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MAUREEN O'DEA BRILL*

Assessing the Scope of the National Environmental Policy Act: Recent Attempts by Environmentalists to Add Climate Change Considerations into NEPA Review

ABSTRACT

As the United States continues its roaring ramp up as the world's leading natural gas producer, the environmental community is trying to force the federal government to account for the aggregate impact of domestic natural gas production from shale, especially in the context of climate change. To achieve this goal, environmental organizations have sought to employ the National Environmental Policy Act (NEPA), a law aimed at increasing government awareness of the broader environmental consequences of federal action.

This article explores the two ways in which environmental organizations have tried to expand federal environmental reviews to include climate change considerations under NEPA: litigation and federal agency guidance. Environmental organizations are concurrently pursuing a regulatory option, arguing that the White House Council on Environmental Quality (CEQ), responsible for implementing NEPA, should issue guidance requiring federal agencies to consider the climate change effects of proposed actions. This article also considers how an expanded federal environmental review could affect industry in the United States if environmental organizations achieve their goal of expanding NEPA requirements either through litigation or federal agency guidance.

INTRODUCTION

Environmental organizations have tried for decades to secure a comprehensive federal response to climate change, and over the years they have pursued numerous approaches to advance this goal. This article focuses on the recent attempts to require federal agencies to address

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climate change under the National Environmental Policy Act (NEPA) through both litigation and urging federal guidance.¹

This article highlights two natural gas infrastructure projects, the MARC I Hub Line Proposal and the Sabine Pass LNG Export Facility Proposal, in which environmental organizations pushed for an expansion in NEPA's scope. Environmental organizations argue that a NEPA review for these natural gas projects must consider the potential for additional natural gas development resulting from project approval.² Environmentalists assert that a cause-and-effect relationship exists between infrastructure construction, including interstate pipeline and LNG export facility construction, and additional well drilling, hydraulic fracturing, and gathering pipeline construction.³ They believe that a NEPA review must consider the impacts of these activities along with the impacts of the approved project.⁴ However, the FERC has concluded that a NEPA environmental review in both the pipeline and LNG context does *not*

^{1.} See National Environmental Policy Act of 1969, 42 U.S.C. §§ 4331–4335, 4341–4347, 4361–4370h (2010); see also Terence L. Thatcher, Understanding Interdependence in the Natural Environment: Some Thoughts on Cumulative Impact Assessment Under the National Environmental Policy Act, 20 Envtl. L. 611, 611–13 (1990) (citing S. Rep. No. 296) (noting that upon reviewing the legislation prior to its passage, the Senate Interior and Insular Affairs Committee published an official report which noted "environmental problems are only dealt with when they reach crisis proportions," and explaining that Congress intended to implement a process through NEPA where the government would gain an enhanced understanding of how its actions contribute to the broader environmental condition and through which the government could prevent or mitigate detrimental results); see, e.g., CEQ NEPA Regulations, 40 C.F.R. § 1503 (2013); see, e.g., Central New York Oil & Gas Co., LLC, Motion to Intervene of Coalition for Responsible Growth and Resource Conservation, Damascus Citizens for Sustainability, and Sierra Club, Docket No. CP10-480-000 (Nov. 18, 2012) [hereinafter Coalition Motion to Intervene]; see also Sabine Pass Liquefaction, LLC, Order Denying Rehearing and Stay, 140 F.E.R.C. ¶ 61,076, ¶ 7, Docket No. CP11-72-001 (July 26, 2012).

^{2.} See, e.g., Central New York Oil & Gas Co., LLC, Order on Rehearing, Clarification and Stay, 138 F.E.R.C. ¶ 61,104, ¶ 33, Docket No. CP10-480-001 (Feb. 13, 2012) [hereinafter CNYOG Rehearing Order]; see also Sabine Pass Liquefaction, LLC, Order Denying Rehearing and Stay, 140 F.E.R.C. ¶ 61,076, ¶¶ 8–9, Docket No. CP11-72-001 (July 26, 2012); Alana M. Wase, Climate Change Impacts and NEPA: Overcoming the Remote and Speculative Defense, 72 Md. L. Rev. 967, 976–77 (2013) (noting a survey which found one-sixth of climate change litigation is brought through a NEPA challenge).

^{3.} See Central New York Oil & Gas Co., LLC, Order Issuing Certificate, 137 F.E.R.C. ¶ 61,121, ¶ 83, Docket No. CP10-480-000 (Nov. 14, 2011) [hereinafter CNYOG Certificate Order]; CYNOG Rehearing Order, supra note 2, at ¶ 37. As used in this article, the term "induced shale gas development" refers to additional drilling, hydraulic fracturing, and transporting of natural gas, which could, but might not necessarily be, driven by a proposed project before the FERC.

^{4.} See CNYOG Certificate Order, supra note 3, at ¶ 83.

need to analyze the potential for such induced shale gas development.⁵ The Court of Appeals for the Second Circuit has upheld the FERC's view of its scoping requirements.⁶

Environmental groups also have urged the White House Council on Environmental Quality (CEQ) to issue guidance instructing federal agencies on how and when to consider the climate change effects of a proposed action under NEPA. Yet, four years after publishing its *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions* for public comment, the CEQ has not moved to finalize the agency guidance. Interestingly, the President's expansive Climate Action Plan adopted in 2013 did not list publication of CEQ guidance as an anticipated executive action to address climate change, despite it being within the exclusive power of the Administration.⁷

After establishing a historical context and describing judicial precedent on the National Environmental Policy Act, this article explores the efforts and arguments of environmental organizations to expand federal environmental reviews under NEPA to include climate change considerations and the potential for increased natural gas development.⁸ From the litigation perspective, this article examines the environmental organizations' legal arguments aimed at broadening indirect and cumulative assessments under NEPA in the context of two FERC-approved natural gas infrastructure proposals. From the regulatory perspective, this article evaluates the CEQ's draft guidance on climate change considerations under NEPA. These two perspectives illustrate environmental organizations' strategies in attempting to force the federal government to address greenhouse gas emissions. Unquestionably, environmentalists'

^{5.} See, e.g., id. at ¶ 93; CYNOG Rehearing Order, supra note 2, at ¶ 37; Coal. for Responsible Growth and Res. Conservation v. FERC, No. 12–566, 2012 U.S. App. LEXIS 11847, at *474 (2nd Cir. 2012).

^{6.} See, e.g., Coal. for Responsible Growth and Res. Conservation, 2012 U.S. App. LEXIS 11847.

^{7.} Executive Office of the President, The President's Climate Action Plan (2013), available at http://www.whitehouse.gov/sites/default/files/image/president27sclimate actionplan.pdf.

^{8.} See Terence L. Thatcher, supra note 1; see, e.g., CEQ NEPA Regulations, 40 C.F.R. § 1503 (2013). It is noteworthy that environmental organizations seek a federal response to climate change that includes all fossil fuel contributions, not only natural gas. Much attention is placed on coal. Interestingly, there is disagreement between environmentalists about how natural gas production plays into the conversation on climate change. See, e.g., Andrew Casler, Obama Advisor Favors Regulated Fracking, ITHACA J., Oct. 22, 2013, available at http://www.ithacajournal.com/article/20131022/NEWS01/310220088/Obama-advisor-favors-regulated-fracking (describing Environmental Defense Fund President Fred Krupp opposing hydraulic fracturing bans and asserting his belief that natural gas presents short-term climate benefits).

efforts related to natural gas development from shale are only a small part of a multifaceted plan to develop a more comprehensive response to climate change, although to date the environmental organizations have not achieved much success from this effort.

I. THE NATIONAL ENVIRONMENTAL POLICY ACT

A. What Must an Agency Consider in an Environmental Review?

President Nixon signed the National Environmental Policy Act in 1970 in order to establish a process to "insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken." Seven years later, President Carter instructed the CEQ to promulgate binding regulations under NEPA through Executive Order 11991. At its most basic level, NEPA requires an agency to evaluate the potential environmental impacts of a proposed major federal action, such as project financing and project approval. 11

Agencies use different methods to determine if an action could significantly affect the quality of the human environment, including categorical exclusion application, environmental assessment (EA) preparation, and environmental impact statement (EIS) preparation. ¹² As the most comprehensive analysis under NEPA, an EIS must detail the environmental impacts of a proposed action and alternatives to the proposal. ¹³ An EIS is required when a project could cause significant environmental impacts, ¹⁴ and the required elements are listed in Section

^{9.} CEQ NEPA Regulations, 40 C.F.R. § 1500.1 (2013); see C. Grady Moore III et al., Indirect Impacts and Climate Change: Assessing NEPA's Reach, 23 NAT. RESOURCES & ENV'T 30, 30 (2009).

^{10.} Exec. Order 11991, 42 Fed. Reg. 26,967 (May 24, 1977); see James E. McDermott, *Improving NEPA: New Regulations of the Council on Environmental Quality*, 8 B.C. Envtl. Aff. L. Rev. 89, 91–92, 95 (1979), http://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=1770&context=ealr (explaining that the previous Guidelines created confusion within the federal government and among applicants, state government officials, and the public).

^{11. 42} U.S.C. §§ 4331(a), 4332 (2010); The Council on Environmental Quality (CEQ), *A Citizen's Guide to the NEPA*, 4, available at http://www.blm.gov/pgdata/etc/medialib/blm/nm/programs/planning_docs.Par.53208.File.dat/A_Citizens_Guide_to_NEPA.pdf; CEQ NEPA Regulations, 40 C.F.R. § 1508.18 (2013).

^{12.} A Citizen's Guide to the NEPA, supra 11; CEQ NEPA Regulations, 40 C.F.R. §§1508.4, 1508.18 (2013) (providing the regulatory definition of "categorical exclusion"); Final Guidance for Federal Departments and Agencies on Establishing, Applying, and Revising Categorical Exclusions under the National Environmental Policy Act, 75 Fed. Reg. 75,628 (Dec. 6, 2010) (to be codified at 40 C.F.R. pt. 1500–1508), available at http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-CatEx_guidance.pdf.

^{13.} CEQ NEPA Regulations, 40 C.F.R. § 1502.2 (2013).

^{14.} CEQ NEPA Regulations, 40 C.F.R. § 1501.7 (2013).

102(2)(C) of NEPA.¹⁵ Through regulation, the CEQ imposes additional requirements for an EIS, such as the requirement that an agency must allow public comment on a draft EIS and must respond to those comments in the final EIS.¹⁶ Congress later added the requirement that the Environmental Protection Agency (EPA) must evaluate EISs prepared by other departments and agencies.¹⁷

Since not all proposed federal actions have significant environmental impacts, an agency often develops an EA, which is a less detailed statement of potential impacts, to determine whether the proposal requires the production of an EIS.¹⁸ An EA indicating that a proposal will not result in significant environmental impacts creates the appropriate foundation to issue a finding of no significant impact (FONSI).¹⁹ The final agency action in the environmental review process is the issuance of a Record of Decision (ROD). In a ROD, an agency "states what the decision is; identifies the alternatives considered, including the environmentally preferred alternative; and discusses mitigation plans, including any enforcement and monitoring commitments."²⁰

The Administrative Policy Act governs NEPA compliance challenges.²¹ A party can only seek judicial review once there is a final agency action for which no other adequate court remedy exists.²² Accordingly, a party believing that an agency failed to fulfill its responsibil-

^{15. 42} U.S.C. § 4332(2)(C)(i-v) (2010); see CEQ NEPA Regulations, 40 C.F.R. §1502.12 (2013) (stating that "[e]ach environmental impact statement shall contain a summary which adequately and accurately summarizes the statement. The summary shall stress the major conclusions, areas of controversy (including issues raised by agencies and the public), and the issues to be resolved (including the choice among alternatives)"); see also Linda M. Bullen, The Environmental Aspects of Renewable Energy Projects, 19 Nev. Law. 8, 9 (2011).

^{16.} CEQ NEPA Regulations, 40 C.F.R. § 1503.1 (2013).

^{17. 42} U.S.C. § 7609 (2010); see EPA, National Environmental Policy Act: Basic Information, EPA.GOV, http://www.epa.gov/oecaerth/basics/nepa.html#eparole (last updated Jun. 25, 2012).

^{18.} CEQ NEPA Regulations, 40 C.F.R. §1508.9 (2013); see A Citizen's Guide to the NEPA, supra note 11, at 11 (summarizing the code and stating, "the EA is intended to be a concise document that (1) briefly provides sufficient evidence and analysis for determining whether to prepare an EIS; (2) aids an agency's compliance with NEPA when no environmental impact statement is necessary; and (3) facilitates preparation of an Environmental Impact Statement when one is necessary").

^{19.} CEQ NEPA Regulations, 40 C.F.R. §1508.9 (2013); see A Citizen's Guide to the NEPA, supra note 11, at 12–13 (citing Government Printing Office Electronic Information Enhancement Act of 1993, 44 U.S.C. §§ 4101–4104 (2012)) (explaining that a "FONSI is a document that presents the reasons why the agency has concluded that there are no significant environmental impacts projected to occur upon implementation of the action").

^{20.} CEQ NEPA Regulations, 40 C.F.R. § 1505.2 (2013).

^{21.} See Public Citizen v. U.S. Trade Rep., 5 F.3d 549 (D.C. Cir. 1993).

^{22. 5} U.S.C. § 704 (2012).

ities under the law by, for example, failing to prepare an EIS for a "major federal action significantly affecting the quality of the human environment," must wait until the agency issues its ROD for the proposal. A party opposed to an interstate pipeline project or LNG export facility project cannot challenge an agency's decision upon discovering a point of disagreement with how the agency is complying with NEPA; rather, the party must wait until the agency has issued its approval.

B. Understanding Direct Effects, Indirect Effects, and Cumulative Impacts

Under a Section 102(2)(C) review, a federal agency must analyze the direct and indirect effects and the cumulative impacts of a proposed action significantly affecting the environment.²³ The CEQ regulations state that direct effects "are caused by the [proposed] action and occur at the same time and place."²⁴ An example of a direct effect is tree removal within the construction right-of-way of a pipeline installation project.²⁵ Indirect effects are those "caused by the [proposed] action [that] are later in time or farther removed in distance, but are still reasonably foreseeable."²⁶ An environmental effect and an alleged cause must have a "reasonably close causal relationship," meaning the proposed project must cause a reasonably foreseeable environmental impact.²⁷ An example of an indirect effect is an air quality change due to a population growth caused by a project.²⁸

^{23. 42} U.S.C. § 4332(2)(C)(i-v); CEQ NEPA Regulations, 40 C.F.R. §1508.25(c) (2013); see Matthew P. Reinhart, The National Environmental Policy Act: What Constitutes an Adequate Cumulative Environmental Impacts Analysis and Should It Require an Evaluation of Greenhouse Gas Emissions?, 17 U. Balt. J. Envil. L. 145, 154 (2010) (citing CEQ, Considering Cumulative Effects under the National Environmental Policy Act (1997), available at http://ceq.hss.doe.gov/nepa/ccenepa/ccenepa.htm); CEQ NEPA Regulations, 40 C.F.R. §1508.8 (2013) (stating that "effects" and "impacts" are synonymous in the interpretation of NEPA regulations).

^{24.} CEQ NEPA Regulations, 40 C.F.R. §1508.8(a) (2013).

^{25.} See FERC, AN INTERSTATE NATURAL GAS FACILITY ON MY LAND? WHAT DO I NEED TO KNOW? 11, available at http://www.ferc.gov/for-citizens/citizen-guides/citz-guide-gas.pdf.

^{26.} CEQ NEPA Regulations, 40 C.F.R. §1508.8(b) (2013) ("Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.").

^{27.} CNYOG Certificate Order, supra note 3, at ¶ 83 (citing U.S. Dep't of Transp. v. Public Citizen, 541 U.S. 752 (2004)).

^{28.} See, e.g., Dep't of Transportation, Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process, http://www.environment.fhwa.dot.gov/projdev/qaimpact.asp (last visited Mar. 29, 2014).

Cumulative impacts are among the most difficult environmental consequences to calculate.²⁹ The CEQ defines a cumulative environmental impact as:

[T]he impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.³⁰

For example, a cumulative impact analysis of an interstate pipeline application includes the review of other natural gas transportation projects in close geographic range.³¹ According to the Circuit Court of Appeals for the District of Columbia, "speculation is . . . implicit in NEPA" and an agency should predict and analyze the impacts of reasonably foreseeable activities as accurately as possible.³² An agency cannot use uncertainty as a reason not to predict what cumulative impacts are reasonably foreseeable.³³ CEQ advises an agency to carefully establish boundaries that neither create a deficient review nor an unmanageable NEPA review.³⁴

II. JUDICIAL REVIEW UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT

A. Judicial Opinion on Agency Compliance

Under NEPA, a party to a proceeding can appeal an agency's decision in court only after exhausting all administrative appeal opportuni-

^{29.} CEQ, Considering Cumulative Effects under the National Environmental Policy Act (1997), available at http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-ConsidCumulEffects.pdf (providing a recommended framework for addressing cumulative effects in environmental impact analysis).

^{30.} CEQ NEPA Regulations, 40 C.F.R. § 1508.7 (2013).

^{31.} See, e.g., FERC, Tennessee Gas Pipeline Co., Northeast Upgrade Project: Environmental Assessment, Docket No. CP11-161-000, 2-126 (2011), available at http://www.nj.gov/dep/greenacres/pdf/eas_for_neup_ferc_nov_11_2011.pdf [hereinafter Tennessee Gas EA].

^{32.} Thatcher, supra note 1, at 627, n.52 (citing Scientists' Inst. For Pub. Information, Inc. v. Atomic Energy Comm'n, 481 F.2d 1079, 1092 (D.C. Cir. 1973)); id. at 626, n.51.

^{33.} Thatcher, supra note 1, at 627, n.52 (citing Scientists' Inst. For Pub. Information, Inc. v. Atomic Energy Comm'n, 481 F.2d 1079, 1092 (D.C. Cir. 1973)).

^{34.} Considering Cumulative Effects Under the National Environmental Policy Act, *supra* note 29.

ties.³⁵ In reviewing a challenge, courts examine whether the agency's decision was arbitrary, capricious, or an abuse of discretion.³⁶ To do this, courts evaluate whether an agency took a "hard look" by analyzing the EA or EIS for its "completeness of information and detail, soundness of analysis, thorough discussion of alternatives, and disclosure of sources."³⁷ Reasoning that the primary purpose of an environmental review is to enable an agency to take a "hard look at [potential] environmental consequences" before deciding on a proposal, courts require an agency to evaluate the potential environmental consequences of a proposal early in the process and use its analysis to inform the decision-making.³⁸ In order for a final decision to withstand a judicial appeal, an agency must establish a record that reflects a timely, serious environmental review.³⁹

The Supreme Court has shaped NEPA compliance requirements. The Court has held that an agency is not obligated to include every conceivable alternative to the proposal in its review, reasoning that "the concept of alternatives [considered in an environmental analysis] must be

^{35.} See Paul W. Parfomak, Cong. Research Serv., R43138, Interstate Natural Gas Pipelines: Process and Timing of FERC Permit Application Review (2013), available at https://www.fas.org/sgp/crs/misc/R43138.pdf (explaining that at the FERC, following the issuance of a final order, parties to the proceeding may formally request a rehearing within 30 days. The FERC has no time limit on its consideration regarding rehearing. If the FERC then issues a pipeline certificate, the party can commence the project even if a judicial appeal is filed in a U.S. Circuit Court of Appeals).

^{36. 5} U.S.C. § 706(2)(A) (2012); see Thomas E. Shea, The Judicial Standard for Review of Environmental Impact Statement Threshold Decisions, 9 B.C. ENVIL. AFF. L. REV. 63, 101 (1980), available at http://lawdigitalcommons.bc.edu/ealr/vol9/iss1/8; see also California Dep't of Water Res. v. FERC, 489 F.3d 1029, 1035 (9th Cir. 2007) (explaining the standard for judicial review is "limited to setting aside decisions which are arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law or which are made without observance of procedure required by law").

^{37.} U.S. Dep't of Agric., Animal and Plant Health Inspection Serv., *Envtl.* Compliance: The "Hard Look" Doctrine - A Lay Explanation, *available at* http://www.aphis.usda.gov/regulations/compliance/environmental_hard_look.shtml (explaining the holding in and significance of the *Morton* decision).

^{38.} Natural Res. Def. Council v. Morton 458 F.2d 827, 837–38 (D.C. Cir. 1972) (requiring that an agency make "good faith effort at studying, analyzing, and expressing the environmental issues"); see Metcalf v. Daley, 214 F.3d 1135, 1142 (9th Cir. 2000) (noting that NEPA states "agencies shall integrate that NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays, and to head off potential conflicts."); CEQ NEPA Regulations, 40 C.F.R. §1501.2 (2012) ("Agencies shall integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts.").

^{39.} Morton, 458 F.2d at 838.

bounded by some notion of feasibility." In that same case, *Vermont Yankee Nuclear Power Corporation v. Natural Resources Defense Council*, the Court instructed that the judicial role is to assess whether an agency followed proper NEPA procedures, the warned that a court should never substitute its judgment about the best alternative for that of an agency. Accordingly, courts routinely defer to agency decisions supported by thorough decision-making records.

Nearly 20 years after the enactment of NEPA, in *Robertson v. Methow Valley Citizens Council*, the Supreme Court ruled that the law does not require federal agencies to mitigate adverse environmental effects or to include a fully developed mitigation plan in each EIS.⁴⁴ Reasoning that NEPA "merely prohibits uninformed . . . agency action," the Court held an agency does not have to select the most environmentally advantageous option.⁴⁵ The Court concluded that NEPA only requires an agency to follow a certain decision-making process.⁴⁶ As a largely procedural law, NEPA is recognized for its influence on decision-making and citizen involvement.⁴⁷

B. Judicial Opinion on Scoping a Cumulative Impact Analysis

Initially, the courts struggled to determine whether a cumulative impact analysis had to consider only the proposed project; the proposed project and other similar proposed projects before the agency; or the proposed project, other similar proposed projects, and other similar contem-

^{40.} Vt. Yankee Nuclear Power Corp. v. Natural Res. Def. Council, 435 U.S. 519, 551 (1978) (holding that the agency's EIS did not need to consider all the possible alternatives to the proposal, notwithstanding the National Resources Defense Council's argument that the agency's EIS was insufficient because it did not consider energy conservation as an alternative to building the nuclear facility).

^{41.} *Id.* at 551, 555 (citing Kleppe v. Sierra Club, 427 U.S. 390, 410, n.21 (1976) (stating "[n]either the statute nor its legislative history contemplates that a court should substitute its judgment for that of the agency as to the environmental consequences of its actions")).

^{42.} *Id.* at 555 (stating "[n]either the statute nor its legislative history contemplates that a court should substitute its judgment for that of the agency as to the environmental consequences of its actions." (citing Kleppe v. Sierra Club, 427 U.S. 390, 411 (1976))).

^{43. 5} U.S.C. § 706(2)(A) (2012); see Nat'l Audubon Soc'y v. Hoffman, 132 F.3d 7, 14 (2d Cir. 1997).

^{44.} Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989) (stating that NEPA "itself does not mandate particular results, but simply prescribes the necessary process").

^{45.} Id. at 348-52.

^{46.} Id. at 351.

^{47.} See, e.g., Proclamation No. 8469, 75 Fed. Reg. 885 (Jan. 7, 2010) (issued by President Obama on December 31, 2009).

plated projects. 48 In 1976, the U.S. Supreme Court addressed the proper scope of a cumulative impact analysis. In Kleppe v. Sierra Club, an environmental organization argued that the Department of the Interior had to analyze the environmental impacts of contemplated-related projects, in addition to proposed-related projects, in a comprehensive EIS on an entire coal region before permitting a single mining project proposal.⁴⁹ The Court rejected this argument. The Court reasoned that it is impractical for an agency to prepare a regional EIS when there is no regional proposal before the agency, and found that it would be impossible to predict what activities would occur in the region and calculate the alternatives under these circumstances.⁵⁰ The Court noted that "when several proposals for coal-related actions that will have cumulative or synergistic environmental impact upon a region are pending concurrently before an agency, their environmental consequences must be considered together."51 However, the Court went on to explain that this premise "does not require acceptance of [respondent's] conclusion that all proposed coal-related actions in the Northern Great Plains region are so 'related' as to require their analysis in a single comprehensive impact statement."52

III. BOOM IN THE NATURAL GAS PLAY, BOOM IN NEPA LITIGATION

A. Authorization of Natural Gas Development Proposals

Recent technological advancements in horizontal drilling and hydraulic fracturing have contributed to a rapid increase in natural gas production in the United States.⁵³ Consequently, the FERC is reviewing

^{48.} Natural Res. Def. Council, Inc. v. Callaway, 524 F.2d 79, 86 (2d Cir. 1975) (holding an EIS must analyze the impacts of the proposal and those of other similar planned or proposed projects in the area and highlighting Congress's recognition that "a good deal of our present air and water pollution has resulted from the accumulation of small amounts of pollutants added to the air and water by a great number of individual, unrelated sources"); see Thatcher, supra note 1, at 613–14.

^{49.} Kleppe, 427 U.S. 390.

^{50.} Id. at 398-402.

^{51.} Id. at 410.

^{52.} Id.

^{53.} See Rita Tubb, Billions Needed To Meet Long-Term Natural Gas Infrastructure Supply, Demands, 236 Pipeline & Gas J. 4 (2009), available at http://pipelineandgasjournal.com/billions-needed-meet-long-term-natural-gas-infrastructure-supply-demands?page=show; see U.S. Energy Info. Admin., Annual Energy Outlook 2014 Early Release Overview 1 (2013), available at http://www.eia.gov/forecasts/aeo/er/pdf/0383er(2014).pdf (last visited Jan. 16, 2014) (providing projections to 2040); see U.S. Energy Info. Admin., What is Shale Gas and Why is it Important?, eia.gov, http://www.eia.gov/energy_in_brief/article/

stacks of natural gas infrastructure proposals through its authority to approve interstate natural gas pipelines and LNG export terminals.

The FERC's jurisdiction over applications for the construction and operation of interstate natural gas pipelines stems from Section 7 of the Natural Gas Act. Prior to issuing a Certificate of Public Convenience and Necessity (a "Certificate Order") to an applicant, the FERC must conduct an environmental review under NEPA. ⁵⁴ In the case of each application, the FERC must reach an ultimate determination as to whether the proposal is in the public interest. ⁵⁵

Under Section 3 of the Natural Gas Act, the FERC authorizes the siting and construction of LNG import and export terminal facilities.⁵⁶ The Department of Energy (DOE) has authority to license the import or export of the natural gas or LNG commodity.⁵⁷ Specifically, the DOE starts from a presumption that imports and exports are consistent with the public interest and it falls to any entity that may oppose such import or export to affirmatively demonstrate that such import or export is not consistent with the public interest.⁵⁸ A NEPA review is required before either agency is able to issue its respective order. The FERC acts as the lead agency responsible for preparing the NEPA review and EIS or EA for the proposed facilities, and FERC staff will issue the environmental review document with recommended mitigation measures prior to the FERC commissioners' order on the proposed facilities, referred to as an Order Granting Section 3 Authorization.⁵⁹ DOE also must conduct a NEPA review prior to issuing its order on the commodity import or ex-

about_shale_gas.cfm (last updated Dec. 5, 2012) (explaining that "[s]hale gas is found in shale 'plays,' which are shale formations contain[ing] significant natural gas accumulations and which share similar geologic and geographic properties" and explaining that companies identify the most advantageous well locations referencing subsurface maps generated through the use of geology and seismic techniques); see EIA, Over Half of U.S. Natural Gas Pipeline Projects in 2012 were in the Northeast, EIA.GOV, (Mar. 25, 2013), http://www.eia.gov/todayinenergy/detail.cfm?id=10511; see Shell Canada, Fuelling with LNG – Interactive Tour, http://www.shell.ca/en/products-services/solutions-for-businesses/commercial-fuels/liquified-natural-gas/liquid-natural-gas-animation.html (last visited Jan. 17, 2014) ("Limited capacity additions were concentrated in the northeast United States, mainly focused on removing bottlenecks for fast-growing Marcellus shale gas production.").

- 54. 15 U.S.C. § 717(b) (2012); see Michael Ratner et al., Cong. Research Serv., R42074, U.S. Natural Gas Exports: New Opportunities, Uncertain Outcomes, 12–14, (2011), available at http://assets.opencrs.com/rpts/R42074_20111104.pdf.
 - 55. 15 U.S.C. § 717f (2012).
 - 56. 15 U.S.C. § 717b (2012); RATNER ET AL., supra note 54, at 1.
 - 57. 15 U.S.C. § 717b (2012).
- 58. RATNER ET AL., *supra* note 54, at 12–14. The DOE's processes are different depending on whether the importing country is one with which the United States has a free-trade agreement that requires national treatment for trade in natural gas. 15 U.S.C. § 717b(b).
 - 59. 15 U.S.C. § 717b(e)(1); RATNER ET AL., supra note 54, at 13.

port; in practice, however, DOE relies on FERC's environmental review to satisfy its NEPA obligations.⁶⁰

The following sections detail two natural gas-related proposals the FERC has approved recently: the MARC I Hub Line Project, an interstate transportation pipeline project upheld by the Second Circuit; and the Sabine Pass LNG Export Facility, an LNG export facility project currently under litigation. During the Commission's review process, environmental organizations urged the FERC to consider how the projects may increase the potential for, and environmental impact of, additional shale gas development as part of the NEPA analysis. On this issue, the applicants and environmentalists assert opposing positions on how to define the geographic and time boundaries of an environmental review. While the applicants support a narrow review providing certainty in project planning and limiting required environmental mitigation measures, environmental organizations favor a more comprehensive analysis forcing greater mitigation and generating data for later advocacy efforts.⁶¹

B. MARC I Hub Line Project

In August 2010, Central New York Oil and Gas Company (CNYOG) applied for a Certificate of Public Convenience and Necessity (a "Certificate Order") for the MARC I Hub Line Project, which features 39 miles of natural gas transportation pipeline through three counties in Pennsylvania. As designed, the MARC I Project would connect three major interstate pipelines that transport natural gas from the Gulf Coast

^{60.} See Dep't of Energy, Delegation Order No. 00–044.00A (May 16, 2006), available at https://www.ferc.gov/industries/electric/indus-act/siting/doe-delegation.pdf (authorized by Section 402(e) of the DOE Organization Act); 42 U.S.C. § 7172(e).

^{61.} John Burnes et al., U.S. Department of Energy Issues Final Order and "Finding of No Significant Impact" for Sabine Pass Liquefaction Export Project, VAN NESS FELDMAN, (Aug. 17, 2012), available at http://www.vnf.com/1862 ("Sierra Club is likely to continue to pursue its NEPA arguments about the need to broadly consider the cumulative and indirect environmental impacts of upstream shale gas production in DOE and FERC proceedings involving other LNG export projects. Judicial review of these orders could have broader implications regarding the scope of agencies' analyses of indirect and cumulative impacts under NEPA."); Considering Cumulative Effects Under the National Environmental Policy Act, supra note 29, at v-vi.

^{62.} See CNYOG Certificate Order, supra note 3, at ¶ 7; see also FERC, Glossary, FERC.GOV, http://www.ferc.gov/help/glossary.asp (last updated Aug. 20, 2013) (A certificate of public convenience and necessity is "a certificate issued by FERC that allows the recipient to engage in the transportation and/or sale for resale of natural gas in interstate commerce or to acquire and operate facilities needed to accomplish this."); see also FERC, AN INTERSTATE NATURAL GAS FACILITY ON MY LAND? WHAT DO I NEED TO KNOW? 8 (2013), available at http://www.ferc.gov/for-citizens/citizen-guides/citz-guide-gas.pdf (explaining how the

to the major east coast markets and move gas extracted from the Marcellus Shale in Northeastern Pennsylvania to interstate markets. ⁶³ Immediately after the FERC announced its intention to produce an EA, environmental organizations asserted that the MARC I Project would cause production-related activity beyond that detailed in the application. ⁶⁴ Advocating for the production of an EIS, these organizations maintained that the FERC had a responsibility to consider regional drilling data, collected by the state government, as indirect and cumulative impacts of Marcellus Shale development. ⁶⁵ One organization argued that the cumulative impact analysis should include impacts "of the MARC I Project on the existing and reasonably foreseeable Marcellus Shale development, including but not limited to the hundreds of miles of gathering and transportation pipelines that have been and will need to be constructed to move the gas to interstate markets from the thousands of wells that have been and will be drilled."

The Environmental Protection Agency's (EPA) Region III office, after conducting an unrequired evaluation of the EA, disagreed with the FERC about the type and scope of environmental review needed under NEPA.⁶⁷ The EPA expressed three primary concerns with the EA.⁶⁸ First, the EPA asserted the EA failed to "include consideration of non-gas related development," such as roadway impacts and industrial development.⁶⁹ Second, the EPA disagreed with the conclusion that the effects of future Marcellus Shale development are outside the scope of the EA because "the exact location, scale and timing of future Marcellus Shale facilities that could potentially contribute to [cumulative impacts] in the

pipeline route is selected); see also Central New York Oil & Gas Co., LLC; Notice of Filing, 75 Fed. Reg. 52,526 (Aug. 26, 2010).

^{63.} Press Release, Business Wire, Inergy Executes Binding Transportation Agreements on MARC I Hub Line Enhancing Connectivity and Storage Solutions in the Northeast Natural Gas Market (July 8, 2010), available at http://investor.inergylp.com/phoenix.zhtml?c=132026&p=irol-newsArticle_print&ID=1445510&highlight=; see also Letter from William F. Demarest Jr., Attorney for Central New York Oil & Gas Co., LLC, to Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission (Aug. 6, 2010) (on file with author).

^{64.} CNYOG Certificate Order, supra note 3, at ¶ 46.

^{65.} Id. at ¶ 83.

^{66.} Id. at ¶ 48.

^{67. 42} U.S.C. § 7609 (2010); see EPA, National Environmental Policy Act: Basic Information, EPA.GOV, http://www.epa.gov/oecaerth/basics/nepa.html#eparole (last updated June 25, 2012). The EPA reviews EISs, but not EAs. *Id.*

^{68.} Letter from Jeffrey D. Lapp, Associate Director, EPA Office of Environmental Programs, to Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission (July 11, 2011) (on file with the author) [hereinafter *EPA Letter*].

^{69.} Id. at 2.

project area is unknown."⁷⁰ The EPA argued that the FERC could assess the cumulative impacts extending "beyond the direct impact zone of the pipeline and includ[ing] the areas directly and indirectly impacted by the construction and operation of the pipeline and the areas serviced by the pipeline" by using publicly available gas well permit records.⁷¹ The EPA advanced its position that "[r]easonably foreseeable future actions need to be considered in a NEPA analysis, even if they are not specific proposals, as long as they are not speculative in nature."⁷² Third, the EPA asserted that the EA failed to "consider past or present development of any type" and responded that "data sufficient to identify foreseeable actions based on this known universe of existing and proposed wells and reasonably projected additional infrastructure elements such as compressor and gas processing stations" existed to allow for a more meaningful analysis.⁷³ The EPA maintained that an EIS was required.⁷⁴

Responding to arguments that the proposal would increase the potential for additional development, the FERC maintained that "Marcellus Shale development and its associated, potential environmental impacts [were] not sufficiently causally-related to the MARC I Project to warrant the more comprehensive analysis." According to the FERC, an "environmental impact must be: 1) caused by the proposed action, and 2) reasonably foreseeable" in order to demonstrate a sufficient causal connection warranting a more comprehensive environmental analysis. The FERC concluded that different segments of the natural gas production and transportation industry function independently and lack a cause-and-effect relationship. Supporting its decision with two cases from the Court of Appeals for the Ninth Circuit, Wetlands Action Network

^{70.} *Id.* (The EA relied on the explanation that "[g]iven the wide extent of the Marcellus Shale and considering that development . . . is expected to take 20 to 40 years . . . the exact location, scale, and timing of future Marcellus Shale upstream facilities . . . is unknown and, thus, outside the scope of "the analysis.).

^{71.} Id. at 3.

^{72.} Id. at 2-3.

^{73.} Id. at 2-3.

^{74.} Id. at 1.

^{75.} CNYOG Certificate Order, supra note 3, ¶ 84.

^{76.} Id. ¶ 83; Sabine Pass Liquefaction, LLC, Order Granting Section 3 Authorization, 139 F.E.R.C. ¶ 61,039, ¶ 96, Docket No. CP11-72-000 (Apr. 16, 2012) [hereinafter Sabine Pass Certificate Order] (explaining that "impacts which may result from additional shale gas development are not 'reasonably foreseeable' and 'additional development,' or any correlative potential impacts, [are not] an 'effect' of the project, as contemplated by the CEQ regulations, for purposes of a cumulative impact analysis").

^{77.} CNYOG Certificate Order, supra note 3, ¶¶ 83–84.

v. U.S. Army Corps of Engineers⁷⁸ and Sylvester v. Army Corps of Engineers,⁷⁹ the FERC held that Marcellus Shale development is not an "effect" of the MARC I Proposal.⁸⁰ The FERC specifically concluded that future development would occur whether or not the FERC approved the MARC I Project.⁸¹ The FERC found the project in the public interest and issued a Certificate Order on November 14, 2011.⁸²

Following this, the Coalition for Responsible Growth and Resource Conservation, Damascus for Sustainability, and the Sierra Club (collectively, the "Coalition") filed a request for rehearing with the FERC.⁸³ The Coalition argued that the MARC I Project constituted a "major federal action significantly affecting the quality of the human environment," requiring an EIS.⁸⁴ Echoing the EPA, the Coalition argued that the FERC inadequately analyzed the cumulative impacts of the proposal by not examining the cumulative impacts of developing the Marcellus Shale.⁸⁵ On February 13, 2012, the FERC denied the request for rehearing, reaffirming "its finding that the Project is in the public interest, and identified all the factors the Commission considered to determine whether, on balance, the public benefits of the Project outweigh the potential adverse impacts."

After exhausting the available administrative remedies, the Coalition filed a petition for review with the Second Circuit Court of Ap-

^{78.} CNYOG Certificate Order, supra note 3, ¶ 89 (The FERC's Certificate Order also noted that as in the facts of Wetlands Action Network v. U.S. Army Corps of Engineers, the MARC I project was not "financed by federal money, and state and local regulation (rather than federal) controlled the overall development design."); see also Wetlands Action Network v. U.S. Army Corps of Engineers, 222 F.3d 1105 (9th Cir. 2000) (upholding an EA which evaluated the potential cumulative impacts of a permit to develop wetlands on the surrounding area, but did not evaluate larger development plans that would have occurred regardless of federal permit issuance).

^{79.} CNYOG Certificate Order, supra note 3, ¶¶ 85–90; see also Sylvester v. U.S. Army Corps of Engineers, 884 F.2d 394 (9th Cir. 1989).

^{80.} CNYOG Certificate Order, supra note 3, ¶¶ 85–86 (stating that its environmental analysis "included readily available information about natural gas production and development in the project area as part of the cumulative impact analysis, including consideration of the impacts of Marcellus Shale drilling activities in Pennsylvania").

^{81.} *Id*. ¶¶ 89–90.

^{82.} *Id.* ¶ 91 (concluding that, by creating a market hub, the MARC I project would enhance market access options available to pipelines and regional customers).

^{83.} Coalition Motion to Intervene, supra note 1.

^{84.} CYNOG Rehearing Order, supra note 2, ¶¶ 4-5; 42 U.S.C. § 4332(2)(C)(i) (2012).

 $^{85.\,}$ Id. (The Coalition also advanced additional legal arguments not discussed in this article).

^{86.} CNYOG Rehearing Order, supra note 2; Brief for Respondent at 11, Coal. for Responsible Growth and Res. Conservation, et al. v. FERC, No. 12–566, 2012 U.S. App. LEXIS 11847 (2nd Cir. June 12, 2012) Respondent's Brief, 11 (Apr. 27, 2012) (No. 12-566) (citing CYNOG Rehearing Order, supra note 2, ¶ 31).

peals.⁸⁷ On June 12, 2012, the Second Circuit denied the petition in a five-page Summary Order.⁸⁸ In response to the Coalition's argument that the cumulative impact analysis was inadequate, the court concluded that the "FERC [had] reasonably concluded that the impacts of that development [of the Marcellus Shale] are not sufficiently causally-related to the project to warrant a more in-depth analysis."⁸⁹ Concluding that the FERC fulfilled its legal responsibilities under NEPA by taking a "hard look" at the environmental impacts of a proposed project, responding to the petitioners' concerns, and requiring CNYOG to conduct environmental mitigation, the Second Circuit held the FERC's decision to prepare an EA was not arbitrary and capricious.⁹⁰

The Second Circuit decision was a major legal victory, not only for CNYOG, but also for the entire natural gas industry. The case was the first in which a court had to determine the degree to which the FERC must consider the cumulative impacts of Marcellus Shale gas development when reviewing an interstate natural gas transportation pipeline application. Given the U.S. Energy Information Administration's domestic energy production projections for the next 40 years, the Second Circuit decision set an extremely important precedent. If the court had held that a causal relationship, as defined in the NEPA context, exists between interstate pipeline construction and greater regional shale development activities, industry would encounter a broader review requiring greater mitigation requirements and would confront additional legal battles focused on determining the boundaries of the expanded scope.

^{87.} See CNYOG Certificate Order, supra note 3, reh'g denied, CNYOG Rehearing Order, supra note 2, aff'd, Coal. for Responsible Growth and Res. Conservation, et al. v. Fed. Energy Reg. Comm'n, No. 12–566, 2012 U.S. App. LEXIS 11847 (2nd Cir. 2012).

^{88.} See Coal. for Responsible Growth and Res. Conservation, et al. v. Fed. Energy Regulatory Comm'n, No. 12–566, 2012 U.S. App. LEXIS 11847 (2nd Cir. June 12, 2012).

^{89.} Id. at 4.

^{90.} Id. at 3-5.

^{91.} See DLA Piper Secures Victory in the Second Circuit Clearing Path for Marcellus Shale Gas Pipeline, THEUTICASHALE.COM, (June 18, 2012), available at http://theuticashale.com/dla-piper-secures-victory-in-the-second-circuit-clearing-path-for-marcellus-shale-gas-pipeline/; see also Mark Reishus, Court Upholds FERC's Analysis of CNYOG Project, THOMPSON'S ENERGY EXPERT, (Aug. 1, 2012), available at http://prod-admin1.tmg.atex.cniweb.net: 8080/preview/www/2.8182/2.8194/1.331727; see also Zack Needles, Ruling in Pipeline Case Suggests Federal Energy Regulatory Commission May Accept Less Strict Review, PITTSBURGH POST-GAZETTE, July 2, 2012, available at http://www.post-gazette.com/stories/business/legal/ruling-in-pipeline-case-suggests-federal-energy-regulatory-commission-may-accept-less-strict-review-642885/.

^{92.} Hannah Northey, Federal Oversight at Heart of Marcellus Pipeline Fight, Environment & Energy Publishing (E&E), Mar. 23, 2012, http://eenews.net/Greenwire/2012/03/23/archive/5?terms=marc+I+second+circuit.

The actions that the FERC must take to satisfy NEPA requirements when evaluating natural gas pipeline proposals continues to be developed by the courts. After the Second Circuit's decision, the FERC again maintained in a different Marcellus Shale pipeline decision that "a fuller analysis [wa]s not required by NEPA because the Marcellus Shale development [wa]s not causally-related [to the Tennessee Gas Pipeline Company's Northeast Upgrade Project], and anticipated future activities [were] not reasonably foreseeable."93 After producing an EA, the FERC found that the natural gas pipeline expansion proposal, with mitigating measures, would have no significant environmental impact and granted Tennessee Gas a Certificate Order. 94 This decision was appealed to the United States Court of Appeals for the District of Columbia. 95 On June 6, 2014, the District of Columbia Circuit Court of Appeals held that the FERC impermissibly segmented the NEPA review of the Northeast Upgrade Project from the three other Tennessee Gas pipeline expansion proposals that share a "physical, functional, and temporal nexus" with the Northeast Upgrade Project. 6 The court also held that the FERC failed to include any meaningful analysis of the cumulative impacts of four upgrade proposals filed for the same continuous pipeline.⁹⁷ The decision, which increases the likelihood that there will be more developed administrative records and more extensive environmental review, illustrates the continued efforts by the courts to clarify the responsibilities that NEPA places on federal agencies.

^{93.} Tennessee Gas Pipeline Co., Order Issuing Certificate and Approving Abandonment, 131 FERC ¶ 61,140, Docket No. CP09-444-000 (May 14, 2010), on reh'g, Tennessee Gas Pipeline Co., Order on Rehearing, Clarification, and Stay, 142 FERC ¶ 61,025, ¶¶ 29–30, Docket No. CP11-161-002 (Jan. 11, 2013) (responding to the Rehearing Request, stating "contrary to Sierra Club's claims, Marcellus Shale production activities are not links in the same chain that requires a more detailed cumulative impact analysis Development of natural gas resources in the Marcellus Shale region will continue even without the project and unregulated developers will continue to build new wells and gathering systems to serve the shale gas."); see Hannah Northey, FERC Says Contested Marcellus Pipeline Isn't a Threat to the Environment, Environment & Energy Publishing (E&E), Nov. 21, 2012.

^{94.} Tennessee Gas Pipeline Co., Order Granting Rehearing, 139 FERC ¶ 61,161, Docket No. CP11-161-001 (May 29, 2012); Tennessee Gas Pipeline Co., Order on Rehearing, Clarification, and Stay, 142 FERC ¶ 61,025, Docket No. CP11-161-002 (Jan. 11, 2013).

^{95.} Delaware Riverkeeper Network et al., v. FERC, appeal docketed, No. 13-1015 (D.C. Cir. Jan. 22, 2013); see The Pike County Courier, Riverkeeper: Tennessee Gas Pipeline Challenged In Court Again, Jan. 10, 2013, available at http://pikecountycourier.com/apps/pbcs.dll/article?AID=/20130117/NEWS01/130119949/Riverkeeper:-Tennessee-Gas-Pipeline-challenged-in-court-again (noting that a court challenge to the legality of the FERC's approval for the Northeast Upgrade Project Proposal is pending).

^{96.} Delaware Riverkeeper Network et al. v. FERC, D.C. Cir. No. 13-1015 (June 6, 2014). 97. *Id.*

C. Sabine Pass LNG Export Facility

More than 600 times more condensed than its vapor form, lique-fied natural gas (LNG) is stored and transported more easily, and is thus suitable for exporting. The Sabine Pass LNG and Sabine Pass Liquefaction facility, collectively referred to as "Sabine Pass," is the first approved LNG export terminal in the lower-48 states since the domestic natural gas boom. Pass proposed, the facility will be capable of exporting 2.2 billion cubic feet of natural gas per day. Throughout the FERC's review of the Sabine Pass application, environmental organizations urged the Commission to evaluate as part of the NEPA analysis how the LNG export facility may increase the potential for additional upstream shale gas development. For the nearly two dozen LNG export facility proposals before the FERC and DOE, it is important to examine how and why the FERC approved the Sabine Pass proposal.

On May 20, 2011, the U.S. Department of Energy (DOE) conditionally granted Sabine Pass long-term authorization to export liquefied natural gas (LNG) to non-free trade agreement countries. The DOE concluded that the proposed exports were "consistent with the public interest" pursuant to the Natural Gas Act. DOE conditioned the grant on the successful completion of the NEPA environmental review. Having previously delegated the authority to the FERC to authorize natural gas export facility siting, construction, and operation, the DOE relied on

^{98.} The FERC, *LNG Overview*, http://www.ferc.gov/for-citizens/citizen-guides/lng. asp (last visited Apr. 12, 2013) (explaining that LNG is natural gas cooled to the temperature at which the vapor liquefies and stating that natural gas vaporizes at -260° F/ -162.2° C).

^{99.} Breaking Energy, FERC Approves First US LNG Export Project in Lower 48, BREAKINGENERGY.COM, http://breakingenergy.com/documents/ferc-approves-first-us-lng-export-project-in-lower-48/ (last visited May 2, 2014).

^{100.} Talia Buford, *Mixed Response to Sabine Pass Approval*, Politico, Apr. 23, 2012, *available at* http://www.politico.com/news/stories/0412/75502.html.

^{101.} See Office of Energy Projects, North American LNG Import/Export Terminals Proposed/Potential, available at https://www.ferc.gov/industries/gas/indus-act/lng/lng-proposed-potential.pdf (listing 12 proposed LNG export facilities).

^{102.} Sabine Pass Liquefaction, LLC, Opinion and Order Conditionally Granting Long-Term Authorization to Export Liquefied Natural Gas From Sabine Pass LNG Terminal to Non-Free Trade Agreement Nations, DOE/FE Order No. 2961, Docket No. 10-111-LNG (May 20, 2011) [hereinafter DOE/FE Order No. 2961] (this order came from DOE's Office of Fossil Energy) (a subsidiary of Cheniere Energy Inc. with the intention of making its facility bidirectional to allow both imports and exports of LNG).

^{103. 15} U.S.C. §§ 717 et seq. (2012); see DOE/FE Order No. 2961, supra note 102, at 41, 43; 42 U.S.C. §§ 4331 et seq. (2012).

^{104.} Id.

the FERC to lead the environmental review process. ¹⁰⁵After releasing its EA for the Sabine Pass Proposal in December of 2011, the FERC issued an Order Granting Section 3 Authorization in April of 2012. ¹⁰⁶ Environmental organizations formally engaged in both the DOE and the FERC processes.

At the DOE, the Sierra Club filed a petition in the form of a Motion to Intervene Out of Time, Protest, and Comments. ¹⁰⁷ In its motion, Sierra Club argued that "the EA was inadequate under NEPA because [the] FERC did not analyze the potential impacts of increased natural gas production caused by a grant of the requested authorization [and that the] FERC should have performed an EIS," among other arguments. ¹⁰⁸ Sierra Club asserted that "NEPA require[s] analysis of upstream effects of LNG export, including inducement of additional shale gas drilling" and that induced hydraulic fracturing is an indirect effect and cumulative impact of LNG export. ¹⁰⁹

Meanwhile, at the FERC, Sierra Club timely filed a request for rehearing and stay of the Order Granting Section 3 Authorization. Sierra Club asserted many of the same arguments advanced in its Motion to Intervene filed with the DOE. Sierra Club contended that the FERC violated NEPA because the "FERC failed to analyze the project's indirect effect of inducing additional natural gas production and the environmental harms that will result from such production [and] wrongly concluded that inducement of further production was not reasonably

^{105.} See DEP'T OF ENERGY, Delegation Order No. 00–044.00A, May 16, 2006, available at https://www.directives.doe.gov/sdoa/delegations-documents/00-004_00A.pdf/view (authorized by Section 402(e) of the DOE Organization Act); 42 USC 7172(e)); see DOE/FE Order No. 2961, supra note 102, at 41, 43; CEQ NEPA Regulations, 40 C.F.R. § 1508.16 (2012) (defining "Lead agency"); CEQ NEPA Regulations, 40 C.F.R. § 1508.5 (2012) (CEQ's NEPA regulations define "cooperating agency" as "any Federal agency other than a lead agency which has jurisdiction by law or special expertise with respect" to proposed actions for which a NEPA analysis is prepared); see also A Citizen's Guide to the NEPA, supra note 11, at 9 (2007) (providing additional information on lead and cooperating agencies).

^{106.} Sabine Pass Certificate Order, supra note 76, ¶ 29–30, reh'g denied, Sabine Pass Liquefaction, LLC, Order Denying Rehearing and Stay, 140 F.E.R.C. ¶ 61,076, Docket No. CP11-72-001 (July 26, 2012) [hereinafter Sabine Pass Rehearing Order].

^{107.} Sabine Pass Liquefaction, LLC, Sierra Club's Motion to Intervene Out of Time, Protest, and Comments, Docket No. 10-111-LNG (April 18, 2012), available at http://content.sierraclub.org/sites/default/files/documents/SC%20Mtn%20to%20Intervene%204-18-12.pdf.

^{108.} See Sabine Pass Liquefaction, LLC, Final Opinion and Order Granting Long-Term Authorization to Export Liquefied Natural Gas from Sabine Pass LNG Terminal to Non-Free Trade Agreement Nations, DOE/FE Order No. 2961-A, Docket No. 10-111-LNG, at 12 (Aug. 7, 2012) [hereinafter DOE/FE Order No. 2961-A Final Opinion and Order].

^{109.} Id. at 12.

^{110.} See Sabine Pass Rehearing Order, supra note 106, ¶ 33.

foreseeable."¹¹¹ In part, Sierra Club's legal arguments rested on the precedents set in *Northern Plains Resource Council v. Surface Transportation Board* and *Scientists' Institution for Public Information, Inc. v. Atomic Energy Commission.* ¹¹² As explained below, the FERC rejected Sierra Club's reasoning.

With respect to the increased production argument, Sierra Club asserted that the facts of Northern Plains Resource Council v. Surface Transportation Board were analogous to the facts of the Sabine Pass Proposal. 113 In Northern Plains, the Court of Appeals for the Ninth Circuit found an agency's EIS was arbitrary and capricious when the agency failed to view development of a nearby coal reservoir as a reasonably foreseeable impact of the proposed railroad construction, despite the fact that the financial justification for the railroad included coal mine development.¹¹⁴ Accordingly, Sierra Club argued that the EA for the Sabine Pass Proposal should include to a greater extent induced gas production as a reasonably foreseeable effect of operating an LNG terminal. 115 The FERC distinguished the Sabine Pass Proposal from Northern Plains, emphasizing that the Sabine Pass application did not tie the facility to any specific natural gas resources, whereas the proposed railroad was tied to specific coal resources. 116 Without data to connect the proposed facility to more certain shale development, the FERC concluded the scope of the EA was appropriate. 117

Sierra Club sought to employ the Energy Information Administration's (EIA) forecasts for natural gas development as a means to establish a link between the Sabine Pass Proposal and additional resource devel-

^{111.} Sabine Pass Liquefaction, LLC, Sierra Club's Motion for Rehearing and For Stay Pendente Lite, FE Docket No. 10-111-LNG, 2 (May 16, 2012) (citing N. Plains Res. Council v. Surface Transp. Bd., 668 F.3d 1067, (9th Cir. 2011); Potomac Alliance v. U. S. Nuclear Regulatory Comm'n, 682 F.2d 1030, 1035–36 (D.C. Cir. 1982); Scientists' Inst. for Pub. Info. v. Atomic Energy Comm'n, 481 F.2d 1079, 1096–97 (D.C. Cir. 1973), available at http://www.fossil.energy.gov/programs/gasregulation/authorizations/Orders_Issued_2010/Sierra_Club_Rehearing_Petition_9-6-2012.pdf.

^{112.} N. Plains Res. Council v. Surface Transp. Bd. (*Northern Plains*), 668 F.3d 1067, 1082 (9th Cir. 2011); Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Comm'n, 481 F.2d 1079, 1096–97 (D.C. Cir. 1973).

^{113.} Sierra Club's Motion for Rehearing and For Stay Pendente Lite, 2.

^{114.} Northern Plains, 668 F.3d at 1082 (finding that an agency's conclusion in failing to view development of a nearby coal reservoir as reasonably foreseeable, in spite of the fact that the financial justification for the project included coal mine development, was arbitrary and capricious).

^{115.} See Sierra Club's Motion for Rehearing and For Stay Pendente Lite, 4-7.

^{116.} Sabine Pass Rehearing Order, supra note 106, ¶ 15−17.

^{117.} Id.

opment.¹¹⁸ Rejecting this argument, the FERC reasoned that the EIA report, which did not include analysis of the Sabine Pass Proposal, was too speculative to rely upon for further environmental review.¹¹⁹ The FERC found that the EIA report, which provided a general long-term economic forecast featuring four different export demand scenarios, was not an appropriate tool with which the FERC could establish a reasonable estimate of "export volumes . . . from current versus future shale gas production, or where and when that future production to supply export volumes . . . would be located, much less any associated environmental impacts of such new shale production."¹²⁰

Drawing on the District of Columbia Circuit Court's decision in *Scientists' Institution for Public Information, Inc. v. Atomic Energy Commission*, ¹²¹ Sierra Club maintained that the federal government is not permitted to "use one standard of proof in assessing a project's benefits and another in assessing its costs." ¹²² The Sierra Club argued that if an agency highlights a project's ability to spur natural gas development as a benefit to support its public interest finding, it must consider "the aggregate amount of additional air pollutant emissions, water needs, land disturbance, etc., even if these impacts could not be localized." ¹²³ In response, the FERC distinguished the facts of *Scientists' Institution for Public Information* from those of the proposal by explaining that in the former instance the FERC possessed quantifiable information on the impacts, while in this case the FERC has "no existing detailed or quantifiable information with respect to induced shale production that would assist . . . in a meaningful analysis." ¹²⁴

The FERC issued an Order Denying Rehearing and Stay on July 26, 2012.¹²⁵ The DOE issued its Final Opinion and Order on August 7, 2012, affirming its finding that the proposal is in the public interest.¹²⁶ The Final Opinion and Order also denied Sierra Club's Motion to Inter-

^{118.} Sierra Club's Motion for Rehearing and For Stay Pendente Lite, 15 ("[T]he EIA has demonstrated the ability to predict the amount of additional gas production that will be induced.").

^{119.} Id.

^{120.} Sabine Pass Rehearing Order, supra note 106, ¶ 14.

^{121.} Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Comm'n, 481 F.2d 1079, 1096–97 (D.C. Cir. 1973).

^{122.} Sierra Club's Motion for Rehearing and For Stay Pendente Lite, 6-7, 12.

^{123.} Id. at 15.

^{124.} Sabine Pass Rehearing Order, supra note 106, ¶ 22.

^{125.} Sabine Pass Rehearing Order, supra note 106.

^{126.} DOE/FE Order No. 2961-A Final Opinion and Order, supra note 108, at 14. This Order is the DOE's first long-term authorization granted to export domestically-sourced LNG to non-Fair Trade Agreement nations).

vene. 127 Both the FERC in its Rehearing Order and the DOE in its Final Opinion and Order rejected Sierra Club's arguments that the EA failed to adequately evaluate the potential impacts of increased natural gas production likely to be caused by the proposal. Both agencies explicitly relied on the Second Circuit's decision on the MARC I Project to support the position that it is impractical to consider the environmental effects of additional shale gas production that could be generated by the proposal.¹²⁸ The FERC noted in its Rehearing Order that as in the MARC I review, "the location, scope and timing of future wells that may ultimately be drilled, and the associated development (such as well pads, roads and other infrastructure) are unknowable," and therefore not reasonably foreseeable.¹²⁹ Accordingly, the FERC determined that considering a more expansive scope on the potential for induced shale gas development in an environmental review is impractical because when a pipeline or LNG project is proposed the "factors necessary for a meaningful analysis of when, where, and how shale-gas development will occur are unknown."130 Further, as the DOE highlighted in its Final Opinion and Order, the FERC goes as far as to say that "the potential for induced shale gas development is 'even more attenuated from the [Sabine Pass] Liquefaction Project than in Central New York." 131

On September 6, 2012, Sierra Club filed a Motion for Rehearing and For Stay Pendente Lite with the DOE, restating many of its earlier legal arguments.¹³² On January 25, 2013, the DOE issued an order deny-

^{127. 10} C.F.R. § 590.303(d) (2014). DOE has discretion to grant or deny late-filed motions to intervene.

^{128.} See Sabine Pass Rehearing Order, supra note 106, ¶ 17; see also DOE/FE Order No. 2961-A Final Opinion and Order, supra note 108, at 14.

^{129.} Sabine Pass Rehearing Order, supra note 106, ¶¶ 11–13.

^{130.} Sabine Pass Certificate Order, supra note 76, ¶¶ 96–99 (For example, the FERC notes that "while Sabine Pass mentions that the project will allow the further development of shale-gas sources in the United States, Sabine Pass does not, and really cannot, estimate how much of the export volumes will come from current shale gas production and how much, if any, will be new production 'attributable' to the project. The project does not depend on additional shale gas production that may occur for reasons unrelated to the project and over which the Commission has no control, such as state permitting for additional gas wells. An overall increase in nationwide production of shale gas may occur for a variety of reasons, but the location and subsequent production activity is unknown, and too speculative to assume based on the interconnected interstate natural gas pipeline system.")

^{131.} DOE/FE Order No. 2961-A Final Opinion and Order, supra note 108, at 14 (referencing Sabine Pass Rehearing Order, supra note 106, at 5).

^{132.} Sierra Club's Motion for Rehearing and For Stay Pendente Lite (moving for a rehearing and withdrawal of DOE/FE Order No. 2961-A); see also Environmental Protection Agency, Region 3, Scoping Comments, FERC Docket No. PF12–16-000, 2 (Nov. 15, 2012) (though commenting on a different LNG export facility, EPA Region Three requested the

ing Sierra Club's request for rehearing and reaffirming its denial of Sierra Club's motion for late intervention in the case. ¹³³ The DOE reasoned that multiple agency issuances "provided ample legal notice of the respective proceedings to establish the scope and content of environmental review and of the DOE's participation as a cooperating agency in the FERC's NEPA review." Due to Sierra Club's failure to obtain intervener status, the DOE ruled that the organization lacked standing to request rehearing and stay of the Final Opinion and Order. ¹³⁵ Without intervener or party status, the Sierra Club is not entitled to judicial review of DOE's Final Opinion and Order under Section 19(b) of the Natural Gas Act. ¹³⁶ Thus, the Sabine Pass Project is no longer subject to challenge on the merits of the FERC or DOE orders.

IV. CEQ'S NEPA GUIDANCE ON THE CONSIDERATION OF THE EFFECTS OF CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

Whether and how the CEQ might advise federal agencies to evaluate climate change effects during a NEPA review has been an area of conjecture for decades. In addition to pursuing efforts to expand NEPA through litigation, environmental organizations have and continue to actively advocate for the CEQ to issue new NEPA guidance on how to incorporate climate change into the NEPA process.¹³⁷ In 1997, the CEQ under the Clinton Administration believed that "[t]he NEPA process provide[d] an excellent mechanism for consideration of ideas related to global climate change." The CEQ issued a draft memorandum to federal agencies concerning the evaluation of climate change effects; however, the memorandum was never finalized.¹³⁸

FERC include indirect effects related to natural gas drilling in its environmental review for LNG export plants).

- 135. DOE/FE Order No. 2961-B, 23.
- 136. 15 U.S.C. § 717r(b) (2012).
- 137. See A Citizen's Guide to the NEPA, supra note 11, at 5.

^{133.} See Sabine Pass Liquefaction, LLC, Opinion and Order Denying Request for Rehearing of Order, Denying Motion for Late Intervention, Dismissing Request for Rehearing of Order No. 2961-A, and Dismissing Motion for a Stay Pendente Lite, DOE/FE Order No. 2961-B (Jan. 25, 2013) (DOE concluded "Sierra Club has not demonstrated good cause for granting rehearing of the denial of its motion to intervene out of time.").

^{134.} DOE/FE Order No. 2961-B, 17 n.19 (DOE stated "[t]he proposed scope of environmental review was clearly set forth at the outset of the pre-filing proceeding in the July 26, 2010 letter from counsel for Sabine Pass.")

^{138.} See Draft Memorandum from Kathleen McGinty, Chairman of Council on Envtl. Quality, to all Federal Agency NEPA Liaisons (Oct. 8, 1997), available at http://www.mms.gov/eppd/compliance/reports/ceqmemo.pdf; see Madeline June Kass, A NEPA Climate

Throughout the Bush Administration, environmental organizations successfully sued federal agencies for failure to adequately consider climate change effects in NEPA reviews.¹³⁹ Faced with litigation, multiple agencies informally requested that the CEQ publish guidance.¹⁴⁰ In 2008, environmentalists reinforced the informal agency requests with a formal petition to the CEQ.¹⁴¹ At that time, environmental advocates hoped to secure federal climate change legislation, but viewed CEQ guidance as capable of impacting areas that a law was unlikely to reach, such as land-use decisions. ¹⁴²

The Obama Administration took the most significant action to date in this area when, in February 2010, the CEQ released draft NEPA guidance on the consideration of the effects of climate change and greenhouse gas emissions, confirming that climate change falls within the scope of NEPA. The draft guidance, which was released at a time when the American public was frustrated by the economic recession and turned off by political partisanship, contains a combination of advisory language and specific instruction on conducting assessments of certain

Paradox: Taking Greenhouse Gases into Account in Threshold Significance Determinations, 42 Ind. L. Rev. 47, 48 n.7 (2009).

139. Noelle Straub, White House Releases Draft NEPA Guidance, Environment & Energy Publishing (E&E), Feb. 18, 2010, available at http://eenews.net/eenewspm/2010/02/18/archive/1?terms=nepa+climate+change+CEQ+guidance (The three organizations were Sierra Club, Natural Resources Defense Council, and International Center for Technology Assessment); Mid States Coalition for Progress v. Surface Transp. Bd., 345 F.3d 520, 550 (8th Cir. 2003) (concluding climate change impacts can be an appropriate considerations under NEPA); Center for Biological Diversity v. National Highway Traffic Safety Administration, 508 F.3d 508, 550 (9th Cir. 2007) (stating that "[t]he impact of greenhouse gas on climate change is precisely the kind of cumulative impacts analysis that NEPA requires") opinion vacated and superseded on denial of reh'g, 538 F.3d 1172 (9th Cir. 2008).

140. Id.

141. See Int'l Ctr. For Tech. Assessment et al., Petition Requesting that the Council on Environmental Quality Amend its Regulations to Clarify that Climate Change Analysis be Included in Environmental Review Documents (Feb. 2008), available at http://www.airportattorneys.com/files/Intl%20Ctr%20Petition%20on%20CEQA.pdf; Jessica Leber, Can NEPA Pass Tests Posed by Climate-Related Projects?, N.Y. Times (Mar. 26, 2009), http://www.nytimes.com/cwire/2009/03/26/26climatewire-can-nepa-pass-tests-posed-by-climatere-lated-10308.html?pagewanted=all.

142. Id.

143. 75 Fed. Reg. 8046 (Feb. 23, 2010); see Chair, Council on Environmental Quality, Memorandum, Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions, Feb. 18, 2010, available at http://ceq.hss.doe.gov/nepa/regs/Consideration_of_Effects_of_GHG_Draft_NEPA_Guidance_FINAL_02182010.pdf [hereinafter Draft NEPA Climate Guidance]; see Noelle Straub, Head Scratching Begins over NEPA Guidance, Environment & Energy Publishing (E&E), March 26, 2010, available at http://eenews.net/Greenwire/2010/03/26/archive/5?terms=nepa+climate+change+CEQ+guidance.

proposed federal actions.¹⁴⁴ The guidance includes a proposal "to advise [f]ederal agencies to consider, in scoping their NEPA analyses, whether analysis of the direct and indirect [greenhouse gas] emissions from their proposed actions may provide meaningful information to decision makers and the public."¹⁴⁵ More rigorous instruction includes the requirement for a quantitative and qualitative assessment of a proposed federal action reasonably anticipated to cause direct emissions of 25,000 metric tons or more of carbon dioxide equivalent annually.¹⁴⁶ Seeking to compel the CEQ to take action, the International Center for Technology Assessment and the Center for Food Safety filed a federal lawsuit on April 2, 2014 for declaratory and injunctive relief alleging the CEQ failed to answer a 2008 legal petition in violation of the Administrative Procedure Act.¹⁴⁷ More than six years after CEQ received the 2008 petitions and four years after it published its draft, the CEQ has not finalized the guidance.¹⁴⁸

V. THE FUTURE OF CLIMATE CHANGE CONSIDERATIONS IN NEPA ANALYSES RELATING TO NATURAL GAS

A. The FERC's Consideration of Climate Change Effects

The United States is in the early stages of constructing new and expanded natural gas infrastructure to respond to the boom in domestic natural gas production. How the FERC scopes its reviews throughout the next few years will establish incredibly important precedent, and much is at stake. As of this writing, the FERC has asserted that large-scale shale production activities are not sufficiently causally-related to independent project proposals to warrant a more in-depth cumulative impacts analy-

^{144.} Draft NEPA Climate Guidance, supra note 143, 3-4.

^{145.} Id. at 1.

^{146.} *Id.* at 1–4, 12 (The guidance does not apply to land and resource management actions, including permitting oil and gas drilling; rather, the CEQ requested public comment protocols for assessing land management practices.).

^{147.} Complaint, International Center for Tech. Assessment and Center for Food Safety v. Council on Environmental Quality, Case No. 1:14-cv-549 (*D.C.* Cir. 2014); see Center for Food Safety, *Obama Administration's Failure to Act on Climate Change Sparks Lawsuit*, Apr. 2, 2014, available at http://www.centerforfoodsafety.org/press-releases/3033/obama-administrations-failure-to-act-on-climate-change-sparks-lawsuit#.

^{148.} Jean Chemnick, White House Still Hashing Out How Agencies Should Address Climate in NEPA Process, Environment & Energy Publishing (E&E), Mar. 15, 2013, available at http://eenews.net/eenewspm/2013/03/15/archive/4?terms=nepa+climate+change+CEQ+guidance; Dawn Reeves, Inside EPA, Obama Plan Stays Silent On NEPA Climate Guide, Worrying Environmentalists (July 18, 2013), available at http://insideepa.com/Risk-Policy-Report/Risk-Policy-Report-07/23/2013/obama-plan-stays-silent-on-nepa-climate-guide-worrying-environmentalists/menu-id-1098.html.

sis under NEPA.¹⁴⁹ Looking forward, if natural gas infrastructure proposals are not linked to the development of specific resources, the FERC is unlikely to expand the scope of environmental review requirements under NEPA to include induced development. However, seeking greater inclusion of climate change considerations in the review process, the environmental community continues to argue that interstate pipeline and LNG export facility applications induce natural gas production and that the FERC must consider inducement in its environmental evaluations.¹⁵⁰ These organizations assert that additional hydraulic fracturing will occur as a result of the available infrastructure to deliver the gas to market, causing unmitigated environmental impacts, including climate change contributions.¹⁵¹

As industry and environmentalists continue to debate NEPA scoping parameters, it is possible that the federal government could limit LNG export volumes on non-environmental grounds. For example, DOE has indicated that it believes it has the authority to revoke an export license if necessary to protect the public interest, ¹⁵² but has stated that it

^{149.} Central New York Oil & Gas Co., LLC, Order Issuing Certificate, 137 F.E.R.C. ¶ 61,121, ¶ 83, Docket No. CP10-480-000 (Nov. 14, 2011) (noting that "commenters argue that the impacts from Marcellus Shale development activities in northeast Pennsylvania must be considered in the EA, because the MARC I Project induces or accommodates Marcellus Shale development activities"); see also Sabine Pass Certificate Order, supra note 76, ¶ 96 (explaining that "impacts which may result from additional shale gas development are not 'reasonably foreseeable' and 'additional development,' or any correlative potential impacts, [are not] an 'effect' of the project, as contemplated by the CEQ regulations, for purposes of a cumulative impact analysis").

^{150.} Comments on Draft Environmental Impact Statement for Constitution Pipeline and Wright Interconnect Projects, Docket Nos. CP13-499-000; CP13-502-000; PF12-9, 18-19, Apr. 7, 2014 available at http://earthjustice.org/sites/default/files/files/CommentsonConstitution DEIS_4.7.14.pdf ("inducement of future gas development along the pipeline route is an indirect effect of the pipeline's construction and operation that must be evaluated in the Commission's environmental review of the Project. Such development is fairly understood as being indirectly caused by the availability of infrastructure to transport the gas to market").

^{151.} Id.

^{152.} See DOE/FE Order No. 2961, supra note 102, at n.45 (quoting 15 U.S.C. § 717) (The federal government explicitly stated that "in the event of any unforeseen developments of such significant consequence as to put the public interest at risk, [the DOE] is fully authorized to take action as necessary to protect the public interest. Specifically, DOE/FE is authorized by section 3(a) of the Natural Gas Act . . . to make a supplemental order as necessary or appropriate to protect the public interest. Additionally, DOE is authorized by section 16 of the Natural Gas Act 'to perform any and all acts and to prescribe, issue, make, amend, and rescind such orders, rules, and regulations as it may find necessary or appropriate' to carry out its responsibilities.").

would not do so as a price control mechanism.¹⁵³ There also has been discussion about whether the DOE ultimately might limit the volume of natural gas exports authorized for economic reasons. Underlying this debate was the DOE's decision to delay review of pending export proposals until a DOE-commissioned study evaluating the micro- and macroeconomic impacts on the United States of exporting domestic natural gas ("LNG Export Study") became available to inform their decisionmaking. 154 Reports noted that the study could convince the government to "impos[e] a volumetric cap or percentage of supply limit on the amount of LNG that can be exported from the U.S."155 In December of 2012, the DOE released the LNG Export Study, which concluded that LNG exports would benefit the economy. 156 The study also indicated, however, that the ultimate level of demand for U.S. LNG exports will be determined by the global market and "[a]t some U.S. price level, it will become more economic for a region other than the U.S. to provide the next unit of natural gas to meet global demand. 157 Considering these natural gas infrastructure proposals in light of economic and national security interests, as well as other interests, is necessary to grasp the federal government's continuous task of prioritizing and harmonizing complex national priority considerations.

B. The CEQ's Consideration of Climate Change Effects

The CEQ's draft guidance is neither the top priority issue nor an inconsequential matter for industry and the environmental community. While acknowledging that CEQ action would not alter underlying legal responsibilities, the environmental community believes that CEQ's guidance will increase the consistency with which agencies evaluate proposals and will increase the ability of organizations to pursue judicial review of how agencies consider climate change during NEPA evaluation. ¹⁵⁸

^{153.} Letter from Paula Gant, Deputy Assistant Secretary, Office of Fossil Energy, to Senator Lisa Murkowski (Oct. 17, 2013), available at http://www.energy.senate.gov/public/index.cfm/files/serve?File_id=9e99e412-ce05-449d-8893-dc8d64c32d02.

^{154.} Burnes et al., *supra* note 61 (noting an earlier study released by the U.S. Energy Information Administration's study in January 2012).

^{155.} Id.

^{156.} See Department of Energy 2012 LNG Export Study, 77 Fed. Reg. 73,627 (Dec. 12, 2012).

^{157.} NERA ECONOMIC CONSULTING, MACROECONOMIC IMPACTS OF LNG EXPORTS FROM THE UNITED STATES 6 (2012), available at http://energy.gov/sites/prod/files/2013/04/f0/nera_lng_report.pdf.

^{158.} Jean Chemnick, No Sign of NEPA Climate Standards 4 Years after CEQ Guidance, Environment & Energy Publishing (E&E), Feb. 25, 2014, available at http://www.eenews.net/stories/1059995082/print.

Further, environmentalists believe that guidance will influence federal permitting by enhancing the attention paid to long-term impacts. ¹⁵⁹ If finalized, the guidance could impact industry in various ways, such as formalizing a new category of mitigation activities aimed at reducing greenhouse gas emissions and increasing the market need for lower-carbon technologies and processes. The guidance could also have significant implications on long-term federal land use management. ¹⁶⁰ Industry has expressed mixed levels of opposition to CEQ's proposed course of action, which could be easily undone under a different presidential administration. ¹⁶¹

Under the proposed guidance, the CEQ states not only that agencies should evaluate how a proposal would contribute to greenhouse gas emissions, but also how the broad effects of climate change would impact the proposal throughout its lifespan. The significance of this approach, which requires evaluation of the proposed project's potential impact on climate change and climate change's potential impact on the proposed project, is heightened when partnered with the findings of the United Nations' Intergovernmental Panel on Climate Change's Fifth Assessment Report. This report, released on March 30, 2014, illustrates the "continuing uncertainty about the severity and timing of climate-change impacts and . . . [the] limits to the effectiveness of adaptation." The second control of the continuing uncertainty about the severity and timing of climate-change impacts and . . . [the] limits to the effectiveness of adaptation."

In addition to long-term complexities, legal scholars, including those who support the CEQ's draft guidance, find that there are "muddled, messy, and complicated aspects of actually integrating climate considerations into NEPA's procedural framework." For example, the CEQ's draft guidance lacks instruction on how an agency would approach a proposed project that in isolation lacks significant enough greenhouse gas emissions to trigger an EIS review of global climate effects, and yet, if considered as part of a series or a whole, has significant cumulative emissions. Scholarly work analyzing the draft guidance and recommending solutions to the compliance hurdles and legal challenges that would lie ahead sheds light on the level of complication the broad introduction of climate analysis into the NEPA review would

^{159.} Id.

^{160.} Id.

^{161.} See id.

^{162.} Michael B. Gerrard, Reverse Environmental Impact Analysis: Effect of Climate Change on Projects, 247 N.Y. L.J., no. 45, Mar. 8, 2012, available at http://www.arnoldporter.com/resources/documents/Arnold&PorterLLP_NewYorkLawJournal_Gerrard_3.8.12.pdf.

^{163.} Christopher B. Field et al., Climate Change 2014: Impacts, Adaptation, and Vulnerability—Summary for Policymakers 9, 19–20 (Mar. 31, 2014).

^{164.} Kass, supra note 138, at 49.

^{165.} See id. at 72-96.

likely cause. ¹⁶⁶ As the Obama Administration considers whether to finalize the draft guidance, some federal agencies are instituting procedures for addressing climate change during NEPA reviews, with the details varying from agency to agency. ¹⁶⁷

With or without environmental organization success in expanding NEPA review, many questions remain unanswered. How will scientists evaluate climate change considerations in EAs and EISs given that this area of study is so multifaceted? Can the "when, where, and how" of impacts be predicted with such certainty that a causal connection can be established? In the next generation, governments throughout the world will struggle with how to address the complex challenges posed by the known and unknowns of climate change. As they do, industry and the environmental community will continue to engage on this topic.

CONCLUSION

During the 1960s and 1970s, as a host of environmental hazards threatened the ecosystem, Congress debated the merits of several environmental laws, including NEPA. In the opening section of NEPA, Congress wrote that "it is the continuing policy of the Federal Government . . . to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." More than 40 years later, modern litigation questions to what extent NEPA environmental reviews must account for climate change effects. ¹⁷⁰

Environmental organizations have sought to employ NEPA in order to force the government to account for the aggregate impact of domestic natural gas production, especially in the context of climate change. Through litigation, environmentalists have argued that the FERC must consider a broader range of environmental impacts when

^{166.} See generally Michael B. Gerrard, Climate Change and the Environmental Impact Review Process, 22 NAT. RESOURCES & ENV'T 20 (Winter 2008); see also Kass, supra note 138; see also Wase, supra note 2.

^{167.} See Patrick Woolsey, Consideration of Climate Change in Federal EISs, 2009-2011 4–5 (July 2012), available at http://web.law.columbia.edu/sites/default/files/microsites/climate-change/files/Publications/Students/Woolsey%20NEPA%20report. pdf.

^{168.} See, e.g., Clean Air Act, 42 U.S.C. §§ 7401-7431(1970); see, e.g., Safe Drinking Water Act, 42 U.S.C. §§ 300f-300j–26 (1974); see Massachusetts v. EPA, 127 S. Ct. 1438 (2007) (providing an example of another context in which environmentalists have used an existing law to force the federal government to respond to climate change).

^{169.} National Environmental Policy Act of 1969, 42 U.S.C. §§ 4331–4335, 4341–4347, 4361–4370h (1970).

^{170.} Coalition Motion to Intervene, supra note 1.

evaluating interstate natural gas pipeline and liquefied natural gas (LNG) terminal proposals. Pursuing NEPA guidance, environmentalists have pushed the CEQ to require federal agencies to consider the climate change effects of proposed actions. An expanded federal environmental review, whether achieved through litigation or expanded regulation, could affect industry in a variety of ways.

As the United States continues to grapple with climate change, the government will have to balance national interests and answer difficult questions. During this time, though activities have and will continue to take place under a host of federal laws, many eyes (including, and perhaps especially, environmentalists' eyes) will remain fixed on NEPA. Looking forward, the environmental community, known for its tenacity, will assuredly continue its efforts to force a federal response to climate change.