

**THROUGH THE LOOKING GLASS: HOW REVIEW OF
NATURAL GAS EXPORTS HIDES ENVIRONMENTAL
EFFECTS IN PLAIN SIGHT**

Julia Michel*

Abstract

Often called the “Magna Carta” of environmental laws, the National Environmental Policy Act (NEPA) has made informed decision-making about the environment a pre-requisite for every major federal permit approval. By requiring federal agencies to systematically consider and disclose the environmental and health consequences of a course of action, NEPA also made federal decision-making public—“we know best” no longer suffices to allow agencies to make a decision without considering its environmental consequences. Yet NEPA’s mandate has been thwarted when it comes to natural gas exports. Without meaningful review of the consequences, federal agencies have already approved proposals to export an amount roughly equivalent to one-fifth of all domestic natural gas demand. In so doing, they have failed to consider basic consequences such as rising domestic prices, production, and pollution. This Note argues that recent decisions by the U.S. Court of Appeals for the D.C. Circuit have allowed federal agencies to hide the impacts of natural gas exports in an improperly segmented review process. Because the public and local decision-makers deserve—and NEPA requires—an honest assessment of the impacts associated with natural gas exports, this Note urges judges and advocates to consider segmentation as a critical legal principle for understanding why the D.C. Circuit’s recent decisions have created a void in environmental review and should be reconsidered.

INTRODUCTION..... 299

I. THE RELEVANT STATUTORY FRAMEWORKS DO
NOT SUPPORT INCOMPLETE
ENVIRONMENTAL REVIEW..... 302

 A. The Natural Gas Act 303

 B. The National Environmental Policy Act (NEPA) ... 306

1. NEPA Requires Analyzing Indirect Effects, Including Upstream Emissions.....	307
2. NEPA Requires Agencies to Consider “Connected Actions”	312
3. NEPA Requires Agencies to Work Together.....	314
4. NEPA Requires Agencies to Take a “Hard Look” at Environmental Impacts at the Earliest Possible Time	315
II.PERMITTING IN ACTION: THE CASE IN FREEPORT..	316
A. Freeport I: The FERC Review	318
B. Freeport II: The DOE Review.....	320
III.CRITICISMS OF THE D.C. CIRCUIT’S REASONING....	321
A. Freeport I’s Misapplication of Public Citizen.....	322
B. Freeport II’s Failure to Require the Department of Energy to Examine Upstream Greenhouse Gas Emissions.....	327
IV.THE PATH FORWARD: TOWARD A UNIFIED FERC- DOE ENVIRONMENTAL REVIEW	328
CONCLUSION	331

INTRODUCTION

Due in large part to the development of hydraulic fracturing (“fracking”) drilling techniques,¹ U.S. production and use of natural gas has swelled over the last decade. The increased availability of cheap domestic natural gas has reduced the demand for imported gas, prompting owners of natural gas import terminals to reconfigure their facilities to export gas to international markets.²

If natural gas exports continue to rise,³ so too will increased domestic natural gas production and its associated environmental impacts. Studies have consistently

* *Juris Doctor*, University of Washington School of Law. I am thankful for the insight and guidance of my advisor, Professor Sanne Knudsen, and the editing by Devin Kesner and the WJELP editorial staff.

1. See 80 Fed. Reg. 18,557, 18,559 (Apr. 7, 2015) (noting that as a result of these developments the United States’ natural gas production has reached its highest level in 30 years).

2. *Id.*

3. *U.S. Natural Gas Imports & Exports 2016*, U.S. ENERGY INFO. ADMIN. (June 29, 2017), <https://www.eia.gov/naturalgas/importsexports/annual/> [<https://perma.cc/Y4GA-QPZ8>] (indicating that natural gas exports in 2016 were more than triple the level in 2006).

demonstrated that sixty to seventy percent of the exported gas will be from new domestic gas production; that increased exports raise domestic natural gas prices; and that as natural gas prices increase, the electric power sector will shift back to coal-fired generation.⁴ Despite the National Environmental Policy Act (NEPA), which requires all federal agencies to conduct a meaningful review of the environmental effects of proposed projects,⁵ the effects of natural gas exports remain hidden in a “tangled web” of regulation.⁶

Operators of a natural gas terminal seeking to construct or reconfigure facilities for export must obtain authorization from the Federal Energy Regulatory Commission (FERC) and also seek a permit to export the gas from the Department of Energy (DOE or the Department).⁷ While each permit triggers environmental review under NEPA,⁸ neither agency fully considers environmental impacts as a pre-requisite for authorizing natural gas exports.

Environmental groups have mounted litigation to pin down where the responsibility for a sensible and more comprehensive environmental review lies. To date, they have failed.⁹ Rejecting the first wave of challenges to FERC approvals for the construction and operation of export facilities, the D.C. Circuit Court of Appeals ruled that DOE’s separate authorization for exporting the gas “absolves” FERC of its responsibility to assess the indirect effects of approving

4. See, e.g., U.S. ENERGY INFO. ADMIN., EFFECTS OF INCREASED NATURAL GAS EXPORTS ON DOMESTIC ENERGY MARKETS 6 (2012), https://www.eia.gov/analysis/requests/fe/pdf/fe_lng.pdf [<https://perma.cc/U7MA-7VYX>].

5. See generally 42 U.S.C. § 4332(2)(C) (2012).

6. *Sierra Club v. Fed. Energy Regulatory Comm’n (Freeport I)*, 827 F.3d 36, 40 (D.C. Cir. 2016).

7. See 15 U.S.C. § 717b (2012); MICHAEL RATNER ET AL., CONG. RES. SERV., R42074, U.S. NATURAL GAS EXPORTS: NEW OPPORTUNITIES, UNCERTAIN OUTCOMES 14 (2015), <https://fas.org/sgp/crs/misc/R42074.pdf> [<https://perma.cc/Y6Q7-F5JS>].

8. See generally 42 U.S.C. § 4332(2)(C) (2012). Environmental reviews are not required for actions covered by a “categorical exclusion,” or when an agency makes a “finding of no significant impact.” 40 C.F.R. § 1501.4 (2017).

9. The challenges were to FERC’s approval of Dominion Resources Inc.’s Cove Point liquefied natural gas (LNG) project in Maryland (“Cove Point”), *EarthReports, Inc. v. Fed. Energy Regulatory Comm’n (EarthReports)*, 828 F.3d 949, 955 (D.C. Cir. 2016); Cheniere Energy Inc.’s Sabine Pass LNG project in Louisiana, *Sierra Club v. Fed. Energy Regulatory Comm’n (Sabine)*, 827 F.3d 59, 68–69 (D.C. Cir. 2016); and the Freeport LNG project in Texas, *Freeport I*, 827 F.3d at 40.

export facilities.¹⁰ Parallel challenges to DOE's environmental review fared no better.¹¹ The result is that neither the agencies nor the public clearly understand the environmental impacts of each liquefied natural gas (LNG)¹² export terminal.

The D.C. Circuit's decisions raise a fundamental question: have DOE and FERC improperly evaded disclosure of the environmental impacts of authorizing LNG exports? Setting aside the question of whether FERC and DOE reviews reflect an inappropriate bias toward approval of LNG permits, this Note argues that the two agencies have thwarted NEPA's requirement that agencies take a "hard look" at the environmental effects of proposed actions before approval.¹³

This Note proceeds in three parts. Part I introduces the Natural Gas Act and gives a brief overview of how the parallel FERC and DOE processes operate. The section also describes the NEPA framework, its purpose, and how courts have applied its various timing and scoping requirements to ensure that agencies provide a detailed review of a project's environmental effects.

Part II explains how NEPA and the Natural Gas Act operate in action. Using the recent Freeport LNG terminal and associated litigation as an example, this section walks through the D.C. Circuit's emerging framework for evaluating NEPA challenges to natural gas export authorizations. Part II also explores why the D.C. Circuit's framework leaves an unacceptable void in environmental review.

10. *Freeport I*, 827 F.3d at 48; *see also EarthReports*, 828 F.3d at 956; *Sabine*, 827 F.3d at 68.

11. *Sierra Club v. U.S. Dep't of Energy (Freeport II)*, 867 F.3d 189, 196–97 (D.C. Cir. 2017).

12. More than 600 times more condensed than its vapor form, LNG is stored and transported more easily, and is thus suitable for exporting. *See* U.S. DEP'T OF ENERGY, DOE/FE-0849, LIQUEFIED NATURAL GAS: UNDERSTANDING THE BASIC FACTS 3 (2005), https://www.energy.gov/sites/prod/files/2013/04/f0/LNG_primerupd.pdf [<https://perma.cc/7MVN-YWM9>] (explaining that LNG is natural gas cooled to the temperature at which the vapor liquefies and stating that natural gas vaporizes at -260°F/-162°C).

13. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989); *see also* 42 U.S.C. § 4332(2)(C) (2012) (requiring federal agencies to include a discussion of "the environmental impact of the proposed action" and "any adverse environmental effects which cannot be avoided should the proposal be implemented" in their NEPA analyses).

Part III identifies problems with the D.C. Circuit's reasoning. Specifically, the court appears to misconstrue a Supreme Court case, *Department of Transportation v. Public Citizen*,¹⁴ as a blank check for FERC to evade a complete environmental review of impacts associated with export-induced natural gas production. Additionally, the court has failed to explain why DOE's generalized assessment of environmental impacts—untethered from the specific export proposal under review—nonetheless satisfies NEPA's requirement for a “hard look” review.

Finally, Part IV examines areas for potential future challenges by returning to a familiar doctrine in NEPA case law: the prohibition on “illegally segmenting projects in order to avoid consideration of an entire action's effects on the environment[.]”¹⁵ Applying NEPA's anti-segmentation principles to the current two-step review of LNG export facilities could force the respective agencies to unify their review and provide the public with the honest assessment it deserves.

I. THE RELEVANT STATUTORY FRAMEWORKS DO NOT SUPPORT INCOMPLETE ENVIRONMENTAL REVIEW

The statutory frameworks governing natural gas exports—namely NEPA¹⁶ and the Natural Gas Act¹⁷—do not, on their face, support incomplete environmental reviews of natural gas exports. Rather, NEPA's information-forcing regime should inform FERC and DOE's substantive decisions.¹⁸ Therefore, understanding how the two statutory schemes operate in tandem is a prerequisite to understanding the degree to which the D.C. Circuit has allowed FERC and DOE to evade their responsibilities to analyze and disclose significant

14. *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752 (2004).

15. *See W. Radio Servs. Co. v. Glickman*, 123 F.3d 1189, 1194 (9th Cir. 1997).

16. 42 U.S.C. § 4332 (2012).

17. 15 U.S.C. § 717b (2012).

18. *Robertson*, 490 U.S. at 347; *see also* 40 C.F.R. § 5001.1(c) (2017) (“The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.”).

environmental impacts of projects they approve. Ultimately, allowing such serious deficiencies in the NEPA review runs the risk of infecting the agencies' substantive public interest determinations in an arbitrary and capricious review. Stated otherwise, the failure to identify or characterize the incremental environmental impacts of LNG exports undermines any conclusion that these impacts would be outweighed by the benefits.

A. *The Natural Gas Act*

The Natural Gas Act grants FERC the authority to approve the siting, construction, expansion, and operation of an LNG export terminal unless it finds that approval would be inconsistent with the public interest.¹⁹ FERC has stated that the Natural Gas Act “sets out a general presumption favoring . . . authorization” for applications to modify natural gas terminals.²⁰ FERC has also taken the position that public interest review is limited to the economic and environmental impacts of “the proposal before us,” i.e., limited to the impacts associated with the facilities used to allow exports, but not the impacts of the exports themselves.²¹

FERC has defended its view that only the direct environmental impacts of a facility matter for its public interest determination in a round-about way. Specifically, it has stated that its regulatory functions vis-à-vis LNG export facilities were transferred to the Secretary of Energy in 1977 in the Department of Energy Organization Act;²² that the Secretary subsequently delegated back to FERC the authority to approve or disapprove the construction and operation of particular facilities;²³ but that the Secretary's delegation of

19. 15 U.S.C. § 717b(a) (2012); *see also* 15 U.S.C. § 717b(e)(1) (2012) (“The Commission shall have the exclusive authority to approve or deny an application for the siting, construction, expansion, or operation of an LNG [liquefied natural gas] terminal.”); RATNER ET AL., *supra* note 7, at 14.

20. Respondent's Opening Brief at 6, *Freeport I*, 827 F.3d 36 (D.C. Cir. July 17, 2015) (No. 14-1275) (citing Va. Pub. Servs. Comm'n v. Dep't of Energy, 681 F.2d 847, 856 (D.C. Cir. 1982)).

21. *See* Order Granting Authorizations Under Section 3 of the Natural Gas Act, Freeport LNG Development, L.P., 148 FERC ¶ 61,076, 9–10 (July 30, 2014).

22. *Id.* at 8 (citing 42 U.S.C. § 7151(b)).

23. *Id.* (citing DOE Delegation Order No. 00-044.00A).

authority does not permit FERC to consider the indirect environmental impacts of a particular facility.²⁴

Courts have neither blessed FERC's interpretations of the DOE delegation order nor outlined the precise scope of FERC's actual authority under the delegation.²⁵ The answers to these questions may have important implications in future cases. Nevertheless, even if FERC need only consider the environmental impacts directly surrounding a proposed facility for purposes of its Natural Gas Act-mandated public interest determination, its *environmental review* mandated by NEPA would still need to discuss anticipated environmental impacts occurring further afield.²⁶ After all, neither the Natural Gas Act nor DOE's delegation order purports to override NEPA's independent requirement that agencies document the indirect impacts of a proposal.²⁷

In any event, in addition to securing FERC's approval for the construction and operation of the export facility, parties seeking to export natural gas also file for an export authorization under the rules and procedures established by DOE.²⁸ Proposals to export gas to a "free trade" nation receive automatic authorization from DOE.²⁹ In other words, in some instances, the only review standing between a proposal to build LNG export facilities and international markets is FERC's public interest assessment.³⁰ Before granting

24. *See id.* at 8–10. FERC subsequently re-characterized its decision to decline consideration of indirect effects, defending its decision on the grounds that the potential environmental effects were not sufficiently causally related to the project under review. Order Denying Rehearing and Clarification, Freeport LNG Development, L.P., 149 FERC ¶ 61,119, 10 (Nov. 13, 2014).

25. *See Freeport I*, 827 F.3d at 45 (expressly not deciding the "propriety or scope of the Commission's delegated authority under the Natural Gas Act").

26. *See* 42 U.S.C. § 4332(2)(C) (2012); 40 C.F.R. § 1508.8 (2017). NEPA will be covered in more detail in Section II.B.

27. *See* 42 U.S.C. § 4332(2)(C) (2012); 40 C.F.R. § 1508.8 (2017).

28. 15 U.S.C. § 717b(a) (2012). DOE regulations implementing those requirements were promulgated at 10 C.F.R. pt. 590 (2017), "Administrative Procedures with Respect to the Import and Export of Natural Gas." While section 717b(a) appears to require FERC's approval for the export of natural gas, this function was transferred to the Secretary of Energy in 1977 pursuant to section 301(b) of the Department of Energy Organization Act, 42 U.S.C. § 7151(b) (2012).

29. 15 U.S.C. § 717b(c) (2012).

30. *Freeport I*, 827 F.3d at 40; *see also* Answering Brief for Respondent at 5, *Freeport II*, 867 F.3d 189 (D.C. Cir. May 23, 2016) (No. 15-1489).

applications to export gas to a country with which the United States has no free trade agreement, however, DOE must independently determine whether such exports would be inconsistent with the public interest.³¹

DOE recognizes that its public interest review requires an assessment of environmental impacts³² but has taken the position that the Natural Gas Act does not impose environmental review obligations greater than those already required under NEPA.³³ Nevertheless, the relevance of environmental impacts to DOE's public interest review indicates how much DOE relies on an honest, comprehensive NEPA analysis to inform its substantive public interest determination.³⁴ In other words, deficiencies in DOE's environmental review required by NEPA run the risk of infecting its substantive public interest determinations; presumably, without characterizing or evaluating the severity of environmental impacts, DOE would have no basis for concluding that the exports' benefits are outweighed by environmental harms.

DOE and FERC's responsibilities to chronicle environmental impacts are not just implicit in the Natural Gas Act's public interest determinations. The Act explicitly establishes a protocol to ensure compliance with environmental reviews required by NEPA by designating FERC as "the lead agency for the purposes of coordinating *all* applicable Federal authorizations and for the purposes of complying with [NEPA]."³⁵ The D.C. Circuit has interpreted this to mean that, for purposes of FERC's environmental reviews, DOE participates as a "cooperating agency."³⁶ Then, DOE may adopt

31. 15 U.S.C. § 717b(a) (2012).

32. See Answering Brief for Respondent, *supra* note 30, at 60 (noting DOE's duty is to identify and evaluate the factors relevant to the public interest, specifically listing environmental factors); see also *id.* at 36 (noting DOE considered a study estimating indirect greenhouse gas emissions across all proposed exports, but not the specific facility at issue).

33. *Id.* at 60.

34. In fact, DOE regulations specifically enlist the applicants themselves in the environmental review process, requiring export applications to include the potential environmental impacts of the project. 10 C.F.R. § 590.202(b)(7) (2017).

35. 15 U.S.C. § 717n(b)(1) (2012) (emphasis added).

36. *Freeport II*, 867 F.3d 189, 193 (D.C. Cir. 2017) (citing *Freeport I*, 827 F.3d 36, 41–42 (D.C. Cir. 2016)).

FERC's environmental analysis as its own for purposes of the NEPA review triggered by an export-authorization request, provided that DOE "independently review[s]" FERC's work and concludes that DOE's own "comments and suggestions have been satisfied."³⁷

B. The National Environmental Policy Act (NEPA)

Often called the "Magna Carta"³⁸ of environmental laws, NEPA creates an information-forcing regime to serve "twin aims": (1) to ensure that *all* federal agencies have considered every significant aspect of the environmental impact of a proposed action; and (2) to guarantee that the public is made aware of the consequences of an agency's decisions, enabling interested persons to participate in deciding what projects agencies should approve and under what terms.³⁹ With NEPA, the hope was that agencies' "we know best" approach that ignored environmental consequences would become a thing of the past.⁴⁰

As an umbrella statute, NEPA applies to all federal agencies, regardless of their underlying substantive mandates. Specifically, NEPA requires all federal agencies to prepare a "detailed statement," known as an Environmental Impact Statement (EIS), on the environmental impacts of proposed legislation and major federal actions significantly affecting the quality of the human environment.⁴¹ An EIS must discuss,

37. *Id.*

38. See Daniel R. Mandelker, *The National Environmental Policy Act: A Review of Its Experience and Problems*, 32 WASH. U.J.L. & POL'Y 293, 293 (2010).

39. *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 768 (2004); *Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87, 97 (1983); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 347 (1989).

40. ENVTL. LAW INST., NEPA SUCCESS STORIES: CELEBRATING 40 YEARS OF TRANSPARENCY AND OPEN GOVERNMENT 3 (2010), <http://www.eli.org/research-report/nepa-success-stories-celebrating-40-years-transparency-and-open-government> [<http://perma.cc/8yuk-r7ud>].

41. 42 U.S.C. § 4332(2)(C) (2012). Because consideration of a "major federal action[] significantly affecting the quality of the human environment" is what triggers the requirement to prepare an EIS, agencies can also first prepare a smaller, shorter document called an Environmental Assessment (EA) to determine whether an EIS is required. *Pub. Citizen*, 541 U.S. at 757. If the EA indicates that no significant impact is likely, then the agency can release a finding of no significant impact (FONSI) and carry on with the proposed action. *Id.* at 757–58. Otherwise, the agency must then conduct a full-scale EIS. See *id.*

inter alia: (1) the environmental impacts of the proposed action; (2) the unavoidable adverse environmental effects should the proposed course of action be implemented; (3) alternatives to the proposed action; and (4) whether the proposed action may result in the irreversible and irretrievable commitment of resources.⁴² The Environmental Protection Agency’s Council on Environmental Quality (CEQ) has promulgated regulations concerning the scope, extent, and timing of an EIS.⁴³ These regulations bind federal agencies by executive order and receive “substantial deference” from courts.⁴⁴

1. *NEPA Requires Analyzing Indirect Effects, Including Upstream Emissions*

Adequately analyzing the environmental impact of a proposed project requires agencies to consider three kinds of environmental effects. First, “direct” effects are those that “are caused by the action and occur at the same time and place,”⁴⁵ such as the local environmental effects associated with constructing or modifying an LNG export facility. Second, agencies must also consider “indirect” environmental effects that “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”⁴⁶ For example, in a case involving a new railway that would reduce the cost of delivering coal, the permitting agency was required to address the resulting increase in coal consumption and the effects thereof as “indirect effects.”⁴⁷ Finally, an agency must consider an action’s “cumulative impact”—the impact on the environment that would result “from the incremental impact of the action when added to other past, present, and reasonably

42. 42 U.S.C. § 4332(2)(C) (2012).

43. 40 C.F.R. §§ 1500–1508 (2017).

44. *Taxpayers of Mich. Against Casinos v. Norton*, 433 F.3d 852, 861 (D.C. Cir. 2006) (citing *Andrus v. Sierra Club*, 442 U.S. 347, 358 (1979)).

45. 40 C.F.R. § 1508.8 (2017).

46. *Id.*

47. *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549–50 (8th Cir. 2003).

foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.”⁴⁸

For fossil fuel extraction or infrastructure projects, litigation often centers on whether the environmental review considers all of the indirect effects that reasonably result from a proposed project. Akin to the notion of proximate cause in tort law, an impact is “reasonably foreseeable” if a person of ordinary prudence would take it into account in reaching a decision.⁴⁹ The process can boil down to “look[ing] to the underlying policies or legislative intent in order to draw a manageable line between those causal changes that may make an actor responsible for an effect and those that do not.”⁵⁰

Thus, agencies seeking to avoid review of indirect effects may argue that indirect effects—such as domestic greenhouse gas emissions from export-triggered natural gas production—are not reasonably foreseeable. The D.C. Circuit’s recent decision in *Sierra Club v. Federal Energy Regulatory Commission* indicates that environmental groups may be able to overcome this hurdle by appealing to the project’s purpose.⁵¹ For example, in *Sierra Club*, environmental groups and landowners challenged FERC’s decision to approve the construction and operation of three new interstate natural gas pipelines in the southeastern United States.⁵² The challengers’ primary argument was that FERC had failed to assess the downstream environmental impacts of the pipeline, namely the greenhouse gas emissions that would result from burning gas carried by the new pipelines.⁵³ The D.C. Circuit agreed, pointing out that if the purpose of building pipelines was to transport the gas for its use, greenhouse gas emissions resulting from its use were surely foreseeable.⁵⁴

48. 40 C.F.R. § 1508.7 (2017).

49. *Freeport I*, 827 F.3d 36, 47 (D.C. Cir. 2016); *City of Shoreacres v. Waterworth*, 420 F.3d 440, 453 (5th Cir. 2005); *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992).

50. *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004) (quoting *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1983)).

51. *See Sierra Club v. Fed. Energy Regulatory Comm’n*, 867 F.3d 1357, 1374 (D.C. Cir. 2017).

52. *Id.* at 1363.

53. *Id.*

54. *Id.* at 1371–72 (“What are the ‘reasonably foreseeable’ effects of authorizing a

Occasionally, the dearth of adequate information regarding a project's indirect effects makes meaningful analysis impossible. Thus, while CEQ regulations expressly address how agencies should handle missing or incomplete information about potentially significant environmental impacts,⁵⁵ the feasibility of estimating environmental effects can bleed into a court's analysis of whether those effects are foreseeable.⁵⁶ NEPA reviews, however, necessarily involve some reasonable forecasting, and agencies may sometimes need to make educated assumptions because it is their responsibility to predict the environmental effects of a proposed action before those effects are fully known.⁵⁷ In other words, courts have refused to allow agencies to shirk their responsibility by merely "labeling any and all discussion of future environmental effects as a 'crystal ball inquiry.'"⁵⁸

Furthermore, even if the *extent* of the effect is speculative, the *nature* of the effect may be reasonably foreseeable, meaning that an agency cannot simply ignore this effect in its NEPA review. For example, in *Mid States Coalition for Progress v. Surface Transportation Board*, the Eighth Circuit found inadequate the Surface Transportation Board's (STB) EIS analyzing the construction and rehabilitation of rail lines to service coal mines in Wyoming's Powder River Basin.⁵⁹ Environmental groups argued that STB had failed to consider greenhouse gas effects associated with an increase in supply of

pipeline that will transport natural gas to Florida power plants? First, that gas will be burned in those power plants. This is not just 'reasonably foreseeable,' it is the project's entire purpose, as the pipeline developers themselves explain.").

55. See 40 C.F.R. § 1502.22(a) (2017) (requiring agencies to obtain missing information essential to a reasoned choice among alternatives, unless the costs of obtaining the information are exorbitant or the information is simply unavailable).

56. See, e.g., *Sierra Club*, 867 F.3d at 1373–74.

57. Albert C. Lin notes that both tort law and NEPA use the term "foreseeable," but in different ways. Albert C. Lin, *Erosive Interpretation of Environmental Law in the Supreme Court's 2003-04 Term*, 42 HOUS. L. REV. 565, 610 (2005). In tort law, proximate cause is a screening device to limit liability by asking what is fair to impose on the defendant. See *id.* By contrast, NEPA does not involve substantive liability, and the statute's information-forcing aims favor a broader disclosure of effects, so a less restrictive version of causation is appropriate. See *id.*

58. *Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Comm'n*, 481 F.2d 1079, 1092 (D.C. Cir. 1973).

59. *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549–50 (8th Cir. 2003).

coal to power plants that would occur as a result of the upgrades.⁶⁰ STB argued that it would “need to know where [the power plants would] be built, and how much coal these new unnamed power plants would use” in order to analyze emissions from increased coal consumption.⁶¹ The Eighth Circuit concluded that even if the full extent of the environmental impacts of the increased coal usage was not known, the nature of the ensuing environmental effects plainly was.⁶² “[W]hen the *nature* of the effect is reasonably foreseeable but its *extent* is not,” the court concluded, an agency “may not simply ignore the effect” in its NEPA review.⁶³

The nature-extent dichotomy is important because, as discussed below, one of the studies in the record before FERC and DOE regarding the Freeport LNG Terminal expressly concluded that increased natural gas exports raise domestic natural gas prices, reduce domestic natural gas consumption, and shift the electric power sector back to coal-fired generation.⁶⁴ Because the nature of these effects of increased LNG exports are reasonably foreseeable, one would expect a court to insist that these impacts receive due attention.

Occasionally an agency will not dispute that foreseeable indirect effects would have major environmental consequences but claim that they can lawfully ignore these effects because they are not directly caused by the agency’s decision. *Department of Transportation v. Public Citizen*⁶⁵ offers these agencies a Supreme Court case to cite in support of this proposition. The litigation in *Public Citizen* followed President Bush’s announcement that he intended to end a moratorium that prevented Mexican trucks from operating within the United States.⁶⁶ Congress subsequently passed legislation barring the Federal Motor Carrier Safety Administration (FMCSA) from spending funds to process applications for

60. *Id.* at 549–50.

61. *Id.* at 549.

62. *Id.*

63. *Id.* (emphasis in original).

64. U.S. ENERGY INFO. ADMIN., *supra* note 4, at 6.

65. 541 U.S. 752, 770 (2004).

66. *Id.* at 760.

Mexican trucks to operate in the United States until it issued rules containing certain safety-monitoring requirements.⁶⁷ Accordingly, FMCSA promulgated rules to establish an application and safety inspection regime for Mexican trucks seeking to conduct cross-border operations.⁶⁸ FMCSA prepared an Environmental Assessment of its new rules.⁶⁹ The assessment only considered the direct environmental effects of the proposed regulations—i.e., the impacts of increasing the number of roadside inspections of Mexican trucks—and ignored the proposed regulation’s indirect environmental impacts, namely greenhouse gas emissions resulting from the increased presence of Mexican trucks in the United States.⁷⁰

Environmental groups challenged the rules, arguing that FMCSA violated NEPA by failing to consider the effects of increased Mexican truck traffic that would result from lifting the moratorium.⁷¹ The Supreme Court unanimously held that NEPA did not require such an evaluation.⁷² It reasoned that “where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant ‘cause’ of the effect.”⁷³ In other words, because only the President, and not the agency, could authorize (or not authorize) cross-border operations from Mexican motor carriers, the agency did not need to consider the environmental effects arising from the entry of Mexican trucks.⁷⁴

At least in the natural gas pipeline context, the D.C. Circuit has not applied an overly-expansive reading of *Public Citizen*. For example, in the above-mentioned *Sierra Club v. Federal*

67. *Id.*

68. *See id.* at 760–62.

69. As explained in *supra* text accompanying note 41 and Section III.A, the difference between an EIS and an EA is important. Public Citizen challenged FMCSA’s decision to perform the more limited EA rather than an EIS. *Pub. Citizen*, 541 U.S. at 765. Essentially, it argued that had the agency taken account of the indirect impact of the increased trucks, it would have been significant enough to warrant an EIS. *Id.* at 763.

70. *Id.* at 754.

71. *Id.* at 763.

72. *Id.* at 754–55.

73. *Id.* at 770 (internal quotations omitted).

74. *Id.*

Energy Regulatory Commission, environmental groups claimed that FERC's environmental review for new pipelines to service Florida power plants should have assessed greenhouse gas emissions from the new and existing power plants.⁷⁵

Like the two-tiered statutory framework at issue in *Public Citizen*, under Florida law, the Florida Power Plant Board authorizes new power plants but FERC authorizes the construction of interstate pipelines necessary to carry the natural gas.⁷⁶ The D.C. Circuit still found, however, that FERC needed to assess the resulting emissions. The court's decision to avoid an overly-broad application of *Public Citizen* makes sense. Had the D.C. Circuit allowed FERC to ignore the emissions resulting from its decision to authorize new pipelines, it would have eviscerated NEPA regulations calling for consideration of "growth-inducing effects" and run counter to case law requiring agencies to evaluate effects outside of their jurisdiction.⁷⁷

2. *NEPA Requires Agencies to Consider "Connected Actions"*

In addition to considering indirect effects of granting a permit for a fossil fuel infrastructure project, NEPA requires agencies to consider the environmental effects of actions "connected" to the one under review.⁷⁸ Per CEQ regulations, agencies must prepare a single environmental review when the proposal under review:

- (i) Automatically trigger[s] other actions which may require environmental impact statements.
- (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.

75. *Sierra Club v. Fed. Energy Regulatory Comm'n*, 867 F.3d 1357, 1373–74, 1381 (D.C. Cir. 2017).

76. *Id.* at 1381.

77. *See, e.g., Calvert Cliffs' Coordinating Comm., Inc. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109, 1122–23 (D.C. Cir. 1971) (noting NEPA would "wither away in disuse, [if] applied only to those environmental issues wholly unregulated by any other federal, state or regional body"); *see also Ark. Nature All. v. U.S. Army Corps of Eng'rs*, 266 F. Supp.2d 876, 891–92 (E.D. Ark. 2003); *Friends of the Earth v. U.S. Army Corps of Eng'rs*, 109 F. Supp.2d 30, 40–41 (D.D.C. 2000).

78. 40 C.F.R. § 1508.25(a)(1) (2017).

- (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.⁷⁹

This anti-segmentation principle guards against dividing a project into multiple proposals, and separately analyzing each of the portions to avoid consideration of an entire action's effects on the environment.⁸⁰

*Thomas v. Peterson*⁸¹ is the leading case exemplifying how courts use an “independent utility” test to ferret out improper segmentation. In *Thomas*, the Forest Service approved a logging road designed to transport timber from pending timber sales. “It is clear,” the Ninth Circuit stated, “that the timber sales cannot proceed without the road, and the road would not be built but for the contemplated timber sales.”⁸² The court ordered the Forest Service to prepare and consider an EIS that analyzed the combined impacts of the road and the timber sales. If the timber sales were sufficiently certain to justify construction of the road, the Ninth Circuit concluded, then they were sufficiently certain for their environmental impacts to be analyzed along with those of the road.⁸³ More recently, the D.C. Circuit considered connected actions in the natural gas infrastructure context. Reiterating the independent utility test, the court concluded that FERC improperly segmented review of a series of financially and functionally interdependent natural gas pipeline improvements.⁸⁴

Considering the attention that both CEQ regulations and courts have given to ensure that the scope of environmental reviews is properly defined, one might expect the anti-

79. *Id.*

80. See *W. Radio Servs. Co. v. Glickman*, 123 F.3d 1189, 1194 (9th Cir. 1997) (explaining that NEPA prevents an agency from “illegally segmenting projects in order to avoid consideration of an entire action’s effects on the environment”); *Pac. Coast Fed’n of Fishermen’s Ass’ns v. Blank*, 693 F.3d 1084, 1099 (9th Cir. 2012).

81. 753 F.2d 754 (9th Cir. 1985); see also *Pac. Coast*, 693 F.3d at 1098 (“The crux of the [independent utility] test is whether each of two projects would have taken place with or without the other . . .”).

82. *Thomas*, 753 F.2d at 758.

83. *Id.* at 761.

84. *Del. River Keeper Network v. Fed. Energy Regulatory Comm’n*, 753 F.3d 1304, 1313–14 (D.C. Cir. 2014) (“When one of the projects might reasonably have been completed without the existence of the other, the two projects have independent utility and are not ‘connected’ for NEPA’s purposes.”).

segmentation principles appearing in connected actions cases to play a key role in analyzing the sufficiency of the environmental reviews undertaken by FERC. After all, the construction, upgrades, and operation of facilities permitted by FERC are for the explicit purpose of enabling LNG exports.⁸⁵ Yet, as discussed below, the D.C. Circuit has thus far declined to decide whether the Natural Gas Act's two-tier permitting process creates "connected actions" that must be analyzed in a single EIS.⁸⁶

3. *NEPA Requires Agencies to Work Together*

Congress could not have been clearer about directing federal agencies to conduct environmental reviews jointly.⁸⁷ Per CEQ regulations, federal agencies with jurisdiction over different aspects of a single proposal designate a "lead agency" to supervise the preparation of a common EIS, with the other agencies acting as "cooperating agencies."⁸⁸ Cooperating agencies *must* participate in the scoping process.⁸⁹ Furthermore, cooperating agencies assume "responsibility for developing information and preparing environmental analyses" concerning topics over "which the cooperating agency has special expertise," should the lead agency so request.⁹⁰

These requirements warrant particular attention considering the two-tier permitting structure of the Natural Gas Act. Recall that the Act designates FERC to be "the lead agency for the purposes of coordinating *all* applicable Federal authorizations and for the purposes of complying with [NEPA]."⁹¹ In practice, DOE participates in FERC's limited environmental review as a "cooperating agency," and

85. See FED. ENERGY REGULATORY COMM'N, DOE/EIS-0487, FREEPORT LNG LIQUEFACTION PROJECT PHASE II MODIFICATION PROJECT: FINAL ENVIRONMENTAL IMPACT STATEMENT 1-3 (2014).

86. *Freeport I*, 827 F.3d 36, 45–46 (D.C. Cir. 2016).

87. 42 U.S.C. § 4332(2)(C) (2012) ("Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved.").

88. *Id.* §§ 1501.5, 1501.6, 1508.5, 1508.16.

89. *Id.* § 1501.6.

90. *Id.*

91. 15 U.S.C. § 717n(b)(1) (2012) (emphasis added).

incorporates the FERC review for purposes of satisfying its own responsibilities.⁹² Cooperation between the two agencies to conduct as complete an environmental review as possible, at the earliest possible stage, would make practical sense given that FERC-level decisions about a facility's capacity necessarily affect DOE-level decisions about how much LNG may be exported.

4. *NEPA Requires Agencies to Take a "Hard Look" at Environmental Impacts at the Earliest Possible Time*

In addition to NEPA's requirements concerning the scope and procedure of environmental reviews, "timing is one of NEPA's central themes. An assessment must be 'prepared early enough so that it can serve practically as an important contribution to the decisionmaking process and will not be used to rationalize or justify decisions already made.'"⁹³ The phrase "early enough" means "at the earliest possible time to insure that planning and decisions reflect environmental values."⁹⁴ By referring to NEPA's requirements as "action forcing,"⁹⁵ the Supreme Court embraced the rule that environmental reviews "shall be prepared at the feasibility analysis (go-no go) stage and may be supplemented at a later stage if necessary."⁹⁶

The requirement for environmental reviews to be completed at the "go-no go" stage has particular ramifications for DOE, given its thirty-year history of granting conditional approval for requests to export LNG before completing its

92. *Freeport II*, 867 F.3d 189, 193 (D.C. Cir. 2017) (citing *Freeport I*, 827 F.3d 36, 41–42 (D.C. Cir. 2016)); see also 40 C.F.R. § 1506.3(a) (2017) (providing that cooperating agencies may only adopt the EIS of a lead agency if "[it] meets the standards for an adequate statement under these regulations.>").

93. *Metcalf v. Daley*, 214 F.3d 1135, 1142, 1145 (9th Cir. 2000) ("NEPA's effectiveness depends entirely on involving environmental considerations in the initial decisionmaking process."); see 40 C.F.R. §§ 1501.2, 1502.5 (2017); see also *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989) (explaining that NEPA "ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts"); *Save the Yaak Comm. v. Block*, 840 F.2d 714, 718 (9th Cir. 1988).

94. *Andrus v. Sierra Club*, 442 U.S. 347, 351 (1979).

95. *Id.* at 350.

96. *Id.* at 351 n.3.

environmental review.⁹⁷ In 2014, however, DOE revised its procedures, stating that it would suspend its practice of issuing conditional decisions.⁹⁸ Whether or not DOE's new procedures signal a new commitment to NEPA principles remains to be seen; DOE has admitted that it will still begin its public interest analysis *prior* to completion of NEPA review, but it will not issue a final decision before the NEPA review is complete.⁹⁹

Of course, NEPA does not require that agency officials be “subjectively impartial,” but “[t]he statute does require . . . that projects be objectively evaluated” before an agency commits itself to a particular decision.¹⁰⁰ For example, the Ninth Circuit found that the National Oceanic and Atmospheric Administration, the National Marine Fisheries Service, and other federal defendants violated NEPA by promising their support for the Makah Indian Tribe's proposal for a quota of gray whales for subsistence and ceremonial use before undertaking the requisite environmental review.¹⁰¹ In so doing, the court captured the essence of NEPA: “the comprehensive ‘hard look’ . . . required by the statute must be timely, and it must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made.”¹⁰²

II. PERMITTING IN ACTION: THE CASE IN FREEPORT

In contrast to courts' consistent opinions holding that downstream emissions fall within the scope of indirect impacts that should be reviewed under NEPA in other contexts, courts' treatment of LNG export facilities has thus far proven unique.¹⁰³ For this reason, the Sierra Club's parallel challenges

97. Procedures for Liquefied Natural Gas Export Decisions, 79 Fed. Reg. 48,132, 48,133 (Aug. 15, 2014).

98. *Id.*

99. *Id.*

100. *Metcalf v. Daley*, 214 F.3d 1135, 1142 (9th Cir. 2000).

101. *Id.* at 1143.

102. *Id.* at 1142.

103. Michael Burger & Jessica Wentz, *Downstream and Upstream Greenhouse Gas Emissions: The Proper Scope of NEPA Review*, 41 HARV. ENVTL. L. REV. 109, 143 (2017); see also *Sierra Club v. Fed. Energy Regulatory Comm'n*, 867 F.3d 1357, 1373–74 (D.C. Cir. 2017) (FERC must consider downstream effects of pipelines); *Mid States*

to the expansion of the Freeport facility and related exports deserve careful scrutiny.

In 2004, FERC authorized Freeport to site, construct, and operate an LNG import terminal on Quintana Island in Brazoria County, Texas.¹⁰⁴ In 2011 and 2012, amid the spike in domestic gas production, Freeport sought FERC's approval for new upgrades and facilities to allow for gas exports.¹⁰⁵ Pursuant to its statutory duty to coordinate the environmental review, FERC prepared an EIS.¹⁰⁶ The DOE, the Environmental Protection Agency, the Department of Transportation, the Army Corps of Engineers, and the National Oceanic and Atmospheric Administration all participated in the consolidated environmental review as cooperating agencies.¹⁰⁷

Prior to FERC's EIS, Freeport separately sought authorization from DOE to export natural gas.¹⁰⁸ The Department approved Freeport's request to export gas to free-trade agreement countries in February 2011—requests that the Natural Gas Act requires to be approved without delay¹⁰⁹—and gave conditional approval for exporting LNG to the requested non-free trade countries in May and November 2013, also before FERC released its EIS.¹¹⁰ The Department's final authorization, it explained, would be contingent on satisfactory completion of FERC's ongoing environmental review process.¹¹¹

FERC released its Final EIS in June 2014.¹¹² Focusing on the site-specific effects of the construction, it stated that the Freeport project “would result in some adverse environmental impacts,” which would be “mostly temporary and short-term[.]”

Coal. for Progress v. Surface Transp. Bd., 345 F.3d 520, 549 (8th Cir. 2003) (agency must consider effect of reducing the price of coal when approving upgrades to coal rail line).

104. *Freeport I*, 827 F.3d 36, 42 (D.C. Cir. 2016).

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.*

109. 15 U.S.C. § 717b(c) (2012).

110. *Freeport I*, 827 F.3d at 42.

111. *Id.*

112. *Id.*

provided Freeport implemented the mitigation conditions FERC proposed.¹¹³ FERC proceeded to authorize the construction, enabling the export of 1.5 billion cubic feet of gas per day.¹¹⁴ Combining Freeport with the other projects approved or pending before FERC at the time, FERC had approved exports totaling 12.5 billion cubic feet per day—a volume equivalent to 19% of the nation-wide demand for natural gas.¹¹⁵ DOE adopted FERC's EIS in full, and approved Freeport's application in November 2014.¹¹⁶

A. Freeport I: *The FERC Review*

The Sierra Club intervened in the FERC permitting process and sought a re-hearing, asserting that FERC's NEPA analysis failed to address the indirect impacts of upgrading the Freeport facilities to pave the way for exporting LNG. Sierra Club's basic contention was fairly intuitive: the sole purpose of the Freeport upgrade and construction project was to export natural gas and yet FERC's environmental review failed to evaluate how exporting natural gas from Freeport would contribute to rising domestic prices and increased coal consumption.¹¹⁷ FERC claimed (1) that increases in gas production and coal use, if any, are caused by the DOE permit, meaning they are not sufficiently causally related to the Freeport project; and (2) that these effects were not reasonably foreseeable to warrant analysis.¹¹⁸ FERC denied the petition for re-hearing and, the next day, DOE issued its final order authorizing Freeport to export natural gas to non-free trade agreement countries.¹¹⁹

113. *Id.*

114. *Id.*; Order Granting Authorizations Under Section 3 of the Natural Gas Act, Freeport LNG Development, L.P., 148 FERC ¶ 61,076, 1, 2, 17 (July 30, 2014).

115. Petitioner's Reply Brief at 10, *Freeport I*, 827 F.3d 36 (D.C. Cir. July 1, 2015) (No. 14-1275).

116. *Freeport II*, 867 F.3d 189, 196 (D.C. Cir. 2017).

117. *Freeport I*, 827 F.3d at 42–43.

118. *See id.* at 48; Order Denying Rehearing and Clarification, Freeport LNG Development, L.P., 149 FERC ¶ 61,119, 10 (Nov. 13, 2014).

119. *Freeport I*, 827 F.3d at 43.

The D.C. Circuit rejected the challenges to FERC's NEPA review.¹²⁰ In doing so, it cited *Public Citizen* for the proposition that FERC could lawfully ignore indirect effects of the anticipated *export* of natural gas “because the Department of Energy, not the Commission, has sole authority to license the export of any natural gas going through the Freeport facilities.”¹²¹ The court explained that in the specific circumstance where, as here, an agency “has no ability to prevent a certain effect due to” that agency’s “limited statutory authority over the relevant action[],” then that action “cannot be considered a legally relevant ‘cause’ of the effect for NEPA purposes.”¹²² According to the court:

The Department’s independent decision to allow exports—a decision over which the Commission has no regulatory authority—breaks the NEPA causal chain and absolves the Commission of responsibility to include in its NEPA analysis considerations that it “could not act on” and for which it cannot be “the legally relevant cause.”¹²³

Sierra Club argued that LNG exports from the Freeport facility could not occur absent the liquefaction infrastructure that FERC had authorized, so the fact that subsequent decisions that would affect the extent of resulting environmental impacts did not alleviate FERC’s obligation to assess their nature.¹²⁴ Additionally, undisputed record evidence made clear that exporting natural gas requires increasing domestic natural gas production—sixty to seventy percent of LNG exports will come from new natural gas production.¹²⁵ In other words, it was not just foreseeable that domestic production would rise to meet demand for exporting LNG, it had already been foreseen. Therefore, FERC should have addressed those environmental effects.

120. *Id.* at 51.

121. *Id.* at 47.

122. *Id.* (citing *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 771 (2004)).

123. *Id.* at 48 (citing *Pub. Citizen*, 541 U.S. at 769).

124. See Petitioner’s Reply Brief, *supra* note 115, at 10.

125. See *id.* at 17–18; U.S. ENERGY INFO. ADMIN., *supra* note 4, at 6.

The D.C. Circuit appeared to sidestep the foreseeability argument, reiterating that “critical to triggering that chain of events is the intervening action of the Department of Energy in granting an export license.”¹²⁶ Even though the environmental impacts would not occur but for FERC’s approval of the facilities to make export possible, the D.C. Circuit framed the resolution of the question differently: because the environmental groups had not identified impacts that would occur but for the DOE decision to authorize exports, FERC need not examine the foreseeable effects thereof.¹²⁷ This reasoning implicitly suggests that even when an “intervening” cause is foreseeable—which was certainly the case, given DOE’s conditional approval of the export—it can still trump FERC’s obligations to assess the indirect consequences of its actions.

B. Freeport II: *The DOE Review*

While the DOE adopted the EIS prepared by FERC in full, it also supplemented it with additional reports. An addendum to the EIS disclosed how increased natural gas drilling would impact the water, air, and land resources surrounding production activities, but failed to link any of these impacts to any particular amount of exports.¹²⁸ Additionally, the Department commissioned the National Energy Technology Laboratory (NETL) to prepare a report on the lifecycle greenhouse gas emissions of LNG exports.¹²⁹ Notably, the generalized NETL report was applicable to all LNG exports, thus failing to provide any estimate of the greenhouse gas emissions associated with the particular export request under

126. *Freeport I*, 827 F.3d at 47–48.

127. *Id.* at 48 (noting that the challengers had failed to identify “any specific and causally linear indirect consequences that could reasonably be foreseen and factored into the Commission’s environmental analysis *that exist apart from the intervening Department of Energy decision to authorize exports*”) (emphasis added).

128. *Freeport II*, 867 F.3d 189, 195 (D.C. Cir. 2017) (citing Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States, 79 Fed. Reg. 48,132 (Aug. 15, 2014)).

129. NAT’L ENERGY TECH. LAB., U.S. DEP’T OF ENERGY, LIFE CYCLE GREENHOUSE GAS PERSPECTIVE ON EXPORTING LIQUEFIED NATURAL GAS FROM THE UNITED STATES (2014) (published at 79 Fed. Reg. 32,260 (June 4, 2014)).

review.¹³⁰ As a result, DOE never addressed how much additional greenhouse gas pollution could be emitted in the United States as a result of the Freeport proposal.¹³¹

The Sierra Club challenged DOE's NEPA review because of the Department's failure to disclose the domestic upstream emissions triggered by the volume of gas that would be exported from the Freeport terminal.¹³² The generalized information it had provided was adequate, DOE responded, because Sierra Club was able to use this information to develop ballpark estimates of the impacts of induced gas production for the particular proposal under review.¹³³ The D.C. Circuit sided with DOE.¹³⁴ It did not, however, articulate a reason why, consistent with NEPA requirements, DOE could avoid estimating the greenhouse gas emissions associated with the specific exports under review.¹³⁵

III. CRITICISMS OF THE D.C. CIRCUIT'S REASONING

The D.C. Circuit's *Freeport I* and *Freeport II* decisions have effectively created a regulatory void, hiding the domestic effects of LNG exports from view.¹³⁶ Thus, despite DOE's own recognition that environmental effects are a component of its public interest determination imposed by the Natural Gas Act,¹³⁷ the Department remains free to conclude that the benefits of approval outweigh its environmental impacts without ever having adequately identified those impacts. This outcome runs counter to NEPA's "twin aims" of ensuring that

130. Jessica Wentz, *Fossil Fuel Projects and NEPA Reviews: Two New Decisions on the Proper Scope of Analysis for Indirect and Cumulative Greenhouse Gas Emissions*, WESTLAW J. ENVTL., Sept. 2017, at 3, 3.

131. *Freeport II*, 867 F.3d at 198–202.

132. Petitioner's Final Reply Brief at 27, *Freeport II*, 867 F.3d 189 (D.C. Cir. July 5, 2016) (No. 15-1489).

133. Answering Brief for Respondent, *supra* note 30, at 57.

134. *Freeport II*, 867 F.3d at 196–97.

135. *Id.*

136. Wentz, *supra* note 130, at 3.

137. See Answering Brief for Respondent, *supra* note 30, at 60 (noting DOE's duty is to identify and evaluate the factors relevant to the public interest, specifically listing environmental factors); see also *id.* at 36 (noting DOE considered a study estimating indirect greenhouse gas emissions across all proposed exports, but not the specific facility at issue).

federal agencies have considered the environmental impacts of a proposed action and that the public is made aware of these environmental consequences.¹³⁸

A. *Freeport I's Misapplication of Public Citizen*

In deciding that FERC did not have to analyze export-induced gas production because DOE's decision to allow exports "breaks the NEPA causal chain and absolves the Commission of responsibility," the *Freeport I* court broadened and misapplied *Public Citizen*.¹³⁹ As recounted in Section I.B.1, *Public Citizen* resolved a challenge to the environmental review undertaken by FMCSA before unveiling the safety regulations allowing President Bush to officially authorize Mexican motor carriers to operate in the United States. Re-parsing *Public Citizen* reveals how the D.C. Circuit has misapplied its holdings.

In *Public Citizen*, the Supreme Court found that FMCSA did not violate NEPA by failing to discuss the greenhouse gas emissions sure to be released by the increase in Mexican trucks operating in the United States for two reasons. First, the Supreme Court found that the FMCSA regulations were not sufficiently responsible for the increased pollution caused by the trucks because the President would still need to lift the moratorium allowing more Mexican motor vehicles to travel north.¹⁴⁰ Recall that FMCSA only promulgated its rules to establish the safety inspection regime for Mexican trucks *after* President Bush announced that he intended to authorize the operation of Mexican trucks within the United States,¹⁴¹ but Congress had barred FMCSA from spending funds to process applications for Mexican trucks to operate in the United States until it issued safety-monitoring rules.¹⁴² Thus, FMCSA's

138. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 347 (1989); *Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87, 97 (1983).

139. *Freeport I*, 827 F.3d 36, 48 (D.C. Cir. 2016) (citing *U.S. Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 769 (2004)).

140. *Pub. Citizen*, 541 U.S. at 770.

141. *Id.* at 760.

142. *Id.*

decision on the safety regulations would not necessarily affect the number of trucks that would enter the country.¹⁴³

Not only was the agency powerless to change the President's decision to lift the moratorium on Mexican trucks, but FMCSA had no authority to mitigate any potential environmental impacts of the President's decision. FMCSA governs motor carrier safety; it had no statutory authority to impose or enforce emissions controls.¹⁴⁴ The agency's limited discretion raised questions about its ability to act on the information that it would have gleaned from completing an EIS.¹⁴⁵ The Court reasoned:

[R]equiring FMCSA to consider the environmental effects of the entry of Mexican trucks would fulfill neither of the statutory purposes [of ensuring that the agency, in reaching its decision, would have available, and would carefully consider, detailed information concerning significant environmental impacts and of guaranteeing that relevant information would be made available to the larger audience that might also play a role in both the decisionmaking process and implementation of that decision].¹⁴⁶

Put simply, FMCSA would be unable to act on the findings of an EIS even if it conducted one.¹⁴⁷ As a result, *Public Citizen* is likely best understood as a case applying an "implied exemption,"¹⁴⁸ which releases agencies from NEPA obligations when they undertake "non-discretionary" actions. If an agency can characterize its action as nondiscretionary, most (if not all) circuits recognize an implied exemption from NEPA's

143. *Id.*

144. *Id.* at 758–59.

145. *Id.* at 770 (noting the FMCSA had "no ability to prevent a certain effect due to its limited statutory authority over the relevant actions").

146. *Id.* at 768.

147. *Id.* at 769.

148. See generally Kyle Robisch, *The NEPA Implied Exemption Doctrine: How a Novel and Creeping Common Law Exemption Threatens to Undermine the National Environmental Policy Act*, 16 VT. J. ENVTL. L. 173 (2014); J.B. Ruhl & Kyle Robisch, *Agencies Running from Discretion*, 58 WM. & MARY L. REV. 97 (2016).

requirements.¹⁴⁹ The logic is simple: NEPA was designed to introduce environmental considerations into the decision-making processes of agencies that have the ability to react to environmental consequences when taking action, but if an agency's course is predetermined, no measure of environmental impacts could sway the agency's course of action. In fact, commentators have argued that today's Supreme Court would likely uphold the implied exemption doctrine, citing *Public Citizen* as evidence.¹⁵⁰

Given this background, it becomes apparent that had the *Freeport I* court applied a narrow reading of *Public Citizen*, it would have found the case easily distinguishable from the issues it faced in the LNG export context. The decision to ultimately allow Mexican trucks to cross the border—the “intervening cause” of the increased truck emissions—was to be made by the President. As one scholar aptly details, the government litigated the *Public Citizen* case on the theory that it presented an issue not of interpreting NEPA, but of presidential discretion, arguing that the President “must be able to act quickly and with assurance to implement the decisions that are entrusted personally to him,” and that any ruling to the contrary would have massive international trade ramifications.¹⁵¹ In the LNG context, however, the “intervening cause” is a co-equal agency already required to join the environmental review.

Nor does the FERC-DOE decision-making process in the LNG context mimic the FMCSA-Presidential two-step in *Public Citizen*. In *Public Citizen*, the President made his decision to lift the moratorium before FMCSA issued its regulations; the analogous situation would be if DOE had approved a permit to export natural gas before FERC authorized the construction of facilities necessary to do so. Yet in the context of LNG exports, FERC *must* make a determination that authorizing the construction or

149. Robisch, *supra* note 148, at 186 (collecting cases); *see also* *Sierra Club v. Babbitt*, 65 F.3d 1502, 1512 (9th Cir. 1995) (collecting cases demonstrating that nondiscretionary agency action is excused from the operation of NEPA).

150. Robisch, *supra* note 148, at 193.

151. Jeannette MacMillan, *An International Dispute Reveals Weaknesses in Domestic Environmental Law: NAFTA, NEPA, and the Case of Mexican Trucks* (Department of Transportation v. *Public Citizen*), 32 *ECOLOGY L.Q.* 491, 511 (2005).

modification of an export facility is not contrary to the public interest. FERC alone approves permits for constructing the facilities necessary to export gas, and it has broad authority to impose any conditions on approval deemed “necessary or appropriate.”¹⁵² Thus, unlike FMCSA, FERC *does* have the ability to prevent the LNG exports and their inevitable effects. After all, FERC authorization for modifying facilities or liquefying a particular capacity of natural gas for export quite literally makes the exports possible.

Additionally, requiring FERC to estimate and disclose the upstream greenhouse gas pollution caused by producing additional gas for export would ensure that FERC had considered the potentially significant environmental impacts of its authorizations. This information is especially critical in the context of exports to free trade nations, which DOE must automatically authorize.¹⁵³ Assessing the upstream impacts of exports by FERC at the construction stage may be the only time to make such information available “to a larger audience that might also play role in both decision making process and implementation of that decision.”¹⁵⁴

The D.C. Circuit’s recent decision in *Sierra Club v. Federal Energy Regulatory Commission* lays bare the trouble with *Freeport I*’s broad reading of *Public Citizen*. Recall that in *Sierra Club*, the D.C. Circuit required FERC to examine the greenhouse gas emissions resulting from power plants served by FERC-approved pipelines—despite the fact that in Florida, new power plants must receive a separate state permit. Re-characterizing *Freeport I*, the D.C. Circuit wrote:

[O]ur holding in the LNG cases was not based solely on the fact that a second agency’s approval was necessary before the environmental effect at issue could occur. Rather, [*Freeport I*] and its companion cases rested on the premise that FERC had no legal authority to

152. See 15 U.S.C. § 717b(e)(1) (2012) (granting the Commission “the exclusive authority to approve or deny an application for the siting, construction, expansion, or operation of an [export] terminal”); 15 U.S.C. § 717b(e)(3)(A) (2012) (authorizing the Commission to impose any conditions on those terminals that it finds to be “necessary or appropriate”).

153. 15 U.S.C. § 717b(c) (2012).

154. *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 768 (2004).

prevent the adverse environmental effects of natural gas exports.¹⁵⁵

As the D.C. Circuit asks rhetorically: then “[w]hat did the [*Freeport I*] court mean by its statement that FERC could not prevent the effects of exports? After all, FERC did have legal authority to deny an upgrade license for a natural gas export terminal.”¹⁵⁶ The answer, the court concludes, is that “FERC was forbidden to rely on the effects of gas exports as a justification for denying an upgrade license,” citing *Motor Vehicle Manufacturers Ass’n v. State Farm Mutual Automobile Insurance Co.*¹⁵⁷ for the proposition that an agency acts arbitrarily and capriciously if it makes a decision based on “factors which Congress had not intended it to consider.”¹⁵⁸ According to the court, because FERC was operating pursuant to a “narrow” delegation of authority from the DOE, the Commission “would have acted unlawfully had it refused an upgrade license on grounds that it did not have delegated authority to consider.”¹⁵⁹

Even the D.C. Circuit’s attempted re-characterization strains credulity. First, the D.C. Circuit describes FERC’s delegated authority as “narrow,” but provides no citation for limitations on the factors that FERC could consider in its own public interest determination.¹⁶⁰ Nor did the *Sierra Club* court acknowledge a prior statement by the D.C. Circuit in *Freeport I* that expressly reserved consideration of the scope of FERC’s delegated authority.¹⁶¹ This is perhaps no surprise; the Natural Gas Act explicitly provides that applications for constructing LNG facilities may be approved “in whole or in part. . . [w]ith such modification and upon such terms and conditions as the Commission may find necessary or

155. *Sierra Club v. Fed. Energy Regulatory Comm’n*, 867 F.3d 1357, 1373 (D.C. Cir. 2017).

156. *Id.*

157. 463 U.S. 29, 43 (1983).

158. *Sierra Club*, 867 F.3d at 1373.

159. *Id.*

160. *See id.*

161. *Wentz*, *supra* note 130, at 3.

appropriate.”¹⁶² FERC itself even explicitly stated that its refusal to consider the effects of increased gas production was based on a conclusion that NEPA did not so require, not because these effects fell within DOE’s authority.¹⁶³

Second, and more importantly, if the D.C. Circuit’s *Sierra Club* reasoning is replicated by other courts, then the scope of a NEPA analysis becomes only as broad as substantive mandates of the underlying act. NEPA then becomes only a piggy-back statute rather than a standalone law that infuses an environmental consciousness into the decision-making of all federal agencies, no matter their underlying substantive mandates. Put another way, even if it would be arbitrary and capricious for FERC to deny a permit on environmental grounds, NEPA still imposes an independent duty on FERC to consider the direct and indirect consequences of its actions.

There is no doubt that Freeport and other companies with pending proposals to export LNG cheered the D.C. Circuit’s *Freeport I* decision. However, the Court’s opinion—and subsequent attempted re-characterizations—failed to both recognize the eccentricities of *Public Citizen* and appreciate that NEPA imposes a separate, independent duty on FERC, untethered to the Natural Gas Act.

B. *Freeport II’s Failure to Require the Department of Energy to Examine Upstream Greenhouse Gas Emissions*

Freeport II, which held that DOE could lawfully ignore the domestic greenhouse gas emissions caused by authorizing gas export from the Freeport facility, faces a different set of criticisms. The D.C. Circuit agreed that DOE’s generalized impact assessment was not tailored to any specific level of exports but nonetheless upheld the analysis.¹⁶⁴ It did not explain why, consistent with NEPA, DOE could avoid

162. 15 U.S.C. § 717b(a) (2012). The Commission has plenary authority to condition its approvals of LNG facilities under section 3 of the Natural Gas Act. See Order Granting Authorizations Under Section 3 of the Natural Gas Act, Freeport LNG Development, L.P., 148 FERC ¶ 61,076, 8 n.12 (July 30, 2014) (citing *Distrigas Corp. v. Fed. Power Comm’n*, 495 F.2d 1057, 1063–64 (D.C. Cir. 1974), *cert. denied*, 419 U.S. 834 (1974), and *Dynegy LNG Production Terminal, L.P.*, 97 FERC ¶ 61,231 (2001)).

163. See Order Denying Rehearing and Clarification, Freeport LNG Development, L.P., 149 FERC ¶ 61,119, 10 (Nov. 13, 2014); see also *supra* text accompanying note 24.

164. *Freeport II*, 867 F.3d 189, 197 (D.C. Cir. 2017).

estimating the upstream greenhouse gas emissions associated with the specific exports under review.¹⁶⁵

The court's failure is particularly striking. NEPA "ensures that the agency, in reaching its decision, will have available, and will carefully consider, *detailed* information concerning significant environmental impacts[.]"¹⁶⁶ And not only had DOE explicitly recognized that "environmental factors" fall within the scope of its public interest review for export authorizations, but the Department had already generated all of the modeling it would need to estimate domestic upstream emissions associated with the particular proposal it was reviewing.¹⁶⁷

At bottom, there is simply no reason, consistent with NEPA, for DOE to exclude consideration of these domestic upstream emissions. For DOE to recognize that LNG exports will increase the demand for natural gas production,¹⁶⁸ that this increased demand will result in increased domestic production of natural gas from unconventional sources,¹⁶⁹ *and* that it has the tools to model associated emissions but refused to do so should have concerned the D.C. Circuit.

IV. THE PATH FORWARD: TOWARD A UNIFIED FERC-DOE ENVIRONMENTAL REVIEW

As the D.C. Circuit itself pointed out, the *Freeport I* decision did not decide whether FERC "impermissibly 'segmented' its review of the Freeport Projects from the larger inter-agency export authorization process, and 'thereby fail[ed] to address the true scope and impact of the activities that should be under consideration.'"¹⁷⁰ Nor did it decide whether the "Commission's

165. *Id.* at 200–01.

166. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989) (emphasis added).

167. Answering Brief for Respondent, *supra* note 30, at 56.

168. *Id.* at 53; U.S. ENERGY INFO. ADMIN., *supra* note 4, at 6 (natural gas exports would be offset by increased production).

169. U.S. DEP'T OF ENERGY, ADDENDUM TO ENVIRONMENTAL REVIEW DOCUMENTS CONCERNING EXPORTS OF NATURAL GAS FROM THE UNITED STATES 1–2 (2014) ("LNG export volumes would be offset by some combination of increased domestic production of natural gas (principally from unconventional sources), decreased domestic consumption of natural gas, and an adjustment to the U.S. net trade balance in natural gas with Canada and Mexico.").

170. *Freeport I*, 827 F.3d 36, 45 (D.C. Cir. 2016) (citing *Del. Riverkeeper Network v.*

construction authorizations and the Department's export authorizations qualified as 'connected actions' for purposes of NEPA review."¹⁷¹ Therefore, advocates seeking to require disclosure of the upstream effects of natural gas exports before the agencies have already given their approval could seek to require a unified environmental review process by characterizing the two permits as "connected actions." This strategy would have the benefit of significant support from NEPA case law and the structure of the Natural Gas Act itself.

As discussed in section I.B.2, the problem of segmentation is nothing new. When a federal agency reviews a number of related actions—such as proposals to upgrade different sections of the same pipeline system—it may attempt to narrow the scope of the environmental review by preparing impact statements on each action individually rather than for the entire group. The tunnel vision created by improper segmentation is especially problematic where the environmental impact of the whole project is greater than the sum of its component parts.

Applying these principles, the permit to construct and operate an LNG export facility and the export permit are, in effect, a single course of action that require a single impact statement.¹⁷² First, FERC's granting of a construction permit automatically triggers another action that requires NEPA review: a permit for exporting natural gas.

Second, granting a permit for construction or modifying a facility depends on the DOE export permit for its justification—a fact that FERC has explicitly admitted.¹⁷³ To put it in terms of the "utility test," modifying or constructing an export facility would have no value except for exporting gas. FERC has also capitulated on this point, affirmatively stating that the Freeport upgrade project would only be financially feasible if DOE authorized exports.¹⁷⁴

Fed. Energy Regulatory Comm'n, 753 F.3d 1304, 1313 (D.C. Cir. 2014)).

171. *Freeport I*, 827 F.3d at 45–46 (citing 40 C.F.R. § 1508.25(a)(1)).

172. *See* 40 C.F.R. § 1502.4(a) (2017).

173. FED. ENERGY REGULATORY COMM'N, *supra* note 85 **Error! Bookmark not defined.**, at 1-3 (noting that the Freeport Project's sole purpose is to facilitate exporting natural gas).

174. Order Denying Rehearing and Clarification, Freeport LNG Development, L.P., 149 FERC ¶ 61,119, 21 (Nov. 13, 2014) ("Had DOE denied Freeport LNG any

In general, successful challenges to broaden the scope of an agency's review based on a "connected actions" theory involve a single agency's segmentation of two separate projects, both under review by that same agency. But perhaps the logic of "connected actions" does not change if one agency's action triggers another agency's action, especially when the two agencies are operating under a responsibility-sharing mechanism like the Natural Gas Act. Indeed, at least one court has rebuffed an agency's attempt to shirk a responsibility for reviewing connected actions under the authority of a separate agency.¹⁷⁵

In addition to drawing on segmentation cases, advocates should look to both the Natural Gas Act and CEQ regulations requiring interagency, unified review. CEQ regulations require agencies with jurisdiction over different aspects of a proposal to conduct joint environmental reviews by designating a "lead agency" to supervise the preparation of a common EIS with the other agencies acting as "cooperating agencies."¹⁷⁶ The Natural Gas Act itself designates FERC as "the lead agency for the purposes of coordinating *all* applicable Federal authorizations and for the purposes of complying with [NEPA]."¹⁷⁷ Reading these provisions together supports the notion that the Natural Gas Act does not envision the bifurcated NEPA review that courts have imposed. In other words, upon receiving requests to modify facilities and export natural gas, FERC and DOE

authorization to export the commodity, it is highly unlikely that the company would have pursued its application before the Commission to construct facilities, because without commodity authorization, the facilities would have no use. Similarly, if DOE ultimately denies export authorization, the project would likely no longer be financially feasible, notwithstanding the Commission's issuance of its section 3 authorization to construct the facilities.").

175. See *Colo. Wild Inc. v. U.S. Forest Serv.*, 523 F. Supp. 2d 1213, 1225 (D. Colo. 2007) (suggesting that an action meeting the regulatory definition of a "connected action" nonetheless can be analyzed as a "connected action" in an EIS even if the decision-making agency does not have authority to control it); see also Burger & Wentz, *supra* note 103, at 171 (suggesting that connected actions argument "could be made even in the context of different types of approvals conducted by different agencies—for example, the approval of a coal lease or mining plan and the approval of a rail line that would service those mines may constitute "connected actions" that lack independent utility and should thus be reviewed in a single NEPA document.")

176. 40 C.F.R. §§ 1501.5, 1501.6, 1508.5, 1508.16 (2017).

177. 15 U.S.C. § 717n(b)(1) (2012) (emphasis added).

should lead a comprehensive environmental review prior to the construction stage.

A third justification for requiring a unified review at the construction stage flows from one of NEPA's key purposes: requiring agencies to look *before* they leap. Per CEQ regulations, an agency should begin its NEPA review process as soon as possible, when it is "actively preparing to make a decision."¹⁷⁸ The purpose of frontloading the review process is "so that it can serve practically as an important contribution to the decision making process and will not be used to *rationalize or justify decisions already made*."¹⁷⁹ Yet the bifurcated review process, wherein DOE participates as a "cooperating agency" during FERC's environmental review of the LNG facilities but undertakes its own separate inquiry to approve the actual export of LNG, makes it difficult to imagine a situation where DOE would participate in the approval of upgrading the physical facilities necessary for exporting LNG but then deny applications to do so. It may be too much to ask for FERC and DOE to be objective regarding the merits of exporting LNG, but NEPA still requires these projects to be objectively *evaluated*.¹⁸⁰

CONCLUSION

Challenges to the environmental reviews conducted by FERC and DOE in conjunction with proposals to export LNG have, so far, failed across the board. The result: no agency is required to disclose the upstream greenhouse gas emissions associated with approving LNG exports.¹⁸¹ This void is contrary to NEPA, which imposes on the federal government a continuing responsibility to ensure that decision-making occurs before a federal action leads to an irreparable environmental change. The D.C. Circuit has allowed FERC and DOE to upend these basic requirements by skirting NEPA procedures that require agencies to tailor their environmental

178. 40 C.F.R. § 1508.23 (2017).

179. *Id.* §§ 1501.2, 1502.5 (emphasis added).

180. *Metcalf v. Daley*, 214 F.3d 1135, 1142 (9th Cir. 2000).

181. *Wentz*, *supra* note 130, at 3–4.

reviews to include the indirect effects of a particular action and connected actions—and to do so jointly, in a unified review.

But environmental advocates seeking to expand reviews by FERC and DOE need not give up hope. The D.C. Circuit's recent jurisprudence offers some indication that the court may be divided on the question of how to draw the line around indirect effects. In order to breathe new life into NEPA and provide the public with necessary information about the domestic effects of promoting a substantial increase in LNG exports, environmental advocates could consider both revisiting the central holding of *Public Citizen* and traditional NEPA segmentation principles to bolster future claims.