

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).

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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).

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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.

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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.).

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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).

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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.”).

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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).

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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
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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.

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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").

(continued ...)

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.

(continued ...)

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. Ceadar 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).

(continued ...)

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).

(continued ...)

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.

(continued ...)

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).

(continued ...)

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) (*continued ...*)

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.").

(continued ...)

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.).

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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.

(continued ...)

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).

(continued ...)

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).

(continued ...)

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.

(continued ...)

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 (Curtailement), 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).

(continued ...)

(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).

(continued ...)

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).

(continued ...)

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.

(continued ...)

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.

(continued ...)

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 ($\mu\text{g/L}$) 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.

(continued ...)

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).

(continued ...)

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 reseeded 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.

(continued ...)

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.

(continued ...)

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.

(continued ...)

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.

(continued ...)

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.

(continued ...)

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.

(continued ...)

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).

(continued ...)

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.

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:
a/ Marginal or Moderate Nonattainment for the 2008 8-hour Ozone standard
b/ Maintenance Area for the 1997 and/or 2006 PM_{2.5} Standards
c/ 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.

(continued ...)

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.

(continued ...)

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).

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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).

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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).

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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/fl8/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.

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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).

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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").

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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).

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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 (*continued ...*)

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).

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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 (continued ...)

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

(continued ...)

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).

(continued ...)

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").

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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.