

ORAL ARGUMENT NOT YET SCHEDULED

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

NEW JERSEY CONSERVATION)	
FOUNDATION; THE WATERSHED)	
INSTITUTE)	No. _____
)	
Petitioners)	
)	
v.)	
)	
FEDERAL ENERGY REGULATORY)	
COMMISSION,)	
)	
Respondent.)	
)	
)	

PETITION FOR REVIEW

Pursuant to Section 19(b) of the Natural Gas Act, 15 U.S.C. § 717r(b) and Federal Rules of Appellate Procedure and D.C. Circuit Rule 15(a), Petitioners New Jersey Conservation Foundation and The Watershed Institute hereby petition this Court to review and set aside the Order Issuing Certificates, *PennEast Pipeline Company, LLC*, 162 FERC ¶ 61,053 (Jan. 19, 2018)(“PennEast Conditional

Certificate”), and the Order On Rehearing, 164 FERC ¶ 61,098 (August 10, 2018), which are both appended hereto as Exhibit A.

Both Petitioners were Intervenors in the Commission proceedings below. This petition for review is timely filed within 60 days after Petitioners’ combined request for rehearing, motion for an evidentiary hearing, and motion for stay (“Petitioners’ Rehearing Request”) was denied, and this court has jurisdiction in accordance with 15 U.S.C. § 717r. *See* 15 U.S.C. § 717r(a)-(b). As presented to FERC in Petitioners’ Rehearing Request, PennEast’s Conditional Certificate must be set aside for violations of both the Natural Gas Act and the National Environmental Policy Act.

Petitioners and their members or supporters have been, and will be, adversely affected by the proposed PennEast pipeline and appurtenant facilities, because the pipeline, if constructed, would run through and adversely affect their properties. Moreover, the project threatens the natural environment that Petitioners’ missions require them to protect. Petitioners and their members or supporters are also gas consumers that will be economically harmed if the project is to be built.

Respectfully submitted this 21st day of August, 2018,

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RULE 26.1 CORPORATE DISCLOSURE STATEMENT

Pursuant to Fed. R. App. P. 26.1 and D.C. Circuit Rule 26.1, New Jersey Conservation Foundation and The Watershed Institute disclose that they are both nonprofit 501(c)(3) organizations that advocate for the protection of New Jersey lands, waters, and the communities that use New Jersey natural resources. Neither New Jersey Conservation Foundation nor The Watershed Institute has any parent corporation, nor does either nonprofit issue stock.

Respectfully submitted this 21st day of August 2018,

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I further certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in the agency proceedings below by filing a copy of this Petition in the underlying dockets before the Federal Energy Regulatory Commission in accordance with the Commission's procedures.

In addition, a file-stamped copy of this petition for review will be served on the Respondent, pursuant to 18 C.F.R. § 385.2012, at the following address:

Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Respectfully submitted this 21st day of August, 2018,

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EXHIBIT A

162 FERC ¶ 61,053
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Kevin J. McIntyre, Chairman;
Cheryl A. LaFleur, Neil Chatterjee,
Robert F. Powelson, and Richard Glick.

PennEast Pipeline Company, LLC

Docket No. CP15-558-000

ORDER ISSUING CERTIFICATES

(Issued January 19, 2018)

1. On September 24, 2015, PennEast Pipeline Company, LLC (PennEast) filed an application pursuant to section 7(c) of the Natural Gas Act (NGA)¹ and Parts 157 and 284 of the Commission's regulations,² requesting authorization to construct and operate a new 116-mile natural gas pipeline from Luzerne County, Pennsylvania, to Mercer County, New Jersey, along with three laterals extending off the mainline, a compression station, and appurtenant above ground facilities (PennEast Project). The project is designed to provide up to 1,107,000 dekatherms per day (Dth/d) of firm transportation service. PennEast also requests a blanket certificate under Part 284, Subpart G of the Commission's regulations to provide open-access transportation services, and a blanket certificate under Part 157, Subpart F of the Commission's regulations to perform certain routine construction activities and operations.

2. As explained herein, we find that the benefits that the PennEast Project will provide to the market outweigh any adverse effects on existing shippers, other pipelines and their captive customers, and on landowners and surrounding communities. Further, as set forth in the environmental discussion below, we agree with Commission staff's conclusion in the Environmental Impact Statement (EIS) that the project will result in some adverse environmental impacts, but that these impacts will be reduced to acceptable levels with the implementation of the applicant's proposed mitigation and staff's recommendations, as modified herein, and adopted as conditions in the attached Appendix A of this order. Therefore, for the reasons stated below, we grant the requested authorizations, subject to the conditions discussed herein.

¹ 15 U.S.C. § 717f(c) (2012).

² 18 C.F.R. pt. 157 (2017).

I. Background and Proposal

3. PennEast³ is a Delaware limited liability company organized and existing under the laws of the State of Delaware, managed by UGI Energy Services, LLC, pursuant to a Project Management Agreement. Upon the commencement of operations proposed in its application, PennEast will become a natural gas company within the meaning of section 2(6) of the NGA,⁴ and will be subject to the Commission's jurisdiction.

A. Facilities and Services

4. PennEast proposes to construct a new greenfield pipeline system to provide up to 1,107,000 Dth/d of firm natural gas transportation service to markets in New Jersey, New York, Pennsylvania, and surrounding states. The project extends from various receipt point interconnections with the interstate natural gas pipeline system of Transcontinental Gas Pipe Line Company, LLC (Transco) and with gathering systems in the eastern Marcellus Shale region operated by UGI Energy Services, LLC, Williams Partners, L.P., and Energy Transfer Partners, L.P., to multiple delivery point interconnections in natural gas-consuming markets in New Jersey and Pennsylvania, terminating at a delivery point with Transco in Mercer County, New Jersey.⁵ PennEast states that the project is designed to bring lower cost natural gas to markets in New Jersey, Pennsylvania, and New York and to provide shippers with additional supply flexibility, diversity, and reliability.⁶

5. PennEast proposes to construct the following facilities:

- approximately 116 miles of 36-inch-diameter mainline transmission pipeline originating in Luzerne County, Pennsylvania, and extending to Mercer County, New Jersey, traversing Luzerne, Carbon, Northampton, and Bucks Counties, Pennsylvania, and Hunterdon and Mercer Counties, New Jersey;

³ PennEast is a joint venture owned by Red Oak Enterprise Holdings, Inc., a subsidiary of AGL Resources Inc. (20 percent interest); NJR Pipeline Company, a subsidiary of New Jersey Resources (20 percent interest); SJI Midstream, LLC, a subsidiary of South Jersey Industries (20 percent interest); UGI PennEast, LLC, a subsidiary of UGI Energy Services, LLC (20 percent interest); and Spectra Energy Partners, LP (20 percent interest).

⁴ 15 U.S.C. § 717a(6) (2012).

⁵ See PennEast's Application at 3.

⁶ *Id.* at 4, 8-10.

- three lateral pipelines extending off of the mainline consisting of:
 - the approximately 2.1-mile, 24-inch-diameter Hellertown Lateral in Northampton County, Pennsylvania to connect with Columbia Gas Transmission, LLC, and UGI Utilities, Inc.;
 - the approximately 0.6-mile, 12-inch-diameter Gilbert Lateral in Hunterdon County, New Jersey to connect with NRG REMA, LLC, and Elizabethtown Gas at the Gilbert Electric Generating Station; and
 - the approximately 1.54-mile, 36-inch-diameter Lambertville Lateral in Hunterdon County, New Jersey to connect with Algonquin Gas Transmission, LLC, and Texas Eastern Transmission, LP;
- one new compressor station in Carbon County, Pennsylvania; and
- various associated aboveground facilities, including interconnects, launchers, receivers, and mainline block valves.

PennEast estimates that the proposed facilities will cost approximately \$1.13 billion.

6. PennEast states that it conducted an open season for the project from August 11 to August 29, 2014. As a result of the open season, PennEast states that it has executed long-term precedent agreements with the following 12 shippers for 990,000 Dth/d of firm transportation service, or approximately 90 percent of the project's capacity:

Shipper (* indicates PennEast Affiliate)	Contracted Volumes (Dth/d)
New Jersey Natural Gas Company*	180,000
PSEG Power, LLC*	125,000
Texas Eastern Transmission, LP*	125,000
South Jersey Gas Company*	105,000
ConEd of New York	100,000
Elizabethtown Gas*	100,000
UGI Energy Services, Inc.*	100,000
Cabot Oil & Gas Corp.	50,000
Talen Energy Marketing, LLC	50,000
Enerplus Resources Corp.	30,000
Warren Resources, Inc.	15,000
NRG Rema LLC	10,000

PennEast proposes to provide service to the project shippers at negotiated rates.

7. PennEast also requests approval of its pro forma tariff. PennEast proposes to offer open-access transportation services under Rate Schedules FTS (Firm Transportation Service), ITS (Interruptible Transportation Service), and PALS (Parking and Lending Service).

B. Blanket Certificates

8. PennEast requests a blanket certificate of public convenience and necessity pursuant to Part 284, Subpart G of the Commission's regulations authorizing PennEast to provide transportation service to customers requesting and qualifying for transportation service under its proposed FERC Gas Tariff, with pre-granted abandonment authorization.⁷

9. PennEast requests a blanket certificate of public convenience and necessity pursuant to Part 157, Subpart F of the Commission's regulations authorizing certain future facility construction, operation, and abandonment.⁸

II. Procedural Issues

A. Notice, Interventions, Protests, and Comments

10. Notice of PennEast's application was published in the *Federal Register* on October 15, 2015.⁹ Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure.¹⁰ Late interventions were granted by notice issued on March 23, 2017, and May 18, 2017.

11. Numerous entities, landowners, individuals, and New Jersey State representatives filed protests and adverse comments raising the following issues: (1) the need for an evidentiary hearing; (2) the need for the project; and (3) whether the use of eminent domain is appropriate for this project. On November 13, 2015, PennEast filed a Motion for Leave to Answer and Answer to the protests, as well as to various comments filed on the project. Although the Commission's Rules of Practice and Procedure generally do not permit answers to protests,¹¹ we will accept PennEast's answer because it clarifies the

⁷ 18 C.F.R. § 284.221 (2017).

⁸ *Id.* § 157.204 (2017).

⁹ 80 Fed. Reg. 62,068 (2015).

¹⁰ 18 C.F.R. § 385.214 (2017).

¹¹ *Id.* § 385.214(c) (2017).

concerns raised and provides information that has assisted in our decision making. These concerns are addressed below.

12. In addition, numerous comments were filed raising concerns over the environmental impacts of the project. These comments are addressed in the Final Environmental Impact Statement (EIS) and, as appropriate, below.

B. Request for Evidentiary Hearing

13. New Jersey Senator Shirley K. Turner, New Jersey Assemblyman Reed Gusciora, and New Jersey Assemblywoman Elizabeth Muoio requested an evidentiary hearing to determine the need for the project, and explore whether less disruptive, more cost-effective alternatives exist to meet demand. Similarly, the New Jersey Conservation Foundation (NJCF) and Stony Brook-Millstone Watershed Association (Stony Brook) assert that a hearing is necessary in order to develop a record to determine the public benefits of the project and whether the project is viable without subsidies.

14. An evidentiary, trial-type hearing is necessary only where there are material issues of fact in dispute that cannot be resolved on the basis of the written record.¹² No party has raised a material issue of fact that the Commission cannot resolve on the basis of the written record. As demonstrated by the discussion below, the existing written record provides a sufficient basis to resolve the issues relevant to this proceeding. The Commission has satisfied the hearing requirement by giving all interested parties a full and complete opportunity to participate through evidentiary submission in written form.¹³ Therefore, we will deny the request for a trial-type evidentiary hearing.

III. Discussion

15. As PennEast's proposed pipeline system would be used to transport natural gas in interstate commerce subject to the Commission's jurisdiction, the construction and operation of the facilities are subject to the requirements of subsections (c) and (e) of section 7 of the NGA.¹⁴

¹² See, e.g., *Southern Union Gas Co. v. FERC*, 840 F.2d 964, 970 (D.C. Cir. 1988); *Dominion Transmission, Inc.*, 141 FERC ¶ 61,183, at P 15 (2012).

¹³ *Moreau v. FERC*, 982 F.2d 556, 568 (D.C. Cir. 1993).

¹⁴ 15 U.S.C. §§ 717f(c), (e) (2012).

A. Application of the Certificate Policy Statement

16. The Certificate Policy Statement provides guidance for evaluating proposals to certificate new construction.¹⁵ The Certificate Policy Statement establishes criteria for determining whether there is a need for a proposed project and whether the proposed project will serve the public interest. The Certificate Policy Statement explains that in deciding whether to authorize the construction of major new pipeline facilities, the Commission balances the public benefits against the potential adverse consequences. The Commission's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain in evaluating new pipeline facilities construction.

17. Under this policy, the threshold requirement for pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any adverse effects the project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the construction. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, we will evaluate the project by balancing the evidence of public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits outweigh the adverse effects on economic interests will we proceed to consider the environmental analysis where other interests are addressed.

1. Subsidization and Impact on Existing Customers

18. As discussed above, the threshold requirement for pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from existing customers. As PennEast is a new company, it has no existing customers. As such, there is no potential for subsidization on PennEast's system or degradation of service to existing customers.

¹⁵ *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *clarified*, 90 FERC ¶ 61,128 (2000), *further clarified*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

2. Need for the Project

19. Numerous parties and commenters challenge the need for the project.¹⁶ They raise a variety of arguments including: (1) insufficient demand for natural gas in New Jersey and Pennsylvania; (2) the need for a regional analysis to determine if the project is needed; (3) the availability of alternatives, including renewable energy and capacity on existing and proposed interstate pipelines, to meet future demand; (4) the public benefits of the project, including cost savings, supply flexibility and reliability, and local employment impacts are unfounded or are overstated; (5) the use of precedent agreements with affiliated entities to demonstrate project need; and (6) that a portion of the gas transported on the project may be exported.

20. A number of commenters claim that the project is not needed because there is little or no forecasted load growth in New Jersey and Pennsylvania.¹⁷ In addition, the New Jersey Division of Rate Counsel (NJRC) cites to filings made by local distribution companies (LDCs) before state regulatory agencies in Pennsylvania and New Jersey which show that the peak day requirements of the LDCs will be largely stable through 2020, and can be met through existing supply arrangements.¹⁸

21. Numerous commenters suggest that increased use of renewable resources to generate electricity and energy conservation could eliminate the need for the project. Several other commenters claim that there is no need to construct a new pipeline, as

¹⁶ Many of the commenters conflate the balancing of economic benefits (market need) and effects under the Certificate Policy Statement with the distinct description of purpose and need in the final EIS. The purpose and need statement in the final EIS complied with Council on Environmental Quality (CEQ) regulations that provide that this statement “shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed actions” for purposes of its environmental analysis. 40 C.F.R. § 1502.13 (2017).

¹⁷ See, e.g., October 29, 2015 Comments of NJCF at 9; February 11, 2016 Comments of Delaware Riverkeeper (citing attached affidavit of David Berman, Labyrinth Consulting Services); October 27, 2015 Comments of the West Amwell Citizens Against the Pipeline.

¹⁸ See September 12, 2016 Comments of NJCF (citing attached Affidavit of David E. Dismukes). On October 17, 2016, PennEast filed an answer to NJRC. On November 14, 2016, the New Jersey Division of Rate Council (NJRC) filed a Motion for Leave to Answer and Answer to PennEast. Although the Commission’s Rules of Practice and Procedure generally do not permit answers to answers, we will accept NJRC’s answers because it clarifies the concerns raised and provides information that has assisted in our decision making.

PennEast's shippers could source gas on existing pipelines or on other to be constructed, but already-authorized pipeline capacity.¹⁹ NJRC states that the fact that utilization rates of several long-haul pipelines declined from 2007 to 2013 suggests that there is available firm capacity on these existing pipelines.²⁰

22. Multiple commenters assert that PennEast's claims that the project will provide cost-savings for end users, and provide increased reliability and supply diversity are unfounded or overstated.²¹ The NJCF filed a report prepared by Skipping Stone, LLC, (Skipping Stone Report) which challenges the findings in the Concentric study filed by PennEast²² that the PennEast Project would lower costs to consumers.²³ Among other things, the Skipping Stone Report concludes that local gas distribution companies already have more than enough capacity to meet peak winter demand, suggesting that increased demand by providers of gas-fired electric generation could be more cost effectively met by dual fuel switching or by purchasing gas from LNG facilities, and that the PennEast Project could increase, rather than decrease costs to consumers. Commenters also claim

¹⁹ See, e.g., October 29, 2015 Comments of NJCF at 10.

²⁰ September 12, 2016 Comments of NJCF at 6-8 (citing Denny Young, Black & Veatch, *Has Emerging Natural Gas Shale Production Affected Financial Performances of Interstate pipelines?* (2013)).

²¹ See, e.g., November 14 Answer of NJRC, October 27, 2015 Comments of the West Amwell Citizens Against the Pipeline.

²² In Exhibit F-1, Resource Report 5, PennEast submitted a study by Concentric Energy Advisors, *Estimated Energy Market Savings from Additional Pipeline Infrastructure Serving Eastern Pennsylvania and New Jersey* (Concentric Study) that finds that the project would provide increased access to low-cost natural gas in New Jersey and Pennsylvania that could save consumers nearly \$900 million. Resource Report 5 also includes a study by Econsult Solutions & Drexel University, *Economic Impact Report and Analysis: PennEast Pipeline Project Economic Impact Analysis* (2015) (Econsult Study) that estimates the total (direct, indirect, and induced) jobs that would be supported during construction and operation of the project.

²³ See Report of Skipping Stone, LLC, attached to NJCF's December 1, 2016 Comments (Skipping Stone Report).

that the employment and economic benefits of the project contained in the Econsult study cited by PennEast have been overstated, possibly significantly so.²⁴

23. Several commenters allege that because a large portion of the project's capacity has been subscribed by affiliates of the pipeline, additional evidence of need must be presented as precedent agreements with pipeline affiliates may not be the result of an "arms-length negotiation," or reflect the competitive market.²⁵ Commenters further claim that the project is being cross-subsidized by the captive customers of the affiliated shippers, and may not be financially viable without these subsidies.²⁶

24. The NJCF and Stony Brook claim that the NGA requires the Commission to evaluate the need for new pipeline infrastructure on a regional basis.²⁷ They state that the public interest cannot be effectively safeguarded through the approval of individual pipelines without coordinated planning to ensure that pipeline proposal fits within long-term, regional plans. Therefore, they assert that the Commission should implement a planning process for natural gas infrastructure development that is similar to the planning process for electric transmission.

25. Finally, a few commenters contend that the PennEast Project is not being proposed to benefit United States markets but to support the growing LNG export market.²⁸

PennEast's Answers

26. PennEast filed several answers disputing commenters' claims that the project was not needed. PennEast maintains that that substantial need for the project has been demonstrated by precedent agreements for long-term firm service for approximately

²⁴ See November 7, 2015 Comments of NJCF (citing attached Report of the Goodman Group, Ltd.), September 8, 2016 Comments of the NJCF; September 8, 2016 Comments of Jeffrey R. Shafer.

²⁵ *Id.* at 9-10.

²⁶ See October 20, 2016 Comments of the Eastern Environmental Law Center, citing attached Report of Dr. Steve Isser, "*Natural Gas Pipeline Certification and Ratemaking*."

²⁷ NJCF Comments at 24-27.

²⁸ See, e.g., October 27, 2015 Comments of West Amwell Citizens Against the Pipeline at 15-17; February 11, 2016 Comments of Delaware Riverkeeper (attaching opinion of Labyrinth Consulting Services, Inc.).

90 percent of the project's capacity.²⁹ PennEast filed a study that responds to NJRC's assessment of the need for the project that explains that shippers contract for pipeline capacity for a variety of reasons beyond simply the need to be able to meet peak demands, including costs savings, supply security, and price stability.³⁰ PennEast asserts that the various studies by market experts that it filed in the proceeding provide ample market data and analysis supporting the market need for the project.

Commission Determination

27. The Certificate Policy Statement established a policy under which the Commission will allow an applicant to rely on a variety of relevant factors to demonstrate need, rather than continuing to require that a percentage of the proposed capacity be subscribed under long-term precedent or service agreements.³¹ These factors might include, but are not limited to, precedent agreements, demand projections, potential cost savings to consumers, or a comparison of projected demand with the amount of capacity currently serving the market.³² The Commission stated that it will consider all such evidence submitted by the applicant regarding need. Nonetheless, the Certificate Policy Statement made clear that, although precedent agreements are no longer required to be submitted, they are still significant evidence of demand for the project.³³ As the court stated in *Minisink Residents for Environmental Preservation & Safety v. FERC*, and again in *Myersville Citizens for a Rural Community, Inc., v. FERC*, nothing in the Certificate Policy Statement or in any precedent construing it suggest that the policy statement requires, rather than permits, the Commission to assess a project's benefits by looking beyond the market need reflected by the applicant's precedent agreements with shippers.³⁴

²⁹ See PennEast's October 17, and December 1, 2016 Answers.

³⁰ PennEast's October 17 Answer (attaching report of Concentric Energy Advisors, Inc).

³¹ Certificate Policy Statement, 88 FERC ¶ 61,227 at 61,747. Prior to the Certificate Policy Statement, the Commission required a new pipeline project to have contractual commitments for at least 25 percent of the proposed project's capacity. See Certificate Policy Statement, 88 FERC ¶ 61,227 at 61,743. PennEast, at 90 percent subscribed, would have satisfied this prior, more stringent, requirement.

³² *Id.* at 61,747.

³³ *Id.* at 61,748.

³⁴ *Minisink Residents for Env'tl. Pres. & Safety v. FERC*, 762 F.3d 97, 110 n.10 (D.C. Cir. 2014); see also *Myersville Citizens for a Rural Cmty., Inc., v. FERC*, 183 F.3d 1301, 1311 (D.C. Cir. 2015).

Moreover, it is current Commission policy to not look beyond precedent or service agreements to make judgments about the needs of individual shippers.³⁵

28. We find that PennEast has sufficiently demonstrated that there is market demand for the project. PennEast has entered into long-term, firm precedent agreements with 12 shippers for 990,000 Dth/d of firm transportation service, approximately 90 percent of the project's capacity.³⁶ Further, Ordering Paragraph (C) of this order requires that PennEast file a written statement affirming that it has executed contracts for service at the levels provided for in their precedent agreements prior to commencing construction. PennEast has entered into precedent agreements for long-term, firm service with 12 shippers. Those shippers will provide gas to a variety of end users, including local distribution customers, electric generators, producers, and marketers and those shippers have determined, based on their assessment of the long-term needs of their particular customers and markets, that there is a market for the natural gas to be transported and the PennEast Project is the preferred means for delivering or receiving that gas. Given the substantial financial commitment required under these contracts by project shippers, we find that these contracts are the best evidence that the service to be provided by the project is needed in the markets to be served. We also find that end users will generally benefit from the project because it would develop gas infrastructure that will serve to ensure future domestic energy supplies and enhance the pipeline grid by providing additional transportation capacity connecting sources of natural gas to markets in Pennsylvania and New Jersey.

29. We are unpersuaded by the studies submitted by commenters in their attempt to show that there is insufficient demand for the project and by their assertions that the Commission is required to examine the need for pipeline infrastructure on a regional basis. Commission policy is to examine the merits of individual projects and assess whether each project meets the specific need demonstrated. While the Certificate Policy Statement permits the applicant to show need in a variety of ways, it does not suggest that the Commission should examine a group of projects together and pick which project(s) best serve an estimated future regional demand. In support of their arguments regarding demand, commenters cite general forecasts for load growth in Pennsylvania and New

³⁵ *Id.* at 61,744 (citing *Transcontinental Gas Pipe Line Corp.*, 82 FERC ¶ 61,084, at 61,316 (1998)).

³⁶ *Constitution Pipeline Company, LLC*, 154 FERC ¶ 61,046, at P 21 (2016) ("Although the Certificate Policy Statement broadened the types of evidence certificate applicants may present to show the public benefits of a project, it did not compel an additional showing ... [and] [n]o market study or other additional evidence is necessary where ... market need is demonstrated by contracts for 100 percent of the project's capacity.").

Jersey or certain LDC supply forecast projections through 2020 made to state commissions.³⁷ However, projections regarding future demand often change and are influenced by a variety of factors, including economic growth, the cost of natural gas, environmental regulations, and legislative and regulatory decisions by the federal government and individual states. Given this uncertainty associated with long-term demand projections, including those presented in the studies noted by commenters above, where an applicant has precedent agreements for long-term firm service, the Commission deems the precedent agreements to be the better evidence of demand. The Commission evaluates individual projects based on the evidence of need presented in each proceeding. Under section 7(c) of the NGA, the Commission shall issue a certificate for any proposal found to be required by the public convenience and necessity.³⁸ Where, as here, it is demonstrated that specific shippers have entered into precedent agreements for project service, the Commission places substantial reliance on those agreements to find that the project is needed.

30. Commenters also overlook the fact that shippers on PennEast's system have noted several reasons other than load growth for entering into precedent agreements with PennEast to source gas from the Marcellus Shale region.³⁹ Project shippers state they believe that the project will provide a reliable, flexible, and diverse supply of natural gas that will lead to increased price stability, and the opportunity to expand natural gas service in the future.⁴⁰ Based on the record before us, we find no reason to second guess the business decisions of these shippers that they need the service to which they have subscribed.

31. With respect to the ability of alternatives to meet the project's need, our environmental review considered the potential for renewable energy and energy conservation, and the availability of capacity on existing or proposed natural gas systems, to serve as alternatives to the project and concluded that they do not presently serve as

³⁷ NJRC Comments at 5.

³⁸ 15 U.S.C. § 717(f) (2012).

³⁹ See Exhibit F-1 of PennEast's application, Resource Report 1 – General Project Description, section 1.1 – Purpose and Need.

⁴⁰ See Motion to Intervene and Comments in Support of New Jersey Natural Gas Co. (filed October 28, 2015); Pivotal Utility Holdings, Inc., d/b/a Elizabethtown Gas (filed October 28, 2015); Consolidated Edison Company of New York, Inc. (filed October 29, 2015); Texas Eastern Transmission, LP (filed October 29, 2015); PSEG Energy Resources & Trade LLC (filed October 29, 2015); and South Jersey Gas (filed October 29, 2015).

practical alternatives to the project.⁴¹ Specifically, the final EIS stated that renewable energy and energy efficiency measures to reduce the dependence on natural gas is not a comparable replacement for the transportation of natural gas to be provided by the project.⁴² Moreover, the final EIS found that there is not sufficient available capacity on existing pipeline systems to transport all of the volumes contemplated to be transported by the PennEast Project to the range of delivery points proposed by PennEast, and that expansion of existing pipeline systems was not a feasible alternative.⁴³ The EIS also found that the proposed Atlantic Sunrise Project could not serve as a practical system alternative because there is customer demand for both projects (noting that approximately 100 percent of capacity of the Atlantic Sunrise Project, and 90 percent of the capacity of the PennEast Project has been contracted for), as well as the fact that the Atlantic Sunrise Project would not provide for the same delivery points for customers that have been identified for the PennEast Project.⁴⁴

32. We also find that NJRC's assertion that the PennEast Project is not needed based on the fact that pipeline utilization on long-haul pipelines from the Gulf Coast to markets in the Northeast has declined in recent years is unavailing. Pipeline utilization rates reflect actual gas flows over the facilities but do not indicate whether there is available firm capacity on the pipelines. As indicated above, the EIS found that there was insufficient firm capacity available on existing pipeline systems to provide the service proposed by PennEast.

33. Moreover, the fact that 6 of the 12 shippers on the PennEast Project are affiliated with the project's sponsors does not require the Commission to look behind the precedent agreements to evaluate project need.⁴⁵ There is no evidence in the record of any

⁴¹ Final EIS at 3-1 – 3-8.

⁴² *Id.* at 3-3.

⁴³ *Id.* at ES-16; 3-4 - 3-7.

⁴⁴ *Id.* at 3-7 – 3-8. The Atlantic Sunrise Project was authorized by Commission order issued February 3, 2017 (*see Transcontinental Gas Pipe Line Company, LLC*, 158 FERC ¶ 61,125 (2017)) and is currently under construction.

⁴⁵ *Millennium Pipeline Co., L.P.*, 100 FERC ¶ 61,277, at P 57 (2002) (“as long as the precedent agreements are long-term and binding, we do not distinguish between pipelines' precedent agreements with affiliates or independent marketers in establishing the market need for a proposed project”); *Eastern Shore Natural Gas Co.*, 132 FERC ¶ 61,204, at P 31 (2010) (“the Commission gives equal weight to contacts with affiliates and non-affiliates.” *See also* Certificate Policy Statement, 88 FERC at 61,748 (explaining that the Commission's policy is less focused on whether the contracts are with affiliated or unaffiliated shippers and more focused on whether existing ratepayers would

impropriety or abuse in connection with any of the affiliate agreements. The mere fact that six of the shippers are affiliates of PennEast does not call into question their need for the new capacity or otherwise diminish the showing of market support. Indeed, three of the six affiliates, subscribing to 38 percent of the total project design capacity, are LDCs with service obligations toward their retail customers. The Commission has found it reasonable for LDCs seek additional sources of supply, and has emphasized its disinclination to second-guess reasoned business decisions by pipelines' customers evidenced by precedent agreements, as well as binding contracts.⁴⁶ Further, when considering applications for new certificates, the Commission's primary concern regarding affiliates of the pipeline as shippers is whether there may have been undue discrimination against a non-affiliate shipper.⁴⁷ Here, no such allegations have been made, nor have we found that the project sponsors have engaged in any anticompetitive behavior. As discussed above, PennEast held an open season for capacity on the project and all potential shippers had the opportunity to contract for service. Moreover, PennEast's tariff, as discussed below, ensures that any future shipper will not be unduly discriminated against.

34. We also do not find merit in the commenters' assertion that the proposed project will be subsidized by the affiliated LDC shippers' captive customers. First, to the extent a ratepayer receives a beneficial service, paying for that service does not constitute a "subsidy."⁴⁸ Further, state regulatory commissions are responsible for approving any expenditures by state-regulated utilities. Moreover, PennEast is required to calculate its recourse rates based on the design capacity of the pipeline, thereby placing PennEast at risk for costs associated with any unsubscribed capacity.

subsidize the project); *see also id.* at 61,744 (the Commission does not look behind precedent agreements to question the individual shippers' business decisions to enter into contracts) (citing *Transcontinental Gas Pipe Line Corp.*, 82 FERC ¶ 61,084, at 61,316 (1998)).

⁴⁶ *See* [Millennium Pipeline Co., L.P.](#), 100 FERC ¶ 61,277, at P 201 (2002). *See also*, [Midwestern Gas Transmission Co.](#), 116 FERC ¶ 61,182, at P 42 (2006); [Southern Natural Gas Co.](#), 76 FERC ¶ 61,122, at 61,635 (1996), *order issuing certificate and denying reh'g*, 79 FERC ¶ 61,280 (1997), *order amending certificate and denying stay and reh'g*, 85 FERC ¶ 61,134 (1998), *aff'd* [Midcoast Interstate Transmission, Inc. v. FERC](#), 198 F.3d 960 (D.C. Cir. 2000).

⁴⁷ *See* 18 C.F.R. § 284.7(b) (2017) (requiring transportation service to be provided on a non-discriminatory basis).

⁴⁸ *See* Certificate Policy Statement, 88 FERC ¶ 61,227 at 61,746.

35. Finally, allegations that the project is not needed because gas that is transported by it may be exported through an LNG terminal are not persuasive. There is no evidence in the record that indicates that the expansion capacity will be used to transport natural gas for export. A number of the project shippers are LDCs, which will locally distribute gas or use it to generate electricity. Further, even if there was evidence that some of the gas would be exported, the Commission does not have jurisdiction over the exportation or importation of natural gas. Such jurisdiction resides with the Secretary of Energy, who must act on any applications for natural gas export or import authority.⁴⁹

36. In conclusion, we find that the PennEast Project will provide reliable natural gas service to end use customers and the market. Precedent agreements signed by customers for approximately 90 percent of the project's capacity adequately demonstrate that the project is needed.

3. Existing Pipelines and their Customers

37. PennEast's project is not intended to replace service on other pipelines, and no pipelines or their customers have filed adverse comments regarding PennEast's proposal. Thus, we find that PennEast's project will not adversely affect other pipelines or their captive customers.

⁴⁹ Section 3(a) of the NGA provides, in part, that "no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the Commission authorizing it to do so." 15 U.S.C. § 717b(a) (2012). In 1977, the Department of Energy Organization Act transferred the regulatory functions of section 3 of the NGA to the Secretary of Energy. 42 U.S.C. § 7151(b) (2012). Subsequently, the Secretary of Energy delegated to the Commission authority to "[a]pprove or disapprove the construction and operation of particular facilities, the site at which such facilities shall be located, and with respect to natural gas that involves the construction of new domestic facilities, the place of entry for imports or exit for exports." DOE Delegation Order No. 00-004.00A (effective May 16, 2006). The proposed facilities are not located at a potential site of exit for natural gas exports. Moreover, the Secretary of Energy has not delegated to the Commission any authority to approve or disapprove the import or export of the commodity itself, or to consider whether the exportation or importation of natural gas is consistent with the public interest. See *Corpus Christi Liquefaction, LLC*, 149 FERC ¶ 61,283, at P 20 (2014) (*Corpus Christi*). See also *National Steel Corp.*, 45 FERC ¶ 61,100, at 61,332-61,333 (1988) (observing that DOE, "pursuant to its exclusive jurisdiction, has approved the importation with respect to every aspect of it except the point of importation" and that the "Commission's authority in this matter is limited to consideration of the place of importation, which necessarily includes the technical and environmental aspects of any related facilities").

4. Landowners and Communities

38. Regarding the project's impacts on landowners and communities, the project would impact approximately 1,588 acres of land during construction, and approximately 788.3 acres of land during operation. Approximately 44.5 miles, or 37 percent of the 120.2 mile-long pipeline route, will be located alongside existing rights-of-way.

39. While we are mindful that PennEast has been unable to reach easement agreements with a number of landowners, for purposes of our consideration under the Certificate Policy Statement, we find that PennEast has generally taken sufficient steps to minimize adverse impacts on landowners and surrounding communities. The Commission encourages pipeline companies to engage with project stakeholders throughout the life of the project, and provide all stakeholders and potential impacted residents with informational materials, and hold community meeting to enable stakeholders to learn about the project, and educate project developers about local concerns.⁵⁰ PennEast participated in the pre-filing process, and held over 200 meetings with public officials, as well as 15 "informational sessions" for impacted landowners.⁵¹ PennEast incorporated 70 of 101 identified route variations into its final proposed pipeline route for various reasons, including landowner requests, community impacts, and the avoidance of sensitive resources.⁵² Accordingly, we find that PennEast's proposal has taken appropriate steps to minimize impacts on landowners and the surrounding communities.

5. Conclusion

40. Based on the benefits the project will provide to the shippers, the lack of adverse effects on existing customers, other pipelines and their captive customers, and effects on landowners and surrounding communities, we find, consistent with the Certificate Policy Statement and section 7 of the NGA, that the public convenience and necessity requires approval of PennEast's proposal, subject to the conditions discussed below.

B. Eminent Domain Authority

41. Several commenters assert that it is inappropriate for PennEast to obtain property for the project through eminent domain, as PennEast is a for-profit company, and has not

⁵⁰ Commission, *Suggested Best Practices for Industry Outreach Programs to Stakeholders* at 11-17 (2015).

⁵¹ PennEast Application at 5.

⁵² Final EIS at 3-27 – 3-32.

shown that there is a genuine need for the project, or that the public it is intended to serve will benefit from it.⁵³

42. Under section 7 of the NGA, the Commission has jurisdiction to determine if the construction and operation of proposed interstate pipeline facilities are in the public convenience and necessity. Once the Commission makes that determination, it is section 7(h) of the NGA that authorizes a certificate holder to acquire the necessary land or property to construct the approved facilities by exercising the right of eminent domain if it cannot acquire the easement by an agreement with the landowner.⁵⁴ In constructing this provision, Congress made no distinction between for-profit and non-profit companies. Further, as discussed above, need for the project has been demonstrated by the existence of long-term precedent agreements for approximately 90 percent of the project's capacity. Just as the precedent agreements provide evidence of market demand/need, they are also evidence of the public benefits of the project.⁵⁵

C. Blanket Certificates

43. PennEast requests a Part 284, Subpart G blanket transportation certificate to provide open-access transportation services to its shippers. Since a Part 284 blanket certificate is required for PennEast to offer these services, we will grant PennEast a Part 284, Subpart G blanket certificate, subject to the conditions imposed herein.

44. PennEast has also applied for a Part 157, Subpart F blanket construction certificate to automatically, or after prior notice, perform certain activities related to the construction, acquisition, abandonment, and replacement and operation of pipeline facilities. This blanket certificate includes requirements for landowner notification before construction may begin.

45. The Trustees of the Joseph D. Ceader Family Memorial Fund (Ceadar Family) express concern over issuing PennEast a Part 157, Subpart F blanket certificate, alleging that doing so would grant PennEast "*carte blanche*" (emphasis included) authority to condemn land via eminent domain, and construct significant facilities that could have negative impacts on the environment and their property value, without "extensive environmental review" or findings of need. In addition, Hopewell Township Citizens

⁵³ See, e.g., Homeowners Against Land Taking-PennEast.

⁵⁴ 15 U.S.C. § 717f(h) (2012).

⁵⁵ See *Sierra Club v. FERC*, 867 F.3d 1357, 1379 (D.C. Cir. 2017); see also *Florida Southeast Connection, LLC*, 156 FERC ¶ 61,160, at P 5 (2016); see also *Minisink Residents for Environmental Preservation and Safety v. FERC*, 762 F.3d 97, 111, at n.10 (D.C. Cir. 2014).

Against the PennEast Pipeline, LLC, (Hopewell Township) oppose the issuance of a blanket certificate to PennEast as it would be a “one size fits all solution” that is inappropriate for such a project.

46. Neither the Ceader Family nor Hopewell Township) present any arguments why PennEast’s specific request for a blanket certificate should be denied; rather they seem to take general issue with the Commission’s blanket certificate program. Part 157, Subpart F of the Commission’s regulations authorizes a certificate holder to engage in a limited number of routine activities under a blanket certificate, subject to certain reporting, notice, and protest requirements.⁵⁶ The blanket certificate procedures are intended to increase flexibility and reduce regulatory and administrative burdens. Because the eligible activities permitted under a blanket certificate regulations can satisfy our environmental requirements and meet the blanket certificate cost limits, they will have minimal impacts, such that the close scrutiny involved in considering applications for case-specific certificate authorization is not necessary to ensure compatibility with the public convenience and necessity. For almost all eligible activities, a certificate holder seeking to engage in such activities must notify landowners prior to commencing the activity.⁵⁷ For activities that require prior notice, an opportunity to protest is afforded once notice of the certificate holder’s request is issued to the public.⁵⁸ If a protest cannot be resolved, then the certificate holder may not perform the requested activity under a blanket certificate.⁵⁹

47. Receipt of a Part 157 blanket certificate does confer the right of eminent domain authority under section 7(h) of the NGA.⁶⁰ However, Commission regulations require companies to include information on relevant eminent domain rules in notices to potentially affected landowners.⁶¹ The compensation landowners receive for property rights is a matter of negotiation between the pipeline company and landowner, or is determined by a court in an eminent domain proceeding. In view of the above-noted

⁵⁶ See 18 C.F.R. § 157.203 (2017).

⁵⁷ See *id.* § 157.203(d).

⁵⁸ See *id.* § 157.205.

⁵⁹ See *id.* § 157.205(f).

⁶⁰ See 15 U.S.C. § 717f(h) (2012); *also Columbia Gas Transmission, LLC v. 1.01 Acres*, 768 F.3d 300, 314 (3rd Cir. 2014) (finding that the plain meaning of the Commission’s Part 157 blanket certificate regulations grants the holder of a blanket certificate the right of eminent domain to obtain easements from landowners.).

⁶¹ 18 C.F.R. § 157.203(d)(2)(v) (2017).

blanket program procedures and protections, we expect the Ceader Family and Hopewell Township will have the opportunity to raise specific concerns and seek specific relief regarding PennEast's reliance on blanket authority in undertaking a future activity.

48. Because PennEast will become an interstate pipeline with the issuance of a certificate to construct and operate the proposed facilities, we will issue PennEast the requested blanket certificate authority under Parts 157 and 284 of the Commission's regulations.

D. Rates

1. Initial Rates

49. PennEast proposes an initial maximum reservation recourse charge of \$16.0799 per Dth per month, and an initial usage charge of \$0.0024 per Dth for firm transportation service under Rate Schedule FTS.⁶² PennEast developed its proposed initial rates based on a total first-year cost of service of \$224,270,492. The proposed cost-based rates reflect a Straight-Fixed Variable rate methodology. The FTS reservation rate is designed using the fixed costs of the project⁶³ and annual reservation design determinants of 13,905,896 Dth.⁶⁴ The FTS usage rate is derived using the variable costs of the project and billing determinants of 282,838,500 Dth, based on a 70 percent load factor of the project's annual design throughput.⁶⁵

50. The proposed cost of service is based on a depreciation rate of 2.5 percent for pipeline facilities and 4 percent for compression and metering facilities.⁶⁶ PennEast proposes a capital structure of 40 percent debt and 60 percent equity. PennEast's proposed rates include a return on equity of 14 percent and a cost of debt of 6 percent. PennEast states that the overall rate of return of 10.8 percent is consistent with the range

⁶² Exhibit P, Schedule 2, of PennEast's Application.

⁶³ *Id.* PennEast estimates the first year fixed costs of the project to be \$223,604,821.

⁶⁴ *Id.* The annual reservation design determinants are based on the project's daily design capacity of 1,107,000 Dth plus 51,825 Dth of imputed IT billing determinants, as described further, times 12.

⁶⁵ The project's daily design capacity of 1,107,000 Dth, times 365, times 70 percent.

⁶⁶ Exhibits L, O and P of PennEast's Application.

the Commission has found acceptable for new greenfield pipelines.⁶⁷ PennEast's proposed cost of service also includes a federal corporate income tax rate of 35 percent.⁶⁸

51. PennEast proposes an initial charge of \$0.5310 per Dth for interruptible service under Rate Schedule IT and for interruptible parking and lending service under Rate Schedule PAL, based on a 100 percent load factor equivalent of its Rate Schedule FTS rates.⁶⁹

52. Commission policy requires new pipelines to allocate costs to all services (including interruptible and short-term firm transportation) or credit revenues generated by these services to maximum rate shippers.⁷⁰ To comply with this policy, PennEast proposes to assign \$10 million of costs to interruptible services, reflected as 51,825 Dth/d of imputed billing determinants for interruptible service. PennEast included the additional imputed billing determinants for interruptible service in the calculation of the FT reservation charge, which results in a lower FT reservation charge for firm shippers.

53. The Commission has reviewed PennEast's proposed initial rates, cost of service, use of the Straight Fixed-Variable method of cost classification, billing determinants, and the treatment of interruptible services and interruptible rate calculations, and finds they reasonably reflect current Commission policy, with the modifications and conditions imposed below.

Return on Equity, Capital Structure, Debt Costs, and Federal Corporate Tax Issues

54. In comments on the draft environmental impact statement, the NJRC argues that PennEast's requested 60 percent equity capitalization, 14 percent return on equity, and 6 percent debt costs are excessive.

Return on Equity and Capital Structure

55. NJRC asserts that a 14 percent return on equity is too high because PennEast faces little risk as a new market entrant constructing a new greenfield pipeline. In support, NJRC notes that PennEast's system capacity is 90 percent subscribed, and that the majority of that capacity is subscribed by local distribution companies that are "all but

⁶⁷ PennEast's Application at 32.

⁶⁸ *Id.*

⁶⁹ Exhibit P, Schedule 2, of PennEast's Application.

⁷⁰ *Transcontinental Gas Pipe Line Corp.*, 78 FERC ¶ 61,057, at 61,209-61,210 (1997).

guaranteed to pay their bills.”⁷¹ In addition, NJRC claims that markets have changed significantly since the Commission began granting 14 percent returns nearly 20 years ago due to the increase in hydraulic fracturing and liquefied natural gas exports, and that current capital markets lack the risk to necessitate such high equity returns.⁷²

56. NJRC also asserts that returns on equity have been trending down over the last few years as reflected in both pipeline rate cases and a number of Federal Power Act complaints regarding electric utilities, and points out that average approved rates of return over the last 5 years for LDCs has been less than 10 percent.⁷³ NJRC further points to a recent Commission order in which it claims the Commission “ordered a new pipeline” to use a 10.55 percent return on equity,⁷⁴ and asserts that the Commission should not “reflexively” award PennEast a 14 percent return on equity “simply because earlier pipelines have received that return on equity.”⁷⁵

57. Alternatively, if the Commission approves a 14 percent return on equity, NJRC contends that recent Commission orders require the Commission to limit PennEast’s capital structure to no more than 50 percent equity.⁷⁶

Commission Determination

58. For new pipelines, the Commission has approved equity returns of up to 14 percent as long as the equity component of the capitalization is no more than 50 percent.⁷⁷ As pointed out by NJRC, PennEast has proposed to establish its rates based

⁷¹ NJRC Comments at 11.

⁷² *Id.* at 11-12 (citing *Alliance Pipeline L.P.*, 80 FERC ¶ 61,149, at 61,552 (1997)).

⁷³ *Id.* at 9-13.

⁷⁴ *Id.* at 13 (citing *First ECA Midstream LLC*, 155 FERC ¶ 61,222, at P 23 (2016) (*First ECA Midstream*)).

⁷⁵ *Id.*

⁷⁶ *Id.* at 14 (citing *Ingleside Energy Center, LLC*, 112 FERC ¶ 61,101, at PP 32-33 (2005), *vacated on other grounds*, 136 FERC ¶ 61,114 (2011) (reducing a proposed 70% equity structure to 50%).

⁷⁷ *See, e.g., Florida Southeast Connection, LLC*, 154 FERC ¶ 61,080 (2016) (approving a 14 percent return on equity after requiring the capital structure be modified to include at least 50 percent debt), *MarkWest Pioneer, L.L.C.*, 125 FERC ¶ 61,165, at P 27 (2008) (approving 14 percent return on equity based on 50 percent debt and 50 percent equity ratios); *Corpus Christi LNG, L.P.*, 111 FERC ¶ 61,081, at P 33 (2005)

only on a 40 percent debt capitalization. With such a debt ratio, everything else being equal, PennEast will not face the same level of financial risks as any of the new pipelines that have been previously granted a 14 percent return on equity. Imputing a capitalization containing a 60 percent equity ratio is more costly to ratepayers, since equity financing is typically more costly than debt financing, and also because the interest on indebtedness is tax deductible.⁷⁸ Accordingly, the Commission will approve PennEast's proposed 14 percent return on equity, but will require that it design its cost-based rates on a capital structure that includes at least 50 percent debt. As a result of the change to the capital structure required here, we will require PennEast to recalculate its rates in its compliance filing.

59. However, we reject NJRC's request that we reduce the proposed return of 14 percent, in addition to requiring a lower equity capitalization. In modifying PennEast's proposed capital structure, we are ensuring that consumers are protected and that PennEast's rates are on a level playing field with other new pipelines. The Commission's policy of approving equity returns of up to 14 percent with an equity capitalization of no more than 50 percent for new pipeline companies reflects the fact that greenfield pipelines undertaken by a new entrant in the market face higher business risks than existing pipelines proposing incremental expansion projects. For example, in contrast to an existing pipeline company, a new pipeline entrant does not have historical cost data on which to base its cost-of-service estimates. In addition, a new pipeline entrant is likely to face higher risks in securing financing than an existing pipeline.⁷⁹ Thus, approving PennEast's requested 14 percent return on equity in this instance is not merely "reflexive;" it is in response to the risk PennEast faces as a new market entrant, constructing a new greenfield pipeline system.

60. NJRC's reliance on the Commission's decision in *First ECA Midstream* is misplaced. That proceeding did not involve a greenfield project undertaken by a new

approving a 14 percent return on equity based on 50 percent debt and 50 percent equity ratios); *Gulfstream Natural Gas System, L.L.C.*, 105 FERC ¶ 61,052, at n.26 (2003) and 91 FERC ¶ 61,119, at 61,463 (2000) (approving 14 percent return on equity based on 70 percent debt and 30 percent equity ratios); *Georgia Strait Crossing Pipeline LP*, 98 FERC ¶ 61,271, at 62,054 (2002) (approving 14 percent return on equity based on 70 percent debt and 30 percent equity ratios).

⁷⁸ *MarkWest Pioneer, L.L.C.*, 125 FERC ¶ 61,165, at P 27 (2008).

⁷⁹ See, e.g., *Rate Regulation of Certain Natural Gas Storage Facilities*, Order No. 678, 115 FERC ¶ 61,343, at P 127 (2006) ("As a going concern with existing customers and financial relationships, the risk associated with acquiring financing is lower for incremental expansions than the risk associated with a greenfield project undertaken by a new entrant in the market.").

entrant in the market. Rather, the applicant was an existing company proposing to operate its existing non-jurisdictional gathering system as an interstate pipeline. In approving a 10.55 percent return on equity, the Commission specifically found that the applicant had “more in common with existing pipelines than with the greenfield pipeline projects that have received returns of 14 percent.”⁸⁰

61. In addition, we find no support for NJRC’s assertion that PennEast faces less risk than other new pipelines that have received returns of 14 percent due to its 90 percent subscription level. We have consistently approved equity returns of 14 percent for new pipelines that have firm contracts subscriptions equivalent or higher than PennEast’s 90 percent subscription level.⁸¹ Moreover, the returns approved for electric utilities and LDCs are not relevant because there is no showing that these companies face the same level of risk as faced by greenfield projects proposed by a new natural gas pipeline company.⁸²

62. Further, as explained below, we are requiring PennEast to file a cost and revenue study at the end of its first three years of actual operation to justify its existing cost-based rates. The three-year study will provide an opportunity for the Commission and the public to review PennEast’s original estimates, upon which its initial rates are based, to determine whether PennEast is over-recovering its cost of service with its approved initial rates, and whether the Commission should exercise its authority under section 5 of the NGA to establish just and reasonable rates. Alternatively, PennEast may elect to make a NGA section 4 filing to revise its initial rates. Should PennEast elect to make such a filing, the public would have an opportunity to review PennEast’s proposed return on equity and other cost of service components at that time and would have an opportunity to raise issues relating to the rate of return, as well as all other cost components.

63. In section 7 certificate proceedings, the Commission reviews initial rates for service using proposed new pipeline capacity under the public convenience and necessity standard, which is a less rigorous standard than the just and reasonable standard under

⁸⁰ *First ECA Midstream* at P 23.

⁸¹ *See, e.g. Florida Southeast Connection, LLC*, 154 FERC ¶ 61,080 (2016). (approving a 14 percent return on equity where project was 94 percent subscribed); *Sierrita Gas Pipeline, LLC*, 147 FERC ¶ 61,192 (2014), *clarified* 149 FERC ¶ 61,101 (2014) (approving a 14 percent return on equity where project was fully subscribed).

⁸² The Commission has previously concluded that distribution companies are less risky than a pipeline company. *See, e.g. Trailblazer Pipeline Co.*, 106 FERC ¶ 63,005, at P 94 (2004) (rejecting inclusion of LDCs in a proxy group because they face less risk than a pipeline company.).

NGA sections 4 and 5.⁸³ As conditioned herein, we find that the approved initial rates will “hold the line” and “ensure that the consuming public may be protected,” until just and reasonable rates can be determined through the more thorough and time-consuming ratemaking sections of the NGA.⁸⁴

Debt Costs

64. NJRC argues that PennEast has not supported its request for a 6 percent cost of debt. Referencing a Moody’s report for Long-term Bond Yields in 2016, NJRC states that long-term utility bond rates have declined from January 2016 to July.⁸⁵ Thus, NJRC asserts that the Commission should impute a debt cost consistent with “actual debt market rates” and consistent with the Commission’s approval of a debt cost of 3 percent.⁸⁶

⁸³ *Atlantic Refining Co. v. Public Serv. Comm’n of New York*, 360 U.S. 378, 390-391 (1959) (*Atlantic Refining*). In *Atlantic Refining*, the Court contrasted the Commission’s authority under sections 4 and 5 of the NGA to approve changes to existing rates using existing facilities and its authority under section 7 to approve initial rates for new services and services using new facilities. The court recognized “the inordinate delay” can be associated with a full-evidentiary rate proceeding and concluded that was the reason why, unlike sections 4 and 5, section 7 does not require the Commission to make a determination that an applicant’s proposed initial rates are or will be just and reasonable before the Commission certifies new facilities, expansion capacity, and/or services. *Id.* at 390. The Court stressed that in deciding under section 7(c) whether proposed new facilities or services are required by the public convenience and necessity, the Commission is required to “evaluate all factors bearing on the public interest,” and an applicant’s proposed initial rates are not “the only factor bearing on the public convenience and necessity.” *Id.* at 391. Thus, as explained by the Court, “[t]he Congress, in §7(e), has authorized the Commission to condition certificates in such manner as the public convenience and necessity may require when the Commission exercises authority under section 7,” *id.*, and the Commission therefore has the discretion in section 7 certificate proceedings to approve initial rates that will “hold the line” and “ensure that the consuming public may be protected” while awaiting adjudication of just and reasonable rates under the more time-consuming ratemaking sections of the NGA. *Id.* at 392.

⁸⁴ *Id.* at 392.

⁸⁵ NJRC Comments at 15.

⁸⁶ *First ECA Midstream LLC*, 115 FERC ¶ 61,222 at PP 22-23.

65. We find that PennEast's proposed 6 percent cost of debt is consistent with the cost of debt the Commission has approved for recent greenfield pipeline projects. The Commission has approved cost of debt percentages ranging from 4.8 to 9.3.⁸⁷ Moreover, as explained above, the initial rates established in *First ECA Midstream*, including approval of the applicant's proposed 3 percent cost of debt, are inapplicable to this proceeding. Therefore, we will approve PennEast's proposal to utilize a 6 percent cost of debt.

Federal Corporate Tax Issues

66. As noted above, PennEast used a federal corporate income tax rate of 35 percent in calculating its proposed cost of service. However, effective January 2018, the Tax Cuts and Jobs Act of 2017 changed several provisions of the federal tax code, including a reduction in the federal corporate income tax rate to 21 percent and allowing certain investments to receive bonus depreciation treatment. Because these changes impact PennEast's proposed cost of service and the resulting initial recourse rates, we direct PennEast to recalculate its initial recourse rates consistent with the new 2018 federal corporate tax law when it files actual tariff records. In order to ensure compliance with this directive, we also require PennEast to provide supporting work papers in electronic spreadsheet format, including formulas.

2. Negotiated Rates

67. PennEast states that it will provide service to the project's shippers under negotiated rate agreements pursuant to its negotiated rate authority in section 24 of its *pro forma* General Terms and Conditions (GT&C). PennEast must file either its negotiated rate agreements or tariff records setting forth the essential terms of the agreements in accordance with the Alternative Rate Policy Statement⁸⁸ and the

⁸⁷ *UGI Sunbury, LLC*, 155 FERC ¶ 61,115, at 20 (2016) (7 percent cost of debt); *Florida Southeast Connection, LLC*, 154 FERC ¶ 61,080 at n.141 (7 percent cost of debt); *Ruby Pipeline, L.L.C.*, 128 FERC ¶ 61,224, at P 43 (2009) (9.3 percent cost of debt); *Sierrita Gas Pipeline, LLC*, 147 FERC ¶ 61,192, at P 40 (2014) (4.8 percent cost of debt).

⁸⁸ *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines; Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076 (1996); *clarification granted*, 74 FERC ¶ 61,194 (1996), *order on reh'g*, 75 FERC ¶ 61,024 (1996).

Commission's negotiated rate policies.⁸⁹ PennEast must file the negotiated rate agreements or tariff records at least 30 days, but not more than 60 days, before the proposed effective date for such rates.⁹⁰

3. Fuel

68. PennEast states it will use an in-kind fuel tracking mechanism to recover fuel and lost and unaccounted for gas (L&U) through a fuel retainage percentage (FRP). PennEast has proposed an initial FRP of 0.81 percent, calculated using engineering principles and manufacturer's specifications for the proposed compressor engines, and an L&U percentage of 0.00 percent. We will approve PennEast's proposed initial FRP rate of 0.81 percent, and its proposed initial L&U rate of 0.00 percent.

69. In addition, PennEast proposes a fuel tracker as part of its *pro forma* tariff. Section 20.3(a) of the GT&C of PennEast's *pro forma* tariff states:

With each filing hereunder for a specified calendar period Pipeline shall calculate a FRP as the quotient obtained by dividing (a) the projected annual quantities of Fuel for the upcoming calendar period, plus the amount of any under-collection of Gas in-kind pursuant to the prior period FRP or less the amount of any over-collection of Gas in-kind pursuant to the prior period FRP and (b) the projected annual throughput for the upcoming calendar period.

70. Section 154.403(c)(10) of the Commission's regulations⁹¹ states that "[a] step-by step explanation of the methodology used to reflect changes in the fuel reimbursement percentage including the allocation and classification of the fuel use and unaccounted-for natural gas" must be included in the GT&C. PennEast is directed to revise section 20 of the GT&C to include an explanation of how the projected annual quantities of fuel and projected annual throughput are determined.

⁸⁹ *Natural Gas Pipelines Negotiated Rate Policies and Practices; Modification of Negotiated Rate Policy*, 104 FERC ¶ 61,134 (2003), *order on reh'g and clarification*, 114 FERC ¶ 61,042 (2006), *reh'g dismissed and clarification denied*, 114 FERC ¶ 61,304 (2006).

⁹⁰ Pipelines are required to file any service agreement containing non-conforming provisions and to disclose and identify any transportation term or agreement in a precedent agreement that survives the execution of the service agreement.

⁹¹ 18 C.F.R. § 154.403(c)(10) (2017).

71. In addition, PennEast's proposed language in section 20.3(b) of the GT&C explains that it will estimate the L&U quantities, but does not explain the methodology PennEast will use to calculate those estimates. Therefore, when PennEast files actual tariff records in accordance with the ordering paragraphs herein, it is directed to revise section 20 of the GT&C to include an explanation of how PennEast will calculate the estimates for the L&U quantities required for the upcoming calendar period.

4. Three-Year Filing Requirement

72. Consistent with Commission precedent, PennEast is required to file a cost and revenue study no later than three months after the end of its first three years of actual operation to justify its existing cost-based firm and interruptible recourse rates.⁹² In its filing, the projected units of service should be no lower than those upon which PennEast's approved initial rates are based. The filing must include a cost and revenue study in the form specified in section 154.313 of the Commission's regulations to update cost of service data.⁹³ PennEast's cost and revenue study should be filed through the eTariff portal using a Type of Filing Code 580. In addition, PennEast is advised to include as part of the eFiling description, a reference to Docket No. CP15-558-000 and the cost and revenue study.⁹⁴ After reviewing the data, the Commission will determine whether to exercise its authority under NGA section 5 to investigate whether the rates remain just and reasonable. In the alternative, in lieu of this filing, PennEast may make a NGA general section 4 rate filing to propose alternative rates to be effective no later than three years after the in-service date for its proposed facilities.

5. Tariff

73. As part of its application, PennEast filed a *pro forma* open-access tariff for the Commission's approval. PennEast proposed tariff generally conforms to the Commission's requirements. We will approve the tariff, as conditioned below.

Rate Schedule ITS

74. Section 2.5 of Rate Schedule ITS provides that the pipeline shall not be required to provide transportation service if the quantities tendered are so small as to cause operational difficulties, such as with measurement. Under sections 284.7(b) and 284.9(b)

⁹² *Bison Pipeline, LLC*, 131 FERC ¶ 61,013, at P 29 (2010); *Ruby Pipeline, LLC*, 128 FERC ¶ 61,224, at P 57 (2009) (*Bison*); *MarkWest Pioneer, L.L.C.*, 125 FERC ¶ 61,165, at P 34 (2008).

⁹³ 18 C.F.R. § 154.313 (2017).

⁹⁴ *Electronic Tariff Filings*, 130 FERC ¶ 61,047, at P 17 (2010).

of the Commission's regulations, a transporter may not discriminate as to the level of volumes transported.⁹⁵ In previous determinations, however, the Commission has allowed a pipeline to include a minimum volume restriction in its tariff when the pipeline was able to show that the transportation of quantities below the threshold were too small to be metered, and where the company has provided operational and cost justification for the restriction.⁹⁶ For example, the Commission accepted a proposal for a 100 Dth/d threshold for connections of new receipt and delivery points, where the applicant demonstrated that serving small volume points presented operational challenges because these receipt points were difficult to measure, increasing the potential for lost system gas, and that the cost of operating these delivery points was greater than the maximum rate for service. In addition, the applicant demonstrated that the costs associated with operating small points would be greater than the maximum rate would cover.⁹⁷

75. Here, PennEast has neither provided justification nor has it provided a proposed threshold for minimum volumes to be transported. Therefore, the Commission requires PennEast to eliminate the proposed minimum volume condition or, in the alternative, state what that minimum volume is and provide the justification to support it.

Rate Schedule PAL

76. Section 8.6 of Rate Schedule PAL provides that parked quantities of gas shall become the property of PennEast when: 1) a customer fails to comply with notifications that receipts of parked quantities are to be suspended or reduced; 2) a customer fails to comply with notifications that customer's parked quantities must be removed; or 3) a PAL account reflects a balance at the termination date of a PAL Service Agreement. The Commission has found that a pipeline's confiscation of gas is an operationally justified deterrent to shipper behavior that could threaten the system or degrade service to firm shippers. However, the Commission requires that the value of such confiscated gas be

⁹⁵ Section 284.7(b)(1) provides "[a]n interstate pipeline or intrastate pipeline that offers transportation service on a firm basis under Subpart B, C, or G must provide such service without undue discrimination, or preference, including undue discrimination or preference in the quality of service provided, the duration of service, the categories, prices, or *volumes of natural gas to be transported*, customer classification, or undue discrimination or preference of any kind." (emphasis added). Section 284.9(b) applies these provisions regarding non-discriminatory access to interruptible service.

⁹⁶ See, e.g., *Gulf South Pipeline Co., LP*, 103 FERC ¶ 61,105, at P 13, n.7 (2003) (*Gulf South*); *Trailblazer Pipeline Co.*, 39 FERC ¶ 61,103, at 61,336 (1987); *Texas Eastern Transmission Corp.*, 37 FERC ¶ 61,260, at 61,680-61,681 (1986).

⁹⁷ *Gulf South*, 103 FERC ¶ 61,105, at PP 9-13.

credited to existing customers.⁹⁸ PennEast has not proposed a crediting mechanism in its tariff. Therefore, we direct PennEast to revise its tariff to include a mechanism to credit the value of any confiscated gas, net of costs, to non-offending shippers.

GT&C Section 5: Service Nomination Procedures

77. PennEast proposes at section 5.1(c) of the GT&C:

Pipeline shall have the right to refuse to receive or deliver any Gas not timely and properly nominated. Pipeline shall not be liable to Customer or any other person as a direct or indirect consequence of such refusal and Customer shall indemnify Pipeline from and against any and all losses, damages, expenses, claims, suits, actions and proceedings whatsoever threatened, incurred or initiated as a result of such refusal unless such refusal was due to Pipeline's gross negligence, undue discrimination or willful misconduct.

78. The Commission has found that a simple negligence standard is appropriate for the liability and indemnification provisions of open-access tariffs, as this standard prohibits pipelines from limiting their liability in a way that would immunize them from direct damages resulting from simple negligence and "gives service providers a powerful incentive to operate their systems in a reasonable and prudent manner."⁹⁹ The Commission, however, has allowed pipelines to limit their liability for simple negligence to direct damages, so that they are only liable for indirect, consequential, incidental or punitive damages where there is gross negligence, willful misconduct, or bad faith.¹⁰⁰

79. PennEast's proposed liability standard is inconsistent with Commission policy because it immunizes the pipeline from direct damages resulting from simple negligence. Therefore, when it submits its actual tariff filing, the Commission will require PennEast to revise its liability standard proposed in section 5.1(c) of the GT&C so as to not exclude it from liability for direct damages arising from its own simple negligence. Similarly, PennEast must revise sections 8.6 (Curtailment), 12.5 (Quality of Gas), and 37

⁹⁸ *AES Sparrows Point LNG, LLC and Mid-Atlantic Express, LLC*, 126 FERC ¶ 61,019, at P 42 (2009), (citing *Colorado Interstate Gas Co.*, 122 FERC ¶ 61,256, at P 102 (2008)).

⁹⁹ See, e.g., *Trailblazer Pipeline Co. LLC*, 142 FERC ¶ 61,007, at P 8 (2012); *CenterPoint Energy Gas Transmission Co., LLC*, 139 FERC ¶ 61,064, at P 19 (2012); *Orbit Gas Storage, Inc.*, 126 FERC ¶ 61,095, at P 58 (2009)).

¹⁰⁰ See, e.g., *Bison*, 131 FERC ¶ 61,013, at P 37; *El Paso*, 130 FERC ¶ 61,096, at P 4-5; *ANR Pipeline Co.*, 100 FERC ¶ 61,132, at 61,505 (2002).

(Nonrecourse Obligation of Pipeline's Members and Operator) of the GT&C, which also immunize the pipeline from direct damages resulting from simple negligence.

GT&C Section 6: Service Scheduling

80. Section 6.1 of PennEast's GT&C lists the priority order in which quantities nominated for transportation will be scheduled. Section 6.1(c) states:

Pro rata among firm service Customers utilizing a Secondary Point or Points with at least one of such points being outside the Contract Path *or the nominated quantity being in excess of the firm contractual entitlement(s) for any pipeline segment as described in subsection (g) below.* (emphasis added)¹⁰¹

The emphasized language above appears to address authorized overrun quantities. However, section 6.1(d) of the GT&C provides that authorized overrun quantities will have the same scheduling priority as interruptible services ("All interruptible service Customers, excluding park and loan service Customers, and Customers nominating authorized overrun quantities in sequence starting with the Customer paying the highest rate.").¹⁰² Commission policy requires that nominations for authorized overrun and interruptible services should have the same scheduling priority.¹⁰³ Thus, we find that the emphasized language in section 6.1 (c) of the GT&C that applies to authorized overrun quantities is inconsistent with Commission policy, as well as other provisions of PennEast's tariff. We direct PennEast to delete this provision.

¹⁰¹ Section 6.1(g) of the GT&C provides, in part, "[i]n addition, for any movement of Gas that traverses a segment(s) in which the total nominated quantity for that contract exceeds the firm contractual entitlement, the quantity in excess of the contractual entitlement shall be deemed to be outside of the Customer's Contract Path."

¹⁰² Section 6 of Rate Schedule FTS also provides that authorized daily overrun quantities will be transported on an interruptible basis.

¹⁰³ *Sierrita Gas Pipeline, LLC*, 147 FERC ¶ 61,192, at P 66 (2014); *Central New York Oil and Gas Co., LLC*, 114 FERC ¶ 61,105, at P 9 (2006) (citing *CNG Transmission Corp.*, 81 FERC ¶ 61,346, at 62,592 (1997) and *Tennessee Gas Pipeline Co.*, 62 FERC ¶ 61,250, at 62,676 (1993)).

GT&C Section 8: Curtailment

81. PennEast proposes at section 8.1 of the GT&C:

Pipeline shall have the right to curtail or discontinue transportation services, in whole or in part, on all or a portion of its system at any time for reasons of Force Majeure *or when, in Pipeline's sole judgment, capacity or operating conditions so require or it is desirable or necessary to make modifications, repairs or operating changes to its system.* (emphasis added.)

82. The Commission has held that pipelines should plan routine repair, maintenance, and improvements through the scheduling process, and should not curtail confirmed scheduling nominations in order to perform such work.¹⁰⁴ The Commission has found that pipelines may only “curtail” service in an emergency situation or when an unexpected capacity loss occurs after the pipeline has scheduled service, and the pipeline is therefore unable to perform the service which it has scheduled.¹⁰⁵ The term “modifications, repairs or operating changes” is not limited to an emergency situation or an unexpected loss of capacity, and the pipeline should take outages required for routine repair, maintenance, and operating changes into account when it is scheduling service, rather than curtailing service after it is scheduled. Therefore, PennEast is required to revise the emphasized phrase to comply with Commission policy.

83. In sections 8.2 (a) through (e) of the GT&C, PennEast provides the order in which it would curtail service. Sections 8.2 (d) and (e) of the GT&C set forth the priorities for curtailing firm service and provide:

(d) Fourth, Pipeline shall curtail scheduled service to those Customers receiving service under the firm rate schedule at a Secondary Point or Points, with at least one of such points being outside the Contract Path, if the operating condition that necessitates the curtailment affects a location outside of the Customers' Contract Path, on a pro rata basis among affected Customers;

(e) Fifth, Pipeline shall curtail scheduled service to those Customers receiving service under the firm rate schedule at Primary Points of Receipt and Primary Points of Delivery and at a Secondary Point or Points, which

¹⁰⁴ *CenterPoint Energy Gas Transmission Co., LLC*, 144 FERC ¶ 61,195, at P 75 (*CenterPoint*).

¹⁰⁵ *Id.*; *Ryckman Creek Resources, LLC*, 136 FERC ¶ 61,061, at P 68 (2011); *MarkWest Pioneer, L.L.C.*, 125 FERC ¶ 61,165, at P 52 (2008).

points are wholly within the Contract Path pro rata on the basis of scheduled quantities.

84. The Commission rejects PennEast's proposal as it relates to curtailing firm transportation services. Commission policy requires that once firm service is scheduled, all scheduled firm transactions, whether primary or secondary, must be curtailed on a *pro rata* basis.¹⁰⁶ PennEast's proposed tariff is inconsistent with this policy because it would curtail certain types of scheduled firm transportation before other scheduled firm transportation. PennEast is required, in its tariff compliance filing, to revise sections 8.2 (d) and (e) to provide that scheduled firm volumes may only be curtailed on a *pro rata* basis.

85. Section 8.4 of PennEast's GT&C states:

All volumes received and/or taken in violation of Pipeline's curtailment or interruption orders shall constitute unauthorized receipts or deliveries of Gas for which a penalty charge equal to the higher of \$50.00 per Dth and 150% times the Platts *Gas Daily* "Daily Price Survey" High Common price for "Transco, zone 6 non-N.Y. North" per Dth shall be assessed, in addition to any other applicable rate, charge *or penalty*. (emphasis added).

86. In addition to the above penalty, PennEast's tariff contains a "Usage Rate outside Tolerances"¹⁰⁷ penalty provision that may result in penalizing the same infraction twice. Commission policy prohibits multiple penalties for the same infraction.¹⁰⁸ Therefore, PennEast is directed to revise its tariff to be consistent with Commission policy.¹⁰⁹

¹⁰⁶ *Algonquin Gas Transmission Co.*, 104 FERC ¶ 61,118, at P 34 (2003); Order No. 636-B, 61 FERC ¶ 61,272, at 62,013 (1992).

¹⁰⁷ Sections 3.2.B(2) of Rate Schedule FTS and 3.2A(2) of Rate Schedule ITS provide, in part: "The Usage Charge outside Tolerances as set forth on the Statement of Rates for Rate Schedule FTS or the Statement(s) of Negotiated Rates, as applicable, multiplied by that portion of the total quantity of Gas deliveries on any Day pursuant to the effective Service Agreement, except for authorized overrun quantities, which is in excess of the lesser of 110% of scheduled service levels for such Day or 102% of MDQ."

¹⁰⁸ *Columbia Gas Transmission Corp.*, 100 FERC ¶ 61,084, at P 201 (2002).

¹⁰⁹ *E.g. MoGas Pipeline LLC*, 151 FERC ¶ 61,201, at PP 22-23 (2015) (approving tariff language that permitted the imposition of the greater penalty).

GT&C Section 26: Force Majeure

87. PennEast’s proposed definition of *force majeure* events in section 26.1 of the GT&C includes “compliance with any court order, law, regulation or ordinance promulgated by any governmental authority having jurisdiction, whether federal, Indian, state or local, civil or military, the necessity for testing (as required by governmental authority or as deemed necessary for safe operation by the testing party).” PennEast’s proposed tariff language conflicts with Commission policy because it can be interpreted to include regular, periodic maintenance activities required to comply with government actions as *force majeure* events. The Commission has clarified the basic distinction as to whether outages resulting from governmental actions are *force majeure* or non-*force majeure* events.¹¹⁰ The Commission found that outages necessitated by compliance with government standards concerning the regular, periodic maintenance activities a pipeline must perform in the ordinary course of business to ensure the safe operation of the pipeline, including the Pipeline and Hazardous Materials Safety Administration’s (PHMSA) integrity management regulations, are non-*force majeure* events requiring full reservation charge credits. Outages resulting from one-time, non-recurring government requirements, including special, one-time testing requirements after a pipeline failure, are *force majeure* events requiring only partial crediting.¹¹¹

88. In addition, PennEast’s proposed definition of *force majeure* events in section 26.1 includes “any other cause, whether of the kind herein enumerated, or otherwise, *not within the control of the party claiming suspension* and which by the exercise of due diligence such party is unable to prevent or overcome.” (emphasis added). The Commission has defined *force majeure* outages as events that are both “unexpected and uncontrollable.”¹¹² The Commission directs PennEast to revise section 26.1 of the GT&C to comply with Commission Policy, as discussed above.

¹¹⁰ *Kinder Morgan Louisiana Pipeline LLC*, 154 FERC ¶ 61,145, at P 30 (2016); *DBM Pipeline, LLC*, 152 FERC ¶ 62,056, at 64,159 (2015); *TransColorado Gas Transmission Co., LLC*, 144 FERC ¶ 61,175, at PP 35-43 (2013); *Gulf South Pipeline Co., LP*, 141 FERC ¶ 61,224, at PP 28-47 (2012), *order on reh’g*, 144 FERC ¶ 61,215, at PP 31-34 (2013).

¹¹¹ *See Algonquin Gas Transmission LLC*, 153 FERC ¶ 61,038, at P 104 (2015).

¹¹² *North Baja Pipeline, LLC v. FERC*, 483 F.3d 819, 823 (D.C. Cir. 2007), *aff’g*, *North Baja Pipeline, LLC*, 109 FERC ¶ 61,159 (2004), *order on reh’g*, 111 FERC ¶ 61,101 (2005). *See also Kinder Morgan Louisiana Pipeline LLC*, 154 FERC ¶ 61,145, at P 29 (2016); *Algonquin Gas Transmission LLC*, 153 FERC ¶ 61,038 at P 103.

GT&C Section 32: North American Energy Standards Board (NAESB)

89. PennEast adopted the Business Practices and Electronic Communications Standards of NAESB Wholesale Gas Quadrant's (WGQ) Version 2.0. PennEast has identified those standards incorporated by reference in GT&C Section 32. Those standards not incorporated by reference by PennEast have also been identified, along with the tariff record in which they are located. In the event an updated version of the NAESB WGQ standards is adopted by the Commission prior to PennEast's in-service date, the Commission directs PennEast to file revised tariff records, 30 to 60 days prior to its in-service date, consistent with the then current version.

GT&C Section 39: Reservation Charge Crediting

90. Sections 39.1 and 39.2 of the GT&C provide that the pipeline will provide full reservation charge credits to shippers during non-force majeure events and partial reservation credits during force majeure events, respectively, except as provided for in section 39.3.

91. Section 39.3 exempts PennEast from providing reservation charge credits in a number of circumstances including:

(xi) if Customer is provided service pursuant to a negotiated rate agreement executed after November 1, 2017, or any successor negotiated rate agreement thereto, and such agreement does not explicitly require reservation charge credits.”

92. The Commission has found that it is unreasonable for a pipeline to apply a proposed new contractual prerequisite for negotiated rate contracts to qualify for reservation charge credits to agreements entered into before the effective date of the proposed tariff language.¹¹³ Although section 39.3 (xi) of the GT&C provides such protection to the agreements prior to the filing of PennEast's application, this provision does not address any agreements that may be reached with shippers before the effective date of the tariff. Acceptance of PennEast's proposal with respect to existing negotiated rate agreements would unreasonably deny reservation charge credits to shippers which may have been unaware of PennEast's future contracting requirement. Therefore, the Commission directs PennEast to revise this language to apply only to negotiated rate contracts entered into after the effective date of that tariff provision.

¹¹³ *Florida Southeast Connection, LLC, et al.*, 154 FERC ¶ 61,080, at P 176 (2016); *Iroquois Gas Transmission Sys., LP*, 145 FERC ¶ 61,233, at PP 67-71 (2013).

E. Environmental Analysis

1. Pre-filing and Application Review

93. Commission staff began a pre-filing environmental review of the project on October 10, 2014. On January 13, 2015, Commission staff issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Planned PennEast Pipeline Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings* (NOI). This notice was published in the *Federal Register* on February 3, 2015,¹¹⁴ and sent to more than 4,300 interested entities, including representatives of federal, state, and local agencies; elected officials; environmental and public interest groups; Native American tribes; potentially affected landowners as defined in the Commission's regulations (i.e., landowners crossed or adjacent to pipeline facilities or within 0.5 mile of a compressor station); concerned citizens; and local libraries and newspapers. The NOI briefly described the project and the environmental impact statement (EIS) process, provided a preliminary list of issues identified by staff, invited written comments on the environmental issues that should be addressed in the EIS, and listed the date and location of five public scoping meetings.¹¹⁵ On January 28, 2015, Commission staff issued a *Notice of Extension of Comment Period and Clarification of Location of Public Comment Meetings for the PennEast Pipeline Project*, which extended the comment period until February 27, 2015.¹¹⁶ At the public scoping meetings, a total of 250 speakers provided verbal comments about the project. In addition, more than 6,000 letters were filed providing comments about the project.¹¹⁷

94. To satisfy the requirements of the National Environmental Policy Act (NEPA), Commission staff prepared a draft EIS for the project. The U.S. Army Corps of Engineers (USACE), U.S. Environmental Protection Agency (EPA), and the U.S. Department of Agriculture's Natural Resources Conservation Service participated in the NEPA review as cooperating agencies. Commission staff issued the draft EIS for the project on July 22, 2016, which addressed the issues raised during the scoping period and included staff's independent analysis of the environmental impacts of the project.

¹¹⁴ 80 Fed. Reg. 5744 (2015).

¹¹⁵ Commission staff held the public scoping meetings between February 10 and 12, 2015 and February 25 and 26, 2015 in Bethlehem, Jim Thorpe, and Wilkes-Barre, Pennsylvania; and Trenton and Hampton, New Jersey.

¹¹⁶ 80 Fed Reg. 4557 (2015).

¹¹⁷ Table 1.4-1 of the final EIS provides a detailed and comprehensive list of issues raised during scoping.

95. Notice of the draft EIS was published in the *Federal Register* on July 29, 2016, establishing a 45-day public comment period that ended on September 12, 2016.¹¹⁸ The draft EIS was mailed to over 4,280 stakeholders, which included the entities that were mailed the NOI and additional interested entities. Commission staff held six public comment sessions between August 15 and 17, 2016, to receive comments on the draft EIS.¹¹⁹ Approximately 670 individuals attended these public sessions, including 420 who provided verbal comments. A total of 4,169 comment letters were filed in response to the draft EIS before the comment period closed on September 12, 2016. The transcript of the public comment sessions and all written comments on the draft EIS are part of the public record for the project.

96. On September 23, 2016, PennEast filed 33 route modifications, totaling 21.3 miles in length, to address environmental and engineering concerns. On November 4, 2016, Commission staff issued a letter to newly affected landowners describing the route modifications and inviting comments on the route modifications, and opening an additional 30-day comment period, which concluded on December 5, 2016. Comments received after the close of the comment periods (between September 12 and November 4, 2016, and after December 5, 2016) continued to be posted to the Commission's eLibrary website and were reviewed by staff for substantive concerns.

97. The final EIS for the project was issued on April 7, 2017, and a public notice of the availability of the final EIS was published in the *Federal Register* on April 14, 2017.¹²⁰ The final EIS addresses all substantive comments received on the draft EIS, the November 4, 2016 letter, and comments received prior to December 31, 2016.¹²¹ The final EIS was mailed to the same parties as the draft EIS, as well as additional parties.¹²² The final EIS addresses geology; soils; water resources; wetlands; aquatic resources; vegetation and wildlife; threatened, endangered, and special status species; land use, recreation, and visual resources; socioeconomics; cultural resources; air quality and

¹¹⁸ 82 Fed. Reg. 49,971 (2017).

¹¹⁹ Commission staff held draft EIS comment sessions in Bethlehem, Pennsylvania; Jim Thorpe, Pennsylvania; Clinton, New Jersey; Lahaska, Pennsylvania; Wilkes-Barre, Pennsylvania; and Trenton, New Jersey.

¹²⁰ 82 Fed. Reg. 17,988 (2017).

¹²¹ All comments received prior to the end of the comment period and in response to the November 4, 2016 letter that included additional substantive concerns are included in the comment responses contained in Appendix M of the final EIS (Volume II). Any new issues raised after December 31, 2016, which were not previously identified, are addressed in this order.

¹²² The distribution list is provided in Appendix A of the final EIS.

noise; reliability and safety; cumulative impacts; and alternatives. The major environmental issues raised during this proceeding, and comments from stakeholders not addressed in the final EIS, as well as substantive comments on the final EIS, are discussed below.

98. The final EIS concludes that while the project will result in some adverse environmental impacts, these impacts will be reduced to less than significant levels with the implementation of PennEast's proposed impact avoidance, minimization, and mitigation measures, together with staff's recommended environmental conditions, now adopted, as modified, as conditions in the attached Appendix A of this order. While, the Commission recognizes that there are incomplete surveys due to lack of access to landowner property, the conclusions in the final EIS, and affirmed by the Commission here, were based on the information contained in the record, including PennEast's application and supplements, as well as information developed through Commission staff's data requests, field investigations, the scoping process, literature research, alternatives analysis, and contacts with federal, state, and local agencies, as well as with individual members of the public. As part of its environmental review, staff developed specific mitigation measures that we find will adequately and reasonably reduce the environmental impacts resulting from the construction and operation of the PennEast Project. We believe that the substantial environmental record and mitigation measures sufficiently support reaching a decision on this project.

99. Once a certificate is issued, the Commission's environmental staff is charged with ensuring that the project will be constructed in compliance with the Commission's order, including the conclusions regarding the project's expected impacts upon the environment. Recognizing that there are necessary field surveys that are outstanding on sections of the proposed route where survey access was denied, we are imposing several environmental conditions that require filing of additional environmental information for review and approval once survey access is obtained. This includes items such as site-specific plans, survey results, documentation of consultations with agencies, and additional mitigation measures. The additional information ensures the EIS's analyses and conclusions are verified based on the best available data, enabling us to improve and finalize certain mitigation plans and ensure stakeholder concerns are addressed. The information will also provide Commission staff with the site-specific details necessary to appropriately evaluate compliance during the construction process. In addition, Environmental Condition 10 requires that before construction can commence, PennEast must file documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).

100. Further, the final EIS has adequately identified, as required by section 1502.22 of the Council on Environmental Quality (CEQ) regulations, where information is

lacking.¹²³ CEQ regulations recognize that some information simply may not be available.¹²⁴ Moreover, the final EIS contains mitigation plans that provide for using the correct mitigation measures, sediment control measures, and restoration requirements based on the actual site conditions experienced during construction. The conditions in the order will ensure that all environmental resources will be adequately protected.

101. The Commission needs to consider and study environmental issues before approving a project, but it does not require all environmental concerns to be definitively resolved before a project's approval is issued. NEPA does not require every study or aspect of an analysis to be completed before an agency can issue a final EIS, and the courts have held that agencies do not need perfect information before it takes any action.¹²⁵ In *U.S. Department of the Interior v. FERC*, the court held that “[v]irtually every decision must be made under some uncertainty; the question is whether the Commission’s response, given uncertainty, is supported by substantial evidence and is not arbitrary and capricious.”¹²⁶ Similarly, in *State of Alaska v. Andrus*, the court stated that “[i]f we were to impose a requirement that an impact statement can never be prepared until all relevant environmental effects were known, it is doubtful that any project could ever be initiated.”¹²⁷ There must, however, be sufficient information in the record to enable the Commission to take the requisite “hard look” required by NEPA. As indicated above, we believe the record in this proceeding meets that requirement.¹²⁸

¹²³ 40 C.F.R. § 1502.22 (2017).

¹²⁴ *Id.*

¹²⁵ *U.S. Dep’t of the Interior v. FERC*, 952 F.2d 538, 546 (D.C. Cir. 1992); *State of Alaska v. Andrus*, 580 F.2d 465, 473 (D.C. Cir. 1978), *vacated in part sub nom. W. Oil & Gas Ass’n v. Alaska*, 439 U.S. 922, 99 S. Ct. 303, 58 L. Ed. 2d 315 (1978) (“NEPA cannot be ‘read as a requirement that complete information concerning the environmental impact of a project must be obtained before action may be taken’”).

¹²⁶ *U.S. Dep’t of the Interior v. FERC*, 952 F.2d 538, 546.

¹²⁷ *State of Alaska v. Andrus*, 580 F.2d 465, 473.

¹²⁸ See also *Independence Pipeline Co.*, 91 FERC ¶ 61,102, at 61,352 (2000) (finding that despite landowners denying survey access, the final EIS was sufficiently detailed to inform the Commission and the public for purposes of NEPA); *Southern Natural Gas Co.*, 85 FERC ¶ 61,134, at 61,512 (1998) (finding paper record sufficient even though landowners denied pipeline survey access).

2. The EIS Process and Procedural Concerns

102. Commenters requested public meetings be held in areas affected by PennEast's minor route modifications, as identified in PennEast's September 23, 2016 Supplemental Information filing. Commission staff mailed notice on November 4, 2016, to all landowners potentially affected by the modifications, government officials, and other stakeholders. The notice described the proposed route changes, invited participation, and opened a special 30-day limited scoping period. Over 400 comments were filed in response to the notice, which are addressed in the final EIS. Commission staff determined that additional public meetings were not required and that written comments received from the public were sufficient to identify potential concerns associated with the minor route changes.

103. In addition, several commenters asserted that the comment period for the draft EIS was not sufficient, and should have been extended in order to allow parties additional time to study the draft EIS and provide comment. Commission staff continued to accept and review comments after the close of the comment period for the draft EIS. All filings are available on the docket for public review and inspection. For these reasons, we concur that an extended comment period was not needed.

3. Major Environmental Issues and Comments on the Final EIS

a. Geology

104. Several commenters express concern regarding construction near active quarries and in karst terrain. Comments were also filed regarding the potential for naturally occurring arsenic to mobilize and contaminate groundwater, drinking water wells, and surface waters. Commenters also express concerns for landslide risks, as well as the potential for soil compaction.

105. After the close of the draft EIS comment period, United States Representative Matt Cartwright of Pennsylvania forwarded a letter from his constituent, Phyllis Jacewicz, particularly for residences on East Saylor Avenue in Plains Township, Luzerne County, Pennsylvania, citing concerns about construction of the project near an active quarry. As stated in the final EIS, PennEast has adjusted the pipeline route through Luzerne County to avoid future expansion of the quarry, PennEast also evaluated average quarry blasting vibration, concluding there would be no effect from these activities on the pipeline.¹²⁹ Additionally, PennEast provided documentation regarding the expansion of the Trap Rock Quarry located at milepost (MP) 99 in Delaware Township, New Jersey, and provided a blasting assessment based on site-specific data (geology, distance and wave propagation) and a scaling relationship to solve for blast-induced effects (peak

¹²⁹ See final EIS at 4-5.

particle velocity) on the pipeline. Based on the blasting analysis, the EIS concludes that no impacts on the pipeline from quarry blasting are anticipated.¹³⁰ In response to comments received regarding the accuracy of the explosive weights for the blasting analysis, Environmental Condition 14 requires PennEast to file an updated report verifying the explosive weights used by the quarry operator; incorporate this information into the final design of the project; and to seek concurrence from Trap Rock Quarry regarding the input parameters to the blasting analysis. The updated report will be reviewed by Commission staff prior to construction to confirm the conclusions in the EIS remain valid.

106. In comments on the final EIS, Susan D. Meacham discusses the potential risks of construction in karst areas and the potential risk for scouring where the pipeline will cross the floodplain along the New Jersey side of the proposed horizontal directional drill (HDD) crossing of the Delaware River. The final EIS determines that there are approximately 13.8 miles of the project, in Carbon, Northampton, and Bucks Counties, Pennsylvania, and Hunterdon County, New Jersey, where a karst hazard may be present; approximately 50 percent of the karst survey has been completed.¹³¹ As discussed in the EIS, PennEast developed a project-specific Karst Mitigation Plan, as well as a specific HDD plan for drilling through karst terrain. The project-specific Karst Mitigation Plan, which provides guidance to mitigate karst-related concerns during construction, was developed using maps of known or suspected karst areas, and field investigations completed to-date. The HDD Drilling Plan for Karst Terrain establishes operational procedures and responsibilities for the prevention, containment, and clean-up of inadvertent returns of drilling muds and losses associated with HDD through karst areas. Further, we note that PennEast continues to complete additional geophysical investigations as landowner access becomes available, and will incorporate the findings into an updated Karst Mitigation Plan. The final updated plan will enable PennEast to finalize its HDD design based on a detailed understanding of the subsurface conditions, and more precisely identify locations where the approved mitigation procedures will be implemented. Accordingly, Environmental Condition 16 requires PennEast to file for approval a final Karst Mitigation Plan prior to construction, which includes the results of all outstanding field investigations, as well as requirements of the Pennsylvania Department of Environmental Protection (PADEP), New Jersey Department of Environmental Protection (NJDEP) and local planning commissions. Based on staff's review of the Karst Mitigation Plan, the HDD Drilling Plan for Karst Terrain, and compliance with Environmental Condition 16, we agree with the final EIS's conclusion that PennEast will adequately minimize impacts in geologically sensitive areas.¹³²

¹³⁰ *Id.* at 4-5.

¹³¹ *Id.* at 4-10.

¹³² *See* final EIS at ES-5.

Regarding the risk of scour, PennEast's HDD of the Delaware River will drill underneath the river's flood plain, with the HDD entry/exit point on the New Jersey side of the river approximately 1,100 feet east of the river's edge, outside of the flood zone and below the potential scour depth. The segment of pipeline installed by HDD will be considerably deeper than sections of pipeline installed by standard trenching and will be below the potential scour depths. Thus, scour from flooding on the Delaware River will not affect the pipeline.

107. Several commenters expressed concern that the final EIS contains an inadequate analysis of the potential for construction and operation of the project to contribute to arsenic contamination of groundwater and the release of radioactivity. Comments were filed from stakeholders, including a letter from Congressman Brian Fitzpatrick on behalf of Bucks County, Pennsylvania, from Dr. Tullis Onstott from the Princeton University Department of Geosciences, Dr. Julia Barringer, a retired U.S. Geologic Survey research geochemist, and from the Township of Kingwood, New Jersey, regarding the potential risk of arsenic contamination of groundwater. Drs. Onstott and Barringer contend that the final EIS fails to address the potential for the project to increase arsenic mobility, as well as the release of radioactivity. Drs. Onstott and Barringer also comment that the pipeline has the potential to cause boron contamination of the Lambertville, New Jersey drinking water supply reservoir, and further state that cathodic protection on the pipeline has the potential to "promote the growth of microbes that stimulate arsenic" while a potential methane leak would input carbon into the soil, which could serve to stimulate microbial activity, which in turn could stimulate arsenic.¹³³ Further, Drs. Barringer and Onstott state that the final EIS fails to fully analyze the potential release of arsenic to local streams from HDDs. In addition, several comments were filed stating that the final EIS does not sufficiently address the risk of uranium and uranium decay product radionuclides potentially being released by blasting of Newark Basin sedimentary bedrock.

108. PennEast conducted a laboratory arsenic mobilization study, leaching experiments, and dilution modeling to determine if trench excavation and the use of HDDs will oxidize, release, and mobilize naturally occurring arsenic and potentially increase arsenic exposure to nearby groundwater users and/or ecological receptors within waterbodies. The results of the laboratory study demonstrate that broken fragments of naturally occurring arsenic-enriched rock generated during trenching activities and subsequently returned as backfill, would not result in an increased risk of arsenic mobilization in groundwater; that drilling mud would not become contaminated with particles of naturally occurring arsenic enriched rock; and that concentrations of arsenic in groundwater will be below the EPA maximum contaminant level (MCL) of 10 micrograms per liter (ug/L) for public water supplies and the New Jersey MCL of

¹³³ See Comments of Drs. Julia Barringer and Tullis Onstott, filed May 5, 2017 in Docket No. CP15-558-000.

5 micrograms per liter (µg/L) for both public and private water supplies. Regarding comments on the project's ability to contaminate Lambertville's water supply from boron, the EIS found that the pipeline alignment does not cross any stream that provides water to Lambertville's water supply and the Lambertville reservoir is located up-gradient of the planned PennEast pipeline.

109. As discussed in the final EIS, Drs. Onstott and Barringers' comments regarding the chemical mechanisms that could mobilize arsenic and other analytes during construction and operation were found to be speculative, based upon misapplication of physical principles, containing misinformation about pipeline corrosion and corrosion prevention systems, and not supported by empirical data for construction and operation of natural gas pipelines. Further, the final EIS found that radionuclides present in groundwater and household air are "absolutely not specific" to Newark Basin sedimentary bedrock (Stockton, Lockatong, and Passaic formations), and that human exposure issues related to radionuclides are not likely to play a role in the construction and operation of natural gas pipelines. Regarding the potential for methane leaks to increase arsenic mobility, PennEast has committed to several specific measures to reduce the risk of methane leaks, which would in turn further reduce the risk of increased arsenic mobility.¹³⁴

110. PennEast has prepared a Well Monitoring Plan and proposes to conduct groundwater quality testing of potentially affected wells prior to construction. This will provide a baseline to determine whether any arsenic increases in groundwater occur after the pipeline is installed. In the unlikely event that construction results in any arsenic impacts on a water-supply well, PennEast will provide a treatment system to remove arsenic from the drinking water at individual properties or find an alternative water source.

111. In its September 20, 2016 comments on the DEIS, the United States Department of the Interior (DOI) expressed concern regarding the potential for arsenic mobilization, and the potential for arsenic contamination of individual wells, drinking water, and groundwater. To address these concerns, we require in Environmental Condition 23 that PennEast revise and file for review and approval its above-described Well Monitoring Plan to incorporate the well sampling quality assurance/quality control elements suggested by the DOI into its well sampling protocol and to include provisions for treatment for groundwater users impacted by increased arsenic levels, as well as provisions for monitoring and maintaining such treatment systems.

112. In comments on the final EIS, Lorraine Crown of Holland Township expressed concern regarding Route Deviation 1710, which she claims would lead to an increased risk of landslides on Gravel Hill. The final EIS' conclusion that that landslide incidences are low in New Jersey is based on PennEast's Phase I Terrain Mapping and Geohazard

¹³⁴ *Id.* at 4-250.

Risk Evaluation, which included the review of federal, state and local geographic information system data, published maps, available print and digitized terrain data, and site-specific data collected by PennEast. The final EIS notes that while generalized data from the United States Geological Survey indicates that there is a low risk of landslide potential for the New Jersey portion of the project, several locations in New Jersey have recorded landslides in close proximity to the proposed pipeline.¹³⁵ This includes the area near steep slopes 75 and 76 near route deviation 1710 as identified in Phase 1 of PennEast's Terrain Mapping and Geohazard Risk Evaluation Report. PennEast identified these as areas where it will conduct further field investigation and analysis. We require in Environmental Condition 15 that, prior to construction, PennEast shall file results of the outstanding site-specific Phase 2 and 3 portions of the Geohazard Risk Evaluation Report, which will include a final landslide hazard inventory. The finalized report will also include any specific measures and locations where PennEast will implement specialized pipeline design to mitigate for potential soil stability or landslide hazards; and include a post-construction monitoring plan.

113. In comments on the final EIS, the NJDEP submitted a letter referencing previous comments by the New Jersey Geological and Water Survey (NJGWS) which indicate that there are important paleontological sites that are significantly closer than 0.25 mile to the proposed route. The NJDEP requests that PennEast consult with Dr. William Gallagher and provide him with the proposed project route alignment shape files as over 90 percent of the route crosses rock formations within the Newark Basin.

114. PennEast provided the NJGWS with updated mapping of the proposed pipeline route in relation to sites identified as significant paleontological locations containing trace Triassic-age fossils and various casts, including footprints. After analyzing the NJDEP comments on the final EIS, we determined there is potential for fossilized vertebrate footprints to be affected by construction of the project through Newark Basin sedimentary bedrock. Therefore, we have included a new condition to address potential discovery of paleontological resources during project construction. Environmental Condition 20 requires that PennEast prepare an unanticipated discovery plan for paleontological resources in coordination with the NJGWS and Dr. William Gallagher. The plan shall be focused on areas where bedrock would have allowed preservation of any significant paleontological resource. We believe that Environmental Condition 20 sufficiently addresses NJDEP's concerns and that any adverse impacts on significant paleontological resources will be appropriately mitigated.

¹³⁵ *Id.* at 4-7.

b. Soils

115. The project will cross numerous soil types, which may be affected by pipeline construction activities, such as clearing, grading, trench excavation, backfilling, and the movement of construction equipment along the right-of-way.

116. In comments on the final EIS, Emma A. Switzler discusses the potential for soil compaction from an HDD work space proposed on her property. PennEast identified certain measures which will be implemented to reduce the potential for soil compaction, including regular testing of topsoil and subsoil for compaction. PennEast indicated that it would avoid construction during periods of high soil saturation in order to minimize the risk of soil compaction. Severely compacted topsoil will be plowed or a green manure such as alfalfa will be planted and plowed to decrease bulk density and improve soil structure.¹³⁶ Given these measures and PennEast's adherence to the Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan), which includes specific measures designed to mitigate for soil compaction, the final EIS finds that the project activities will not result in significant adverse soil structural damage or compaction.¹³⁷

117. As stated in the final EIS, implementation of PennEast's *Erosion and Sediment Control Plan* (E&SCP), FERC's Plan and FERC's *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures), and other project-specific plans, will adequately avoid, minimize, or mitigate construction impacts on soil resources. Permanent impacts on soils will mainly occur at the aboveground facilities where the sites will be converted to industrial use. Based on the final EIS, we conclude that potential impacts on soils will be avoided or effectively minimized or mitigated.

c. Water Resources

118. The project will cross 269 waterbodies.¹³⁸ Approximately 74 percent of these waterbodies are classified as minor, 22 percent as intermediate, and 3 percent classified as major. Numerous commenters expressed concern regarding the potential effects of the construction and operation of the project on state designated streams, with a particular emphasis on locations where HDD crossing would occur. The final EIS states that while minor impacts on waterbodies may occur during construction, with the implementation of PennEast's planned, and the Commission's required mitigation plans, no long-term effects on surface waters are anticipated. In addition, PennEast will comply with state regulations regarding riparian buffers. Finally, PennEast will comply with regulatory

¹³⁶ *Id.* at 4-28.

¹³⁷ *Id.* at 4-21 to 4-22.

¹³⁸ *Id.* at 4-45 (table 4.3.2-1).

permit conditions that address scour and sedimentation, flooding, or the introduction of foreign or toxic substances into the aquatic system. Accidental spills and leaks during construction and operations will be prevented or adequately minimized through implementation of PennEast's *Spill Prevention Control and Countermeasure Plan*.

119. Several comments addressed potential impacts on state-designated waterbodies. Appendices G-7 through G-9 of the final EIS provide state classifications for individual waterbody crossings in Pennsylvania and New Jersey by milepost. The final EIS analyzes construction impacts on waterbodies, and determines that the mitigation measures identified in our Procedures will adequately minimize impacts on Pennsylvania and New Jersey state-designated waters, including High Quality, Exceptional Value and Category 1 waters.¹³⁹ Generally, PennEast will minimize impacts on state-designated waterbodies and associated riparian zones by locating temporary workspace in actively disturbed areas with a vegetation buffer between the workspace and the riparian zone. Where the riparian zone cannot be avoided entirely, PennEast will reduce the workspace to 75 feet in width and relocate additional temporary workspaces upslope, or into actively disturbed areas, to the extent practicable. For dry-crossings, the workspace through the waterbody will be reduced to 60 feet in width and the workspace outside the waterbody will have a total width of 75 feet on both sides of the waterbody until actively disturbed areas are encountered. Where site constraints are favorable, PennEast will use the HDD method, which will not require tree clearing or workspace adjacent to the waterbody, to directly avoid impacts within the waterbody. PennEast has committed to preparing site-specific plans prior to construction for each waterbody to be crossed via HDD. These site-specific HDD Plans would include a description of the HDD work site, justification of the work space required, cleanup plans in the event of the inadvertent release of drilling mud, as well as a contingency plan in the event the HDD is unsuccessful.¹⁴⁰

120. In comments on the final EIS, West Amwell Township, New Jersey, expresses concern regarding the crossing of Alexauken Creek, including the feasibility of and dangers associated with using the HDD crossing method; potential temperature and sedimentation impacts; and PennEast's plans for hydrostatic testing. The majority of the HDD crossings have had some geotechnical work performed, and staff reviewed this data along with PennEast's HDD Inadvertent Returns and Contingency Plan and HDD profiles. We require in Environmental Condition 19 that PennEast file the final design plans for each HDD crossing for review and approval. The final design plan will include the results for all geotechnical borings conducted at each HDD crossing (lithology, standard penetration testing and bedrock quality designation), and a HDD feasibility assessment based on the soil boring results, including an assessment of the risk for hydrofracturing and inadvertent return of drilling fluids at each crossing. Completion of

¹³⁹ See final EIS at 4-49.

¹⁴⁰ *Id.* at 4-62.

all geotechnical borings for each specific crossing will allow for a comprehensive HDD feasibility and hydrofracture/inadvertent return analysis that staff will review to ensure PennEast has adequately minimized environmental risks in the final design of the HDD.

121. Further, as indicated above and in the final EIS, PennEast will prepare a detailed plan for each waterbody that will be crossed via HDD that includes site-specific construction diagrams of work areas; identification of any aboveground disturbance or clearing between the HDD entry and exit; and a contingency plan for crossing the waterbody or wetland in the event the HDD is unsuccessful. PennEast's HDD crossing of the Alexauken Creek will avoid any in-stream disturbance and any direct impact to the riparian areas between the drilling entry and exit sites, thus minimizing any potential for sedimentation or temperature changes. In the unlikely event that PennEast is required to cross this waterbody using an alternative crossing method, Commission staff must review and approve the plans to verify appropriate mitigation measures will be implemented to minimize sedimentation. Furthermore, PennEast's Erosion and Sedimentation Control Plan requires site-specific plans to mitigate sedimentation.

122. We reviewed the hydrostatic test water source and discharge locations provided by PennEast. However, during exceptional dry periods when low flow conditions may be encountered, PennEast will assess if alternative sources would be necessary. Thus, Environmental Condition 28 requires that PennEast file its final hydrostatic test plan identifying the final hydrostatic test water sources and discharge locations and provide documentation that it has obtained all necessary permits and approvals for withdrawal from each source prior to construction. PennEast has indicated that its hydrostatic testing program will comply with state- and Delaware River Basin Commission-issued water withdrawal and National Pollutant Discharge Elimination System permits.

123. Several comments were received regarding potential impacts on groundwater supplies, specifically supplies from private wells and community aquifers. The final EIS evaluates potential impacts on groundwater resources, and because PennEast has not yet completed surveys for water supply wells along the entire project, includes a recommendation that PennEast complete all necessary surveys for water supply wells and groundwater seeps and springs, identify public and private water supply wells within the construction workspace, and file a revised list of wells, seeps, and springs within 150 feet of any construction workspace (500 feet in areas characterized by karst terrain).¹⁴¹ We incorporate this requirement as Environmental Condition 21 in Appendix A.

124. Although the precise locations of all water supply wells have not yet been determined, the avoidance and mitigation measures that will be implemented are evaluated in the EIS. The final EIS determines that no significant impacts to groundwater resources are anticipated from the construction or operation of the project.

¹⁴¹ *Id.* at 4-38.

Installation of the pipeline would include digging a trench approximately 7-10 feet deep, which would have minor impacts on surficial aquifers, and not impact deeper bedrock or sole-source aquifers, including their discharge and recharge patterns.¹⁴² In addition PennEast reviewed publicly available information regarding wellhead protection areas to formulate alternatives and has committed to several mitigation measures in order to further reduce the potential for impacts to wellhead protection areas, including prohibition of certain activities and material storage in proximity to these areas, and consultation with the appropriate wellhead protection authorities.¹⁴³

125. Several comments were received regarding PennEast's Well Monitoring Plan. The final EIS concludes that the current Well Monitoring Plan contains acceptable measures. As part of its initial Well Monitoring Plan, PennEast commits to conduct pre- and post-construction monitoring for water quality and yield for private and public wells within 150 feet of the proposed construction workspace (500 feet in areas of karst terrain), with the well owner's permission.¹⁴⁴ However, the final EIS recommends additional information regarding DOI's comments on PennEast's initial Well Monitoring Plan, and landowner comments on the draft EIS. Therefore, as is discussed above, we require in Environmental Condition 23 that PennEast file a revised Well Monitoring Plan. The revised plan will provide responses to address the DOI's comments on the draft plan; include an analysis and mitigation for radon, radium 226, and radium 228; and provide more information regarding the types of treatment systems used, including provisions for monitoring and maintenance of any treatment systems PennEast provides.

126. Several commenters raised concerns regarding impacts to the Swan Creek Upper Reservoir, which is the primary source of drinking water for the City of Lambertville. As discussed in the final EIS, the Swan Creek Upper Reservoir is located approximately 400 feet east of the proposed pipeline route, with the water supply intake structure located upstream of the pipeline. Due to the downstream location of the proposed pipeline crossing, water quality of the active reservoir will not be adversely affected. Blasting is not anticipated near the Swan Creek Reservoir; however, geotechnical evaluations are ongoing.¹⁴⁵ Therefore, we require in Environmental Condition 25 that PennEast provide the results of investigations regarding any anticipated blasting near the Swan Creek Reservoir prior to construction.

127. In comments on the final EIS, the EPA recommends that PennEast consult with state drinking water authorities to ensure state-defined source water protection areas are

¹⁴² *Id.* at 4-42 – 4-43.

¹⁴³ *See* final EIS at 4-37.

¹⁴⁴ *See* final EIS at 4-38.

¹⁴⁵ *See* final EIS at 4-52.

not crossed by the project. PennEast and Commission staff consulted with federal, state and regional entities to identify source water protection areas to be crossed by the project. As noted above, PennEast has proposed several mitigation measures to prevent impacts to wellhead protection areas that staff determined will adequately address potential impacts. In addition, the final EIS responds to concerns about blasting impacts on an existing water transmission tunnel managed by the Bethlehem Authority. The pipeline will be installed substantially above the location of the tunnel, with about 480 feet of clearance at the point where it first crosses the tunnel, and about 75 feet of clearance at the second crossing. Environmental Condition 44 requires that PennEast file additional information on the crossing, including a site-specific crossing plan and details regarding potential blasting within 2,000 feet of the water tunnel, and documentation of working meetings with water authority to ensure its concerns are adequately addressed, prior to construction.

128. Several commenters, including the USACE, PADEP, and the New Jersey Highlands Water Protection and Planning Council, commented on the final EIS and PennEast's PADEP/USACE Joint Permit Application, stating that more surveys needed to be completed before the applications could be processed, and the true environmental impacts could be assessed. On April 25, 2017, the PADEP filed a letter concerning the same application. The PADEP and USACE state that the application was incomplete due to lack of survey access. On April 26 and 28, 2017, the NJDEP commented on the final EIS and PennEast's freshwater wetlands individual permit application, stating that PennEast's application was determined administratively deficient, and that until an application is determined by the NJDEP to be complete, it is not possible to issue the permit or to determine a proposed permit issuance date.

129. As previously noted, we are aware that remaining field surveys need to be completed prior to construction. For areas where PennEast was unable to complete field surveys, remote-sensing resources were used to approximate the locations and boundaries of wetlands and waterbodies within the project area. Remote-sensing delineations were conducted using a combination of high-resolution aerial photographic imagery, National Wetland Inventory data, National Hydrography Dataset data, hydric soil data maintained by the Natural Resources Conservation Service, floodplain and flood elevations maintained by the Federal Emergency Management Agency, watershed data from the USGS, and field survey results on adjacent land parcels where access could be obtained. Once surveys are completed following issuance of this order, PennEast will submit any outstanding survey information to the USACE, PADEP, and NJDEP to enable the final processing of its permit applications. Further, we require in Environmental Condition 10 that no construction will be allowed to commence until PennEast provides documentation that it has received all applicable authorizations required under federal law.

130. Sondra Wolferman filed comments on the final EIS regarding the potential impact to waterways and wetlands within Beltzville State park that could occur if inadvertent releases of HDD drilling muds were to occur. PennEast will be required to describe, in

the site specific plan for Beltzville State Park and Reservoir, how an inadvertent release of drilling mud will be contained and cleaned up.¹⁴⁶ In the unlikely event of any release of drilling muds, including any occurring in or near the Beltzville State Park, PennEast will implement the mitigation measures in its HDD Inadvertent Returns and Contingency Plan.¹⁴⁷

131. Based on the foregoing, and on PennEast's proposed and the Commission's required prevention and mitigation measures, we agree with the final EIS's conclusion that the construction and operation of the PennEast project will not have adverse long-term impacts on waterbodies, including surface water and groundwater resources.

d. Wetlands

132. Construction of the project will temporarily impact approximately 36 acres of wetlands (20 acres in Pennsylvania and 16 acres in New Jersey) and permanently impact about 20 acres of wetlands (12 acres in Pennsylvania and 8 acres in New Jersey). Construction impacts include 17.3 acres of forested wetlands, 3.0 acres of scrub-shrub wetlands, 6.6 acres of emergent wetlands, 0.2 acre of vernal pools, and 8.8 acres of modified agricultural wetlands.¹⁴⁸ With the exception of 0.01 acre of palustrine emergent wetland, no permanent fills or loss of wetlands will result from the construction or operation of the project.

133. As described in the final EIS, construction activities at wetland crossings will be performed in accordance with applicable regulatory requirements, PennEast's E&SCP, and FERC's Plan and Procedures. PennEast is currently developing project-specific mitigation measures in consultation with the USACE and state agencies.

134. PennEast will also conduct routine wetland monitoring of all wetlands affected by construction until revegetation is successful. Once wetland delineations are completed and available, we require in Environmental Condition 30 that PennEast file with the Commission its wetland delineation report as submitted to the USACE and applicable state agencies. As described above, the EIS utilized remote-sensing surveys to analyze wetlands for areas where access was denied. Completion of the wetland delineations will allow for a more precise determination of wetland boundaries in order for PennEast to accurately apply wetland construction and restoration methods in the appropriate locations.

¹⁴⁶ See final EIS at 2-12.

¹⁴⁷ See final EIS at 4-14.

¹⁴⁸ See final EIS at 4-81 (table 4.4.2-1).

135. In its comments on the final EIS, the EPA recommends that PennEast develop a compensatory mitigation plan for waterbodies and wetlands to include appropriate success criteria, compensation for exceptional value resources, and consideration of temporal loss. PennEast has agreed to provide offsite compensatory mitigation in accordance with agency-approved compensatory wetland mitigation plans. As mitigation design progresses, further coordination with USACE, PADEP, and the NJDEP Mitigation Unit will be required to incorporate site-specific design features and/or modifications, as applicable. Accordingly, we require in Environmental Condition 32 that PennEast file a final project-specific Wetland Restoration Plan developed in consultation with the USACE and applicable state agencies in Pennsylvania and New Jersey.

136. With implementation of the acceptable avoidance and minimization measures, as well as the environmental conditions in Appendix A of this order, we agree with the final EIS's conclusion that impacts on wetland resources, including exceptional value wetlands, will be appropriately mitigated and reduced to less than significant levels.¹⁴⁹

e. Vegetation, Forested Land, and Wildlife

137. The project area currently supports a diverse array of wildlife species, including wildlife adapted to natural forested and open habitat types, as well as disturbed habitats such as residential, industrial, and agricultural areas. Forested areas will be the most common habitat type affected by the project (consisting of approximately 37 percent of the project's impacts), followed by agricultural areas, residential/industrial/commercial areas, open lands, and open water habitats. The project will affect vegetation communities of special concern, including ephemeral/fluctuating natural pools, herbaceous vernal ponds, Leatherleaf – Cranberry bog shrubland, Pitch pine – rhodora – scrub oak woodland, and red spruce palustrine woodland. To avoid and minimize effects on interior forest habitat, PennEast routed the pipeline adjacent to existing rights-of-way when possible, with 44.5 miles of the pipeline collocated with existing right-of-ways.¹⁵⁰ The project will affect 220.6 acres of interior forest during construction and 63.6 acres during operation.¹⁵¹ Additionally, the project will have an indirect impact (through edge effects, potentially resulting in avoidance of habitats or decreased habitat quality) on 1,725 acres of interior forest.¹⁵²

¹⁴⁹ See final EIS at 5-7.

¹⁵⁰ See final EIS at 4-101.

¹⁵¹ See final EIS at 4-90 (table 4.5.1-2).

¹⁵² See final EIS at 4-90 (table 4.5.1-2).

138. In response to the final EIS, West Amwell Township discusses the Goat Hill Natural Heritage Priority site. West Amwell Township notes in its comments that PennEast has repeatedly and erroneously understated the impacts on the Goat Hill Natural Heritage Priority site, and misidentified its location. PennEast believed the priority site was strictly contained in the park near George Washington Road, but it has been demonstrated that in fact the Goat Hill Priority Site encompasses the entire hill (as West Amwell Township indicated in a map submitted to FERC showing the Priority Site Delineation, and where PennEast will be impacting it). The final EIS acknowledges the biological importance of Goat Hill and Gravel Hill,¹⁵³ and the potential for the area to contain sensitive biological resources. As identified in the final EIS, and based on consultations with the NJDEP, the Goat Hill Priority Site may contain several vegetative communities of special concern and is known to support three state endangered plant species. Though state-required mitigation measures have not been determined for state listed plant species, the EIS identifies procedures that have been successfully implemented for rare plants by similar projects, including flagging/fencing the plant or population to facilitate avoidance during construction, minor alignment shifts to avoid larger populations, topsoil segregation, and relocation of individual plants and/or collection of seeds for cold storage/stockpiling and replanting at a later date. These measures also typically include monitoring to ensure that they are successful. PennEast will adhere to the recommendations and requirements of NJDEP-Division of Fish and Wildlife in order to avoid or minimize impacts on these species, including completing all necessary surveys for state species.¹⁵⁴

139. The Goat Hill Priority Site is located in the Sourland Mountain region. The final EIS evaluated route alternatives in the Sourland Mountain area and determined that the proposed route will have less environmental impacts than the alternative routes. In addition, the pipeline will be collocated with an existing utility line in this area, further minimizing impacts. In addressing visual impacts, the pipeline will cross Sourland Mountain region for about 0.75 mile to the east of Goat Hill Overlook. The pipeline will be separated from the overlook by about 0.75 mile of mature forest and therefore will have minimal visual impact in this area. Once surveys are completed, PennEast will file its survey findings and documentation of consultations/permits required and Commission staff will review and verify that the new biological information does not alter the EIS conclusions.¹⁵⁵

140. In comments on the final EIS, the EPA recommends that PennEast develop a revegetation plan for nature preserves and parklands and that PennEast plant larger plant stocks (as opposed to seedlings). Areas temporarily disturbed during construction will be

¹⁵³ See Appendix M of the final EIS at M-266.

¹⁵⁴ See final EIS at 4-139.

¹⁵⁵ See Appendix M of the final EIS at M-266.

reseeded in accordance with our Plan and Procedures, as well as any recommendations made by the local soil conservation district or land managing agency/individual. In accordance with PennEast's E&SCP, PennEast will implement and monitor revegetation efforts to ensure successful post-construction revegetation as outlined in our Plan and Procedures. The seed mixes used for reseeding will be selected based on consultation with local soil conservation districts, or appropriate land management agencies. Therefore, we find that recommending revegetation plans and additional measures regarding revegetation are not warranted.

141. In comments on the final EIS, the NJDEP comments that the project is subject to the New Jersey No Net Loss Compensatory Reforestation Act (NNLRA) and recommends that the Commission require compensatory mitigation for impacts on forested areas. To mitigate impacts on forested areas, the final EIS states that PennEast will assess the purchase and permanent conservation of forested lands in key watersheds and reforest areas within the same municipality in which the impact occurs; or develop mitigation measures for restoring areas of temporary project impacts in New Jersey. Compensation will be determined based on final project acreage impacts and grid method assessment techniques consistent with the NNLRA requirements.¹⁵⁶

142. We received comments concerning construction impacts on forest disease, as well as concern with noxious weeds invading revegetation efforts. The final EIS addresses these issues and concludes that with implementation of the measures in the E&SCP and our Plan, the measures will minimize forest disease spread and deter noxious weeds from occurring/spreading. However, further mitigation measures are needed to address invasive species. Based on staff's analysis of the proposed project route, invasive species were observed in areas that were surveyed along the pipeline. An Invasive Species Management Plan has yet to be developed by PennEast. Therefore, we support the recommendation in the final EIS and require in Environmental Condition 33 that, prior to construction, PennEast file complete results of its noxious weed surveys and a final Invasive Species Management Plan for review and approval that includes measures PennEast will implement during construction and operation to minimize invasive and noxious species from occurring on the right-of-way.

143. Impacts will be short-term in non-forested areas, and it is expected that these non-forested areas will, with implementation of PennEast's E&SCP and the Commission's Plans and Procedures, be successfully restored within three years following construction.¹⁵⁷ However, all impacts on forested habitats will be considered long-term because of the time required to restore woody vegetation to preconstruction

¹⁵⁶ See final EIS at 4-91.

¹⁵⁷ See final EIS at 4-89.

conditions (i.e., more than 30 years, and possibly hundreds of years for some forested areas).¹⁵⁸

144. Regarding wildlife, PennEast will implement restrictions on the timing and location of construction, based on the requirements of local and state wildlife agencies, in order to mitigate impacts on wildlife and their habitat. Further, PennEast will prepare a Migratory Bird Conservation Plan, and implement the U.S. Fish and Wildlife Service's (FWS) recommended measures, to protect bald eagles and comply with the Migratory Bird Treaty Act. We require in Environmental Condition 34 that PennEast file a migratory Bird Conservation Plan developed in consultation with the FWS.

145. Based on the analysis in the final EIS, and PennEast's proposed and the Commission's required mitigation measures, we have determined that the project will not significantly impact vegetation, forested land or wildlife.

f. Threatened, Endangered, and Other Special Status Species

146. Based on input from the FWS, the final EIS identified eight federally-listed species that potentially occur in the project area: the Indiana bat, northern long-eared bat, bog turtle, dwarf wedge mussel, rusty patched bumble bee, northeastern bulrush, Atlantic sturgeon, and Shortnose sturgeon.¹⁵⁹ The final EIS concludes that the project may affect and is likely to adversely affect the northern long-eared bat, Indiana bat, bog turtle, and northeastern bulrush, while it may affect but is not likely to adversely affect the dwarf wedge mussel.¹⁶⁰ The final EIS found that the Atlantic sturgeon and the Shortnose sturgeon, while found downstream of the project, do not occur in the project area and will not be affected. The final EIS concludes that the project may affect and is likely to adversely affect the rusty patched bumble bee; however, based on information made available by the FWS since issuance of the final EIS,¹⁶¹ Commission staff has changed the determination for this species, finding that the project would not affect the rusty patched bumble bee. Complete surveys of all potentially suitable habitat within the project area have yet to be completed, due to lack of access granted by affected landowners. In accordance with section 7 of the Endangered Species Act, Commission staff prepared a Biological Assessment to support formal consultation with the FWS for

¹⁵⁸ See final EIS at 4-89.

¹⁵⁹ Final EIS at 4-109 (table 4.6-1).

¹⁶⁰ *Id.*

¹⁶¹ Notes from April 24, 2017 teleconference between FWS, Pennsylvania Field Office, and PennEast, as provided to Commission staff by the FWS via email on May 22, 2017.

the northern long-eared bat, Indiana bat, bog turtle, and northeastern bulrush. The Biological Assessment was submitted to the FWS on July 14, 2017.

147. On November 29, 2017, the FWS provided its biological opinion (BO) for the project, along with its recommended conservation measures. The FWS has determined that the project is not likely to adversely affect the dwarf wedge mussel, Indiana bat, and the northeastern bulrush. In addition, the FWS stated that the project, as proposed, is not likely to jeopardize the continued existence of the bog turtle or northern long-eared bat. Accordingly, after receiving the FWS' BO, we are not including the final EIS's Environmental Conditions 33, 34, and 36 through 41 (which are obviated by the BO) in this order, and are adding to this order a new Environmental Condition 36, which requires that PennEast adopt the recommended measures in FWS' BO into its project-specific implementation plan. These include implementing reasonable and prudent measures, adopting terms and conditions for the bog turtle; avoidance measures for bulrush; and adopting monitoring and reporting requirements; consulting with the FWS regarding conservation recommendations for the bog turtle and the northern long-eared bat; and providing FWS with all remaining survey results for FWS comment. With implementation of these measures we conclude our consultation with the FWS under section 7 of the Endangered Species Act for the bog turtle, Indiana bat, northern long-eared bat, and northeastern bulrush.

148. Based on input from state wildlife management agencies, the EIS identified 24 state listed species that could potentially occur in the project area.¹⁶² PennEast has stated that it will adhere to the recommendations and requirements of the respective state agencies with jurisdiction over state listed species and state species of concern (including the Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission, Pennsylvania Department of Conservation and Natural Resources (PADCNR), and NJDEP-Division of Fish and Wildlife) in order to avoid or minimize impacts on these species, including completing all necessary surveys for state species. PennEast has indicated that ongoing permit review by Pennsylvania and New Jersey wildlife agencies may result in the identification of additional avoidance, minimization, or mitigation measures that will be attached as permit conditions from respective state agencies with jurisdiction over state listed species and state species of concern. As recommended in the final EIS, we require in Environmental Condition 39 that prior to construction, PennEast file a comprehensive list of measures developed in consultation with applicable state wildlife agencies to avoid or mitigate impacts on state-listed species and state species of concern. Commission staff will review these measures prior to construction to verify consistency with the Commission's order.

149. Comments were received from several individuals regarding potential impacts on bird species, including bald eagles and peregrine falcons. The final EIS recommends that PennEast develop a Migratory Bird Conservation Plan and implement measures

¹⁶² Table 4.6-2 in the final EIS features a complete listing of all state listed species.

recommended by the FWS to protect bald eagles in order to comply with the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act. As a result, we require in Environmental Condition 34 that PennEast file a Migratory Bird Conservation Plan developed in consultation with the FWS. In addition, PennEast has committed to following the FWS' recommendations for implementation of adaptive management practices to minimize impacts on migratory birds during construction and operation of the project, as well as adhering to a more restrictive window (September 11 to March 14) for vegetation maintenance activities.¹⁶³

150. After the close of the draft EIS comment period, comments were filed on behalf of Dr. Ned Heindel, Dr. Linda Heindel, and the Linda Heindel Living Trust concerning potentially occurring threatened and endangered species on their property, including species within vernal pools. As stated above, we acknowledge that not all surveys for threatened and endangered species have been completed due to lack of survey access. To address sensitive vernal pools that may be crossed, we require in Environmental Condition 31 that PennEast survey all areas mapped as being potential vernal pool habitat and identify if any vernal pool habitat will be affected by project construction and/or operation. Such survey shall be submitted for review. Based on current information, the final EIS identifies less than 0.3 acre of vernal pool habitat that will be impacted by construction, with about 0.1 acre permanently impacted during operation. Should additional vernal habitats be discovered in supplemental surveys, PennEast will implement a time of year restriction if vernal habitats cannot be avoided. This time of year restriction would be observed during the key breeding period (i.e., March through June) for obligate and facultative amphibian species. All disturbed areas would be restored to pre-construction conditions following pipeline installation. Based on the mitigation measures and completion of remaining surveys, the EIS concludes that impacts on vernal pools would be effectively minimized or mitigated.¹⁶⁴

151. In comments on the final EIS, Sondra Wolferman states that the Habitat Mitigation Plan discussed in the final EIS is insufficient to protect the northern flying squirrel, a Pennsylvania-listed endangered species, and suggests additions to the Habitat Mitigation Plan for the species in Hickory Run State Park. In general, PennEast has stated that it will adhere to the recommendations and requirements of the respective state agencies with jurisdiction over state-listed species and state species of concern. Pennsylvania Game Commission requires a northern flying squirrel mitigation plan related to the species' loss of habitat as a result of the project. PennEast has not yet developed this plan, but has committed to working with the state agencies to develop an

¹⁶³ See final EIS at 4-104 to 4-105.

¹⁶⁴ See final EIS at 5-7.

adequate plan.¹⁶⁵ We are confident that the Habitat Mitigation Plan developed with Pennsylvania Game Commission will be sufficient to protect the northern flying squirrel.

152. In comments on the final EIS, NJDEP notes two discrepancies in tables 4.3.3-1 and G-13 of the final EIS. NJDEP notes that channel catfish (*Ictalurus punctatus*) and northern pike (*Esox lucius*) are listed in table 4.3.3 - twice. Both species are representative fish species in waterbodies crossed by the project in Pennsylvania and New Jersey, therefore they are listed twice. NJDEP also notes that Atlantic sturgeon (*Acipenser oxyrinchus*) is noted as “Not Listed” for Federal Status in table G-13. The Federal Status of this species is correctly identified in table 4.6-1 of the final EIS. There are four distinct population segments (DPS) of the Atlantic sturgeon that are listed as endangered: the New York Bight DPS, the Chesapeake Bay DPS, the Carolina DPS, and the South Atlantic DPS; the Gulf of Maine DPS is listed as threatened. None of these DPS occur within the project area, but the New York Bight DPS could occur downstream of the project area.¹⁶⁶ The final EIS concludes that there will be no effect on the Atlantic sturgeon, given that its known occurrence is at least 20 miles downstream of the Delaware River crossing, which will be avoided via HDD. We concur.

153. Based on implementation of these measures and the environmental conditions in Appendix A of this order, we agree with the final EIS’s conclusion that impacts on special-status species will be adequately avoided or minimized.

g. Land Use, Recreation, and Visual Resources

154. Construction of the project will impact about 1,588 acres. About 61 percent of this acreage will be utilized for the pipeline facilities, including the construction right-of-way and additional temporary work space. The remaining acreage affected during construction will be associated with aboveground facilities (4 percent), pipe and contractor ware yards (25 percent), and access roads (9 percent).¹⁶⁷ During operation, the new permanent pipeline right-of-way, aboveground facilities, and permanent access roads will impact 788 acres.¹⁶⁸ Land uses impacted by the project will include forest, agriculture, open land, residential, industrial/commercial, and some open water. About 37 percent of the pipeline will be collocated with existing rights-of-way. We agree with the final EIS’s conclusion that, with adherence to PennEast’s proposed impact avoidance, minimization, and mitigation plans, and implementation of the environmental conditions

¹⁶⁵ See final EIS at 4-127 to 4-128.

¹⁶⁶ See final EIS at (table 4.6-1).

¹⁶⁷ Due to rounding error, percentages do not add up to 100.

¹⁶⁸ See final EIS at 4-140.

in Appendix A of this order, the overall impacts on land use will be adequately minimized.

155. Several comments were received regarding the use of public and private roads as access roads, including driveways and the historic “Stymiest Road.” The final EIS lists the access roads proposed for use for the project, whether their use is temporary or permanent, and considers these impacts. PennEast is committed to maintaining access for landowners to residences, driveways, fields, and other agricultural facilities during construction to the extent possible.¹⁶⁹ PennEast continues to communicate at the state, county, local, and private level in its effort to minimize impacts on access roads, and discuss potential post-construction restoration, and PennEast has stated it would repair any damage to public or private roadways resulting from construction. All temporary access roads used for construction will be restored in accordance with the provisions in PennEast’s ECS&P, our Plan, and landowner agreements after construction. In addition, PennEast will determine current average daily transit and evaluate current conditions to finalize its Residential Access and Traffic Management Plan. To further ensure PennEast takes all appropriate mitigation measures to minimize impacts on traffic and landowner access, we require in Environmental Condition 40 that PennEast file a revised Residential Access and Traffic Management Plan which includes traffic counts, peak traffic volumes, and site-specific mitigations measures.

156. West Amwell Township filed comments on the final EIS regarding the impact on septic systems, contending that the final EIS and PennEast erred in stating that no septic systems were located within 150 feet of the pipeline and that such systems may be adversely impacted during construction and operation of the project. Because pipeline construction could damage septic systems, including septic tanks, distribution piping, and drain fields, we have included a new condition to address potential septic system impacts. Environmental Condition 22 requires that PennEast identify septic systems within 150 feet of any construction workspace and develop a plan that describes how PennEast will avoid impacts on septic systems where possible, as well as how PennEast will mitigate or restore impacted systems to applicable regulatory requirements.

157. William E. Markus filed comments regarding impacts on a structure on his property which could be damaged due to HDD operation and requests that PennEast re-route the project to the opposite side of the property. The final EIS points out that PennEast has responded to landowner concerns, and has evaluated, and incorporated, several pipeline variations based on landowner requests. We acknowledge that PennEast will continue to evaluate minor route changes. To ensure that Residential Construction Plans address landowner comments such as Mr. Markus’, we require in Environmental Condition 41 that PennEast file additional information for residences in close proximity to the project prior to construction.

¹⁶⁹ See final EIS at 4-153.

158. Several comments were received discussing potential impacts on protected lands, including conservancies and lands held in trust. In addition, the EPA recommends that additional measures be taken to monitor whether protected land impacted by new easements lose quality and value to conservancy patrons. Impacts on conservation easements are addressed fully in section 4.7.2 of the final EIS. There are no changes expected in the conservation status of public lands crossed by the project, including state game lands and state highways and maintenance areas. No changes are expected in the conservation status of private lands crossed by the project in Pennsylvania. New Jersey parcels crossed by the project that are subject to types of conservation or open space protective easements will generally retain their conservation and open space characteristics, except with respect to the limited circumstance of New Jersey State Agriculture Development Committee (SADC) easements, as described in section 4.7.4 of the final EIS.

159. The SADC asserts that table G-17 from Appendix G of the final EIS is incomplete, as three New Jersey farms encumbered by farmland preservation development easements and impacted by the project are not included. This comment is noted. The description of impacts and mitigation for impacts on farmlands with preservation easements included in sections 4.7.4.2 and 4.7.4.4 of the final EIS apply to the three farms identified from SADC, even though they are not listed in table G-17 of the final EIS.

160. The New Jersey Highlands Water Protection and Planning Council states that the final EIS does not adequately address the Highlands Region, nor the Highlands Regional Master Plan. The final EIS states that the New Jersey Highlands Water Protection and Planning Council will review the proposed project against the Highland Regional Master Plan and will be responsible for issuing a Consistency Determination in accordance with the Highlands Water Protection and Planning Act Rules.¹⁷⁰ Additionally, PennEast has indicated that it will voluntarily prepare a Comprehensive Mitigation Plan to detail proposed efforts to avoid, minimize, and mitigate impacts on resources associated with the New Jersey Highlands Region.¹⁷¹ Based on PennEast's voluntary commitment to prepare the Comprehensive Mitigation Plan, we find these concerns have been adequately addressed.

161. In response to the USACE's Draft Finding of No Significant Impacts, Sondra Wolferman asserts that it will be impossible to restore Beltzville State Park to its original condition after project construction. Ms. Wolferman argues that the project right-of-way will permanently and significantly alter the appearance of the trails within the park. However, we believe that any impacts to visual of park patrons will be minimal, since

¹⁷⁰ N.J. Admin. Code §§ 7:15, 7:38-1.1 (2017).

¹⁷¹ See final EIS at 4-170 to 4-171.

PennEast will keep a 300-foot recreational and aesthetic buffer around these areas and adhere to any vegetation management request from the PADCNR.¹⁷²

162. Several comments were filed regarding the potential for impacts on visual resources, particularly for recreational and conserved lands in New Jersey. PennEast prepared site-specific crossing plans for federal, state, and local lands that are used recreationally and the EIS concludes the mitigation measures proposed by PennEast, including site-specific safety measures, modified construction schedules, and the use of special construction techniques, adequately mitigate potential visual impacts resulting from the project.

163. In general, the final EIS concludes that the effects of the project on recreational and special interest areas occurring outside of forestland will be temporary and limited to the period of active construction, which typically lasts several weeks or months in any one area.¹⁷³ These effects will be minimized by implementing the measures in PennEast's E&SCP, FERC's Plan and Procedures, and other project-specific construction plans. In addition, we require in Appendix A of this order that PennEast continue to consult with the owners and managing agencies of recreation and special interest areas regarding the need for specific construction mitigation measures.¹⁷⁴

h. Socioeconomics

164. Construction of the project will require approximately 2,400 workers, with a maximum of 600 people working on any one section at any one time. PennEast estimates that up to 40 percent of the workforce will consist of local hires; operation of the project will require 24 new permanent employees to operate the new pipeline and compressor station. Temporary impacts on traffic during construction will result from the workforce commuting daily to the construction site; however, PennEast will explore site-specific mitigation measures in its revised Residential Access and Traffic Management Plan that it may implement to minimize impacts on local traffic.¹⁷⁵ The project would cross one census block that could be considered a minority population, and one census block that could be considered low-income; however, construction and operation of the project is not expected to have high and adverse human health or environmental effects on any

¹⁷² See final EIS at 4-164.

¹⁷³ See final EIS at 5-11.

¹⁷⁴ See Environmental Conditions 42 and 43 in Appendix A.

¹⁷⁵ See Environmental Condition 40 in Appendix A.

nearby communities or result in adverse and disproportionate human health or environmental effects to minority or low income communities.

165. After the close of the draft EIS comment period, Phyllis Jacewicz filed comments regarding the potential increase in homeowner's insurance due to proximity to the project. As noted in the final EIS, insurance advisors consulted on previous natural gas projects have indicated that natural gas pipelines do not impact the rates or eligibility for residential insurance applications. The final EIS finds that homeowner's insurance rates would be unlikely to change due to construction and operation of the proposed project.¹⁷⁶ However, to address any potential insurance-related issues, we require in Environmental Condition 45 that PennEast file reports describing any documented complaints from a homeowner that the construction of a pipeline, or the existence of a pipeline right-of-way, directly impacted a homeowner's insurance. Additionally, as is typical for similar projects, PennEast will maintain insurance coverage for the project from the start of the survey process through the lifetime of the project, with coverage that will apply to qualifying claims from third-parties, including landowners.¹⁷⁷

166. In comments on the final EIS, Kelly Kappler discusses potential impacts on local tourism. The final EIS finds that while the potential exists for the project to have localized effects on recreation resources, construction and operation of the project would not be expected to substantially impact the recreation and tourism sector in the affected counties.¹⁷⁸ We concur. Emma Switzler comments on the final EIS that noise from construction will impact her son's ability to teach tennis lessons. As discussed further below, any noise impacts from construction will be highly localized and temporary.

167. In its comments on the final EIS, the EPA recommends that meaningful coordination and outreach be conducted with communities of concern, including Environmental Justice communities. Consistent with Executive Order 12898, all public documents, notices, and meetings were made readily available to the public during the Commission's review of the project. The final EIS provides additional detail about coordination and outreach as well as an assessment of impacts on Environmental Justice communities. As noted above, the final EIS concludes that construction and operation of the project will not have high and adverse human health or environmental effects on any

¹⁷⁶ See final EIS at 4-195.

¹⁷⁷ See final EIS at 4-195.

¹⁷⁸ See final EIS at 4-185.

nearby communities or result in adverse and disproportionate human health or environmental effects to minority or low income communities.¹⁷⁹

i. Cultural Resources

168. The final EIS identifies ten archaeological sites in Pennsylvania and three sites in New Jersey in the direct area of potential effect. Additionally, there are 110 aboveground historic resources identified in Pennsylvania and 41 in New Jersey. This is based on completed cultural resources identification surveys for 69 miles in Pennsylvania and 15 miles in New Jersey, as well as desktop research.¹⁸⁰ Although the Pennsylvania and New Jersey State Historic Preservation Offices (SHPOs) concurred with some of the final EIS recommendations, they did not agree with all of the recommendations by PennEast. Consultation is ongoing with the Pennsylvania and New Jersey SHPOs.

169. Commission staff consulted, and PennEast conducted outreach, with 15 federally recognized tribes, as well as several other non-governmental organizations, local historical societies, museums, historic preservation heritage organizations, conservation districts, and other potential interested parties to provide them an opportunity to comment on the project.¹⁸¹ We have not received any responses to the letters sent to the federally recognized tribes.

170. On January 24, 2017, after the close of the draft EIS comment period, John P. Hencheck filed comments regarding potential impacts on “The Road Along the Rocks,” a historic resource associated with the American Revolution. PennEast has a number of evaluation studies, reports, and potential treatment plans pending, including an architectural survey of The Road Along the Rocks.¹⁸²

171. In letters dated August 7 and August 9, 2017, the New Jersey SHPO commented on two historic architecture survey report addenda for Hunterdon and Mercer Counties, New Jersey. The New Jersey SHPO agreed that no additional studies were necessary for ten of the properties investigated. Further, they stated that the John Moore Farmhouse and Angel Farmstead are considered eligible for listing on the National Register of Historic Places. However, five properties (Kappus Farm, Cedarknoll Farm, Flemington Branch of the Belvidere-Delaware Railroad Historic District, Rock Road/Rocktown Road/Road Along the Rocks/Bungtown Road, and 1465 NJ Route 179- Olde York Road) would require additional information from PennEast for the New Jersey SHPO to provide

¹⁷⁹ See final EIS at 4-197 to 4-202.

¹⁸⁰ See final EIS at 5-14.

¹⁸¹ See final EIS at 4-210 to 4-211.

¹⁸² See final EIS at 4-226 (table 4.9.2-7).

comments. Additionally, the New Jersey SHPO noted that the Hopewell Township Historic Preservation Commission should be provided an opportunity to review and comment on cultural resources reports for the Hopewell Township within Mercer County. Environmental Condition 47 requires PennEast to file the results of the New Jersey SHPO's assessment of these properties, and any related site avoidance or mitigation plans. We find this adequate to address the concerns raised.

172. On May 25, 2017, in comments on the final EIS, the NJDEP submitted a letter noting that 68 percent of the project alignment in New Jersey still needed to be surveyed for historic properties. As identified in the final EIS, compliance with Section 106 of the NHPA is not complete due to pending surveys, evaluation of certain archaeological sites and historic architecture, as well as avoidance and potential treatment plans for the project, both in New Jersey and Pennsylvania. These activities are specifically identified in tables 4.9.2-2, 4.9.2-4, 4.9.2-5 and 4.9.2-7 of the final EIS. In addition, Environmental Conditions 46 through 50 identify certain assessments, mitigation plans, and consultations that PennEast must complete and file with the Secretary prior to construction to address stakeholder comments and address mitigation requirements identified by Commission staff. To ensure that our compliance with section 106 of the National Historic Preservation Act,¹⁸³ we require in Environmental Condition 51 that PennEast not begin construction until any additional required surveys are completed, and survey reports and treatment plans (if necessary) have been reviewed by consulted parties, including the appropriate SHPO, and all appropriate documentation is filed with the Secretary. Commission staff will review all filings to ensure PennEast completes all pending activities identified in the final EIS, and required by Environmental Conditions 46 through 51. Fulfillment of these conditions will enable the Commission to complete section 106 consultation, thereby, along with the foregoing discussion, addressing all concerns on this subject.

j. Air Quality Impacts

173. General Conformity Determinations stem from section 176(c) of the Clean Air Act,¹⁸⁴ which requires a federal agency to demonstrate that a proposed action conforms to the applicable State Implementation Plan, a state's plan to attain the National Ambient Air Quality Standards (NAAQS) for nonattainment pollutants. A General Conformity Determination is required when the federal agency determines that an action will generate emissions exceeding conformity threshold levels of pollutants in the nonattainment area, in order to assess whether the federal action will indeed conform to the State Implementation Plan. Because portions of the project will be located in five different counties with a nonattainment or maintenance designation for at least one pollutant,

¹⁸³ 54 U.S.C.A. §§ 300101 et seq. (West 2016).

¹⁸⁴ 42 U.S.C. § 7506(c) (2012).

Commission staff reviewed the criteria pollutant emissions expected to be generated during construction of the project and compared them to the General Conformity thresholds in section 93.153(b)(1) of the EPA's regulations.¹⁸⁵

174. Based on PennEast's May 2016 revised construction emission estimates, the final EIS determines that project construction emissions will not exceed any General Conformity applicability thresholds.¹⁸⁶ Because no thresholds are triggered, a General Conformity Determination is not required to be made. To ensure this finding is based on the most up-to-date information, however, Environmental Condition 52 requires PennEast to file revised construction emissions estimates if changes to the project construction schedule and/or design occur that will materially impact the construction nitrogen oxide (NO_x) emissions generated in a calendar year. If the revised emissions exceed a General Conformity applicability threshold, then the Commission will need to prepare a draft General Conformity Determination at that time and prior to any construction.

175. In comments on the final EIS, the NJDEP expresses concerns over the potential air emissions associated with the USACE permits, and whether these emissions were included in the General Conformity analysis, as well as the emission totals presented in tables 4.10.1-4 and 4.10.1-5 of the final EIS. The project will not include any additional facilities related to the USACE permit. Therefore, no additional emissions are anticipated.

176. NJDEP states that its Bureau of Evaluation and Planning previously submitted a comment on the draft EIS asking whether air emissions associated with transporting pipe within the nonattainment/maintenance areas to the staging areas/worksites were included in tables 4.10.1-4 and 4.10.1-5, and states that Appendix M does not appear to respond to the Bureau of Evaluation and Planning's comment. These pipe transport emissions are accounted for by the "Float, Lowboy, Tractor Trucks" line items provided in Appendix L-2 of Resource Report 9 in PennEast's application, and are accounted for in Tables 4.10.1-4 and 4.10.1-5 in the final EIS.

177. NJDEP states that the Bureau of Evaluation and Planning previously submitted a comment on the draft EIS inquiring as to whether the construction equipment list included HDD, and if tables 4.10.1-4 and 4.10.1-5 included emissions associated with HDD activity, and states that Appendix M does not appear to respond to the Bureau of Evaluation and Planning's comment. NJDEP further comments that the 150 horsepower rating for the category of "Skidder, Trencher, Boring" equipment (as provided by PennEast in Appendix L-2 of Resource Report 9), may not be the appropriate horsepower rating for HDD equipment used on a "major" crossing such as the Delaware River.

¹⁸⁵ 40 C.F.R. § 93.153(b)(1) (2017).

¹⁸⁶ See final EIS at 4-240.

NJDEP requests that the horsepower rating used for the HDD equipment be re-evaluated and that the HDD air emissions for the Delaware River crossing, as well as the emission totals used in the General Conformity analysis and in tables 4.10.1-4 and 4.10.1-5, be revised accordingly.

178. The comments from the Bureau of Evaluation and Planning that were included in NJDEP's September 12, 2016 letter on the draft EIS do not refer to HDD activity. Regardless, the construction equipment list, as provided by PennEast in Appendix L-2 of Resource Report 9, includes HDD equipment, and that tables 4.10.1-4 and 4.10.1-5 of the final EIS appropriately include air emissions associated with HDD activity. However, we acknowledge the possibility that the HDD crossing of the Delaware River may require HDD equipment with higher horsepower ratings than those used to estimate construction emissions in the EIS. Incorporating the increased emissions associated with using appropriately-sized HDD equipment for the Delaware River crossing into the General Conformity analysis will not change the conclusion, as the increase in emissions will be insignificant relative to overall total construction emissions. As demonstrated below, even by updating the General Conformity analysis to include updated HDD equipment, construction emissions in Bucks County, Pennsylvania, and Hunterdon County, New Jersey, will remain well below the applicability thresholds that would trigger the requirement for a General Conformity determination.

179. In order to approximate the potential increase in construction emissions due to higher-rated HDD equipment for the Delaware River crossing, we scaled up emissions provided for the "Skidder, Trencher, Boring" equipment in Pipeline Spread 3 (which encompasses the Delaware River crossing), and applied the net emission increase to the values presented in tables 4.10.1-4 and 4.10.1-5 of the final EIS. The provided "Skidder, Trencher, Boring" emissions were based on a horsepower rating of 150, and we scaled these up by a factor of 3.33 to approximate a horsepower rating of 500 hp, which was the rating used by another similar pipeline project, as suggested by NJDEP. Tables 4.10.1-4 and 4.10.1-5 of the final EIS are reproduced below with the emission increase applied, and show that the increased emissions will remain well below the General Conformity applicability thresholds.

TABLE 4.10.1-4					
General Conformity Applicability Evaluation					
Project Component	Location (County, State)	County Nonattainment or Maintenance Pollutants <u>a/</u> <u>b/</u>	Construction Emissions <u>c/</u>	General Conformity "de minimis" rates for Nonattainment or Maintenance Areas	General Conformity Determination Required? (Yes/No)
23.1 miles of pipeline	Luzerne, PA	None	N/A	N/A	No
28.2 miles of pipeline, Compressor Station	Carbon, PA	O ₃	28.2 tons NOx 3.4 tons VOC	100 tpy NOx 50 tpy VOC	No

TABLE 4.10.1-4					
General Conformity Applicability Evaluation					
Project Component	Location (County, State)	County Nonattainment or Maintenance Pollutants <u>a/</u> <u>b/</u>	Construction Emissions <u>c/</u>	General Conformity "de minimis" rates for Nonattainment or Maintenance Areas	General Conformity Determination Required? (Yes/No)
24.8 miles of pipeline, 2.1 miles of lateral	Northampton, PA	PM _{2.5} O ₃	82.5 tons PM _{2.5} 0.1 tpy SO ₂ 21.7 tons NO _x 2.7 tons VOC	100 tpy PM _{2.5} 100 tpy SO ₂ 100 tpy NO _x 50 tpy VOC	No
1.7 miles of pipeline	Bucks, PA	PM _{2.5} O ₃	4.6 tons PM _{2.5} 0.0 tpy SO ₂ 1.9 tons NO _x 0.3 tons VOC	100 tpy PM _{2.5} 100 tpy SO ₂ 100 tpy NO _x 50 tpy VOC	No
26.6 miles of pipeline, 1.9 miles of lateral	Hunterdon, NJ	O ₃	20.7 tons NO _x 2.6 tons VOC	100 tpy NO _x 50 tpy VOC	No
9.6 miles of pipeline	Mercer, NJ	O ₃	25.0 tons PM _{2.5} 0.0 tpy SO ₂ 6.7 tons NO _x 0.8 tons VOC	100 tpy PM _{2.5} 100 tpy SO ₂ 100 tpy NO _x 50 tpy VOC	No
Notes:					
<u>a/</u> Marginal or Moderate Nonattainment for the 2008 8-hour Ozone standard					
<u>b/</u> Maintenance Area for the 1997 and/or 2006 PM _{2.5} Standards					
<u>c/</u> Emissions of all major construction activities would occur during one calendar year					

TABLE 4.10.1-5								
Project Facility and Pipeline Construction Activity Combined Emissions								
Project Total Emissions	Pollutants (Tons)							
	NO _x	CO	VOC	PM ₁₀	PM _{2.5}	SO ₂	CO _{2e}	HAPs
Pipeline Diesel Non-Road Equipment Totals	95.9	25.1	9.9	6.3	6.1	0.27	30,227	0.72
Diesel and Gas On-Road	5	22.8	2.53	0.29	0.17	0.03	1,690	0.18
Construction Activity Fugitive Dust	-	-	-	1,927	287	-	-	-
Roadway Fugitive Dust	-	-	-	132	21	-	-	-
Comp. Station Construction Sub-Total	6	5	1	28	4	0.02	1,712	0.05
Total	107	53	13	2,093	318	0.32	33,629	0.95

180. NJDEP comments on the final EIS that the emission factors and load factors used for on-road and off-road construction equipment appear to represent the use of (lower-emitting) Tier 3 and Tier 4 engines. NJDEP further notes that while the final EIS includes a recommendation that Tier 3 and Tier 4 engines be used when possible, it doesn't require this, leaving open the possibility that lower-tier, higher-emitting engines could be used. NJDEP therefore requests that the emission factors, load factors, and

estimated construction emissions be re-evaluated to better reflect the actual equipment that may be used, and that the General Conformity analysis and tables 4.10.1-4 and 4.10.1-5 be revised accordingly.

181. Environmental Condition 53 requires that PennEast implement several measures for on-road vehicles and non-road diesel construction equipment, including a requirement that “all non-road diesel construction equipment greater than 100 horsepower used for more than ten days shall have engines that meet the EPA Tier 4 non-road emission standards or the best available control technology that is technologically feasible and verified by EPA or the California Air Resources Board as a diesel emission control strategy.” This requirement will ensure that PennEast will use low-emission-rated engines for all construction equipment that will be utilized long enough to potentially impact the construction emissions of the project.

182. Air quality impacts associated with construction of the project will include emissions from fossil-fueled construction equipment and fugitive dust. Local emissions may be elevated, and nearby residents may notice elevated levels of fugitive dust, but these will not be significant or permanent. We agree with the final EIS’s conclusion that, with implementation of PennEast’s proposed mitigation measures and the environmental conditions in Appendix A of this order, air quality impacts from construction activities, such as elevated dust levels near construction areas, will be temporary or short term, and will not result in a significant impact on local and regional air quality.¹⁸⁷

183. PennEast conducted modeling of emissions from the proposed Kidder Compressor Station to analyze potential impacts associated with the operation of the proposed new sources, including monitored background. Based on this modeling analysis, the final EIS concludes the air quality impacts from the sources at the proposed Kidder Compressor Station are estimated to be below the NAAQS for all pollutants.¹⁸⁸

184. We agree with the final EIS’s conclusion that, with implementation of the environmental conditions in Appendix A of this order, operational emissions will not have a significant impact on local or regional air quality.¹⁸⁹

k. Noise

185. Pipeline construction noise impacts would be temporary as construction activities move along the corridor. During construction, PennEast will employ a combination of

¹⁸⁷ See final EIS at 4-245.

¹⁸⁸ See final EIS at 4-253.

¹⁸⁹ See final EIS at 5-15.

noise mitigation methods, including equipment noise controls, temporary noise barriers, and administrative measures.¹⁹⁰

186. The primary source of operational noise for the project will be the Kidder Compressor Station. Ambient sound measurements were collected in the vicinity of the Kidder Compressor Station location, as well as the vicinity of other operational sound sources like the mainline valves and meter stations, to establish existing conditions. PennEast will be required to meet the most restrictive noise level limits established by jurisdictional agencies. The Commission limit of 55 decibel A-weighted (dBA) day-night sound level (L_{dn}), which is equivalent to a continuous noise level of 49 dBA, would be the governing limit for those areas where a more restrictive county, local, or station-specific regulation does not exist.¹⁹¹ We require in Environmental Condition 55 that PennEast conduct a noise survey of the Kidder Compressor Station area, while the station is operating at full load, to ensure that operational noise is at or below this limit. With the implementation of PennEast's proposed mitigation measures and Environmental Condition 55, we conclude that the compressor station's operational noise will not result in significant noise impacts on residents and the surrounding areas.

187. Notable sources of intermittent noise include blasting and drilling. PennEast's Blasting Plan includes mitigation measures related to blasting noise,¹⁹² and Environmental Condition 54 requires that PennEast provide an HDD Noise Mitigation Plan, which must be approved prior to construction. On April 14, 2017, Emma A. Switzler commented on the final EIS regarding noise mitigation for HDD activities. However, with the implementation of PennEast's proposed mitigation measures and Environmental Condition 54, we conclude that construction of the project will not result in significant noise impacts on residents and the surrounding areas.

I. Safety

188. As described in the final EIS, PennEast will design, construct, operate, and maintain the proposed facilities to meet or exceed the U.S. Department of Transportation's (DOT) Minimum Federal Safety Standards set forth in Title 49 Code of Federal Regulations Part 192. DOT's Pipeline and Hazardous Materials Safety Administration's (PHMSA) Office of Pipeline Safety administers the national regulatory program to ensure the safe transportation of natural gas and other hazardous materials by

¹⁹⁰ See final EIS at ES-15.

¹⁹¹ See final EIS at ES-15.

¹⁹² See final EIS at 4-294.

pipeline.¹⁹³ In general, the Commission appropriately relies on PHMSA to monitor the pipeline's construction and operation of natural gas facilities to determine compliance with its design and safety standards.¹⁹⁴

189. Based on available data, we agree with the final EIS's conclusions that PennEast's implementation of the above-mentioned DOT minimum Federal safety standards, and implementation of the required Environmental Conditions, will minimize the risk of public harm related to the construction and operation of the project.

190. Numerous commenters question the safety of the project, and take particular issue with the pipeline route's proximity to existing natural gas pipelines and quarries. In addition, several commenters, including the Medical Society of New Jersey, express concerns regarding potential effects of a pipeline rupture and natural gas ignition (the area of potential effect is sometimes referred to as the potential impact radius). While a pipeline rupture does not necessarily ignite in every instance, the DOT's regulations define high consequence areas where a gas pipeline accident could do considerable harm to people and property, and require an integrity management program to minimize the potential for an accident in these areas. PennEast routed the pipeline to minimize risks to local residents and vulnerable locations/populations (e.g., hospitals, prisons, schools, daycare facilities, retirement or assisted-living facilities) and will follow federal safety standards for pipeline class locations based on population density. PennEast has also followed federal safety standards with respect to pipeline spacing.¹⁹⁵ The DOT regulations are designed to ensure adequate safety measures are implemented to protect all populations. In addition, PennEast will take specific measures to reduce the risk of methane and volatile organic compound leaks.¹⁹⁶

¹⁹³ Final EIS at 4-30; *see also* 49 U.S.C. § 60112 (authorizing the Department of Transportation to determine that a pipeline facility is hazardous and order the operator of the facility to take corrective action).

¹⁹⁴ *See EarthReports, Inc. v. FERC*, 828 F.3d 949, 959 (D.C. Cir. 2016) (the "opinions and standards of – and [LNG operator's] future coordination with – federal and local authorities" were a reasonable component of the Commission's public safety evaluation); *City of Pittsburgh v. Fed. Power Comm'n*, 237 F.2d 741, 754 (D.C. Cir.1956) (explaining that the Commission "would . . . do well to respect the views of . . . other agencies as to those problems" for which those other agencies "are more directly responsible and more competent than this Commission").

¹⁹⁵ *See* 40 C.F.R. § 192.325 (2017).

¹⁹⁶ *See* final EIS at 4-250.

191. In its comments on the final EIS, the EPA recommends that the pipeline design be upgraded to Class 2 pipe specifications where there are significant liquefaction or landslide hazards identified in Phases 2 and 3 of the Geohazard Risk Evaluation. Because PennEast is conducting further field investigation and analysis regarding geohazard risks, we require in Environmental Condition 15 that PennEast provide the results of the outstanding Phase 2 and 3 portions of the Geohazard Risk Evaluation Report, as well as any specific measures and locations where specialized pipeline design will be implemented to mitigate the potential for soil stability or landslide hazards for staff review and approval prior to construction.

192. Several commenters expressed concern that the final EIS does not sufficiently address safety concerns regarding routing the pipeline near active quarries, specifically two quarries in Plains Township, New Jersey, which would be located within 0.23 mile of the project area. As noted in the final EIS, PennEast routed the project to avoid any future expansion of the quarries, and determined that the average radius of quarry blasting vibrations would have no effect on the pipeline.¹⁹⁷ PennEast conducted similar site-specific outreach and blast monitoring for other quarry locations, and we are satisfied that PennEast has routed the project to adequately minimize the risk from blasting and other quarry operations.

m. Upstream and Downstream Impacts

193. Several commenters, including U.S. Senators Cory Booker and Robert Menendez, and Oil Change International,¹⁹⁸ raise concerns regarding the potential for increased upstream natural gas production associated with construction and operation of the project. Commenters request that the final EIS include the greenhouse gas (GHG) emissions associated with the upstream production and downstream combustion of the natural gas to be transported by the project. Oil Change International also submitted a white paper, which states that the final EIS fails to address upstream emissions, and takes issues with the final EIS' analysis of downstream emissions and methane leakage.

194. CEQ's regulations direct federal agencies to examine the direct, indirect, and cumulative impacts of proposed actions.¹⁹⁹ Indirect impacts are defined as those "which

¹⁹⁷ See final EIS at 4-4 – 4-5.

¹⁹⁸ Oil Change International filed comments on behalf of the Sierra Club, Earthworks, Appalachian Voices, Chesapeake Climate Action, 350.org, Bold Alliance, Environmental Action, Blue Ridge Environmental Defense League, Protect Our Water, Heritage and Rights (Virginia & West Virginia), Friends of Water, Mountain Lakes Preservation Alliance, Sierra Club West Virginia, and Sierra Club Virginia.

¹⁹⁹ 40 C.F.R. § 1508.25(c) (2017).

are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”²⁰⁰ Further, indirect effects “may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.”²⁰¹ Accordingly, to determine whether an impact should be studied as an indirect impact, the Commission must determine whether it: (1) is caused by the proposed action; and (2) is reasonably foreseeable.

195. With respect to causation, “NEPA requires ‘a reasonably close causal relationship’ between the environmental effect and the alleged cause”²⁰² in order “to make an agency responsible for a particular effect under NEPA.”²⁰³ As the Supreme Court explained, “a ‘but for’ causal relationship is insufficient [to establish cause for purposes of NEPA].”²⁰⁴ Thus, “[s]ome effects that are ‘caused by’ a change in the physical environment in the sense of ‘but for’ causation,” will not fall within NEPA if the causal chain is too attenuated.²⁰⁵ Further, the Court has stated that “where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant ‘cause’ of the effect.”²⁰⁶

²⁰⁰ *Id.* § 1508.8(b).

²⁰¹ *Id.* § 1508.8(b).

²⁰² *U.S. Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, at 767 (2004) (quoting *Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, at 774 (1983)).

²⁰³ *Id.*

²⁰⁴ *Id.*; see also *Freeport LNG*, 827 F.3d at 46 (FERC need not examine everything that could conceivably be a but-for cause of the project at issue); *Sierra Club v. FERC*, 827 F.3d 59, 68 (D.C. Cir. 2016) (*Sabine Pass LNG*) (FERC order authorizing construction of liquefied natural gas export facilities is not the legally relevant cause of increased production of natural gas).

²⁰⁵ *Metro. Edison Co.*, 460 U.S. at 774.

²⁰⁶ *Pub. Citizen*, 541 U.S. at 770; see also *Freeport LNG*, 827 F.3d at 49 (affirming that *Public Citizen* is explicit that FERC, in authorizing liquefied natural gas facilities, need not consider effects, including induced production, that could only occur after intervening action by the DOE); *Sabine Pass LNG*, 827 F.3d at 68 (same); *EarthReports, Inc. v. FERC*, 828 F.3d 949, 955-56 (D.C. Cir. 2016) (same).

196. An effect is “reasonably foreseeable” if it is “sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.”²⁰⁷ NEPA requires “reasonable forecasting,” but an agency is not required “to engage in speculative analysis” or “to do the impractical, if not enough information is available to permit meaningful consideration.”²⁰⁸

i. Impacts from Upstream Natural Gas Production

197. As we have previously concluded in natural gas infrastructure proceedings, the environmental effects resulting from natural gas production are generally neither caused by a proposed pipeline (or other natural gas infrastructure) project nor are they reasonably foreseeable consequences of our approval of an infrastructure project, as contemplated by CEQ regulations.²⁰⁹ A causal relationship sufficient to warrant Commission analysis of the non-pipeline activity as an indirect impact would only exist if the proposed pipeline would transport new production from a specified production area and that production would not occur in the absence of the proposed pipeline (i.e., there will be no other way to move the gas).²¹⁰ To date, the Commission has not been presented with a proposed pipeline project that the record shows will cause the predictable development of gas reserves. In fact, the opposite causal relationship is more likely, i.e., once production begins in an area, shippers or end users will support the development of a pipeline to move the produced gas.

²⁰⁷ *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992). *See also City of Shoreacres v. Waterworth*, 420 F.3d 440, 453 (5th Cir. 2005).

²⁰⁸ *N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1078 (9th Cir. 2011).

²⁰⁹ *See, e.g., Central New York Oil and Gas Co., LLC*, 137 FERC ¶ 61,121, at PP 81-101 (2011), *order on reh'g*, 138 FERC ¶ 61,104, at PP 33-49 (2012), *petition for review dismissed sub nom. Coal. for Responsible Growth v. FERC*, 485 Fed. Appx. 472, 474-75 (2012) (unpublished opinion).

²¹⁰ *See cf. Sylvester v. U.S. Army Corps of Engineers*, 884 F.2d 394, 400 (9th Cir. 1989) (upholding the environmental review of a golf course that excluded the impacts of an adjoining resort complex project). *See also Morongo Band of Mission Indians v. FAA*, 161 F.3d 569, 580 (9th Cir. 1998) (concluding that increased air traffic resulting from airport plan was not an indirect, “growth-inducing” impact); *City of Carmel-by-the-Sea v. U.S. Dep’t of Transportation*, 123 F.3d 1142, 1162 (9th Cir. 1997) (acknowledging that existing development led to planned freeway, rather than the reverse, notwithstanding the project’s potential to induce additional development).

198. Even accepting, *arguendo*, that a specific pipeline project will cause natural gas production, we have found that the potential environmental impacts resulting from such production are not reasonably foreseeable. As we have explained, the Commission generally does not have sufficient information to determine the origin of the gas that will be transported on a pipeline. It is the states, rather than the Commission, that have jurisdiction over the production of natural gas and thus would be most likely to have the information necessary to reasonably foresee future production. There are no forecasts in the record which would enable the Commission to meaningfully predict production-related impacts, many of which are highly localized. Thus, even if the Commission knows the general source area of gas likely to be transported on a given pipeline, a meaningful analysis of production impacts would require more detailed information regarding the number, location, and timing of wells, roads, gathering lines, and other appurtenant facilities, as well as details about production methods, which can vary per producer and depending on the applicable regulations in the various states. Accordingly, the impacts of natural gas production are not reasonably foreseeable because they are “so nebulous” that we “cannot forecast [their] likely effects” in the context of an environmental analysis of the impacts related to a proposed interstate natural gas pipeline.²¹¹

199. Nonetheless, we note that the Department of Energy has examined the potential environmental issues associated with unconventional natural gas production in order to provide the public with a more complete understanding of the potential impacts.²¹² The Department of Energy has concluded that such production, when conforming to

²¹¹ *Habitat Education Center v. U.S. Forest Service*, 609 F.3d 897, 902 (7th Cir. 2010) (finding that impacts that cannot be described with enough specificity to make their consideration meaningful need not be included in the environmental analysis). *See also Sierra Club v. U.S. Department of Energy*, D.C. Cir. No. 15-1489, slip op. at 16-18 (August 15, 2017) (accepting DOE’s “reasoned explanation” as to why the indirect effects pertaining to induced natural gas production were not reasonably foreseeable where DOE noted the difficulty of predicting both the incremental quantity of natural gas that might be produced and where at the local level such production might occur, and that an economic model estimating localized impacts would be far too speculative to be useful).

²¹² U.S. Department of Energy, *Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States*, 79 Fed. Reg. 48,132 (Aug. 15, 2014) (DOE Addendum), <http://energy.gov/sites/prod/files/2014/08/f18/Addendum.pdf>. The U.S. Court of Appeals for the D.C. Circuit upheld DOE’s reliance on the DOE Addendum to supplement its environmental review of the proposed export of LNG. *See Sierra Club v. U.S. Department of Energy*, D.C. Cir. No. 15-1489, slip op. at 12, 19.

regulatory requirements, implementing best management practices, and administering pollution prevention concepts, may have temporary, minor impacts to water resources.²¹³ With respect to air quality, the Department of Energy found that natural gas development leads to both short- and long-term increases in local and regional air emissions.²¹⁴ It also found that such emissions may contribute to climate change.²¹⁵ But to the extent that natural gas production replaces the use of other carbon-based energy sources, the U.S. Department of Energy found that there may be a net positive impact in terms of climate change.²¹⁶ We find the information provided in the Department of Energy (DOE) Addendum to be helpful to generally inform the public regarding potential impacts of increased natural gas production and therefore consider the DOE Addendum to be supplemental material to our environmental review.

200. The record in this proceeding does not demonstrate the requisite reasonably close causal relationship between the impacts of future natural gas production and the proposed project that would necessitate further analysis. The fact that natural gas production and transportation facilities are all components of the general supply chain required to bring domestic natural gas to market is not in dispute. This does not mean, however, that approving this particular project will induce further shale gas production. Rather, as we have explained in other proceedings, a number of factors, such as domestic natural gas prices and production costs drive new drilling.²¹⁷ If this project were not constructed, it is reasonable to assume that any new production spurred by such factors would reach

²¹³ DOE Addendum at 19; *see also Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands*, 80 Fed. Reg. 16,128, 16,130 (Mar. 26, 2015) (Bureau of Land Management promulgated regulations for hydraulic fracturing on federal and Indian lands to “provide significant benefits to all Americans by avoiding potential damages to water quality, the environment, and public health”).

²¹⁴ DOE Addendum at 32.

²¹⁵ *Id.* at 44.

²¹⁶ *Id.*

²¹⁷ *Rockies Express Pipeline LLC*, 150 FERC ¶ 61,161, at P 39 (2015). *See also Sierra Club v. Clinton*, 746 F. Supp. 2d 1025, 1045 (D. Minn. 2010) (holding that the U.S. Department of State, in its environmental analysis for an oil pipeline permit, properly decided not to assess the transboundary impacts associated with oil production because, among other things, oil production is driven by oil prices, concerns surrounding the global supply of oil, market potential, and cost of production); *Florida Wildlife Fed’n v. Goldschmidt*, 506 F. Supp. 350, 375 (S.D. Fla. 1981) (ruling that an agency properly considered indirect impacts when market demand, not a highway, would induce development).

intended markets through alternate pipelines or other modes of transportation.²¹⁸ Again, any such production would take place pursuant to the regulatory authority of state and local governments.²¹⁹

201. Moreover, even if a causal relationship between our action here and additional production were presumed, the scope of the impacts from any induced production is not reasonably foreseeable. That there may be incentives for producers to locate wells close to pipeline infrastructure does not change the fact that the location, scale, and timing of any additional wells are matters of speculation, particularly regarding their relationship to the proposed project. As we have previously explained, a broad analysis, based on generalized assumptions rather than reasonably specific information, will not provide meaningful assistance to the Commission in its decision making, e.g., evaluating potential alternatives to a specific proposal.²²⁰

202. As noted above, upstream impacts of the type described by commenters do not meet the definition of indirect impact, therefore, they are not mandated as part of the Commission's NEPA review. However, to provide the public additional information, Commission staff, after reviewing publicly-available DOE and EPA methodologies, has prepared the following analyses regarding the potential impacts associated with unconventional natural gas production. As summarized below, these analyses provide only an estimate of the upper limit of upstream effects using general Marcellus shale well information.

²¹⁸ *Rockies Express Pipeline LLC*, 150 FERC ¶ 61,161 at P 39.

²¹⁹ We acknowledge that NEPA may obligate an agency to evaluate the environmental impacts of non-jurisdictional activities. That states, however, not the Commission, have jurisdiction over natural gas production and associated development (including siting and permitting) supports the conclusion that information about the scale, timing, and location of such development and potential environmental impacts are even more speculative. *See Sierra Club v. U.S. Department of Energy*, D.C. Cir. No. 15-1489, slip op. at 18 (DOE's obligation under NEPA to "drill down into increasingly speculative projections about regional environmental impacts [of induced natural gas production] is also limited by the fact that it lacks any authority to control the locale or amount of export-induced gas production, much less any of its harmful effects") (citing *Pub. Citizen*, 541 U.S. at 768).

²²⁰ *Rockies Express Pipeline LLC*, 150 FERC ¶ 61,161 at P 40. *See also Sierra Club v. U.S. Department of Energy*, No. 15-1489, slip op. at 14 (D.C. Cir. August 15, 2017) (holding that the dividing line between what is reasonable forecasting and speculation is the "usefulness of any new potential information to the decision-making process").

203. The final EIS discusses the direct GHG impacts from construction and operation of the project and other projects that were considered in the Cumulative Impacts analysis, climate change impacts in the region, the regulatory structure for GHGs under the Clean Air Act. The final EIS quantified GHG emissions from PennEast Project construction (33,276 metric tons, CO₂ equivalent [metric tons per year (tpy) CO_{2e}²²¹) and operation (259,717 metric tpy CO_{2e}).²²² The final EIS does not include upstream emissions. However, presuming all gas transported represents new, incremental production (as opposed, e.g., to production which would otherwise have been transported on another pipeline), Commission staff has conservatively estimated the upstream GHG emissions as 910,000 metric tpy CO_{2e} from extraction, 1.7 million metric tpy CO_{2e} from processing, and 400,000 metric tpy CO_{2e} from the non-project pipelines (both upstream and downstream transportation pipelines). Again, this is an upper-bound estimate that involves a significant amount of uncertainty.

204. With respect to upstream impacts, Commission staff estimated the impacts associated with the production wells that would be required to provide 100 percent of the volume of natural gas to be transported by the PennEast Project, on an annual basis for GHGs. Commission staff also estimated land-use and water use within the Marcellus shale basin for the life of the project. Commission staff estimated that approximately 1.48 acres of land is required for each natural gas well pad and associated infrastructure (i.e., road infrastructure, water impoundments, and pipelines). Based upon the project volume and the expected estimated ultimate recovery of Marcellus shale wells, between 2,400 and 4,600 wells would be required to provide the gas over the estimated 30-year lifespan of the project. Therefore, on a normalized basis, these assumptions result in an estimate of an upper limit of an additional 120 to 230 acres per year that may be impacted by well drilling. This estimate of impacts is subject to a significant amount of uncertainty.

205. Commission staff also estimates the amount of water required for the drilling and development of these wells over the 30 year period using the same assumptions. Recent estimates show that an average Marcellus shale well requires between 3.88 and 5.69 million gallons of water for drilling and well development, depending on whether the producer uses a recycling process in the well development. Therefore, the production of wells required to supply the project could require the normalized consumptive use of as much as 300 to 880 million gallons of water per year over the 30-year life of the project.

206. Oil Change International's white paper provided an a estimated figure of 24 million metric tons of CO_{2e} per year from upstream natural gas production, using the

²²¹ See final EIS at 4-245 (Table 4.10.1-5).

²²² See final EIS at 4-250 (Table 4.10.1-9).

Intergovernmental Panel on Climate Change's 20-year global warming potential (GWP) for methane, rather than the 100-year GWP that is used by EPA in its official GHG inventories, as well as in its mandatory GHG emission reporting program.²²³ The 20-year GWP for methane is 86, meaning that each unit of CH₄ mass emissions is considered to have the same warming potential as 86 units of CO₂ mass emissions. By comparison, the conventional 100-year GWP for methane is 25. EPA supported the 100-year time period over the 20-year time period in its summary of comments and responses in the final rulemaking, *2013 Revisions to the Greenhouse Gas Reporting Rule and Final Confidentiality Determinations for New or Substantially Revised Data Elements*.²²⁴ Neither Sierra Club, nor Oil Change International present any reason why the 20-year GWP is preferable to the 100-GWP. Further, the final EIS notes that fugitive methane leaks along the PennEast pipeline would only increase the potential annual GHG emissions by approximately 0.05 percent.²²⁵

ii. Impacts from Downstream Combustion of Project-Transported Natural Gas

207. As noted above, Oil Change International takes issue with final EIS' analysis of impacts from the downstream combustion of natural gas transported by the project. The court in *Sabal Trail* held that where it is known that the natural gas transported by a project will be used for end-use combustion, the Commission should "estimate[] the amount of power-plant carbon emissions that the pipelines will make possible."²²⁶ The

²²³ 40 C.F.R. § 98, *et al.* (2017).

²²⁴ 78 Fed. Reg. 71,904 (2013).

²²⁵ See final EIS at 4-249.

²²⁶ *Sierra Club v. FERC*, 867 F.3d 1357, 1371 (D.C. Cir. 2017) (*Sabal Trail*). The Commission's environmental review of the PennEast Project is distinguishable from its environmental review of the project at issue in *Sabal Trail*. In *Sabal Trail*, the court determined that the Commission should have examined the GHG impacts of burning the natural gas to be delivered by that project. In this case, as discussed above, the Commission has estimated the GHG emissions associated with burning the gas to be transported by PennEast, consistent with the quantification that the *Sabal Trail* court required. The methodology used here is similar to that in a number of recent cases. See *NEXUS Gas Transmission, LLC et al.*, 160 FERC ¶ 61,022 at PP 172-173 (NEXUS Project *National Fuel Gas Supply Corp.*, 158 FERC ¶ 61,145, at PP 189-190 (Northern Access 2016 Project); *Dominion Carolina Gas Transmission, LLC*, 158 FERC ¶ 61,126, at P 81 (Transco to Charleston Project); *Transcontinental Gas Pipe Line Co., LLC*, 158 FERC ¶ 61,125, at P 143 (Atlantic Sunrise Project); *Tennessee Gas Pipeline Co.*, 158 FERC ¶ 61,110, at P 104 (Orion Project); and *Rover Pipeline, LLC*, 158 FERC ¶ 61,109, at P 274 (Rover Pipeline Project). Further, *Sabal Trail* and this case are

final EIS does precisely this.²²⁷ Thus, the Commission and the public were fully informed of the potential impacts from the project.

208. The final EIS conservatively estimates that if all 1.1 million dekatherms per day of natural gas were transported to combustion end uses, downstream end-use would result in the emission of about 21.3 million metric tpy of CO_{2e}. We note that this CO_{2e} estimate represents an upper bound for the amount of end-use combustion that could result from the gas transported by this project. This is because some of the gas may displace fuels (i.e., fuel oil and coal) which could result in lower total CO_{2e} emissions. It may also displace gas that otherwise would be transported via different means, resulting in no change in CO_{2e} emissions or be used as a feedstock. This estimate also assumes the maximum capacity is transported 365 days per year, which is rarely the case because many projects are designed for peak use. As such, it is unlikely that this total amount of GHG emissions would occur, and emissions are likely to be significantly lower than the above estimate. In addition, these estimates are generic in nature because no specific end uses have been identified.

209. In an effort to put these emissions in to context, we examined both the regional²²⁸ and national emissions of GHGs. If only the regions identified potentially served by the Transco system and interstate interconnection are considered, the volume of GHG emissions by the PennEast Project will result in a 0.7-1 percent increase of GHG

factually distinct, in that the record in Sabal Trail showed that the natural gas to be transported on the new project would be delivered to specific destinations – power plants in Florida – such that the court concluded that the burning of the gas in those plants was reasonably foreseeable and the impacts of that activity warranted environmental examination. In contrast, the gas to be transported by PennEast will be delivered on behalf of 12 separate shippers, consisting of LDCs, marketers, and an interstate pipeline, into the interstate natural pipeline grid, and will serve a variety of end-uses.

²²⁷ See final EIS at 4-254.

²²⁸ Staff looked at the Transco, Columbia, and Texas Eastern systems to identify the states those pipeline systems serve. The natural gas can move anywhere on these systems. Thus we used the combined inventory of (1) states served by Transco's system, (2) states served by Transco and Columbia, and (3) states served by Transco and Texas Eastern (the Columbia system overlapped the Texas Eastern system). We compared the 2014 inventory of these states served by the three systems in comparison to the downstream emissions to arrive at the potential increase in GHG emissions.

emissions from fossil fuel combustion in these states.²²⁹ From a national perspective, combustion of all the gas transported by the PennEast Project will result in a 0.4 percent increase of national GHG emissions. Based on the myriad of existing and potential future interconnections with other pipeline systems, it is impossible to define which states and which facilities may ultimately consume gas transported by the PennEast Project. From a practical sense, we know that as more states are considered, the percentage of increase contributed by the PennEast Project would decline. Therefore, speculating on the wider distribution does little to clarify the impact. In any case, the greatest possible contribution to GHG emissions at a regional level is 1 percent.

210. The final EIS acknowledged that the emissions would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other sources, and contribute incrementally to climate change.²³⁰ However, as the final EIS explained, because the project's incremental physical impacts on the environment caused by climate change cannot be determined, it also cannot be determined whether the project's contribution to cumulative impacts on climate change would be significant.²³¹

n. Alternatives

211. Based on comments and feedback from landowners, agencies and municipalities, PennEast incorporated 70 route variations into the proposed route to avoid or reduce effects on environmental or other resources, resolve engineering or constructability issues, or address stakeholder concerns.²³² The total length of these 70 route variations is 68.4 miles.²³³ Commission staff reviewed the route variations and agreed with PennEast's conclusions regarding their incorporation into the proposed route. Alternatives considered, which are described in the final EIS, include the No Action alternative, system alternatives, major pipeline route alternatives, minor pipeline route variations, and aboveground facilities alternatives.

²²⁹ The 22 states included in the GHG emissions analysis are: Alabama, Arkansas, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

²³⁰ See final EIS at 4-335.

²³¹ *Id.*

²³² See final EIS at 3-24 to 3-32.

²³³ See final EIS at 3-26 to 3-31 (Table 3.3.2-1).

212. Several commenters suggested renewable energy sources be considered as an alternative to the proposed project. As noted in the final EIS, electric generation from renewable energy sources is a reasonable alternative for reviewing generating facilities powered by fossil fuels. It is the states, however, not this Commission, that regulate generating facilities. Authorizations related to how markets would meet demands for electricity are not part of the applications before the Commission. Because the proposed project's purpose is to transport natural gas, and electric generation from renewable energy resources is not a natural gas transportation alternative, it was not considered in the EIS.²³⁴

213. The final EIS evaluates five major route alternatives including three potential major route alternatives that would avoid the Sourland Mountain Region in New Jersey.²³⁵ After the close of the draft EIS comment period, several comments were filed regarding the viability of Sourland Mountain Alternative 1, which would cross into Bucks County, Pennsylvania. Several of these comments appear to assume the Sourland Mountain Alternative 1 was incorporated into the proposed pipeline route, and expressed concern that there was not an opportunity to comment on the alternative, because it was filed by PennEast after the close of the draft EIS comment period. We clarify here that the Sourland Mountain Alternative 1 is not part of the proposed route, as the final EIS did not determine that the Sourland Mountain Alternative 1 was preferable to the proposed route.

214. The final EIS evaluates an alternate access road for the Kidder Compressor Station.²³⁶ On January 9, 2017, after the close of the draft EIS comment period, Sondra Wolferman filed comments regarding the alternate access road adjacent to the existing pipeline right-of-way for access to the Kidder Compressor Station. Specifically, Ms. Wolferman disagrees with the claim that the access road will be located on an existing road, and asserts that the I-80 alternative to the proposed access road is both reasonable and preferable. On November 28, 2016, PennEast filed a conceptual plan drawing and comparison of the proposed access road and the access road alternative in response to EPA's comments on the draft EIS. As discussed in the final EIS, the potential advantages of the access road alternative are collocation of most of the station's new permanent access road with the new and existing pipeline rights-of-way, and reduced forest clearing. Although the access road alternative would reduce forest clearing by about 2.3 acres and collocate the clearing with the pipeline right-of-way, it would result in greater permanent impacts on forested wetland, and would have to cross approximately 400 feet of waterbody, whereas the proposed access road would only cross approximately 120 feet of waterbody. PennEast has sited the proposed access road to partially utilize

²³⁴ See final EIS at 3-3.

²³⁵ See final EIS at 3-9 to 3-24.

²³⁶ See final EIS at 3-16.

(approximately 400 feet of the 2,000-foot-long road) an existing road (which would need improvements), and to avoid wetland areas. Therefore, the final EIS determined that the compressor station access road alternative would not be environmentally preferable to the proposed access road location. We agree.

215. The final EIS evaluates an alternate site for the interconnection with Transco at a site approximately 2.1 miles southwest of the proposed interconnection.²³⁷ PennEast filed an analysis of this alternative on November 23, 2016. The primary advantage of this alternative is that it would eliminate about 2.5 miles of the proposed pipeline within Hopewell Township, New Jersey, where the pipeline would cross residential areas, farmlands, a portion of planned Hopewell Township affordable housing, and a parcel planned for a Hopewell Township emergency services facility. PennEast states that the Transco Interconnect Alternative would not meet the project's delivery needs as negotiated with Transco. We believe that an alternative interconnect on the same Transco pipeline approximately 2.1 miles from the proposed interconnect may be similar enough to the proposed delivery point to allow the alternative to meet the project's delivery needs, and warrants further analysis. Therefore, we require in Environmental Condition 13 that, prior to construction, PennEast provide additional details on the feasibility of incorporating the Transco Interconnect Alternative site.

4. Environmental Analysis Conclusion

216. We have reviewed the information and analysis contained in the final EIS regarding potential environmental effects of the project, as well as other information in the record. We are adopting the environmental recommendations in the final EIS, as modified herein, and are including them as environmental conditions in Appendix A to this order. Compliance with the environmental conditions appended to our orders is integral to ensuring that the environmental impacts of approved projects are consistent with those anticipated by our environmental analyses. Thus, Commission staff carefully reviews all information submitted. Only when satisfied that the applicant has complied with all applicable conditions will a notice to proceed with the activity to which the conditions are relevant be issued. We also note that the Commission has the authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project, including authority to impose any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the order, as well as the avoidance or mitigation of unforeseen adverse environmental impacts resulting from project construction and operation.

217. Based on our consideration of this information and the discussion above, we agree with the conclusions presented in the final EIS and find that the project, if constructed and operated as described in the final EIS, is an environmentally acceptable

²³⁷ See final EIS at 3-37 to 3-39.

actions. Further, for the reasons discussed throughout the order, as stated above, we find that the project is in the public convenience and necessity.

218. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.²³⁸

219. The Commission on its own motion received and made part of the record in this proceeding all evidence, including the application, as supplemented, and exhibits thereto, and all comments submitted, and upon consideration of the record,

The Commission orders:

(A) A certificate of public convenience and necessity is issued to PennEast, authorizing it to construct and operate the proposed PennEast Project, as described and conditioned herein, and as more fully described in the application.

(B) The certificate authority issued in Ordering Paragraph (A) is conditioned on:

(1) PennEast's proposed project being constructed and made available for service within two years of the date of this order pursuant to section 157.20(b) of the Commission's regulations;

(2) PennEast's compliance with all applicable Commission regulations, particularly the general terms and conditions set forth in Parts 154, 157, and 284, and paragraphs (a), (c), (e), and (f) of section 157.20 of the Commission's regulations; and

(3) PennEast's compliance with the environmental conditions listed in Appendix A to this order.

²³⁸ See 15 U.S.C. § 717r(d) (state or federal agency's failure to act on a permit considered to be inconsistent with Federal law); *see also* *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 310 (1988) (state regulation that interferes with FERC's regulatory authority over the transportation of natural gas is preempted) and *Dominion Transmission, Inc. v. Summers*, 723 F.3d 238, 245 (D.C. Cir. 2013) (noting that state and local regulation is preempted by the NGA to the extent it conflicts with federal regulation, or would delay the construction and operation of facilities approved by the Commission).

(C) A blanket construction certificate is issued to PennEast under Subpart F of Part 157 of the Commission's regulations;

(D) A blanket transportation certificate is issued to PennEast under Subpart G of Part 284 of the Commission's regulations;

(E) PennEast shall file a written statement affirming that it has executed firm contracts for the capacity levels and terms of service represented in signed precedent agreements, prior to commencing construction.

(F) PennEast's initial rates and tariff are approved, as conditioned and modified above.

(G) PennEast is required to file actual tariff records reflecting the initial rates and tariff language that comply with the requirements contained in the body of this order not less than 30 days and not more than 60 days prior to the commencement of interstate service consistent with Part 154 of the Commission's regulations.

(H) As described in the body of this order, PennEast must file any negotiated rate agreement or tariff record setting forth the essential terms of the agreement associated with the project at least 30 days, but not more than 60 days before the proposed effective date of such rates.

(I) No later than three months after the end of its first three years of actual operation, as discussed herein, PennEast must make a filing to justify its existing cost-based firm and interruptible recourse rates. PennEast's cost and revenue study should be filed through the eTariff portal using a Type of Filing Code 580. In addition, PennEast is advised to include as part of the eFiling description, a reference to Docket No. CP15-558-000 and the cost and revenue study.

(J) The requests for an evidentiary hearing are denied.

(K) PennEast shall notify the Commission's environmental staff by telephone or e-mail of any environmental noncompliance identified by other federal, state, or local

agencies on the same day that such agency notifies PennEast. PennEast shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission. Commissioners LaFleur and Chatterjee are concurring with separate statements attached. Commissioner Glick is dissenting with a separate statement attached.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A

Environmental Conditions for the PennEast Pipeline Project

As recommended in the final environmental impact statement (EIS) and otherwise amended herein, this authorization includes the following conditions. The section number in parentheses at the end of a condition corresponds to the section number in which the measure and related resource impact analysis appears in the final EIS.

1. PennEast Pipeline, LLC (PennEast) shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EIS, unless modified by the order. PennEast must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and receive approval in writing from the Director of the Office of Energy Projects (OEP) **before using that modification.**
2. The Director of OEP, or the Director's designee, has delegated authority to address any requests for approvals or authorizations necessary to carry out the conditions of the order, and take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project. This authority shall allow:
 - a. the modification of conditions of the order;
 - b. stop-work authority; and
 - c. the imposition of any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the order as well as the avoidance or mitigation of unforeseen adverse environmental impacts resulting from project construction and operation.
3. **Prior to any construction**, PennEast shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, Environmental Inspectors (EIs), and contractor personnel will be informed of the EIs' authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs before becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of construction**, PennEast shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the order. All requests for modifications of environmental conditions of the order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

PennEast's exercise of eminent domain authority granted under the Natural Gas Act (NGA) section 7(h) in any condemnation proceedings related to the order must be consistent with these authorized facilities and locations. PennEast's right of eminent domain granted under NGA section 7(h) does not authorize it to increase the size of its natural gas facilities to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. PennEast shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage-yards, new access roads, and other areas that will be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species will be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of the OEP **before construction in or near that area.**

This requirement does not apply to extra workspace allowed by the FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan) and/or minor field realignments per landowner needs and requirements that do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
 - b. implementation of endangered, threatened, or special concern species mitigation measures;
 - c. recommendations by state regulatory authorities; and
 - d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. **At least 60 days prior to beginning construction**, PennEast shall file an Implementation Plan with the Secretary for review and written approval by the

Director of the OEP. PennEast must file revisions to the plan as schedules change. The plan shall identify:

- a. how PennEast will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EIS, and required by the order;
 - b. how PennEast will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to on-site construction and inspection personnel;
 - c. the number of EIs assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
 - d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
 - e. the location and dates of the environmental compliance training and instructions PennEast will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change), with the opportunity for OEP staff to participate in the training session(s);
 - f. the company personnel (if known) and specific portion of PennEast's organization having responsibility for compliance;
 - g. the procedures (including use of contract penalties) PennEast will follow if noncompliance occurs; and
 - h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - (i) the completion of all required surveys and reports;
 - (ii) the environmental compliance training of on-site personnel;
 - (iii) the start of construction; and
 - (iv) the start and completion of restoration.
7. PennEast shall employ a team of EIs (i.e., two or more or as may be established by the Director of the OEP) per construction spread. The EIs shall be:
- a. responsible for monitoring and ensuring compliance with all mitigation measures required by the order and other grants, permits, certificates, or other authorizing documents;
 - b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of the order, and any other authorizing document;

- d. a full-time position, separate from all other activity inspectors;
 - e. responsible for documenting compliance with the environmental conditions of the order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - f. responsible for maintaining status reports.
8. **Beginning with the filing of its Implementation Plan**, PennEast shall file updated status reports with the Secretary on a **weekly basis** until all construction and restoration activities are complete. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
- a. an update on PennEast's efforts to obtain the necessary federal authorizations;
 - b. the construction status of each spread, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
 - c. a listing of all problems encountered and each instance of noncompliance observed by the EIs during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
 - d. a description of the corrective actions implemented in response to all instances of noncompliance, and their cost;
 - e. the effectiveness of all corrective actions implemented;
 - f. a description of any landowner/resident complaints that may relate to compliance with the requirements of the order, and the measures taken to satisfy their concerns; and
 - g. copies of any correspondence received by PennEast from other federal, state, or local permitting agencies concerning instances of noncompliance, and PennEast's response.
9. PennEast shall develop and implement an environmental complaint resolution procedure, and file such procedure with the Secretary, for review and approval by the Director of OEP. The procedure shall provide landowners with clear and simple directions for identifying and resolving their environmental mitigation problems/concerns during construction of the project and restoration of the right-of-way. **Prior to construction**, PennEast shall mail the complaint procedures to each landowner whose property will be crossed by the project.
- a. In its letter to affected landowners, PennEast shall:
 - (i) provide a local contact that the landowners should call first with their concerns; the letter should indicate how soon a landowner should expect a response;

- (ii) instruct the landowners that if they are not satisfied with the response, they should call PennEast's Hotline; the letter should indicate how soon to expect a response; and
 - (iii) instruct the landowners that if they are still not satisfied with the response from PennEast's Hotline, they should contact the Commission's Landowner Helpline at 877-337-2237 or at LandownerHelp@ferc.gov.
 - b. In addition, PennEast shall include in its weekly status report a copy of a table that contains the following information for each problem/concern:
 - (i) the identity of the caller and date of the call;
 - (ii) the location by milepost and identification number from the authorized alignment sheet(s) of the affected property;
 - (iii) a description of the problem/concern; and
an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved.
- 10. PennEast must receive written authorization from the Director of OEP **before commencing construction of any project facilities**. To obtain such authorization, PennEast must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
- 11. PennEast must receive written authorization from the Director of the OEP **before placing the project into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the project are proceeding satisfactorily.
- 12. **Within 30 days of placing the authorized facilities in service**, PennEast shall file an affirmative statement with the Secretary, certified by a senior company official:
 - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the Certificate conditions PennEast has complied with or will comply with. This statement shall also identify any areas affected by the project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
- 13. **Prior to construction**, PennEast shall file with the Secretary further details on the feasibility of incorporating the Transcontinental Gas Pipe Line (Transco)

Interconnect Alternative site along the CSX Railroad south of MP 111.8R2. At a minimum, PennEast shall include:

- a. a map showing the extent of the CSX Railroad right-of-way and Jersey Central Power & Light easement on the east side of the CSX right-of-way, and the CSX Railroad right-of-way adjacent to the Merrill Lynch property;
 - b. a map showing apparently undeveloped parcels adjacent to the Transco right-of-way where the Transco right-of-way crosses the CSX Railroad, and that could potentially be used for the interconnect;
 - c. a map showing wetlands along both the east and west sides of the CSX Railroad;
 - d. records of consultation with Transco regarding feasibility of using the alternative site as the project delivery point to the Transco system; and
 - e. details that support if the interconnect with Transco at the alternative site could meet delivery needs of the project shippers. (*Section 3.4.4*)
14. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of OEP, an updated report that verifies explosive weights used by the Trap Rock Quarry operator, including concurrence from Trap Rock Quarry that the correct inputs were used. The results of this study shall be incorporated in the final design of the project. (*Section 4.1.4*)
15. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of OEP, results of the outstanding Phase 2 and 3 portions of the Geohazard Risk Evaluation Report and include the following in its pipeline design geotechnical report:
 - a. an evaluation of soil stability hazards along the pipeline route at the proposed compressor station site and at locations with above-ground facilities;
 - b. a final landslide hazard inventory;
 - c. any specific measures and locations where PennEast will implement specialized pipeline design to mitigate for potential soil stability or landslide hazards; and
 - d. a post-construction monitoring plan. (*Section 4.1.5.2*)
16. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of OEP, a final Karst Mitigation Plan that incorporates the results of all outstanding geophysical and geotechnical field investigations in karst areas including stream crossings proposed with the horizontal directional drill (HDD) method. The final Karst Mitigation Plan shall incorporate all Best Management Practices developed based on the results of the final geophysical and geotechnical field investigations for construction through

karst areas, including any requirements of the Pennsylvania Department of Environmental Protection (PADEP), New Jersey Department of Environmental Protection (NJDEP), and local planning commissions. (*Section 4.1.5.4*)

17. **Prior to construction,** PennEast shall file with the Secretary the results of its ongoing geotechnical evaluation of working, not active, and abandoned mines near the proposed crossing of the Susquehanna River. The evaluation shall include final documentation of coordination with the Pennsylvania Bureau of Abandoned Mine Reclamation, along with the results of the geotechnical investigation to confirm the final design. PennEast shall include this documentation in the Phase 2 and 3 portions of the Geohazard Risk Evaluation Report. (*Section 4.1.5.4*)
18. **Prior to construction,** PennEast shall file with the Secretary an updated table identifying all areas that may require blasting. This table shall incorporate the results of the on-going geophysical and geotechnical evaluations. (*Section 4.1.6*)
19. **Prior to construction,** PennEast shall file with the Secretary the final design plans of each HDD crossing, for review and written approval by the Director of OEP. The final design plans will include the results for all geotechnical borings conducted at each HDD crossing (lithology, standard penetration testing, and bedrock quality designation), and an HDD feasibility assessment based on the soil boring results, including an assessment of the risk for hydrofracturing and inadvertent returns of drilling fluids at each crossing. (*Section 4.1.7*)
20. **Prior to construction,** PennEast shall file with the Secretary, for review and written approval by the Director of OEP, an unanticipated discovery plan for paleontological resources. The discovery plan shall be developed in coordination with the New Jersey Geological and Water Survey and Dr. William Gallagher. The significance of each resource shall be defined in the discovery plan. This plan shall describe proposed measures to avoid or minimize impacts on significant paleontological resources and include measures that will be implemented in the event of a discovery of paleontological resources during construction.
21. **Prior to construction,** PennEast shall complete all necessary surveys for water supply wells and groundwater seeps and springs, identify public and private water supply wells within the construction workspace, and file with the Secretary a revised list of water wells and groundwater seeps and springs within 150 feet of any construction workspace (500 feet in areas characterized by karst terrain). (*Section 4.3.1.6*)
22. **Prior to construction,** PennEast shall identify all septic systems within the construction work space, and file with the Secretary a list of septic systems within 150 feet of any construction workspace. PennEast shall also file with the Secretary, a plan which describes how PennEast will avoid septic systems, as well as how PennEast will mitigate or restore septic systems to applicable regulatory requirements, for review and approval by the Director of OEP.

23. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of OEP, a final Well Monitoring Plan that incorporates:
- a. PennEast's response (Serfes 2016) to U.S. Department of the Interior (DOI) comments;
 - b. an analysis for radon, radium 226, and radium 228 for wells in Hunterdon and Mercer Counties, New Jersey, in accordance with the New Jersey Private Well Testing Act; and
 - c. revisions to section 3.0 of the Well Monitoring Plan to include the types of treatment that PennEast will provide to impacted groundwater users with increased arsenic in groundwater concentrations above the NJDEP established maximum contaminant level (MCL) of 5 microgram per liter ($\mu\text{g/L}$), and the U.S. Environmental Protection Agency (EPA) MCL of 10 $\mu\text{g/L}$ for wells in Pennsylvania, as well as other contaminants detected in post-construction monitoring that are above their respective NJDEP or EPA MCL, and provisions for monitoring and maintenance of any treatment systems PennEast provides to impacted groundwater users. (*Section 4.3.1.6*)
24. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of OEP, an updated Unanticipated Discovery of Contamination Plan for the project that identifies the management and field environmental professionals responsible for notification for contaminated sites. (*Section 4.3.1.8*)
25. **Prior to construction**, PennEast shall file with the Secretary the results of the investigations regarding any anticipated blasting near the Swan Creek Reservoir. (*Section 4.3.2.2*)
26. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of OEP, site-specific crossing plans for all waterbodies with contaminated sediments (see table 4.3.2-5). The crossing method shall ensure that the potential suspension of sediments during construction shall be avoided or minimized to the greatest extent possible to limit any change to the bioavailability of any potential contaminants present. PennEast shall include documentation of consultation with pertinent agencies and identify any recommended minimization measures. (*Section 4.3.2.2*)
27. **Prior to construction**, PennEast shall file a revised Erosion and Sediment Control Plan (E&SCP) with the Secretary for review and written approval by the Director of the OEP. The revised E&SCP shall:
- a. include a complete review of waterbody crossings with steep slopes; and

- b. address waterbody crossing methods for steep embankments and bank stabilization issues, and include site-specific measures to address erosion, sedimentation, and restoration of steep embankments. (*Section 4.3.2.2*)
28. **Prior to construction**, PennEast shall file with the Secretary its final hydrostatic test plan that identifies the final hydrostatic test water sources and discharge locations, and provides documentation that all necessary permits and approvals have been obtained for withdrawal from each source. PennEast's plan shall provide the approximate water volume that will be withdrawn and discharged as both a project-total amount, and a daily amount, for each pipeline segment. Also, PennEast's plan shall detail the decision process for determining when an alternative water source will be used during exceptional dry periods when low flow conditions may be encountered. (*Section 4.3.2.4*)
29. **Prior to construction**, PennEast shall file with the Secretary documentation after consulting with appropriate local, state, and federal agencies regarding any in-water timing restrictions which are more restrictive than those required by the Federal Energy Regulatory Commission (FERC) Wetland and Waterbody Construction and Mitigation Procedures (Procedures) (e.g., June 1 through September 30 to protect coldwater fisheries; and June 1 through November 30 to protect coolwater and warmwater fisheries). (*Section 4.3.3.2*)
30. **Prior to construction**, PennEast shall file with the Secretary a complete wetland delineation report for the entire project that includes all wetlands delineated in accordance with the U.S. Army Corps of Engineers (USACE) and the applicable state agency requirements. (*Section 4.4.1*)
31. **Prior to construction**, PennEast shall survey all areas mapped as being potential vernal pool habitat and identify if any vernal pool habitat will be affected by project construction and/or operation. The results of these surveys shall be filed with the Secretary and the appropriate state agency(ies) for review. (*Section 4.4.1.2*)
32. **Prior to construction**, PennEast shall file with the Secretary a final project-specific Wetland Restoration Plan developed in consultation with the USACE and applicable state agencies in Pennsylvania and New Jersey, and file the plan with the Secretary. PennEast shall provide documentation of its consultation with the applicable federal and state agencies. (*Section 4.4.2*)
33. **Prior to the construction**, PennEast shall file with the Secretary, for review and written approval by the Director of OEP, an Invasive Species Management Plan that includes documentation of consultation with the appropriate state agencies and measures it will implement during construction and operation to minimize the spread of invasive and noxious plant species. (*Section 4.5.1.2*)
34. **Prior to construction**, PennEast shall file with the Secretary, for review, a Migratory Bird Conservation Plan developed in consultation with the U.S. Fish

and Wildlife Service (FWS), along with documentation of consultation with the FWS. (*Section 4.5.2.3*)

35. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of OEP, a list of locations by MP where the FWS will require tree clearing restrictions that are specifically applicable to federally listed bat species. (*Section 4.6.1.1*)
36. PennEast shall incorporate the conservation measures outlined in the FWS' November 29, 2017 Biological Opinion into its implementation plan, including:
 - a. implementing the reasonable and prudent measures;
 - b. abiding by the terms and conditions for the bog turtle;
 - c. adopting the monitoring and reporting requirements;
 - d. consulting with FWS on conservation recommendations for the bog turtle and northern long-eared bat; and
 - e. implementing specific requirements for bulrush as specified in the FWS BO.PennEast shall provide FERC and the FWS with all remaining survey results for their review and comment.
37. **Prior to construction**, if rare flora or fauna are discovered during PennEast's planned surveys of groundwater seeps, PennEast shall develop a plan to avoid or minimize impacts on these species and consult with the FWS. PennEast shall file with the Secretary documentation of its consultation with the FWS, as well as any recommended measures. (*Section 4.6.1.7*)
38. **Prior to construction**, PennEast shall consult with the NJDEP regarding timing and activity restrictions that shall be applied within 300 feet of streams that contain wood turtles. PennEast shall file with the Secretary documentation of this consultation with the NJDEP, as well as any recommendations made by the NJDEP, and whether PennEast agrees to implement these recommendations. Such information regarding this consultation process shall be filed with the Secretary. (*Section 4.6.2.7*)
39. **Prior to construction**, PennEast shall file with the Secretary a comprehensive list of measures developed in consultation with applicable state wildlife agencies to avoid or mitigate impacts on state-listed species and state species of concern, which shall include but not be limited to measures applicable to the eastern small-footed bat, timber rattlesnake, eastern box turtle, northern cricket frog, long-tailed salamander, and Cobblestone tiger beetle, as well as all other State listed species that may be impacted. The NJDEP has recommended that PennEast use the State's "Utility Right-of-Way No-Harm Best Management Practices" document while developing these project specific measures. (*Section 4.6.2.28*)

40. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of the OEP, a revised Residential Access and Traffic Management Plan which includes the results of traffic counts and an inventory of roadway and intersection geometry, peak hour traffic volume collection, and related observations of traffic operations in the project area. PennEast shall also file any additional site-specific mitigation measures that it will implement to minimize impacts on local traffic in the project area, including any recommendations from state, county, and municipal agencies. (*Section 4.7.1.6*)
41. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of the OEP, the following information for residences in close proximity to the project:
- a. the results of previously unsurveyed areas along the pipeline route and an updated list of residences and commercial structures within 50 feet of the construction right-of-way;
 - b. for all residences identified within 25 feet of a construction work area, a final site-specific construction plan that includes all of the following: a dimensioned site plan that clearly shows the location of the residence in relation to the pipeline, the boundaries of all construction work areas, the distance between the edge of construction work areas and the residence and other permanent structures, and equipment travel lanes;
 - c. a description of how and when landowners will be notified of construction activities;
 - d. documentation of landowner concurrence if a structure within the construction work area will be relocated or purchased;
 - e. documentation of landowner concurrence if the construction work areas will be within 10 feet of a residence; and
 - f. a description of how PennEast will provide temporary housing for residents temporarily displaced during construction and whether PennEast will compensate landowners for this cost. (*Section 4.7.3.1*)
42. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of the OEP, a final crossing plan for the Appalachian National Scenic Trail that includes: timing restrictions, closure schedules, and site-specific safety and mitigation measures including signage and barriers if needed; and documentation of consultation with the Pennsylvania Game Commission. (*Section 4.7.5.1*)
43. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval of the Director of the OEP, plans regarding a gating or boulder access system for the pipeline right-of-way across Pennsylvania state lands, developed in consultation with the Pennsylvania Department of Conservation and

Natural Resources (PADCNR), to prevent unauthorized vehicle access while maintaining pedestrian access. (*Section 4.7.5.2*)

44. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of the OEP, additional information on the crossing of the Bethlehem Authority water transmission tunnel crossed at MPs 51.0R2 and 51.6R2. Additional information shall include, but not be limited to:
 - a. a site-specific crossing plan for each crossing location, including construction methods and measures used to avoid impacts on the water transmission tunnel;
 - b. identification of any blasting that will be required within 2,000 feet of the water tunnel;
 - c. a vibration monitoring program that will be implemented during construction; and
 - d. documentation of working meetings with the Water Authority to ensure that concerns related to construction and operation of the pipeline over the water transmission tunnel are adequately addressed. (*Section 4.7.5.3*)
45. PennEast shall file with the Secretary reports describing any documented complaints from a homeowner that a homeowner's insurance policy was cancelled, voided, or amended due directly to the grant of the pipeline right-of-way or installation of the pipeline and/or that the premium for the homeowner's insurance increased materially and directly as a result of the grant of the pipeline right-of-way or installation of the pipeline. The reports shall also identify how PennEast has mitigated the impact. **During construction**, these reports shall be included in PennEast's **weekly** status reports (see recommendation 8) and in quarterly reports for a **2-year period** following in-service of the project. (*Section 4.8.8.2*)
46. **Prior to construction**, PennEast shall assess potential project impacts on the Hickory Run Recreation Demonstration Area and file with the Secretary a recommendation of effects and the Pennsylvania State Historic Preservation Office's (SHPO's) comments. (*Section 4.9.2.1*)
47. **Prior to construction**, PennEast shall file with the Secretary all effects assessments related to historic districts crossed in New Jersey. PennEast shall also include site avoidance or mitigation plans and documentation of New Jersey SHPO's comments. (*Section 4.9.2.2*)
48. **Prior to construction**, PennEast shall provide an assessment of potential project effects to Bridge #D-449 Worman Road along with comments of the New Jersey SHPO and any needed avoidance or treatment plans for the resource. (*Section 4.9.2.2*)

49. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of the OEP, a final vibration monitoring plan for historic properties within 150 feet of the construction workspace in consultation with the Pennsylvania and New Jersey SHPOs. (*Section 4.9.5*)
50. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of the OEP, a revised Blasting Plan that includes a review of potential effects on cultural resources, including caves, rock shelters, and aboveground historic structures, and how those impacts will be addressed. (*Section 4.9.5*)
51. PennEast **shall not begin construction** of facilities and/or use of all staging, storage, or temporary work areas, and new or to-be-improved access roads **until**:
- a. PennEast files with the Secretary:
 - (i) remaining cultural resources survey report(s);
 - (ii) site or resource evaluation report(s) and avoidance/treatment plan(s), as required;
 - (iii) the project's recommended effects to historic properties in Pennsylvania and New Jersey; and
 - (iv) comments on the cultural resources reports and plans from the Pennsylvania and New Jersey SHPOs, as appropriate;
 - b. the Advisory Council on Historic Preservation is afforded an opportunity to comment if historic properties will be adversely affected; and
 - c. the FERC staff reviews and the Director of the OEP approves the cultural resources reports and plans, and notifies PennEast in writing that treatment plans/mitigation measures (including archaeological data recovery) may be implemented and/or construction may proceed.

All materials filed with the Commission containing **location, character, and ownership information** about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: “**CUI\PRIV - DO NOT RELEASE.**” (*Section 4.9.6*)

52. If changes to the project construction schedule and/or design occur that will materially impact the amount of construction nitrogen oxide (NO_x) emissions generated in a calendar year, PennEast shall file with the Secretary, **prior to construction**, revised construction emissions estimates prior to implementing the revised construction schedule and/or design modification demonstrating that the annual NO_x emissions resulting from the revised construction schedule and/or design do not exceed general conformity applicability thresholds. In addition, if any such project revised construction schedule and/or design changes result in emissions that will exceed the general conformity applicability thresholds, then a draft general conformity determination will need to be prepared at that time, as

required under Section 93.157(d) of the Federal General Conformity regulation at 40 Code of Federal Regulations Part 93, Subpart B. (*Section 4.10.1.3*)

53. PennEast shall implement the following measures for on-road vehicles and non-road diesel construction equipment used for construction of the project;
- a. all on-road vehicles and non-road construction equipment operating at, or visiting, a construction site shall comply with the three-minute idling limit, and anti-idling signs shall be posted;
 - b. all non-road diesel construction equipment greater than 100 horsepower used for more than ten days shall have engines that meet the EPA Tier 4 non-road emission standards or the best available control technology that is technologically feasible and verified by EPA or the California Air Resources Board as a diesel emission control strategy; and
 - c. all on-road diesel vehicles used to haul materials or traveling to and from a construction site shall use designated truck routes that are designed to minimize impacts on residential areas and sensitive receptors such as hospitals, schools, daycare facilities, senior citizen housing, and convalescent facilities. (*Section 4.10.1.4*)
54. **Prior to construction**, PennEast shall file with the Secretary, for review and written approval by the Director of the OEP, a HDD noise mitigation plan for each HDD location to reduce the projected noise level attributable to the proposed drilling operations at the 31 noise sensitive areas (NSAs) with the predicted noise levels above 55 decibel A-weighted (dBA) day-night sound level (L_{dn}). During drilling operations, PennEast shall implement the approved plan for all HDDs, monitor noise levels, include the noise monitoring results in its **weekly** status reports, and make all reasonable efforts to restrict the noise attributable to the drilling operations to no more than an L_{dn} of 55 dBA at the NSAs. (*Section 4.10.2.3*)
55. PennEast shall file a noise survey with the Secretary **no later than 60 days after placing the Kidder Compressor Station in service**. If a full load noise condition survey is not possible, PennEast shall provide an interim survey at the maximum horsepower load and provide the full load survey **within six months**. If the noise attributable to the operation of the compressor station at full load exceeds an L_{dn} of 55 dBA at any nearby NSA, PennEast shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within one year of the in-service date**. PennEast shall confirm compliance with the above requirement by filing a second noise survey with the Secretary **no later than 60 days after it installs the additional noise controls**. (*Section 4.10.2.3*)

56. **Prior to construction**, PennEast shall consult with the Federal Aviation Administration and the appropriate authority at the Trenton-Mercer Airport regarding any requirements or guidelines that need to be followed during construction or operation of the project. Records of these consultations, as well as any requirements made by the Federal Aviation Administration and the Trenton-Mercer Airport, shall be filed with the Secretary. (*Section 4.11.3*)

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PennEast Pipeline Company, LLC

Docket No. CP15-558-000

(Issued January 19, 2018)

LaFLEUR, Commissioner *concurring*:

In today's order, the Commission authorizes the development of the PennEast Project, a natural gas pipeline from Luzerne County, Pennsylvania to Mercer County, New Jersey. I write separately to provide additional context regarding my conclusion that the PennEast Project is in the public interest.

Deciding whether a project is in the public interest requires a careful balancing of the economic need for the project and its environmental impacts.¹ In applying this balancing test to the extensive record developed in this case, I am persuaded that on balance, the PennEast Project is in the public interest. PennEast has demonstrated that approximately 90 percent of the project's capacity has been subscribed, primarily by state-regulated local distribution companies and owners of natural gas-fired electric generation facilities. I believe that under existing Commission precedent, this evidence of precedent agreements supports the determination that the project is needed.

I have carefully considered the environmental impacts of the PennEast Project, and agree with the order's determination that, while the Project will result in some adverse environmental impacts, the environmental conditions imposed in today's order will ensure that such impacts are reduced to acceptable levels. I do share the concerns of my colleagues that the record reflects a significant number of environmental surveys that are incomplete due to lack of access to landowner property. I am persuaded, however, that Commission staff has developed a sufficient record to adequately evaluate the environmental impacts resulting from the PennEast Project.² Moreover, today's order

¹ See *Atlantic Coast Pipeline, LLC*, 161 FERC ¶ 61,042 (2017) (LaFleur, Comm'r, *dissenting*); *Mountain Valley Pipeline, LLC*, 161 FERC ¶ 61,043 (2017) (LaFleur, Comm'r, *dissenting*).

² The order explains that the Commission relied upon "PennEast's application and supplements, as well as information developed through Commission staff's data requests, field investigations, the scoping process, literature research, alternative analyses, and

imposes a number of environmental conditions which are intended to specifically allow the Commission and Commission staff to carefully monitor PennEast's ongoing compliance obligations, particularly related to the completion of those surveys, and any necessary avoidance, minimization, and mitigation measures that may be needed.

I strongly support Chairman McIntyre's announcement that the Commission will undertake a generic proceeding to look broadly at our pipeline certificate policies. I believe this review should include both our needs determination and our environmental review of proposed projects. Today's order highlights the issue of how pipeline developers engage with landowners, which I believe should also be explored in the upcoming generic proceeding. For now, I will continue to take a case-by-case approach to pipeline applications, carefully applying the existing law that governs our certificate process to the factual record developed in each case. In this case, that review led me to conclude that the proposed pipeline is in the public interest.

For these reasons, I respectfully concur.

Cheryl A. LaFleur
Commissioner

contacts with federal, state, and local agencies, as well as with individual members of the public."

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PennEast Pipeline Company, LLC

Docket No. CP15-558-000

(Issued January 19, 2018)

CHATTERJEE, Commissioner, *concurring*:

I concur in this order and agree with granting a certificate of public convenience and necessity to PennEast, authorizing it to construct and operate the proposed PennEast Project, subject to the conditions in the order. I believe a clear need has been demonstrated for the project. PennEast has executed long-term, firm precedent agreements with 12 shippers for approximately 90 percent of the project's capacity. This additional gas infrastructure will provide additional natural gas transportation capacity into Pennsylvania and New Jersey.

However, I do have concerns about the order's impact on landowners. For this project, there are incomplete surveys due to lack of access to landowner property. I recognize that the rights of landowners are important, and do not take their concerns lightly. Under section 7 of the Natural Gas Act, once the Commission grants a certificate, a certificate holder is authorized to acquire the necessary land or property to construct the approved facilities by exercising the right of eminent domain if it cannot acquire the easement by an agreement with the landowner. It is important that the Commission have as much data as possible on which to base a determination that has such a momentous effect.

I am supporting the project despite these concerns, because I believe the Commission has sufficient information in the record on which to make its decision – the certificate application and supplements, information developed through Commission staff's data requests, field investigations, the scoping process, literature research, alternatives analysis, and contacts with federal, state, and local agencies, and individual members of the public. Additionally, the order imposes conditions requiring the filing of additional environmental information for review and approval once survey access is obtained.

But I would like to encourage pipeline companies and landowners to work with the Commission to maximize engagement and minimize the impacts on landowners going forward. I believe that a cooperative process leads to the best results for all stakeholders.

For these reasons, I respectfully concur.

Neil Chatterjee, Commissioner

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PennEast Pipeline Company, LLC

Docket No. CP15-558-000

(Issued January 19, 2018)

GLICK, Commissioner, *dissenting*:

I respectfully dissent from today's order because I believe that the record in this proceeding fails to demonstrate that the PennEast Project satisfies the requirements for a certificate of public convenience and necessity under the Natural Gas Act. Section 7 of the Natural Gas Act requires that, before issuing a certificate for new pipeline construction, the Commission find both a need for the pipeline and that, on balance, the pipeline's benefits outweigh its harms.¹ I disagree with the Commission's conclusion that the PennEast Project meets these standards.

In today's order, the Commission relies exclusively on the existence of precedent agreements with shippers to conclude that the PennEast Project is needed.² Pursuant to these agreements, PennEast's affiliates hold more than 75 percent of the pipeline's subscribed capacity.³ While I agree that precedent and service agreements are one of several measures for assessing the market demand for a pipeline,⁴ contracts among

¹ 15 U.S.C. § 717f (2012).

² *PennEast Pipeline Company, LLC*, 162 FERC ¶ 61,053, at P 27 (2018) (explaining that "it is current Commission policy to not look beyond precedent or service agreements to make judgments about the needs of individual shippers"); *id.* P 29 ("Where, as here, it is demonstrated that specific shippers have entered into precedent agreements for project service, the Commission places substantial reliance on those agreement to find that the project is needed.").

³ *Id.* P 6.

⁴ *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227, 61,747 (1999) (Certificate Policy Statement) ("[T]he Commission will consider all relevant factors reflecting on the need for the project. These might include, but would not be limited to, precedent agreements, demand projections, potential cost savings to

affiliates may be less probative of that need because they are not necessarily the result of an arms-length negotiation.⁵ By itself, the existence of precedent agreements that are in significant part between the pipeline developer and its affiliates is insufficient to carry the developer's burden to show that the pipeline is needed.

Under these circumstances, I believe that the Commission must consider additional evidence regarding the need for the pipeline. As the Commission explained in the Certificate Policy Statement, this additional evidence might include, among other things, projections of the demand for natural gas, analyses of the available pipeline capacity, and an assessment of the cost savings that the proposed pipeline would provide to consumers.⁶ The Commission, however, does not rely on any such evidence in finding that there is a need for the PennEast Project.⁷ Accordingly, I do not believe that the Commission's order properly concludes that the PennEast Project is needed.

In addition to determining the need for a pipeline, the Natural Gas Act requires the Commission to find that, on balance, the pipeline's benefits outweigh its harms. This includes weighing the risk of harm to the environment, landowners, and communities, as well as public safety more generally.⁸ And where, as in this proceeding, there is limited evidence of the need for the proposed project, it is incumbent on the Commission to engage in an especially searching review of the project's potential harms to ensure that

consumers, or a comparison of projected demand with the amount of capacity currently serving the market.”).

⁵ Certificate Policy Statement at 61,744.

⁶ *Id.* at 61,747.

⁷ Indeed, the Commission concludes that “the fact that 6 of the 12 shippers on the PennEast Project are affiliated with the project's sponsors does not require the Commission to look behind the precedent agreements to evaluate project need.” *PennEast Pipeline Company, LLC*, 162 FERC ¶ 61,053 at P 33.

⁸ As the United States Court of Appeals for the District of Columbia Circuit has explained, “[t]he broad public interest standards in the Commission's enabling legislation are limited to ‘the purposes that Congress had in mind when it enacted this legislation.’” *Pub. Utils. Comm'n of Cal. v. FERC*, 900 F.2d 269, 281 (D.C. Cir. 1990) (quoting *NAACP v. FERC*, 425 U.S. 662, 670 (1976)). The Court explained that, for the Natural Gas Act, these purposes include “‘encourag[ing] the orderly development of plentiful supplies of . . . natural gas at reasonable prices’” as well as “‘conservation, environmental, and antitrust issues.’” *Id.* (quoting *NAACP*, 425 U.S. at 670 n.6).

the project is in fact in the public interest. In this case, PennEast's certificate application lacks evidence that I believe is important to making the public interest determination.⁹

The Commission addresses this lack of evidence by conditionally granting the certificate, subject to PennEast's compliance with the environmental conditions. I recognize that the courts have upheld the Commission's authority to issue conditional certificates. Nevertheless, doing so comes with significant consequences for landowners whose properties lie in the path of the proposed pipeline. Although the certificate is conditional, it gives the pipeline developer the authority to exercise eminent domain and condemn land as needed to develop the pipeline.¹⁰ In my view, Congress did not intend for the Commission to issue certificates so that certificate holders may use eminent domain to acquire the information needed to determine whether the pipeline is in the public interest.¹¹ Further, under the Natural Gas Act, this eminent domain authority is

⁹ For instance, 68 percent of the project alignment in New Jersey has yet to be surveyed for the existence of historic and cultural resources. *PennEast Pipeline Company, LLC*, 162 FERC ¶ 61,053 at P 172. In addition, PennEast has not yet completed the geotechnical borings work needed to ensure that the environmental impacts of planned horizontal directional drilling will be adequately minimized. *Id.* P 120.

¹⁰ 15 U.S.C. § 717f(h) (2012). State supreme courts, including New Jersey's and Pennsylvania's, have long recognized that the power of eminent domain is a harsh and extraordinary power that should be strictly construed. *See Levin v. Twp. Comm. of Twp. of Bridgewater*, 274 A.2d 1, 26 (N.J. 1971) ("Where . . . property is forcibly taken from one party for the purpose of being transferred to another, thereby excluding the consent of the owner and excluding all other prospective ultimate purchasers and developers except the one selected by the municipality, the facts which allegedly give rise to that municipal power should be closely scrutinized."); *Woods v. Greensboro Nat. Gas Co.*, 54 A. 470, 470-72 (Pa. 1903) ("The exercise of the right of eminent domain, whether directly by the state or its authorized grantee, is necessarily in derogation of private right, and the rule in that case is that the authority is to be strictly construed." (internal citations omitted)); *see also Harvey v. Aurora & G. Ry. Co.*, 51 N.E. 163, 166 (Ill. 1898) (similar); *Chesapeake & O. Ry. Co. v. Walker*, 40 S.E. 633, 636 (Va. 1902) (similar); *City of Little Rock v. Sawyer*, 309 S.W.2d 30, 36 (Ark. 1958) (similar); *La. Power & Light Co. v. Lasseigne*, 257 La. 72, 89 (1970) (similar).

¹¹ *See, e.g., Walker v. Gateway Pipeline Co.*, 601 So. 2d 970, 975 (Ala. 1992) (explaining that section 7(h) of the Natural Gas Act addresses eminent domain needed for the "actual construction of facilities, not entries that may take place prior to such construction and in preparation for acquiring a certificate of public convenience and necessity from the FERC").

not limited to the extent needed to complete the surveys and other assessments used to satisfy the conditions imposed in the Commission's order. As a result, there will not necessarily be any restriction on a pipeline developer's ability to exercise eminent domain while the Commission waits to confirm that the pipeline is in the public interest.

I recognize that part of the reason that the record in this proceeding is incomplete is that landowners have denied PennEast access to their land for the purpose of conducting the necessary studies and assessments. However, the question whether landowners should be required to provide pipeline developers with access to their property for the purpose of determining whether it is suitable for a proposed pipeline is one that is and should be left to the states to decide. The Commission should not use the pipeline certification process as an end run around states and landowners that choose not to grant access to their property before a certificate is issued.¹²

For these reasons, I respectfully dissent.

Richard Glick
Commissioner

¹² Some states allow prospective interstate pipeline companies to rely on state law to access private property for surveying prior to obtaining a certificate of public convenience and necessity. *See, e.g., Texas E. Transmission, LP v. Barack*, 2014 WL 1408058, at *3 (S.D. Ohio Apr. 11, 2014) (granting a pipeline company access under Ohio law to a property for purpose of surveying, appraising, and conducting any necessary examinations). Other states, including New Jersey and Pennsylvania, do not provide pipeline companies this right prior to obtaining a certificate of public convenience and necessity from the Commission.

164 FERC ¶ 61,098
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Kevin J. McIntyre, Chairman;
Cheryl A. LaFleur, Neil Chatterjee,
Robert F. Powelson, and Richard Glick.

PennEast Pipeline Company, LLC

Docket No. CP15-558-001

ORDER ON REHEARING

(Issued August 10, 2018)

1. On January 19, 2018, the Commission issued an order pursuant to section 7(c) of the Natural Gas Act (NGA) and parts 157 and 284 of the Commission's regulations authorizing PennEast Pipeline Company, LLC (PennEast) to construct and operate the PennEast pipeline system (PennEast Project).¹ The PennEast Project consists of a new, 116-mile greenfield natural gas pipeline extending from Luzerne County, Pennsylvania, to Mercer County, New Jersey, as well as three laterals, a new compressor station and appurtenant facilities. The PennEast Project is designed to provide up to 1,107,000 dekatherms per day (Dth/d) of firm transportation service to a diverse group of customers for a variety of purposes, including supply flexibility, diversity, and reliability.

2. In the Certificate Order, the Commission found that the benefits that the PennEast Project will provide to the market outweigh any adverse effects on existing shippers, other pipelines and their captive customers, and on landowners and surrounding communities. The Commission concluded after preparing an Environmental Impact Statement (EIS) for the project to satisfy the requirements of the National Environmental Policy Act (NEPA) that, if constructed and operated as described in the Final EIS, the project will result in some adverse environmental impacts, but that these impacts will be reduced to less than significant levels with PennEast's implementation of the required mitigation measures as adopted as conditions of the order.²

¹ *PennEast Pipeline Co., LLC*, 162 FERC ¶ 61,053 (2018) (Certificate Order).

² Certificate Order, 162 FERC ¶ 61,053 at P 98.

3. Between January 23, 2018 and February 20, 2018, numerous parties filed, timely, unopposed requests for rehearing of the Certificate Order.³ In addition, untimely requests for rehearing were filed by Food and Water Watch, Sourland Conservancy and the County of Mercer.

4. For the reasons discussed below, the requests for rehearing are rejected, dismissed, or denied and the requests for stay are dismissed as moot.

I. Procedural Matters

A. Party Status

5. Under NGA section 19(a) and Rule 713(b) of the Commission's Rules of Practice and Procedure, only a party to a proceeding has standing to request rehearing of a final Commission decision.⁴ Any person seeking to become a party must file a motion to intervene pursuant to Rule 214 of the Commission's Rules of Practice and Procedure.⁵ On February 16, 2018, New Jersey State Senator Kip Bateman and New Jersey State Assemblyman Reed Gusciora filed requests for rehearing of the Certificate Order. On February 20, 2018, New Jersey State Senator Shirley Turner filed a request for rehearing of the Certificate Order. Neither Senators Bateman or Turner, or Assemblyman Gusciora filed motions to intervene in this proceeding; therefore they are not parties to the proceeding, and their requests for rehearing must be rejected.

B. Untimely Requests for Rehearing

6. Pursuant to section 19(a) of the NGA, an aggrieved party must file a request for rehearing within 30 days after the issuance of the Commission's order.⁶ Under the

³ On February 20, 2018, Virginia Banks filed a timely request for rehearing. On August 2, 2018, Ms. Banks' request for rehearing was withdrawn.

⁴ 15 U.S.C. § 717r(a) (2012); 18 C.F.R. § 385.713(b) (2017).

⁵ 18 C.F.R. § 385.214(a)(3) (2017).

⁶ 15 U.S.C. § 717r(a) (2012) ("Any person, State, municipality, or State commission aggrieved by an order issued by the Commission in a proceeding under this act to which such person, State, municipality, or State commission is a party may apply for a rehearing within thirty days after the issuance of such order"). The Commission has no discretion to extend this deadline. *See, e.g., Transcontinental Gas Pipe Line Co.*, 161 FERC ¶ 61,250, at P 10, n. 13 (2017) (*Transco*) (collecting cases).

Commission's regulations, read in conjunction with section 19(a), the deadline to seek rehearing was 5:00 pm U.S. Eastern Time, February 20, 2018.⁷ Food & Water Watch's February 21, 2018 request for rehearing, the County of Mercer's February 27, 2018 request for rehearing, and Sourland Conservancy's March 25, 2018 request for rehearing failed to meet this deadline. Because the 30-day rehearing deadline is statutorily based, it cannot be waived or extended, and their requests must be rejected as untimely.

C. Deficient Requests for Rehearing

7. The NGA requires that a request for rehearing set forth the specific grounds on which it is based.⁸ Additionally, the Commission's regulations provide that requests for rehearing must "[s]tate concisely the alleged error in the final decision" and "include a separate section entitled 'Statement of Issues,' listing each issue in a separately enumerated paragraph" that includes precedent relied upon.⁹ Consistent with these requirements, the Commission "has rejected attempts to incorporate by reference arguments from a prior pleading because such incorporation fails to inform the Commission as to which arguments from the referenced pleading are relevant and how they are relevant."¹⁰ Finally, "parties are not permitted to introduce new evidence for the

⁷ Rule 2007 of the Commission's Rules of Practice and Procedure provides that when the time period prescribed by statute falls on a weekend, the statutory time period does not end until the close of the next business day. *See* 18 C.F.R. § 385.2007(a)(2) (2017). The Commission's business hours are "from 8:30 a.m. to 5:00 p.m.," and filings – paper or electronic – made after 5:00 p.m. will be considered filed on the next regular business day. Therefore, although the Certificate Order was issued on January 19, 2018, because February 19, 2018 fell on a federal holiday, the rehearing period closed on February 20, 2018. *See* 18 C.F.R. §§ 375.101(c), 2001(a)(2) (2017).

⁸ 15 U.S.C. § 717r(a) (2012).

⁹ 18 C.F.R. § 385.713 (2017).

¹⁰ *San Diego Gas and Electric Co. v. Sellers of Market Energy*, 127 FERC ¶ 61,269, at P 295 (2009). *See Tennessee Gas Pipeline Co., L.L.C.*, 156 FERC ¶ 61,007, at P 7 (2016) ("the Commission's regulations require rehearing requests to provide the basis, in fact and law, for each alleged error including representative Commission and court precedent. Bootstrapping of arguments is not permitted."). *See also ISO New England, Inc.*, 157 FERC ¶ 61,060, at P 4 (2016) (explaining that the identical provision governing requests for rehearing under the Federal Power Act "requires an application for rehearing to 'set forth specifically the ground or grounds upon which such application is based,' and the Commission has rejected attempts to incorporate by reference grounds for (continued ...)").

first time on rehearing since such practice would allow an impermissible moving target, and would frustrate needed administrative finality.”¹¹

8. Numerous petitioners filed brief requests for rehearing generally asserting that the Commission’s Certificate Order did not comply with NEPA or the NGA, or otherwise failed to adequately address a host of issues. These petitioners did not include a concise statement of issues, and failed to make reference to specific findings in the Certificate Order, nor do they rely on Commission or other precedent to support their assertions.¹² In addition, several petitioners filed requests for rehearing in which they simply seek to incorporate by reference the requests for rehearing filed by Conservation Foundation, and/or the New Jersey Division of Rate Counsel (Rate Counsel). For the reasons discussed above, these pleadings¹³ do not comply with Commission regulations and are dismissed. In any event, however, the concerns of these parties are generally addressed in response to arguments properly raised by other parties on rehearing.

1. Delaware Riverkeeper’s Rehearing Request

9. On January 24, 2018, five days after the issuance of the Certificate Order, Delaware Riverkeeper Network (Delaware Riverkeeper) filed a 190-page request for rehearing that lists 20 alleged errors that purportedly relate to the Certificate Order. For

rehearing from prior pleadings”); *Alcoa Power Generating, Inc.*, 144 FERC ¶ 61,218, at P 10 (2013) (“The Commission, however, expects all grounds to be set forth in the rehearing request, and will dismiss any ground only incorporated by reference.”) (citations omitted).

¹¹ *PaTu Wind Farm, LLC v. Portland General Electric Co.*, 151 FERC ¶ 61,223, at P 42 (2015). See also *Potomac-Appalachian Transmission Highline, L.L.C.*, 133 FERC ¶ 61,152, at P 15 (2010).

¹² See, e.g., *Boott Hydropower, Inc.*, 143 FERC ¶ 61,159 (2013) (dismissing request for rehearing that did not include a Statement of Issues and did not identify the specific error alleged).

¹³ The requests for rehearing submitted by the following parties are dismissed as they failed to comply with Commission regulations: Elizabeth Balogh; Sari DeCesare, Linda and Ned Heindel; Scott Hengst, Fairfax Hutter; Kelly Kappler; Karen Mitchell; Elizabeth Peer; Laura Pritchard; Roblyn Rawlins; Sarah Seier; the City of Lambertville; the New Jersey Natural Lands Trust; the Pipeline Safety Coalition, Sierra Club; and Washington Crossing Audubon Society.

two of the alleged errors, there is no further discussion in the rehearing request and these arguments are dismissed.¹⁴ For the 18 other alleged errors, Delaware Riverkeeper's request for rehearing is a verbatim or near-verbatim copy of Delaware Riverkeeper's September 12, 2016 comments on the Draft Environmental Impact Statement (Draft EIS) prepared for the project.¹⁵ The aim of the NGA's rehearing requirement is "to give the Commission the first opportunity to consider challenges to its orders and thereby narrow or dissipate the issues before they reach the courts."¹⁶ Simply repeating prior arguments regarding an entirely separate document does not serve this purpose. Nor does it comport with Delaware Riverkeeper's obligation to "set forth specifically the ground or grounds upon which" a request for rehearing is based.¹⁷ Delaware Riverkeeper, in essence, incorporates by reference their prior Draft EIS comments into their request for rehearing. Delaware Riverkeeper's request for rehearing further fails to address the Certificate Order itself, and in several instances cites to the Draft EIS, as opposed to the Final EIS, and otherwise contains generalized, unsupported statements of purported errors in the Final EIS. We find that these 18 assertions of error have not been properly raised and are thus dismissed.¹⁸ Nevertheless, we find that these arguments are without merit, as discussed below.

¹⁴ The issues Delaware Riverkeeper does not discuss further are that the Final EIS did not perform an analysis of the economic impacts of the PennEast Project, and that the Final EIS failed to "undertake a healthy [sic] and safety impacts analysis".

¹⁵ *Compare* Delaware Riverkeeper's January 24, 2018 Request for Rehearing at 7 – 158 *with* its September 12, 2016 Comments at 2 – 78.

¹⁶ *Sierra Club v. FERC*, 827 F.3d 59, 69 (D.C. Cir. 2016).

¹⁷ 15 U.S.C. § 717r(a). *See also Constellation Energy Commodities Group, Inc. v. FERC*, 457 F.3d 14, 22 (D.C. Cir. 2006) ("Each quoted passage states a conclusion; neither makes an argument. Parties are required to present their arguments to the Commission in such a way that the Commission knows 'specifically ... the ground on which rehearing [i]s being sought'").

¹⁸ These items include: (1) EIS does not support conclusion that construction of project will not have significant environmental impacts; (2) EIS assertion of need not supported by preponderance of evidence; (3) EIS fails to consider cumulative impacts; (4) EIS fails to consider impacts of induced shale gas production; (5) Economic benefits asserted in the EIS are unsupported and economic harms are overlooked; (6) Commission failed to consider greenhouse gas emissions and climate change; (7) EIS alternative analysis is flawed; (8) Commission improperly segmented its environmental analysis; (9) *(continued ...)*

D. PennEast's Answer

10. On March 7, 2018, PennEast filed a motion for leave to answer and answer to the requests for rehearing and motions for stay. On March 15, 2018, the New Jersey Conservation Foundation and Stony Brook-Millstone Watershed Association (jointly, Conservation Foundation) filed a response to PennEast's answer. Rules 713(d)(1) and 213(a)(2) of the Commission's Rules of Practice and Procedure¹⁹ prohibit answers to a request for rehearing, and answers to answers. Accordingly, we reject PennEast's answer and Conservation Foundation's response.

E. Lack of Evidentiary Hearing

11. Conservation Foundation asserts that the Commission erred in denying their request to hold an evidentiary hearing to address the existence of need for the project.²⁰ Conservation Foundation argues that the Commission merely relied on precedent agreements, and that "critical information for evaluating public benefit... remains missing from the record."²¹ Holding an evidentiary hearing, Conservation Foundation posits, would allow for greater public participation, while enabling an "independent assessment" of both the credibility of PennEast's evidence regarding need for the project, and whether demand for the project exists.²²

EIS fails to address comments that standard construction practices will result in environmental violations and degradation; (10) EIS misrepresents the legal authority of the Delaware River Basin Commission; (11) EIS is legally deficient; (12) EIS contains, inaccurate, misleading, and/or deficient assertions; (13) EIS contains an insufficient baseline for Threatened and Endangered species review; (14) EIS fails to adequately consider alternative routes or construction practices; (15) PennEast Project will harm the public and property rights; (16) Commission authorized tree felling prior to company's receipt of Clean Water Act Certification; (17) Commission failed to provide accurate baseline from which to conduct its environmental analysis; and (18) Commission relied on inaccurate or complete information. Delaware Riverkeeper's Request for Rehearing at 5 - 7.

¹⁹ 18 C.F.R. § 385.213(a)(2); 713(d)(1) (2017).

²⁰ Conservation Foundation's Request for Rehearing at 85-87.

²¹ *Id.*, at 85.

²² *Id.*, at 86-87.

12. As we stated in the Certificate Order, an evidentiary, trial-type hearing is necessary only where there are material issues of fact in dispute that cannot be resolved on the basis of the written record.²³ Despite Conservation Foundation's assertions, they have not shown that a material issue of fact exists that the Commission could not, and cannot, resolve on the basis of the written record. As discussed in the Certificate Order and below, precedent agreements for project capacity are "significant evidence of project need or demand."²⁴ The written record contains sufficient evidence to establish that the project is needed, most notably from precedent agreements subscribing to approximately 90 percent of the project's capacity, as well as additional evidence of the various reasons project shippers sought to utilize the project.²⁵ Conservation Foundation, and all other parties to the proceeding had the opportunity to view, and respond to, this evidence. Thus, an evidentiary hearing was not warranted. To the extent that Conservation Foundation asserts that need for the project has not been demonstrated adequately, we address this issue below.

F. Motions for Stay

13. Michael Spille, The Township of Hopewell (Hopewell), Lower Saucon Township (Lower Saucon), Kingwood Township, Delaware Riverkeeper, Conservation Foundation, and New Jersey Department of Environmental Protection (NJDEP) request that the Commission stay the Certificate Order pending issuance of an order on rehearing. This order addresses and denies or dismisses the requests for rehearing; accordingly, we dismiss the requests for stay as moot.

II. Discussion

A. Public Convenience and Necessity

1. Project Need

14. Numerous parties assert that the Commission violated both the NGA and the Fifth Amendment by failing to demonstrate that the PennEast Project is required by the public

²³ See, e.g., *Southern Union Gas Co. v. FERC*, 840 F.2d 964, 970 (D.C. Cir. 1988); *Dominion Transmission, Inc.*, 141 FERC ¶ 61,183, at P 15 (2012).

²⁴ Certificate Order, 162 FERC ¶ 61,053 at PP 28, 36; *Infra* 16-17.

²⁵ Certificate Order, 162 FERC ¶ 61,053 at PP 28-36.

convenience and necessity.²⁶ Specifically, it is alleged that the Commission's reliance on precedent agreements with PennEast's corporate affiliates as evidence of need for the project is inconsistent with the Certificate Policy Statement,²⁷ and that the Certificate Order ignored record evidence showing that demand for the project is lacking.²⁸

**a. Precedent Agreements with Affiliated Shippers are
Appropriate Indicators of Need**

15. Several petitioners state that the Commission erred in relying on precedent agreements with PennEast's affiliates to determine whether the project was needed. Petitioners assert that these types of "self-dealing" precedent agreements are not indicative of the need for the pipeline,²⁹ rather, they merely reflect the desire of the pipeline's affiliates to earn a return on their investment.³⁰ Petitioners insist that the Commission must "question the business decisions" of the affiliated shippers, and "look behind" the precedent agreements before determining that need for a project exists.³¹

16. We affirm the Certificate Order's finding that the Commission is not required to look behind precedent agreements to evaluate project need, regardless of the affiliate status of some of the project shippers.³² As the Certificate Order discussed, the

²⁶ See, e.g., Lower Saucon's Request for Rehearing at 2; Rate Counsel's Request for Rehearing at 2.

²⁷ See, e.g., Homeowners Against Land Taking – PennEast (HALT) Request for Rehearing at 11-12; Lower Saucon's Request for Rehearing at 11; Conservation Foundation's Request for Rehearing at 26-35.

²⁸ See, e.g., Rate Counsel's Request for Rehearing at 9-13; Conservation Foundation's Request for Rehearing at 34-42; Hopewell's Request for Rehearing at 19-21; Lower Saucon's Request for Rehearing at 10-12.

²⁹ See Conservation Foundation's Request for Rehearing at 27-28.

³⁰ See Conservation Foundation's Request for Rehearing at 27-28; Michael Spille's Request for Rehearing at 10.

³¹ NJDEP's Request for Rehearing at 16-17; Michael Spille's Request for Rehearing at 10.

³² Certificate Order, 162 FERC ¶ 61,053 at P 33 (citing *Millennium Pipeline Co. L.P.*, 100 FERC ¶ 61,277, at P 57 (2002) ("as long as the precedent agreements are long-term and binding, we do not distinguish between pipelines' precedent agreements with
(continued ...)")

Certificate Policy Statement established a new policy under which the Commission would allow an applicant to rely on a variety of relevant factors to demonstrate need, rather than continuing to require that a percentage of the proposed capacity be subscribed under long-term precedent or service agreements.³³ These factors might include, but are not limited to, precedent agreements, demand projections, potential cost savings to customers, or a comparison of projected demand with the amount of capacity currently serving the market.³⁴ The Commission stated that it would consider all such evidence submitted by the applicant regarding project need. Nonetheless, the policy statement made clear that, although companies are no longer required to submit precedent agreements for Commission review, these agreements are still significant evidence of project need or demand.³⁵ As the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) affirmed in *Minisink Residents for Environmental Preservation and Safety v. FERC*,³⁶ the Commission may reasonably accept the market need reflected by the applicant's existing contracts with shippers.³⁷ Moreover, it is current Commission policy not to look behind precedent or service agreements to make

affiliates or independent marketers in establishing the market need for a proposed project”). *See also Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227, at 61,748 (1999), *order on clarification*, 90 FERC ¶ 61,128, *order on clarification*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement) (explaining that the Commission's policy is less focused on whether the contracts are with affiliated or unaffiliated shippers and more focused on whether existing ratepayers would subsidize the project); *see also id.* at 61,744 (the Commission does not look behind precedent agreements to question the individual shippers' business decisions to enter into contracts) (citing *Transcontinental Gas Pipe Line Corp.*, 82 FERC ¶ 61,084, at 61,316 (1998)).

³³ Certificate Order, 162 FERC ¶ 61,053 at P 27 (citing Certificate Policy Statement, 88 FERC at 61,747).

³⁴ Certificate Policy Statement, 88 FERC at 61,747.

³⁵ *Id.*

³⁶ 762 F.3d 97 (D.C. Cir. 2014) (*Minisink Residents*).

³⁷ *Minisink Residents*, 762 F.3d at 110, n.10; *see also Sierra Club v. FERC*, 867 F.3d 1357, 1379 (D.C. Cir. 2017) (*Sabal Trail*) (finding that pipeline project proponent satisfied Commission's "market need" where 93 percent of the pipeline project's capacity has already been contracted).

judgments about the needs of individual shippers.³⁸ The D.C. Circuit also confirmed in *Minisink Residents* that nothing in the Certificate Policy Statement, nor any precedent construing it, indicates that the Commission must look beyond the market need reflected by the applicant's contracts with shippers.³⁹

17. A shipper's need for new capacity and its obligation to pay for such service under a binding contract are not lessened just because it is affiliated with the project sponsor.⁴⁰ As we stated in the Certificate Order, when considering applications for new certificates, the Commission's primary concern regarding affiliates of the pipeline as shippers is whether there may have been undue discrimination against a non-affiliate shipper.⁴¹ Here, no allegations have been made, nor have we found that the project sponsors have engaged in any anticompetitive behavior. PennEast held an open season for capacity on the project, and all potential shippers had an opportunity to contract for service. Further, because the project rates are calculated based on design capacity, PennEast will be at risk for unsubscribed capacity, thereby giving it a powerful incentive to market the remaining unsubscribed capacity and serving as a strong deterrent to constructing pipelines not supported by market demand.⁴² In addition, to confirm the legitimacy of the financial commitments agreed to in affiliate and non-affiliate precedent agreements, and thereby

³⁸ Certificate Policy Statement, 88 FERC at 61,744 (citing *Transcontinental Gas Pipe Line Corp.*, 82 FERC at 61,316). See *Millennium Pipeline Co., L.P.*, 100 FERC ¶ 61,277 at P 57 ("as long as the precedent agreements are long-term and binding, we do not distinguish between pipelines' precedent agreements with affiliates or independent marketers in establishing the market need for a proposed project").

³⁹ *Minisink Residents*, 762 F.3d at 112, n. 10; see also *Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1311 (D.C. Cir. 2015) (rejecting argument that precedent agreements are inadequate to demonstrate market need).

⁴⁰ See, e.g., *Greenbrier Pipeline Co., LLC*, 101 FERC ¶ 61,122, at P 59 (2002), *reh'g denied*, 103 FERC ¶ 61,024 (2003).

⁴¹ Certificate Order, 162 FERC ¶ 61,053, at P 33. See also 18 C.F.R. § 284.7(b) (2017) (requiring transportation service to be provided on a non-discriminatory basis).

⁴² We also note that PennEast will be required to comply with the Commission's Part 358 Standards of Conduct, which require PennEast to treat all customers, whether affiliated or non-affiliated, on a non-discriminatory basis. 18 C.F.R. Part 358 (2017). PennEast's tariff incorporates these requirements. See PennEast's Application, Exhibit P (Tariff).

confirm the financial viability of the project, Ordering Paragraph (C) of the Certificate Order requires PennEast to file a written statement affirming it has executed contracts for service at the levels provided for in the precedent agreements prior to commencing construction.

18. Petitioners again contend PennEast's affiliated local distribution companies (LDC) bear a lesser market risk because they expect to pass PennEast transportation costs through to their customers, so that in the event of underutilization, it would be LDC customers, not PennEast or its affiliate LDCs that would be saddled with the financial risk. Our jurisdiction does not extend to costs incurred by LDCs or the rates they charge to their retail customers. As explained in the Certificate Order, state regulatory commissions will be responsible for approving any expenditures by state-regulated utilities. Further, we reiterate that because PennEast is required to calculate its recourse rates based on the design capacity of the pipeline, PennEast will bear the financial risk attributable to unsubscribed capacity. Therefore, the identified affiliations do not alter the basis for our finding there is a market need for the project and the project is required by the public convenience and necessity.

b. The Commission did not Ignore Evidence of a Lack of Market Demand for the PennEast Project

19. Petitioners further allege that by basing its need determination solely on precedent agreements, the Commission "disregarded" its own Certificate Policy Statement, and ignored "substantial" evidence showing that the gas to be transported by the project is not needed by the present or future public convenience and necessity.⁴³ Rate Counsel asserts that the Commission could not have determined that the project is needed when presented with "unchallenged market data showing exactly the opposite"⁴⁴ that the Certificate Order "dismisses."⁴⁵

20. Commission policy is to examine the merits of individual projects and each project must demonstrate a specific need.⁴⁶ Although the Certificate Policy Statement permits

⁴³ See, e.g., Rate Counsel's Request for Rehearing at 9-13; Conservation Foundation's Request for Rehearing at 25; Hopewell's Request for Rehearing at 19.

⁴⁴ Rate Counsel's Request for Rehearing at 10.

⁴⁵ *Id.* at 25.

⁴⁶ With respect to comments requesting the Commission to assess the market demand for gas to be transported by other proposed interstate pipeline projects, we note (*continued ...*)

the applicant to show need in a variety of ways, it does not suggest that the Commission should examine a group of projects together and pick which projects best serve an estimated future regional demand. The Certificate Order specifically addressed load growth and supply forecasts submitted by commenters in an attempt to show a lack of market demand for the project, and found them unpersuasive. The Certificate Order explains “projections regarding future demand often change and are influenced by a variety of factors, including economic growth, the cost of natural gas, environmental regulations, and legislative and regulatory decisions by the federal government and individual states.”⁴⁷ And to the extent petitioners would have the Commission look at information beyond precedent agreements, we would note that the record also contains evidence of market need for natural gas pipeline transportation capacity in the northeast region.⁴⁸ Given the uncertainty associated with long-term forecasts, such as those presented in this proceeding, where an applicant has precedent agreements for long-term firm service, the Commission deems the precedent agreements to be the better evidence of demand. Thus, the Commission evaluates individual projects based on the evidence of need presented in each proceeding. Where, as here, it is demonstrated that specific shippers have entered into precedent agreements for project service, the Commission appropriately places substantial reliance on those agreements to find that the project is needed.

21. In addition, the Certificate Order explained that the project shippers in this proceeding noted several reasons other than load growth for entering into precedent agreements with PennEast to source gas from the Marcellus region.⁴⁹ In this regard, the

that the Commission will evaluate the proposals in those proceedings in accordance with the criteria established in our Certificate Policy Statement.

⁴⁷ Certificate Order, 162 FERC ¶ 61,053 at P 29.

⁴⁸ In Exhibit F-1, Resource Report 5, PennEast submitted a study by Concentric Energy Advisors, *Estimated Energy Market Savings from Additional Pipeline Infrastructure Serving Eastern Pennsylvania and New Jersey* (Concentric Study) that finds that the project would provide increased access to low-cost natural gas in New Jersey and Pennsylvania that could save consumers nearly \$900 million. Resource Report 5 also includes a study by Econsult Solutions & Drexel University, *Economic Impact Report and Analysis: PennEast Pipeline Project Economic Impact Analysis* (2015) (Econsult Study) that estimates the total (direct, indirect, and induced) jobs that would be supported during construction and operation of the project.

⁴⁹ Certificate Order, 162 FERC ¶ 61,053 at P 30.

project shippers stated that the project will provide a reliable, flexible, and diverse supply of natural gas that will lead to increased price stability, and the opportunity to expand natural gas service in the future.⁵⁰ Based on the record, we find no reason to second guess the business decisions of these shippers given the substantial financial commitment required under executed contracts.⁵¹

22. On rehearing, the Conservation Foundation asserts that there is no shortage of pipeline capacity to meet current or projected regional demand, and that therefore the PennEast project will result in overbuilding.⁵² Rate Counsel claims that the Certificate Order ignored evidence that in recent years LDC's, including project shipper Public Service Electric & Gas Company, have turned back capacity.⁵³ We affirm our finding in the Certificate Order that there is not sufficient available capacity on existing pipeline systems to transport all of the volumes contemplated to be transported by the PennEast Project to the range of delivery points proposed by PennEast, and that the expansion of existing pipeline systems was not a feasible alternative.⁵⁴ Further, the report central to Conservation Foundation's argument, the "Skipping Stone Winter 2017-2018 Report" was released on February 11, 2018, nearly a month after the Certificate Order was issued, and therefore constitutes new evidence. It is improper to introduce new evidence at the rehearing stage.⁵⁵

⁵⁰ *Id.*

⁵¹ See *Millennium Pipeline Co., L.P.*, 100 FERC ¶ 61,277, at P 201 (2002). See also, *Midwestern Gas Transmission Co.*, 116 FERC ¶ 61,182, at P 42 (2006); *Southern Natural Gas Co.*, 76 FERC ¶ 61,122, at 61,635 (1996), *order issuing certificate and denying reh'g*, 79 FERC ¶ 61,280 (1997), *order amending certificate and denying stay and reh'g*, 85 FERC ¶ 61,134 (1998), *aff'd Midcoast Interstate Transmission, Inc. v. FERC*, 198 F.3d 960 (D.C. Cir. 2000).

⁵² Conservation Foundation's Request for Rehearing at 36.

⁵³ Rate Counsel's Request for Rehearing at 10.

⁵⁴ Certificate Order, 162 FERC ¶ 61,053 at P 31.

⁵⁵ *Northeast Utilities Serv. Co.*, 136 FERC ¶ 61,123, at P 9 (2011) ("We will deny rehearing. CRS' attempt to introduce new evidence and new claims at the rehearing stage is procedurally improper"); *Commonwealth Edison Co.*, 127 FERC ¶ 61,301, at P 14 (2011) ("We reject as untimely the new affidavit which ConEd includes in its request for rehearing. Parties are not permitted to introduce new evidence for the first (continued ...)")

23. Moreover, Rate Counsel makes no showing that turn-back capacity on existing pipelines is sufficient for transporting the required volumes of natural gas proposed by the PennEast, nor that this capacity would service all the required receipt and delivery points. Further, as stated in the Certificate Order “no pipelines or their customers have filed adverse comments regarding PennEast’s proposal.”⁵⁶ Those with interests the Rate Counsel purports to represent, i.e., pipelines that might compete with the PennEast Project, have not protested.

2. Balancing Project Need with Environmental Impacts

24. Conservation Foundation asserts that the Commission violated the NGA⁵⁷ by balancing the environmental impacts of the PennEast Project with its economic benefits, on the basis of its flawed, incomplete environmental review.⁵⁸ Conservation Foundation contends that due to incomplete surveys of environmental resources, as well as the Commission’s insistence that it does not need to consider certain types of environmental impacts, the Commission did not have sufficient information to assess the full breadth of the impacts of the PennEast Project, therefore rendering the Commission unable to perform a proper balancing of the project’s benefits and impacts.⁵⁹

25. Consistent with the Certificate Policy Statement,⁶⁰ the need for and benefits derived from the PennEast Project must be balanced against the adverse impacts on landowners. The Commission must, and did, balance the concerns of all interested parties and did not give undue weight to the interests of any particular party.⁶¹ The Commission found that PennEast incorporated 70 of 101 requested route variations into

time on rehearing.”); *New York Indep. Sys. Operator*, 112 FERC ¶ 61,283, at P 35 n.20 (2005) (“parties are not permitted to raise new evidence on rehearing. To allow such evidence would allow impermissible moving targets”).

⁵⁶ *Id.* at P 37.

⁵⁷ 15 U.S.C. § 717f (2012).

⁵⁸ Conservation Foundation’s Request for Rehearing at 51-54.

⁵⁹ *Id.*

⁶⁰ Certificate Policy Statement, 88 FERC ¶ 61,227 at 61,744. *See also National Fuel Gas Supply Corp.*, 139 FERC ¶ 61,037, at P 12 (2012) (*National Fuel*).

⁶¹ Certificate Order, 162 FERC ¶ 61,053 at P 39.

its proposal in order to reduce any adverse impacts on landowners and communities, and held over 200 meetings with public officials, and 15 “informational sessions” with impacted landowners in order to better assess local concerns.⁶² Additionally, approximately 37 percent of the pipeline route will be collocated alongside existing rights-of-way. Thus, although we are mindful that PennEast has been unable to reach easement agreements with a number of landowners, we find that PennEast has generally taken sufficient steps to minimize adverse impacts on landowners and surrounding communities.

26. Regarding petitioners’ assertions that the Commission balanced the project’s benefits against “flawed and incomplete” findings of the project’s adverse environmental effects, such as impacting New Jersey and Pennsylvania water resources, communities, and historic landmarks,⁶³ these issues are addressed below in our Environmental section. The Certificate Policy Statement’s balancing of adverse impacts and public benefits is an economic, not environmental analysis.⁶⁴ Only when the benefits outweigh the adverse effects on the economic interests will the Commission proceed to complete the environmental analysis where other interests are considered. However, we do ensure avoidance of unnecessary environmental impacts by including a certificate condition providing that authorization for the commencement of construction would not be granted until PennEast has successfully executed contracts for volumes and service terms equivalent to those in their precedent agreements.⁶⁵

27. Based on the foregoing, we affirm the Certificate Order’s conclusion that public need was demonstrated for the PennEast Project.

B. Eminent Domain

28. Several parties assert that the Commission violated the NGA and the Fifth Amendment by conferring eminent domain authority on PennEast. Petitioners allege that the Certificate Order failed to perform a “public use” determination, and instead cited precedent agreements as evidence of the public benefits of the project, which are not

⁶² *Id.*

⁶³ See Hopewell’s Request for Rehearing 19-20; Conservation Foundation’s Request for Rehearing at 52.

⁶⁴ *National Fuel*, 139 FERC ¶ 61,037 at P 12.

⁶⁵ Certificate Order, 162 FERC ¶ 61,053 at ordering para. (E).

“substantial evidence” of the public benefits of the project.⁶⁶ Petitioners further contend that due to the “questionable benefits” of the project, the Commission could not have determined that its benefits outweigh the adverse impacts on the public caused by widespread use of eminent domain, and that the Commission otherwise failed to consider the scale of eminent domain being employed.⁶⁷ HALT asserts that the Commission, in issuing PennEast a certificate of public convenience and necessity without waiting for other agencies to deny or issue PennEast other necessary permits, is “illegally preempting the authority of these agencies.”⁶⁸ HALT further contends that the Commission’s practice of issuing conditional certificates conferring eminent domain, which depend on additional federal and state authorizations before being constructed, violates the Due Process and Takings clauses of the Fifth Amendment as it enables PennEast to obtain land via eminent domain, even though PennEast has yet to satisfy certain conditions that could stop the project from being constructed. In addition, NJDEP asserts that it is “premature” to grant PennEast eminent domain authority as the final route is likely to change, and requests that the Commission limit PennEast’s eminent domain authority to land necessary for PennEast to finish necessary surveys.⁶⁹

29. We affirm that having determined that the PennEast Project is in the public convenience and necessity, we are not required to make a separate finding that the project serves a “public use” to allow the certificate holder to exercise eminent domain.⁷⁰ A lawful taking under the Fifth Amendment requires that the taking must serve a “public purpose.”⁷¹ The U.S. Supreme Court has broadly defined this concept, “reflecting [the court’s] longstanding policy of deference to the legislative judgments in this

⁶⁶ See HALT’s Request for Rehearing at 11, 15; Delaware Riverkeeper’s Request for Rehearing at 23.

⁶⁷ See Delaware Riverkeeper’s Request for Rehearing at 25; Michael Spille’s Request for Rehearing at 14-15.

⁶⁸ See HALT’s Request for Rehearing at 6.

⁶⁹ See NJDEP’s Request for Rehearing at 59.

⁷⁰ Certificate Order, 162 FERC ¶ 61,053 at PP 36, 42. See *Atlantic Coast Pipeline, LLC*, 161 FERC ¶ 61,042, at P 79 (2017).

⁷¹ *Kelo v. City of New London*, 545 U.S. 469, at 479-480 (upholding a state statute that authorized the use of eminent domain to promote economic development).

field.”⁷² Here, Congress articulated in the NGA its position that “transporting and selling natural gas for ultimate distribution to the public is affected with a public interest, and that Federal regulation in matters relating to the transportation of natural gas and the sale thereof in interstate and foreign commerce is necessary in the public interest.”⁷³ Congress did not suggest that there was a further test, beyond the Commission’s determination under NGA section 7(c)(e),⁷⁴ that a proposed pipeline was required by the public convenience and necessity, such that certain certificated pipelines furthered a public use, and thus were entitled to use eminent domain, although others did not. The power of eminent domain conferred by NGA section 7(h) is a necessary part of the statutory scheme to regulate the transportation and sale of natural gas in interstate commerce.⁷⁵

30. The Commission has interpreted the section 7(e) public convenience and necessity determination as requiring the Commission to weigh the public benefit of the proposed project against the project’s adverse effects.⁷⁶ Our ultimate conclusion that the public interest is served by the construction of the proposed project reflects our findings that the benefits of a project will outweigh its adverse effects. Under section 7(h) of the NGA, once a natural gas company obtains a certificate of public convenience and necessity it may exercise the right of eminent domain in a U.S. District Court or a state court,

⁷² *Id.* at 480.

⁷³ 15 U.S.C. § 717(a) (2012).

⁷⁴ *Id.* § 717f(e).

⁷⁵ *See Thatcher v. Tennessee Gas Transmission Co.*, 180 F.2d 644, 647 (5th Cir. 1950), *cert. denied*, 340 U.S. 829 (1950); *Williams v. Transcontinental Gas Pipe Line Corp.*, 89 F. Supp. 485, 487-88 (W.D.S.C. 1950).

⁷⁶ As the agency that administers the NGA, and in particular as the agency with expertise in addressing the public convenience and necessity standard in the Act, the Commission’s interpretation and implementation of that standard is accorded deference. *See Chevron, USA, Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 842-843 (1984); *Del. Riverkeeper Network v. FERC*, 857 F.3d 388, 392 (D.C. Cir. 2017); *Office of Consumers Counsel v. FERC*, 655 F.2d 1132, 1141 (D.C. Cir. 1980); *Total Gas & Power N. Am., Inc. v. FERC*, No. 4:16-1250, 2016 WL 3855865, at 21 (S.D. Tex. July 15, 2016), *aff’d*, 859 F.3d 325 (5th Cir. 2017); *see also MetroPCS Cal., LLC v. FCC*, 644 F.3d 410, 412 (D.C. Cir. 2011) (under *Chevron*, the Court “giv[es] effect to clear statutory text and defer[s] to an agency’s reasonable interpretation of any ambiguity”).

regardless of the status of other authorizations for the project.⁷⁷ Therefore, after issuing PennEast its certificate of public convenience and necessity, the Commission lacks the authority to limit its exercise of eminent domain.

31. We further find that petitioners have failed to show that the Commission's decision to issue a conditional certificate violates due process, or the takings clause of the Fifth Amendment. The Commission has fully addressed the Fifth Amendment issues raised in other proceedings.⁷⁸ In addition, although PennEast, as a certificate holder under section 7(h) of the NGA,⁷⁹ can commence eminent domain proceedings in a court action if it cannot acquire the property rights by negotiation, PennEast will not be allowed to construct any facilities on subject property unless and until there is a favorable outcome on all outstanding requests for necessary federal and state approvals. Because PennEast may go so far as to survey and designate the bounds of an easement but no further, e.g., it cannot cut vegetation or disturb ground pending receipt of any federal approvals, any impacts on landowners will be minimized. Further, PennEast will be required to compensate landowners for any property rights it acquires.

32. We dismiss NJDEP's argument that the use of eminent domain is premature because the current route may be modified. Environmental Condition No. 4 requires that PennEast's exercise of eminent domain authority be consistent with the facilities and locations authorized in this proceeding. Although Environmental Condition No. 5 allows PennEast to request route realignments, such must be in writing, contain documentation of landowner approval, and must be approved by the Director of the Office of Energy Projects.

⁷⁷ 15 U.S.C. § 717f(h); *see also* at § 717n(a)-(c) (addressing process coordination for other federal permits or authorizations required for projects authorized under NGA section 7).

⁷⁸ *Transcontinental Gas Pipe Line Co., LLC*, 161 FERC ¶ 61,250, at PP 30-35 (2017); *Atlantic Coast Pipeline, LLC*, 161 FERC ¶ 61,042 at PP 76-81; *Mountain Valley Pipeline*, 161 FERC ¶ 61,043 at PP 58-63. *See Delaware Riverkeeper Network v. FERC*, No. 17-5084 (D.C. Cir. July 10, 2018) (rejecting Fifth Amendment Due Process challenge to (1) statutory scheme for Commission recovery of expenses from the regulated industry; and (2) Commission use of tolling orders to satisfy deadlines for acting on requests for rehearing).

⁷⁹ *Id.* § 717f(h) (2012).

33. We also dismiss NJDEP's request to limit PennEast's use of eminent domain to land necessary for the completion of environmental assessments. Under NGA section 7, Congress gave the Commission the authority to determine if the construction and operation of the proposed project is in the public convenience and necessity. In the Certificate Order, the Commission found that the public convenience and necessity requires approval of PennEast's proposal.⁸⁰ Once the Commission has authorized pipeline construction, NGA section 7(h) authorizes a certificate holder to acquire the necessary land or property by exercising the right of eminent domain if it cannot acquire the easement by an agreement with the landowner.⁸¹ The Commission does not have the authority to limit a pipeline company's use of eminent domain once the company has received its certificate of public convenience and necessity. Issues related to the acquisition of property rights by a pipeline under the eminent domain provisions of section 7(h) of the NGA are matters for the applicable state or federal court.⁸²

C. Rates

1. Return on Equity

34. As part of a NGA section 7 proceeding, the Commission reviews initial rates for service using proposed new pipeline capacity under the public convenience and necessity standard.⁸³ Unlike NGA sections 4 and 5, NGA section 7 does not require the Commission to make a determination that an applicant's proposed initial rates are or will be just and reasonable before the Commission certifies new facilities, expansion capacity, and/or services.⁸⁴ Recognizing that full evidentiary rate proceedings can take a significant amount of time, Congress gave the Commission discretion in section 7 certificate proceedings to approve initial rates that will "hold the line" and "ensure that the consuming public may be protected" while awaiting adjudication of just and

⁸⁰ Certificate Order, 162 FERC ¶ 61,053 at P 40.

⁸¹ 15 U.S.C. § 717f(h) (2012).

⁸² *Transco*, 161 FERC ¶ 61,250, at P 35 (citing *Rover Pipeline LLC*, 158 FERC ¶ 61,109 at PP 68, 70 (2017) (explaining that "[t]he Commission does not oversee the acquisition of property rights through eminent domain proceedings [.])).

⁸³ See Certificate Order, 162 FERC ¶ 61,053 at P 63.

⁸⁴ See *Atl. Refining Co. v. Pub. Serv. Comm'n of New York*, 360 U.S. 378, 390 (1959) (*CATCO*).

reasonable rates under the more time-consuming ratemaking sections of the NGA.⁸⁵ The Certificate Order applied the Commission's established policy, which balances both the consumer and investor interests, in establishing PennEast's initial rates. Specifically, the Commission approved PennEast's proposed 14 percent return on equity (ROE) but required that PennEast design its cost-based rates on a capital structure that includes no more than 50 percent equity, rather than 60 percent equity proposed by PennEast.⁸⁶

35. Rate Counsel argues that the Commission's approval of PennEast's requested 14 percent ROE is arbitrary and capricious, as the Certificate Order does not perform a discounted cash flow (DCF) analysis, or any other type of analysis to establish an appropriate ROE.⁸⁷ Rate Counsel takes issue with the Commission's policy of "awarding" new pipelines a 14 percent ROE due to the risk they face, asserting that the Commission should have quantified, or otherwise explained PennEast's risk before doing so.⁸⁸

36. We disagree. The Certificate Order approved PennEast's proposed 14 percent ROE, but required the pipeline to design its cost-based rates using a capital structure that includes at least 50 percent debt,⁸⁹ consistent with Commission policy.⁹⁰ This requirement reduces the overall maximum recourse rate, which acts as a cap on a

⁸⁵ See *id.* at 392.

⁸⁶ Certificate Order, 162 FERC ¶ 61,053 at P 58.

⁸⁷ See Rate Counsel's Request for Rehearing at 16.

⁸⁸ *Id.* at 17-18.

⁸⁹ Certificate Order, 162 FERC ¶ 61,053 at PP 58-63. Imputing a capitalization with more than 50 percent equity "is more costly to ratepayers, because equity financing is typically more costly than debt financing and the interest incurred on debt is tax deductible." See *MarkWest Pioneer, L.L.C.*, 125 FERC ¶ 61,165, at P 17 (2008).

⁹⁰ See, e.g., *Florida Southeast Connection, LLC*, 154 FERC ¶ 61,080, *reh'g denied*, 156 FERC ¶ 61,160 (2016), *aff'd in relevant part sub nom, Sierra Club v. FERC*, 867 F.3d 1357 (D.C. Cir. 2017) (finding that the Commission "adequately explained its decision to allow Sabal Trail to employ a hypothetical capital structure" of 50 percent debt and 50 percent equity).

pipeline's rate of return.⁹¹ The Certificate Order explained that the Commission's policy of accepting a 14 percent ROE in these circumstances reflects the increased business risks that new pipeline companies like PennEast face.⁹² Because new entrants building greenfield natural gas pipelines do not have an existing revenue base, they face greater risks constructing a new pipeline system and servicing new routes than established pipeline companies do when adding incremental capacity to their systems.⁹³ This is the reason why Commission policy requires existing pipelines that provide incremental services through an expansion to use the ROE underlying their existing system rates and last approved in a section 4 rate case proceeding when designing the incremental rates. This tends to yield a return lower than 14 percent, reflecting the lower risk existing pipelines face when building incremental capacity.⁹⁴

37. Rate Counsel cites to NGA section 4 rate proceedings as evidence of the "detailed analysis of capital markets that can be applied to rate review" and takes issue with the Commission's failure to do so in the Certificate Order.⁹⁵ Rate Counsel further asserts that the Commission's failure to perform a DCF analysis demonstrating that the 14 percent ROE is "just and reasonable renders the Commission's decision arbitrary and capricious."⁹⁶ As we explained in the Certificate Order, an initial rate is based on estimates until we can review Penn East's cost and revenue study at the end of its first three years of actual operation.⁹⁷ Conducting a more rigorous DCF analysis in an

⁹¹ The maximum recourse rate is the maximum rate the pipeline is allowed to charge for transportation service.

⁹² Certificate Order, 162 FERC ¶ 61,053 at P 59 (explaining that approving PennEast's requested 14 percent was "...not merely 'reflexive;' [but] in response to the risk PennEast faces as a new market entrant, constructing a greenfield pipeline system.").

⁹³ *Id.* P 59, n.79 (citing *Rate Regulation of Certain Nat. Gas Storage Facilities*, 115 FERC ¶ 61,343, at P 127 (2006)).

⁹⁴ *See, e.g., Gas Transmission Northwest, LLC*, 142 FERC ¶ 61,186, at P 18 (2013) (requiring use of 12.2 percent ROE from recent settlement, not the proposed 13.0 percent).

⁹⁵ *See* Rate Counsel's Request for Rehearing at 14.

⁹⁶ *Id.* at 16.

⁹⁷ Certificate Order, 162 FERC ¶ 61,053 at P 98.

individual certificate proceeding when other elements of the pipeline's cost of service are based on estimates would not be the most effective or efficient way to determine an appropriate ROE. Although parties have the opportunity in section 4 rate proceedings to file and examine testimony with regard to the composition of the proxy group to use in the DCF analysis, the growth rates used in the analysis, and the pipeline's position within the zone of reasonableness with regard to risk, it would be difficult, if not impossible, to complete this type of analysis in section 7 certificate proceedings in a timely manner, and attempting to do so would unnecessarily delay proposed projects with time sensitive in-service schedules.⁹⁸ The Commission's current policy of calculating incremental rates for new pipelines using equity returns of up to 14 percent, as long as the equity component of the capitalization is no more than 50 percent, is an appropriate exercise of its discretion to approve initial rates under the "public interest" standard of section 7. As conditioned herein, the approved initial rates will "hold the line" and "ensure that the consuming public may be protected" until just and reasonable rates are adjudicated under section 4 or 5 of the NGA.⁹⁹ Here, that opportunity for review is required no later than three years after the in-service date for PennEast's facilities.¹⁰⁰

2. Cost of Debt

38. Rate Counsel similarly argues that the Commission's approval of a 6 percent cost of debt for PennEast's initial rates was arbitrary and capricious, as there is an "absence of supporting rationale" for the decision.¹⁰¹ Rate Counsel asserts that the Certificate Order did not include any analysis demonstrating why a 6 percent cost of debt is appropriate. Rate Counsel states that the Certificate Order should have looked at "financial backing, state of capital markets, or any other material factor" in supporting a 6 percent cost of debt. Rate Counsel states that the as of October, 2017, Moody's Baa utility yield was 4.26 percent and the junk bond yield 5.49 percent in January 2016, and declined to 4.16 percent by July 2016.

39. As discussed above and in the Certificate Order, initial rates are meant to "hold the line" and protect the consuming public until just and reasonable rates can be determined

⁹⁸ See *Transcontinental Gas Pipe Line Co., LLC*, 158 FERC ¶ 61,125, at P 39 (2017).

⁹⁹ *CATCO* 360 U.S. at 392.

¹⁰⁰ Certificate Order, 162 FERC ¶ 61,053 at P 72.

¹⁰¹ Rate Counsel's Request for Rehearing at 19.

through a more rigorous process pursuant to the ratemaking sections of the NGA.¹⁰² Therefore, the Commission approved PennEast's requested initial debt cost after determining that it was within a range of previously approved, reasonable cost of debt percentages for greenfield pipeline projects. We also disagree with Rate Counsel's assertion that a 6 percent cost of debt is out of line with capital markets. Moody's Baa utility yield for 2015, the year Penn East filed its application, was 5.06 percent and for 2016 was 4.68 percent. Providing a 6 percent debt cost reasonably reflects the higher business risks faced by a new entrant constructing a greenfield pipeline, as well as the fact that utilities are less risky than interstate pipeline companies.¹⁰³ Moreover, when PennEast files its three-year cost and revenue study, the Commission will have the information necessary to determine whether or not PennEast's initial rates, including its cost of debt, are just and reasonable.¹⁰⁴

D. Environmental

1. Final EIS Deficiencies

40. Numerous parties allege that the Commission relied on incomplete and/or inaccurate information when assessing the environmental impacts of the PennEast Project and thus the Final EIS fails to comply with the requirements of NEPA.¹⁰⁵

41. Specifically, NJDEP and Hopewell argue that the Final EIS did not contain sufficient information to evaluate environmental impacts for 65 percent of the project's route in New Jersey.¹⁰⁶ By relying on survey data for only 35 percent of the project route in New Jersey, the parties claim that the Commission did not have sufficient information

¹⁰² See *supra* P 34; Certificate Order, 162 FERC ¶ 61,053 at P 63.

¹⁰³ The Commission has previously concluded that local distribution companies are less risky than a pipeline company. See, e.g. *Trailblazer Pipeline Co.*, 106 FERC ¶ 63,005, at P 94 (2004) (rejecting inclusion of local distribution companies in a proxy group because they face less risk than a pipeline company.).

¹⁰⁴ Certificate Order, 162 FERC ¶ 61,053 at P 72.

¹⁰⁵ See, e.g., Conservation Foundation's Request for Rehearing at 64-84; Hopewell's Request for Rehearing at 25-38; Delaware Riverkeeper's Request for Rehearing at 164-188.

¹⁰⁶ NJDEP's Request for Rehearing at 18; Hopewell's Request for Rehearing at 30.

to take the “hard look” required by NEPA. Specifically, petitioners assert that surveys are incomplete for several resources including, water wells, wetlands, protected species, cultural resources, and vernal pools.¹⁰⁷ Further, NJDEP and Hopewell claim that the Commission failed to follow NEPA regulations requiring agencies to identify incomplete or unavailable information.¹⁰⁸

42. In addition, a number of parties argue that the environmental conditions in the Final EIS and Certificate Order require information that should have been received and analyzed prior to certificate issuance.¹⁰⁹ Conservation Foundation argues that the Final EIS violated NEPA because it is based on incomplete information, evidenced by the Certificate Order’s adoption of numerous environmental conditions requiring the completion of surveys and finalized mitigation plans. Several petitioners also claim that the Commission must prepare a supplemental EIS.

43. We disagree that the Final EIS for the PennEast Project was based on inadequate information. As we explained in the Certificate Order,¹¹⁰ although the Commission needs to consider and study environmental issues before approving a project, it does not require all environmental concerns to be definitively resolved before a project’s approval is issued. NEPA does not require every study or aspect of an analysis to be completed before an agency can issue a Final EIS, and the courts have held that agencies do not need perfect information before it takes any action.¹¹¹

¹⁰⁷ NJDEP’s Request for Rehearing at 21-24; Hopewell’s Request for Rehearing at 29; Conservation Foundation’s Request for Rehearing at 78-79.

¹⁰⁸ NJDEP’s Request for Rehearing at 27; Hopewell’s Request for Rehearing at 27-28.

¹⁰⁹ See, e.g., Conservation Foundation’s Request for Rehearing at 83-84.

¹¹⁰ Certificate Order, 162 FERC ¶ 61,053 at P 101.

¹¹¹ *U.S. Dep’t of the Interior v. FERC*, 952 F.2d 538, 546 (D.C. Cir. 1992); *State of Alaska v. Andrus*, 580 F.2d 465, 473 (D.C. Cir. 1978), *vacated in part sub nom. W. Oil & Gas Ass’n v. Alaska*, 439 U.S. 922, 99 S. Ct. 303, 58 L. Ed. 2d 315 (1978) (“NEPA cannot be ‘read as a requirement that complete information concerning the environmental impact of a project must be obtained before action may be taken’”).

44. The Certificate Order specifically recognized the existence of incomplete surveys, primarily due to lack of access to landowner property.¹¹² However, the Certificate Order explains that the conclusions in the Final EIS, affirmed by the Certificate Order, were based on sufficient information contained in the record, including PennEast's application and supplements, as well as information developed through Commission staff's data requests, field investigations, the scoping process, literature research, alternatives analysis, and contacts with federal, state, and local agencies, as well as with individual members of the public, to support our findings.

45. Moreover, where access to property has been denied, the Final EIS is not the end of our review of the project. As discussed below, recognizing that there are necessary field surveys that are outstanding on sections of the proposed route where survey access was denied, the Certificate Order imposed several environmental conditions that require the filing of additional environmental information for review and approval once survey access is obtained. The additional information ensures that the Final EIS's analyses and conclusions are based on the best available data, and that PennEast and Commission staff will be better positioned to finalize mitigation plans, address stakeholder concerns, and evaluate compliance during construction.¹¹³ As the Certificate Order emphasized, compliance with environmental conditions appended to our orders is integral to ensuring the environmental impacts of approved projects are consistent with those anticipated by our environmental analyses.¹¹⁴ Commission staff carefully reviews all information submitted in response to the environmental conditions adopted in the Certificate Order. Only when satisfied that the applicant has complied with all applicable conditions will a notice to proceed with the activity to which the conditions are relevant be issued.

46. Contrary to petitioners' claim, our environmental conditions that require PennEast to file mitigation plans and additional survey information do not violate NEPA. For each relevant resource area, the Final EIS identified where and why information was incomplete, what methods were used to best analyze the resource impacts given the incomplete information, and any additional measures to mitigate any potential adverse

¹¹² Certificate Order, 162 FERC ¶ 61,053 at PP 98-99. We note that where, as here, landowners deny an applicant access to survey sites, any argument challenging the sufficiency of the Final EIS as incomplete can, taken to its logical conclusion, preclude the Commission from certificating natural gas infrastructure projects, and therefore allow protesting landowners to exercise veto power over such projects.

¹¹³ *Id.* at P 99.

¹¹⁴ Certificate Order, 162 FERC ¶ 61,053 at P 216.

environmental impacts on the resource. For example, the Final EIS and Certificate Order explain that, where survey access was unavailable, wetlands crossed by the project were identified using site-specific field delineation results, and estimation of wetland boundaries using FWS National Wetlands Inventory (NWI) mapping in Pennsylvania, and NJDEP wetland mapping for Hunterdon and Mercer counties.¹¹⁵ Specifically, the Final EIS noted that PennEast used remote-sensing resources to approximate the locations and boundaries of wetlands within the project area using a combination of: high-resolution aerial photographic imagery; NWI data; National Hydrography Dataset data; hydric soil data maintained by the National Resources Conservation Service; and floodplain and flood elevations maintained by the Federal Emergency Management Agency, and field survey results on adjacent land parcels.¹¹⁶ The Final EIS recommended, as adopted by the Commission, that no construction will be allowed to commence until PennEast submits outstanding survey information, and affirms that it has received all applicable authorizations required under federal law.¹¹⁷

47. Similarly, the Final EIS discussed geotechnical investigations needed to understand if the existing conditions would be suitable to use the horizontal direction drill (HDD) method and to help design each HDD crossing. As discussed in the Final EIS and Certificate Order, PennEast completed desktop analyses of geological conditions at each of the proposed HDD crossings; although the majority of the HDD crossings had some geotechnical work performed, and staff reviewed this data along with PennEast's HDD Inadvertent Returns and Contingency Plan, and HDD profiles. The Final EIS noted that the geotechnical evaluation was incomplete primarily because of lack of permission to access the right-of way to install borings.¹¹⁸ Accordingly, the Final EIS recommended, as adopted by the Commission, that prior to construction, PennEast file final plans for each HDD crossing that include results of all outstanding geophysical and geotechnical field investigations.¹¹⁹

48. As another example, as discussed in the Final EIS, PennEast conducted surveys for potential impacts on groundwater supplies, including supplies from private and public

¹¹⁵ Final EIS at 4-76; Certificate Order, 162 FERC ¶ 61,053 at P 129.

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.* at 4-17.

¹¹⁹ *Id.*; *see also* Certificate Order, 162 FERC ¶ 61,053 at PP 120-121.

wells located along the pipeline construction workplace in both New Jersey and Pennsylvania. Although PennEast was unable to identify the precise locations of all water supply wells, the Final EIS found that no significant impacts on groundwater resources are anticipated from the construction or operation of the project because of the avoidance and mitigation measures set forth in the Final EIS.¹²⁰ In any event, the Final EIS recommended, as adopted by the Commission, that prior to construction, PennEast complete all necessary surveys to identify water supply wells.¹²¹

49. Finally, we disagree that there was a need to issue a revised or supplemental EIS. The Council on Environmental Quality (CEQ) regulations implementing NEPA require agencies to prepare supplements to either draft or final environmental impact statements if: (i) the agency makes substantial changes to the proposed action that are relevant to environmental concerns; or (ii) there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed actions or its impact.¹²² The Environmental Conditions requiring site-specific plans, survey results, and additional mitigation measures are not designed to allow significant departures from the project as certificated. Rather, the requirement that PennEast file additional information once survey access is obtained will enable Commission staff to verify that the Final EIS's analyses and conclusions are based on the best available data, enabling us to improve and finalize certain mitigation plans and ensure stakeholders concerns are addressed, as well as evaluate compliance during construction.¹²³

50. The dissent cites *LaFlamme* in support of its contention that the Commission did not adequately consider the environmental effects of the project before issuing the certificate.¹²⁴ The proceeding in *LaFlamme*, however, is entirely distinguishable from the instant proceeding. *LaFlamme* involved a proceeding in which Commission issued a license for an unconstructed hydroelectric project without preparing an EIS or environmental assessment (EA), and relied solely on a two-season post-licensing

¹²⁰ *Id.* at 4-38. PennEast identified two public wells in New Jersey, and found no public or private wells in Pennsylvania.

¹²¹ *Id.*; see also Certificate Order, 162 FERC ¶ 61,053 at P 123.

¹²² 40 C.F.R. § 1502.9(c)(1) (2017).

¹²³ *Id.*, see also Certificate Order, 162 FERC ¶ 61,053 at P 99.

¹²⁴ *LaFlamme v. FERC*, 852 F.2d 389 (9th Cir. 1988) (*LaFlamme*).

recreation study to mitigate the project's effects.¹²⁵ By contrast, here Commission staff prepared an EIS which fully considered the range of potential impacts from the construction and operation of the project.¹²⁶ The Commission has acknowledged that several surveys must be completed as a result of landowners denying access to their property, and stated that construction of the project will only be allowed to proceed once these surveys, and additional studies, have been completed.¹²⁷ The 9th Circuit, in upholding the Commission's issuance of a license on remand after preparing an EA in *LaFlamme II*, held that after "full consideration of the environmental issues" it is permissible to "leave open the possibility" of potential modifications to a Commission authorization based on the results of post-issuance studies.¹²⁸ As the Commission has stated previously, "perfect information" need not be obtained before an action may be taken;¹²⁹ rather, as the 9th Circuit stated in *Yakima*, prior to issuing an authorization, the Commission "must study the effect of a project...and consider possible mitigative measures."¹³⁰ This is precisely what has been done here.

51. In summary, our review of Penn East's application under the requirements of the NGA and NEPA, discusses and identifies the NEPA issues requiring further study treatment and requires their completion and review prior to commencement of construction. The extensive record on environmental issues provided sufficient information regarding the proposed action to be able to fashion adequate mitigation measures to conclude that although the project will result in some adverse environmental impacts, these impacts will be reduced to less than significant levels with the implementation of PennEast's proposed impact avoidance, minimization, and mitigation measures, together with the environmental conditions adopted in the Certificate Order.

¹²⁵ *Id.* at 399-400.

¹²⁶ *Supra* P 44.

¹²⁷ See Certificate Order, 162 FERC ¶ 61,053 at PP 98-101, *supra* PP 45-46.

¹²⁸ *LaFlamme v. FERC*, 945 F.2d 1124, 1130 (9th Cir. 1991).

¹²⁹ See *PP&L Montana, LLC*, 97 FERC ¶ 61,060 at p. 61,323 (2001); see also Certificate Order, 162 FERC ¶ 61,053 at P 101.

¹³⁰ *Confederated Tribes and Bands of Yakima Indian Nation v. FERC*, 746 F.2d 466, 471 (9th Cir. 1984).

2. Conditional Certificates

52. Several parties contend that the Commission's issuance of a conditional certificate for the PennEast Project violates federal statutes including the NGA, Clean Water Act (CWA), National Historic Preservation Act (NHPA), and Delaware River Basin Compact by authorizing project construction before PennEast has acquired other, necessary federal authorizations.

a. Clean Water Act

53. Section 401(a)(1) of the CWA provides that an applicant for a federal license to conduct an activity that "may result in any discharge into navigable waters" must obtain a water quality certification and, further, that "[n]o license or permit shall be granted until the certification required by the section has been obtained or has been waived"¹³¹ The Pennsylvania Department of Environmental Protection (PADEP) and the NJDEP are the state regulatory authorities that have delegated authority under the CWA. PADEP issued a water quality certification on February 7, 2017, for the portion of the project located in Pennsylvania. NJDEP to date has not issued a water quality certification for the portion of the project located in New Jersey.

54. Although we have found that the PennEast Project is consistent with the public interest under the NGA, we recognize that the project cannot proceed until it receives all other necessary federal authorizations. As the parties have noted here, these include relevant authorizations under the CWA. Accordingly, as permitted by NGA section 7(e),¹³² the Commission subjected its authorization of the PennEast Project to conditions that must be satisfied before commencing construction or operation of the project.¹³³

¹³¹ 33 U.S.C. § 1341(a)(1) (2012).

¹³² Section 7(e) of the NGA grants the Commission the "power to attach to the issuance of the certificate and to the exercise of rights granted thereunder such reasonable terms and conditions as the public convenience and necessity may require." 15 U.S.C. § 717f(e) (2012).

¹³³ *East Tennessee Natural Gas Co.*, 102 FERC ¶ 61,225, at P 23 (2003) (citations omitted), *aff'd sub nom.*, *Nat'l Comm. for the New River, Inc. v. FERC*, 373 F.3d 1323 (D.C. Cir. 2004).

Among these conditions is the requirement that PennEast receive the necessary state approvals under this federal statute prior to construction.¹³⁴

55. We disagree with the petitioners' assertions that the issuance of our order authorizing the PennEast Project prior to receipt of the section 401 water quality certification is impermissible. Although the Commission issued authorizations under the NGA for the PennEast Project, states' rights under the CWA and other federal statutes are fully protected. PennEast must receive the necessary state approvals under these federal statutes prior to construction. Nor does our authorization in the Certificate Order impact any substantive determinations that need to be made by the states under these federal statutes. PADEP and NJDEP, the state agencies with federally-delegated section 401 certification authority, retain full authority to grant or deny the specific requests.¹³⁵ Moreover, because construction cannot commence before all necessary authorizations are obtained,¹³⁶ there can be no impact on the environment until there has been full compliance with all relevant federal laws.

¹³⁴ Certificate Order, 162 FERC ¶ 61,053, Appendix A, Environmental Condition 10. Environmental Condition 10 applies to *all* federal authorizations, including any necessary authorizations and/or permits required by the Delaware River Basin Commission, under the Delaware River Basin Compact.

¹³⁵ NJDEP argues that Ordering Paragraph (B)(1) of the Certificate Order, which conditions the certificate on "PennEast's proposed project being constructed and made available for service within two years of the date of this order . . ." impermissibly reduces the time state regulatory agencies have to review permit applications under the CWA. NJDEP's Request for Rehearing at 39. NJDEP is mistaken. The two year window to construct and operate the project is a certificate requirement that applies only to PennEast and does not impact the timing of any permits to be issued by state regulatory agencies pursuant to federal authorizations. In any event, we find this argument unpersuasive as the CWA explicitly contemplates that a "reasonable period of time" to consider such permits "shall not exceed one year." 33 U.S.C. § 1341(a)(1) (2012).

¹³⁶ See Certificate Order, 162 FERC ¶ 61,053, Appendix A, Environmental Condition 10. Delaware Riverkeeper claims, without elaboration, that the Commission "regularly issues letter orders to proceed with tree felling construction activity prior to the issuance of the CWA Section 401 water quality certifications." Delaware Riverkeeper's Request for Rehearing at 157. Delaware Riverkeeper mischaracterizes the Commission's post-certificate compliance process. PennEast is prohibited from commencing construction, including any tree clearing activities, until PennEast obtains all
(continued ...)

56. The Commission's approach appropriately respects the integration of the various permitting requirements for interstate pipelines, as reflected in the NGA and the CWA. As we have stated before, it is also a practical response to the reality that, in spite of the best efforts of those involved, it may be impossible for an applicant to obtain all approvals necessary to construct and operate a natural gas project in advance of the Commission's issuance of its certificate without unduly delaying the project.¹³⁷ To rule otherwise could place the Commission's administrative process indefinitely on hold until states with delegated federal authority choose to act. Such an approach, which would preclude companies from engaging in what are sometimes lengthy pre-construction activities while awaiting state or federal agency action, would likely delay the in-service date of natural gas infrastructure projects to the detriment of consumers and the public in general. The Commission's conditional approval process complies with the dictates of the CWA, as well as other federal statutes.¹³⁸

57. Hopewell and Conservation Foundation cite to *City of Tacoma, Washington v. FERC*¹³⁹ for the proposition that the Commission lacks authority to issue a license

authorizations required under federal law and receives written authorization from the Director of the Commission's Office of Energy Projects.

¹³⁷ See, e.g., *Broadwater Energy LLC*, 124 FERC ¶ 61,225, at P 59 (2008); *Crown Landing LLC*, 117 FERC ¶ 61,209, at P 26 (2006); *Millennium Pipeline Co., L.P.*, 100 FERC ¶ 61,277 at PP 225-231.

¹³⁸ See *Del. Riverkeeper Network v. FERC*, 857 F.3d 388, 397 (D.C. Cir. 2017) ("Because the Certificate Order expressly conditioned FERC's approval of potential discharge activity on Transco first obtaining the requisite § 401 certification, and was not itself authorization of any potential discharge activity, the issuance of the Certificate Order before Pennsylvania's issuance of its § 401 certificate did not violate § 401 of the [Clean Water Act]."). See also *Pub. Util. Comm'n of the State of Cal. v. FERC*, 900 F.2d 269, 282 (D.C. Cir. 1990) (an agency can make "even a final decision so long as it assessed the environmental data before the decision's effective date"); *Del. Dept. of Nat. Res. and Env'tl. Control v. FERC*, 558 F.3d 575, 578 (2009) (dismissing state's appeal of conditional authorization "in light of [the Commission's] acknowledgment of Delaware's power to block the project" under the CZMA); *City of Grapevine, Tex. v. Dept. of Transp.*, 17 F.3d 1502, 1509 (D.C. Cir. 1994) *cert. denied*, 513 U.S. 1043 (1994) (upholding Federal Aviation Administration's approval of a runway, conditioned upon the applicant's compliance with the NHPA) (*City of Grapevine*).

¹³⁹ 460 F.3d 53 (D.C. Cir. 2006) (*City of Tacoma*).

without a CWA section 401 certification.¹⁴⁰ But the court’s general statements regarding section 401 in *City of Tacoma* are not relevant here, where the Commission has issued only a conditional certificate, a practice that the courts have found does not violate section 401.¹⁴¹

58. Finally, we disagree with Hopewell that the Commission’s January 2018 Order “improperly stifles” states’ rights because it provides that “any state or local permits issued with respect to the project must be consistent with the conditions of the certificate.”¹⁴² The CWA section 401 certification is a federal authorization delegated to the state rather than a “state or local permit.”¹⁴³ Thus, Hopewell’s argument lacks merit.

b. National Historic Preservation Act

59. Similarly, Conservation Foundation argues that the Certificate Order is invalid because it was issued prior to completing surveys and consultation required by section 106 of the NHPA.¹⁴⁴ The Commission previously affirmed that a conditional certificate could be issued prior to completion of cultural resource surveys and consultation procedures required under the NHPA because destructive construction activities would not commence until surveys and consultation are complete.¹⁴⁵ As the Certificate Order

¹⁴⁰ Hopewell’s Request for Rehearing at 13; Conservation Foundation’s Request for Rehearing at 57.

¹⁴¹ See *supra* P 56, n. 137.

¹⁴² Hopewell’s Request for Rehearing at 15-16.

¹⁴³ See *e.g.*, *Islander East Pipeline Co., LLC v. Conn. Dep’t of Env’tl. Prot.*, 482 F.3d 79, 85 (2d Cir. 2006) (“In conjunction with the [Commission’s] review of a natural gas project application, it must ensure that the project complies with the requirements of all relevant *federal* laws, including NEPA, 42 U.S.C. §§ 4321–4370f, the Coastal Zone Management Act (CZMA), 16 U.S.C. §§ 1451–1465, and the CWA, 33 U.S.C. §§ 1251–1387.”) (emphasis added).

¹⁴⁴ Conservation Foundation’s Request for Rehearing at 60-61.

¹⁴⁵ See generally *Iroquois Gas Transmission System, L.P.*, 53 FERC ¶ 61,194, at 61,758-61,764 (1990). See also *City of Grapevine*, 17 F.3d 1502, 1509 (D.C. Cir. 1994) (upholding the agency’s conditional approval because it was expressly conditioned on the completion of section 106 process).

acknowledged, Environmental Conditions 46 through 50 require PennEast to complete project impact assessments, mitigation plans, and consultation related to specific historic properties in Pennsylvania and New Jersey in order to address stakeholder comments and mitigation requirements.¹⁴⁶ Additionally, to ensure compliance with NHPA section 106, the Certificate Order included Environmental Condition 51, which prohibits PennEast from beginning project construction until it files with the Commission all remaining cultural resources survey reports; site or resource evaluation reports and avoidance/treatment plans; the project's recommended effects to historic properties in Pennsylvania and New Jersey; and comments on the cultural resources reports and plans from the Pennsylvania and New Jersey SHPOs.¹⁴⁷

c. Conditional Certificate Authority

60. In addition, HALT asserts that the Commission's issuance of conditional certificates exceeds the authority given to it by sections 7 and 15 of the NGA. HALT cites *CATCO*¹⁴⁸ and *FPC v. Hunt*¹⁴⁹ as support for its assertion that the Commission's authority to place "reasonable terms and conditions" on certificates of public convenience and necessity is limited to "the rates and terms of the initial delivery of gas" and does not extend to conditioning certificates on pending determinations under different federal and state agencies.¹⁵⁰ HALT argues that the Commission's practice of issuing conditional certificates in this manner under section 7 exceeds its authority under section 15 of the NGA to act as the lead agency when coordinating the NEPA review of a project.¹⁵¹

61. Despite HALT's assertions, neither Congress nor the courts intended to limit the Commission's authority to attach conditions to certificates to "the rates and terms of the

¹⁴⁶ Certificate Order, 162 FERC ¶ 61,053 at P 172; Appendix A, Environmental Conditions 46-50.

¹⁴⁷ Certificate Order, 162 FERC ¶ 61,053, Appendix A, Environmental Condition 51.

¹⁴⁸ 360 U.S. 378.

¹⁴⁹ 376 U.S. 515 (1964).

¹⁵⁰ HALT's Request for Rehearing at 7.

¹⁵¹ *Id.* at 8 (citing *Panhandle Eastern Pipe Line Co.*, 613 F.2d 1120 (D.C. Cir. 1979) (*Panhandle*)).

initial delivery of gas”¹⁵² Section 7(e) of the NGA states that the Commission has the authority to attach to a certificate “such reasonable terms and conditions as the public convenience and necessity may require.”¹⁵³ As the Court in *CATCO* noted, rates are not “the only factor bearing on the public convenience and necessity,” rather, section 7(e) “requires the Commission to evaluate all factors bearing on the public interest.”¹⁵⁴ As such, the Commission considers a wide-range of factors when evaluating the public convenience and necessity, including market need, environmental, and landowner impacts, among others. The conditions attached to the Certificate Order limit PennEast’s activities where necessary to ensure that the project is consistent with the public convenience and necessity.

62. HALT argues that because section 15(c) of the NGA cross-references section 19(d) of the NGA when discussing the right of an applicant to pursue remedies against an agency that fails to meet the Commission’s schedule for federal authorizations, the Commission’s requirement to keep a consolidated record of proceedings in section 15(d), without a cross reference to section 7, indicates that Congress “obviously expected FERC to wait for other agencies to act before issuing its certificate.”¹⁵⁵

63. HALT’s assertion is without support, or merit. As discussed above, neither Congress nor the courts have placed any such limitation on the Commission’s NGA section 7(e) conditioning authority. To the contrary, the Commission’s practice of issuing conditional certificates has consistently been affirmed by courts as lawful.¹⁵⁶

¹⁵² HALT’s Request for Rehearing at 7.

¹⁵³ 15 U.S.C. § 717f(e) (2012).

¹⁵⁴ *CATCO*, 360 U.S. at 391.

¹⁵⁵ HALT’s Request for Rehearing at 8.

¹⁵⁶ See *Del. Riverkeeper Network v. FERC*, 857 F.3d at 399 (upholding Commission’s approval of a natural gas project conditioned on securing state certification under section 401 of the CWA); see also *Myersville*, 783 F.3d at 1320-1321 (upholding the Commission’s conditional approval of a natural gas facility construction project where the Commission conditioned its approval on the applicant securing a required federal Clean Air Act air quality permit from the state); *Del. Dep’t. of Nat. Res. & Env’tl. Control v. FERC*, 558 F.3d 575, 578-579 (D.C. Cir. 2009) (holding Delaware suffered no concrete injury from the Commission’s conditional approval of a natural gas terminal construction despite statutes requiring states’ prior approval because (continued ...))

3. Insufficient Public Participation

64. Conservation Foundation alleges that the Commission violated NEPA's public participation requirements.¹⁵⁷ Conservation Foundation and Delaware Riverkeeper claim that because the Draft and Final EIS lacked large amounts of data and survey information, the public and federal and state resource agencies were not afforded an opportunity to meaningfully comment or scrutinize the project proposal.¹⁵⁸ Hopewell states that although the Certificate Order requires PennEast to resubmit several reports and plans pursuant to completion of studies and surveys, no public comment period was identified.¹⁵⁹ Hopewell asks the Commission to extend the comment period to allow the public to review and comment on the final plans, surveys, and mitigation strategies that PennEast must submit to comply with the Certificate Order's environmental conditions.¹⁶⁰ In order to ensure compliance with state water quality standards, NJDEP asserts that it needs an opportunity to review, modify, or reject proposed plans related to the Geohazard Risk Evaluation Report (Environmental Condition 15), Karst Mitigation Plan (Environmental Condition 16), Geotechnical Evaluation of Mines (Environmental Condition 17), Final Design Plans for HDD Crossings (Environmental Condition 19), and Final Hydrostatic Test Plan (Environmental Condition 28) before they are finalized and filed with the Commission.

65. Contrary to the claims of various petitioners, the public had sufficient information and time to meaningfully comment on the PennEast Project. There were numerous opportunities for the public to comment on the project's potential impacts. PennEast began the pre-filing process to get early stakeholder involvement more than a year before filing its application. Early opportunities for public involvement included company-sponsored open house meetings, public scoping meetings, and several comment periods

the Commission conditioned its approval of construction on the states' prior approval); *Pub. Utils. Comm'n. of State of Cal. v. FERC*, 900 F.2d 269, 282 (D.C. Cir. 1990) (holding the Commission had not violated NEPA by issuing a certificate conditioned upon the completion of the environmental analysis).

¹⁵⁷ See Conservation Foundation's Request for Rehearing at 83-84 (citing 40 C.F.R. § 6.203; 40 C.F.R. § 1500.1(b)).

¹⁵⁸ Conservation Foundation's Request for Rehearing at 83-84.

¹⁵⁹ Hopewell's Request for Rehearing at 49-50.

¹⁶⁰ *Id.* at 50.

(including an additional comment period following PennEast's submittal of route modifications in response to environmental and engineering concerns).

66. The fact that many of the permits, approvals, consultations, and variances required for the PennEast Project have been or will be filed after the formal public notice and comment periods does not mean that the public is excluded from meaningful participation. The Draft EIS put interested parties on notice of the types of activities contemplated and of their impacts. The Draft EIS is a draft of the agency's proposed Final EIS and, as such, its purpose is to elicit suggestions for change. Petitioners have not shown that any "omissions in the [Draft EIS] left the public unable to make known its environmental concerns about the project's impact."¹⁶¹ Although the Draft EIS serves as "a springboard for public comment,"¹⁶² any information that is filed after the comment period is accessible to the public in the Commission's electronic database, eLibrary.

67. As noted in the Certificate Order, the Final EIS addressed all substantive comments received prior to December 31, 2016.¹⁶³ Comments filed too late to be included in the Final EIS or filed after issuance of the Final EIS were addressed in the Certificate Order to the extent that they raised substantive concerns.

68. Moreover, as explained above, the environmental conditions requiring site-specific plans, survey results, and additional mitigation measures are not designed to allow significant departures from the project as certificated. Rather, the requirement that PennEast file additional information once survey access is obtained, will enable Commission staff to verify that the EIS's analyses and conclusions are based on the best available data, enabling us to improve and finalize certain mitigation plans and ensure stakeholders concerns are addressed, as well as evaluate compliance during construction.¹⁶⁴ Accordingly, we find that it would be unnecessary and inefficient to

¹⁶¹ *Sierra Club, Inc. v. U.S. Forest Serv.*, No. 17-2399, 2018 WL 3595760, at *10 (4th Cir., July 27, 2018) (rejecting petitioners claim that FERC's Draft EIS precluded meaningful comment where the applicant had not yet filed an erosion and sediment control plan at the time the Draft EIS was published) (citing *Nat'l Comm. for the New River v. FERC*, 373 F.3d 1323, 1329 (D.C. Cir. 2004)).

¹⁶² See *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

¹⁶³ Certificate Order, 162 FERC ¶ 61,053 at P 97.

¹⁶⁴ *Id.* P 99.

permit entities to “re-litigate” matters that were fully addressed in the certificate proceeding.

69. In any event, any reports, plans or mitigation measures filed in accordance with the cited conditions are filed in the docket for these proceedings and available for public review and inspection. To the extent any of the pending consultations or studies indicate a need for further review, or indicate a potential for significant adverse environmental impacts, the Director of the Office of Energy Projects will not provide the necessary clearances for commencement of construction. For these reasons, we find that a formal comment period to allow the public to review and comment on any final plans, surveys, and mitigation strategies is not necessary.

70. We also do not find it is necessary for this Commission to require PennEast to submit various plans and reports required in Environmental Conditions 15, 16, 17, 19 and 28 to the NJDEP for its review, modification, or rejection. The NJDEP has independent authority under the Clean Water Act to require PennEast to submit any information necessary for that agency to fulfill its responsibilities under its delegated authority under that statute.

4. Final EIS Bias Due to Tetra Tech’s Conflicts of Interest

71. Lower Saucon contends that the Commission’s use of third-party contractor Tetra Tech to assist in the environmental review was improper.¹⁶⁵ By selecting Tetra Tech as the third-party contractor to assist in the preparation of the Draft and Final EIS, Lower Saucon argues that the Commission ignored evidence of bias and conflicts of interest that should have disqualified Tetra Tech under NEPA regulations intended to preclude contractor conflicts of interest.¹⁶⁶ Lower Saucon alleges that Tetra Tech has a financial interest—both as a business and as a member of a natural gas industry group—in promoting natural gas pipeline projects in the Marcellus Shale region, calling into question Tetra Tech’s impartiality.¹⁶⁷ Finally, Lower Saucon points to a prior allegation of misconduct as evidence the Commission should have disqualified Tetra Tech.¹⁶⁸

¹⁶⁵ Lower Saucon’s Request for Rehearing at 12-24.

¹⁶⁶ *Id.* at 12 (citing 18 C.F.R. § 1506.5 (2017)).

¹⁶⁷ *Id.* at 13-17.

¹⁶⁸ *Id.* at 17-19 (citing *Colorado Wild, Inc. v. U.S. Forest Serv.*, Civil Action No. 06-CV-020829-JLK-DLW (D. Colo. 2007) (citing “Findings of Facts and Conclusions of Law Regarding Plaintiffs’ Motion to Complete and Supplement the Administrative (continued ...)”

72. Third-party contracting involves the use of an independent contractor to assist Commission staff in its environmental analyses and review of a proposal. Under this voluntary program, the independent contractor is selected by the Director of the Commission's Office of Energy Projects and works solely under the direction of the Commission staff. The contractor is responsible for conducting environmental analyses and preparing environmental documentation, and is paid by the project applicant. The process provides Commission staff with additional flexibility in satisfying the Commission's NEPA responsibilities.¹⁶⁹

73. CEQ's regulations provide conflict of interest standards for contractors. Per CEQ regulations:

Contractors shall execute a disclosure statement prepared by the lead agency, specifying that they have no financial or other interest in the outcome of the project. If the document is prepared by contract, the responsible Federal official shall furnish guidance and participate in the preparation and shall independently evaluate the statement prior to its approval and take responsibility for its scope and contents.¹⁷⁰

74. CEQ has issued guidance to aid agencies attempting to comply with their responsibilities under NEPA. While stressing the need for maintaining the appearance of impartiality in the NEPA process, CEQ cautions against an overly restrictive interpretation of the conflict of interest provision. For example, it states that, "[i]n some instances, multidisciplinary firms are being excluded from environmental impact

Record, and for Leave to Conduct Limited Discovery" finding administrative record incomplete due to the destruction of a computer hard drive belonging to a Tetra Tech employee); *Colorado Wild Inc. v. U.S. Forest Serv.*, 523 F. Supp. 2d 1213 (2007) (granting motion to continue preliminary injunction preventing Forest Service from implementing an Final EIS and Record of Decision related to its grant of a special use authorization to a real estate developer for right-of-ways across National Forest System lands)).

¹⁶⁹ See generally, *FERC Handbook for Using Third-Party Contractors to Prepare Environmental Documents for Natural Gas Facilities and Hydropower Projects* (August 2016) (<https://www.ferc.gov/industries/hydropower/enviro/tpc/tpc-handbook.pdf>).

¹⁷⁰ 40 C.F.R. § 1506.5(c) (2017).

statements preparation contracts because of links to a parent company which has design and/or construction capabilities.”¹⁷¹ CEQ adds:

Section 1506.5(c) prohibits a person or entity from entering into a contract with a federal agency to prepare an [Environmental Impact Statement (EIS)] when that party has at that time and during the life of the contract pecuniary or other interests in the outcome of the proposal. Thus, a firm which has an agreement to prepare an EIS for a construction project cannot, at the same time, have an agreement to perform the construction, nor could it be the owner of the construction site. However, if there are no such separate interests or arrangements, and if the contract for EIS preparation does not contain any incentive clauses or guarantees of any future work on the project, it is doubtful that an inherent conflict of interest will exist.¹⁷²

75. In addition to CEQ guidelines, the Commission has organizational conflict of interest (OCI) procedures that it uses to identify real and perceived conflicts of interest associated with its third-party contractors. Each prospective contractor must disclose any recent or ongoing work and revenues for an applicant or its affiliates. In general, where only one percent or less of a contractor’s business (for each of the current and two preceding calendar years)¹⁷³ involves a party that could be affected by the work, the contractor would not have a disqualifying OCI.¹⁷⁴

¹⁷¹ 48 Fed. Reg. 34,266 (July 28, 1983).

¹⁷² *Id.*

¹⁷³ In August 2016, the Commission revised its *Handbook for Using Third-Party Contractors to Prepare Environmental Documents for Natural Gas Facilities and Hydropower Projects* to require that the third-party contractor submit financial information based on the calendar year as opposed to the fiscal year.

¹⁷⁴ The one percent threshold applied by staff is based on well-established ethical standards, which recognize that a financial interest of one percent or less would not typically compromise impartiality. For example, the Office of Government Ethics recognizes that an employee may ethically perform work while maintaining a *de minimis* financial interest that could well exceed one percent of his or her total income. *See* 5 C.F.R. § 2640.202 (2017).

76. Lower Saucon’s allegations that Tetra Tech has a “financial, business, and corporate interest” in promoting natural gas infrastructure in the Marcellus Shale region do not demonstrate that Tetra Tech has an OCI that necessitates an invalidation of the Final EIS.¹⁷⁵ Lower Saucon points to a Tetra Tech subsidiary that describes itself as a “pipeline engineering company” and website descriptions of previous Tetra Tech design projects for natural gas pipelines in the Marcellus Shale region.¹⁷⁶ These generic assertions are not sufficient to cause the Commission to question Tetra Tech’s impartiality. Further, in the event that Lower Saucon “had identified an actual conflict of interest, it would afford a ground for invalidating the [EIS] only if it rose to the level of ‘compromis[ing] the objectivity and integrity of the NEPA process.’”¹⁷⁷

77. Nor do we believe that Tetra Tech’s membership in, or role as a technical consultant to, a trade organization that promotes the development of natural gas supplies in the Marcellus Shale region constitutes a disqualifying OCI.¹⁷⁸ It would be inappropriate to disqualify Tetra Tech from serving as a third-party contractor for belonging to a professional organization. Were this the standard for conflicts of interest, nearly all third-party contracts would likely be disqualified for conflicts of interest. Moreover, Commission staff’s oversight over all environmental analyses and work product would be more than sufficient to cure the low likelihood of contractor bias arising merely from a contractor’s affiliation with a trade group.

78. Finally, we are not persuaded by Lower Saucon’s attempts to use a prior allegation of misconduct involving one Tetra Tech employee to demonstrate that impropriety was present during the Commission’s environmental review of this project. The allegation of prior misconduct arose during a legal challenge of a 2006 environmental document issued by the U.S. Forest Service and prepared by Tetra Tech, and has no bearing on the Commission’s oversight and responsibility for the work of its third-party contractors or the environmental review of the PennEast Project.

¹⁷⁵ Lower Saucon’s Request for Rehearing at 13-15.

¹⁷⁶ *Id.* at 13.

¹⁷⁷ *Sierra Club, Inc. v. U.S. Forest Serv.*, No. 17-2399, 2018 WL 3595760, at *10 (4th Cir., July 27, 2018) (citing *Communities Against Runway Expansion, Inc. v. FAA*, 355 F.3d 678, 686 (D.C. Cir. 2004)).

¹⁷⁸ *Id.* at 14-15.

79. In sum, we disagree with the contention that the Commission's use of Tetra Tech as a third-party contractor during the environmental review process "threatens the integrity of the NEPA process."¹⁷⁹ We believe that the procedures outlined above ensured the integrity of the environmental review process in this case and deny rehearing on this issue.¹⁸⁰

5. Project Scope and Alternatives

80. Several parties, including Hopewell, Lower Saucon, and the NJDEP, and Conservation Foundation allege that the Commission failed to properly identify or evaluate the project's purpose and need, and therefore, failed to evaluate a reasonable range of alternatives.¹⁸¹ Hopewell and Conservation Foundation argue that such a narrow view of the need for the project resulted in a "completely deficient"¹⁸² alternatives analysis, especially in its consideration of the no-action alternative.¹⁸³ Hopewell and Lower Saucon contend that the Final EIS failed to adequately consider system alternatives including the location of the interconnection with Transcontinental Gas Pipeline Company, LLC (Transco), and the Hellertown Lateral.¹⁸⁴ In addition, NJDEP asserts that the Final EIS and Certificate Order ignored suggested route alternatives which would have avoided several environmental resources, as well as the need for HDD.¹⁸⁵

¹⁷⁹ Lower Saucon's Request for Rehearing at 16-17.

¹⁸⁰ Lower Saucon requests additional information regarding Tetra Tech's disclosures on the OCI Disclosure Statement. Lower Saucon's Request for Rehearing at 17. As noted above, the Commission received sufficient information in the OCI review to determine that there was no disqualifying conflict of interest.

¹⁸¹ See Hopewell's Request for Rehearing at 33-37; Lower Saucon's Request for Rehearing at 34-36; NJDEP's Request for Rehearing at 32-37; Conservation Foundation's Request for Rehearing at 70-77.

¹⁸² Hopewell's Request for Rehearing at 33.

¹⁸³ *Id.* at 34, Conservation Foundation's Request for Rehearing at 70-76.

¹⁸⁴ Hopewell's Request for Rehearing at 34-37; Lower Saucon's Request for Rehearing at 34-36.

¹⁸⁵ See NJDEP's Request for Rehearing at 32.

a. Statement of Purpose and Need

81. Several petitioners contend that the Commission viewed the purpose of the project too narrowly, which led to an insufficient analysis of the alternatives to the project.¹⁸⁶ Delaware Riverkeeper states that by viewing the purpose of the project so narrowly, “all alternatives are preordained to fail in comparison.”¹⁸⁷ Conservation Foundation asserts that the statement of purpose and need merely “parrots PennEast’s stated purposes” resulting in an “improper formulation of the purpose and need statement” and a subsequent alternatives analysis that did not adequately consider the no-action alternative, and other alternatives including renewable energy.¹⁸⁸ Similarly, Lower Saucon contends that the 2.1-mile-long Hellertown Lateral is not needed, as it will “simply provide an interconnection point with the UGI distribution system, which is more than adequately served with existing natural gas supplies and pipeline systems.”¹⁸⁹ Lower Saucon maintains that without the lateral “[t]he overall objectives of the project could still be met, with the only impact being to one shipper who might fail to gain the advantage of capturing ‘pricing differentials’ by obtaining transportation of gas via the lateral.”¹⁹⁰

82. Other petitioners assert that the purpose and need statement is flawed based on what they deem the erroneous underlying assumption that the service region suffers from unserved need for additional pipeline capacity, and that the Commission “has made no attempt to question much less scrutinize the assumption of need underlying PennEast’s stated project objectives.”¹⁹¹

83. CEQ regulations state that an EIS must include a statement to “briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.”¹⁹² Thus, the EIS need only describe the

¹⁸⁶ Conservation Foundation’s Request for Rehearing at 64-65; NJCF’s Request for Rehearing at 14; Delaware Riverkeeper’s Request for Rehearing at 99.

¹⁸⁷ Delaware Riverkeeper’s Request for Rehearing at 99.

¹⁸⁸ Conservation Foundation’s Request for Rehearing at 71–72.

¹⁸⁹ Lower Saucon’s Request for Rehearing at 34.

¹⁹⁰ *Id.*

¹⁹¹ *Id.* at 68-70.

¹⁹² 40 C.F.R. § 1502.13 (2018).

purpose and need of the project to the extent necessary to inform its alternatives analysis. Courts have upheld federal agencies' use of applicants' project purpose and need as the basis for evaluating alternatives.¹⁹³ When an agency is asked to consider a specific plan, the needs and goals of the parties involved in the application should be taken into account.¹⁹⁴ We recognize that a project's purpose and need should not be so narrowly defined as to preclude consideration of what may actually be reasonable alternatives.¹⁹⁵ Nonetheless, an agency need only consider alternatives that will bring about the ends of the proposed action, and the evaluation is "shaped by the application at issue and by the function that the agency plays in the decisional process."¹⁹⁶

84. Here, the EIS appropriately recited the project's objective as stated by the applicant, that being "to provide about 1.1 million dekatherms per day (MMDth/d) of year-round natural gas transportation service from northern Pennsylvania to markets in New Jersey, eastern and southeastern Pennsylvania, and surrounding states."¹⁹⁷

85. This statement of purpose and need mirrors that for other gas pipeline projects, wherein the proposal is described as a means to transport a specific volume of gas from one or more receipt points to one or more delivery points.¹⁹⁸ Although this description limits some types of alternatives considered, it does not preordain that the project being

¹⁹³ See, e.g., *City of Grapevine*, 17 F.3d 1502, 1506.

¹⁹⁴ *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991).

¹⁹⁵ *Id.* at 196.

¹⁹⁶ *Id.* at 195, 199.

¹⁹⁷ Final EIS at 3-1; PennEast's Certificate Application at 3. Note that courts have upheld federal agencies' use of an applicant's stated purpose and need as the basis for evaluating project alternatives. See, e.g., *City of Grapevine*, 17 F.3d 1502, 1506-07 (D.C. Cir. 1994). See also *Sierra Club, Inc. v. U.S. Forest Serv.*, No. 17-2399 2018 WL 3595760, at *10 (4th Cir., July 27, 2018) ("[T]he statement [of purpose and need] allows for a wide range of alternatives but is narrow enough (i.e., it explains where the gas must come from, where it will go, how much it would deliver) that there are not an infinite number of alternatives.")

¹⁹⁸ Agencies are afforded considerable discretion in defining the purpose and need of a project. See, e.g., *Friends of Southeast's Future v. Morrison*, 153 F.3d 1059, 1066-1067 (9th Cir. 1998).

proposed will be the sole way to satisfy the specified purpose and need. In this case, we were able to identify several reasonable alternative means (summarized below) to satisfy the stated objective of the PennEast Project. As discussed in greater detail below, we found none of the alternatives identified by petitioners would be technically and economically feasible and/or offer a significant environmental advantage over PennEast's proposed project or any of its segments, or otherwise meet the project's purpose and need.¹⁹⁹ We affirm this finding.

86. We also find no merit in Conservation Foundation's argument that what it deemed the improper formulation of the purpose and need resulted in an inadequate discussion of the "no action" alternative, as the purpose and need of a proposed project does not inform the no action alternative. The CEQ regulations require the alternatives analysis to include the "no action alternative."²⁰⁰ CEQ advises that the "no action" alternative in cases, such as here, involving federal decisions on proposals for projects, would "mean the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity...."²⁰¹ Accordingly, regardless of how the purpose and need is "formulated," the no action alternative means the Commission would not authorize the PennEast Project. As discussed in the Final EIS,²⁰² staff found that the alternative of not authorizing the PennEast Project would result in no environmental impacts.

87. Moreover, with respect to petitioner's argument that the Commission accepted without questioning the applicant's assertion that there is a need for the project, we find that petitioners appear to conflate the description of the purpose of and need for the project, required by NEPA, with the Commission's determination of "public need" under the public convenience and necessity standard of section 7(c) of the NGA. As discussed

¹⁹⁹ See *City of Alexandria v. Slater*, 198 F.3d 862, 867 (D.C. Cir. 1999); 43 C.F.R. § 46.420(b) (2017) (defining "reasonable alternatives" as those "that are technically and economically practical or feasible and meet the purpose and need of the proposed action"). Note that NEPA does not compel the selection of the most environmentally benign alternative; rather, NEPA is intended to ensure that the basis for reaching a decision be informed by an awareness of the environmental impacts of a proposed action.

²⁰⁰ 40 C.F.R. § 1502.14(d) (2017).

²⁰¹ Council on Environmental Quality, *CEQ 40 Most Asked Questions*, at 3 (Mar. 1981) <https://www.energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>.

²⁰² Final EIS at 3-3.

above, when determining “public need,” the Commission balances public benefits, including market need, against project impacts.²⁰³ The Final EIS appropriately explained that it was not a “decision document,” and that, under NGA section 7(c), the final determination of the need for the projects lies with the Commission.²⁰⁴ Neither NEPA nor the NGA requires the Commission to make its determination of whether the project is required by the public convenience and necessity before its final order.

88. Although Lower Saucon dismisses UGI Utilities, Inc.’s need for project capacity that would be provided via the Hellertown Lateral, the Hellertown Lateral was designed as part of the PennEast Project, and the lateral’s delivery points are located specifically in order to enable Columbia Gas Transmission, LLC and UGI Utilities, Inc. to connect to the PennEast system. We find Columbia and UGI’s contracting for capacity as sufficient evidence of need for the lateral.

b. Need and the No-Action Alternative

89. In arguing for the no-action alternative, several petitioners contend that existing pipeline capacity, renewable energy resources, and increased efficiency and conservation measures could eliminate the need for the project, and urge the Commission to reconsider the no-action alternative.²⁰⁵

90. The Final EIS found that taking no action would avoid adverse environmental impacts, but would fail to fulfill the objective of the proposed project.²⁰⁶ Although such alternatives could be environmentally preferable, there are no projects currently being considered that would rely on renewable sources to supply target-market consumers with, or reduce consumption by, the energy-equivalent of the gas the PennEast Project will provide. Further, as the Final EIS points out, generating electricity from renewable sources and increasing energy efficiency and conservation are not alternatives that satisfy the purpose of the PennEast Project, which is to transport gas along a particular

²⁰³ See *supra* PP 14-27 (affirming the Certificate Order’s public needs determination).

²⁰⁴ Final EIS at 1-3 - 1-4.

²⁰⁵ Conservation Foundation’s Request for Rehearing at 74-76; Delaware Riverkeeper’s Request for Rehearing at 100-101; Lower Saucon’s Request for Rehearing at 36.

²⁰⁶ Final EIS at 3-3.

production-to-consumption pathway.²⁰⁷ Accordingly, we reiterate our prior finding that these are not reasonable alternatives to review, and that adoption of the no-action alternative was not appropriate.

c. System Alternatives

91. System alternatives modify or add to existing or proposed pipeline systems to meet the objective(s) of the proposed project. As potential means to meet the proposed project's objective, the Final EIS reviewed four major route alternatives,²⁰⁸ three of which would have made modifications to the existing pipeline systems of Transco, Columbia Gas, and Texas Eastern. We found capacity would not be available on these existing systems to transport PennEast's volumes to the designated delivery points. Also, with the exception of Transco's Leidy Line, none of the existing pipelines are in close proximity to the production areas of northern Pennsylvania that are intended to supply the PennEast Project. Accordingly, we found that these are not reasonable alternatives.

i. Leidy Line

92. Delaware Riverkeeper claims the Final EIS did not adequately explain why we did not deem rerouting the PennEast pipeline to track Transco's Leidy Line to be a preferable alternative, and promote various means to make use of other existing easements. Despite Delaware Riverkeeper's assertion, the Leidy Line system alternative is discussed in detail in the Final EIS.²⁰⁹ The Final EIS acknowledged that although collocation within an existing right-of-way is generally preferable, placing PennEast's new pipeline within existing easements would be "generally not feasible, primarily because there is not enough space for the addition of the proposed pipeline and new required easement," given that "[t]he width of existing easements are limited to that needed to safely operate and maintain the utility and do not include extra width that would accommodate the PennEast pipeline."²¹⁰ The Final EIS further concluded that routing the PennEast

²⁰⁷ *Id. See also Transco*, 161 FERC ¶ 61,250 at P 50 (stating that renewable energy is not an alternative to natural gas transportation).

²⁰⁸ The Final EIS also reviewed 83 route variations identified by PennEast or by commenters, 39 of which were incorporated into the approved route.

²⁰⁹ Final EIS at 3-12 - 3-16.

²¹⁰ *Id.* at 3-15. PennEast seeks a new permanent easement width of 50 feet to operate and maintain the pipeline in accordance with the Department of Transportation's safety standards.

pipeline adjacent to the Leidy Line would require an additional 54 miles of pipeline; disturb 602 more acres during construction; require 142 more acres of operational right-of-way; impact about 94 more acres of wetlands during construction; and be within 50 feet of an estimated 325 more residences.²¹¹ In view of this, we affirm our finding that rerouting the PennEast pipeline proximate to the Leidy Line would not be environmentally preferable and that using other existing easements would not be feasible.²¹²

93. As a means to assess the alternative of placing the new PennEast pipeline alongside the existing Leidy Line, we constructed a table that numerically compared the impacts (e.g., miles of pipe and acres of construction) of this option with the proposed project.²¹³ Delaware Riverkeeper faults the EIS for not similarly quantifying the impacts of the proposed project versus the alternative of expanding the Leidy Line. We find that choosing not to do so was appropriate in view of our finding that boosting capacity on the Leidy Line by looping and compression would not fulfill the objective of the PennEast

²¹¹ *Id.* at 3-13.

²¹² As another alternative, the Final EIS considered Transco's Atlantic Sunrise Project. We found that because there were commitments for firm service for its full capacity, along with commitments for approximately 90 percent of the capacity of the PennEast Project, there was customer demand for both projects. Consequently, the Atlantic Sunrise Project could not serve as a PennEast substitute unless it were to be significantly expanded. Also, the Atlantic Sunrise Project, like Transco's Leidy Line, could not bring gas to the same delivery points as the PennEast Project. In view of this, we affirm our prior determination that expanding the Atlantic Sunrise Project would not be a practicable or environmentally preferable alternative. *See* Final EIS at 3-7 – 3-8.

²¹³ *See* Final EIS Table 3.3.1-2 at 3-10. NJDEP faults this table's numerical summary of comparative impacts, along with other instances when data are presented in the Final EIS, for failing to describe "the data's source or veracity." NJDEP's Request for Rehearing at 47. It has not been our practice to footnote and cross-reference the source of all data in our environmental review, since the origin of any particular piece of information is generally either available in or referenced in the record of a proceeding. The veracity of data submitted to the Commission is subject to challenge by the Commission or any interested person. When data needed to assess the environmental impacts of a proposed project is unavailable, typically because a project sponsor has been unable to gain access to complete an on-site survey, we require that such data be submitted prior to undertaking construction. *See, e.g.*, Certificate Order, 162 FERC ¶ 61,053, Appendix A, Environmental Conditions 21, 31, 41, and 51.

Project, since the Leidy Line does not provide access to the same delivery points or to an interconnection with Algonquin Gas Transmission, LLC and Texas Eastern Transmission, LP at one location.²¹⁴ For the Leidy Line expansion to function as a feasible system alternative, i.e., for gas flowing on an expanded Leidy Line to be able to reach the PennEast Project's market area, new lateral lines would need to be built from the Leidy Line to the designated delivery points.²¹⁵ Further, as discussed in the EIS, there are 30 locations along the Leidy Line, totaling about 20.3 miles, with dense residential or commercial development along both sides of the pipeline that preclude looping within the existing right-of-way.²¹⁶ Thus, expanding the Leidy Line would require routing loop lines outside the existing right-of-way to avoid existing development. We anticipate the environmental impacts of greenfield looping and new laterals would be comparable to rerouting PennEast's pipeline along the Leidy Line right-of-way. In addition, as noted above, because adding capacity to the Leidy Line would not serve as a viable alternative to PennEast's proposal, we found no reason to quantify impacts of a Leidy Line expansion.

ii. Adelphia Gateway

94. Numerous petitioners assert that the Adelphia Gateway, LLC (Adelphia), Docket No. CP18-46-000, should have been considered as an alternative to the PennEast Project. The Adelphia application was filed on January 12, 2018, a week before the Certificate Order was issued and nine months after the Final EIS was completed. It is impractical for an agency to supplement an EIS every time new information comes to light after the EIS is finalized, and "[t]o require otherwise would render agency decision making intractable, always awaiting updated information only to find the new information outdated by the time a decision is made."²¹⁷ Consequently, agencies are expected to follow a rule of reason in deciding how to incorporate the continuously updating stream of data.²¹⁸

²¹⁴ Final EIS at 3-9.

²¹⁵ *Id.* at 3-6.

²¹⁶ *Id.* at 3-7.

²¹⁷ *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 373 (1989) (citation omitted).

²¹⁸ *Marsh*, 390 U.S. at 374.

95. In this case, we considered all reasonable alternatives to the PennEast project pending during the preparation of the Final EIS. To have included Adelphia – which had yet to be proposed when the EIS was completed in April 2017 – we would have had to refrain from acting on PennEast and start preparing a supplemental EIS after Adelphia submitted its application, resulting in what we believe would be an unwarranted delay. Thus, we believe our decision to issue the PennEast order, rather than hold it in abeyance to be able to assess Adelphia, was appropriate and reasonable.

96. Had we considered Adelphia, we would have found it to be an impractical system alternative. Although both projects are designed to receive gas from production areas in northeast Pennsylvania, from there the pipelines diverge; PennEast tracks east to deliver gas to markets in eastern Pennsylvania and New Jersey, and Adelphia would direct gas south to Philadelphia and Delaware. Because each project serves a different market area, without extensive additional construction, neither could deliver gas to the other's intended customers. Further, Adelphia is a smaller scale project, and currently can accommodate approximately 150,000 Dth/d (approximately 13.5 percent of PennEast's capacity of 1,107,000 Dth/d) along only the southern portion of its pathway. Thus, an expansion of Adelphia would not be a preferable alternative to PennEast.

d. Route Alternatives

97. Hopewell continues to advocate for relocating PennEast's planned interconnection with Transco to a site that would be located about 0.5 mile southwest at MP 111.8R2, and that would, according to Hopewell, eliminate approximately 2.1 miles of pipeline running through the town. This alternative interconnection is addressed in the Final EIS²¹⁹ and Certificate Order.²²⁰ The Final EIS concluded that although the alternative may meet the project's delivery needs, without further information we could not determine if it would be feasible.²²¹ Consequently, the Certificate Order includes Environmental Condition 13, which bars PennEast from commencing construction until it submits additional details on this alternative's feasibility.²²² Because PennEast has yet to do so, we have yet to reach a

²¹⁹ *Id.* at P 33, n. 46. The fact that the shipper and LDC may be affiliates, and thereby have additional insight into future developments, only strengthens the claim for the Hellertown Lateral as a necessary component of the PennEast Project.

²²⁰ Final EIS at 3-37 – 3-39; Certificate Order, 162 FERC ¶ 61,053 at P 215.

²²¹ Final EIS at 3-39.

²²² See Certificate Order, 162 FERC ¶ 61,053, Appendix A, Environmental Condition 13.

decision on whether to adopt the PennEast or Hopewell Township interconnection. In response to NJDEP's objection to issuance of the Certificate Order prior to a full review of the alternative's impacts, we stress that until PennEast submits additional information to allow us to fully review the alternative, neither of the proposed Transco interconnections can go forward.

98. NJDEP states that if an HDD fails, it would most likely not allow open trenching of sensitive habitat and instead recommends an alternate route.²²³ In view of this, NJDEP maintains the EIS should have assessed routing alternatives that may be needed if an HDD fails.²²⁴

99. NEPA does not require an agency to assess potential project modifications that may be undertaken in response to every conceivable adverse contingency. Because we believe an HDD failure is unlikely when conducted in a suitable location in accordance with the regulatory requirements, we believe reviewing routing alternatives in anticipation of an HDD failure to be unwarranted. However, if there is such a failure, and if we find that relocating the pipeline along a previously unstudied route would be a preferable way to effect a water-body crossing, then we will evaluate the route variation requested by PennEast in accordance with Environmental Conditions 1 and 5 of the Certificate Order. All appropriate agency(ies) will be consulted with respect to any alternative water-body crossing methods.

100. Delaware Riverkeeper urges the selection of routing alternatives it believes would offer environmental advantages.²²⁵ These alternatives have already been assessed, and rejected, in the Final EIS and/or Certificate Order.²²⁶ Delaware Riverkeeper complains that although our review of alternatives "gives numbers of stream crossings, wetlands cut, forest acres lost," it "fails to provide an adequate level of detail regarding the selection of the proposed preferred route."²²⁷

101. We believe that in our consideration of alternatives, the data presented and our interpretation thereof are adequate to support the rationale for our decision. Delaware

²²³ NJDEP's Request for Rehearing at 34-37.

²²⁴ *Id.* at 37.

²²⁵ Delaware Riverkeeper's Request for Rehearing at 146.

²²⁶ Final EIS at 3-9 – 3-32; Certificate Order, 162 FERC ¶ 61,053 at PP 211-215.

²²⁷ Delaware Riverkeeper's Request for Rehearing at 150.

Riverkeeper questions our rejection of alternatives with a reduced footprint, such as the Luzerne and Carbon Counties alternative. The Final EIS considered the advantages of this alternative route, noting it would be shorter (27.2 versus 28.9 miles), and impact less wetland, agricultural and special interest land.²²⁸ However, the alternative could only be collocated along an existing right-of-way for 0.2 miles, as compared to 23 miles for the approved route, and the alternative would require seven additional waterbody crossings and clearing an additional 15 acres of forest land.²²⁹ Delaware Riverkeeper challenges what it views as our “[presumption] that if the pipeline is co-located with a preexisting linear project that its impacts have been avoided or been minimized as compared to other options,” because when collocation does not take place within an existing right-of-way, “it actually creates a second, adjacent footprint, thereby expanding the ROW footprint.”²³⁰ The Final EIS took this outcome into account, but reasoned that “[w]hile collocation with another existing right-of-way would not eliminate the need for new right-of-way and land impacts, it would place the new impacts adjacent to existing cleared right-of-way,” and may “allow some construction work area to overlap the existing easement, therefore reducing the area of new vegetation clearing required.”²³¹ Accordingly, we affirm the selection of the approved route.

e. Construction Alternatives

102. Delaware Riverkeeper argues that we should compel PennEast to use construction practices it deems environmentally preferable, such as using HDD to bore under road and stream crossings, and the selection of construction practices to avoid soil compaction.²³² The construction practices we require PennEast to use reflect our experience with previous, similar projects, and incorporate mitigation measures we have found ensure there will be no significant adverse environmental impacts. No more is required.

103. Delaware Riverkeeper is concerned about post-construction practices as well, in particular damage on the right-of-way due to access by vehicular traffic, including

²²⁸ Final EIS at 3-9 – 3-12.

²²⁹ *Id.*

²³⁰ Delaware Riverkeeper’s Request for Rehearing at 151.

²³¹ Final EIS at 3-12.

²³² Delaware Riverkeeper’s Request for Rehearing at 146-152.

off-road vehicles.²³³ PennEast's E&SCP provides that it will "[m]ake efforts to control unauthorized off-road vehicle use, in cooperation with the landowner, throughout the life of the project."²³⁴ Further, Environmental Condition No. 43 of the Certificate Order responds to this concern by requiring that prior to construction PennEast must submit for approval "plans regarding a gating or boulder access system for the pipeline right-of-way across Pennsylvania state lands, developed in consultation with the Pennsylvania Department of Conservation and Natural Resources, to prevent unauthorized vehicle access while maintaining pedestrian access."

6. Indirect Impacts

104. Several petitioners allege that the EIS failed to account for the indirect impacts of upstream natural gas production, and the downstream GHG emissions from the gas transported along the system, and the resulting climate change impacts from these emissions.²³⁵ They assert the project would be responsible for enabling upstream gas production and downstream gas consumption, and therefore the Commission must consider "their attendant environmental consequences."²³⁶

105. The Certificate Order provided extensive discussion on why the Commission is not required under NEPA to analyze, as indirect impacts, the environmental impacts from upstream natural gas development. On rehearing, parties raise no new arguments disputing the Commission's reasoning, therefore we need not address them in detail. Petitioners further fail to acknowledge, much less identify error with, the Commission's analysis of either the estimated upstream or downstream impact analyses.²³⁷

²³³ *Id.* at 153.

²³⁴ Application, Appendix E at 45.

²³⁵ Delaware Riverkeeper's Request for Rehearing at 50-60, Conservation Foundation's Request for Rehearing at 13, 93.

²³⁶ Conservation Foundation's Request for Rehearing at 17.

²³⁷ The dissent relies on *Mid States Coalition for Progress v. Surface Transportation Board (Mid States)* 345 F.3d 520 (8th Cir. 2003) to argue that the Commission must "engage in reasonable forecasting" and "at the very least, examine the effects that an expansion of pipeline capacity might have on production." For the same reasons we have previously explained, *Mid States* is distinguishable from the circumstances here. See *Dominion Transmission, Inc.*, 163 FERC ¶ 61,128, at PP 64-66 (*continued ...*)

106. As discussed in the Certificate Order, CEQ defines “indirect impacts” as those “which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”²³⁸ With respect to causation, “NEPA requires a ‘reasonably close causal relationship’ between the environmental effect and the alleged cause” in order “to make an agency responsible for a particular effect under NEPA.”²³⁹ As the Supreme Court explained, “a ‘but for’ causal relationship is insufficient [to establish cause for purposes of NEPA].”²⁴⁰ Thus, “[s]ome effects that are ‘caused by’ a change in the physical environment in the sense of ‘but for’ causation” will not fall within NEPA if the causal chain is too attenuated.”²⁴¹ Further, the Court has stated that “where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant ‘cause’ of the effect.”²⁴²

107. The Certificate Order thoroughly discussed the Commission’s reasons for concluding that the environmental effects resulting from natural gas production are generally neither caused by a proposed pipeline, nor are they reasonably foreseeable consequences of an infrastructure project, as contemplated by the CEQ regulations.²⁴³ With respect to causation, we noted that a causal relationship sufficient to warrant

(2018); *Tennessee Gas Pipeline Co., L.L.C.*, 163 FERC ¶ 61,190, at PP 64-66 (2018); *Nexus Gas Transmission, LLC*, 164 FERC ¶ 61,054, at P 96 (2018); and *National Fuel Gas Supply Corp.*, 164 FERC ¶ 61,084, at PP 166-167 (distinguishing *Mid States*).

²³⁸ Certificate Order, 162 FERC ¶ 61,053 at P 194.

²³⁹ *Id.* P 195 (citing *U.S. Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, at 767 (2004) (quoting *Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, at 774 (1983))).

²⁴⁰ *Id.*

²⁴¹ *Id.* (quoting *Metropolitan Edison Co. v. Pub. Citizen*, 460 U.S. at 774).

²⁴² *Id.* (quoting *U.S. Dep’t of Transp. v. Pub. Citizen*, 541 U.S. at 770).

²⁴³ See Certificate Order, 162 FERC ¶ 61,053 at PP 197-210 (explaining that upstream production impacts are not indirect impacts of the Project, as they are neither causally related nor reasonably foreseeable, as contemplated by the CEQ regulations). See also *id.* PP 203-206; Final EIS at 4-25 (Table 4.10.1-5); 4-250 (Table 4.10.1-9); and 4-249.

Commission analysis of the non-pipeline activity as an indirect impact would only exist if the proposed pipeline would transport new production from a specified production area and that production would not occur in the absence of the proposed pipeline (i.e., there will be no other way to move the gas).²⁴⁴

108. The Certificate Order added that even accepting, *arguendo*, that a specific pipeline project will cause natural gas production, such potential impacts, including GHG emissions impacts, resulting from such production are not reasonably foreseeable. Courts have found that an impact is reasonably foreseeable if it is “sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.”²⁴⁵ Although courts have held that NEPA requires “reasonable forecasting,” an agency is not required “to engage in speculative analysis” or “to do the impractical, if not enough information is available to permit meaningful consideration.”²⁴⁶

109. The Certificate Order explained that the Commission generally does not have sufficient information to determine the origin of the gas that will be transported on a pipeline, and that states, rather than the Commission, have jurisdiction over the production of natural gas and thus would be most likely to have the information necessary to reasonably foresee future production. Moreover, there are no forecasts on record which would enable the Commission to meaningfully predict production-related impacts, many of which are highly localized.²⁴⁷ Thus, we found that, even if the Commission knows the general source area of gas likely to be transported on a given pipeline, a meaningful analysis of production impacts would require more detailed information regarding the number, location, and timing of wells, roads, gathering lines, and other appurtenant facilities, as well as details about production methods, which can vary by producer and depending on the applicable regulations in the various states.²⁴⁸ Accordingly, we found that here, the impacts of natural gas production are not reasonably foreseeable because they are “so nebulous” that “we cannot forecast [their] likely effects”

²⁴⁴ Certificate Order, 162 FERC ¶ 61,053 at P 197.

²⁴⁵ *EarthReports, Inc. v. FERC*, 828 F.2d 949, 955 (D.C. Cir. 2016) (citations omitted); *see also Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992).

²⁴⁶ *N. Plains Res. Council v. Surface Transp. Board*, 668 F.3d 1067, 1078 (9th Cir. 2011).

²⁴⁷ Certificate Order, 162 FERC ¶ 61,053 at P 198.

²⁴⁸ *Id.*

in the context of an environmental analysis of the impacts of a proposed interstate natural gas pipeline.²⁴⁹

110. Notwithstanding our conclusions regarding indirect impacts, the EIS for the project provided a general analysis of the potential impacts, including GHG emissions impacts, associated with unconventional natural gas production, based on publicly-available Department of Energy (DOE) and Environmental Protection Agency (EPA) methodologies.²⁵⁰

111. The Final EIS also went beyond that which is required by NEPA and quantified the estimated downstream GHG emissions, assuming that the project always transports the maximum quantity of natural gas each day and that the full quantity of gas is used for additional consumption.²⁵¹ As we have previously stated, where the record does not show a specific end use of the gas transported by the project, downstream emissions from the consumption of that natural gas are not indirect effects as defined by CEQ.²⁵²

²⁴⁹ *Id.*

²⁵⁰ *Id.* PP 199, 202-206 (incorporating U.S. Department of Energy, *Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States*, 79 Fed. Reg. 48,132 (Aug. 15, 2014) (DOE Addendum), <http://energy.gov/sites/prod/files/2014/08/f18/Addendum.pdf>. The U.S. Court of Appeals for the D.C. Circuit upheld DOE's reliance on the DOE Addendum to supplement its environmental review of the proposed export of LNG. *See Sierra Club v. U.S. Department of Energy*, 867 F.3d 189, 200 (D.C. Cir. 2017). *See also Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands*, 80 Fed. Reg. 16,128, 16,130 (Mar. 26, 2015) (Bureau of Land Management promulgated regulations for hydraulic fracturing on federal and Indian lands to "provide significant benefits to all Americans by avoiding potential damages to water quality, the environment, and public health").

²⁵¹ Certificate Order, 162 FERC ¶ 61,053 at PP 207-210; Final EIS at 4-254; and 4-335.

²⁵² *See Dominion Transmission, Inc.*, 163 FERC ¶ 61,128, at PP 39, 40-42 (2018) (explaining that the upper-bound estimates of downstream consumption provide the worst-case scenarios of peak use and are therefore inherently speculative when "there is nothing in the record that identifies any specific end use or new incremental load downstream of the [Project]. [K]nowledge of these and other facts would indeed be necessary in order for the Commission to fully analyze the effects related to the . . . consumption of natural gas."). *See also Tennessee Gas Pipeline Co., L.L.C.*, 163 FERC (continued ...)

7. Cumulative Impacts

112. Several parties assert that the Commission failed to adequately consider cumulative impacts related to: (a) upstream natural gas development; (b) the resulting climate change impacts from upstream and downstream GHG emissions; (c) impacts on specific resources; and (d) the construction and operation of other pipeline projects in the area.²⁵³ Conservation Foundation asserts that the “Commission engaged in only a cursory and analytically shallow assessment of cumulative impacts, and makes “conclusory” findings that those impacts would be minor or insignificant.”²⁵⁴ We disagree.

113. The CEQ regulations define cumulative impact as “the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.”²⁵⁵ The D.C. Circuit has held that a meaningful cumulative impact analysis must identify: (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions—past, present, and proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate.²⁵⁶ The geographic scope of our cumulative impact analysis varies from case to case, and resource to resource, depending on the facts presented.

[¶ 61,190, at P 61 \(2018\)](#) (explaining that the downstream consumption of transported gas is not an indirect impact because the gas to be transported by the Broad Run Expansion Project will be delivered by the project’s sole shipper, a producer, into the interstate natural pipeline grid and not to a specific end user).

²⁵³ See, e.g. Delaware Riverkeeper’s Request for Rehearing at 25, Conservation Foundation’s Request for Rehearing at 81.

²⁵⁴ *Id.* at 81-82.

²⁵⁵ 40 C.F.R. § 1508.7 (2017).

²⁵⁶ *Sierra Club v. FERC (Freeport LNG)*, 827 F.3d 36, 39 (D.C. Cir. 2016) (quoting *TOMAC, Taxpayers of Mich. Against Casinos v. Norton*, 433 F.3d 852, 864 (D.C. Cir. 2006) and *Grand Canyon Trust v. FAA*, 290 F.3d 339, 345 (D.C. Cir. 2002)).

a. Upstream Natural Gas Production

114. As explained above, because the impacts of upstream natural gas production are not reasonably foreseeable, such impacts were correctly excluded from the Final EIS' cumulative impacts analysis to the extent that they were outside the geographic scope of the project.

115. Conservation Foundation argues that the PennEast Project "should be viewed in the context of the Marcellus Shale fracking boom and attendant pipeline construction" which, it asserts, is causing, among other things, erosion and runoff, habitat destruction and alteration, wildlife displacement and population stress.²⁵⁷ Consistent with the CEQ guidance and case law, the EIS identified the criteria that defined the project's geographic scope which was used in the cumulative impact analysis to describe the general area for which the project could contribute to cumulative impacts.²⁵⁸ For example, the EIS noted that impacts on geology and soils, land use, residential areas, visual resources, air quality, and noise by the project would be highly localized. For cumulative impacts on these resources, the EIS evaluated other projects (e.g. residential development, small commercial development, and small transportation projects) within 0.25 mile of the construction work areas for the project. On the other hand, the EIS also concluded that the PennEast Pipeline Project's Kidder Compressor Station would result in long-term impacts on air quality in the 81.55 Northeast Pennsylvania-Upper Delaware Valley Interstate Air Quality Control Region (AQCR). Therefore, the EIS analyzed other projects with the potential to result in long-term impacts on air quality (e.g. natural gas compressor stations or industrial facilities) within the same AQCR. On rehearing, the parties do not dispute that the EIS identified the appropriate scope for its cumulative impact analysis.²⁵⁹

116. The EIS further found that there is no current or foreseeable well development or use within 10 miles of the project, so project construction and operation would not be expected to result in cumulative impacts on any resources within the geographic scope of the analysis.²⁶⁰ However, the EIS acknowledged natural gas production in its cumulative

²⁵⁷ Conservation Foundation's Request for Rehearing at 81.

²⁵⁸ Final EIS at 4-320 - 4-321.

²⁵⁹ Conservation Foundation's Request for Rehearing at 81.

²⁶⁰ Final EIS at 4-231.

impact analysis, noting that “recent activity has shown that development creates potentially serious patterns of land disturbance on the landscape.”²⁶¹

117. Even if we vastly expanded our cumulative impact analysis, which would be inappropriate, the impacts from natural gas development are not reasonably foreseeable. The Commission does not have sufficient information to determine the origin of the natural gas that will be transported on the PennEast Project, much less any impacts from potential development associated with the natural gas production. When the Commission lacks meaningful information about potential future natural gas production within the geographic scope of a project-affected resource, then production-related impacts are not reasonably foreseeable, and therefore cannot be included in a cumulative impact analysis.²⁶²

b. GHG Emissions Impacts on Climate Change

118. Sierra Club-New Jersey generally asserts that the Commission was required to consider GHG emissions and climate change implications of the project primarily because “the U.S. Court of Appeals for the District of Columbia...expressed deep concerns regarding FERC’s treatment of downstream greenhouse gas emissions.”²⁶³ The EIS and Certificate Order fully considered GHG emissions and climate change and went beyond that which is required by NEPA by assessing direct and indirect GHG emissions. Although not required, in an effort to put the estimated GHG emissions into context, the Commission examined both regional and national GHG emissions.²⁶⁴ On rehearing, petitioners do not take issue with the quantification of the GHG emissions. Rather, petitioners contend that the Commission failed to undertake a meaningful analysis of the climate change impacts stemming from the project’s GHG emissions.²⁶⁵ As the Commission has explained, it cannot find a suitable method to attribute discrete

²⁶¹ *Id.* at 4-322.

²⁶² *Dominion Transmission, Inc.*, 163 FERC ¶ 61,128, at P 34 (2018); *Columbia Gas Transmission*, 149 FERC ¶ 61,255, at P 120 (2014).

²⁶³ Sierra Club – New Jersey’s Request for Rehearing at 2 (providing no case citation).

²⁶⁴ See Certificate Order, 162 FERC ¶ 61,053 at P 209.

²⁶⁵ See Delaware Riverkeeper’s Request for Rehearing at 68 – 99, Sierra Club – New Jersey’s Request for Rehearing at 2.

environmental effects to GHG emissions.²⁶⁶ CEQ guidance, now withdrawn, for assessing the effects of climate change in NEPA reviews does not specifically list a threshold for determining significance.²⁶⁷ Rather, the guidance suggests that agencies “discuss relevant approved federal, regional, state, tribal, or local plans, policies, or laws for GHG emission reductions or climate change adaptation to make clear whether a proposed project’s GHG emissions are consistent with such plans or laws.”²⁶⁸

119. Further, it is, as the Commission did in this case, appropriate to qualitatively discuss climate change effects and quantify GHG emissions as a proxy for climate change effects when the emissions are related to the project. The courts have found that “qualitative analyses are acceptable in an [environmental document] where an agency explains ‘why objective data cannot be provided,’ ”²⁶⁹ which is what the EIS did here.²⁷⁰ The CEQ recommended in its guidance, “that agencies use projected GHG emissions . . . as a proxy for assessing potential climate change effects when preparing a NEPA analysis

²⁶⁶ *Florida Southeast Connection*, 162 FERC ¶ 61,233 at P 27 (2018).

²⁶⁷ CEQ, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* at 28-29 (Aug. 1, 2016), Notice of Availability, 81 Fed. Reg. 51,866 (Aug. 5, 2016) (Final Guidance). The Final Guidance, which is “not a rule or regulation” and “does not change or substitute for any law, regulation, or other legally binding requirement, and is not legally enforceable,” was subsequently withdrawn. *Withdrawal of Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*, 82 Fed. Reg. 16,576 (Apr. 5, 2017).

²⁶⁸ Final Guidance at 28-29.

²⁶⁹ *Klamath-Siskiyou Wildlands Ctr. V. Bureau of Land Management*, 387 F.3d 989, 994 & n.1 (9th Cir. 2004). See also *League of Wilderness Defs.-Blue Mountains Biodiversity Project v. U.S. Forest Serv.*, 689 F.3d 1060 (9th Cir. 2012) (“Here, the EIS discusses the expected tree mortality under the no-action alternative and provides a reasonable ‘justification regarding why more definitive information could not be provided.’”) CEQ regulations address procedures for “evaluating reasonably foreseeable significant adverse effects” when there is “incomplete or unavailable information.” 40 C.F.R. § 1502.22 (2017). We believe that the discussion herein is consistent with the procedures for addressing incomplete or unavailable information.

²⁷⁰ EA at 164-166.

for a proposed agency action.”²⁷¹ CEQ added that quantifying GHG emissions together with providing a qualitative summary discussion of the impacts of GHG emissions allows an agency to present the impacts of a proposed action “in clear terms and with sufficient information to make a reasoned choice between no action and other alternatives and appropriate mitigation measures, and to ensure the professional and scientific integrity of the NEPA review.”²⁷²

120. Here, the EIS explained that GHG emissions would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other sources, and contribute incrementally to future climate change impacts.²⁷³

121. The Final EIS and the Certificate Order exceeded this guidance by quantifying the GHG emissions for both direct project emissions and non-unrelated emissions, comparing those unrelated downstream emissions to the regional and nationwide GHG emissions inventory, and discussing qualitatively the link between the direct project and unrelated downstream GHG emissions and climate impacts. Nothing more was required.

122. Delaware Riverkeeper claims that in determining the significance of GHG emissions, the Commission is required to use the Social Cost of Carbon methodology, or “at the very least,” include a discussion of why the Commission elected not to use such methodology in determining the significance of GHG emissions, in accordance with the *Sabal Trail* decision.²⁷⁴

123. Delaware Riverkeeper misstates the *Sabal Trail* holding. There, the court directed the Commission on remand to explain whether, and why, the Commission holds to the position, which was accepted by the court in *EarthReports, Inc. v. FERC*,²⁷⁵ that the Social Cost of Carbon tool is not useful for the Commission’s NEPA reviews because

²⁷¹ See CEQ, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* at 10 (Aug. 1, 2016).

²⁷² *Id.*

²⁷³ Certificate Order, 162 FERC ¶ 61,053 at P 210; Final EIS at 4-335.

²⁷⁴ *Id.* at 36, (citing *Sabal Trail*, 867 F.3d 1357, 1374). The Social Cost of Carbon tool estimates the monetized climate change damage associated with an incremental increase in CO₂ emissions in a given year.

²⁷⁵ 828 F.3d 949, 956 (D.C. Cir. 2016).

several of the components of its methodology are contested and because not every harm it accounts for is necessarily significant with the meaning of NEPA.²⁷⁶ On remand, the Commission provided extensive discussion on why the Social Cost of Carbon tool is not appropriate in project-level NEPA review, and cannot meaningfully inform the Commission's decisions on natural gas infrastructure projects under the NGA.²⁷⁷ Moreover, EPA recently confirmed to the Commission that the tool, which “no longer represents government policy,” was developed to assist in rulemakings and “was not designed for, and may not be appropriate for, analysis of project-level decision-making.”²⁷⁸ We adopt that reasoning here.²⁷⁹

²⁷⁶ *Sabal Trail*, 867 F.3d at 1375.

²⁷⁷ *Florida Southeast Connection, LLC*, 162 FERC ¶ 61,233 at PP 30-51 (2018) (rehearing pending). See also *Mountain Valley Pipeline, LLC*, 163 FERC ¶ 61,197 at PP 275-297 (2018), (reiterating reasons Social Cost of Carbon tool is not useful in informing the Commission). The dissent relies on *High Country Conservation Advocates v. U.S. Forest Service (High Country)*, 52 F. Supp. 3d 1174, 1193 (D. Colo. 2014) and *Montana Environmental Information Center v. U.S. Office of Surface Mining (Montana Environmental Information Center)* No. CV 15-106-M-DWM, 2017 WL 5047901 (D. Mont. Nov. 3, 2017) to argue that the Commission must calculate the Social Cost of Carbon. For the same reasons we have previously explained, *High Country* and *Montana Environmental Information Center* are distinguishable from the circumstances here. See *Millennium Pipeline Co., L.L.C.*, 164 FERC ¶ 61,039 at PP 23-28 (2018) (distinguishing *Montana Environmental Information Center*); *Dominion Cove Point LNG, LP*, 151 FERC ¶ 61,095 (2015) (distinguishing *High Country*), *aff'd sub nom. EarthReports*, 828 F.3d 949.

²⁷⁸ See EPA July 26, 2018 Comments in PL18-1-000 (“Further, with regard to the discussion of the social cost of carbon, EPA notes that tool was developed to aid the monetary cost-benefit analysis of rulemakings. It was not designed for, and may not be appropriate for, analysis of project-level decision-making.”) In support, the EPA cites the Technical Support Document – Social Cost of Carbon for Regulatory Impact Analysis – Under Executive Order 12866, Interagency Working Group on Social Cost of Carbon, at 1 (Feb. 2010) (citing Executive Order 12866’s requirement to “assess both the costs and the benefits of the intended regulation” and observing that the “purpose of the ‘social cost of carbon’ (SCC) estimates presented here is to allow agencies to incorporate the social benefits of reducing carbon dioxide . . . emissions into cost-benefit analyses of regulatory actions . . .”). Even if the Commission were an “agency” to which Executive Order 12866 applied, section 3(e) of the order defines “regulatory action” as “any (continued ...)”

c. Cumulative Impacts on Resources

124. Some parties assert that the EIS did not conduct a sufficiently rigorous cumulative impact analysis. Conservation Foundation claims that even where the EIS acknowledges cumulative impacts on various resources, it “simply makes the conclusory finding that those impacts would be minor...” through mitigation or other permit requirements.²⁸⁰ Conservation Foundation adds that the EIS’s discussion of cumulative impacts, which it contends has “minimal qualitative” and “essentially no quantitative” analysis, “cannot pass for proper analytical rigor in an EIS.”²⁸¹ Delaware Riverkeeper asserts that the EIS failed to consider the cumulative impacts associated with pipeline construction, operation, and maintenance on impacted ecological systems over the lifetime of the project.²⁸²

125. We disagree. The “determination of the extent and effect of [cumulative impacts], and particularly identification of the geographic area within which they may occur, is a task assigned to the special competency of the appropriate agencies.”²⁸³ CEQ has

substantive action by an agency (normally published in the Federal Register) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking.” Executive Order 12866, 58 Fed. Reg. 51,735 (Sept. 30, 1993). Project-specific NGA section 7 certificate proceedings do not fall within that definition.

²⁷⁹ In our view, arguments with respect to upstream and downstream impact analysis is based on the petitioners’ desire for the Commission to conduct a programmatic NEPA review of natural gas production in the Marcellus shale region, an area that potentially covers thousands of square miles. We decline to do so. As the Commission has previously explained, there is no Commission program or policy to promote additional natural gas development and production in shale formations. *See National Fuel Gas Supply Corp.*, 150 FERC ¶ 61,162, at P 55 (2015), *order on reh’g*, 154 FERC ¶ 61,180, at P 54 (2016).

²⁸⁰ Conservation Foundation’s Request for Rehearing at 82.

²⁸¹ *Id.*

²⁸² Delaware Riverkeeper’s Request for Rehearing at 41-48.

²⁸³ *Kleppe v. Sierra Club*, 426 U.S. 390, 414 (1976).

explained that “it is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that are truly meaningful.”²⁸⁴ Further, a cumulative impact analysis need only include “such information as appears to be reasonably necessary under the circumstances for evaluation of the project rather than to be so all-encompassing in scope that the task of preparing it would become either fruitless or well-nigh impossible.”²⁸⁵ Moreover, although NEPA requires the Commission to consider the impacts on resources, it does not mandate a particular outcome.²⁸⁶

126. Here, the EIS provided extensive discussion of the potential cumulative impacts on a number of resources, including soils, water resources, socioeconomics, cultural resources, air quality, noise, reliability, and safety, within the project’s geographic scope for each particular resource.²⁸⁷ The EIS identified over 30 activities that have been recently constructed, are being constructed, or are planned or proposed within the project’s geographic scope, and provided: the project description; approximate permanent impact area; the resources cumulatively affected; the relevant watershed; and the Air Quality Control Region.²⁸⁸ Although the EIS found that the majority of cumulative impacts would be temporary and minor when considered in combination with past, present, and reasonably foreseeable activities, it identified and considered long-term cumulative impacts that would occur on various resources including wetland and forested and upland vegetation and associated wildlife habitats,²⁸⁹ and air quality and noise impacts.²⁹⁰

²⁸⁴ CEQ, Considering Cumulative Effects Under the National Environmental Policy Act, at 8 (January 1997).

²⁸⁵ *Natural Res. Def. Council, Inc. v. Calloway*, 524 F.2d 79, 88 (2d. Cir. 1975).

²⁸⁶ *Robertson v. Methow Valley Citizens Council*, 490 U.S. at 335.

²⁸⁷ Final EIS at 4-312 – 4-335.

²⁸⁸ *Id.* at 4-313-420. The four types of actions that would potentially result in a cumulative impact included: other natural gas projects (both FERC-jurisdictional and non-jurisdictional); electric generation and transmission projects; transportation projects; and commercial and large-scale residential developments.

²⁸⁹ *Id.* at 4-329.

²⁹⁰ *Id.* at 4-332.

127. Moreover, the EIS analyzed the cumulative impacts associated with the operational-phase emissions of the Kidder Compressor Station over the lifetime of the project;²⁹¹ the magnitude of the one-time release of sequestered CO₂ caused by the initial clearance of 601 acres of forested land, and also the ongoing loss of carbon sequestration capacity for the 452 acres of forested land that would remain permanently cleared during the project's lifetime;²⁹² and, notwithstanding our finding that GHG emissions impacts from natural gas production are not reasonably foreseeable, the cumulative impact analysis discussed the 2014 U.S. Global Change Research Program report, *Climate Change Impacts in the United States* (2014 USGRP report), which summarizes the impacts that climate change has had on the United States and what projected impacts climate change may have in the future. Although the EIS notes that climate change is a global concern, it focused on the 2014 USGRP report's projections for potential climate change in the Northeast region of the United States during the expected project lifetime.²⁹³

128. Accordingly, we find that the level of detail in the EIS was appropriate to ensure that the Commission was fully informed on the potential cumulative impacts of the PennEast Project. Petitioners do not identify any particular issues that were overlooked in the Commission's analysis of cumulative impacts on the various resources considered. Instead, they take issue with the breadth and depth of some of the discussion. However, NEPA does not prescribe a certain level of detail, and certainly does not dictate a minimum amount of information required, to inform the decisionmaker. Although "[i]t is of course always possible to explore a subject more deeply and to discuss it more thoroughly," agencies must make "[t]he line-drawing decisions necessitated by this fact of life."²⁹⁴

²⁹¹ *Id.* at 4-246 - 4-248.

²⁹² *Id.* at 4-254 - 4-255.

²⁹³ *Id.* at 4-334 - 4-335.

²⁹⁴ *Coal. on Sensible Transp., Inc. v. Dole*, 826 F.2d 60, 66 (D.C. Cir. 1987). *See also Sierra Club v. DOE*, 867 F.3d at 196; *Freeport LNG*, 827 F.3d at 46 (explaining that "our task is not to 'flyspeck' the Commission's environmental analysis for 'any deficiency no matter how minor'" (quoting *Theodore Roosevelt Conservation P'ship v. Salazar*, 661 F.3d 66, 75 (D.C. Cir. 2011))).

d. Cumulative Impacts of Additional Pipeline Projects

129. Delaware Riverkeeper asserts that the Final EIS failed to examine the “cumulative impact[s] of multiple ... linear projects that are being proposed or constructed in the Delaware River watershed[.]”²⁹⁵ In support, Delaware Riverkeeper identifies several natural gas pipeline projects it asserts will impact the watershed. Delaware Riverkeeper’s arguments in fact appear to be a call for the Commission to perform a programmatic review of interstate natural gas pipeline projects in the region. As we discussed above, there is no Commission program or policy which seeks to promote additional natural gas infrastructure development.²⁹⁶

8. Segmentation

130. On rehearing, Delaware Riverkeeper argues that the EIS improperly segmented the environmental review of the PennEast Project from the Texas Eastern Marcellus to Market Project (M2M Project) and the Greater Philadelphia Expansion Project, both of which it claims are “interconnected projects obviously being contemplated and planned for in the same time frame by the same owner for delivery of the gas...”²⁹⁷

131. Hopewell and Sierra Club-New Jersey assert that the Final EIS improperly segmented from the analysis the environmental impacts of (1) Transco’s Garden State Expansion Project; and (2) New Jersey Natural Gas’ Southern Reliability Link (Southern Reliability Project) intrastate pipeline. Hopewell asserts that without a fully operational PennEast Pipeline, the Garden State Expansion and Southern Reliability Projects would “otherwise have no independent utility.”²⁹⁸

132. The CEQ regulations require the Commission to include connected, cumulative, and similar actions in its NEPA analyses.²⁹⁹ An agency impermissibly “segments” 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 consideration. The CEQ regulations define connected actions as

²⁹⁵ Delaware Riverkeeper’s Request for Rehearing at 38 – 41.

²⁹⁶ *Supra* n.279.

²⁹⁷ *Id.* at 102-108.

²⁹⁸ Hopewell’s Request for Rehearing at 40-42

²⁹⁹ 40 C.F.R. § 1508.25(a)(1)-(3) (2017).

those that: (1) automatically trigger other actions, which may require environmental impact statements; (2) cannot or will not proceed unless other actions are taken previously or simultaneously; (3) are interdependent parts of a larger action and depend on the larger action for their justification.³⁰⁰ In evaluating whether multiple actions are, in fact, connected actions, a “substantial independent utility” test helps inform the Commission’s analysis. The test asks “whether one project will serve a significant purpose even if a second related project is not built.”³⁰¹

133. Hopewell and Sierra Club-New Jersey raise the segmentation argument with respect to the Garden State Expansion and Southern Reliability Projects for the first time on rehearing. For the reasons discussed above, parties are not permitted to introduce new evidence for the first time on rehearing, therefore we need not address their segmentation arguments.³⁰² However, even if they had timely raised the segmentation issue, we would have dismissed their arguments, for the reasons set forth below.

a. M2M Project and Greater Philadelphia Expansion Project

134. The CEQ regulations require that “[p]roposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be

³⁰⁰ *Id.*

³⁰¹ See *Coal. on Sensible Transp., Inc. v. Dole*, 826 F.2d at 69. See also *O’Reilly v. U.S. Army Corps of Eng’rs*, 477 F.3d 225, 237 (5th Cir. 2007) (defining independent utility as whether a project “can stand alone without requiring construction of the other [projects] either in terms of other facilities required or of profitability”).

³⁰² Sierra Club-New Jersey also failed to specify error, as it asserted in general terms that the Commission is “allowing PennEast to segment this project and separate it from” the Garden State Expansion and Southern Reliability Projects. As discussed above, the NGA requires parties to present their arguments to the Commission in such a way that the “Commission knows specifically . . . the ground on which rehearing [i]s being sought.”

evaluated in a single impact statement.”³⁰³ For the purposes of segmentation, a “project proposal” is one in which action is imminent.³⁰⁴

135. The Texas Eastern M2M Project and the Greater Philadelphia Expansion Project are not connected actions that should have been considered in the EIS, as they were not imminent.³⁰⁵ The Commission has no information on them, as nothing has been filed with the Commission, either in the form of a request to initiate the early pre-filing process, much less as a project application.

b. Garden State Expansion Project

136. In approving Transco’s Garden State Expansion Project,³⁰⁶ the Commission addressed several parties’ assertions that the PennEast Project and Southern Reliability Project, together with the proposed Garden State Expansion Project, constituted a single interdependent pipeline system. The Commission evaluated whether the PennEast and Garden State Expansion Projects are connected actions, and concluded they are not. We found that the Garden State Expansion and PennEast Projects are physically distinct, noting that the Garden State Expansion Project consists primarily of compressor facilities and a meter station on Transco; none of these facilities directly connect with the PennEast Project, and indeed the PennEast Project terminates approximately 2.5 miles south of the Compressor Station 205 in Mercer County, New Jersey.³⁰⁷

³⁰³ 40 C.F.R. § 1502.4(a) (2017).

³⁰⁴ *O’Reilly v. U.S. Army Corps of Eng’rs*, 477 F.3d 225, at 236 (citing 40 C.F.R. § 1508.23 (2017)).

³⁰⁵ See generally *City of Boston Delegation v. FERC*, D.C. Cir. Nos. 16-1081, *et al.*, slip op. at 14-16 (July 27, 2018) (FERC did not impermissible segment its environmental review of Algonquin’s three upgrade projects on its northeast pipeline system where FERC’s review of the projects was not contemporaneous and where the projects had substantial independent utility).

³⁰⁶ *Transcontinental Gas Pipe Line Co., LLC*, 155 FERC ¶ 61,016, *order on reh’g*, 157 FERC ¶ 61,095 (2016).

³⁰⁷ *Transcontinental Gas Pipe Line Co., LLC*, 155 FERC ¶ 61,016 at PP 66-68; *order on reh’g*, 157 FERC ¶ 61,095 at P 12.

137. We further found that neither the PennEast Project nor the Garden State Expansion Project are functionally dependent on each other.³⁰⁸ We noted that although New Jersey Natural Gas is a shipper on both projects, if the Garden State Expansion Project did not proceed, the PennEast Project would still be supported by the need to deliver natural gas for its other shippers, including six anchor shippers.³⁰⁹ Similarly, if the PennEast Project did not proceed, New Jersey Natural Gas' demand for 180,000 Dth/d would still support the Garden State Expansion Project.³¹⁰

138. Both Hopewell and Sierra Club-New Jersey participated in the Garden State Expansion proceeding; on rehearing, they raise generally the same arguments that were addressed in the Garden State Expansion Project proceeding. Accordingly, even if Hopewell and Sierra Club-New Jersey had timely raised their segmentation arguments, we would have rejected them as an impermissible collateral attack on the Garden State Expansion orders.³¹¹

c. Southern Reliability Link Project

139. Connected actions, for purposes of a NEPA analysis, only extend to federal actions.³¹² As noted above, the Southern Reliability Project is an intrastate pipeline under

³⁰⁸ *Transcontinental Gas Pipe Line Co., LLC*, 155 FERC ¶ 61,016 at PP 66-68; *order on reh'g*, 157 FERC ¶ 61,095 at PP 12-15.

³⁰⁹ *Id.*

³¹⁰ *Transcontinental Gas Pipe Line Co., LLC*, 155 FERC ¶ 61,016 at P 66.

³¹¹ We note that, contrary to Hopewell's assertion, the Final EIS appropriately included the Garden State Expansion Project in its cumulative impact analysis at 4-314, 4-323. Moreover, the Final EIS did not address the cumulative impacts of the Southern Reliability Project because it occurs outside the geographic scope. However, the November 4, 2015 NEPA analysis for the Garden State Expansion Project analyzed its cumulative impacts with the Southern Reliability Project. *See* Garden State Expansion Project EA at 46-47; 50-56.

³¹² *See Big Bend Conservation Alliance v. FERC*, No. 17-1002, 2018 (WL 341729, at 4 (D.C. Cir. July 17, 2018); *Sierra Club v. Army Corps of Eng'r*, 803 F.3d 31, 33-37 (D.C. Cir. 2015).

the jurisdiction of the New Jersey Board of Public Utilities. Accordingly, the Southern Reliability Project was appropriately excluded from review as a connected action.³¹³

9. Forest Impacts and Conservation Easements

140. Lower Saucon argues that the Commission's order enables PennEast to violate the terms of conservation easements that Lower Saucon holds over forested lands.³¹⁴ Lower Saucon states that, pursuant to the Pennsylvania Conservation and Preservation Easements Act, industrial and commercial activity, forest clear-cutting, and soil removal are prohibited on conservation easement lands.³¹⁵ Lower Saucon alleges that pipeline construction will result in the "continued and perpetual violation" of the terms of the easements, and that the Certificate Order improperly concluded that no changes are expected in the conservation status of private lands crossed by the project in Pennsylvania. Lower Saucon further alleges that the Final EIS failed to meaningfully analyze the "unavoidable impacts" to conservation lands.

141. NJDEP alleges that the Certificate Order is "contrary to state [forestry] law."³¹⁶ NJDEP states that pipeline construction will require tree removal on state-owned and state-preserved lands, which are subject to New Jersey's No Net Loss Compensatory Reforestation Act (NNLRA).³¹⁷ The Certificate Order allows PennEast to compensate for forest loss by purchasing and conserving existing forested areas, which NJDEP argues is not an authorized means of deforestation mitigation under the NNLRA. NJDEP also argues that the Final EIS and Certificate Order failed to adequately address long-term visual impacts from deforestation, and that the Certificate Order should have provided a time frame for when PennEast must restore forested lands and should have included

³¹³ Although the Final EIS did not address the cumulative impacts of the Southern Reliability Project because it occurs outside the geographic scope, the November 4, 2015 Environmental Assessment (EA) for the Garden State Expansion Project analyzed the cumulative impacts of the Southern Reliability Project. *Supra* n. 311.

³¹⁴ Lower Saucon's Request for Rehearing at 43-46.

³¹⁵ Conservation and Preservation Easements Act, 32 Pa. Cons. Stat. § 5051, *et seq.* (2017).

³¹⁶ NJDEP's Request for Rehearing at 49-51.

³¹⁷ N.J. Stat. Ann. § 13:1L-14.2, *et seq.* (West 2017).

EPA's restoration recommendation that PennEast reseed with "larger plant stocks," as opposed to seedlings.³¹⁸

142. As discussed in section 4.7.4.4 of the EIS (Land Conservation Programs), the project will cross approximately 21.7 miles of conservation easement lands. Of the conservation easement lands crossed by the project, 336 acres will be temporarily affected during construction, whereas only 130 acres of conservation easement lands will be located in the project's permanent right-of-way.³¹⁹ The Final EIS further notes that for lands permanently or temporarily impacted, "following pipeline installation all activities and accesses currently available to the public would be returned to their original state" and that "during operation, there would be nothing that would prevent public access to or normal administration of these lands."³²⁰ Conservation easement lands located within PennEast's permanent easement area would lose their conservation status, however "only in that PennEast would acquire the development rights to install and maintain the pipeline."³²¹ The majority of conservation easement land crossed by the project would retain current conservation restriction status.³²² Therefore, the Certificate Order concluded that the project will generally have temporary, limited impacts on special interest areas (including conservation easement lands), which will be further minimized with the implementation of measures in PennEast's Erosion and Sediment Control Plan (E&SCP), the Commission's *Upland Erosion Control, Revegetation and Maintenance Plan* (Plan), *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures), and additional project-specific construction plans.³²³

143. Regarding NJDEP's concerns over PennEast's method of compensation per the requirements of the NNLRA, the Certificate Order states that in addition to purchasing and conserving forested lands, PennEast will "reforest areas within the same municipality in which the impact occurs[,] and restore areas of temporary impacts via the

³¹⁸ See NJDEP's Request for Rehearing at 51-52.

³¹⁹ Final EIS at 4-173.

³²⁰ *Id.*

³²¹ *Id.*

³²² *Id.*

³²³ Certificate Order, 162 FERC ¶ 61,053 at P 163.

development of mitigation measures.³²⁴ The Certificate Order further notes that although final compensation has yet to be determined, it will be consistent with NNLRA requirements.³²⁵

144. The EIS notes that the extent and duration of visual impacts depends on the type of vegetation that is cleared. Smaller-scale vegetation in open areas generally regenerates in less than five years, with “large specimen trees” taking considerably longer. The EIS further acknowledges that visual impacts on forest lands would be greater where regeneration on PennEast’s 30-foot-wide permanent right-of-way is prevented.³²⁶ It would be impractical for the Commission to impose on PennEast a specified time-frame for revegetation, given the wide range of different vegetation communities that will be crossed by the project, as well as their varied re-growth times. Contrary to NJDEP’s assertion, the Certificate Order did not “ignore” the EPA’s recommendation that we require larger plant stock be used during revegetation as opposed to seedlings.³²⁷ The Commission addressed these comments when NJDEP raised them in response to the Draft EIS, and explained in the Certificate Order that in addition to reseedling in accordance with PennEast’s E&SCP and the Plan and Procedures, PennEast would consult with “local soil conservation districts, or appropriate land management agencies” to determine the best plan for reseedling.³²⁸ The Certificate Order concluded that this would be appropriate to adequately address revegetation, and we affirm that finding.

10. Threatened and Endangered Species

145. Delaware Riverkeeper and Conservation Foundation express concern that the Final EIS’ findings regarding threatened and endangered species improperly relied on surveys with missing, inadequate, or otherwise inaccurate information.³²⁹ Delaware Riverkeeper further asserts that the Final EIS failed to appropriately analyze the project’s impacts on threatened or endangered bats, birds, sturgeons, snakes, turtles and mussels.

³²⁴ *Id.* P 141.

³²⁵ *Id.*

³²⁶ Final EIS at 4-175.

³²⁷ NJDEP’s Request for Rehearing at 52.

³²⁸ Certificate Order, 162 FERC ¶ 61,053 at P 140.

³²⁹ *See* Conservation Foundation’s Request for Rehearing at 78; Delaware Riverkeeper’s Request for Rehearing at 136-145.

NJDEP argues that the Final EIS did not give sufficient consideration to state-listed species and state species of concern.³³⁰ Further, NJDEP states that the Certificate Order should explicitly require PennEast to comply with all NJDEP threatened and endangered species conditions and that the Final EIS should have considered an alternative to HDD crossings of C1 streams,³³¹ which could have adverse impacts on wood turtle and long-tailed salamander habitats. In addition, NJDEP argues that the Certificate Order failed to include or respond to NJDEP's Rare Plant Species Survey Target List and Rare Plant Species Survey Protocol.³³²

146. As part of Commission staff's formal consultation with the United States Fish and Wildlife Service (FWS), a biological assessment was prepared which analyzed impacts on threatened and endangered species, and subsequently submitted to the FWS.³³³ As noted in the Certificate Order, the findings in the Final EIS were considered best available information from surveys conducted on parcels for which landowner permission was obtained; due to certain affected landowners refusing to grant surveyors' access to their property, not all surveys were completed.³³⁴ Environmental Condition 36 of the Certificate Order requires PennEast to complete all remaining surveys prior to construction, and provide survey reports to the appropriate agencies.³³⁵ The FWS issued its Biological Opinion for the project on November 29, 2017, and Commission staff incorporated FWS' conclusions into the Certificate Order's Environmental Conditions.³³⁶ FWS' Biological Opinion determined that the project is not likely to adversely affect the dwarf wedge mussel, Indiana bat, and the northeastern bulrush, and is not likely to jeopardize the continued existence of the bog turtle or northern long-eared bat. As a

³³⁰ NJDEP's Request for Rehearing at 47-49.

³³¹ C1 Streams are "classified as waters to be maintained based on their clarity, color, scenic setting, and other characteristics of aesthetic value, exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resources." See Final EIS at 4-49.

³³² *Id.* at 52-53.

³³³ Final EIS at 4-107.

³³⁴ Certificate Order, 162 FERC ¶ 61,053 at P 146.

³³⁵ *Id.* at Appendix A, Environmental Condition 36.

³³⁶ *Id.* at P 147.

result of these findings, eight of the Final EIS' recommended mitigation measures (conditions 33, 34, and 36-41) were deemed unnecessary for inclusion in the Certificate Order.³³⁷ Further, PennEast is required under Environmental Condition 36 to incorporate conservation measures outlined in the Biological Opinion, including its Terms and Conditions.³³⁸

147. NJDEP's concerns regarding the Final EIS' analysis of state-listed species, and state species of concern are unfounded. Section 4.6.2 of the Final EIS' fully addresses the project's potential impacts on New Jersey and Pennsylvania listed species, or species of concern.³³⁹ Environmental Condition 39 requires PennEast to file a list of measures to be developed through consultation with state wildlife agencies to avoid or mitigate impacts on several state-listed species and species of concern, including the long-tailed salamander; Environmental Condition 39 further notes that NJDEP recommends PennEast utilize New Jersey's "Utility Right-of-Way No-Harm Best Management Practices" when preparing these measures.³⁴⁰ The Certificate Order further adopts as Environmental Condition 38 the Final EIS' recommended mitigation measure 43, which requires PennEast to consult with NJDEP regarding any timing and/or activity restrictions that should be applied when project construction occurs within 300 feet of streams containing wood turtles.³⁴¹ As noted in the Certificate Order, the Final EIS identified procedures that have been used in similar projects for the avoidance of impacts on rare plants; the Certificate Order further states that PennEast will adhere to NJDEP's recommendations and requirements regarding state-listed and state species of concern.³⁴²

11. Safety and Property Impacts

148. Lower Saucon and Delaware Riverkeeper assert that the Commission "completely failed" to take a hard look at the PennEast Pipeline's safety risks and the consequences of

³³⁷ *Id.*

³³⁸ *Id.*

³³⁹ Final EIS at 4-124 – 4-139.

³⁴⁰ Certificate Order, 162 FERC ¶ 61,053, Appendix A, Environmental Condition 39.

³⁴¹ See Final EIS at 4-131; Certificate Order, 162 FERC ¶ 61,053 at Appendix A, Environmental Condition 38.

³⁴² See Final EIS at 4-139; Certificate Order, 162 FERC ¶ 61,053 at P 138.

potential accidents to residents, property, and resources along the pipeline route.³⁴³ Delaware Riverkeeper, in a verbatim recitation of its comments on the Draft EIS, asserts that the Commission “diminish[es]” the threats posed by natural gas pipelines, as well as the impacts to the public.³⁴⁴ Lower Saucon further states that the Commission “provided only industry-wide, generic” information.³⁴⁵ In addition, Lower Saucon argues that the Final EIS failed to adequately consider the risks and consequences associated with a physical or cyber terrorist attack.³⁴⁶

149. Contrary to petitioners’ assertions, the Final EIS and the Certificate Order fully considered the safety risks associated with the project, including specific risks along the project route. As explained in the Final EIS, pipeline safety standards are mandated by regulations adopted by the Department of Transportation’s (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA).³⁴⁷ DOT has the exclusive authority to promulgate federal safety standards used in the transportation of natural gas.³⁴⁸ As the Final EIS further specifies, PennEast has designed and will construct, operate, and maintain the project in accordance with DOT’s pipeline safety regulations.³⁴⁹

150. The Final EIS and Certificate Order’s safety analysis was not, as Lower Saucon characterizes it, generic, nor did it fail to evaluate the risks or consequences of a pipeline accident, as Delaware Riverkeeper alleges.³⁵⁰ The Final EIS utilized data obtained from the PHMSA repository of thousands of miles of natural gas pipeline throughout the United States. In addition, Appendix G-21 of the Final EIS provided a list of all high-

³⁴³ Lower Saucon’s Request for Rehearing at 37-39.

³⁴⁴ Delaware Riverkeeper’s Request for Rehearing at 155-156.

³⁴⁵ Lower Saucon’s Request for Rehearing at 42-43.

³⁴⁶ *Id.* at 39-43.

³⁴⁷ Final EIS at 4-301.

³⁴⁸ See *FERC Memorandum of Understanding Between the Department of Transportation and FERC Regarding Natural Gas Transportation Facilities* (Jan. 15, 1993), <http://www.ferc.gov/legal/mou/mou-9.pdf>.

³⁴⁹ See Final EIS at 4-304.

³⁵⁰ Lower Saucon’s Request for Rehearing at 38, Delaware Riverkeeper’s Request for Rehearing at 155-156.

consequence areas³⁵¹ along the project route, delineated by milepost. Both the Certificate Order and the Final EIS state that high-consequence areas are defined based on where a pipeline accident could cause considerable harm to people and their property; PHMSA further requires pipeline operators to apply its integrity management program³⁵² to sections of the pipeline within high-consequence areas.³⁵³ As noted in the Certificate Order, PennEast designed its pipeline route to minimize risks to “local residents and vulnerable locations/populations”, and followed federal safety standard regarding pipeline spacing, and will follow federal safety standards regarding pipeline class locations.³⁵⁴ In addition to these safety measures, PHMSA requires PennEast to establish an emergency response plan that would include procedures to minimize the hazards in a natural gas pipeline emergency.³⁵⁵ A required element of the emergency management plan is a method for evacuating individuals and rerouting traffic as necessary to avoid any area that is deemed to be unsafe. Accordingly, we find that the safety risks of the PennEast Project were addressed adequately.

151. The Final EIS fully considered, to the extent possible and practicable, the risks of terrorism associated with the PennEast Project. The Final EIS stated that PennEast, in accordance with DOT surveillance requirements, will incorporate air and ground inspections into its inspection program, and will implement security measures including secure fencing around aboveground facilities.³⁵⁶ However the Final EIS ultimately concludes that while the combined efforts of the Commission, the DOT, and the Department of Homeland Security continue to address the risk of terrorism on the PennEast Project, and other natural gas infrastructure, the possibility of terrorism is unpredictable, and therefore not a basis to deny PennEast a certificate. We affirm this finding.

³⁵¹ For more information on high consequence areas, *see* 49 C.F.R. § 192.903 (2017) (defining high consequence areas); 49 C.F.R. § 192.905 (2017) (discussing how pipeline operators may identify high consequences areas).

³⁵² For more information on pipeline integrity management in high consequence areas, *see* 49 C.F.R. § 195.492 (2017).

³⁵³ *See* Final EIS at 4-302 – 4-303; Certificate Order, 162 FERC ¶ 61,053 at P 190.

³⁵⁴ Certificate Order, 162 FERC ¶ 61,053 at P 190.

³⁵⁵ *See* Final EIS at 4-304; *see also* 49 C.F.R. § 192.615 (2017).

³⁵⁶ Final EIS at 4-311.

12. Violation of Standard Construction Practices

152. Delaware Riverkeeper asserts that the Final EIS improperly assumes that the project will be “constructed in full compliance with all applicable laws” and Delaware Riverkeeper states that “the reality of pipeline construction” is that “construction is fraught with environmental violations” resulting in potentially significant environmental impacts that the Final EIS ignores.³⁵⁷ Delaware Riverkeeper points to instances of non-compliance with environmental laws, standard construction practices, and best management practices during the construction of Tennessee Gas Pipe Line Company’s 300 Line Upgrade and Northeast Upgrade projects, as well as Columbia Gas Transmission’s Line 1278 project, in an attempt to demonstrate that pipeline construction “results in unavoidable, unmitigated and irreparable harm[.]”³⁵⁸ Delaware Riverkeeper further claims that the Commission, with knowledge of these violations, “turn[s] a blind eye”.³⁵⁹

153. The Commission takes matters of non-compliance seriously, but such matters must be addressed in the proper venue. The non-compliance issues that Delaware Riverkeeper raises here involve completely different proceedings and are properly addressed in those proceedings, not here. It is often the case during construction that circumstances may be encountered in the field that are slightly different from what was expected. For this reason, the environmental conditions in most Commission orders prescribe the criteria under which changes can be made.

154. We find that the conditions imposed in the Certificate Order, viewed as a whole, are sufficient to ensure PennEast’s compliance with the requirements of the Certificate Order. The EIS notes PennEast’s environmental inspection program, which will consist of two environmental inspectors (EIs) assigned to each of the four construction spreads, as well as a third-party monitoring oversight program to ensure implementation of appropriate measures to minimize impacts and ensure compliance with federal, state, and local permit stipulations. The EIs have the authority to stop work activities if any environmental conditions, including those in PennEast’s permits and the Certificate Order, are violated. The third-party monitors will represent the Commission, and be on-site daily during construction and restoration.³⁶⁰ Environmental Condition 3 requires the

³⁵⁷ Delaware Riverkeeper’s Request for Rehearing at 108.

³⁵⁸ *Id.* at 110.

³⁵⁹ *Id.*

³⁶⁰ Final EIS at 2-16 – 2-17.

EIs be trained in the proper implementation of environmental mitigation measures, and Environmental Condition 7 authorizes the EIs to order the correction of acts violating the environmental conditions of the Certificate Order, and requires the EIs to maintain status reports, and document compliance with the environmental conditions and/or permit requirements of the Certificate Order, and any other federal, state, or local permits or authorizations. We impose sanctions and/or penalties for non-compliance on a case-by-case basis in order to tailor our remedies to the specific facts presented (e.g., degree of non-compliance and resulting impacts). If PennEast fails to comply with the conditions of the order, it is subject to sanctions and the potential assessment of civil penalties.³⁶¹

13. Water Resources, Well Safety, and Wetland Impacts

155. NJDEP states that the Certificate Order “inappropriately conflates mitigation requirements with minimization and avoidance requirements” and improperly relies on mitigation to ensure there will be no significant adverse impacts on wetlands.³⁶² Consequently, NJDEP argues that the Certificate Order should be rescinded and a supplemental EIS be issued, which considers alternatives that avoid impacts on wetlands. Delaware Riverkeeper argues that the Final EIS contained multiple deficiencies regarding the size and quality of wetlands that could be impacted by the project and failed to examine the functions and values of wetlands.³⁶³ Therefore, Delaware Riverkeeper argues that the Commission could not determine the appropriate scope of mitigation necessary to compensate for impacts on wetlands.³⁶⁴ In addition, NJDEP states that if the water needs for project construction exceed 100,000 gallons per day, PennEast will be required to obtain either a short term water use permit or a dewatering permit.³⁶⁵ NJDEP contends that the Certificate Order should have required that PennEast obtain any necessary water use permit before beginning construction.³⁶⁶ NJDEP and Hopewell further assert that in order to ensure drinking water safety, additional post-construction

³⁶¹ See 15 U.S.C. § 717t-1(c) (2012).

³⁶² NJDEP’s Request for Rehearing at 4 and 28-31.

³⁶³ Delaware Riverkeeper’s Request for Rehearing at 119-121 and 159-164.

³⁶⁴ *Id.*

³⁶⁵ See N.J. Admin Code § 7:19-1.1 *et seq.* (2017).

³⁶⁶ NJDEP’s Request for Rehearing at 47.

well-monitoring should be required.³⁶⁷ Hopewell further requests that the Commission require PennEast to comply with Hopewell's tree removal permit process, in order to protect Hopewell's groundwater supply, as well as compliance with Hopewell's regulation of disturbances to a waterbody's steep slopes.³⁶⁸

156. Contrary to Delaware Riverkeeper's assertions, the Final EIS described the features of the various types of wetlands the PennEast Project would cross, as well as the important role they play within the ecosystem.³⁶⁹ The Final EIS notes, however, that because PennEast had not been granted survey access for the project route, wetland delineations were incomplete.³⁷⁰ In order to ensure PennEast has a precise determination of wetland boundaries with which to apply proper wetland construction and restoration methods, the Commission requires PennEast to prepare a wetlands delineation report, prepared in accordance with the U.S. Army Corps of Engineers (USACE) and all appropriate state agencies.³⁷¹ PennEast will also incorporate several measures to avoid and reduce the impacts project construction will have on wetlands. The Final EIS notes that PennEast would incorporate measures including minimizing the time topsoil is segregated during open trench construction, the utilization of timber mats to minimize disturbances to wetlands, and minimizing erosion during trench dewatering.³⁷² The Certificate Order further requires PennEast to file a completed Wetland Restoration Plan in consultation with the USACE and state agencies, and provide documentation of this consultation.³⁷³ Due to the avoidance, mitigation and restoration measures proposed by PennEast and required by the Commission, the Certificate Order appropriately supported the Final EIS' conclusion that impacts on wetlands will be reduced to less than significant levels, and we affirm this conclusion.³⁷⁴

³⁶⁷ *Id.* at 45-46; Hopewell's Request for Rehearing at 47-48.

³⁶⁸ Hopewell's Request for Rehearing at 44-47.

³⁶⁹ Final EIS at 4-77 – 4-80.

³⁷⁰ *Id.* at 4-77

³⁷¹ Certificate Order, 162 FERC ¶ 61,053 at Appendix A, Environmental Condition 30.

³⁷² Final EIS at 4-81.

³⁷³ *Id.* Appendix A, Environmental Condition 32.

³⁷⁴ *Id.* P 136.

157. Environmental Condition 28 requires PennEast to file, prior to construction, its final hydrostatic test plan, and states that the plan must identify the final hydrostatic test water sources and discharge locations, provide the appropriate documentation showing that all necessary permits (which would include, if necessary, short term water use permits and/or dewatering permits) have been obtained, and provide the approximate water volume that will be withdrawn and discharged in project-total and daily amounts.³⁷⁵ The Certificate Order further notes that PennEast has stated that its hydrostatic testing program will comply with all state- and Delaware River Basin Commission-issued water withdrawal and National Pollutant Discharge Elimination System permits.³⁷⁶ To protect drinking water safety, Environmental Condition 23 requires PennEast to file, prior to construction, a final Well Monitoring Plan that addresses comments from stakeholders, and includes pre- and post-construction monitoring of wells.³⁷⁷

158. The Final EIS explains that clearing vegetation (including tree removal) would enhance sedimentation and remove the natural filtration layer provided by the vegetation, resulting in enhanced runoff in the disturbed areas, the potential for changes in groundwater percolation rates.³⁷⁸ However, the Final EIS determines that these impacts would be localized and temporary, and minimized with the implementation of the E&SCP.³⁷⁹ The Final EIS ultimately determined, and the Commission agreed, that construction and operation of the project would not result in adverse, long-term impacts on groundwater resources³⁸⁰ Hopewell correctly notes that Environmental Condition 27 requires PennEast to revise and submit its E&SCP for review and approval by Commission staff, which will include a “complete review of waterbody crossings with steep slopes” and “site-specific measures to address erosion, sedimentation, and

³⁷⁵ *Id.* Appendix A, Environmental Condition 28.

³⁷⁶ *Id.* P 122.

³⁷⁷ *Id.* Appendix A, Environmental Condition 23.

³⁷⁸ Final EIS at 4-43.

³⁷⁹ *Id.*

³⁸⁰ *Id.* at 4-43; Certificate Order, 162 FERC ¶ 61,053 at P 131.

restoration of steep embankments.”³⁸¹ Thus, the Final EIS determined that with the implementation of the E&SCP, impacts on steep slopes would be appropriately mitigated.

14. Requests for Additional Environmental Conditions

159. NJDEP requests that the Commission modify and add numerous environmental conditions, including conditions pertaining to well-monitoring, water use, state-listed threatened and endangered species, and reforestation mitigation measures.³⁸²

160. We need not do so, because the Certificate Order and its Environmental Conditions address NJDEP’s concerns. For example, NJDEP requests that the Commission include environmental conditions that address state threatened and endangered species.³⁸³ Environmental Condition 39 requires PennEast to consult with state wildlife agencies to avoid and/or mitigate state-listed species and species of concern.³⁸⁴ Environmental Condition 39 further notes that NJDEP has recommended PennEast utilize the state’s “Utility Right-of Way No-Harm Best Management Practices” when developing measures. Similarly, NJDEP requests that the Commission include environmental conditions to avoid impacts on state-owned or preserved lands.³⁸⁵ However, both the Final EIS and Certificate Order determined that potential visual impacts would be mitigated through the implementation of PennEast’s E&SCP, FERC’s Plan and Procedures, and other construction plans.³⁸⁶ Thus, an additional environmental condition addressing visual impacts is not necessary. As a final example, NJDEP requests a condition requiring a “firm time frame” for revegetation, including on state-owned or state-preserved land,³⁸⁷ however, as discussed in greater detail above, although PennEast will adhere to the Commission’s Plan for revegetation, requiring a firm time-

³⁸¹ *Id.*, Appendix A, Environmental Condition 23, *see also* Final EIS at 4-57 – 4-58.

³⁸² NJDEP’s Request for Rehearing at 9-10.

³⁸³ *Id.* at 9.

³⁸⁴ Certificate Order, 162 FERC ¶ 61,053 at Appendix A, Environmental Condition 39.

³⁸⁵ NJDEP’s Request for Rehearing at 10.

³⁸⁶ Certificate Order, 162 FERC ¶ 61,053 at P 162.

³⁸⁷ NJDEP’s Request for Rehearing at 10.

frame for revegetation is impractical.³⁸⁸ Thus, the concerns NJDEP wishes to resolve through the addition of modification of environmental conditions have already been addressed in the Final EIS or the Certificate Order. As indicated above, NJDEP has the authority to include environmental conditions in its respective state permits and authorizations.

15. Additional Delaware Riverkeeper Arguments

a. Socioeconomics

161. Delaware Riverkeeper asserts that “FERC’s consideration of economic benefits is so misleading, inaccurate and deficient as to be a meaningless element of the EIS...” and particularly alleges that the Final EIS “ignores the economic harms inflicted by construction and operation of PennEast.”³⁸⁹ Delaware Riverkeeper’s argument fails to cite to any specific page of the Final EIS, or Certificate Order, as proof of the supposed shortcomings.

162. Contrary to Delaware Riverkeeper’s assertion, the Final EIS identifies and quantifies the impacts of constructing and operating the project on towns and counties in the vicinity of the project. The Final EIS discusses not only the employment the PennEast Project will generate, but the property value impacts of PennEast, as well as PennEast’s commitment to reimburse landowners and producers for the loss of the use of their property as a result of the project. The Final EIS and Certificate Order further discuss the project’s potential adverse impacts on recreation and tourism.³⁹⁰ Thus, we deny Delaware Riverkeeper’s request for rehearing.

b. Delaware River Basin Commission’s Legal Authority

163. Delaware Riverkeeper, without reference to specific sections of the Final EIS or Certificate Order, states that “[t]he mission and authority ascribed to the [Delaware River Basin Commission] in the [final] EIS is flagrantly incorrect and misleading.”³⁹¹ Delaware Riverkeeper further asserts that the Delaware River Basin Commission’s

³⁸⁸ *Supra* P 144.

³⁸⁹ Delaware Riverkeeper’s Request for Rehearing at 51.

³⁹⁰ See Final EIS section 4.8.2, *Socioeconomics*; see also Certificate Order, 162 FERC ¶ 61,053 at PP 164-167.

³⁹¹ Delaware Riverkeeper’s Request for Rehearing at 111.

authority is “far broader than asserted . . . ” by the Commission, and that this “fails to ensure full and accurate information has been provided to the public”³⁹²

164. Delaware Riverkeeper’s vague assertions of a failure by the Commission to “give due regard to [the Delaware River Basin Commission’s] authority” fail to point to any specific inaccuracy in either the Final EIS or the Certificate Order. Table 1.3-1 in the Final EIS lists the Delaware River Basin Commission as among the agencies that PennEast must obtain permits and approvals from, namely a water withdrawal approval.³⁹³ The Final EIS further notes that because the Delaware River Basin Commission itself stated that its permits are not federal actions for the purposes of NEPA review, additional analysis of the Delaware River Basin Commission’s authority was not necessary. Therefore, as the Final EIS correctly stated the Delaware River Basin Commission’s role regarding its authority to issue PennEast a water withdrawal permit, and Delaware Riverkeeper does not state with specificity any shortcoming in this determination, we deny Delaware Riverkeeper’s request for rehearing.

c. Final EIS Inaccuracies

165. Delaware Riverkeeper asserts that the environmental impacts of the PennEast Project are inaccurately reported or are otherwise incomplete. Delaware Riverkeeper’s argument consists of over 20 pages³⁹⁴ of bulleted accusations that are vague and unsupported and without citation to the Final EIS or to the Certificate Order. In no instance does Delaware Riverkeeper provide additional information that would enable the Commission to respond to its claims.

The Commission orders:

(A) The requests for rehearing filed by Jacqueline Evans, Home Owners Against Land Taking – PennEast, Michael Spille, The Township of Hopewell, Kingwood Township, Lower Saucon Township, the New Jersey Department of Environmental Protection and Delaware and Raritan Canal Commission, the New Jersey Division of Rate Counsel, Sierra Club – New Jersey, and the New Jersey Conservation Foundation – Stony Brook Millstone Watershed Association are denied.

³⁹² *Id.*

³⁹³ *Id.* at 1-12, 4-62.

³⁹⁴ *See id.* at 164-188.

(B) The requests for rehearing filed by New Jersey State Senators Kip Bateman and Shirley Turner, and New Jersey State Assemblyman Reed Gusciora are rejected.

(C) Food and Water Watch's February 21, 2018 request for rehearing, the County of Mercer's February 27, 2018 request for rehearing, and Sourland Conservancy's March 15, 2018 request for rehearing are rejected as untimely.

(D) The requests for rehearing filed by Elizabeth Balogh, Sari DeCesare, Delaware Riverkeeper Network, Linda and Ned Heindel, Scott Hengst, Fairfax Hutter, Kelly Kappler, the City of Lambertville, Karen Mitchell, the New Jersey Natural Lands Trust, Elizabeth Peer, the Pipeline Safety Coalition, Laura Pritchard, Roblyn Rawlins, Sarah Seier, Sierra Club, and the Washington Crossing Audubon Society are dismissed as deficient.

(E) PennEast's March 7, 2018 answer, and New Jersey Conservation Foundation – Stony Brook Millstone Watershed Association's March 15, 2018 response are rejected.

(F) The requests for stay filed by Delaware Riverkeeper Network, Hopewell Township, Kingwood Township, Lower Saucon Township, Michael Spille, New Jersey Conservation Foundation – Stony Brook-Millstone Watershed Association, and the New Jersey Department of Environmental Protection are dismissed as moot.

By the Commission. Commissioner LaFleur is concurring in part and dissenting in part with a separate statement attached.
Commissioner Glick is dissenting with a separate statement attached.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PennEast Pipeline Company, LLC

Docket No. CP15-558-001

(Issued August 10, 2018)

LaFLEUR, Commissioner, *concurring in part and dissenting in part*:

Today's order denies rehearing of the order authorizing the construction and operation of the PennEast Project, a natural gas pipeline from Luzerne County, Pennsylvania to Mercer County, New Jersey.¹ I supported the Commission's original authorization of the project, finding that on balance, the project was in the public interest.² While I continue to believe the PennEast Project is in the public interest, I am compelled to dissent in part today because I think the Commission's policy approach to certain aspects of its environmental review of the PennEast Project is fundamentally flawed. For the reasons set forth below, I am concurring in part and dissenting in part.

As I explained in my concurrence in *Broad Run*,³ despite my ongoing disagreement with the Commission's approach to its environmental review of pipeline projects, I have attempted to address each case based on the facts in the record and the governing law as I read it. I do believe that many pipelines are needed and in the public interest, and I have been focusing my efforts on determining if, and how, I can support these projects despite my strong disagreement on the Commission's policy and practice on addressing the climate change impact of pipeline projects. This has become

¹ *PennEast Pipeline, LLC*, 164 FERC ¶ 61,098 (2018) (Rehearing Order).

² *PennEast Pipeline, LLC*, 162 FERC ¶ 61,053 (2018) (LaFleur, Comm'r, *concurring*) (Certificate Order).

³ *Tennessee Gas Pipeline Company*, 163 FERC ¶ 61,190 (2018) (LaFleur, Comm'r, *concurring*) (*Broad Run*).

particularly difficult in recent months since the *Sabal Trail* remand order,⁴ and the subsequent decision in *New Market*⁵ to change our policy on disclosure and consideration of downstream and upstream GHG emissions in our pipeline review.

In this case, I supported the original authorization of the PennEast Project. I found that the record demonstrated sufficient need for the proposed project, and I carefully considered all of the environmental impacts in this case, balanced them against economic need, and ultimately concluded the project was in the public interest. While I still believe that to be the case, I must nonetheless dissent in part because I fundamentally disagree with the majority's approach to its consideration of climate change impacts as part of our environmental review of the proposed project.

At the time the Commission originally authorized the PennEast Project, the Commission's approach to evaluating downstream GHG emissions was largely reliant on full-burn estimates of downstream GHG emissions for proposed projects.⁶ The Commission included such analysis in the Certificate Order.⁷ While that approach has its

⁴ *Florida Southeast Connection, LLC*, 162 FERC ¶ 61,233 (2018) (LaFleur, Comm'r, *dissenting in part*) (*Sabal Trail*).

⁵ *Dominion Transmission Inc.*, 163 FERC ¶ 61,128 (2018) (LaFleur, Comm'r, *dissenting in part*) (*New Market*).

⁶ Since late 2016, the Commission has included increasing amounts of information on downstream GHG emissions in our pipeline orders. Initially, the Commission estimated downstream GHG emissions by assuming the full combustion of the total volume of gas being transported by the project, which was what was done in this case. Commission orders that included the full-burn calculation. *E.g.*, *Columbia Gas Transmission, LLC*, 158 FERC ¶ 61,046, at P 120 (2017); *Algonquin Gas Transmission, LLC*, 158 FERC ¶ 61,061, at P 121 (2017); *Rover Pipeline LLC*, 158 FERC ¶ 61,109, at P 274 (2017); *Tennessee Gas Pipeline Co., L.L.C.*, 158 FERC ¶ 61,110, at P 104 (2017); *Nat'l Fuel Gas Supply Corp.*, 158 FERC ¶ 61,145, at P 189 (2017); *Dominion Carolina Gas Transmission, LLC*, 158 FERC ¶ 61,126, at P 81 (2017); *Nexus Gas Transmission, LLC*, 160 FERC ¶ 61,022, at P 173 (2017); *Atlantic Coast Pipeline, LLC*, 161 FERC ¶ 61,042, at P 298 (2017); *Millennium Pipeline Co., L.L.C.*, 161 FERC ¶ 61,229, at P 164 (2017); *Florida Southeast. Connection, LLC*, c, at P 22 (2018); *DTE Midstream Appalachia, LLC*, 162 FERC ¶ 61,238, at P 56 (2018).

⁷ Certificate Order at P 208.

limitations, I have viewed the full-burn estimate of downstream GHG emissions as important to our environmental review,⁸ and necessary for our public interest determination under NEPA.

While I support the quantification and disclosure of the upper-bound estimate of GHG emissions, I strongly disagree with the majority's continued refusal to ascribe significance to this identified environmental impact. I believe that the majority's stated approach for determining the significance of those impacts does not comply with NEPA. The majority once again concludes, "it cannot find a suitable method to attribute discrete environmental effects to GHG emissions."⁹ The majority has made this same argument in a number of recent pipeline orders to justify its conclusion that it cannot determine whether a particular quantity of GHG emissions poses a significant impact on the environment.¹⁰

Yet, the majority appears to reframe its approach for considering downstream GHG impacts, notwithstanding the language cited above, by claiming that it has been

⁸ As I have said repeatedly, this upper-bound GHG quantification and analysis is the bare minimum we should be doing as part of our environmental review of pipeline projects when we do not have more evidence in the record to calculate the gross and net GHG emissions. *See Broad Run*, 163 FERC ¶ 61,190 (LaFleur, Comm'r, *concurring*); *Millennium Pipeline Company, L.L.C.*, 164 FERC ¶ 61,039 (2018) (LaFleur, Comm'r, *concurring in part and dissenting in part*).

⁹ Rehearing Order at P 117.

¹⁰ *Columbia Gas Transmission, LLC*, 164 FERC ¶ 61,036, at P 57 (2018) ("no standard methodology, including the Social Cost of Carbon tool, exists to determine how a project's contribution to greenhouse gas emissions would translate into physical effects on the environment for the purposes of evaluating the project's impacts on climate change. In the absence of an accepted methodology, the Commission is unable to make a finding as to whether a specific quantify of greenhouse gas emissions presents a significant impact on the environment [...]."); *Broad Run*, 163 FERC ¶ 61,190 at P 67 ("We continue to find that no standard methodology exists. Without an accepted methodology, the Commission cannot make a finding whether a particular quantity of GHG emissions poses a significant impact on the environment, whether directly or cumulatively with other sources, and how that impact would contribute to climate change."). *See also New Market*, 163 FERC ¶ 61,128 at P 67; *Florida Southeast Connection, L.L.C.*, 162 FERC ¶ 61,233, at PP 26-27, 30-51 (2018).

evaluating the impacts of downstream GHG emissions all along by using a qualitative approach.¹¹ The majority suggests that quantifying the downstream GHG emissions, comparing the project's emission to the regional and nationwide emissions inventory, and reciting generic information acknowledging that GHGs contribute to climate change, satisfies our obligations to under NEPA.¹² I do not agree that this is sufficient. Under NEPA, when evaluating the significance of a particular impact, the Commission must consider both context¹³ and intensity.¹⁴ By evaluating how the emissions from the PennEast Project would impact the regional¹⁵ and nationwide emissions inventories, the majority contends it provides context for the environmental impact, but, even assuming that is true, the analysis does not address the intensity of the impact.

I recognize that determining the severity of a particular impact would require thoughtful and complex analysis, and I am confident that the Commission could perform that analysis if it chose to do so; indeed, we routinely grapple with complex issues in many other areas of our work.¹⁶ In fact, this is precisely the use for which the Social Cost

¹¹ Rehearing Order at P 118.

¹² Rehearing Order at P 120.

¹³ [40 C.F.R. § 1508.27\(a\)](#) (2017) (Context means “that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests and the locality.”).

¹⁴ [40 C.F.R. § 1508.27\(b\)](#) (2017) (Intensity refers to “the severity of the impact”).

¹⁵ The 22 states included in the regional GHG emissions analysis include: Alabama, Arkansas, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and West Virginia. I find that this “regional” comparison provides little context for a project that based in Pennsylvania and New Jersey.

¹⁶ Many of the core areas of the Commission's work have required the development of analytical frameworks, often a combination of quantitative measurements and qualitative assessments, to fulfill the Commission's responsibilities under its broad authorizing statutes. This work regularly requires that the Commission exercise judgment, based on its expertise, precedent, and the record before it. For example, to help determine just and reasonable returns on equity (ROEs) under the Federal Power Act, NGA, and Interstate Commerce Act, the Commission identifies a proxy group of
(continued ...)

of Carbon was developed – it is a scientifically-derived metric to translate tonnage of carbon dioxide or other GHGs to the cost of long-term climate harm.¹⁷ However, the majority rejects the use of the Social Cost of Carbon as a method for meaningfully measuring climate change impact, noting “several of the components of its methodology are contested [...]”¹⁸ I continue to disagree with the technical and policy arguments relied upon by the majority to attack the usefulness of the Social Cost of Carbon, many of which I addressed in my dissent on the *Sabal Trail* remand order.¹⁹

Finally, the majority cites recent comments from the Environmental Protection Agency (EPA) in our Certificate Policy Statement, Notice of Inquiry docket generally explaining that the Social Cost of Carbon is not appropriate for “project-level decision-

comparably risky companies, applies a discounted cash flow method to determine a range of potentially reasonable ROEs (i.e., the zone of reasonableness), and then considers various factors to determine the just and reasonable ROE within that range. *See also, e.g., Promoting Transmission Investment through Pricing Reform*, Order No. 679, FERC Stats. & Regs. ¶ 31,222 (2006), *order on reh’g*, Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 (2006), *order on reh’g*, 119 FERC ¶ 61,062 (2007) (establishing Commission regulations and policy for reviewing requests for transmission incentives); *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, FERC Stats. & Regs. ¶ 31,323 (2011), *order on reh’g*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh’g and clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff’d sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014) (requiring, among other things, the development of regional cost allocation methods subject to certain general cost allocation principles); *BP Pipelines (Alaska) Inc.*, Opinion No. 544, 153 FERC ¶ 61,233 (2015) (conducting a prudence review of a significant expansion of the Trans Alaska Pipeline System).

¹⁷ *See, e.g.,* Environmental Protection Agency Fact Sheet – Social Cost of Carbon, available at https://www.epa.gov/sites/production/files/2016-12/documents/social_cost_of_carbon_fact_sheet.pdf; *see also, e.g., Sabal Trail*, 162 FERC ¶ 61,233 (LaFleur, Comm’r, *dissenting in part*).

¹⁸ Rehearing Order at P 122.

¹⁹ *Sabal Trail*, 162 FERC ¶ 61,233 (LaFleur, Comm’r, *dissenting in part*).

making.”²⁰ I note that in prior comments submitted by the EPA in the same docket, the EPA offered specific views on how the Social Cost of Carbon can be utilized in our environmental reviews. The EPA specifically concludes that “even absent a full [benefit-cost analysis], [Social Cost of Carbon and other greenhouse gases] estimates may be used for project analysis when FERC determines that a monetary assessment of impacts associated with the estimated net change in GHG emissions provides useful information in its environmental review or public interest determination.”²¹ As I have said repeatedly, I believe the Social Cost of Carbon can meaningfully inform the Commission’s decision-making to reflect the climate change impacts of an individual project, and these comments support that position.

For all of these reasons, I concur in part and dissent in part.

Cheryl A. LaFleur
Commissioner

²⁰ EPA, Comments, Docket No. PL18-1-000 at 2 (filed July 25, 2018).

²¹ EPA, Comments, Docket No. PL18-1-000 at 4 (filed June 21, 2018).

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PennEast Pipeline Company, LLC

Docket No. CP15-558-001

(Issued August 10, 2018)

GLICK, Commissioner, *dissenting*:

Today's order denies rehearing of the Commission's decision to authorize the PennEast Project (Project) under section 7 of the Natural Gas Act (NGA).¹ I dissent from the order because—for several reasons—it fails to comply with our obligations under the NGA and the National Environmental Policy Act (NEPA).² First, I disagree with the Commission's conclusion that the Project is needed, which is based only on the existence of precedent agreements, including contracts with the project developers' affiliates accounting for 74 percent of the Project's subscribed capacity.³ Second, I disagree with the Commission's conclusion that the Final Environmental Impact Statement (Final EIS) adequately assessed the environmental harms caused by the Project. The Commission, in this proceeding, determined that the Project will be environmentally acceptable even though the record lacks information that is critical to assessing the Project's environmental impact. The absence of this information should have prevented the Commission from concluding that the Project was in the public interest—a fatal flaw that is not cured merely by designating the certificate “conditional.” Finally, I disagree with the Commission's assertion that it does not need to consider the harm from the Project's contribution to climate change. While the Commission quantified the Project's upstream and downstream greenhouse gas (GHG) emissions, the Commission nonetheless maintains that these emissions are not reasonably foreseeable and that it is not obligated

¹ 15 U.S.C. § 717f (2012).

² National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852.

³ *PennEast Pipeline Company, LLC*, 164 FERC ¶ 61,098, at P 20 (2018) (Rehearing Order); *PennEast Pipeline Company, LLC*, 162 FERC ¶ 61,053, at P 6 (2018) (Certificate Order).

to determine whether the resulting impact from climate change is significant.⁴ Today's order simply is not the product of reasoned decisionmaking.

I. The Commission Fails to Demonstrate That the Project Is Needed

Section 7 of the NGA requires that, prior to issuing a certificate for new pipeline construction, the Commission must find both that the pipeline is needed, and that, on balance, the pipeline's benefits outweigh its harms. In today's order, the Commission reaffirms its exclusive reliance on the existence of precedent agreements with shippers to conclude that the Project is needed.⁵ While PennEast's affiliates hold 74 percent of the pipeline's subscribed capacity,⁶ the Commission rejects the notion that it is necessary to look behind precedent agreements in any circumstance "regardless of the affiliate status."⁷

As I have stated previously,⁸ precedent agreements are one of several types of evidence that can be valuable in assessing the market demand for a pipeline. However, contracts among affiliates are less probative of that need because they are not necessarily the result of an arms-length negotiation. Indeed, the Commission itself has recognized that "[u]sing contracts as the primary indicator of market support for the proposed

⁴ Rehearing Order, 164 FERC ¶ 61,098 at PP 105, 107, 109, 111, 118-121.

⁵ Rehearing Order, 164 FERC ¶ 61,098 at P 20 ("Where, as here, it is demonstrated that specific shippers have entered into precedent agreements for project service, the Commission places substantial reliance on those agreement to find that the project is needed.").

⁶ Certificate Order, 162 FERC ¶ 61,053 at P 6 (explaining that six of the 12 shippers are affiliates of PennEast Pipeline Company, subscribing to 735,000 dekatherms (Dth) per day, or 74 percent of the 990,000 Dth per day of subscribed capacity).

⁷ Rehearing Order, 164 FERC ¶ 61,098 at P 16 (further explaining that "it is current Commission policy to not look beyond precedent or service agreements to make judgments about the needs of individual shippers").

⁸ Certificate Order, 162 FERC ¶ 61,053 (Glick, Comm'r, dissenting); *see also Spire STL Pipeline LLC*, 164 FERC ¶ 61,085, at 1-4 (2018) (Glick, Comm'r, dissenting); *NEXUS Pipeline Company, L.L.C.*, 164 FERC ¶ 61,054, at 2-4 (2018) (Glick, Comm'r, dissenting); *Mountain Valley Pipeline, LLC*, 163 FERC ¶ 61,197, at 2-4 (2018) (Glick, Comm'r, dissenting in part).

pipeline project also raises additional issues when the contracts are held by pipeline affiliates.”⁹ I could not agree more. It does not take much imagination to understand why an affiliate shipper might be interested in contracting with a related pipeline developer for capacity that may not be needed, such as the parent company’s prospect of earning a 14 percent return on equity on an investment,¹⁰ or increased profits earned by an affiliated electric generator if new gas pipeline capacity frees up congestion that has been restraining gas and electric prices in a particular zone.

I agree with the protesting parties¹¹ that affiliate precedent agreements cannot be sufficient in and of themselves to demonstrate that a pipeline is needed. In such cases, the Commission must review additional evidence in the record. As the Certificate Policy Statement explains, this evidence might include, among other things, “demand projections, potential cost savings to consumers, or comparison of projected demand with the amount of capacity currently serving the market.”¹² Yet, the Commission dismisses any need to consider evidence beyond precedent agreements, stating that it is not current policy to look beyond the “market need reflected by the applicant’s contract with shippers.”¹³ That conclusion belies the Commission’s assertion that it evaluates individual projects based on the evidence of need presented in each proceeding.¹⁴ If precedent agreements are the only evidence it seriously considers, it cannot

⁹ *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227, at 61,744 (1999) (Certificate Policy Statement), *clarified*, 90 FERC ¶ 61,128, *further clarified*, 92 FERC ¶ 61,094 (2000).

¹⁰ Rehearing Order, 164 FERC ¶ 61,098 at P 34; Rate Counsel’s Request for Rehearing at 9-10.

¹¹ Rate Counsel’s Request for Rehearing at 9-10; New Jersey Conservation Foundation’s Request for Rehearing at 26.

¹² Certificate Policy Statement, 88 FERC at 61,747.

¹³ Rehearing Order, 164 FERC ¶ 61,098 at P 16.

¹⁴ *Id.* (stating that the Commission “evaluates individual projects based on the evidence of need presented in each proceeding”).

simultaneously claim to have given the record evidence the review it deserves and that the Administrative Procedures Act¹⁵ demands.

The Commission attempts to support its stubborn reliance on affiliated precedent agreements by citing to *Minisink Residents for Environmental Preservation and Safety v. FERC*.¹⁶ *Minisink* is readily distinguished. In that case, the D.C. Circuit concluded that the Commission could rely generally on a precedent agreement as a reflection of market need. But the Court neither considered nor addressed whether affiliate precedent agreements should be viewed similarly, as the issue was not raised in the proceeding. In fact, no court has found that the Commission can rely solely on affiliated precedent agreements to demonstrate need.¹⁷

In cases, such as this, where the record contains evidence raising fundamental questions about the Project's underlying need, the Commission must look beyond precedent agreements to determine need.¹⁸ Here for instance, the Rehearing Parties point out that existing pipeline infrastructure can satisfy the current demand for natural gas of New Jersey and Pennsylvania local distribution companies, and projections of natural gas demand suggest "peak day requirements will remain relatively stable through 2020," "indicat[ing] that there is no imminent need for significant amounts of additional capacity."¹⁹ Evidence showing declining utilization of existing pipeline infrastructure further calls into question whether there is sufficient market demand to justify a new pipeline.²⁰ The Commission, however, refuses to even consider the evidence suggesting a lack of market demand for the Project, arguing that "[p]rojections regarding future

¹⁵ 5 U.S.C § 706 (2012); see *Motor Veh. Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

¹⁶ *Id.* (citing *Minisink Residents for Env'tl. Pres. & Safety v. FERC*, 762 F.3d 97, 111 n.10 (D.C. Cir. 2014)).

¹⁷ The Commission refers only to prior Commission decisions to directly support reliance on affiliated precedent agreements to support a finding of need. Rehearing Order, 164 FERC ¶ 61,098 at P 16 n.38.

¹⁸ See, e.g., Rate Counsel's Request for Rehearing at 9-13; Conservation Foundation's Request for Rehearing at 25; Hopewell's Request for Rehearing at 19.

¹⁹ Rate Counsel's Request for Rehearing at 5.

²⁰ *Id.* at 6.

demand often change” and “[g]iven this uncertainty associated with long-term demand projections . . . the Commission deems precedent agreements to be the better evidence of demand.”²¹

While the Commission declines to rely on such record evidence for the purposes of establishing need, to counter the Rehearing Parties’ arguments the Commission nonetheless suggests, *if it were* to consider other record evidence in the case, it would point to evidence supporting a market need for the Project. The Commission cannot have it both ways. Selectively highlighting evidence of market demand when it supports the Commission’s position, while *summarily* ignoring the same type of evidence when it does not, is arbitrary and capricious.

My point is not that precedent agreements can never be a meaningful indication of the need for a project. Indeed, there may be some instances when precedent agreements, between unaffiliated entities, can serve as a strong indicator of need. But that does not mean that the Commission should rely uncritically on precedent agreements, especially when they are between affiliates. The Commission itself has recognized a broad spectrum of evidence that can bear on the need for a particular project. Reasoned decisionmaking requires that the Commission grapple with this evidence, rather than merely brushing it off and restating its absolute commitment not to look behind precedent agreements.

II. The Final EIS Is Deficient

Section 7 requires the Commission to balance “the public benefits [of a proposed pipeline] against the adverse effects of the project,’ including adverse environmental effects.”²² And where, as in this proceeding, there is limited evidence of the need for the proposed project, it is incumbent on the Commission to engage in an especially searching

²¹ Rehearing Order, 164 FERC ¶ 61,098 at P 20.

²² *Sierra Club v. FERC*, 867 F.3d 1357, 1373 (D.C. Cir. 2017) (quoting *Myersville Citizens for a Rural Cmty. v. FERC*, 783 F.3d 1301, 1309 (D.C. Cir. 2015)); *Pub. Utils. Comm’n of Cal. v. FERC*, 900 F.2d 269, 281 (D.C. Cir. 1990) (quoting *NAACP v. FERC*, 425 U.S. 662, 670 (1976)). The Court explained that, for the Natural Gas Act, the purposes that Congress has in mind when enacting the legislation include “encourag[ing] the orderly development of plentiful supplies of . . . natural gas at reasonable prices” as well as “conservation, environmental, and antitrust issues.” *Id.* (quoting *NAACP*, 425 U.S. at 670 n.6).

review of the project's potential harms to ensure that the project is in the public interest.²³ In this case, the Rehearing Parties are right to question whether the Final EIS is sufficient in light of the incomplete record concerning the Project's environmental impact. For instance, PennEast has yet to complete the geotechnical borings work, which is needed to ensure that the environmental impacts of planned horizontal directional drilling will be adequately minimized.²⁴ In addition, 68 percent of the Project alignment in New Jersey has yet to be surveyed for the existence of historic and cultural resources.²⁵ These are critical aspects of the Commission's review of the proposed pipeline that should not be lightly brushed aside.

The Commission argues that the insufficient environmental record can be remedied by granting the certificate subject to PennEast's compliance with certain conditions.²⁶ Furthermore, the Commission asserts that NEPA does not require all environmental concerns to be definitively resolved before a project's approval is issued.²⁷ While that may be true in certain cases, there must be a limit to that principle, such that the Commission cannot grant a certificate based on little more than a premise that it will compile an adequate record that a project is in the public interest at some point in the future. "NEPA clearly requires that consideration of the environmental impacts of proposed projects take place *before* any [] decision is made"²⁸ and "[t]he very purpose of NEPA's requirement that an EIS be prepared for all actions that may significantly affect the environment is to obviate the need for speculation by insuring that available data is gathered and analyzed prior to the implementation of the proposed action."²⁹ Today's order defies both NEPA and the NGA's public interest standard by accepting an

²³ Certificate Policy Statement, 88 FERC at 61,748 ("The amount of evidence necessary to establish the need for a proposed project will depend on the potential adverse effects of the proposed project on the relevant interests.").

²⁴ *Certificate Order*, 162 FERC ¶ 61,053 at P 120.

²⁵ *Id.* P 172.

²⁶ Rehearing Order, 164 FERC ¶ 61,098 at PP 43-45.

²⁷ *Id.* P 43.

²⁸ *La Flamme v. FERC*, 852 F.2d 389, 400 (9th Cir. 1988).

²⁹ *Id.* (citing *Found. for N. Am. Wild Sheep v. U.S. Dep't of Agriculture*, 681 F.2d 1172, 1179 (1982)).

inadequate Final EIS without explaining how the incomplete information is sufficient to permit the Commission to adequately balance the Project's adverse effects against its benefits. At a minimum, a significant amount of missing information on environmental impacts fails to meet a basic threshold of ensuring that the Federal agency will "have available, and will carefully consider, detailed information concerning significant environmental impacts" and that this information will also be "available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision."³⁰

The Commission suggests that the Final EIS does not violate NEPA because it identifies where and why information was incomplete, includes mitigation plans on resources where information was lacking, and promises to continue working to collect the missing data.³¹ Although mitigation measures can help inform an agency's conclusion that a project's impact is not significant,³² mitigation plans are no substitute for providing a detailed statement on the actual environmental impact of the proposed action, as NEPA requires.³³ More fundamentally, the Commission's reliance on mitigation plans and post-decision information suggests that it is treating NEPA review as a "check-the-box" exercise instead of providing the "hard look" that Congress intended.

I appreciate that some of the information is not available because some landowners have refused the project developer access to their lands. But that does not change the fact that the Commission does not have the information it needs to properly perform its responsibilities under both NEPA and the NGA. It is the project developer's responsibility to reach agreements with landowners so that necessary surveys can be performed. Their difficulties in satisfying that responsibility is no reason to shirk our statutory mandates.

I believe it is a particularly cynical approach for the Commission to participate in a scheme designed to resolve this concern by granting certificate authority to the pipeline developer so that it can use eminent domain authority to gain access to land for the purpose of gathering missing information that is necessary to inform a finding of public

³⁰ *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 768 (2004) (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989)).

³¹ Rehearing Order, 164 FERC ¶ 61,098 at P 46.

³² *LaFlamme*, 852 F.2d at 399; *see also Jones v. Gordon*, 792 F.2d at 829.

³³ 42 U.S.C. § 4332 (2012).

interest in the first place. This is not only circular logic, but an outright abuse of the eminent domain authority that a section 7 certification conveys. Today's order makes clear that the Commission is using its certificate authority with little heed for the rights of landowners or the harms they may suffer as a result of the Commission's decision to grant a pipeline on inadequate record. As we can all agree, the rights of landowners must not be circumvented and the impacts to landowners cannot be an afterthought in the Commission's assessment of a pipeline's adverse impacts.³⁴

III. The Commission Fails To Consider the Impacts of Climate Change

Unlike many of the challenges that our society faces, we know with certainty what causes climate change: It is the result of GHG emissions, including carbon dioxide and methane, which can be released in large quantities through the production and the consumption of natural gas. Accordingly, it is critical that the Commission carefully consider the Project's contribution to climate change, both in order to fulfill NEPA's requirements and to determine whether the Project is in the public interest under the NGA. The Commission, however, goes out of its way to avoid seriously addressing the Project's contributions to the harm caused by climate change. The Commission contends that it is not required to consider the impacts of upstream and downstream GHG emissions because the record in this proceeding does not demonstrate that the emissions are indirect effects of the Project.³⁵

While quantifying the annual upstream and downstream GHG emissions from the Project in the Certificate Order,³⁶ the Commission continues to refuse to consider these emissions as reasonably foreseeable indirect effects. The Commission suggests that there is insufficient information about the production and consumption activities associated with the pipeline to render the effects reasonably foreseeable. Regarding upstream emissions, the Commission claims that it can conclude that GHG emissions from upstream activities are reasonably foreseeable only where it has definitive information about the specific, number, location, and timing of production wells, as well as production methodologies.³⁷ Similarly, the Commission suggests that it cannot determine

³⁴ *E.g.*, Certificate Order, 162 FERC ¶ 61,053, at 1 (Chatterjee, Comm'r, concurring).

³⁵ Rehearing Order, 164 FERC ¶ 61,098 at PP 105, 107, 109, 111.

³⁶ Certificate Order, 162 FERC ¶ 61,053 at PP 203, 208.

³⁷ Rehearing Order, 164 FERC ¶ 61,098 at P 109.

whether downstream GHG emissions are reasonably foreseeable because “where the record does not show a specific end use of the gas transported by the project, downstream emissions from the consumption of that natural gas are not indirect effects.”³⁸ But such definitions of indirect effects are circular and overly narrow.³⁹ In adopting them, the Commission disregards the Project’s central purpose—to facilitate natural gas production and consumption.

The Commission claims that the impacts of GHG emissions associated with natural gas production are not reasonably foreseeable because they are “so nebulous” that the Commission “cannot forecast [their] likely effects” in the context of an environmental analysis of the impacts of a proposed natural gas pipeline.⁴⁰ But the evidence in the record shows that the applicant “designed its Project to provide a direct and flexible path for transporting natural gas produced in the Marcellus Shale production area in northeastern Pennsylvania.”⁴¹ Similarly, the Commission’s assertion that there is a lack of information about end-use consumption directly conflicts with record evidence suggesting the gas will be consumed, at least in part, for the purposes of electric

³⁸ *Id.* P 111.

³⁹ See *San Juan Citizens All. v. U.S. Bureau of Land Mgmt.*, No. 16-CV-376-MCA-JHR, 2018 WL 2994406, at *10 (D.N.M. June 14, 2018) (holding that it was arbitrary for the Bureau of Land Management to conclude “that consumption is not ‘an indirect effect of oil and gas production because production is not a proximate cause of GHG emissions resulting from consumption’” as “this statement is circular and worded as though it is a legal conclusion”).

⁴⁰ Rehearing Order, 164 FERC ¶ 61,098 at P 109 (citing Certificate Order, 162 FERC ¶ 61,053 at P 198). Furthermore, the Commission seems to rely on a criteria of its own creation to determine indirect effects by asserting that the Commission is not obligated to consider upstream impacts unless the Commission knows definitively that the “production would not occur in the absence of the pipeline,” suggesting the record must also prove a negative in order to qualify an impact as indirect. Certainly, this is not what NEPA meant in the obligation for federal agencies to take a “hard look” at environmental impacts.

⁴¹ Exhibit F-1, Resource Report 5, PennEast submitted a study by Concentric Energy Advisors, *Estimated Energy Market Savings from Additional Pipeline Infrastructure Service Eastern Pennsylvania and New Jersey* (Concentric Study) at 5-1.

generation.⁴² Under NEPA's obligation to engage in reasonable forecasting⁴³ and make assumptions where necessary,⁴⁴ combined with the record provided, it is entirely foreseeable that the incremental transportation capacity of the Project will spur upstream production and will be combusted, both resulting in GHG emissions that contribute to climate change.⁴⁵

⁴² Certificate Order, 162 FERC ¶ 61,053 at P 28 ("PennEast has entered into precedent agreements for long-term, firm service with 12 shippers. Those shippers will provide gas to a variety of end users, including local distribution customers, electric generators, producers, and marketers.").

⁴³ Forecasting environmental impacts is a regular component of NEPA reviews and a reasonable estimate may inform the federal decisionmaking process even where the agency is not completely confident in the results of its forecast. *See Del. Riverkeeper Network v. FERC*, 753 F.3d 1304, 1310 (2014) (quoting *Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Comm'n*, 481 F.2d 1079, 1092 (D.C. Cir. 1973)); *see Sierra Club*, 867 F.3d at 198 ("In determining what effects are 'reasonably foreseeable,' an agency must engage in 'reasonable forecasting and speculation.'") (quoting *Del. Riverkeeper*, 753 F.3d at 1310)).

⁴⁴ As the D.C. Circuit explained in *Sierra Club*, in the face of indefinite variables, "agencies may sometimes need to make educated assumptions about an uncertain future." 867 F.3d at 1357.

⁴⁵ *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 768 (2004) (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989)). In evaluating the upstream and downstream impacts of a pipeline that are reasonably foreseeable results of constructing and operating that pipeline, I am relying on precisely the sort of "reasonably close causal relationship" that the Supreme Court has required in the NEPA context and analogized to proximate cause. *See id.* at 767 ("NEPA requires a 'reasonably close causal relationship' between the environmental effect and the alleged cause. The Court [has] analogized this requirement to the 'familiar doctrine of proximate cause from tort law.'") (quoting *Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1983)); *see also Paroline v. United States*, 134 S. Ct. 1710, 1719 (2014) ("Proximate cause is often explicated in terms of foreseeability or the scope of the risk created by the predicate conduct."); *Staelens v. Dobert*, 318 F.3d 77, 79 (1st Cir. 2003) ("[I]n addition to being the cause in fact of the injury [the but for cause], the plaintiff must show that the negligent conduct was a proximate or legal cause of the injury as well. To establish proximate cause, a plaintiff must show that his or her injuries were within (continued ...)").

As the U.S. Court of Appeals for the Eighth Circuit explained in *Mid States*—a case that also involved the downstream emissions from new infrastructure for transporting fossil fuels—when the “nature of the effect” (end-use emissions) is reasonably foreseeable, but “its extent is not” (specific consumption activity producing emissions), an agency may not simply ignore the effect.⁴⁶ Put differently, the fact that an agency may not know the exact location and amount of GHG emissions to attribute to the federal action is no excuse for assuming that impact is zero. Instead, the agency must engage in a case-by-case inquiry into what effects are reasonably foreseeable and estimate the potential emissions associated with that project—making assumptions where necessary—and then give that estimate the weight it deserves.

Quantifying the GHG emissions that are indirect effects of the Project is a necessary, but not sufficient, step in meeting the Commission’s obligation to consider the Project’s environmental effects associated with climate change. As required by NEPA, the Commission must also identify, and determine the significance of, the harm caused by those emissions.⁴⁷ Absent such consideration, the Commission failed to undertake a meaningful analysis of the climate change impacts stemming from the Project’s GHG emissions.

The Commission again rejects the use of the Social Cost of Carbon to provide meaningful information to evaluate the environmental impact of the GHG emissions associated with a certificate decision.⁴⁸ I disagree. The CEQ Guidance further recognizes that monetized quantification of an impact is appropriate to be incorporated into the NEPA document, if doing so is necessary for an agency to fully evaluate the environmental consequences of its decisions.⁴⁹ Similarly, the U.S. Environmental

the reasonably foreseeable risks of harm created by the defendant’s negligent conduct.”) (internal quotation marks and citations omitted).

⁴⁶ *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003).

⁴⁷ 40 C.F.R. § 1502.16 (2017).

⁴⁸ Rehearing Order, 164 FERC ¶ 61,098 at P 123.

⁴⁹ See CEQ, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* at 32-33 (Aug. 1, 2016), https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf.

Protection Agency (EPA) explains that “even absent a full [cost-benefit analysis],” estimates of the Social Cost of Carbon “may be used for project analysis when [the Commission] determines that a monetary assessment of the impacts associated with the estimated net change in GHG emissions provides useful information in its environmental review or public interest determination.”⁵⁰

Similarly, several courts have found that it is arbitrary and capricious to monetize some benefits but not utilize the Social Cost of Carbon to consider the harm caused by GHG emissions associated with the federal action.⁵¹ By measuring the long-term damage done by a ton of carbon dioxide, the Social Cost of Carbon provides a meaningful method for linking GHG emissions to particular climate impacts for quantitative and qualitative analyses. The pertinent question is whether the Commission’s consideration of the harm caused by the Project’s contribution to climate change is consistent with how the Commission considers the Project’s other effects, including benefits. In today’s order, the Commission fails this test by simultaneously refusing to use the Social Cost of Carbon to monetize the impact of GHG emissions while monetizing the Project’s long-term socioeconomic benefits related to construction and operations from employment, tourism, and local taxes construction, operation and consumption,⁵² as well as the

⁵⁰ Although the Rehearing Order cites revised comments submitted by the EPA, in the original comments submitted in the Commission’s pending review of the natural gas certification process, the EPA recommended a number of tools the Commission can use to quantify the reasonably foreseeable “upstream and downstream GHG emissions associated with a proposed natural gas pipeline.” These include “economic modeling tools” that can aid in determining the “reasonably foreseeable energy market impacts of a proposed project.” U.S. Environmental Protection Agency, Comments, Docket No. PL18-1-000, at 3–4 (filed June 21, 2018) (explaining that the “EPA has emission factors and methods” available to estimate GHG emissions—both net and gross—from activities upstream and downstream of a proposed natural gas pipeline, including the Greenhouse Gas Reporting Program and the U.S. Greenhouse Gas Inventory); see *Certification of New Interstate Natural Gas Facilities*, Notice of Inquiry, 163 FERC ¶ 61,042 (2018).

⁵¹ *High Country Conservation Advocates*, 52 F. Supp. 3d at 1191 (“Even though NEPA does not require a cost-benefit analysis, it was nonetheless arbitrary and capricious to quantify the benefits of the lease modifications and then explain that a similar analysis of the costs was impossible when such an analysis was in fact possible”); see also *Montana Env’tl Info. Ctr.*, 274 F. Supp. 3d at 1095-96.

⁵² Final EIS at 4-181–4-186.

consumption-related benefits of access to lower-cost fuel due to access to new production.⁵³

Ultimately, the Commission claims that it has satisfied its obligation under NEPA to consider the harm caused by the Project's contribution to climate change by providing a qualitative discussion that concludes it cannot accurately assess the impacts of GHG emissions generally. The reality is the Commission has still failed to make an explicit determination of whether the harm associated with the Project's contribution to climate change is significant.⁵⁴ In order to satisfy NEPA, the environmental review documents must both disclose direct and indirect impacts, which can include quantitative and qualitative considerations, and disclose their significance.⁵⁵ To support this directive that NEPA explicitly requires, CEQ regulations expressly outline a framework for determining whether the Project's impacts on the environment will be considered significant—and this CEQ framework requires considerations of both *context* and *intensity*, noting that significance of an action must be analyzed in several contexts.⁵⁶

Today's order makes it abundantly clear that the Commission does not take environmental impacts into account when finding that a proposed project is in the public interest. The Commission cannot legitimately suggest it is fulfilling its obligations under the NGA to “evaluate all factors bearing on the public interest”⁵⁷ while simultaneously

⁵³ Exhibit F-1, Resource Report 5, PennEast submitted a study by Concentric Energy Advisors, *Estimated Energy Market Savings from Additional Pipeline Infrastructure Service Eastern Pennsylvania and New Jersey* (Concentric Study) at tbl. 5.4-6.

⁵⁴ Rehearing Order, 164 FERC ¶ 61,098 at P 121.

⁵⁵ 40 C.F.R. § 1502.16.

⁵⁶ 40 C.F.R. § 1508.27 (setting forth a list of factors agencies should rely on when determining whether a project's environmental impacts are “significant” considering both “context” and “intensity”).

⁵⁷ *Atl. Refining Co. v. Pub. Serv. Comm'n of N.Y.*, 360 U.S. 378, 391 (1959) (Section 7 of the NGA “requires the Commission to evaluate all factors bearing on the public interest.”); *see also Pub. Utils. Comm'n of Cal. v. FERC*, 900 F.2d 269, 281 (D.C. Cir. 1990) (The public interest standard under the NGA includes factors such as the environment and conservation, particularly as decisions concerning the construction, operation, and transportation of natural gas in interstate commerce “necessarily and typically have dramatic natural resource impacts.”).

relying solely on economic factors in its determination. I do not believe the Commission's finding of public interest in this proceeding is a product of reasoned decisionmaking. Moreover, the record is insufficient to demonstrate that the Project is needed or that its potential benefits outweigh the adverse effects inclusive of the environment.

For all of these reasons, I respectfully dissent.

Richard Glick
Commissioner