the Commission's original analysis of alternatives. *See* 2021 WL 3716769, at \*3. But that doctrine "does not preclude claims based on facts not yet in existence at the time of the original action." *Drake v. FAA*, 291 F.3d 59, 66 (D.C. Cir. 2002). Here, the feasibility of CCS for the terminal first came to light *after* our remand, when Rio Grande submitted its proposal to the Commission. *See* No. 23-1174 Respondent's Brief 17. Only at that point did petitioners have the concrete basis to argue that CCS should have been considered as a viable alternative that would satisfy the terminal's purpose while limiting its adverse environmental impacts.

The Commission also contends that consideration of CCS as an alternative is outside the scope of our remand in *Vecinos I*. True, the scope of our remand would normally dictate which issues the Commission was required to address. *See Canadian Ass'n of Petrol. Producers v. FERC*, 254 F.3d 289, 298 (D.C. Cir. 2001). But in the unusual circumstances of this case, we cannot credit the Commission's reliance on the scope of our remand in *Vecinos I*. The CCS proposal was not before us or the Commission when we decided that case. Instead, as noted above, Rio Grande placed the proposal before the Commission specifically in response to our remand, which required the Commission to reassess its ultimate decision to approve the project. On those unique facts, the Commission should have considered the CCS alternative as part of the terminal reauthorization process. *See also Marsh*, 490 U.S. at 371–72 (indicating the obligation to consider new information

exists so long as the agency retains “a meaningful opportunity” to weigh project benefits against environmental harms).

### C

Next, we turn to petitioners’ arguments that various aspects of the Commission’s new environmental justice and air pollution analyses are arbitrary and capricious. Because we remand for the Commission to issue a supplemental EIS for its environmental justice analysis, we need not address several of those arguments. In particular, petitioners argue that the Commission’s choice of a fifty-kilometer radius was arbitrary; that it erred by using the NAAQS to analyze whether air quality impacts were “disproportionate and adverse”; and that it failed to make a concrete conclusion about whether air quality impacts were disproportionate and adverse. Given our remand, we decline to address these challenges to the extant analysis.

There are, however, two challenges to the Commission’s updated air pollution analysis that are fit for resolution now.

### 1

Petitioners argue that the Commission erred by relying on Rio Grande’s air pollution analysis, which used air quality data only from the Brownsville monitor, and instead should have also considered data from the Isla Blanca monitor, which is located closer to the projects than the Brownsville monitor. This error matters, petitioners say, because the Isla Blanca data showed potential NAAQS exceedances for fine particulate matter (PM<sub>2.5</sub>), while the Brownsville monitor did not. We agree that the Commission’s explanation for rejecting the Isla Blanca data is arbitrary and capricious.

The Commission provided two reasons for declining to examine data from the Isla Blanca monitor. First, the Commission said that “the Isla Blanca monitor was

appropriately excluded from the air quality analysis because it appears that the monitor did not have three years of data . . . as contemplated by EPA and the Texas Commission on Environmental Quality” at the “time the analysis was completed.” No. 23-1175 Rehearing Order ¶ 17 & n.40; *see* No. 23-1174 Rehearing Order ¶ 27. But at the time Rio Grande completed its analysis using the Brownsville data in January 2023, the Isla Blanca monitor did have more than three years of data. As the Commission itself noted, the Isla Blanca monitor began collecting “valid design values” on October 7, 2019, which means it had collected about three years and three months of data by January 2023. No. 23-1174 Rehearing Order ¶ 27; No. 23-1175 Rehearing Order ¶ 17.

On appeal, Rio Grande attempted to bolster the Commission’s conclusion by explaining that in January 2023 the Isla Blanca monitor did not have three years of *validated and published* data. *See* No. 23-1174 Respondent-Intervenor Rio Grande Brief 20. But because that explanation is not what the Commission said in its orders, nor is it an explanation that can be “reasonably . . . discerned” from what the Commission did say, we give it no weight. *Bowman Transp. Inc. v. Ark.-Best Freight Sys., Inc.*, 419 U.S. 281, 286 (1974); *see SEC v. Chenery Corp.*, 318 U.S. 80, 94 (1943).

Second, the Commission said the Brownsville monitor was “closer in proximity to environmental justice communities than the Isla Blanca monitor.” No. 23-1174 Rehearing Order ¶ 27; *see* No. 23-1175 Rehearing Order ¶ 17. Even if the Brownsville monitor is closer to more environmental justice communities, there are also such communities near the Isla Blanca monitor. The Commission provided no explanation in its Remand Orders or even at oral argument why it could not have considered data from both monitors to assess the air pollution impacts on environmental justice communities,

especially considering that the Isla Blanca monitor displayed potential NAAQS exceedances. *See* Oral Argument Tr. 24:25–25:3 (Commission stating it could have considered both monitors' data).

The Commission's explanations for rejecting use of the Isla Blanca monitor are arbitrary and capricious. On remand, the Commission must either include that data in its analysis or provide a new, reasoned explanation for declining to do so.

2

Second, petitioners challenge the Commission's updated ozone analysis as arbitrary and capricious for failing to expressly consider the effect on ozone of emissions from the mobile ships that will export natural gas in connection with the projects. In *Vecinos II*, we upheld the Commission's ozone analysis even though the EIS's model did not account for mobile ship emissions because the Commission considered such emissions in its 2020 Rehearing Order. *See* 2021 WL 3716769, at \*4.

The Commission was not required on remand to conduct a new ozone analysis, but because the Commission chose to do so, we now review its new analysis. *See Canadian Ass'n of Petrol. Producers*, 254 F.3d at 298.

The Commission's updated ozone analysis was not arbitrary and capricious. The cumulative emissions model the Commission relied on appears to account for "background concentrations from mobile ship emissions." No. 23-1175 Remand Order ¶ 76; No. 23-1174 Remand Order ¶ 137. But even if the Commission's cumulative model did not include mobile ship emissions, such an error would not be prejudicial. The mobile ship emissions are otherwise in the record and showed a substantial drop in ozone precursor (NOx) emissions

compared to the emissions analyzed in the 2020 rehearing order. *Compare* No. 23-1174 J.A. 785 (Rio Grande’s updated NOx total ship emissions is 84.9 tons per year), *with* No. 23-1174 J.A. 549 & n.175 (Rio Grande’s NOx total ship emissions in 2020 rehearing order was 928.7 ton per year). Overall cumulative ozone emissions also decreased, as expected, due to the design change from six to five liquefaction trains and cancellation of the Annova terminal.<sup>5</sup> *See Vecinos II*, 2021 WL 3716769, at \*4 n.4 (acknowledging these changes “would cause less ozone to be produced than the original design would have”). Because petitioners do not cast doubt on that data and provide no reason why either mobile ship emissions or cumulative ozone emissions would increase beyond the levels previously authorized by the Commission, we hold that the Commission’s updated ozone analysis was not prejudicially deficient even if it did not account for mobile ship emissions. *See PDK Labs., Inc. v. DEA*, 362 F.3d 786, 799 (D.C. Cir. 2004) (“If the agency’s mistake did not affect the outcome, if it did not prejudice the petitioner, it would be senseless to vacate and remand for reconsideration.”).

#### D

Next, petitioners contend that the Commission failed to satisfy our remand directive regarding its analysis of GHG emissions.

In *Vecinos I*, we instructed the Commission to “explain whether 40 C.F.R. § 1502.21(c) [(2020)] calls for it to apply

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<sup>5</sup> The project originally included a third LNG terminal to be developed by Annova, LLC, which was also authorized by the Commission and appealed to this Court in *Vecinos I*. Prior to oral argument in that case, “Annova, LLC informed the Commission that it was abandoning its project,” and we dismissed that petition as moot. 6 F.4th at 1327.

the social cost of carbon protocol or some other analytical framework” to evaluate the impact of each project’s contribution to climate change and “if not, why not.” 6 F.4th at 1329–30. Section 1502.21(c)(4) states that “[i]f the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are unreasonable or the means to obtain it are not known, the agency shall include within the environmental impact statement . . . [its] evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community.” 40 C.F.R. § 1502.21(c)(4) (2020).

Given the scope of our remand on this issue, we need not (and do not) opine on the overall adequacy of the Commission’s explanation for why it declined to use the social cost of carbon protocol to assess the significance of the projects’ GHG emissions. For purposes of this appeal, it suffices that the Commission adequately explained why Section 1502.21(c)(4) does not compel use of the protocol for that task.

The social cost of carbon is a method of quantifying in dollars the climate change impacts of greenhouse gas emissions. *See Del. Riverkeeper Network v. FERC*, 45 F.4th 104, 111 (D.C. Cir. 2022). Consistent with its position in prior proceedings, the Commission explained in the Remand Orders that “there are no criteria to identify what monetized values are significant for NEPA purposes, and [the Commission is] currently unable to identify any such appropriate criteria.” No. 23-1174 Remand Order ¶ 93; No. 23-1175 Remand Order ¶ 20 (same); *see also Ctr. for Biological Diversity*, 67 F.4th at 1184; *EarthReports*, 828 F.3d at 956. As a result, the Commission explained, the social cost of carbon “does not enable the Commission to determine credibly whether the

reasonably foreseeable GHG emissions associated with a project are significant or not significant in terms of their impact on global climate change.” No. 23-1174 Remand Order ¶ 93; No. 23-1175 Remand Order ¶ 20 (same). Thus, any attempt to determine GHG emissions’ significance using the social cost of carbon protocol would not turn on the application of “theoretical approaches or research methods generally accepted in the scientific community.” 40 C.F.R. § 1502.21(c)(4) (2020); *see* No. 23-1174 Remand Order ¶ 92; No. 23-1175 Remand Order ¶ 20.

Petitioners argue that, because the Commission consistently exercises its policy judgment to determine the severity and significance of project impacts on other aspects of the environment (such as wetlands, recreation, wildlife, and habitats), it can do the same for GHG emissions. But given the narrow issue before us, that argument is beside the point. The question on remand regarding the social cost of carbon protocol was whether Section 1502.21(c)(4) requires the Commission to make a significance determination using the protocol, not whether, as a general matter, the protocol may be used to make such a determination. As explained above, the Commission adequately explained why the answer is no.

Petitioners’ other counterarguments fare no better. They identify examples of other agencies incorporating the social cost of carbon protocol into their NEPA analyses. *See* No. 23-1174 Petitioners’ Brief 54 n.10 (citing environmental impact statements issued by the Maritime Administration, the Bureau of Land Management, and the Bureau of Ocean Energy Management); No. 23-1175 Petitioners’ Brief 48 n.8 (same). But in none of those examples did the agency use the protocol to determine GHG emissions’ significance. At most, those agencies disclosed the social cost of the relevant emissions for informational purposes, which is exactly what the Commission

did for each of the projects here. *See* No. 23-1174 Remand Order ¶¶ 98–99; No. 23-1175 Remand Order ¶ 24.

Apart from the social cost of carbon, petitioners insist that the Commission failed to heed our instruction on remand to also consider whether Section 1502.21(c)(4) required the application of “some other analytical framework” to determine GHG significance. *See Vecinos I*, 6 F.4th at 1329–30. Specifically, petitioners argue that the Commission “simply could have made an ad-hoc determination of significance” like it did in *Northern Natural Gas Co.*, 174 FERC ¶ 61,189 (Mar. 22, 2021). No. 23-1174 Petitioners’ Brief 58; No. 23-1175 Petitioners’ Brief 52 (same). There, the Commission found that a project’s operations would increase national GHG emissions by only 0.000006%. *N. Nat.*, 174 FERC ¶ 61,189, ¶ 34. The Commission then concluded that “[h]owever [its] approach to the significance analysis evolves, the reasonably foreseeable GHG emissions associated with th[e] project would not be considered significant.” *Id.* ¶ 33. Petitioners argue that the converse is true here and that the Commission could have applied *Northern Natural*’s logic to conclude that the projects’ GHG emissions were significant. They also assert that other regulations beyond Section 1502.21(c) require the Commission to “evaluate the significance of greenhouse gas emissions *somehow*.” No. 23-1174 Petitioners’ Brief 57 (citing 18 C.F.R. § 380.7(a), (d) and 40 C.F.R. § 1502.16(a)(1) (2020)); No. 23-1175 Petitioners’ Brief 52 (same). But petitioners never made any of these specific arguments to the Commission on rehearing. Because they offer no reasonable ground for failing to do so, we lack jurisdiction to consider the arguments on appeal. 15 U.S.C. § 717r(b).

Finally, petitioners advance related arguments that the Commission failed to explain the role GHG emissions played in the public interest determinations under NGA Sections 3 and

7. We considered and dispensed with those arguments in *Vecinos II*. 2021 WL 3716769, at \*1 (denying the petitions “in all respects other than those ruled upon in the contemporaneously issued published opinion”). In *Vecinos I*, we remanded the Commission’s NGA determinations only insofar as the Commission relied on a GHG emissions analysis that did not grapple with the requirements of 40 C.F.R. § 1502.21(c)(4) (2020). *See* 6 F.4th at 1331. Because, on remand, the Commission adequately explained why Section 1502.21(c) does not alter its GHG analysis, we see no reason to question the resulting NGA determinations on GHG grounds.

### III

The deficiencies discussed above warrant vacating the reauthorization orders for the projects. Although we do not take this step lightly, the circumstances here require it.

“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. v. Sebelius*, 746 F.3d 1102, 1110 (D.C. Cir. 2014)). We typically assess the decision to vacate based on two factors: “the seriousness of the order’s deficiencies (and thus the extent of doubt whether the agency chose correctly) and the disruptive consequences” of vacatur. *Allied-Signal v. Nuclear Regul. Comm’n*, 988 F.2d 146, 150 (D.C. Cir. 1993).

“When an agency bypasses a fundamental procedural step,” the first factor asks “not whether the ultimate action could be justified, but whether the agency could, with further explanation, justify its decision to skip that procedural step.” *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs*, 985 F.3d 1032, 1052 (D.C. Cir. 2021). Here, the answer is no.

For both projects, the Commission failed to issue a supplemental EIS to account for its updated environmental justice analysis. And for the Rio Grande terminal, the Commission further failed to consider the company's CCS proposal as part of its environmental review as either a connected action or a project alternative. For the reasons detailed above, we do not see how the Commission could justify its decision to skip those fundamental procedural steps.

We appreciate the significant disruption vacatur may cause the projects. But that does not outweigh the seriousness of the Commission's procedural defects. *Cf. Env't Def. Fund v. FERC*, 2 F.4th 953, 976 (D.C. Cir. 2021) (noting that "the second *Allied-Signal* factor is weighty only insofar as the agency may be able to rehabilitate its rationale" (quotation omitted)). In any event, even for the likely more substantial task on remand—consideration of the CCS proposal—Rio Grande itself stated to the Commission that an assessment could be done "expeditiously." No. 23-1174 J.A. 715.

In addition, although we did not vacate the orders in our prior remand, we have explained that this fact can actually support vacatur where, as here, the agency "has yet again come up with insufficient support" for its action. *Am. Pub. Gas Ass'n v. U.S. Dep't of Energy*, 72 F.4th 1324, 1343 (D.C. Cir. 2023) (quotation omitted).

We therefore grant the petitions for review in part, deny them in part, vacate both reauthorizations, and remand to the Commission for further proceedings consistent with this opinion.

*So ordered.*