Clogging the Pipeline: Exploring the D.C. Circuit's Improper Segmentation Analysis in *Delaware Riverkeeper Network v. FERC*

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Clogging the Pipeline: Exploring the D.C. Circuit's Improper Segmentation Analysis in Delaware Riverkeeper Network v. FERC

Abstract

Technological advancement in drilling techniques, primarily hydraulic fracturing, has provided access to previously unreachable natural gas reserves. Much of this increase in natural gas production is derived from the Marcellus Shale, a shale formation that spans Ohio, Pennsylvania, West Virginia, and New York. This surge in natural gas production has prompted natural gas pipeline companies to upgrade their pipeline networks. Pipeline companies must apply for certificates of public convenience and necessity from the Federal Energy Regulatory Commission (FERC) and, if approved, perform an environmental evaluation, as required by the National Environmental Policy Act (NEPA). In examining the environmental impacts of the pipeline project, pipeline companies must be careful not to impermissibly segment the project into component parts, thereby failing to consider a proposed project's full range of environmental impacts. This is referred to as the rule against segmentation, developed by courts to ensure that companies consider the full range of environmental consequences of proposed projects. The D.C. Circuit recently reviewed the scope of a pipeline project's environmental assessment in Delaware Riverkeeper Network v. FERC, holding that the FERC impermissibly segmented four pipeline upgrade projects by failing to consider their impacts in one environmental assessment. This Comment analyzes the D.C. Circuit's decision in Delaware Riverkeeper Network v. FERC and argues that the court improperly applied NEPA's rule against segmentation. The precedent established from the D.C. Circuit's decision will cause even further delays in the pipeline permitting process and will hinder the United States's ability to utilize its supply of natural gas.

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COMMENTS

CLOGGING THE PIPELINE: EXPLORING THE D.C. CIRCUIT'S IMPROPER SEGMENTATION ANALYSIS IN DELAWARE RIVERKEEPER NETWORK V. FERC AND ITS IMPLICATIONS FOR THE UNITED STATES'S DOMESTIC NATURAL GAS PRODUCTION

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Technological advancement in drilling techniques, primarily hydraulic fracturing, has provided access to previously unreachable natural gas reserves. Much of this increase in natural gas production is derived from the Marcellus Shale, a shale formation that spans Ohio, Pennsylvania, West Virginia, and New York. This surge in natural gas production has prompted natural gas pipeline companies to upgrade their pipeline networks. Pipeline companies must apply for certificates of public convenience and necessity from the Federal Energy Regulatory Commission (FERC) and, if approved, perform an environmental evaluation, as required by the National Environmental Policy Act (NEPA). In examining the environmental impacts of the pipeline project, pipeline companies must be careful not to impermissibly segment the project into component parts, thereby failing to consider a proposed project's full range

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INTRODUCTION

The United States is currently engaged in an aggressive effort to increase the production and supply of domestic energy. The nation's leaders have repeatedly emphasized the importance of reducing the United States's dependence on foreign oil, stressing the need for improvements to domestic energy infrastructure and domestic resource exploitation. While renewable energy resources have been a factor in working towards the goal of energy independence, reliance on renewable energy sources alone will not lead to energy security. Natural gas provides another avenue. The use of natural gas to meet the United States's electric power energy goals became a possibility after technological advancements allowed


access to once unreachable shale gas reserves. After the discovery that major shale formations, such as the Marcellus Shale, may provide the potential to supply large quantities of natural gas to regions with high energy demands, support for natural gas extraction and infrastructure updates skyrocketed. In his State of the Union Address in 2013, President Barack Obama reasoned that natural gas is a cleaner natural resource than oil that needs to be utilized, and, therefore, his administration will “keep cutting red tape and speeding up new oil and gas permits.”

To accommodate this increased supply of natural gas and to meet the demand for its use, numerous energy companies have undertaken updates to their existing natural gas pipelines. Before

6. The process of hydraulic fracturing, commonly referred to as “fracking,” provides access to oil and gas that is difficult to extract from tight rock formations. Hannah Wiseman, Untested Waters: The Rise of Hydraulic Fracturing in Oil and Gas Production and the Need to Revisit Regulation, 20 FORDHAM ENVTL. L. REV. 115, 115, 117–18 (2009). Fracking involves the injection of fluid into a well at high pressure in order to widen and deepen existing cracks or create new fractures in tight rock formations, allowing oil and gas to flow through these artificial fractures. Id. at 118. The fluids used include water, or water mixed with solvents such as drilling mud. Id. at 118–19. This fluid is then mixed with a sand proppant—ceramic pellets or other small granular materials that are used to prop open the cracks—allowing continuous flow of the oil or gas. Id. at 118; see also Ross Gerber, Beating our Enemies by Energy Independence, FORBES (Aug. 27, 2014, 11:25 AM), http://www.forbes.com/sites/greatspeculations/2014/08/27/beating-our-enemies-by-energy-independence (exclaiming that the advancement of extraction technologies has contributed to the surge in natural gas and oil production and that this technological feat could result in the United States becoming the world’s largest oil producer).


8. See CONSIDINE, supra note 7, at 2 (claiming that geologists estimate that the Marcellus Shale could provide up to 489 trillion cubic feet of natural gas).


10. State of the Union, supra note 2.

11. See Marcellus Growth, supra note 7 (noting that greater access to natural gas
these projects come to fruition, however, companies must obtain a permit from the Federal Energy Regulatory Commission (FERC).12 The FERC is the government agency responsible for issuing permits for natural gas pipeline upgrades.13 If the FERC approves a permit application, it must then issue a certificate of public convenience and necessity, which authorizes the certificate holder to engage in the transportation or sale of natural gas.14 After issuing the certificate, the FERC must conduct an environmental review as required by the National Environmental Policy Act of 1969 (NEPA).15 An environmental review requires the FERC to prepare an Environmental Assessment ("EA").16 If no significant environmental consequences will result from the pipeline upgrade, the FERC may issue a finding of no significant impact (FONSI).17 However, if the FERC concludes that significant environmental consequences might result from the upgrade, it must then prepare an Environmental Impact Statement (EIS).18 An EIS examines the significant environmental impacts of a proposed project and outlines feasible alternatives to the project, including the option of no action.19 NEPA requires that an EIS discuss the extent to which adverse impacts can be avoided, but it does not mandate that the agency choose the least harmful alternative.20 Thus, NEPA is a procedural statute that

may result in stabilizing or decreasing the market price). See generally U.S. DEP'T. OF TRANSP., PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMIN., ANNUAL REPORT MILEAGE FOR NATURAL GAS TRANSMISSION & GATHERING SYSTEMS (May 1, 2015) http://phmsa.dot.gov/pipeline/library/data-stats/annual-report-mileage-for-natural-gas-transmission-and-gathering-systems (illustrating that, in 2014, there were about 320,000 miles of natural gas pipeline in the United States).

13. Id. §§ 717f(a), (c).
14. Id. § 717f(c)(1)(A).
17. Id. § 1501.4; see also § 1508.13 (defining a finding of no significant impact (FONSI) as a document explaining why an action will have no significant impact on the environment and for which no Environmental Impact Statement (EIS) will be prepared).
18. Id. § 1508.11.
19. Id. § 1502.14; see Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 196 (D.C. Cir. 1991) (explaining that when an agency lists alternatives to the proposed action, it only needs to list the reasonable alternatives that can be used to accomplish the agency's goal).
20. See Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989) (stating that the agency can determine that other values outweigh environmental costs so long as the agency identifies and evaluates the proposed alternatives); see, e.g., Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227–28 (1980) (per curiam) (allowing the United States Department of Housing and Urban Development to reject an environmentally preferable alternative because the agency
requires agencies to take a "hard look" at the environmental consequences of the proposed projects, but it does not necessarily modify the agency's behavior.

Determining the scope of an EIS is challenging. Issues often arise when an agency is forced to decide whether multiple related actions must be covered in a single EIS. Lawsuits generally claim that the responsible agency conducted an improper scoping of the project, thereby failing to take into consideration the cumulative effects that the multiple projects cause on the environment. This frequent accusation led to the eventual development of a common law rule against segmentation, dictating that an agency impermissibly segments NEPA review when it attempts to fractionalize connected, cumulative, or similar federal actions into component parts. The rule against segmentation was intended to prevent agencies from fractionalizing larger projects with significant environmental impacts into smaller, less environmentally significant actions.

Frequently, the question of whether the agency has improperly segmented a given project hinges on the timing of that project, as the EIS requirement will only be triggered at the project's proposal stage. Accordingly, contemplated projects are free from such obligations.

was only required to consider the alternative and did not have to give environmental concerns elevated weight in evaluating its courses of action.

21. See Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976) (stressing that the reviewing court must recognize the expertise of the agency and not "interject itself" into areas within the agency's discretion (quoting Nat. Res. Def. Council, Inc. v. Morton, 458 F.2d 827, 838 (D.C. Cir. 1972))).

22. See Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc., 435 U.S. 519, 558 (1978) (stating that the National Environmental Policy Act of 1969 (NEPA) is designed to provide a well-informed agency decision, but this mandate to agencies is "essentially procedural").

23. See, e.g., Del. Riverkeeper Network v. FERC, 753 F.3d 1304, 1309 (D.C. Cir. 2014) (holding that the Federal Energy Regulatory Commission (FERC) acted arbitrarily in conducting its environmental review without considering other closely related projects and finding that FERC's Environmental Assessment ("EA") provides inadequate analysis of the cumulative impacts of all the projects).

24. See infra notes 53-59, 102-103 and accompanying text (describing the scoping process and noting that courts have struggled with uniformly applying scoping requirements).

25. When performing research for resources that cite to 40 C.F.R. § 1508.25, a search on Westlaw provides over 2,500 results.


27. Id.


Recently, the U.S. Court of Appeals for the D.C. Circuit significantly expanded NEPA's rule against segmentation by applying it to a gas pipeline project in *Delaware Riverkeeper Network v. FERC*. This case marks the first time that the D.C. Circuit has applied NEPA's rule against segmentation to a pipeline project, and this ruling establishes a precedent that will likely result in a more expansive NEPA review processes for all existing and future pipeline projects, causing further delay in the FERC approval process. The decision comes at a time when the nation is trying to expand natural gas pipelines to help foster domestic energy projects, increasing the ruling's potential to disrupt industry and infrastructure. This Comment analyzes *Delaware Riverkeeper Network v. FERC* and argues that the court incorrectly applied NEPA's rule against segmentation. In fact, the project satisfied the segmentation criteria set forth in an earlier, seminal NEPA case from the same Circuit, *Taxpayers Watchdog, Inc. v. Stanley*. Accordingly, the court should have deferred to the agency's segmentation analysis.

Part I of this Comment provides a history of NEPA and the requirements for EAs and EISs. This Part also discusses the D.C. Circuit's decisions in *Taxpayers* and *Riverkeeper*. Part II analyzes the court's reasoning in *Riverkeeper* and argues that the D.C. Circuit incorrectly held that the four pipeline improvement projects were connected actions and, therefore, were required to be examined in one impact statement. Further, Part II asserts that the pipeline improvement projects also satisfied the segmentation guidance set forth in *Taxpayers*. This Part also analyzes the timing of the projects in *Riverkeeper*, arguing that the Supreme Court's ruling in *Kleppe v. Sierra Club* allows for the segmentation of the pipeline projects because they were not in the proposal phase at the same time. Part III concludes that the D.C. Circuit's new NEPA precedent will likely lead to a more broadly scoped environmental review with longer review periods, thereby delaying the FERC approval process and increasing the number of related pipeline projects that are cumulatively reviewed. Further, Part III states that the resulting expansion of NEPA jurisprudence to pipeline projects could prove troublesome for other pipeline expansion and upgrade projects. This Part also urges the Senate to pass the Natural Gas Pipeline

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31. See infra note 196 and accompanying text (noting that the NEPA process can take between two and three years, after which lawsuits are commonly filed).
32. 819 F.2d 294, 298 (D.C. Cir. 1987) (per curiam).
Permitting Reform Act, as it would expedite FERC review of natural gas pipeline projects. Finally, Part III recommends that specific criteria be established in FERC's agency regulations for pipeline projects that provide guidelines for when multiple projects should be considered together in an EIS.

I. NEPA AND THE EVOLUTION OF THE RULE AGAINST SEGMENTATION

The following provides an overview of NEPA's procedural requirements by which agencies must abide. A general discussion of Environmental Assessments and Environmental Impact Statements in the context of the FERC's jurisdiction follows. Additionally, this Part presents the conundrum agencies face in determining the scope of a major federal action and deciding when to prepare an EIS, which introduces the issue of improper segmentation. Finally, this Part outlines the criteria for determining whether an agency has impermissibly segmented a proposed project, as provided in Taxpayers, and gives the factual background for Riverkeeper, the focus of this Comment.

A. NEPA's Procedural Requirements

The National Environmental Policy Act of 1969 is a procedural statute that establishes a national policy of environmental protection. Enacted by Congress to address "the profound impact of man's activity on the interrelations of all components of the natural environment," NEPA requires agencies to take a "hard look" at the environmental impacts of major federal actions. Further, NEPA created the Council on Environmental Quality (CEQ) in the Executive Office of the President to promulgate regulations clarifying NEPA's provisions and to recommend national policies to improve the environment. The CEQ's regulations apply to all agencies of

34. H.R. 1900, 113th Cong. (2013) (as passed by House of Representatives, Nov. 21, 2013).
36. Id.
37. Kleppe, 427 U.S. at 410 n.21 (quoting Nat. Res. Def. Council v. Morton, 458 F.2d 827, 838 (D.C. Cir. 1972)); see 40 C.F.R. § 1508.18 (2014) (defining "[m]ajor [f]ederal action[s]" as "actions with effects that may be major and which are potentially subject to [f]ederal control and responsibility"); see also Scientists' Inst. for Pub. Info. v. Atomic Energy Comm'n, 481 F.2d 1079, 1088 (D.C. Cir. 1973) (stating that the term "major [f]ederal action[s]" encompasses the construction of facilities, proposed legislation or regulations, or revision of programs, and can exist when an agency takes action itself or permits a third party to take an action that affects the environment).
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the federal government. The CEQ is also responsible for preparing an annual report on environmental quality, developing and recommending to the President national environmental policies, and documenting and defining environmental trends.

NEPA regulations promulgated by the CEQ are binding on federal agencies, but each agency has its own regulations as well. Agencies are required to establish criteria for three classes of actions: (1) those requiring an EA; (2) those requiring an EIS; and (3) those that are categorically excluded from NEPA review. Under NEPA, an agency may prepare an EA to determine whether a proposed action will have significant environmental effects. An EA includes a brief discussion of the need for the proposed action, alternatives to the proposed action, and the proposed action's, and alternatives', environmental impacts. Based on its EA, the agency will then make a threshold decision and determine whether to prepare a detailed EIS or issue a FONSI. A FONSI is permissible even if there are negative impacts as a result of the proposed action, provided these impacts do not cross a "significant impact" threshold determined by

39. Id.
40. Id.
41. See, e.g., 23 C.F.R. § 771.101 (2014) (listing the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) policies and procedures that implement NEPA and supplement the Council on Environmental Quality (CEQ) regulations to provide the agencies with more direction on highway and public transportation project EISs).
42. 40 C.F.R. § 1508.9.
43. Id. § 1508.11.
44. Id. § 1508.4 (explaining that actions that do not require either an EIS or an EA are those that individually or collectively do not have a significant effect on the human environment). Under FERC regulations, actions that are always exempt from both EA and EIS requirements are referred to as categorical exclusions. 18 C.F.R. § 380.4(a)(5)–(6), (33). FERC categorical exclusions include projects or actions that serve as informational gathering and analysis, conceptual or feasibility studies, or construction or abandonment of facilities that are on federal offshore waters. Id.
45. 40 C.F.R. § 1501.3; see COUNCIL ON ENVTL. QUALITY, A CITIZEN'S GUIDE TO THE NEPA: HAVING YOUR VOICE HEARD 4, 11–12 (2007), http://www.blm.gov/pgdata/etc/medialib/blm/nm/programs/planning/planning_docs.Par.59208.File.dat/A_Citize ns_Guide_to_NEPA.pdf [hereinafter CITIZEN'S GUIDE TO NEPA] (acknowledging that a plethora of actions are considered to cause significant environmental effects and explaining the purpose of an EA).
46. 40 C.F.R. § 1508.9(b).
48. 40 C.F.R. §§ 1501.4(c), (e).
The issuance of a FONSI fulfills NEPA's documentation requirements. 50

NEPA's primary goals were the identification and understanding of environmental consequences of government actions. 51  EISs are devices created to ensure that the policies and goals in NEPA are infused into the ongoing programs and actions of the federal government. 52  As such, EISs require agency officials to conduct a scoping process to identify potential impacts, project alternatives, and issues that will require further analysis in the EIS. 53  While NEPA requires agencies to take account of their environmental decisions, 54 it does not require agencies to choose the most environmentally conscious course of action. 55  Under the Administrative Procedure Act (APA), an agency's decision not to issue an EIS for activity it claims has insignificant impact on the environment may be reversed only if that decision is arbitrary or capricious. 56  However, if an

49. See id. § 1508.27 (noting that the term "significantly" must be analyzed by the agency, which should consider both the context and intensity of the proposed action); see also Ky. Coal Ass'n v. Tenn. Valley Auth., No. 4:14CV-00073-JHM, 2014 WL 7335170, at *6 (W.D. Ky. Dec. 19, 2014) (listing ten intensity factors that an agency may consult when determining the significance of the proposed action and its duty to prepare an EIS, citing 40 C.F.R. § 1508.27(b), and stating that even if one factor is met, the proposed action is not necessarily significant); Lee & Cunningham, supra note 47, at 10,338 (noting that the CEQ regulations only provide general criteria for determining whether impacts are significant, and instead, the agency and the courts subjectively set the threshold for the significance of impacts). See generally James T.B. Tripp & Nathan G. Alley, Streamlining NEPA's Environmental Review Process: Suggestions for Agency Reform, 12 N.Y.U. ENVTL. LJ. 74, 80 (2003) (stating that agencies often avoid the complexities and burdens involved in preparing an EIS by issuing a FONSI).

50. See CITIZEN'S GUIDE TO NEPA, supra note 45, at 12 (explaining that the NEPA process is complete when the agency issues a FONSI or decides to prepare an EIS).


53. 40 C.F.R. §§ 1502.14-.16, .22; see infra Part II.B. for a discussion of the issues surrounding the determination of the scope of an EIS.


55. See Courtney A. Schultz, History of the Cumulative Effects Analysis Requirement under NEPA and Its Interpretation in U.S. Forest Service Case Law, 27 J. ENVTL. L. & LITIG. 125, 128 (2012) (stating that NEPA neither requires agencies to choose the least harmful alternative action nor articulate how agencies should respond to environmental risks); see also Tripp & Alley, supra note 49, at 85 (stating that courts have determined that the agency has the ultimate discretion to select among the more harmful alternatives).

56. 40 C.F.R. § 1508.18; see Motor Vehicle Mfrs. Ass'n of U.S. v. State Farm Mut.
agency determines that the proposed action will have a significant adverse environmental impact, it will issue a notice of intent (NOI) designed to inform the public and other agencies of the agency's desire to prepare an EIS. After the scoping of the project, the agency prepares a draft EIS available for public comment. Agencies receive public comments during a defined public participation period, after which a final EIS is prepared. The agency is required to consider and respond to significant comments before it makes its final decision on the proposed action.

The FERC, responsible for the regulation of the transportation and sale of natural gas, is subject to NEPA throughout its entire permitting process. The Natural Gas Act (NGA) grants the FERC jurisdiction

Auto Ins., 463 U.S. 29, 43-44 (1983) (ruling that agency action is not arbitrary and capricious if the agency considered the relevant factors and provided a reasonable explanation); Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc., 435 U.S. 519, 543-49 (1978) (holding that courts may not overturn agency action based on the procedures used, unless the agency did not meet its minimum statutory requirements); Natural Res. Def. Council, Inc. v. Hodel, 865 F.2d 288, 294 (D.C. Cir. 1988) (citing North Slope Borough v. Andrus, 642 F.2d 589, 599 (D.C. Cir. 1980)) (reasoning that because NEPA is a procedural statute, so long as the agency's decision is "fully informed" and "well-considered," it is owed judicial deference); see also Citizens to Pres. Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971) (articulating that the court's role during arbitrary and capricious review is to determine whether there has been a clear error of judgment by carefully considering the facts, but the standard of review is narrow with deference given to the agency). But see Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 196 (D.C. Cir. 1991) (articulating that "[d]eference, however, does not mean dormancy," and the agency should take a hard look at relevant factors and consult Congress's views evidenced in the agency's authorizing statute).

57. 40 C.F.R. § 1501.7; see id. § 1508.22 (defining notice of intent (NOI)); see also Tripp & Alley, supra note 49, at 80 (noting that the comment process allows interested parties to voice opinions on what impacts and alternatives should be considered in the EIS).

58. See Citizen's Guide to NEPA, supra note 45, at 13-14 (characterizing the scoping process as the time during which the agency defines the scope of the issues to be addressed in the EIS after inviting the public to participate, taking into account any related EAs or EISs, and identifying additional information needed).

59. 40 C.F.R. § 1502.9(a).

60. Id.; see id. § 1506.10(c) (requiring that the public comment period for draft EISs be at least forty five days).

61. Id. § 1503.4(b); see id. § 1505.2 (directing that the issuing agency must illustrate its acceptance of its final EIS by publishing a final agency record of decision). See generally Tripp & Alley, supra note 49, at 84 (noting that NEPA's public participation provisions are illustrative of NEPA's goal to enhance communication and cooperation between various agencies and the public).

over the transportation and sale of natural gas in interstate commerce. The NGA requires that any person or entity seeking to construct a facility for the transportation of natural gas must first file an application for a certificate of public convenience and necessity from the FERC. The FERC is authorized to issue this certificate if it determines that the proposed construction and operation of the pipeline facility is required by public convenience and necessity. NEPA’s environmental assessment requirements are triggered when the FERC determines whether a certificate of public convenience and necessity should be granted. Under NEPA procedures, the FERC is

63. Natural Gas Act, 15 U.S.C. § 717(b)–(c) (2012). The FERC is not the agency responsible for the construction of oil pipelines, nor does the FERC have jurisdiction over natural gas pipelines located entirely within a state’s borders. Id. § 717(b)(1) (giving such authority to state and local officials). However, the FERC has the authority to set “just and reasonable” rates for natural gas transportation or sale in interstate commerce. Id. § 717f(c). Although the FERC is responsible for issuing permits for natural gas pipelines, the Pipeline and Hazardous Materials Safety Administration (PHMSA), under the direction of the Department of Transportation (DOT), is tasked with administering pipeline safety standards. 49 C.F.R. § 190.1 (2014). See generally NAACP v. Fed. Power Comm’n, 425 U.S. 662, 669-70 (1976) (declaring that the purpose of the Natural Gas Act is the coordinated development of natural gas at reasonable rates).

64. 15 U.S.C. § 717f(e). In evaluating whether a project application will be required by public convenience and necessity, the FERC performs a balancing process during which it weighs the project’s: (1) market support; (2) economic, operational, and competitive benefits; and (3) environmental impact. FERC, DOCKET No. PL99-3-000, CERTIFICATION OF NEW INTERSTATE NATURAL GAS PIPELINE FACILITIES 14 (1999). The first analytical step the FERC must take is to determine whether the proposed pipeline project can proceed without subsidies from existing customers. Fla. Gas Transmission Co. v. FERC, 604 F.3d 636, 649 (D.C. Cir. 2010). Next, the FERC must look to see whether the applicant has taken any steps towards mitigating adverse effects the proposed project may have on existing customers and consider potential negative effects on existing pipelines in the market and their customers or on landowners in the affected area. Id. If there are remaining adverse effects on any of the parties listed above, despite the applicant’s efforts to minimize them, the FERC will balance the project’s forecasted public benefits against these adverse impacts. Id. The FERC will issue a certificate of public convenience and necessity only if the public benefits outweigh the adverse effects on the other economic interests. Id.

65. 15 U.S.C. § 717f(e). In evaluating whether a project application will be required by public convenience and necessity, the FERC performs a balancing process during which it weighs the project’s: (1) market support; (2) economic, operational, and competitive benefits; and (3) environmental impact. FERC, DOCKET No. PL99-3-000, CERTIFICATION OF NEW INTERSTATE NATURAL GAS PIPELINE FACILITIES 14 (1999). The first analytical step the FERC must take is to determine whether the proposed pipeline project can proceed without subsidies from existing customers. Fla. Gas Transmission Co. v. FERC, 604 F.3d 636, 649 (D.C. Cir. 2010). Next, the FERC must look to see whether the applicant has taken any steps towards mitigating adverse effects the proposed project may have on existing customers and consider potential negative effects on existing pipelines in the market and their customers or on landowners in the affected area. Id. If there are remaining adverse effects on any of the parties listed above, despite the applicant’s efforts to minimize them, the FERC will balance the project’s forecasted public benefits against these adverse impacts. Id. The FERC will issue a certificate of public convenience and necessity only if the public benefits outweigh the adverse effects on the other economic interests. Id.

66. NEPA, 42 U.S.C. § 4332(C) (2012) (stating that all recommendations and reports on proposals that significantly affect the environment must include a detailed report on their impact, alternatives, short-term and long-term effects, and needed finite resources).
required to prepare an EA of the proposed pipeline project, and if significant impacts are shown, prepare an EIS. 

**B. Determining the Scope of an EIS**

If the agency decides that an EIS is required for a proposed project, the next step is to determine the scope of the major federal action. Determining the scope of an EIS is complicated, and the CEQ offers only vague guidance. To determine the scope of an EIS, an agency must consider "3 types of actions, 3 types of alternatives, and 3 types of impacts." Actions that must be addressed in an EIS are those that are connected, cumulative, or similar actions.

Connected actions are actions that: (1) automatically trigger other actions requiring EISs; (2) cannot or will not move forward unless other actions are taken previously or simultaneously; or (3) are interdependent parts of a larger action and are not justified without the larger action. Cumulative actions are actions that have cumulatively significant impacts when viewed in conjunction with other proposed actions. Finally, similar actions are actions that, when considered alongside other reasonably foreseeable or proposed actions, share common attributes such as timing or geography that make it logical to consider these actions in a single EIS.

Alternatives provided in an EIS must include a no-action alternative, other reasonable alternatives, and mitigation measures. Impacts listed in the EIS must include all direct, indirect, and cumulative

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67. 40 C.F.R. § 1501.4. See generally Clean Air Act, 42 U.S.C. § 7609(a) (2012) (declaring that the Environmental Protection Agency (EPA) must review and comment on EISs prepared by other agencies).
68. Id. § 1508.25.
70. 40 C.F.R. § 1508.25(a) (1)-(3).
71. Id. § 1508.25(a) (1) (i)-(iii).
72. Id. § 1508.25(a) (1)(i)-(iii). See generally Thomas v. Peterson, 753 F.2d 754, 758 (9th Cir. 1985) (criticizing the definition of connected actions as being redundant).
73. 40 C.F.R. § 1508.25(a) (2).
74. Id. § 1508.25(a) (3).
75. Id. § 1508.25(b) (1)-(3).
impacts.\textsuperscript{76} The CEQ regulations contain a specific provision defining a cumulative impact as the "incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."\textsuperscript{77} Courts often refer to this cumulative impact regulation as the "cumulative effects analysis" or CEA requirement.\textsuperscript{78}

1. Segmentation

The scope of a proposed action and its cumulative effects have been central issues of numerous lawsuits challenging either an agency's decision not to prepare an EIS, or the adequacy of the EIS.\textsuperscript{79} Agencies are often tasked with deciding when multiple related actions must be covered in a single EIS.\textsuperscript{80} An agency impermissibly segments a project under NEPA review "when it divides connected, cumulative, or similar federal actions into separate projects and thereby fails to address the true scope and impact of the activities that should be under

\textsuperscript{76} Id. § 1508.25(c)(1)-(3).
\textsuperscript{77} Id. § 1508.7. \textit{See generally} Kleppe v. Sierra Club, 427 U.S. 390, 420–21 (1976) (Marshall, J., concurring in part and dissenting in part) (attributing NEPA's success to the development of common law surrounding its impact statement requirement, which arose because NEPA was vaguely worded); Schultz, \textit{supra} note 55, at 133 (observing that the exact phrase "cumulative impacts" is not found in NEPA's legislative hearings that occurred pending its approval and that it instead arose as a codification of NEPA common law in the 1970's prior to the release of CEQ's regulations in 1973).
\textsuperscript{78} See 40 C.F.R. § 1508.8 (stating that the terms "effects" and "impacts" are synonymous throughout the CEQ regulations); Lands Council v. Powell, 395 F.3d 1019, 1027 (9th Cir. 2004) (relying on the cumulative effects test); \textit{see also} Schultz, \textit{supra} note 55, at 127 (explaining that the cumulative effects analysis (CEA) requirement is critical to NEPA analysis because it forces agencies to consider more than "incremental impacts of a single decision, which may be individually insignificant but may cumulatively contribute to significant environmental change"). \textit{See generally} \textit{CONSIDERING CUMULATIVE EFFECTS, \textit{supra} note 69, at v-vi} (acknowledging that analyzing cumulative effects is challenging because it requires assessing interactions between events that have different geographic and temporal boundaries).
\textsuperscript{79} \textit{See} Schultz, \textit{supra} note 55, at 126 (observing that there has been an increasing number of cases challenging the CEA); \textit{see also} Maureen O'Dea Brill, \textit{Assessing the Scope of the National Environmental Policy Act: Recent Attempts by Environmentalists to Add Climate Change Considerations into NEPA Review}, 54 NAT. RESOURCES J. 409, 415 (2014) (charging that cumulative impacts are the most difficult environmental impacts to predict and quantify); \textit{see, e.g.}, Coal. for Resp. Growth & Res. Conservation v. FERC, 485 Fed. App'x 472, 474–75 (2d Cir. 2012) (holding that the proposed interstate pipeline construction was not causally related to the greater Marcellus Shale development, and, therefore, the FERC did not have to consider the cumulative impacts of Marcellus Shale gas development in its issuance of a certificate of public convenience and necessity).
\textsuperscript{80} \textit{See} \textit{CONSIDERING CUMULATIVE EFFECTS, \textit{supra} note 69, at v} (observing that most federal agencies have supplemented CEQ regulations with their own regulations that provide more specific guidance on determining the scope of an EIS).
consideration.81 Impermissible segmentation is a violation of NEPA; however, segmentation is addressed only indirectly in the definition of scope in CEQ regulations for EISs, so the question becomes what is permissible and what is impermissible.82 As a result, the rule against segmentation has developed through common law to prevent agencies from dividing overall plans into component-parts and thereby avoiding the NEPA requirement of a comprehensive EIS.83

2. Taxpayers Watchdog v. Stanley

A leading case in the area, Taxpayers Watchdog v. Stanley, lays out the framework for determining the proper scope of an EIS.84 In Taxpayers, the Southern California Rapid Transit District (SCRTD) prepared an EIS for the construction of a mass transit metro rail project in Los Angeles.85 The preferred plan consisted of an 18.6-mile underground subway line between Los Angeles and North Hollywood, but SCRTD also considered three alternative plans: the same 18.6-mile route, except with above ground components; a “minimum operable” segment of 8.8 miles; and a no-project option.86 SCRTD chose the completely underground 18.6-mile segment and the Urban Mass Transportation Administration (UMTA) approved the final EIS, but due to federal funding cutbacks, SCRTD could no longer afford the 18.6-mile segment or even the 8.8-mile segment.87 This funding setback forced SCRTD to develop another alternative, known as the MOS-1, which consisted of the first four miles of the original 18.6-mile system.88 Following the preparation of an EA to insure that the MOS-1 segment was truly independent, the SCRTD issued a FONSI.89 Taxpayers Watchdog filed a complaint arguing that the MOS-1 system was not an independent project, but merely

83. See Schultz, supra note 55, at 133 (observing that NEPA’s extensive common law plays a larger role in ascertaining the purpose and application of the Act than its legislative history).
85. Id. at 297.
86. Id.
87. Id.
88. Id.
89. Id.
the first part of a larger metro rail project. Thus, Taxpayers Watchdog argued that the agency improperly segmented the MOS-1 from the entire metro rail project, and, as a result, had not performed an adequate environmental review. The D.C. Circuit responded by articulating four factors that should be considered when determining the appropriate scope of an EIS for projects that are physically connected—assessing whether the proposed segment: (1) has logical termini; (2) has substantial, independent utility; (3) does not bar the consideration of alternatives; and (4) does not irretrievably allocate federal funds for closely related projects. After applying these factors to the MOS-1 segment, the court held that the MOS-1 was in fact properly segmented because it had substantial, independent utility and logical endpoints.

3. Timing

In evaluating segmentation, courts are concerned solely with projects that have reached the proposal stage. A proposal exists when a government agency has a goal and is actively evaluating one or more alternative courses of action as a means of accomplishing that goal. Disputes often arise concerning whether the project is a proposal, requiring the preparation of an EIS, or instead, a contemplated action that does not require an EIS. The determination of whether a

90.  Id. at 298.
91.  Id.
92.  Id.
93.  Id. at 299.
94.  See 40 C.F.R. § 1502.5 (2014) (stating that agencies must start preparing EISs around the same time as developing a proposal so that it may be included in a recommendation or report on the proposal); O'Reilly v. U.S. Army Corps. of Eng'rs, 477 F.3d 225, 237 (5th Cir. 2007) (“improper segmentation is usually concerned with projects that have reached the proposal stage”).
95.  See generally Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Comm'n, 481 F.2d. 1079, 1093–94 (D.C. Cir. 1973) (grappling with the tension between preparing an EIS too early and risking that the EIS will not contain meaningful information and preparing an EIS too late and having a statement that is thorough but will not result
proposal exists requires an evaluation of the timing surrounding the project. If two or more projects are in the proposal stage at the same time, the agency is required to analyze the environmental consequences of the connected projects in the same impact statement. For example, in Kleppe the Court considered whether several proposed coal-reserve projects in the Northern Great Plains region should be considered in a single EIS. The Court stated that when several proposals are pending concurrently before an agency and those proposals will have cumulative impacts, their environmental consequences must be considered in a single EIS. In a famous footnote, the Court claimed that NEPA speaks only to proposed actions and does not mandate agencies to include "less imminent actions" when preparing an EIS.

C. The D.C. Circuit’s Treatment of the Segmentation of a Natural Gas Pipeline Project in Delaware Riverkeeper Network v. FERC

Despite the considerable number of NEPA challenges, courts continue to struggle with uniform application of scoping requirements. The D.C. Circuit’s recent decision in Riverkeeper serves as an example of another confusing application of NEPA’s rule against

in the agency taking its findings into consideration).

97. See Kleppe v. Sierra Club, 427 U.S. 390, 404, 409–10 (1976) (emphasizing that the timing of the projects is crucial in determining whether they are proposals at the same time, and, therefore, need to be included in the same impact statement, because the statutory duty to consider environmental impacts can only be fulfilled during the proposal’s development when there is something concrete to evaluate, compared to a contemplated action, which may only provide background information for a potential proposal).

98. Id. at 410; see Fund for Animals v. Clark, 27 F. Supp. 2d 8, 13 (D.D.C. 1998) (directing that similar agency actions should be considered in the same EIS and that actions are similar when they share common timing or geography).


100. Id. at 410.

101. Id. at 410 n.20; see O’Reilly v. U.S. Army Corps of Eng’rs, 477 F.3d 225, 296–37 (5th Cir. 2007) (noting that proposals are imminent actions and that reasonably foreseeable future actions are not sufficient to constitute proposals). But see Envtl. Def. Fund v. Marsh, 651 F.2d 983, 999 n.19 (5th Cir. 1981) (requiring an agency, in rare cases, to create a comprehensive EIS for two projects—even when one has not yet reached the proposal stage—if the court finds that the agency egregiously or arbitrarily violated NEPA). See generally Thatcher, supra note 51, at 614 (noting that Kleppe is known for its confusing and obscure reasoning).

102. See Tripp & Alley, supra note 49, at 89 (observing that NEPA is a central issue in at least twenty-four Supreme Court decisions).

103. See Schultz, supra note 55, at 137 (stating that scoping and CEA case law sends mixed signals and lacks uniformity, which causes confusion for agencies and courts).
segmentation. *Riverkeeper* marks the first time a court applied NEPA's rule against segmentation to a pipeline expansion project. The case arose out of Tennessee Gas Pipeline Company's ("Tennessee Gas") application to the FERC in 2011 to construct and operate the Northeast Upgrade Project ("Northeast Project"). The Northeast Project was a 40.3-mile upgrade of Tennessee Gas's existing Eastern Leg of the 300 Line, a natural gas pipeline that extends throughout the Northeast. The Northeast Upgrade involved the installation of five thirty-inch diameter pipeline looping segments to be installed alongside the existing pipeline between Pennsylvania and New Jersey. The purpose of the Northeast Upgrade was to provide increased transportation capacity for the booming supply of natural gas being produced in the Marcellus Shale region.

In October 2010, the FERC issued a NOI to prepare an EA for the Northeast Project and requested public comments on the potential environmental issues. In response, a plethora of landowners, federal and state agencies, and environmental organizations, including the Delaware Riverkeeper Network, submitted their

104. See generally Thatcher, supra note 51, at 631 (remarking that some of the early NEPA segmentation cases dealt only with highway expansion projects).
107. Id. Pipeline looping installs a new, larger pipeline parallel to the existing pipe so that the two lines function as one system; looping allows more natural gas to be moved through the system. *Riverkeeper*, 753 F.3d at 1307.
108. Brief of Respondent, supra note 106, at 7; see also Order on Rehearing, Clarification, and Stay, Docket No. CP11-161-001, 142 FERC 61,025, at *1 (Jan. 11, 2013) (noting that eighty-four percent of the project was collocated, meaning it involved construction immediately next to the right-of-way for the already existing pipeline, and the remaining sixteen percent of looping went outside the right-of-way to avoid a national park).
109. See supra note 8 and accompanying text (noting that the Marcellus Shale is the largest known shale deposit and provides large quantities of natural gas). The Northeast Project also modified compressor and meter stations, adding 636,000 dekatherms per day of transportation capacity to the system. Order Issuing Certificate and Approving Abandonment, Docket No. CP11-161-000, 139 FERC 61,161, at *2 (May 29, 2012) [hereinafter Northeast Upgrade Certificate Order]; see also About U.S. Natural Gas Pipelines—Transportation Process and Flow, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/ngpipeline/process.html (explaining that compressor stations are installed along pipelines to increase the pressure and rate of flow, thereby maintaining the movement of natural gas throughout the pipeline). See generally Brief of Respondent, supra note 106, at 8 (exclaiming that the amount of natural gas delivery capacity that was added to the Northeast Upgrade is enough to heat 1.5 million homes per year).
110. *Riverkeeper*, 753 F.3d at 1311.
concerns to the FERC. After the comment period ended, the FERC issued a 200-page EA that recommended mitigation measures, considered cumulative impacts of the project, and addressed impacts on a variety of natural resources. In November 2011, the FERC recommended a FONSI for the Northeast Project and once again accepted public comments. During this comment period, Delaware Riverkeeper Network claimed that the FERC violated NEPA by unlawfully segmenting its environmental review of interdependent and connected pipeline projects, and, therefore, the FERC’s EA was deficient. The force behind this claim was that Tennessee Gas had commenced, or was in the process of commencing, three other upgrade projects along the Eastern Leg of the 300 Line: (1) the 300 Line Project; (2) the Northeast Supply Diversification Project (“NSD”); and (3) the MPP Project. Delaware Riverkeeper Network argued that Tennessee Gas’s four upgrade projects to its Eastern Leg of the 300 Line lacked independent utility, did not have logical termini, and prevented alternatives. Additionally, Delaware Riverkeeper Network stated that factors such as economic interdependence, timing, and geographic proximity required the Eastern Leg 300 Line Projects to be evaluated under one EIS.

After taking into account the EA and all of the substantive comments on it, in May 2012, the FERC issued a certificate of public convenience and necessity for the Northeast Project, allowing construction of the pipeline to commence. In the Northeast Upgrade Certificate Order, the FERC addressed the public comments regarding issues of segmentation and Delaware Riverkeeper Network’s push for an EIS. The FERC concluded that the

111. Brief of Respondent, supra note 106, at 9; see also Brief of Delaware Riverkeeper Network at 4, Del. Riverkeeper Network v. FERC, 753 F.3d 1304 (D.C. Cir. 2014) (No. 13-1015) (listing destruction of wetlands, forests, and mountains as some of the environmental concerns of the Northeast Project).
113. Riverkeeper, 753 F.3d at 1311–12.
115. See Riverkeeper, 753 F.3d at 1310 (articulating that the 300 Line Project involved the placement of eight thirty-inch segments alongside the existing pipeline and upgraded numerous compressor and meter stations covering 130 miles of the Eastern Leg).
116. See id. at 1311 (stating that the Northeast Supply Diversification Project (NSD) looped 6.8 miles of the 300 Line).
117. Id. (noting that the MPP project upgraded a 7.9-mile segment of the 300 Line).
119. Id. at 26–29.
120. Northeast Upgrade Certificate Order, supra note 109, at 73.
121. Id. at 16.
significant demand for the Northeast Project and abundant supply of natural gas derived from the Marcellus Shale warranted the issuance of the certificate.\textsuperscript{122} Delaware Riverkeeper Network then petitioned the FERC for a rehearing on the Northeast Upgrade Certificate Order.\textsuperscript{123} On rehearing, the issue of segmentation was once again raised, but the FERC dismissed Delaware Riverkeeper Network’s complaints and affirmed its finding that the Northeast Project is in the public interest and the benefits outweigh the adverse impacts.\textsuperscript{124} Tennessee Gas then proceeded to construct the Northeast Project.

On appeal, the D.C. Circuit granted review of the FERC’s Northeast Upgrade Certificate Order to determine whether the FERC impermissibly segmented NEPA review of the Northeast Project and whether the FERC failed to meaningfully assess the cumulative impact of the four projects.\textsuperscript{125} The D.C. Circuit held that the Northeast Project was a “connected action”\textsuperscript{126} related to the other three pipeline projects and that the FERC’s EA was inadequate because it failed to perform a meaningful analysis of the cumulative impacts of the four upgrade projects.\textsuperscript{127} The court stated that the FERC acted arbitrarily by segmenting the upgrade projects and remanded the case to the FERC for further consideration of segmentation and cumulative impacts.\textsuperscript{128}

II. THE D.C. CIRCUIT IMPROPERLY EVALUATED THE SEGMENTATION CLAIM IN DELAWARE RIVERKEEPER NETWORK V. FERC

Riverkeeper marks the first time that a court evaluated a segmentation claim involving a gas pipeline project. This decision comes at a critical time as the nation is currently focused on expanding its domestic natural gas infrastructure to address the newly-discovered supply of natural gas reserves.\textsuperscript{129} This Part analyzes

\textsuperscript{122} Id. at 7, 65.
\textsuperscript{123} Brief of Respondent, supra note 106, at 11 (pointing out that Delaware Riverkeeper Network was one of only two parties to move for a rehearing of the Certificate Order out of the many interested parties that commented on the EA). \textit{See generally} 15 U.S.C. § 717r(a) (2012) (stating that objections to a FERC certificate order must be filed within thirty days after the issuance of the order and must be requested by a party to the proceeding).
\textsuperscript{124} Brief of Respondent, supra note 106, at 12.
\textsuperscript{125} Del. Riverkeeper Network v. FERC, 753 F.3d 1304, 1307 (D.C. Cir. 2014).
\textsuperscript{126} \textit{Id.} at 1319. \textit{See generally} 40 C.F.R. § 1508.25(a)(1)(i)–(iii) (2014) (providing the ways in which actions are considered “connected actions”).
\textsuperscript{127} Riverkeeper, 753 F.3d at 1309.
\textsuperscript{128} \textit{Id.} at 1320.
\textsuperscript{129} \textit{See} Brill, supra note 79, at 433 (emphasizing that the method by which the FERC
Riverkeeper under the segmentation criteria set forth in Taxpayers to argue that the D.C. Circuit improperly applied the substantial utility and logical termini factors to the Northeast Upgrade Project. This incorrect application caused the D.C. Circuit to erroneously hold that the FERC impermissibly segmented the Northeast Upgrade Project. Finally, this Part argues that a proper examination of the timing of Tennessee Gas's pipeline upgrade projects along the 300 Line reveals that the projects do not temporally overlap; instead, the projects were never proposals at the same time and are, therefore, not required to be considered in a single EIS.

A. FERC Did Not Improperly Segment the Northeast Upgrade Project Under Taxpayers Watchdog, Inc. v. Stanley

In Taxpayers, the D.C. Circuit expounded four factors to consider when evaluating a segmentation claim: whether the proposed segment (1) has substantial, independent utility; (2) has logical termini; (3) does not prevent the consideration of alternatives; and (4) does not irretrievably allocate federal funds for closely related projects. In dispute in Riverkeeper were factors one and two; therefore, this Comment will not address factors three and four. When evaluating whether a proposed project has substantial and independent utility, the court considers whether the segment could be used standing by itself without any additional improvements in the area. The D.C. Circuit should have held that the Northeast Project had independent utility because it is financially and functionally independent. The Northeast Upgrade has financial scopes its environmental reviews during this period of natural gas abundance and the court's response to FERC's method will be crucial in establishing valuable precedent).

130. Taxpayers Watchdog, Inc. v. Stanley, 819 F.2d 294, 298 (D.C. Cir. 1987) (per curiam); accord Swain v. Brinegar, 542 F.2d 364, 369 (7th Cir. 1976) (en banc) (listing independent utility, logical termini, and whether the project prevents avenues for expansion as key factors the court should consider when determining the scope of an EIS).

131. Riverkeeper, 753 F.3d at 1308–09.

132. See Coal. on Sensible Transp., Inc. v. Dole, 826 F.2d 60, 69 (D.C. Cir. 1987) (stating that "the proper question is whether one project will serve a significant purpose even if a second related project is not built").


134. See, e.g., Thomas, 753 F.2d at 758 (explaining that the construction of a road and the sale of timber were economically interdependent because the timber sales
independence because, in order for the FERC to issue a certificate of public necessity and convenience, the project must meet a specific consumer demand, and this increased capacity must be contracted for prior to approval.\textsuperscript{135} The additional capacity created by the Northeast Project responded to the independent needs of different combinations of shippers and consumers.\textsuperscript{136} However, Riverkeeper Network argued, and the court agreed, that Tennessee Gas’s prior agreement with EQT Energy, a shipper for the 300 Upgrade, was formed in part because of Tennessee Gas’s promise for reduced rates that would result from the construction of a subsequent project.\textsuperscript{137} Therefore, the court decided, the Northeast Project was not constructed upon independent financial considerations.\textsuperscript{138} At the time of the application, however, there was no guarantee that the FERC would approve the Northeast Upgrade or that there would even be a market demand for its construction.\textsuperscript{139} The fact that the Northeast Upgrade can take advantage of the efficiencies created by the 300 Upgrade and NSD does not render those projects economically interdependent.\textsuperscript{140}

\textsuperscript{135} Northeast Upgrade Certificate Order, supra note 109, at 34 (stating that the Northeast Project was designed to provide a contracted-for volume of gas with different customers than the 300 Line project). The court in Riverkeeper conceded that “[t]he commercial and financial viability of a project when considered in isolation from other actions is potentially an important consideration in determining whether the substantial independent utility factor has been met.” Riverkeeper, 753 F.3d at 1316.

\textsuperscript{136} Brief of Intervenors at 10, Del. Riverkeeper Network v. FERC, 753 F.3d 1304 (D.C. Cir. 2014) (No. 13-1015). But see Riverkeeper, 753 F.3d at 1317 (stating that the Northeast Project has no specific consumers because gas does not enter and exit the pipeline at any point in the segment, and customers do not take gas from this segment specifically).

\textsuperscript{137} Riverkeeper, 753 F.3d at 1317.

\textsuperscript{138} Id. at 1316.

\textsuperscript{139} Market interest is determined through conducting an open season. See About U.S. Natural Gas Pipelines—Transporting Natural Gas, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/ngpipeline/develop.html. Open seasons last for one to two months and result in non-binding agreements with potential customers for capacity rights that will be available; if an open season fails to garner sufficient interest to proceed with a project, the project is not further developed. Id. If an open season does attract enough market interest, preliminary pipeline project design and plans move forward. Id.

\textsuperscript{140} See Coal. On Sensible Transp., Inc. v. Dole, 826 F.2d 60, 69 (D.C. Cir. 1987) (finding no improper segmentation when a highway project benefited from previous projects but served its own significant purpose). But see Hammond v. Norton, 370 F. Supp. 2d 226, 248 (D.D.C. 2005) (conceding that although economic independence is a valid inquiry, the independent economic utility is dependent upon supply from the previously constructed pipeline and is, therefore, not independent).
Additionally, the Northeast Upgrade and all projects on the 300 Line are functionally independent because they do not rely on each other's existence to operate.\textsuperscript{141} The fact that the 300 Upgrade and NSD projects were placed into service and were operational without the Northeast Upgrade is evidence in itself that the projects are not interdependent.\textsuperscript{142} Even if the 300 Upgrade had never had its updated looping segments installed, the Northeast Upgrade would still provide natural gas to consumers in need.\textsuperscript{143} The fact that a segment of the 300 Line may facilitate movement to another segment is not indicative of operational interdependence;\textsuperscript{144} instead, this speaks to the nature of an interstate natural gas transportation system.\textsuperscript{145}

The Northeast Upgrade also satisfies \textit{Taxpayers}’ second factor of logical termini. The issue of logical termini is often applied to highway projects.\textsuperscript{146} The determination of whether a project has logical endpoints hinges on whether the segment connects two major cities, a scenario with obvious logical termini,\textsuperscript{147} or is one section in a

\begin{footnotes}
\item[141] Brief of Respondent, \textit{supra} note 106, at 14, 21.
\item[142] \emph{Id.} at 21-22 (noting that the 300 Upgrade went into service on November 1, 2011, before the Northeast Upgrade’s EA was even issued, and the NSD project went into service in 2012).
\item[143] \textit{But see} Brief of Delaware Riverkeeper Network, \textit{supra} note 111, at 23-24 (arguing that the compressor stations added to the 300 Upgrade and Northeast Project provided the necessary horsepower to supply the contracted-for gas flow to the NSD and MPP projects).
\item[144] \textit{See} N.C. Alliance for Transp. Reform, Inc. v. U.S. Dep’t of Transp., 151 F. Supp. 2d 661, 682-83 (M.D.N.C. 2001) (stating that even though it was conceded that the long-term plan was to connect the Eastern and Western segments of a highway project and the segments performed the same function, this did not render the segments interdependent because they each fulfilled independent purposes).
\item[145] \textit{See Dole}, 826 F.2d at 69 (noting that it is inherent in highway upgrade projects that each segment will facilitate transportation to another, but this existence of mutual benefits does not compel NEPA aggregation); Brief of Respondent, \textit{supra} note 106, at 24 (likening an interstate natural gas transportation system, such as the 300 Line, to a highway network); \textit{see also} Piedmont Heights Civic Club, Inc. v. Moreland, 637 F.2d 430, 441 (5th Cir. 1981) (reasoning that even though the projects at issue were interrelated as to the overall plan, the fact that they individually contributed to the goal of the plan was sufficient to constitute independent utility).
\item[146] \textit{See generally} N.C. Alliance for Transp. Reform, Inc., 151 F. Supp. 2d at 681 (noting that the Federal Highway Administration’s policy is to consider major crossroads, population centers, and major traffic generators as logical termini).
\item[147] \textit{See Indian Lookout Alliance v. Volpe}, 484 F.2d 11, 13, 19 (8th Cir. 1973) (explaining that logical termini are major cities and highways and holding that a fourteen-mile stretch of highway was impermissibly segmented from an overall 1,877.94-mile project because its southern terminus ended on a county line, which was not a major terminus); \textit{see}, e.g., Swain v. Brinegar, 542 F.2d 364, 366, 370 (7th Cir. 1976) (en banc) (involving a forty-two-mile highway project that connected two cities, and ruling that because the northern terminus of the proposed fifteen-mile
\end{footnotes}
web of roadways, in which case the logical termini factor becomes less important. The D.C. Circuit in Riverkeeper explains that pipelines are not analogous to highways or railways and thus should not be compared. However, the court contradicts itself in the opinion by earlier comparing the Northeast Upgrade to a highway project and stating that to the extent that the Northeast Upgrade is comparable to a highway, it is similar to one that connects two major cities because the entire 300 Line is a linear pipeline that contains no offshoots, and newly constructed segments along the line service the same start and endpoints. The termini, however, were selected by Tennessee Gas based on engineering design and binding contracts for gas for that region. In the design and construction phases, pipeline system engineers consider the optimum combination of pipeline diameter, operating pressure, and compression stations needed to meet customer contractual requirements. The pipeline company’s goal is to maximize economic and transportation efficiencies that will result in gas being delivered at the lowest possible cost. The pipeline design engineers perform complex calculations to determine whether consumers are willing to endure rate increases to fund the pipeline

segment was not at a major city or highway, it was not a logical terminus).

148. See Dole, 826 F.2d at 69 (holding that the highway transportation project was within a metropolitan area, and therefore, the logical termini factor was only given modest weight and the focus was directed towards whether the segment had independent utility); see also N.C. Alliance for Transp. Reform, Inc., 151 F. Supp. 2d at 680 (articulating that when courts review a highway project within a single metropolitan area, they give the independent utility factor more weight than the logical termini factor).

149. See Del. Riverkeeper Network v. FERC, 753 F.3d 1304, 1316 (D.C. Cir. 2014) (arguing that pipelines are linear and do not have spurs or interchanges like highway networks).

150. Id.

151. Northeast Upgrade Certificate Order, supra note 109, at 34; Brief of Intervenors, supra note 136, at 14.

152. INGAA WHITE PAPER, supra note 5, at 27. To determine the economically superior combination of pipeline diameter and pressure rate, pipeline engineers compare the delivered cost of fuel to the cost of pipe. Id. at 28. This comparison is performed by fixing the pipe size, pipe length, and compression ratio and then performing a series of calculations that yield the total annual cost for the varying flow rates. Id. When the total annual cost is plotted against the flow rate, the resulting graph is a J-Curve. Id. This type of economic analysis is, therefore, referred to as a J-Curve analysis. Id.

153. Id. at 27. Economic efficiency calculates the delivered cost to end-use customers compared to the raw cost of natural gas. Id. at 1. The delivered cost encompasses both the transportation rates and the fuel cost. Id. at 8. Transportation efficiency refers to the overall pipeline network, including the system design, the efficiency of pipeline segments and compressor stations, and operational conditions. Id.
improvement project.\textsuperscript{154} This process is further complicated due to market conditions created by FERC orders that encourage competition between pipeline companies and give the consumers more bargaining power for lower rates and shorter contracts.\textsuperscript{155}

In light of these technical considerations and calculations that pipeline analysts take into account when designing pipeline improvement projects, the FERC was entitled to judicial deference under the APA in its declaration that the Northeast Upgrade had logical termini.\textsuperscript{156} Natural gas pipelines are not analogous to a highway or railway, and courts should not consider them comparable.\textsuperscript{157} Additionally, courts have traditionally given more weight to the independent utility factor when the logical termini factor is difficult to apply to the project at issue.\textsuperscript{158} Further, because minimal case law exists regarding the segmentation of gas pipelines,\textsuperscript{159} agencies must be given some flexibility in determining

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\textbf{Identification} & \textbf{Description} \\
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\textsuperscript{154} & \textit{Id.} at 2 (observing that a pipeline company's need for economic efficiency prevents it from increasing transportation efficiency because consumers are unwilling to pay the rate increase necessary to complete the infrastructure modifications). \\
\textsuperscript{155} & \textit{See} Order No. 636, \textit{Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation Under Part 284 of the Commission's Regulations; Regulation of the Natural Gas Pipelines After Partial Wellhead Decontrol}, 59 F.E.R.C. 61,030, at 2 (Apr. 8, 1992), 18 C.F.R. \S \textsuperscript{284} (2014) (altering federal rules relating to the structure of the natural gas pipeline industry to foster stronger competition); \textit{see also} INGAA WHITE PAPER, \textit{supra} note 5, at 21–22 (explaining that in this competitive atmosphere, pipeline companies are able to update their infrastructure only if they can either get support from their customers for rate increases or recover their capital costs through cost-saving mechanisms). \\
\textsuperscript{156} & \textit{See} Okla. Natural Gas Co. v. Fed. Power Comm'n, 257 F.2d 634, 639 (D.C. Cir. 1958) (noting that the issuance of a certificate of public convenience and necessity is a matter within the discretion of the Federal Power Commission—later renamed the FERC); \textit{see also} Am. Gas Ass'n v. FERC, 593 F.3d 14, 19 (D.C. Cir. 2010) (stating that the role of the court is limited to assuring that FERC's decision making is "reasoned, principled, and based upon the record"); Village of Los Ranchos de Albuquerque v. Barnhart, 906 F.2d 1477, 1483 (10th Cir. 1990) (explaining that the segmentation analysis requires only that the terminus be logical, not that it be the most logical choice). \\
\textsuperscript{157} & \textit{See} Del. Riverkeeper Network v. FERC, 753 F.3d 1304, 1320 (D.C. Cir. 2014) (Brown, J., concurring) (agreeing with the majority that pipelines are distinct from highways and railways); \textit{see also infra} Part III.A for a discussion of why the FERC should adopt regulations that supplement the CEQ regulations by providing additional guidance on determining the scope of a natural gas pipeline project. \\
\textsuperscript{158} & \textit{See} Coal. on Sensible Transp., Inc. v. Dole, 826 F.2d 60, 69 (D.C. Cir. 1987) (stating that the logical terminus factor is elusive in the context of city highway systems that have numerous spurs and interchanges); \textit{see also} Piedmont Heights Civic Club, Inc. v. Moreland, 637 F.2d 430, 440 (5th Cir. 1981) (stating that the more important factor is the independent utility factor because logical termini are not easily determined by the reviewing court when the highway segments at issue run only through one city). \\
\textsuperscript{159} & \textit{See} Riverkeeper, 753 F.3d at 1320 (Brown, J., concurring) (arguing that the court
whether multiple projects should be considered together in an EIS.\(^{160}\)

The reality of natural gas pipeline projects is that they require "considerable time and effort to develop, often with segments proceeding at different speeds."\(^{161}\) Under NEPA, the rule against segmentation does not need to be applied in every situation that involves multiple projects.\(^{162}\) A project is not improperly segmented, whether it is the first leg of a larger system or the last piece that completes a system, as long as an agency's EA provides a full picture of the project's impacts.\(^{163}\) The D.C. Circuit overstepped its judicial role in interpreting the FERC's issuance of a certificate of public convenience and necessity.\(^{164}\) As the Honorable Janice Rogers Brown noted in her concurrence, this case could have been decided neatly under a cumulative impacts test instead of "delving into the murky waters of backwards-looking segmentation review."\(^{165}\)
B. The Timing of Tennessee Gas Pipeline Company’s Upgrade Projects Illustrates that the Projects Were Not Impermissibly Segmented

In improperly applying the segmentation rule derived from Taxpayers, the D.C. Circuit erred by declining to find that the timing of the projects defeated Riverkeeper Network’s claims of segmentation. Common timing provides another basis for determining whether to consider multiple projects together in a single EIS. When courts review segmentation claims, they may only review projects that have reached the proposal stage, not those that are merely contemplated. The D.C. Circuit claimed that the Northeast Project review overlapped with the MPP project review and that they were, therefore, proposals at the same time. However, this comparison of dates is misleading. The FERC is not obligated to include the MPP project into its EA for the Northeast Project because the MPP had not reached the proposal stage yet. A potential new pipeline first becomes a proposal for NEPA purposes when the developer files the certificate of application with the FERC. Because the MPP project application was not filed until December 9, 2011, a little over a month after the Northeast Project’s EA was

167. See supra note 101 and accompanying text. See generally Piedmont Heights Civic Club, Inc. v. Moreland, 687 F.2d 430, 440 (5th Cir. 1981) (addressing the concern of “post hoc rationalizations” whereby an agency fails to account for the environmental consequences of its decision and then attempts to justify the decision after it has already been made and the damage has been done).
168. Riverkeeper, 753 F.3d at 1318 (holding that the FERC also reviewed the MPP project during the final six months of the agency’s review of the Northeast Project).
170. See Northeast Upgrade Certificate Order, supra note 109, at 25 (stating that the FERC released the EA for public comment on November 21, 2011).
171. See Theodore Roosevelt Conservation P’ship v. Salazar, 616 F.3d 497, 513 (D.C. Cir. 2010) (explaining that NOIs to prepare an EIS are insufficient to constitute a proposal); see also Swain v. Brinegar, 542 F.2d 364, 369 (7th Cir. 1976) (en banc) (asserting that EISs do not need to consider long-term projects that would take years to construct because these projects place an undue burden on agencies, are not guaranteed, and would only provide outdated and speculative information).
172. See Theodore Roosevelt Conservation P’ship, 616 F.3d at 513–14 (reasoning that NOIs are too preliminary to be considered proposals).
173. Brief of Intervenors, supra note 136, at 32.
released, it did not need to be considered in the Northeast Project’s EA. The fact that the MPP project conducted open seasons to determine the market demand for the segment is of no concern because open seasons are only employed to determine market interest and do not guarantee that a project will get built.

Additionally, Riverkeeper Network argued, and the D.C. Circuit agreed, that the FERC should have taken the completed 300 Upgrade into consideration when drafting its EA. However, the FERC was not obligated to take the 300 Upgrade into consideration in the Northeast Upgrade’s EA because the project was completed and in operation. An EA is a forward-looking instrument, as is the rule of segmentation, and the 300 Upgrade’s renovation construction does not mandate that it be considered in the Northeast Upgrade’s EA. To force the FERC to prepare an EIS that included projects that were already completed and in service would serve no purpose. The Court’s holding in Riverkeeper, vacating the certificate order for the Northeast Upgrade and remanding the segmentation and cumulative effects issue back to the FERC for further consideration, proves meaningless because the Northeast Upgrade has already been constructed and is in service.

175. See Brief of Intervenors, supra note 136, at 21–22 (noting that if open seasons fail to attract sufficient interest, the project can be cancelled, as evidenced by the multiple open seasons that occurred before the NSD project).
176. See Del. Riverkeeper Network v. FERC, 753 F.3d 1304, 1314 (D.C. Cir. 2014) (stating that the 300 Line was “connected” to the other projects because it was under construction during FERC’s review of the Northeast Project and MPP Project applications and the projects resulted in a single pipeline).
177. See Brief of Respondent, supra note 106, at 21–22, 27 (noting that the 300 Upgrade was put into operation on November 1, 2011, and the EA for the Northeast Project was issued on November 21, 2011); see also Nat’l Wildlife Fed’n v. Appalachian Reg’l Comm’n, 677 F.2d 883, 889 (D.C. Cir. 1981) (providing that where most of the construction of a prior project has already taken place, the new work needed to complete the project does not trigger the preparation of a comprehensive EIS).
178. See Aertsen v. Landrieu, 637 F.2d 12, 19 (1st Cir. 1980) (reasoning that because impact statements are forward-looking devices, it would serve no purpose to require their preparation for projects that are already substantially completed); see also Found. on Econ. Trends v. Heckler, 756 F.2d 143, 159 (D.C. Cir. 1985) (recommending that an agency prepare an EIS only if it will be forward-looking and that without it, the environmental review would be obstructed).
179. See O’Reilly v. U.S. Army Corps of Eng’rs, 477 F.3d 225, 237 (5th Cir. 2007) (holding that a comprehensive EIS was not required to include a highway project that was near completion).
180. See Nat’l Wildlife Fed’n, 677 F.2d at 889 (asserting that “NEPA procedures . . . are not applied retrospectively to completed projects”).
181. Riverkeeper, 753 F.3d at 1320.
III. RECOMMENDATIONS

The D.C. Circuit's decision in *Riverkeeper* creates NEPA precedent that will likely lead to more broadly-scoped environmental reviews with longer review periods, thereby delaying the FERC permitting approval process and increasing the number of related pipeline projects that are reviewed cumulatively. This administrative delay will infringe upon the United States's ability to develop and transport its domestic natural gas reserves, a consequence that will inhibit the United States's efforts towards energy independence. These adverse impacts caused by the D.C. Circuit's decision can be mitigated if Congress passes The Natural Gas Pipeline Permitting Reform Act, a legislative effort that seeks to streamline FERC's permitting process for natural gas pipelines.


The D.C. Circuit should have given deference to FERC's decisions to issue a certificate of public convenience and necessity and prepare an EA for only the Northeast Project. As mentioned prior, under the arbitrary and capricious standard, the court was only required to determine if the FERC made a well-informed and reasonable decision and was explicitly prevented from substituting its own judgment for the FERC's. The FERC's EA adequately considered the environmental consequences and the alternatives of the Northeast Upgrade, and its

182. See Brill, supra note 79, at 425 (speculating that the decision in *Riverkeeper* represented the D.C. Circuit's attempt to clarify its expectations from agencies regarding NEPA requirements, but that this decision will ultimately lead to more extensive environmental review). See generally HOLLAND AND HART LLP, THE INGAA FOUNDATION, INC., REPORT NO. 1012.05: EXPEDITED FEDERAL AUTHORIZATION OF INTERSTATE NATURAL GAS PIPELINES: ARE AGENCIES COMPLYING WITH EPAct 2005? 29 (2012) [hereinafter INGAA REPORT] (concluding that delays in the FERC's permitting process affect: (1) pipeline companies, by causing substantial losses in revenue; (2) consumers, by forcing them to endure price differentials created by bottlenecks, and (3) the community, by causing loss of jobs and economic benefits).


184. 40 C.F.R. § 1508.18 (2014).

185. See Natural Res. Def. Council Inc. v. Hodel, 865 F.2d 288, 294 (D.C. Cir. 1988) (citing N. Slope Borough v. Andrus, 642 F.2d 589, 599 (D.C. Cir. 1980)) (explaining that the limited role of the court when reviewing an agency decision is only to ensure that the agency's decision was "fully informed" and "well-considered"); see also Nat'l Comm. for the New River, Inc. v. FERC, 373 F.3d 1323, 1327 (D.C. Cir. 2004) (stating explicitly that the court cannot substitute its own judgment for that of the FERC).
issuance of a FONSI was appropriate. Deference was especially due in this case because case law pertaining to segmentation of natural gas pipelines is practically nonexistent, and natural gas pipelines involve complex technology, making the reviewing agency the most capable party of making an informed decision.

The court's reliance on cases that involve highway or railway projects is also a weak analogy because pipelines are not comparable to highways or railways. Pipeline upgrade projects are different from highway construction projects in numerous ways. Gas pipelines are configured linearly for long distance transmission from production sites to market areas, whereas highway projects often involve beltways and interchanges; this non-linear structure of highway construction projects makes it easier for the permitting agency to argue physically independent utility because these segments contain structural offshoots. In contrast, it is more difficult for the FERC to demonstrate physical independent utility and logical termini for natural gas pipelines because pipelines are physically linear and gas for the contracted-for customers does not enter and leave the pipeline at the beginning and end of the segment. Additionally, pipeline upgrade projects often overlap temporally and geographically, but this is due to the nature of the pipeline construction and is not indicative of an agency trying to evade environmental review.

186. See Riverkeeper, 753 F.3d at 1320 (Brown, J., concurring) (declining to conduct segmentation review because of the scarcity of case law concerning gas pipelines); see also Hammond v. Norton, 370 F. Supp. 2d 226, 238 (D.D.C. 2005) (stating that there is a strong presumption of agency deference in cases that involve complex technical issues).

187. See Riverkeeper, 753 F.3d at 1317 (reasoning that pipelines do not have customers and that gas does not enter or exit between a pipeline's segments, rendering pipelines incomparable to highway segments, such as interchanges, that have utility independent of other connected highways).

188. See Ass'n Concerned About Tomorrow v. Dole, 610 F. Supp. 1101, 1108 (N.D. Tex. 1985), aff'd, Ass'n Concerned About Tomorrow v. Slater, 209 F.3d 719 (5th Cir. 2000) (finding logical termini and independent utility in a highway segment that was a circumferential loop).

189. Distribution networks for natural gas pipelines are composed of three types of pipelines: (1) gathering pipelines that collect gas from producing areas and bring it to the processing facilities; (2) transmission pipelines that bring natural gas to communities and large volume users; and (3) distributional pipelines that split off from transmission pipelines and deliver gas to residential, commercial, and industrial consumers. U.S. Gov'T ACCOUNTABILITY OFFICE, GAO-13-221, PIPELINE PERMITTING: INTERSTATE AND INTRASTATE NATURAL GAS PERMITTING PROCESSES INCLUDE MULTIPLE STEPS, AND TIME FRAMES VARY 4 (2013).

differ with respect to the amount of environmental damage their construction or upgrades require; highways are often constructed on previously undeveloped land, and both railways and highways frequently require the exercise of eminent domain or re-zoning.\textsuperscript{191}

This lack of comparable infrastructure coupled with the unique characteristics of pipelines makes it difficult to apply current segmentation case law. The FERC should acknowledge this difficulty and take it upon itself to establish specific agency regulations that will govern when pipeline upgrade projects should be considered together in a single EIS.\textsuperscript{192} The FERC should create criteria that supplement the vague CEQ scoping guidelines so that pipeline companies and the FERC itself will have additional guidance on when segmentation is permitted.\textsuperscript{193}

As a result of Riverkeeper, infrastructure projects can expect to face broader agency review with increased delays in the project approval process.\textsuperscript{194} At a time when the United States’s energy infrastructure is (observing that it is common for energy transmission projects to be constructed along already existing energy infrastructure corridors, but this fact does not strip subsequent projects of their independent economic justifications for construction); \textit{see also} Brief of Intervenors, supra note 139, at 25 (attributing the accelerated pace at which natural gas companies have been expanding or upgrading their pipelines to the shale gas boom occurring in the Marcellus Region and that this temporal overlap does not require these proposals to be treated as connected actions).

\textsuperscript{191} See Tripp & Alley, supra note 49, at 99 (identifying other environmental consequences of transportation projects as damage to wetlands, farmlands, and increased automobile traffic, causing additional air pollution and greenhouse gas emissions).

\textsuperscript{192} The FERC has already established federal-authorization deadline regulations for certificates of public convenience and necessity applications that require an EA or EIS. \textit{See} 18 C.F.R. § 157.9(b) (2014). These regulations provide that within ninety days of the notice of application, FERC will issue a schedule of the environmental reviews notice, which will subsequently be published in the Federal Register. \textit{Id.}

\textsuperscript{193} \textit{See, e.g.,} 23 C.F.R. §§ 771.101–771.139 (2013) (outlining the FHWA and FTA agency regulations that were adopted specifically for segmentation clarification on highway projects). These regulations provide that segmentation is permissible when three criteria are met: (1) connects logical termini and is a segment of sufficient length; (2) has independent utility or independent significance, meaning the segment can function on its own without additional projects; and (3) does not restrict alternatives for other projects. \textit{Id.} § 771.111. Further clarification on the definition of logical termini was also provided in an FHWA policy and procedure memorandum that included major crossroads, population centers, and major traffic generators as logical termini. 37 Fed. Reg. 21,810 (Oct. 14, 1972).

\textsuperscript{194} See INGAA REPORT, supra note 182, at 1–2 (finding that despite efforts by the President and Congress to expedite the permitting process for natural gas pipelines, the time required to secure certificates of public convenience and necessity is increasing, rather than decreasing).
in dire need of improvement, many projects are facing unnecessary delays from agency reviews and lawsuits. While agency review of pipeline projects is certainly necessary, the D.C. Circuit's ruling will be unduly burdensome for the FERC and ignores the realities of the technology behind natural gas pipelines. The FERC is now more vulnerable to litigation pertaining to segmentation claims, which as Riverkeeper demonstrates, proves meaningless because the projects are often already operational by the time the ruling is made, rendering the segmentation issue moot. Lawsuits are incredibly time consuming and expensive, and because NEPA is a procedural statute, the only remedy litigation offers is increased delay. Litigation also goes against one of NEPA's goals, which is to facilitate cooperation; when agency officials are constantly facing conflict with environmental groups, one of NEPA's goals has been frustrated.

195. See AM. SOC'Y OF CIVIL ENG'RS, 2013 Report Card for America's Infrastructure, http://www.infrastructurereportcard.org/energy (last visited Aug. 1, 2015) (giving the United States’s pipeline distribution system and electrical grid a grade of D+ because demand for electricity continues to grow while an aging infrastructure and permitting issues prevent the improvements from being instituted); see also Matthew Phillips, Northeast’s Record Natural Gas Prices Due to Pipeline Dearth, BLOOMBERG (Feb. 6, 2014), http://www.bloomberg.com/bw/articles/2014-02-06/northeasts-record-natural-gas-prices-due-to-pipeline-dearth (reporting that there are currently ten pipeline projects that are in the process of applying for permits or getting approval in the Northeast to deliver the abundant supply of natural gas available in the Marcellus Region).

196. See About Natural Gas Pipelines—Transporting Natural Gas, U.S. ENERGY INFO. ADMIN. (2014) http://www.eia.gov/pub/oil-gas/natural-gas/analysis_publications/ngpipeline/develop.html (declaring that it takes, on average, three years from the time a pipeline is proposed until construction begins); see also Hutt & Armstrong, supra note 190, at 43 (observing that the NEPA process takes between two and three years and it is very common for lawsuits to be filed at the end of the process). See generally, Tripp & Alley, supra note 49, at 85 (stating that agencies face three periods of delays throughout their NEPA process: (1) the scoping and public participation phase, (2) the EIS preparation phase, and (3) the potential litigation phase).

197. See Brill, supra note 79, at 425 (noting that the D.C. Circuit's decision requires agencies to conduct more extensive reviews); supra note 152 and accompanying text (describing the complex technology of natural gas pipelines).

198. See generally Schultz, supra note 55, at 127 (observing that litigants have recently been bringing an increasing number of NEPA scoping challenges).

199. Note that the court could require the agency to go back to the drawing board and redo its EA or EIS, or, as in the case of Riverkeeper, remand the case to the agency for further consideration of the issues. Del. Riverkeeper Network v. FERC, 753 F.3d 1304, 1320 (D.C. Cir. 2014). In both instances, however, the decision to move forward with the project has already been made, and these directions serve little substantive purpose.


201. See Tripp & Alley, supra note 49, at 84 (explaining that opposition over
B. Adoption of the Natural Gas Pipeline Permitting Reform Act Will Streamline FERC’s Permitting Process

The option for a simplified environmental review for energy projects has been proposed as a solution to address the unique nature of energy technologies and their potential for economic gains. This “streamlining” of NEPA would provide faster review and permitting for energy projects that coincide with the United States’s energy independence goals. Congress has recognized the need for an expedited permitting process for natural gas pipelines and to address this need has recently proposed the Natural Gas Pipeline Permitting Reform Act (H.R. 1900). This legislative effort amends the NGA and imposes explicit time limits on the FERC’s pipeline certification process. H.R. 1900 arose out of concern that the FERC permitting process takes too long and is further delayed when the FERC has to wait for approvals needed by cooperating agencies. Under The Energy Policy Act of 2005 (EPAct of 2005), the FERC has issued regulations that require cooperating agencies to issue certificate decisions no later than ninety days after the FERC

NEPA’s public participation requirements frustrates NEPA’s goal of facilitating cooperation between agencies and the public.


203. See generally INGAA REPORT, supra note 182, at 12–16 (reporting that not only are pipeline authorizations delayed more frequently since 2005, but they are also delayed longer, with nearly twenty percent of FERC certifications being delayed ninety days or more beyond FERC’s agency deadline).

204. H.R. 1900, 113th Cong. (2013) (as passed by House of Rep., Nov. 11, 2013); see 159 CONG. REC. H7316 (daily ed. Nov. 21, 2013) (statement of Rep. Mike Pompeo) (explaining that the Natural Gas Pipeline Permitting Reform Act establishes statutory deadlines that permitting agencies must meet); see also PARFOMAK, supra note 64, at 6 (stating that under current law, there are no time limits within which the FERC must complete a review of the application for a certificate order, issue an order, or consider or conclude a rehearing).

205. See 159 CONG. REC. H7317 (daily ed. Nov. 21, 2013) (statement of Rep. Fred Upton) (urging Congress to utilize its power to “reduce red tape and delays” in building natural gas pipelines so that the necessary infrastructure can be built to accommodate the abundant supply of natural gas); see also INGAA REPORT, supra note 182, at 12 (discovering that an Army Corps of Engineers 404 permit, Endangered Species Act Section 7 consultation, and a National Historic Preservation Act Section 106 consultation were required for almost all interstate natural gas pipeline projects).

issues its final environmental document. Even though the FERC has included this ninety-day deadline in its regulations, the deadline itself is not codified and, therefore, agencies do not have pressing incentives to meet it. H.R. 1900 would alter FERC’s pipeline certification process in three ways: (1) by imposing a twelve-month deadline on FERC certificate reviews for projects using its pre-filing process; (2) by codifying FERC’s ninety-day regulation deadline that other federal and state agencies submit certificate decisions within ninety days of the FERC releasing its final environmental document; and (3) by issuing default permits and certificates to developers if an agency does not meet its ninety-day deadline. A statute such as this that streamlines the natural gas permitting process is needed because the United States is currently the number one natural gas producer in the world, but, because of the lack of infrastructure, natural gas cannot be moved to where it is needed.

208. See EPAct 2005 §§ 313(a)(3), (b), codified at 15 U.S.C. §§ 717n(c)(2), 717r(d)(2) (2006) (providing that the only recourse available when facing agency delay in accordance with the schedule set by the FERC is to petition the D.C. Circuit); INGAA REPORT, supra note 182, at 1 (finding that the FERC has no means of enforcing the ninety-day deadline and that the process of appealing to the D.C. Circuit has rarely been used).
209. H.R. 1900, 113th Cong. (2013). Critics of imposing strict time limits on the review period of applications for certificates of public convenience and necessity argue that this could lead to some projects being rejected solely on the basis that there is insufficient time for an adequate review. See PARFOMAK, supra note 64, at 10 (offering the rejection of the application by TransCanada to the State Department for the construction of the Keystone XL oil pipeline as an example of a project that was denied for insufficient time to review).
210. H.R. 1900, 113th Cong. (2013). But see PARFOMAK, supra note 64, at 11 (pointing out that a drawback to H.R. 1900 is that if the FERC later decides this ninety-day deadline is no longer appropriate, it will have to change it through legislation, as opposed to amending its regulations).
213. See NATIONAL ENERGY POLICY DEVELOPMENT GROUP, U.S. DEP’T OF ENERGY,
H.R. 1900 would be useful for the Northeast Region, where the energy infrastructure is at capacity and electricity prices are the highest in the country. H.R. 1900 has passed the House of Representatives, so the Senate should acknowledge the energy needs of this country, particularly in the Northeast, and recognize that further natural gas development will be possible with the passage of H.R. 1900 and that it will ultimately help reduce the United States's dependence on foreign oil.

Streamlining NEPA for energy projects is also consistent with existing executive branch policies and orders. Executive Order Number 13,274, titled "Environmental Stewardship and

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**NATIONAL ENERGY POLICY**, at 7-1, 7-11 (2001) [hereinafter NATIONAL ENERGY POLICY] (finding that the current pipeline capacity is insufficient to meet the abundant supply of natural gas and growing demand); see also John Kerry, U.S. Sec'y of State, Remarks at NYC Climate Week Opening Event (Sept. 22, 2014) (transcript available at United States Department of State), http://www.state.gov/secretary/remarks/2014/09/231950.htm (speculating that modifying the United States's aging energy infrastructure to make a national energy grid would provide the country with access to an energy market worth six trillion dollars).

214. See New England Gas-Electric Focus Group Final Report (Mar. 28, 2014) (recognizing that, while there is an abundant supply of natural gas available in the Northeast (primarily derived from the Marcellus Region), there is minimal pipeline capacity to bring this natural gas to consumers because the region is at the "end of the pipeline," meaning there is currently not enough pressure to deliver the gas in the west-east direction).

215. See Electric Power Monthly—Table 5.6.A. Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, U.S. ENERGY INFO. ADMIN. (May 26, 2015), http://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_5_6_a (finding that New England consumers pay over five cents per kilowatt hour more than consumers in any other region in the continental United States); see also Erin Ailworth, Mass. Pipeline Plan Stirs Hope and Alarm, BOSTON GLOBE (June 9, 2014), http://www.bostonglobe.com/business/2014/06/08/company-proposes-natural-gas-pipeline-cross-massachusetts/uvoxHT3zECRockdVzTIADO/story.html (noting that over fifty percent of homes in Massachusetts are heated by natural gas, and this percentage is expected to increase because of the closing of outdated coal and nuclear power plants in the region).

216. Executive Order 13,274, enacted by former President George W. Bush, sought to streamline environmental review and specifically created a list of projects that the Secretary of Transportation was required to funnel through the expedited NEPA review process. See Exec. Order No. 13,274, 67 Fed. Reg. 59,449 (Sept. 23, 2002). This Executive Order also created the Transportation Infrastructure Streamlining Task Force that is responsible for preparing reports on the outcomes of the expedited reviews and assessing what processes work well. Id.; see also Exec. Order No. 13,604, 77 Fed. Reg. 18,885 (Mar. 28, 2012) (attempting to reduce the aggregate approval time of infrastructure projects from government agencies). See generally American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, § 3, 123 Stat. 115, 116 (aiming to balance environmental goals with long-term economic benefits).
Transportation Infrastructure Project Reviews,” ordered executive agencies to expedite environmental reviews of high priority transportation infrastructure projects. Additionally, Executive Order Number 13,604 stated that agencies should execute permits efficiently and effectively, while supporting economic growth and avoiding duplicative reviews. These executive orders seek to streamline permitting to achieve congressional policy goals, such as those expressed in the American Recovery and Reinvestment Act of 2009. This Act provided twenty billion dollars to programs and projects designed to build an energy infrastructure capable of meeting the growing domestic energy demands and reducing the United States’s dependence on foreign oil.

The time is ripe to develop a specialized NEPA process for domestic energy natural gas pipeline projects. The significant increase in Marcellus Shale development and the accelerated pace at which interstate natural gas pipeline companies are proposing expansion or upgrades to existing pipeline systems calls for the situation to be addressed not through the courts, but through agency mandate or Congressional action.

CONCLUSION

The production of natural gas in the United States is increasing rapidly, a phenomenon referred to as the “shale boom.” Optimistic remarks about energy independence and enhanced national security have run rampant during this period of increased natural gas supply. Even if natural gas supply levels achieve the United States’s energy dreams and prices significantly decrease, the

220. See generally Stephen P.A. Brown & Mine K. Yficel, The Shale Gas and Tight Oil Boom: U.S. States’s Economic Gains and Vulnerabilities, COUNCIL ON FOREIGN REL. ENERGY BRIEF, at 1-2 (Oct. 2013) (declaring that the shale boom began in 2008 when technological advancements resulted in more advanced drilling techniques and that the shale boom also led to an increase in U.S. energy jobs).
221. But see Mason Inman, Natural Gas: The Fracking Fallacy, NATURE (Dec. 3, 2014), http://www.nature.com/news/natural-gas-the-fracking-fallacy-1.16430 (challenging the optimism surrounding the potential of shale gas reserves, and proffering research that estimates that the four main shale gas reservoirs in the United States will peak by 2020 and then very quickly become depleted).
United States will still face major obstacles in transporting this increased supply of natural gas. The harsh reality is that the United States's energy infrastructure is outdated and structurally insufficient to transport this increased supply of natural gas to consumers around the country. If domestic gas production is going to continue to increase, more natural gas pipelines will be needed to move gas from production fields to consumers.

Unfortunately, the D.C. Circuit's recent decision in Riverkeeper will likely hinder natural gas pipeline construction and development, further impeding the United States's ability to transport its natural gas. By incorrectly applying the common law segmentation criteria set forth in Taxpayers, the D.C. Circuit erroneously held that the FERC impermissibly segmented Tennessee Gas's Northeast Upgrade Project, thereby evading adequate environmental review. The D.C. Circuit should have ruled that the Northeast Upgrade Project had substantial independent utility because it was constructed in response to specific consumer demand and facilitated the transportation of natural gas to the demand area. Additionally, the court should have found that the Northeast Upgrade Project had logical termini because the endpoints of the pipeline segment were predicated on the pipeline engineer's design calculations that corresponded to gas contracts secured in the region. The determination of where the installation of pipeline looping was to begin and end was affirmed by the FERC when it issued the certificate of public convenience and necessity to Tennessee Gas. This was an agency determination that required technical expertise, and the D.C. Circuit should have

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223. See NATIONAL ENERGY POLICY, supra note 213, at 11-12 (contending that areas such as New England already have infrastructure deficiencies and permitting delays that increase customer rates, and that permitting and regulatory agencies will not be able to keep up with the necessary construction).

224. See 2013 Report Card for America's Infrastructure, supra note 195 (questioning the adequacy of pipelines due to growing demand and capacity concerns).


228. See supra Part II.A. (discussing the independent utility of the Northeast Upgrade Project).

229. See supra Part II.A. (discussing the logical termini of the Northeast Upgrade Project).

deferred to FERC's judgment on the matter. Finally, the D.C. Circuit incorrectly analyzed the timing of Tennessee Gas's other pipeline projects along the 300 Line, leading the court to mistakenly conclude that the MPP and 300 Upgrade needed to be taken into account in drafting the EA for the Northeast Upgrade.

The D.C. Circuit was unable to correctly apply segmentation case law in part because natural gas pipelines are very technical and the construction process is complicated, making this type of infrastructure incomparable to other transportation projects found in existing case law. Other than creating confusing segmentation precedent, the D.C. Circuit's decision to vacate the certificate order and remand the case back to FERC serves no purpose, seeing as the Northeast Upgrade Project is already in service and fully functional. Applications for upgrades to existing pipelines will now face even longer FERC reviews, natural gas infrastructure will remain outdated and overburdened, and consumers will ultimately pay the price in increased rates due to high demand and low supply. While Congressional initiatives such as H.R. 1900 are a step in the right direction, the FERC needs to take the lead and promulgate regulations that set forth permissible segmentation criteria for natural gas pipelines.

231. See supra note 56 and accompanying text (discussing deference to agencies).
232. See supra Part II.B. (discussing the timing of the Tennessee Gas Pipeline Company's Upgrade Projects).
233. See supra notes 177-178 and accompanying text (explaining why the D.C. Circuit's ruling will have no effect).
234. See supra Part III.A. (discussing the D.C. Circuit's decision in Riverkeeper).
235. See supra Part III.B. (reviewing the effects of adopting the National Gas Pipeline Permitting Reform Act).
236. See supra Part III.A. (examining why and how the FERC should create such regulations).