162 FERC ¶ 61,056
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.

Dominion Energy Cove Point LNG, LP Docket No. CP17-15-000

ORDER ISSUING CERTIFICATE

(Issued January 23, 2018)

1. On November 15, 2016, Dominion Energy Cove Point LNG, LP (Cove Point LNG)[1] filed an application, pursuant to section 7(c) of the Natural Gas Act (NGA)[2] and Part 157 of the Commission's regulations,[3] requesting authorization to construct, install, operate, and maintain natural gas compression facilities in Charles County, Maryland, and Loudoun and Fairfax Counties, Virginia (Eastern Market Access Project) to provide up to 294,000 dekatherms per day (Dth/d) of firm transportation service.[4]

2. For the reasons discussed below, the Commission issues the requested certificate, subject to conditions.

I. Background and Proposal

3. Cove Point LNG, a subsidiary of Dominion Resources, Inc., is a limited partnership organized and existing under the laws of Delaware. Cove Point LNG is a

[1] On May 12, 2017, Dominion Cove Point LNG, LP, changed its name to Dominion Energy Cove Point LNG, LP. We use the name Cove Point LNG throughout this order.

[2] 15 U.S.C. § 717f(c) (2012).

[3] 18 C.F.R. pt. 157 (2017).

[4] Cove Point LNG November 15, 2016 Application (Application).

natural gas company as defined by section 2(6) of the NGA, engaged in the transportation of natural gas in interstate commerce.[5] The company owns the Cove Point Liquefied Natural Gas (LNG) Terminal in Calvert County, Maryland, and the 88-mile Cove Point Pipeline (including two compressor stations) that extends west from the terminal to connections with interstate pipelines in Fairfax and Loudoun Counties, Virginia.[6]

Eastern Market Access Project

4. The Eastern Market Access Project would add compression to the Cove Point Pipeline to enable the provision of up to 294,000 Dth/d of incremental firm natural gas transportation service to two shippers, Washington Gas Light Company (WGL) and Mattawoman Energy, LLC (Mattawoman) (collectively, Customers). Specifically, Cove Point LNG proposes to construct a new compressor station, expand an existing compressor station, re-wheel another existing compressor station, and construct two new delivery interconnects.

5. Cove Point LNG proposes to construct the new 24,370-horsepower (hp) Charles Station on Cove Point LNG's existing property in Charles County, Maryland. Charles Station would consist of an 11,150-hp Solar Taurus 70 natural gas turbine compressor unit and a 13,220-hp Solar Mars 90 natural gas turbine compressor unit housed in a new compressor building. Cove Point LNG also proposes to construct an auxiliary building and a drum storage building as well as additional appurtenant and auxiliary equipment.

6. At the existing Loudoun Compressor Station in Loudoun County, Virginia, Cove Point LNG proposes to install one 7,000-hp electric reciprocating compressor unit in a new compressor building. Cove Point LNG also proposes to replace the compression cylinders of the three existing electric reciprocating compressor units, totaling 11,840-hp of compression, and to repurpose these units from backup use to normal operation. Cove Point LNG also proposes to construct a new meter building to enclose existing equipment at the Loudoun Metering and Regulating (M&R) Station, to replace the existing main gas

[5] 15 U.S.C. § 717a(6) (2012).

[6] The original certificate for the construction of these facilities was granted jointly to two entities, Columbia LNG Corporation and Consolidated System LNG Company. Opinion No. 662, 47 FPC 1624, *aff'd and modified,* Opinion No. 622-A, 48 FPC 723 (1972). In 2002, Dominion Resources, Inc. acquired the equity shares of the companies that owned the Cove Point LNG Terminal and Cove Point Pipeline and renamed the company Dominion Cove Point LNG, LP. On May 12, 2017, Dominion Cove Point LNG, LP, changed its name to Dominion Energy Cove Point LNG, LP.

discharge pipe with 30-inch-diameter pipe, and to install additional appurtenant and auxiliary equipment.

7. At the existing Pleasant Valley Compressor Station in Fairfax County, Virginia, Cove Point LNG proposes to re-wheel one existing 17,400-hp electric reciprocating unit and to upgrade two gas coolers.

8. Cove Point LNG also proposes to construct the WGL Interconnect in Charles County, Maryland, consisting of two new delivery taps for customer delivery, one on the main Cove Point Pipeline (TL-522) and one on the looped pipeline (TL-532).[7]

9. The estimated total cost of the project is $147,328,290.

10. Cove Point LNG conducted open seasons in July 2015 and July 2016. As a result of the first open season, Mattawoman subscribed to 140,000 Dth/d of firm transportation service for a primary term of 20 years and WGL subscribed to 150,000 Dth/d of firm transportation service for a primary term of 25 years. During the July 2016 open season, Mattawoman increased its subscribed service by 4,000 Dth/d to 144,000 Dth/d, bringing the total service subscribed to 294,000 Dth/d. WGL is a local distribution company serving Washington, DC, and the surrounding region. Mattawoman is planning to build a 990-megawatt combined-cycle gas-fired generating station, the Mattawoman Energy Center, in Prince George's County, Maryland, approximately nine miles from the Cove Point Pipeline. Cove Point LNG also solicited turnback capacity in both the 2015 and 2016 open seasons, but received no bids.

11. Cove Point LNG will provide firm transportation service made possible by the Eastern Market Access Project under the terms and conditions of Cove Point LNG's existing Rate Schedule FTS. The primary receipt points for service to Mattawoman will be at the existing Loudoun Interconnects with Columbia Gas Transmission, LLC (Columbia), and Dominion Transmission, Inc. (Dominion), in Loudoun County, Virginia, and at the existing Pleasant Valley Interconnect with Transcontinental Gas Pipe Line Company, LLC (Transco), in Fairfax, Virginia. The primary delivery point will be at an

[7] In 2006 the Commission authorized Dominion Cove Point LNG, LP, to add approximately 48 miles of 36-inch-diameter pipeline loop (TL-532) to the 88-mile Cove Point Pipeline (TL-522). *Dominion Cove Point LNG, LP*, 115 FERC ¶ 61,337 (2006), *order on reh'g*, 118 FERC ¶ 61,007 (2007); *partially vacated and remanded sub nom. Wash. Gas Light Co. v. FERC*, 532 F.3d 928 (D.C. Cir. 2008); *order on remand*, 125 FERC ¶ 61,018 (2008), *order on reh'g and clarification*, 126 FERC ¶ 61,036 (2009), *pet. for review den. sub nom. Wash. Gas Light Co. v. FERC*, 603 F.3d 55 (D.C. Cir. 2010).

existing interconnect in Charles County, Maryland.[8] The primary receipt points for service to WGL also include the existing Loudoun Interconnects with Columbia and the existing Pleasant Valley Interconnect with Transco. The primary delivery points will be at the existing Patuxent Interconnect in Calvert County, the existing Gardiner Road Interconnect in Charles County, Maryland, and the new WGL Interconnect adjacent to the existing Gardiner Road facility.

12. Cove Point LNG proposes initial incremental recourse reservation and usage charges for service using capacity created by the project facilities. Cove Point LNG also proposes to apply all other applicable rates, charges and surcharges under existing Rate Schedule FTS, such as fuel retainage percentages, Transmission Electric Power Cost Adjustment (EPCA) charges, and Annual Charge Adjustments. As discussed more fully below, Cove Point LNG expects that new tariff provisions will be necessary for fuel and electricity consumption related to the project's additional compression.[9]

II. Procedural Issues

Notice and Intervention

13. Notice of Cove Point LNG's application in Docket No. CP17-15-000 was published in the *Federal Register* on December 6, 2016.[10] Timely motions to intervene were filed by Accokeek, Mattawoman, Piscataway Creeks Communities Council, Inc. (the Council); Atlanta Gas Light Company; Kelly Canavan; Natalie C. Pien; Edward G. Powell; PSEG Energy Resources & Trade LLC; Public Service Company of North Carolina; Statoil Natural Gas LLC; Virginia Natural Gas, Inc.; and Washington Gas Light Company. Timely, unopposed motions to intervene are granted automatically pursuant to Rule 214 of the Commission's Rules of Practice and Procedure.[11]

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[8] Cove Point LNG states that it installed delivery taps for Mattawoman on the TL-522 mainline and TL-532 looped pipeline in September 2016 under its blanket certificate authorization. Application at 8 n.11. Cove Point LNG states that it installed the taps to provide interruptible service for Mattawoman. *Id*. If the Eastern Market Access Project is authorized, Cove Point LNG will use the taps for firm transportation services. *Id.*

[9] Cove Point LNG will separately present those tariff revisions in an NGA section 4 filing prior to in-service.

[10] 81 Fed. Reg. 87,921. The notice established a deadline to request intervention by December 21, 2016.

[11] 18 C.F.R. § 385.214(c) (2017).

14. Untimely motions to intervene were filed by Marcy and Richard Canavan, George Garner, Jr., Joshua Kauffman, Paul and Barbara Livingston, the Moyaone Association, Panda Power Funds, LP,[12] Deborah Purcell, and Jasmine Waring. We will grant these late motions to intervene.[13]

III. Discussion

15. Because the proposed facilities will be used to transport natural gas in interstate commerce, subject to the jurisdiction of the Commission, the construction and operation of the facilities are subject to the requirements of subsections (c) and (e) of section 7 of the NGA.[14]

A. Certificate Policy Statement

16. The Certificate Policy Statement provides guidance for evaluating proposals to certificate new pipeline 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 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 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 route of the new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, the Commission will evaluate the project

[12] Panda Power Funds, LP, owns Mattawoman.

[13] 18 C.F.R. § 385.214(d) (2017).

[14] 15 U.S.C. § 717f(c), (e) (2012).

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

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 the Commission proceed to consideration of the environmental analysis where other interests are examined.

18. As stated above, the threshold requirement for pipelines proposing new projects is that the applicant must be prepared to financially support the project without relying on subsidization from its existing customers. Here, Cove Point LNG proposes to recover the costs for the project by establishing incremental firm reservation and usage charges as the recourse charges for project service. The incremental charges exceed Cove Point LNG's existing system charges. Under these circumstances, we find that there will be no subsidization of the project by existing shippers.

19. The Eastern Market Access Project will enable Cove Point LNG to provide an additional 294,000 Dth/d of firm natural gas transportation service on its system from multiple receipt points to existing and proposed delivery points to serve Mattawoman and WGL. The proposed project has been designed to enable provision of the additional service while maintaining existing services. Further, there is no allegation or evidence that the proposed project will adversely affect any other pipelines or their customers. Thus, we find that there will be no adverse impact on existing customers or other existing pipelines and their captive customers.

20. For purposes of our consideration under the Certificate Policy Statement, we find that Cove Point LNG has taken sufficient steps to minimize adverse impacts on landowners and surrounding communities. The project facilities will be on property that is either owned by Cove Point LNG, is subject to a property interest held by Cove Point LNG, or currently supports natural gas facilities. No new pipeline right-of-way will be required.

21. We find that the benefits that the Eastern Market Access Project will provide to the market outweigh any adverse economic effects on existing shippers, other pipelines and their captive customers, and on landowners and surrounding communities. Consistent with the criteria discussed in the Certificate Policy Statement and subject to the environmental discussion below, we find that the public convenience and necessity requires approval of Cove Point LNG's proposal, as conditioned in this order.

B. Rates

22. Cove Point LNG proposes incremental recourse reservation and usage charges for firm transportation service using capacity created by the project facilities. Specifically, Cove Point LNG proposes a $7.8452 per Dth monthly reservation charge based on an

annual cost of service of $27,677,994[16] and annual billing determinants of 3,528,000 Dth. Cove Point LNG also proposes a $0.0256 per Dth usage charge based on $1,511,720 in variable costs and 59,020,500 Dth of annual throughput.[17] Converting rate components into a 100 percent load factor rate (the sum of the daily reservation charge and the usage charge) equates to $0.2835. In addition, Cove Point LNG states that it will charge all other applicable rates, charges, and surcharges under Rate Schedule FTS.

23. The Tax Cuts and Jobs Act of 2017 changed several provisions of the federal tax code, effective January 1, 2018, including reducing the federal corporate income tax rate from 35 percent to 21 percent.[18] These changes impact Cove Point LNG's proposed cost of service and the resulting initial incremental recourse rate for the project. Therefore, we direct Cove Point LNG to calculate its initial recourse rates consistent with the new 2018 federal corporate tax law when Cove Point LNG files actual tariff records. In order to ensure compliance with this directive, we also require Cove Point LNG to provide supporting work papers in electronic spreadsheet format, including formulas. However, as discussed below, the Commission does not believe the changes will alter the Commission's approval of an incremental rate as the initial recourse rate for the project.

24. Cove Point LNG's proposed 100 percent load factor incremental rate of $0.2835 per Dth is higher than its current Rate Schedule FTS 100 percent load factor rate of $0.0144 per Dth.[19] Under the Certificate Policy Statement, there is a presumption that incremental rates should be charged for proposed expansion capacity if the incremental rate will exceed the maximum system recourse rate.[20] Because Cove Point LNG's proposed recourse incremental 100 percent load factor rate is significantly higher than the currently applicable 100 percent load factor Rate Schedule FTS rate, it appears that changing the cost of service to reflect the currently applicable federal corporate income

[16] The proposed cost of service is based on cost-of-service factors including Cove Point LNG's system depreciation rate of 2.82 percent approved in its latest general rate case settlement in Docket No. RP11-2137. *Dominion Cove Point LNG, LP*, 140 FERC ¶ 61,013 (2012) (Letter Order Approving Uncontested Settlement).

[17] Cove Point LNG applied a 55-percent-usage load factor to the project's design throughput based on customers' weighted historical and expected usage.

[18] Pub. L. No. 115-97, § 13001, 131 Stat. 2054, 2096 (2017).

[19] Dominion Cove Point LNG, LP; FERC NGA Gas Tariff; DCP_DATABASE, Tariff Record No. 10.20, FTS OTS ITS Rates, 0.0.0

[20] Certificate Policy Statement, 88 FERC ¶ 61,227 at 61,745.

tax rate will not render the incremental rate lower than the existing system rate. Therefore, the Commission will approve the proposed incremental reservation and usage charges as initial recourse charges for the project, subject to Cove Point LNG revising those charges as directed above.

25. Cove Point LNG asserts that to allocate the fuel and electric costs that will be incurred as a result of compression proposed under this project, Cove Point LNG must change its tariff provisions concerning fuel retainage and the Transmission Electric Power Cost Adjustment (EPCA). Cove Point LNG also states that because the changes to the tariff provisions will affect both expansion shippers and existing shippers on Cove Point LNG's system, the changes would be properly addressed in a limited rate proceeding under section 4 of the Natural Gas Act rather than in this certificate proceeding. Cove Point LNG plans to propose the changes to the fuel retainage and EPCA mechanisms in a tariff filing to be made thirty to sixty days before the project's in-service date.[21] Cove Point LNG affirms that it will propose to recover incremental fuel and electric consumption related to the project only from project customers. Accordingly, the Commission directs Cove Point LNG to make a tariff filing to change its fuel retainage and EPCA mechanisms not less than thirty days and not more than sixty days before the project's in-service date.

26. Section 154.309 of the Commission's regulations includes bookkeeping and accounting requirements applicable to all expansions for which incremental rates are charged. The requirements ensure that costs are properly allocated between pipelines' existing shippers and incremental expansion shippers.[22] Therefore, Cove Point LNG must keep separate books and accounting of costs and revenues attributable to the project, as required by section 154.309 of the Commission's regulations. The books should be maintained with applicable cross-references as required by section 154.309. This information must be in sufficient detail so that the data can be identified in Statements G, I, and J in any future NGA section 4 or 5 rate case, and the information must be provided consistent with Order No. 710.[23]

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[21] *See, e.g., Dominion Transmission, Inc.*, 135 FERC ¶ 61,239, at P 34 (2011), *Dominion Cove Point LNG, LP*, 148 FERC ¶ 61,244 (2014), and *Dominion Cove Point LNG, LP*, 153 FERC ¶ 61,074 (2015).

[22] 18 C.F.R. § 154.309 (2017).

[23] *Revisions to Forms, Statements, and Reporting Requirements for Natural Gas Pipelines*, Order No. 710, FERC Stats. & Regs. ¶ 31,267, at P 23 (2008) (cross-referenced at 122 FERC ¶ 61,262).

C. Environmental Analysis

27. On February 15, 2017, Commission staff began its environmental review of the Eastern Market Access Project by issuing a *Notice of Intent to Prepare an Environmental Assessment for the Proposed Eastern Market Access Project, Request for Comments on Environmental Issues and Notice of Public Scoping Session* (NOI). The NOI was published in the Federal Register on February 22, 2017,[24] and was mailed to interested stakeholders including federal, state, and local officials; agency representatives; environmental and public interest groups; Native American tribes; local libraries and newspapers; and affected property owners (landowners within 0.5 mile of the proposed aboveground facilities).

28. We received 365 comments in response to the notice of Cove Point LNG's application and the NOI. Commenters included 2 federal agencies, 5 local agencies, 4 state agencies, 3 non-governmental organizations, 20 companies (including 12 Chambers of Commerce), and 331 individuals. Of the 331 individual comments, 120 expressed support for the project and 211 were in opposition.

29. On March 2, 2017, Commission staff conducted a public scoping meeting in Waldorf, Maryland, to provide the public with an opportunity to learn more about the project and comment on environmental issues that should be addressed in the Environmental Assessment (EA). In total, 14 individuals provided oral comments on the project at the Commission's scoping session. A transcript of the scoping session was entered into the public record in Docket No. CP17-15-000 on April 6, 2017.

30. The primary issues raised during the scoping process included the segmentation of related projects; permitting of non-jurisdictional facilities; the need for an environmental impact statement (EIS); alternatives; and direct or cumulative impacts on geology and soils, wetlands and water resources, wildlife and vegetation, cultural resources, land use and zoning, visual resources, property values, air quality and noise, public safety, and environmental justice communities.

31. To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA),[25] Commission staff prepared an EA for Cove Point LNG's proposal. The EA was placed into the public record on June 27, 2017, and was noticed in the *Federal Register* on July 3, 2017,[26] opening a 30-day comment period. The analysis in the EA addresses geology; soils; water resources and wetlands; vegetation, wildlife, and

[24] 82 Fed. Reg. 11,353 (Feb. 22, 2017).

[25] 42 U.S.C. §§ 4321–4370f (2012).

[26] *Notice of Availability of the Environmental Assessment for the Proposed Eastern Market Access Project*, 82 Fed. Reg. 30,851 (July 3, 2017).

threatened and endangered species; cultural resources; land use, recreation, and visual resources; socioeconomics; air quality and noise; reliability and safety; and cumulative impacts. All substantive comments received in response to the NOI and raised during the scoping process were addressed in the EA. Based on the analysis in the EA, Commission staff determined that if Cove Point LNG constructs and operates the proposed facilities in accordance with its application, its supplements, and Commission staff's recommended mitigation measures, approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

32. The Commission received comments on the EA from the Council; the Moyaone Association; the U.S. Environmental Protection Agency (EPA); the Virginia Department of Environmental Quality and Virginia Department of Conservation and Recreation; and 288 individuals (of whom 18 oppose the project). The primary issues raised in comments on the EA include procedural matters; segmentation; the need for an EIS; the purpose and need for the project; alternatives; direct impacts on geology, wetlands and water resources, vegetation, wildlife and aquatic species, cultural resources, land use, recreation, visual resources, socioeconomics, air quality and noise, and safety; and cumulative impacts.

1. Procedural Matters

33. Theresa Lazar requests that the Commission extend the comment period on the EA because Cove Point LNG did not provide sufficient public notice of the project. We disagree. Ms. Lazar was on the Commission staff's mailing list for both the NOI and the EA. Cove Point LNG satisfied and went beyond the Commission's public notice regulations, which require that applicants notify in writing all landowners within a 0.5-mile radius of a proposed compressor station and publish a notice twice in a daily or weekly newspaper of general circulation in each county in which the project is located.[27] Cove Point LNG implemented a Stakeholder Involvement and Public Outreach Plan under which Cove Point LNG held public open houses in Charles County, Maryland, and Loudoun County, Virginia; mailed letters to landowners within 1 mile of the Charles Station and Loudoun Compressor Station; and held meetings with elected officials in Charles and Prince George's Counties, Maryland, and Fairfax and Loudoun Counties, Virginia.[28] We find that Cove Point LNG has provided adequate notice of the project and that extending the EA comment period is not warranted.

[27] 18 C.F.R. § 157.6(d)(2) (2017).

[28] Application, app. 1-b at 2-5.

34. Senator Chris Van Hollen wrote to the Commission forwarding a letter from Gregory Waring who requests that the Commission postpone further action or decision on the Eastern Market Access Project until the Charles County Board of Appeals holds a final public hearing about the zoning of the proposed Charles Station. . While the Commission encourages cooperation between interstate pipelines and local authorities, state and local agencies may not prohibit or unreasonably delay, through application of state or local laws, the construction or operation of facilities approved by this Commission.[29]

35. Joshua Kauffman requests an injunction, a delay of project construction, and a formal investigation by Commission staff, alleging that Cove Point LNG submitted false information to the Commission.[30] Mr. Kauffman offers no support for his claims except to cite other comments that make similar unsupported allegations.[31] Lacking evidence, we see no basis on which to issue a stay of construction or to refer the matter to Commission staff for investigation.

2. Segmentation

36. Several commenters assert that that the Eastern Market Access Project and several other NGA-jurisdictional and nonjurisdictional projects are connected actions that must be considered together in the same environmental document. As defined by the Council on Environmental Quality (CEQ) regulations, connected actions include actions that (1) automatically trigger other actions that may require an EIS; (2) cannot or will not proceed unless other actions are taken previously or simultaneously; or (3) are interdependent parts of a larger action and depend on the larger action for their justification.[32]

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[29] *See* 15 U.S.C. § 717r(d) (2012) (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).

[30] Joshua Kauffman July 27, 2017 Comments on the EA at 2-3.

[31] *Id.* (citing Judith Allen-Levanthal July 18, 2017 Comments on the EA at 1, and Theresa Lazar July 13, 2017 Comments on the EA at 1).

[32] 40 C.F.R. § 1508.25(a)(1)-(3) (2017).

a. NGA-Jurisdictional Projects

37. Commenters assert that the Eastern Market Access Project is a connected action with three NGA-jurisdictional projects: the Leidy South Project, the Cove Point LNG Terminal, and the Atlantic Sunrise Project. We conclude that the EA appropriately analyzes the Eastern Market Access Project as a discrete project.

i. The Leidy South Project

38. Commenters assert that Cove Point LNG knew, and the Commission should have known, that both the approved Leidy South Project[33] and the proposed Eastern Market Access Project must function together to deliver gas to their common shipper, Mattawoman's proposed gas-fired generating facility, the Mattawoman Energy Center. The proceedings for the approved Leidy South Project and the proposed Eastern Market Access Project have followed staggered timelines about one year apart. Dominion Transmission[34] filed its application for the Leidy South Project on May 15, 2015. Under the Leidy South Project, Dominion Transmission modified compressor stations on its existing pipeline system to create 155,000 Dth/d of incremental transportation capacity. The Commission issued a certificate authorizing the project on August 29, 2016.[35] The project went into service on September 27, 2017.[36] As noted above, Cove Point LNG filed its application for the Eastern Market Access Project on November 11, 2016. This project would increase compression on the existing Cove Point LNG pipeline system to create 294,000 Dth/d of incremental transportation capacity. The Commission began its environmental review process for Cove Point LNG's project on February 15, 2017. We are issuing our certificate in January 2018. Cove Point LNG anticipates an in-service date of September 1, 2018.

39. The maps below indicate the locations of each project's new or modified compression facilities. The Leidy South Project facilities align north-south from central Pennsylvania into northern Virginia. The Eastern Market Access Project facilities align northwest-southeast from northern Virginia into southern Maryland. The only facilities

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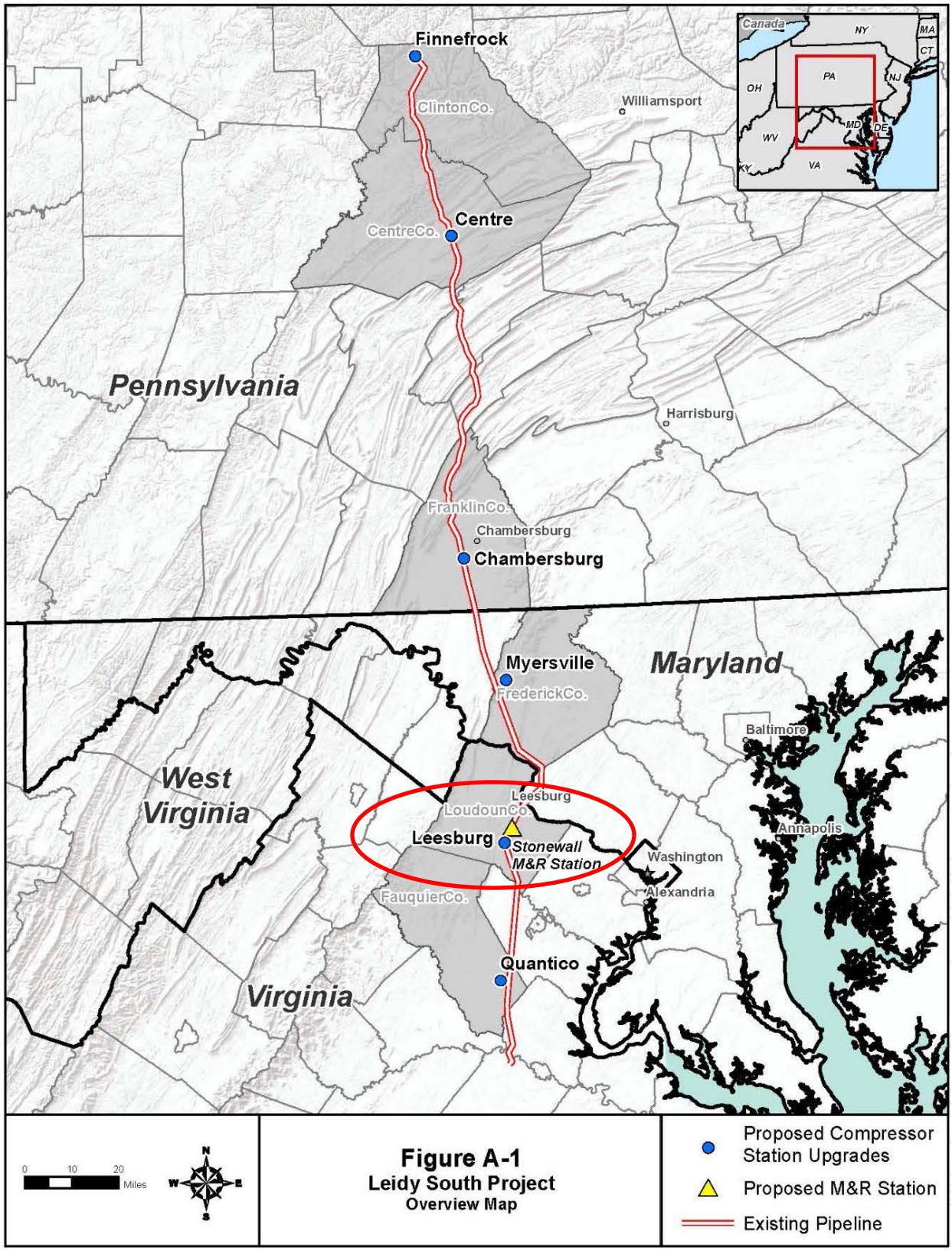
[33] *Dominion Transmission, Inc.*, 156 FERC ¶ 61,140 (2016) (Docket No. CP15-492-000), *order denying reh'g*, 158 FERC ¶ 61,029 (2017) (Docket No. CP15-492-001).

[34] Dominion Transmission, Inc., is a separate subsidiary of the same parent company as Cove Point LNG.

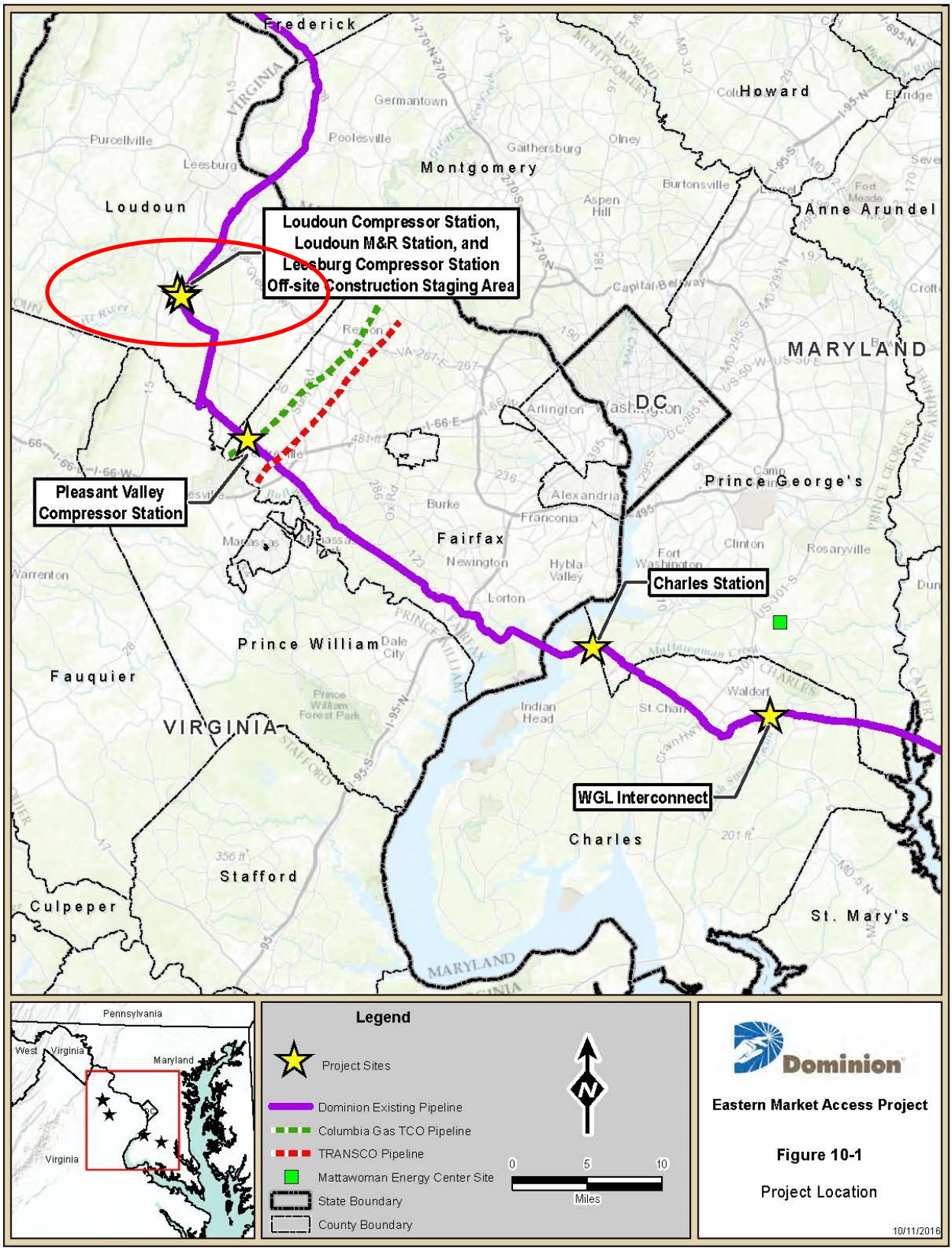
[35] Dominion Transmission, Inc., Application, Docket No. CP15-492-000, at 4-5 (filed May 15, 2015); *Dominion Transmission, Inc.*, 156 FERC ¶ 61,140 at P 5 (issuing certificate), *order denying reh'g*, 158 FERC ¶ 61,029.

[36] Dominion Energy Transmission, Inc., Docket No. CP15-492-000 (Sept. 27, 2017) (delegated letter order).

sited in close proximity are Dominion Transmission's Leesburg Compressor Station, modified by the Leidy South Project, and Cove Point LNG's Loudoun Compressor Station, to be modified by the Eastern Market Access Project, both in Loudoun County, VA.



FERC March 31, 2016 Leidy South Project Environmental Assessment at 5, fig. A-1 (filed in Docket No. CP15-492-000).



Cove Point LNG Application, Res. Report 10 at 10-13 fig.10-1.

40. The Leidy South and Eastern Market Access Projects do not meet any of three criteria for a "connected action" in section 1508.25 of the CEQ regulations.[37] First, the Leidy South Project did not automatically trigger the Eastern Market Access Project as another action that may require an EIS. The Commission made an independent determination under section 7 of the NGA whether each proposed natural gas transportation project is or will be required by the present or future public convenience and necessity, as interpreted in the Commission's Certificate Policy Statement. The Commission found a need for the Leidy South Project as a stand-alone project.[38]

41. Specifically, Dominion Transmission had executed precedent agreements in April 2014 with three electric power generators, one of which is Mattawoman, which fully subscribed the Leidy South Project's 155,000 Dth/d of firm transportation service capability for a 20-year primary term. At that time the proceedings to approve the Mattawoman Energy Center and the Eastern Market Access Project were inchoate or nonexistent.[39] Dominion Transmission acknowledged in its application that the Mattawoman Energy Center, if built, would ultimately be served via Cove Point LNG's pipeline. However, Dominion Transmission emphasized that the Leidy South Project was not dependent on whether Mattawoman contracted for any further transportation or succeeded in developing its proposed power plant because Mattawoman had contracted with an asset manager to realize the other value and uses of its contracted Leidy South

[37] 40 C.F.R. § 1508.25(a)(1)-(3) (2017).

[38] *See Dominion Transmission, Inc.*, 156 FERC ¶ 61,140 at PP 5, 16 (noting that Dominion Transmission executed precedent agreements for 100 percent of the project's capacity for 20 year terms with Panda Stonewall, LLC, for 55,000 Dth/d; Virginia Power Services Energy Corp., Inc., for 45,000 Dth/d; and Mattawoman Energy, LLC, for 55,000 Dth/d).

[39] The Maryland Public Service Commission had suspended its procedural schedule of review for the Mattawoman Energy Center. *See Mattawoman Energy, LLC*, Public Utility Law Judge's Notice of Suspended Procedural Schedule, Case No. 9330 (Md.P.S.C. filed Feb. 19, 2014). The Maryland Public Service Commission ultimately issued the certificate for the Mattawoman Energy Center on October 13, 2015. *Mattawoman Energy, LLC*, Order No. 87243, Case No. 9330 (Md.P.S.C. Oct. 13, 2015) (final on Nov. 13, 2015). Cove Point LNG filed its application for the Eastern Market Access Project on November 11, 2016.

Project capacity.[40] This is underscored by the fact that because the Leidy South Project went into service in September 2017, Mattawoman obligated itself to make reservation payments for capacity on that project for at least one year before the Eastern Market Access Project is anticipated to go into service in September 2018 offering a firm delivery path to the Mattawoman Energy Center. In the interim, Mattawoman's volumes can be delivered to other points along the Dominion Transmission system before reaching the interconnection with the Cove Point Pipeline; can be delivered along the Cove Point Pipeline to other existing interconnections, like those with Transco and Columbia; or can be delivered to the Mattawoman Energy Center through interruptible service or an arrangement with a third party. Mattawoman's 20-year economic commitment reflects the company's confidence in the independent value of its capacity on the Leidy South Project. Thus, nothing in the Commission's decision to approve the Leidy South Project was tied to or in any way anticipated the later-proposed Eastern Market Access Project.[41]

42. The second "connected action" criterion also is not met as the Eastern Market Access Project could proceed regardless whether the Leidy South Project was undertaken previously or simultaneously. We acknowledge that Mattawoman entered contracts for capacity on both the Leidy South Project and the Eastern Market Access Project to facilitate deliveries to the Mattawoman Energy Center. However, Mattawoman's contracted capacity on the Leidy South Project represents only a portion of the demand that will be satisfied by the two projects, as demonstrated by the tables below.

[40] Dominion Transmission, Inc., Abbreviated Application for Certificate of Public Convenience and Necessity for Leidy South Project at 4 n.6, Docket No. CP15-492-000 (May 15, 2015).

[41] *Dominion Transmission, Inc.*, 156 FERC ¶ 61,140 at P 16 (finding that the public convenience and necessity requires approval of the Leidy South Project).

Table 1.1 – Leidy South Project			
Shipper	Receipt Point	Capacity (total 155,000 Dth/d))	Delivery Points
Panda Stonewall, LLC	Leidy Interconnection[42] with Transcontinental Gas Pipe Line Co., Clinton County, PA	55,000 (35% of total)	New meter station in Loudoun County, VA
Virginia Power Services Energy Corp., Inc.		45,000 (30% of total)	*Loudoun Interconnection with the Cove Point Pipeline, Loudoun County, VA*
Mattawoman Energy, LLC		*55,000 (35% of total)*	

Table 1.2 – Eastern Market Access Project			
Shipper	Receipt Points	Capacity (total 294,000 Dth/d))	Delivery Points
Washington Gas Light Company	Pleasant Valley Interconnection with Transcontinental Gas Pipe Line Co., Fairfax County, VA	100,000 (34% of total)	One new and two existing interconnections in Calvert and Charles Counties, MD (126,000, 14,000, and 10,000, respectively).
	Loudoun Interconnection with Columbia Gas Transmission, LLC, Loudoun County, VA	50,000 Dth/d) (17% of total)	
Mattawoman Energy, LLC	Pleasant Valley Interconnection with Transcontinental Gas Pipe Line Co., Fairfax County, VA	4,000 (1% of total)	Mattawoman Interconnection, Charles County, MD (150,000 Dth/d)
	Loudoun Interconnection with Columbia Gas Transmission, LLC, Loudoun County, VA	70,000 (23% of total)	
	Loudoun Interconnection with Dominion Transmission, Loudoun County, VA	*70,000 (23% of total)*	

43. The Eastern Market Access Project would carry 144,000 Dth/d on behalf of Mattawoman to the Mattawoman Energy Center. The Leidy South Project carries 55,000 Dth/d on behalf of Mattawoman. This 55,000 Dth/d, if ultimately passed through for delivery to the Mattawoman Energy Center, would represent only 38 percent of the capacity on the Eastern Market Access Project subscribed by Mattawoman. Taking a broader perspective, the 55,000 Dth/d would represent 19 percent of the total capacity on the Eastern Market Access Project subscribed by both Mattawoman and by WGL. All other gas, equivalent to 81 percent of the Eastern Market Access Project's total capacity,

[42] The Leidy Hub connects the pipeline systems of Dominion Transmission; National Fuel Gas Supply Corporation; Texas Eastern Transmission, LP; Transco; and Tennessee Gas Pipeline Company.

would arrive from other paths. Given the limited nexus of the projects, we conclude that the Eastern Market Access Project would proceed regardless whether the Leidy South Project was undertaken previously or simultaneously.

44. With respect to the third "connected action" criterion, the Leidy South Project and the Eastern Market Access Project are not interdependent parts of a larger action and do not depend on any larger action for their justification. In evaluating whether multiple actions are connected, courts have employed a "substantial independent utility" test. The test asks "whether one project will serve a significant purpose even if a second related project is not built."[43] For proposals that connect to or build upon an existing infrastructure network, this standard distinguishes between those proposals that are separately useful and those that are not. While the analogy between the two is not always apt,[44] here, similar to a highway network, "it is inherent in the very concept of" the interstate pipeline network "that each segment will facilitate movement in many others; if such mutual benefits compelled aggregation, no project could be said to enjoy independent utility."[45]

45. In *Delaware Riverkeeper Network v. FERC*, the court ruled that individual pipeline proposals were interdependent parts of a larger action where four pipeline projects, when taken together, would result in "a single pipeline" that was "linear and physically interdependent" and where those projects were financially interdependent.[46] The court put a particular emphasis on the four projects' timing, noting that when the Commission reviewed one of the four projects, the other projects were either under construction or pending before the Commission.[47] In a later case, the same court indicated that in considering a pipeline application, the Commission need not jointly

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[43] *Coal. on Sensible Transp., Inc. v. Dole*, 826 F.2d 60, 69 (D.C. Cir. 1987) (*Coal. on Sensible Transp., Inc.*); s*ee also O'Reilly v. U.S. Army Corps of Eng'rs*, 477 F.3d 225, 237 (5th Cir. 2007) (defining independent utility as whether one project "can stand alone without requiring construction of the other [project] either in terms of the facilities required or of profitability").

[44] *See e.g. Delaware Riverkeeper Network v. FERC*, 753 F.3d 1304, 1316 (D.C. Cir. 2014) (Delaware Riverkeeper Network) (finding four pipeline projects that created a single linear pipeline with no physical offshoots not akin to a highway network).

[45] *Coal. on Sensible Transp., Inc.*, 826 F.2d at 69.

[46] *Delaware Riverkeeper Network*, 753 F.3d at 1314.

[47] *Id.*

consider projects that are unrelated and do not depend on each other for their justification.[48]

46. There is no indication that the Leidy South Project or the Eastern Market Access Project require the other project's facilities to fulfill their authorized purposes. Unlike the proposals before the Commission in *Delaware Riverkeeper Network* where a single pipeline company created incremental transportation capacity on its pipeline by installing a series of pipeline loops which the court found each "fit with the others like puzzle pieces to complete an entirely new pipeline,"[49] here separate companies proposed to create incremental transportation capacity on their separate pipeline systems by adding compression.[50] Neither project requires compression from the other to move gas along or onto their respective pipelines. Moreover, the Eastern Market Access project will receive natural gas from other interstate pipeline systems (e.g., interconnections with Transco and Columbia) and Cove Point LNG's customers will not rely on the Leidy South Project as a pre-requisite to their use of contracted capacity on the Eastern Market Access Project.

47. We note that the Leidy South project was nonetheless identified in the 2017 EA among the past, present, or reasonably foreseeable future actions with environmental impacts in the same vicinity and time frame as the environmental impacts that will arise from the Eastern Market Access Project.[51] Because the compressor stations for both projects are spaced many miles apart, only the Leidy South Project's Leesburg Compressor Station in Loudoun County, Virginia, is located close enough to any Eastern Market Access Project facilities to potentially result in a cumulative impact to air quality.[52] The EA explains that operational emissions from the Leidy South Project's

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[48] *See Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1326 (D.C. Cir. 2015) (*Myersville*) (Court approved FERC's determination that, although a Dominion-owned pipeline project's excess capacity may be used to move gas to Cove Point LNG's terminal for export, the projects are "unrelated" for purposes of NEPA).

[49] *Delaware Riverkeeper Network*, 753 F.3d at 1319.

[50] A compressor "boosts the system pressure along pipelines in order to maintain required flow rates." *Myersville*, 783 F.3d at 1312.

[51] EA at 71 (noting that the remainder of the Leidy South Project facilities are compressor station modifications in Pennsylvania and in Frederick County, Maryland); *see also* 40 C.F.R. § 1508.7 (2017) (defining "cumulative impacts").

[52] EA at 76* (Section B(10.5) Cumulative Impacts: Air Quality). By mistake the pages in the EA are numbered 1 through 78, then 75 through 80, then 75 through 93. So page numbers 75 through 78 appear three times and page numbers 79 and 80 appear

added electricity-driven compressor at the Leesburg Compressor Station are limited to negligible fugitive emissions of transported natural gas.[53] The EA also explains that only minor, temporary impacts to air quality would result from the Eastern Market Access Project's added or replaced electricity-driven compression equipment at the Loudoun Compressor Station from similar fugitive emissions.[54]

48. Also, unlike the projects at issue in *Delaware Riverkeeper Network*, these two projects, each owned by separate companies, are financially independent. There has been no evidence presented that Dominion Transmission's Leidy South Project resulted in later inexpensive expansion on Cove Point LNG's Cove Point Pipeline.

49. Given the foregoing, we conclude that the approved Leidy South Project and the proposed Eastern Market Access Project are not connected actions as that term is defined under section 1508.25 of the CEQ regulations.[55]

ii. The Cove Point LNG Terminal

50. Commenters also assert that the Eastern Market Access Project will benefit the Dominion Cove Point LNG Export Terminal Project because gas travelling to the terminal will pass through the proposed infrastructure and could not reach the terminal without the Eastern Market Access Project's added compression.

51. The Eastern Market Access Project has not been proposed to deliver gas to the Cove Point LNG terminal or to facilitate the export of natural gas. The Eastern Market Access Project's entire incremental capacity has been subscribed under 20- and 25-year contracts to transport gas to discrete delivery points along the Dominion Cove Point Pipeline that do not include the ultimate downstream Cove Point LNG Terminal. Moreover, there is no evidence in the record that even suggests that the compression

twice. For these page numbers, a single asterisk indicates the first duplicate and a double asterisk indicates a second duplicate:e.g., pages 75, 75*, and 75**.

[53] *Id.*

[54] *Id.* The EA explains that there would be no long-term operational air quality impacts associated with the Loudoun Compressor Station. *Id.*

[55] 40 C.F.R. § 1508.25(a) (2017)

added through the Eastern Market Access Project is needed to support the export of liquefied natural gas at the Cove Point terminal.[56]

iii. The Atlantic Sunrise Project

52. Last, Kelly Canavan asserts that the needs of shipper WGL could not be satisfied without the Atlantic Sunrise Project,[57] arguing that the producer Cabot Oil & Gas Corporation has subscribed to 500,000 million BTU per day of firm transportation service on the Atlantic Sunrise Project to serve WGL.

53. Ms. Canavan offers no evidence, and we find none in the record, that the Atlantic Sunrise Project and Eastern Market Access Project are dependent on each other. Cabot Oil & Gas Corporation did indeed enter a precedent agreement for 850,000 Dth/d of firm transportation service on the Atlantic Sunrise Project facilities to delivery points on Transco's mainline in Lancaster County, Pennsylvania, and on Dominion Transmission's pipeline in Fairfax County, Virginia, but is not a customer on the Eastern Market Access Project. Whether Cabot Oil & Gas Corporation has entered an agreement to supply natural gas to WGL is immaterial. Presumably, WGL can and will contract with multiple producers for the supply of natural gas needed to serve WGL's own customer demand. Given the absence of any evidence that these two projects are functionally interdependent, we conclude that they are not connected actions.

3. The Mattawoman Energy Center and other generating facilities

54. Several commenters also assert that the Eastern Market Access Project is a connected action with the Mattawoman Energy Center and other generating facilities in the area, specifically the Panda Stonewall Power Project, the Brandywine Power Project, St. Charles Energy Center, and the Keys Energy Center.

55. CEQ's requirement that an agency consider connected actions in a single environmental document is "to prevent the government from 'segmenting' its *own* federal actions into separate projects and thereby failing to address the true scope and impact of

[56] *See Myersville*, 783 F.3d at 1313-1314, 1326 (rejecting petitioner's segmentation argument and affirming FERC's determination that, although a Dominion-owned pipeline project's excess capacity may be used to move gas to the Cove Point LNG Terminal for export, the projects are not connected actions under NEPA).

[57] *Transcontinental Gas Pipe Line Co., LLC*, 158 FERC ¶ 61,125, *order amending certificate*, 159 FERC ¶ 62,181, *order denying stay*, 160 FERC ¶ 61,042 (2017).

the activities that should be under consideration."[58] As the court has explained, the connected action regulation "does not dictate that NEPA review encompass private activity."[59] Thus, while agencies may not conduct separate NEPA reviews of pieces of an agency-action jigsaw puzzle; the same agency is not required to "add a multitude of private pieces to the puzzle and so require [NEPA] review of a much larger picture."[60] With the exception of certain hydropower projects, the Commission has no authority over the construction, operation, or maintenance of electric generating facilities. Accordingly, the Mattawoman Energy Center and other generating facilities are nonjurisdictional projects that cannot be connected actions.

56. That is not to say that our environmental analysis ignores these generating facilities. The EA acknowledges that the Mattawoman Energy Center is related to the project to the extent that it will be receiving or using the natural gas volumes to be transported by the project.[61] The EA also recognizes that operation of the Mattawoman Energy Center and the other generating facilities may result in cumulative environmental impacts, primarily to air quality.[62] We discuss cumulative impacts in section C(8) of this order, below.

4. The need for an Environmental Impact Statement

57. Several commenters request that an independent entity compose an Environmental Impact Statement (EIS) for the Eastern Market Access Project, rather than an EA, to reflect the magnitude of the project's impacts to environmental resources and public safety. We deny this request.

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[58] *Sierra Club v. U.S. Army Corps of Eng'rs*, 803 F.3d 31, 49-50 (D.C. Cir. 2015) (emphasis added) (quoting *Delaware Riverkeeper Network*, 753 F.3d at 1313).

[59] *Id.* at 49.

[60] *Id.* at 50.

[61] *See* EA at 2, 5-7 (providing a description of the non-jurisdictional facilities to "disclose the nature and extent" of the facilities); *see also* 18 C.F.R. § 380.12(c)(2)(ii) (2017).

[62] EA at 70-72 (Section B(10.0) – Cumulative Impacts); EA at 75-76 tbl.B.10.1-1 (Section B(10.3) – Cumulative Impacts: Land Use) (describing these generating facilities); EA at 76*, 77* tbl.B.10-2, 78* (Section B(10.5) – Cumulative Impacts: Air Quality) (noting that combined impacts to air quality are the primary potential cumulative impacts).

58. To comply with NEPA, an agency may elect to first prepare an EA for a proposed action to determine whether an EIS will be required.[63] In this proceeding Commission staff, guided by its regulations implementing NEPA,[64] and experience with past proposals to construct or expand compression facilities, determined that it would be appropriate to initially undertake an EA. Based on Commission staff's analysis, which considered the extent and content of scoping comments, and the fact that project facilities will be largely co-located with existing facilities, the EA concludes and we agree that the impacts associated with this project can be sufficiently mitigated to support a finding of no significant impact.[65] Thus an EIS is not warranted. Where commenters raise specific objections to the EA's analysis, we address them below.

5. Purpose and need

59. An agency's environmental document must include a brief statement of the purpose and need to which the proposed action is responding.[66] The EA accepts Cove Point LNG's articulation of the purpose and need to provide 294,000 Dth/d of firm transportation services to WGL and Mattawoman.[67] The EA states, based on statements from Cove Point LNG, that the project would help WGL ensure system reliability and accommodate load growth and would provide Mattawoman Energy Center with its main source of natural gas to generate enough electricity to power 990,000 homes.[68]

60. Several commenters nevertheless assert that the project is not needed, alleging that no natural gas customers are currently going unserved, the gas volumes proposed for the project are excessive, system alternatives could satisfy the need for capacity, and/or the Mattawoman Energy Center has not obtained all required permits and will not be constructed.

61. Commenters offer no support for claims that no natural gas customers are currently going unserved and that the gas volumes proposed for the project are

[63] 40 C.F.R. § 1501.4(a)-(c), (e) (2017).

[64] *See* 18 C.F.R. §§ 380.5(a), (b)(1) (2017).

[65] EA at 9.

[66] 40 C.F.R. § 1508.9 (2017).

[67] EA at 1.

[68] *Id*.

excessive.[69] Cove Point LNG conducted two open seasons, in July 2015 and July 2016, to solicit interest in firm transportation capacity. The open seasons resulted in binding precedent agreements with Mattawoman for 144,000 Dth/d of firm transportation service for a primary term of 20 years and with WGL for 150,000 Dth/d of firm transportation service for a primary term of 25 years. Under the Commission's Certificate Policy Statement an applicant can rely on a variety of relevant factors to demonstrate need—for example demand projections, potential cost savings to consumers, or a comparison of projected demand to the amount of capacity currently serving the market[70]—but precedent agreements are "significant evidence of demand for the project" and "will always be important evidence" of such demand.[71] Shippers who subscribe to firm capacity on a proposed project on a long-term basis presumably have made a positive assessment of the potential for selling gas-fired electricity or gas to end-use consumers in a given market and have made a business decision to subscribe to the capacity on the basis of that assessment.[72] The Commission does not typically look behind such agreements to evaluate shippers' business decisions to acquire capacity[73] and the commenters have provided no evidence persuading us there is a need to do so here. The Maryland Public Service Commission, however, did evaluate the prudence of the proposed Mattawoman Energy Center and found that it will enhance the stability and reliability of the electric system; add needed capacity in a constrained area; help speed the decommissioning of older, dirtier, and less reliable generating stations; and provide

[69] For example, Kelly Canavan asserts that the 155,000 Dth/d subscribed by WGL represents an excess capacity of 21 percent when compared to the record of 1.1-percent annual growth in WGL's customer base. Ms. Canavan cites no sources and provides no calculations.

[70] Certificate Policy Statement, 88 FERC at 61,747.

[71] *Id.* at 61,748; *see also Myersville*, 783 F.3d at 1311. (rejecting argument that precedent agreements are inadequate to demonstrate market need); *Minisink Residents for Envtl. Pres. and Safety v. FERC*, 762 F.3d 97, 112 n.10 (D.C. Cir. 2014) (same).

[72] Certificate Policy Statement, 88 FERC at 61,748.

[73] *See, e.g., Algonquin Gas Transmission, LLC*, 154 FERC ¶ 61,048, at P 39 (2016); *Paiute Pipeline Co.*, 151 FERC ¶ 61,132, at P 33 (2015); *Midwestern Gas Transmission Co.*, 114 FERC ¶ 61,257, at P 34 (2006).

short- and long-term economic benefits; together justifying a certificate of public convenience and necessity from that agency.[74]

62. The EA considers whether system alternatives could satisfy the interconnect requirements and the anticipated in-service dates specified in the agreements between Cove Point LNG and Mattawoman and WGL.[75] System alternatives are defined as the use of existing, modified, or other proposed facilities rather than constructing the new facilities proposed in the application.[76] The EA concludes that providing the subscribed level of transportation service using the nearest pipelines owned by Columbia or Transco instead of modifying the Cove Point LNG system, would likely require the construction of 35 miles of new pipeline that would result in equal or greater environmental impacts than those associated with the Eastern Market Access Project.[77] We conclude that no system alternative would provide a significant environmental advantage over the proposed Eastern Market Access Project, as modified by Commission staff's recommended mitigation measures.

63. The commenters offer no support for claims that the Mattawoman Energy Center will not be permitted or constructed. As noted in the EA, the Maryland Public Service Commission's approval of the facility became final on November 13, 2015, and Mattawoman estimates that construction will take approximately 30 months.[78] The EA lists all certificates, permits, or approvals that apply to the Mattawoman Energy Center, including the relevant agency and the status of the authorization.[79] All state and county approvals are complete with the exception of a pending Forest Conservation Plan for the Charles Station site and a pending potable water/sewer connection construction permit from the Washington Suburban Sanitary Commission.[80] Kelly Canavan objects that the

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[74] *Mattawoman Energy, LLC*, Order No. 87243, Case No. 9330, slip copy at 11-13 (Md.P.S.C. Oct. 13, 2015) (final on Nov. 13, 2015), http://www.psc.state.md.us/ (see the "Case Search" field).

[75] EA at 75**-76** (Section C(2.0) – Alternatives: System Alternatives).

[76] *Id.*

[77] *Id.*

[78] EA at 5.

[79] EA at 6 tbl.A.4.3-1.

[80] EA at 6 tbl.A.4.3-1.

Mattawoman Energy Center is listed as suspended by PJM Interconnection, LLC. This entity is a regional transmission organization with no jurisdiction over the approval, siting, or construction of generating resources like the Mattawoman Energy Center.

6. Alternatives

64. The EA evaluates reasonable alternatives to the proposed Eastern Market Access Project. To select alternatives for evaluation, the EA explicitly asked if they would meet the project's objectives, be technically and economically feasible, and provide a significant environmental advantage over the proposed project.[81] Based on the statement of purpose and need, the EA evaluates a no-action alternative, system alternatives using two existing pipeline systems in the project area, a pipeline loop to obviate the need for the Charles Station, electric-driven compression at the Charles Station, and three alternative sites for the aboveground facilities.[82] The EA concludes that no evaluated alternative would provide a significant environmental advantage over the proposed Eastern Market Access Project, as modified by Commission staff's recommended mitigation measures.[83]

65. An agency's definition of purpose and need, its choice of alternatives, and the depth of discussion of those alternatives must be reasonable.[84] NEPA does not define what constitute "reasonable alternatives"; CEQ guidance, however, provides that "a reasonable range of alternatives depends on the nature of the proposal and the facts in each case."[85] An agency need only consider alternatives that will bring about the ends of the proposed action, and the evaluation is shaped by the application at issue and by the function that the agency plays in the decisional process.[86] Alternatives that are remote,

[81] EA at 75** (Section C – Alternatives).

[82] EA at 75**-79** (Section C – Alternatives).

[83] EA at 78** (Section C(5.0) – Alternatives: Charles Station Alternatives).

[84] *E.g.*, *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991) (*Busey*).

[85] CEQ, *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, 46 Fed. Reg. 18,026, 18,027 (1981).

[86] *Busey*, 938 F.2d at 195, 199.

conjectural, or do not meet the purpose or need of the proposed action may be eliminated so long as the agency briefly discusses the reasons for the elimination.[87]

66. Sara Lilly and Joshua Kauffman comment that renewable energy sources should be considered as an alternative to the project. Mr. Kauffman also anticipates that changes in energy markets due to energy efficiency gains and further market penetration by renewable energy sources will preclude the need for the Eastern Market Access Project. He posits that as a result, Cove Point LNG will at some point repurpose the incremental capacity to deliver gas to the Cove Point LNG terminal for export. Mr. Kauffman requests that we consider this alternative scenario.

67. The EA's omission of renewable energy or increased energy efficiency as reasonable alternatives was justified because these alternatives cannot meet the purpose and need to which the Eastern Market Access Project is responding. As we have concluded with respect to other natural gas transportation infrastructure projects, we do not find that the potential for energy conservation and renewable energy sources to be practical alternatives to this project.[88] This purpose and need is the firm transportation of 294,000 Dth/d of natural gas on behalf of Mattawoman and WGL beginning in September 2018 and continuing for primary terms of 20 or 25 years. Accordingly, generation of electricity from renewable energy sources or the gains realized from increased energy efficiency and conservation are not transportation alternatives and cannot function as a substitute for the Eastern Market Access Project. Mr. Kauffman offers no evidence that the need for capacity on the Eastern Market Access Project expressed in long-term contracts will not continue during the contract terms.

68. Mr. Kauffman and Judith Allen-Leventhal dispute the EA's decision not to recommend the use of electric-driven compression at the Charles Station because it would require additional construction land disturbance. The commenters find this alternative to be preferable to air emissions from proposed gas-fired turbines at the Charles Station.

69. We accept the EA's decision based on its comparison of the impacts from electric-driven compression and gas-fired turbines. The EA explains that the use of electric-driven compression at the Charles Station site would likely require significant construction, including several miles of new or upgraded high-voltage transmission lines,

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[87] 40 C.F.R. § 1502.14(a) (2017).

[88] *See, e.g., Atlantic Coast Pipeline, LLC*, 161 FERC ¶ 61,042, at P 57 & n.91 (2017); *Mountain Valley Pipeline, LLC*, 161 FERC ¶ 61,043, at P 43 (2017) (renewable energy not a comparable replacement for project designed to transport natural gas).

a substation, and buildings for a switchgear and each electric motor.[89] Environmental impacts would likely include a larger permanent footprint at the Charles Station site (about 0.5 acre more land disturbance), land-clearing in rights-of-way for transmission lines; and visual impacts from the lines and support towers. The EA compares these impacts with those from the proposed gas-fired turbines, which will be controlled as a minor source of air emissions and will meet the National Ambient Air Quality Standards (NAAQS) that protect public health and welfare.[90] The EA's evaluation satisfied NEPA and we agree with its conclusions.

70. Deborah Purcell comments that the pipeline loop alternative or the no action alternative should be implemented rather than the proposed Charles Station. The EA finds that a pipeline loop alternative to the Charles Station would require the construction of about 20 miles of pipeline loop along Cove Point LNG's existing line TL-522. Assuming a 75-foot-wide construction right-of-way, the EA calculates that 181.8 acres of land would be disturbed during construction.[91] A typical 50-foot-wide permanent right-of-way would affect 121.2 acres during operation. In addition to impacts on natural resources, a pipeline loop would directly impact public and private land along the pipeline route, whereas the Charles Station will be constructed on land owned by Cove Point LNG.[92] We agree with the EA's analysis and decision not to recommend the pipeline looping alternative. The EA acknowledges that the no action alternative would avoid the potential environmental impacts associated with the Eastern Market Access Project, but such an alternative would also fail to satisfy the stated purpose and need of the project, including provision of the subscribed transportation service within the contemplated time frame. The EA anticipates that under the no action alternative, Mattwoman and WGL would likely seek alternative transportation services on other facilities that could result in impacts similar to or greater than the Eastern Market Access Project.[93] We agree with this analysis and decision not to recommend the no action alternative.

71. Joshua Kauffman asserts that the EA should have considered additional sites for the Charles Station. Mr. Kauffman points to two parcels for sale. Site 1 is on Billingsley

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[89] EA at 77** (Section C(4.0) – Electric-Driven Compression).

[90] *Id.*

[91] EA at 77** (Section C(3.0) – Pipeline Looping and Compression Alternative).

[92] *Id.*

[93] EA at 75** (Section C(2.0) – System Alternatives).

Road near the St. Charles Energy Center in Charles County, Maryland. The site is on sandy, open land. Site 2 is along Route 5 and Poplar Hill Road in Charles County, Maryland. Because neither site is located on the existing pipeline, relocation of the Charles Station to either site would require construction of a pipeline lateral to interconnect the compressor station with the existing pipeline.

72. An analysis of both alternative compressor sites is provided below. The siting of a compressor station is dependent on various factors, including pipeline hydraulics. Typically, the optimal compressor station location will exist within a specific corridor along a pipeline. Cove Point LNG identified a 15-mile corridor in Charles County along its existing TL-522 and TL-532 pipelines in which gas could be compressed adequately to meet required delivery pressures.[94] We assume that the pipeline laterals to each site will be co-located with existing power line rights-of-way, resulting in a minimum 50-foot-wide right-of-way overlap. A new 25-foot-wide right-of-way for both construction and operation would be required. We also assume that Cove Point LNG can acquire the private land for the alternative sites. Table 1 provides a comparison of the alternative sites proposed by Mr. Kauffman and of the Charles Station site across several criteria.

Comparison of Alternative Sites for the Charles Station			
Comparison Factor	**Alternative**		**Proposed Charles Station Site**
	Site 1 (Billingsley Rd near St. Charles Energy Center)	**Site 2 (Poplar Hill Rd and Route 5)**	
Total Site Acres	14	13.4	50.0
Land Disturbed During Construction (acres)	14	13.4	14.3
Forest (acres)	0	0	12.5
Open Land (acres)	14	13.4	0.8
Land Maintained for Operation (acres)	14	13.4	14
Suction/Discharge Pipeline[1]			
Length (feet)	8,140	7,814	0
Total Land Disturbed During Construction (acres)	9.3	5.2	0
Wetlands Disturbed During Construction (acres)	0.4	0.3	0
Forest/Woodlands impacts	3.9	3.7	0
Landowners affected	1	1	0
Areas of Special Land Use (acres)			
Conservation Areas	0	0	23 (not impacted)
Zoning[2]	Industrial or Light	Rural	Rural Conservation/Resource

[94] EA at 47.

Comparison of Alternative Sites for the Charles Station			
Comparison Factor	**Alternative**		**Proposed Charles Station Site**
	Site 1 (Billingsley Rd near St. Charles Energy Center)	**Site 2 (Poplar Hill Rd and Route 5)**	
	Industrial	Residential	Protection Overlay
Existing Land Use (acres)			
Forest	0	0	12.5
Open/Barren/Industrial	14	13.4	1.8
Structures within 0.5 mile (number)			
Houses	40	24	16
Nearest NSA (feet)	1,650	850	1,800
Visuals			
Facility screened during leaf out	No	No	Yes

[1] Acreages are based on a 25-foot-wide construction right-of-way with overlap of existing power line right-of-way.
[2] Zoning for alternative Site 1 and Site 2 is assumed based on the site and the immediate areas surrounding the locations and are not Charles County designations.

73. Compared to the proposed Charles Station site, the alternative sites offer two advantages: fewer impacts to forested lands and more consistent zoning at Site 1, which is designated "Industrial or Light Industrial." But the alternative sites pose several disadvantages: more land disturbed due to pipeline laterals extending 8,140 feet (disturbing 9.3 acres) and 7,814 feet (disturbing 5.2 acres), greater impacts to wetlands (the proposed Charles Station site has none), greater impact to private landowners (the proposed Charles Station site has none), more houses within 0.5 mile, closer noise-sensitive areas, and less screening of visual impact (the proposed Charles Station will not disturb forested buffers on the large parcel). On balance, we conclude that the alternative sites proposed by Mr. Kauffman do not provide a significant environmental advantage over the proposed Charles Station site.

7. Direct Impacts

74. Project activities at the Loudoun Compressor Station, Loudoun M&R Station, and Pleasant Valley Compressor Station would occur on property owned by Cove Point LNG within each station's existing fence line or within Cove Point LNG's existing right-of-way. Project activities associated with the WGL Interconnect would occur within an existing pipeline corridor. The activities at these sites would not involve tree clearing or direct impacts to wetlands or surface waters. Project activities at the Charles Station site would occur on predominately forested property owned by Cove Point LNG that houses existing industrial facilities. In conjunction with the proposed pipeline interconnects, Cove Point LNG will remove a total of 12.5 acres of upland forest for construction, of which 5.5 acres will be permanently impacted by the project's operation. Activities at the

Charles Station site will not directly impact wetlands or surface waters. Most comments on the EA addressed activities at the Charles Station site.

a. Geology

75. The EA concludes that if Cove Point LNG adheres to its proposed construction, operation, and mitigation procedures, then geologic hazards would not significantly impact the proposed facilities.[95] Erica Barry expresses concern that clay soils at the Charles Station site are unstable and susceptible to earthquakes, making the site unsuitable for a compressor station. The EA explains that the site is made up of unconsolidated sediments—including clay, gravel, sand, and silt—that would support standard construction techniques.[96] Historic records, analyzed by the U.S. Geological Survey, show no active or inactive faults near the Charles Station and indicate that a major earthquake is unlikely in the area within the next 20 to 50 years.[97] This small risk of an earthquake, coupled with the lack of low-clay sands or silt at the site, make the potential for soil liquefaction low.[98] Cove Point LNG's geotechnical investigation of the Charles Station site recommended that Cove Point LNG excavate the foundation for the Charles Station to an additional depth of 1 to 3 feet below the finished subgrade elevation if necessary to reach soil that would provide the required bearing support for the project facilities and would not be susceptible to seismicity.[99] Cove Point LNG has committed to do so. We agree with the analysis and conclusions in the EA.

b. Wetlands and Water Resources

76. The EA concludes that the construction and operation of the Eastern Market Access Project facilities, particularly the new Charles Station and expanded Loudoun Compressor Station (the modifications proposed at the Pleasant Valley Compressor Station will not involve ground-disturbing activities), would not directly impact wetlands or surface waters and that Cove Point LNG would adequately minimize indirect

[95] EA at 16.

[96] EA at 15.

[97] EA at 16.

[98] *Id*.

[99] Cove Point LNG April 13, 2017 Response to April 4, 2017 Data Request, response to question 12, attachment at 4-5 (reproducing Triad Engineering, Inc., *Report of Geotechnical Exploration: Charles Compressor Station, Charles County, Maryland*, Triad Project No. 03-16-0414 (Nov. 16, 2016)).

sedimentation of wetlands or surface waters by adhering to the Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan* (*Plan*) and *Wetland and Waterbody Construction and Mitigation Procedures* (*Procedures*); Cove Point LNG's *Erosion and Sediment Control Plan*, Stormwater Management Plans, and *Spill Prevention Containment and Countermeasure Plan*; best management practices; and applicable state erosion and sediment control and stormwater management requirements.[100]

77. The EPA and several individual commenters raise concerns about impacts to wetlands and streams within the boundaries of the Charles Station site. The EPA interprets the EA's Wetland Delineation Map for the site to show that streams or wetlands, or both, sit within the project's limits of disturbance.[101] The EPA recommends a discussion of potential impacts. Other individual commenters assert that Cove Point LNG's wetland delineations are inaccurate. They request that a new wetland assessment be conducted by an independent government agency.

78. We affirm the EA's conclusion that the project will not impact wetlands or waterbodies at the Charles Station site. The project's limits of disturbance, which are depicted as shaded areas on the EA's Wetland Delineation Map for the Charles Station site,[102] do include a tapered northern area where Cove Point LNG will replace an access bridge that crosses a stream.[103] However, as noted in the EA, the Maryland Department of the Environment visited the Charles Station site on December 6, 2016, as part of the agency's review of the wetland delineation report that Cove Point LNG filed with its application[104] and concluded that areas near the access bridge no longer meet the criteria to be classified as a wetland due to previous channelization of the stream in that area.[105] The Maryland Department of the Environment requested that Cove Point LNG remove these areas from the report.[106] The Maryland Department of the Environment reviewed

[100] EA at 19-21.

[101] EPA July 27, 2017 Comments on the EA at 2 (citing EA at 22 fig.B.3.2-1).

[102] EA at 22 fig.B.3.2-1 (depicting the broader Construction Limit of Disturbance (LOD) and the narrower Operation LOD).

[103] The access bridge is a project-related nonjurisdictional facility.

[104] EA at 21; s*ee* Application, Res. Report 2, app. 2-A.

[105] *Id.*

[106] *Id.*

and approved the revised wetland delineation report submitted by Cove Point LNG on January 18, 2017. The EA explains that the replacement of the Charles Station Bridge is not subject to the Commission's NGA jurisdiction but that Cove Point LNG must obtain a Clean Water Act Section 404 Joint Nontidal Wetlands Permit from the U.S. Army Corps of Engineers – Baltimore District and the Maryland Department of the Environment based on the revised wetland delineation report and other information.[107] Cove Point LNG obtained the authorizations from both agencies on May 26, 2017.[108]

79. The Maryland Department of the Environment also concurred with Cove Point LNG that project facilities are consistent with the Maryland Coastal Zone Management Plan, as required by section 307 of the federal Coastal Zone Management Act.[109] This satisfied the EA's recommended Environmental Condition 12, which, therefore, has not been included in this certificate order.

80. Joshua Kauffman states that the EA improperly relied on information supplied by Cove Point LNG to conclude that the project is "not likely to have a significant impact on groundwater quality, quantity or recharge."[110] Mr. Kauffman requests that the Commission require initial testing of groundwater quality by a third party, with weekly testing thereafter. Mr. Kauffman also requests that we require Cove Point LNG to develop a monitoring and remediation plan including a bond from Cove Point LNG for future remediation.

81. We deny this request. Mr. Kauffman points to no specific flaw in the information submitted by Cove Point LNG or in the information gathered into the EA by Commission staff. As discussed in the EA, none of the project workspaces are within sensitive groundwater resources, which include EPA Sole Source Aquifers, wellhead protection areas, or state-designated aquifers.[111] There are no public or private wells within 150 feet of the Charles Station and Loudoun Compressor Station sites, except those owned by Cove Point LNG itself, and there are no known sites with contaminated soil or

[107] EA at 7.

[108] Cove Point LNG August 23, 2017 Supplemental Information, attachment 2 (reproducing Letter of Authorization from both agencies)

[109] Cove Point LNG August 4, 2017 Supplemental Information (reproducing email correspondence from the Maryland Department of the Environment dated July 27, 2017); 16 U.S.C. § 1456 (2012).

[110] Joshua Kaufman July 27, 2017 Comments on the EA at 11.

[111] EA at 19.

groundwater within 0.25 mile of any project facility.[112] The EA acknowledges that accidental spills of fuels, lubricants, and other petroleum products could occur during construction. But these risks are mitigated through Cove Point LNG's commitments to prohibit refueling activities and the storage of hazardous liquids within a 200-foot radius of any private wells and within a 400-foot radius of any municipal or community water supply wells as well as to prepare a *Spill Prevention Containment and Countermeasure Plan* before the start of construction.[113] Cove Point LNG must also implement the Commission's *Procedures*, which include measures to protect groundwater resources.[114] We agree with the EA's conclusion that the project is not likely to have a significant impact on groundwater resources.

c. Vegetation

82. The EA concludes that because no sensitive vegetation types or habitats of concern would be impacted by the project, and because Cove Point LNG will revegetate areas affected by project construction pursuant to its *Erosion and Sediment Control Plan* and the Commission's *Plan* and *Procedures*, the project would not result in any significant impacts on vegetation.[115]

83. Judith Allen-Leventhal states that the amount of tree clearing for the small Charles Station footprint should be evaluated. The EPA recommends that cleared forested areas be identified as long-term impacts. The EPA also recommends that reseeding, planting, and other mitigation of forest impacts should follow the Maryland Forest Conservation Act and Charles County Forest Conservation Ordinance.

a. The EA explains that only the Charles Station facilities will require the removal of upland forests. A total of 12.5 acres of upland forest will be removed for construction.[116] Of this, 5.5 acres will be permanently

[112] *Id*.

[113] EA at 19.

[114] FERC, *Wetland and Waterbody Construction and Mitigation Procedures* at section IV (May 2013) (establishing proximity, containment, education, and other requirements to prevent and limit spills); *see also* FERC, *Upland Erosion Control, Revegetation, and Maintenance Plan* at section IV(G) (May 2013) (incorporating the requirements from the *Procedures*).

[115] EA at 24.

[116] EA at 23.

> impacted by the project's operation, and 7.0 acres would be allowed to recover with forested vegetation. The area cleared during construction will be used to stage materials and equipment, stockpile soil, park construction

vehicles and trailers, and install temporary environmental controls.[117] Due to the abundance of forested areas in the general vicinity of the Charles Station and the trees preserved at the property as part of a conservation easement (23.0 acres of the 96.2-acre parcel), we conclude that the project will not significantly contribute to deforestation.

84. The EA acknowledges that the greatest impact on vegetation resources would be on cleared forest areas because of the length of time required for woody vegetation to revert to its preconstruction condition.[118] The EA also explains that Cove Point LNG will work with Charles County as part of the county's site plan review process to determine appropriate forest mitigation or compensation, or both, for the Charles Station site pursuant to the Maryland Forest Conservation Act and Charles County Forest Conservation Ordinance.[119] We conclude that this discussion and Cove Point LNG's existing commitment satisfy EPA's concern.

d. Wildlife and Aquatic Species

85. The EA explains that potential impacts to wildlife from the construction and operation of the Eastern Market Access Project include habitat loss, construction-related ground disturbance and noise, and operation-related light and noise.[120] One federally-listed threatened species, the northern long-eared bat, is known to occur in the vicinity of the Pleasant Valley Compressor Station and the Loudoun Compressor Station and M&R Station in Virginia.[121] The Virginia and Maryland wildlife agencies concluded that state-listed species have not been recorded at project sites.[122]

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[117] Cove Point LNG May 6, 2017 Response to May 12, 2017 Data Request, response to question 1.

[118] EA at 23, 25.

[119] EA at 23.

[120] EA at 24-29.

[121] EA at 27.

[122] EA at 28 (citing a letter from the Maryland Department of Natural Resources and a memorandum from the Virginia Department of Conservation and Recreation).

86. With the exception of the Charles Station, project construction would primarily take place in previously disturbed, existing facility areas and maintained or mowed areas.[123] These areas are not considered high-quality wildlife habitat, and wildlife density is likely to be low. The EA concludes that because of the lack of high-quality habitat at these sites and the amount of suitable habitat outside of the project area, the effects on wildlife are expected to be negligible.[124] There are no identified hibernacula, maternity roost trees, or swarming areas for the northern long-eared bat near the Pleasant Valley Compressor Station, the Loudoun Compressor Station, or the Loudoun M&R Station.[125] Because Cove Point LNG has committed to avoid tree-clearing within 150 feet of known maternity roost trees during the roosting season from June 1 to July 31and to avoid tree-clearing within 0.25 mile of known hibernacula at all times, the EA concludes that project activities would have no effect on the northern long-eared bat.[126] The EA also concludes that impacts on any state-listed or special status species that might be in the area would be minimized because construction would occur within existing fence lines, outside of wetlands or water bodies, and in compliance with the Commission's *Plan* and *Procedures* and other relevant permits.[127] We accept the EA's conclusions.

87. For the Charles Station site, the EA concludes that impacts to wildlife will be minor given Cove Point LNG's commitments to avoid tree-clearing during the breeding season for migratory birds, permanently stabilize disturbed areas following the Commission's *Plan* and *Procedures*, and reduce light and noise pollution.[128]

88. Erica Barry and Ann Meador comment that lighting will affect wildlife near the Charles Station. The EA acknowledges that artificial lighting could confuse migratory birds and lead to changes to their foraging and reproductive behaviors.[129] The EA explains that Cove Point LNG will design lighting to shine inward to the station from the fence line or will mount lighting on the building with a downward vertical lighting

[123] EA at 25.

[124] *Id*.

[125] EA at 27.

[126] EA at 28.

[127] EA at 29.

[128] EA at 25.

[129] EA at 25.

profile.[130] The lighting design at the Charles Station is consistent with recommendations from the U.S. Fish and Wildlife Service's *Nationwide Standard Conservation Measures* to reduce lighting impacts on birds and wildlife.[131] The EA concludes that these designs will minimize the impacts on wildlife and birds in the area.[132] Further, the 150-foot-wide forest buffer around the Charles Station site will serve to shield surrounding properties and wildlife from additional illumination.[133] We accept the EA's conclusions.

89. The Virginia Department of Environmental Quality repeats previous comments that the state-listed wood turtle is within two miles of the existing Pleasant Valley Compressor Station and recommends coordination with Virginia Department of Game and Inland Fisheries to ensure compliance with the Virginia Endangered Species Act. As stated in the EA, no ground disturbance will occur at the Pleasant Valley Compressor Station, and all activity will occur within the existing fence line. Cove Point LNG will adhere to our *Plan* and *Procedures* for construction. Therefore, we agree with the EA's conclusion that impacts on state-listed or special status species will be minimized at this site.

90. To minimize adverse impacts on the aquatic ecosystem, and thus the state-listed green floater (a mussel), Virginia Department of Environmental Quality repeats previous recommendations that Cove Point LNG strictly adhere to state and local erosion and sediment control/stormwater management laws and regulations and that Cove Point LNG coordinate with the Virginia Department of Game and Inland Fisheries about the green floater. We do not find these state and local laws and regulations to be implicated, given that the project does not involve construction in wetlands or surface waters and that Cove Point LNG will comply with Commission-approved plans to control erosion, stormwater, and sedimentation.[134] Construction must also be overseen by independent environmental inspectors who ensure compliance with the erosion control procedures, as required in Environmental Condition 7 to this order. We agree with the EA's conclusion that impacts on state-listed or special status species, including the green floater, will be adequately minimized.

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[130] EA at 37.

[131] EA at 25.

[132] *Id*.

[133] EA at 19, 25.

[134] EA at 11-13.

91. The Council and several individuals comment that the Charles Station site is home to various wildlife—including turtles, bobcats, wild turkeys, and herons—that will be adversely impacted by the compressor station. The EA acknowledges that impacts to wildlife from construction and operation of the Charles Station will include permanent displacement of mobile species due to the loss of habitat as forested areas are converted to impervious and non-vegetated surfaces, some unavoidable mortality for less-mobile species such as amphibians and reptiles, and increased noise and light at the site.[135] Even so, the EA concludes that impacts to wildlife will be minor given Cove Point LNG's commitments to avoid tree-clearing during the breeding season for migratory birds, permanently stabilize disturbed areas following the Commission's *Plan* and *Procedures*, and limit light and noise pollution.[136] We accept this conclusion.

e. Cultural Resources

92. No traditional cultural properties or properties of religious or cultural importance to Tribes have been identified in the area of potential effect for the Eastern Market Access Project.[137] Several commenters express concern that the Charles Station will impact Piscataway National Park, which is culturally significant to the Piscataway Indian Nation. The EA explains that though the Charles Station facilities will not be visible at the park,[138] construction noise may temporarily impact the portion of the park immediately adjacent to the Charles Station site where, we note, no public access or recreational use occurs.[139]

93. As discussed in the EA, Cove Point LNG contacted the Piscataway Indian Nation, the Piscataway Conoy Confederacy and Sub-tribes, and the Cedarville Band of Piscataway Indians about the project.[140] At the request of the Piscataway Indian Nation, Cove Point LNG provided information about the cultural resources investigation and findings at the Charles Station, the status of Cove Point LNG's consultation with the Maryland State Historic Preservation Officer, a copy of Cove Point LNG's Unanticipated

[135] EA at 25.

[136] *Id.*

[137] EA at 32.

[138] EA at 37.

[139] EA at 35.

[140] EA at 30.

Discovery Plan.[141] Cove Point LNG also discussed visual impacts from the station's exhaust stacks and water use at the station.[142] None of these groups filed objections to the project.

f. Land Use, Recreation, and Visual Resources

94. Several commenters state that construction of the Charles Station will change the rural character of the area and result in rezoning the rural parcel to industrial use. As stated in the EA, the Charles Station will be constructed on property owned by Cove Point LNG that currently contains industrial facilities.[143] The EA acknowledges that the site nevertheless is in a Rural Conservation zone primarily made up of low-density rural development intended to preserve rural environmental and natural features.[144] Cove Point LNG is actively consulting with the Charles County Department of Planning and Zoning regarding any necessary zoning requirements to obtain a special exception for the Charles Station.[145] There is no evidence that the presence of the Charles Station will lead to a change in the zoning designation. A portion of the site's 50 acres is within a protected forest conservation easement which Cove Point LNG will avoid during construction or operation.[146] A desktop visual analysis and balloon visibility test concluded that topography, natural settings, and existing forest cover in the area would buffer the Charles Station from view of the surrounding area, including from Mount Vernon, Piscataway National Park, and other significant viewsheds.[147] We conclude that the commenters' concerns are unwarranted.

95. The Council states that Barrys Hill Road, where the Charles Station will be located, is used by bicyclists as part of the National Potomac Heritage Trail. The EA explains that activities at the Charles Station site would not preclude bicyclists from using Barrys Hill Road, but increased traffic from construction vehicles could

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[141] EA at 30.

[142] *Id*.

[143] EA at 32-33.

[144] EA at 33.

[145] *Id*.

[146] *Id*.

[147] EA at 37.

temporarily impacts bicyclists.[148] Traffic to the site during operation would be minimal.[149] Cove Point LNG will follow Maryland traffic safety laws and must adhere to the Maryland State Highway's Bicycle Safety Program.[150]

g. Socioeconomics

96. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires federal agencies to consider whether impacts on human health or the environment (including social and economic aspects) would be disproportionately high and adverse for minority and low-income populations and would appreciably exceed impacts on the general population or another comparison group.[151] Kelly Canavan alleges that adverse impacts from the Charles Station will disproportionately fall on minority populations, violating federal environmental justice protections. Ms. Canavan claims that Dominion sought to gain convenience by targeting marginalized communities. We disagree.

97. Consistent with EPA guidance, the EA used a three-step approach to conduct the environmental justice review.[152] This approach requires that the agency determine whether minority and low-income populations exist in the project area, whether impacts to resources are high and adverse, and whether impacts fall disproportionately on environmental justice populations.[153]

98. The EA acknowledges that the percentage of people of racial and ethnic minorities in both census tracts within 1 mile of the Charles Station site exceed 50 percent.[154] The percentage in the census tract in Charles County that directly contains the Charles Station site is meaningfully greater, at 66.0 percent, than the percentage county-wide, at

[148] EA at 35.

[149] EA at 36.

[150] EA at 35.

[151] 59 Fed. Reg. 7629 (Feb. 16, 1994).

[152] EA at 43.

[153] EA at 43-44.

[154] EA at 44, 45 tbl.B.7.7-1.

51.3 percent.[155] But throughout the EA, Commission staff explain that project-related impacts to environmental resources (including socioeconomic resources) would be avoided, minimized, or otherwise mitigated and are not characterized as high and adverse. Air quality, noise, and emergency response capabilities are the primary public concerns at the proposed Charles Station. The EA explains that the station will be regulated as a minor source of air emissions under federal and state air permitting programs, and station emissions will not exceed the NAAQS.[156] Cove Point LNG will also implement its *Fugitive Dust Control Plan* to minimize dust and particulate emissions during construction of the project.[157] Noise from the Charles Station will meet the Commission's limit of a day-night level (L_{dn}) of 55 decibels on the A-weighted (dBA) scale and will comply with Charles County noise ordinances.[158] Air emissions and noise are further discussed below. Cove Point LNG will also maintain an emergency response plan and work with local first responders to coordinate emergency response, as required by U.S. Department of Transportation.[159] Questions of safety at the project are further discussed below. We agree with the EA's conclusion that the project would not cause a disproportionate share of high and adverse environmental or socioeconomic impacts on any racial, ethnic, or socioeconomic group in violation of federal environmental justice protections.[160]`

99. We find no support for Ms. Canavan's assertion that Cove Point LNG targeted marginalized communities in the siting of the Charles Station. Cove Point LNG identified a 15-mile-long corridor in Charles County along its existing TL-522 and TL-532 pipelines in which gas could be compressed adequately to meet required delivery pressures.[161] Cove Point LNG selected the final Charles Station site based on feasible engineering.[162] The EA concludes that no reasonable alternative would provide a

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[155] *Id.*

[156] EA at 47.

[157] *Id.*

[158] *Id.*

[159] EA at 66-68 (citing 49 C.F.R. pt. 192 (2017)).

[160] EA at 47.

[161] EA at 47, 77-79.

[162] *Id.*

significant environmental advantage over the proposed Eastern Market Access Project, as modified by Commission staff's recommended mitigation measures.[163]

100. Several commenters assert that property values near the Charles Station will decrease and that the EA does not adequately address this issue. The commenters request an independent study and landowner interviews to evaluate the station's impact on property values.

101. As discussed in the EA, Commission staff conducted independent research and identified two recent studies that assessed the effects of natural gas pipeline compressor stations on property values.[164] These studies found that the presence of compressor stations generally did not affect property values, noting that compressor stations are typically in rural areas (away from high-density development) and are situated on large parcels with adequate buffers.[165] The Charles Station site shares these traits. NEPA does not require that the Commission undertake further independent study or landowner interviews.

h. Air Quality and Noise

i. Air Quality

102. The EA describes existing air quality at the various Eastern Market Access Project facility sites, identifies the construction and operating air emissions and projected air quality impacts, and outlines methods that Cove Point LNG would use to achieve compliance with regulatory requirements for the project facilities.[166]

103. The EA concludes that construction emissions would not have a significant impact on air quality because such emissions will be temporary and because Cove Point LNG

[163] EA at 78** (Section C(5.0) – Alternatives: Charles Station Alternatives).

[164] EA at 41-42 (citing Donald A. Griebner, *2015 Impact on Property Values Surrounding Compressor Stations* (2015) (prepared for National Fuel Gas Supply Corporation), and Steven R. Foster, *A Study of Natural Gas Compressor Stations and Residential Property Values* (2016) (prepared for Tennessee Gas Pipeline Company LLC), https://williamscom2014.files.wordpress.com/2016/08/ned_property_values.pdf).

[165] EA at 41-42.

[166] EA at 47, 47-58.

will mitigate construction emissions.[167] The Virginia Department of Environmental Quality repeats past comments that Cove Point LNG must control fugitive dust using methods outlined in that agency's regulations.[168] As discussed in the EA, Cove Point LNG will implement its *Fugitive Dust Control Plan*, which includes mitigation measures such as application of water or other dust suppressant on unpaved surfaces, soil stockpiles, and workspaces; enforcing a 15-mile-per-hour speed limit within construction sites and on unpaved roads; cleaning track-out on public roads in a timely manner; and restoration of disturbed areas as soon as practicable.[169] We conclude that Cove Point LNG's *Fugitive Dust Control Plan* satisfies the Virginia Department of Environmental Quality's concerns.

104. The EA concludes that the project's operational emissions would not have a significant impact on air quality for several reasons. Activities at the Pleasant Valley Compressor Station, WGL Interconnection, and Loudoun M&R Station will include no new emissions sources but would result in minor long-term fugitive air emissions.[170] The modified Loudoun Compressor Station will release only limited fugitive emissions from station equipment and unit blowdowns. The EA concludes that the total estimated releases of volatile organic compounds (3,108 tons per year (tpy)) and of all hazardous air pollutants (0.01 tpy) would not have a significant impact on air quality.[171]

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[167] EA at 54-55; *id.* at 54 tbl.B.8.1-2 (estimating fugitive dust emissions from construction activities); *id*. at 55 tbl.B.8.1-3 (estimating emissions of criteria pollutants, hazardous air pollutants, and greenhouse gases from on-road, non-road, and commuting vehicles).

[168] Virginia Department of Environmental Quality July 27, 2017 Comments on the EA at 3 (citing 9 Va. Admin. Code § 5-50-60, *et seq*. (2017)). The Virginia Department of Environmental Quality also raises a concern about open burning during project construction. Cove Point LNG will not conduct open burning as part of the project.

[169] EA at 56.

[170] EA at 47, 55.

[171] EA at 55-56. A facility is only regulated as a major source under the Clean Air Act's National Emission Standards for Hazardous Air Pollutants if the facility emits 10 tons per year of any single hazardous air pollutant or 25 tons per year of combined hazardous air pollutants. EA at 51. The Virginia Department of Environmental Quality indicated by letter dated April 5, 2017, that all potential emissions from the construction and operation of the modified Loudoun Compressor Station will be less than the exempt emission rate for state air permitting requirements. *See* Cove Point LNG April 13, 2017

105. The proposed Charles Station would be the only new source of long-term emissions requiring a permit. The station's emergency generator and compressor units must comply with EPA-established New Source Performance Standards.[172] Emissions will be below the major source thresholds for the Clean Air Act's permitting programs for New Source Review and National Emission Standards for Hazardous Air Pollutants.[173] Instead, the Charles Station would be permitted by the Maryland Department of the Environment as a minor source for both programs, with requirements collected under a Clean Air Act Title V Operating Permit.[174] Cove Point LNG filed its air quality Permit to Construct application with the Maryland Department of the Environment on November 9, 2016, and filed a supplement on May 8, 2017.[175] Cove Point LNG used the EPA's AERMOD dispersion model to determine the Charles' Station's local impacts to ambient air quality.[176] To establish the air quality baseline, Cove Point LNG used data from a meteorological tower at the Reagan National Airport and from radiosondes launched from Sterling, Virginia.[177] Representative background pollutant concentrations were obtained from monitors in the Virginia counties of Arlington (carbon monoxide, nitrogen dioxide), Fairfax (sulfur dioxide, particulate matter with an aerodynamic diameter less than or equal to 2.5 microns), and Alexandria (particulate matter with an aerodynamic diameter less than or equal to 10 microns).[178] Maximum emissions from the Charles Station would not exceed the EPA's NAAQS.[179]

Response to April 4, 2017 Data Request, Category: Res. Report 3, response to question 5, attachment 1 at 16-17 (reproducing letter).

[172] EA at 51.

[173] EA at 55-57; *id.* at 56 tbl.B.8.1-4 (estimating all potential operational emissions).

[174] EA at 49-51.

[175] EA at 50.

[176] EA at 56.

[177] EA at 56.

[178] Specific monitor locations are provided in Appendix 9-C of Cove Point LNG's application.

[179] EA at 56-57; *id.* at 57 tbl.B.8.1-5 (combining maximum project emissions with ambient background to compare resulting pollutant concentrations to relevant NAAQS).

Based on these analyses, the EA concludes that operational emissions from the Charles Station would not have a significant impact on air quality.[180]

106. Regarding ambient air quality, Joshua Kauffman asserts that Cove Point LNG relied on data from limited monitoring sites to generate the representative baseline air quality. He asserts that this limitation may not represent complex air quality within the study area and may not capture localized spikes in concentration where several sources are concentrated. Mr. Kauffman states that Cove Point LNG did not disclose the modeling collection data that it used to generate the representative baseline air quality. He requests that an outside party not affiliated with Cove Point LNG or the Commission collect air quality data and compare it to concentration limits more stringent than the NAAQS.

107. We affirm the EA's conclusion that Cove Point LNG complied with EPA air quality modeling guidelines and best management practices and thus, Cove Point LNG's modeling approach was acceptable.[181] Cove Point LNG filed a detailed air quality modeling assessment with its application to the Commission and filed a response on March 20, 2017, to concerns about modeling parameters.[182] The EA explains that the background pollutant concentration data were obtained from EPA's AIRData website.[183] This data is measured by the EPA, state, local, and tribal air pollution control agencies at more than 400 monitoring stations.[184] Here Cove Point LNG used air quality data from three EPA-approved monitors in Fairfax, Alexandria, and Arlington Counties, Virginia.[185] These locations are more densely populated and contain more mobile sources and point sources of air emissions than the primarily rural location immediately

[180] EA at 55-57.

[181] EA at 56.

[182] Application, Res. Report 9, app. 9-C (TRC Environmental Corporation, *Charles Compressor Station, Eastern Market Access Project, Supplemental Air Quality Modeling Assessment* (Nov. 2016)); Cove Point LNG March 20, 2017 Response to February 28, 2017 Data Request, Category: Res. Report 9, response to question 5.

[183] *Id*., Res. Report 9, app. 9-C at 3-1 to 3-2.

[184] EPA, *Air Data Basics Information*, Outdoor Air Quality Data, https://www.epa.gov/outdoor-air-quality-data/air-data-basic-information (last visited Oct. 3, 2017).

[185] Application, Res. Report 9, app. 9-C at 3-1 to 3-2.

surrounding the Charles Station site in Charles County, Maryland.[186] Therefore, the resulting representative estimates of background concentrations of criteria pollutants are conservative. Further, the EA estimates compressor station emissions based on continuous peak exposure (i.e., the station's maximum potential to emit), which is a conservative methodology. We find that the EA fully discloses an upper bound scenario of the impacts to background air quality from Charles Station emissions and concludes that these impacts will not be significant.

108. Kelly Canavan asserts that the EA does not account for the releases of methane and other chemicals from blowdowns and as fugitive emissions and does not consider the resulting health and environmental hazards. The Council comments that the EA does not clearly report the frequency of blowdowns at the Charles Station or the resulting emissions.

109. A blowdown event is the process of releasing natural gas from a pressurized system into the atmosphere. This typically occurs during start-up, shutdown, for maintenance activities, and during rare emergencies. The EA acknowledges that during blowdowns the Charles Station will release primarily methane (a greenhouse gas) as well as smaller volumes of ethane, propane, butane, pentane, and hexane.[187] The air quality modeling assessment filed with Cove Point LNG's application estimates 100 start-up/shutdowns per year with each lasting 10 minutes.[188] The assessment estimates the annual emissions from station blowdowns and from fugitive releases, respectively, as 4.89/5.99 tpy of volatile organic compounds, 10,836/13,268 tpy of greenhouse gases (calculated as carbon-dioxide-equivalent units, CO2-e), and 0.23/0.28 tpy of hazardous air pollutants.[189] The EA's estimate of annual emissions explicitly includes emissions from blowdowns.[190] As the EA explains, total emissions from the Charles Station will be below the thresholds for permitting as a major source. Instead the Charles Station will be permitted by the Maryland Department of the Environment as a minor source for both the

[186] *Id.*

[187] EA at 55.

[188] Application, Res. Report 9, app. 9-C at 2-3.

[189] Application, Res. Report 9, app. 9-C at 2-6 tbl.2-1.

[190] EA at 51, 55-56; *id.* at 55 tbl.B.8.1-4.

New Source Review and National Emission Standards for Hazardous Air Pollutants programs under the Clean Air Act.[191]

110. The EA concludes that indoor radon concentrations from consumers' use of Marcellus-Shale-sourced gas would remain below federal targets and that the risk to human health is not significant.[192] Joshua Kauffman criticizes the EA's discussion of radon gas emissions because it allegedly ignores potential impacts to human health from outdoor exposure to radon and to toxic polonium and lead as decay products of radon. Mr. Kauffman is specifically concerned about direct radiation to the body and chemical concentrations in drinking water and soil. Mr. Kauffman and several other commenters express concern that radon plumes will be emitted from the Charles Station and will travel away from the site, resulting in health impacts.

111. The EA appropriately omits a discussion of radon gas emissions to the outdoor atmosphere, drinking water, and soil because the impacts from such emissions to human and environmental health are negligible. For example, the EPA requires that the radon mitigation system for an indoor space must discharge radon gas from a point above the structure's roof line. The EPA estimates that the radon gas concentration dilutes to outdoor background levels as the gas moves 3 to 4 feet from the discharge point.[193] The distances from the Charles Station to the nearest property line and nearest residence are 425 feet and 1800 feet, respectively.[194] The commenters offer no evidence that the Charles Station would emit radon, polonium, or lead into the outdoor atmosphere at concentrations that would result in adverse impacts to human and environmental health.

112. Several commenters state that the EA does not adequately address the health impacts associated with emissions from the Charles Station and the degradation of air quality. Joshua Kauffman comments that emissions from the Charles Station will adversely impact sensitive plant species in the area, honeybee colonies, crop yields, general tree health, and sixteen agricultural businesses. Mr. Kauffman points specifically to ground level ozone and the toxic chemicals benzene, toluene, sulfuric oxide, and formaldehyde. Marcy and Richard Canavan also contend that emissions from the Charles

[191] EA at 49-51.

[192] EA at 58.

[193] EPA, *Why must radon be vented in the air above my home's roof*, https://iaq.zendesk.com/hc/en-us/articles/211432718-Why-must-radon-be-vented-into-the-air-above-my-home-s-roof- (last visited Oct. 3, 2017).

[194] EA at 62 fig.B.8.2-1.

Station will adversely impact their honeybees and farm. Jasmine Waring comments that the station will result increase the risk of chronic respiratory illnesses. Ms. Waring also states that the Charles Station's impacts on air quality will impact the growing population in Charles County, Maryland, including occupants of a new housing development under construction within 2 miles of the site.

113. Air quality resources are protected by the NAAQS established by the EPA for six criteria pollutants. As stated in the EA, the primary NAAQS standards protect public health, including the health of sensitive populations such as children, the elderly, and people with chronic respiratory problems[195]. The secondary NAAQS standards provide public welfare protection, including protection against decreased visibility, economic interests, and damage to animals, crops, vegetation, and buildings.[196] The EPA regulates ozone emissions by limiting emissions of nitrous oxides and volatile organic compounds, which react in air to form ozone. The EA demonstrates that the maximum concentrations of criteria pollutants emitted from the Charles Station, when combined with ambient background concentrations, will not exceed the NAAQS.[197] Emissions of hazardous air pollutants, like formaledehyde, from the Charles Station will be regulated by the Maryland Department of the Environment through a minor source permit.[198] Further, Cove Point LNG will mitigate emissions by installing both a Selective Catalytic Reduction (SCR) system and oxidation catalysts to reduce oxides of nitrogen, carbon monoxide, volatile organic compounds, and hazardous air pollutants. Cove Point LNG will also incorporate SoLoNO$_x$ technology into the turbines to limit emissions of oxides of nitrogen and of carbon monoxide.[199] For these reasons, we affirm the EA's conclusion that the Charles Station would not have a significant impact on air quality, and thus human health.

114. Theresa Lazar states that air will be trapped near her home due to a 100-foot-high hill to the east of the Charles Station. But the station site is not surrounded by hills that would trap air within a low valley. Also, the compressor units at the Charles Station will discharge exhaust at a minimum speed of 15.84 meters per second from stacks reaching

[195] EA at 48.

[196] *Id*.

[197] EA at 57 tbl.B.8.1-5.

[198] EA at 55-57; *id.* at 56 tbl.B.8.1-4 (estimating all potential operational emissions).

[199] EA at 57.

83 feet above ground level.[200] Discharge at this speed from this height will prevent the concentration of pollutants at ground level. We conclude that air emissions will not be trapped near Ms. Lazar's home.

115. The Council states that the EA does not disclose that SCR technology requires the use of ammonia. The Council asserts that Cove Point LNG proposes to use aqueous ammonia with a 19 percent weight fraction of ammonia to avoid the regulatory threshold of 20 percent that triggers a mandatory Risk Management Plan.[201]

116. The EA acknowledges that Cove Point LNG will install an aqueous ammonia-based SCR system.[202] The EPA establishes threshold quantities for regulated toxic and flammable substances based on their potential to cause death, injury, or serious adverse effects to human health or the environment.[203] Cove Point LNG disclosed in its application that it will use aqueous ammonia with a 19 percent weight fraction to be below the regulatory for a mandatory Risk Management Plan.[204] We conclude that Cove Point LNG's design for its SCR system is compliant with EPA regulations.

ii. Noise

117. Several commenters assert that noise from the Charles Station will be unacceptable. We disagree. As demonstrated in the EA, noise levels at the site are predicted to meet the Commission's requirement of a day-night level (L_{dn}) of 55 decibels on the A-weighted scale (dBA) at all noise sensitive areas during operation of the station.[205] Further, the increases in noise at the nearest NSAs are not anticipated to exceed 1 dBA, which is below the 3-dBA threshold for the human ear to perceive a change in loudness. In addition, Environmental Condition 12 in the appendix to this Order requires that Cove Point LNG file surveys after the Charles Station enters service to verify that it meets the 55-dBA limit. If it fails, Cove Point LNG must alter operations

[200] Application, Res. Report 9, app. 9-C at 3-5 (stack height), 3-8 tbl.3-2 (Stack Parameters and Emission Rates).

[201] *See* 40 C.F.R. § 68.130 (2017).

[202] EA at 53.

[203] 40 C.F.R. § 68.120 (2017).

[204] Application, Res. Report 9, app. 9A.

[205] EA at 61 tbl.B.8.2-3.

or install additional noise controls, or both, to meet the limit within 1 year of the in-service date.

118. The Council points to statements in the EA that blowdown silencers will reduce the noise from scheduled maintenance at the Charles Station to 60 dBA at a distance of 50 feet from the source,[206] which exceeds the Commission's 55-dBA limit. The Council also seeks clarification of the number of silenced and unsilenced blowdowns that will occur at the Charles Station. The Council contends that EIS is needed to rectify these discrepancies. The Council also asks that the Commission clarify any consequences of not complying with the 55-dBA limit and require that Cove Point LNG install noise controls within weeks rather than one year.

119. The Commission's 55-dBA limit must be met at noise sensitive areas, not necessarily in the immediate vicinity of project facilities. The nearest noise sensitive area is approximately 1,800 feet away from the noise sources at the Charles Station. The EA states that all blowdowns at the station will be vented through a silencer, with the possible exception of the rarely used emergency shutdown system.[207] The EA's evaluation explicitly considered silenced blowdowns, and we accept the conclusion that noise from the operating Charles Station will not exceed the 55-dBA limit at any noise sensitive area. Environmental Condition 12 in the appendix to this order plainly states the consequence for noncompliance. Historically, it is our experience that an operator is able to demonstrate compliance with our 55-dBA limit when a compressor station enters service without implementing additional mitigation measures. In cases of noncompliance, it may take up to a year for the operator to identify and implement mitigation measures to rectify excess noise, depending on the cause, even if the operator begins work immediately. Therefore, we are not persuaded to require a shorter timeframe to demonstrate effective noise controls.

120. Theresa Lazar states that Cove Point LNG inaccurately reported the noise at Ms. Lazar's home. Ms. Lazar states that the noise monitor recorded a day level of 34.2 decibels and a night level of 35.1 decibels. We believe that Ms. Lazar is referring to observed, unweighted decibel recordings, which are used to calculate dBA levels that account for human hearing sensitivity. As discussed in the EA, noise measurements are calculated as a day-night level (L_{dn}) and a 10-decibel penalty is ascribed to nighttime levels to account for people's increased sensitivity to noise at night.[208] Daytime and

[206] EA at 65.

[207] *Id.*

[208] EA at 58.

nighttime measurements reported for Ms. Lazar's home are 33.0 dBA and 35.1 dBA, respectively, which corresponds to the L_{dn} of 41.3 dBA indicated in Cove Point LNG's noise analysis.[209] We conclude that the noise survey at Ms. Lazar's home was conducted appropriately in accordance with standard noise recording and calculation methods and reflected the existing noise environment at that location accurately.

121. We accept with the EA's conclusion that noise impacts from the Eastern Market Access Project would not be significant.[210]

i. Safety

122. The EA explains that transportation facilities for natural gas, including compressor stations, involve some incremental risk to the public.[211] The EA concludes that with the implementation of required design criteria, the Eastern Market Access Project facilities would be constructed and operated safely.[212] Responding to comments, the EA also explains that the likelihood of future acts of terrorism or sabotage at the proposed facilities, or at any of the myriad natural gas pipeline or energy facilities throughout the U.S., is unpredictable.[213] But because there is need for natural gas transportation facilities, and because the Commission, the U.S. Department of Transportation, and the Office of Homeland Security would minimize the risk of terrorist sabotage to the maximum extent practical, the EA concludes that the risk does not support a finding that the Eastern Market Access Project should not be constructed.[214]

123. Theresa Lazar comments that the Charles Station will not be adequately secure from trespassers or terrorist activity because Cove Point LNG personnel will only be on site during business hours.

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[209] The following equations is used to calculate the resulting day-night noise level from measured daytime and nighttime noise: $L_{dn} = 10 \log (1 / 24 (15 (10^{L_d/10}) + 9 (10^{((L_n + 10)/10)}))$, where L_d is the measured daytime noise level and L_n is the measured nighttime level.

[210] EA at 66.

[211] *Id.*

[212] EA at 68.

[213] EA at 69.

[214] EA at 69.

124. The EA explains that Cove Point LNG will employ several measures, in addition to personnel being on site during business hours, to ensure safety at the Charles Station. These include continuously monitoring the Charles Station from Cove Point LNG's offsite Gas Control Center using sophisticated computer and telecomunications equipment as well as incorporating regular aerial and foot patrols into Cove Point LNG's periodic inspection and maintenance program.[215] The station will be surrounded by secure fencing and will be equipped with an Emergency Shutdown System that stops engines and isolates and vents compressor piping.[216] Broadly, the Commission is cooperating with other federal agencies, industry trade groups, and interstate natural gas companies to improve pipeline security practices, strengthen communications within the industry, and extend public outreach in an ongoing effort to make natural gas transportation infrastructure even more secure.[217]

125. Several commenters express concern that nearby residents will not be able to detect gas leaks because Cove Point LNG will not use an odorant in natural gas at the Charles Station, increasing the risk of fire or explosion. The Moyaone Association asserts that the Charles Station poses a risk to families, wildlife, and farms represented by the association if viewed on a 50-year or longer time scale, including a very high risk of "catastrophic fire." Several commenters assert that the local volunteer fire department cannot adequately respond in the event of fire or explosion at the Charles Station site, in part because periodic flooding may limit access during an emergency. The Council comments that a "Quantitative Risk Assessment" must be performed to determine the probability and consequences of an incident at the Charles Station.

126. We note that methane, the primary component of natural gas, is a buoyant, nontoxic gas that disperses rapidly in air.[218] Cove Point LNG is subject to mandatory safety requirements to detect and stop leaks. Under the Commission's regulations, an applicant must certify that it will design, install, inspect, test, construct, operate, replace, and maintain proposed facilities in accordance with safety standards from the U.S.

[215] EA at 68.

[216] *Id*.

[217] EA at 69.

[218] EA at 66.

Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) and other federal safety standards and plans for maintenance and inspection.[219] PHMSA regulations require that operators such as Cove Point LNG establish and maintain a written emergency and response plan. This plan will include provisions for receiving, identifying, and classifying emergency events, gas leakage, fires, explosions, and natural disasters.[220] The EA also notes that Cove Point LNG must comply with New Source Performance Standards recently issued by EPA for natural gas facilities that together will curb emissions of methane, smog-forming volatile organic compounds, and toxic air pollutants.[221] These standards limit the emissions from compressor stations and require that natural gas owners/operators develop and implement a leak monitoring plan.[222] We conclude that existing legal requirements are adequate to minimize leaks at the Charles Station and adequately ensure public safety.

127. We also conclude that existing legal requirements are adequate to prepare an effective response to emergencies such as fire or explosion. The EA explains that the emergency and response plan required by PHMSA must also include provisions for the following:

- establishing and maintaining communications with local fire, police, and public officials, and coordinating emergency response;
- emergency system shutdown and safe restoration of service;

[219] 18 C.F.R. § 157.14(a)(10)(vi) (2017); *see* 49 C.F.R. pt 192 (2017) (Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards).

[220] EA at 67.

[221] EA at 51; EPA, *Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources*, 81 Fed. Reg. 35,824 (June 3, 2016) (amending 40 C.F.R. pt. 60, subpts. OOOO, OOOOa); *Source Determination for Certain Emission Units in the Oil and Natural Gas Sector*, 81 Fed. Reg. 35,622 (June 3, 2016) (amending 40 C.F.R. pts. 51, 52, 70, 71). *See also Clean Air Council v. Pruitt*, 862 F.3d 1, 9-14 (D.C. Cir. 2017) (vacating the EPA's attempt to stay the performance standards based on four plainly "inaccurate and thus unreasonable" bases).

[222] EA at 51; EPA, *Summary of Requirements for Equipment at Natural Gas Transmission Compressor Stations* at 2-3 (Oct. 2016), https://www.epa.gov/sites/production/files/2016-10/documents/nsps-gas-transmission-fs.pdf.

- making personnel, equipment, tools, and materials available at the scene of an emergency; and
- protecting people first and then property, and making them safe from actual or potential hazards.[223]

128. PHMSA regulations establish requirements for fire protection equipment at compressor stations.[224] Cove Point LNG will have firefighting equipment on site, including dry chemical fire extinguishers and will work closely with local first responders to ensure they have the resources and information to assist in potential emergency situations involving the pipeline.[225]

129. Based on Cove Point LNG's compliance with federal design and safety standards, we agree with the EA's conclusion that construction and operation of the project will represent only a slight increase in risk to the nearby public. No additional "Quantitative Risk Assessment" is necessary. The Council asserts that regulators do not provide data on compressor accidents. This is not so. PHMSA provides data about incident reports submitted over the past 20 years for gas transmission facilities, including compressor stations.[226] There were 19 reported compressor station incidents during this period resulting in one injury and no fatalities.[227] Given the vast extent of the nation's existing pipeline infrastructure, and the many mandatory safety regulations, the likelihood of an incident at the Charles Station or any other compressor station is low.

130. Several commenters state that flaring will occur at the Charles Station and that there is no system in place to alert nearby landowners of flaring and blowdown events.

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[223] EA at 67.

[224] *Id*. (citing 49 C.F.R. § 192.171)

[225] *Id*.

[226] PHMSA, Report, "All Reported Incident 20 Year Trend," Pipeline Data Mart, http://opsweb.phmsa.dot.gov/primis_pdm/all_reported_inc_trend.asp (last visited Oct. 5, 2017). Reports are best viewed with the browsers Internet Explorer or Mozilla Firefox.

[227] *Id*. In the field for "System Type," select "Gas Transmission." The page will reload. Click the number *103* in blue text next to the label "20 Year Average – (1997-2016)." A table will open in a new window. See the row labeled "Compressor or Compressor-Related Equipment" under the category "MATERIAL/WELD/EQIP FAILURE."

As stated in the EA, flaring will not occur at the Charles Station[228] and landowners will be notified 1 to 2 days prior to a planned blowdown event.[229]

8. Cumulative impacts

131. A proposed project's cumulative impact is "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."[230] The EA acknowledges that the Eastern Market Access Project will result in both temporary and permanent incremental impacts, with most impacts contained within previously disturbed areas and no impacts predicted to be significant.[231] The EA identifies and evaluates 26 other actions located near the proposed project facilities.[232] The EA concludes that the project and these other actions will not result in a significant cumulative impact to any affected resource.[233]

132. The EPA recommends that the Commission evaluate the cumulative impact of facilities associated and appurtenant to the project, to the greatest extent possible. The EA satisfies this recommendation by analyzing nonjurisdictional project-related facilities, including facility details, applicable permits and approvals from other agencies, direct impacts, and cumulative impacts.[234] These nonjurisdictional project-related facilities

[228] EA at 55, 68.

[229] EA at 55.

[230] 40 C.F.R. § 1508.7 (2017).

[231] EA at 69-70.

[232] EA at 75-76 tbl.B.10.1-1. For each affected resource, the EA evaluates other actions within the following geographic scopes: geology, soils, vegetation, and wildlife (within or adjacent to project workspaces and, for the Charles Station, within the hydrologic unit code 12 watershed); air quality (0.25 mile for temporary impacts and a 30-mile radius for permanent impacts); noise (0.25 mile for temporary impacts and a 1 mile radius for permanent impacts); land use, visual, and aesthetic impacts (within 1 mile); socioeconomics (within affected counties and, for the Charles Station, also census tracts within neighboring Prince George's County). EA at 70.

[233] EA at 72-78.

[234] EA at 2-7 (descriptions and direct impacts); *id*. at 70-80 (integrated into cumulative impacts); *id*. at 75-76 tbl.B.10.1-1 (listing nonjurisdictional project-related facilities).

include a new WGL M&R station to be constructed next to Cove Point LNG's existing WGL interconnect; the Mattawoman Energy Center, including a receipt pipeline and M&R station; a replacement bridge, water well, septic system, and electrical power station to be installed at the Charles Station site; and new electrical power facilities to be installed at the Loudoun Compressor Station.

133. The EA acknowledges that the Mattawoman Energy Center is related to the project to the extent that it will be receiving or using the proposed natural gas volumes.[235] The EA also recognizes that the Mattawoman Energy Center and the other nearby generating facilities in the area—specifically the Panda Stonewall Power Project, the Brandywine Power Project, St. Charles Energy Center, and the Keys Energy Center[236]—may result in cumulative environmental impacts primarily to air quality.[237]

134. The EA explains that the 990-megawatt Mattawoman Energy Center will occupy an 88-acre site owned by Mattawoman in Prince George's County, Maryland. The EA provides a table of all certificates, permits, and approvals that apply to the Mattawoman Energy Center at the federal, state, or local level, including the administering agency and status for each.[238] The Maryland Public Service Commission approved the construction

[235] *See* EA at 2, 5-7 (providing a description of the non-jurisdictional facilities to "disclose the nature and extent" of the facilities); *see also* 18 C.F.R. § 380.12(c)(2)(ii) (2017).

[236] The Panda Stonewall Power Project is a new 778-MW combined-cycle generating facility that began operating in May 2017 approximately 5 miles from the Loudoun Compressor Station. The Brandywine Power Project is a 230-MW cogeneration facility that began operating in 1996 approximately 11 miles southeast of the Charles Station site. The St. Charles Energy Center is a new 725-MW generating facility that is under construction approximately 11.5 miles southeast of the Charles Station site. The Keys Energy Center is a new 755-MW combined-cycle generating facility that began operating in March 2017 approximately 14.6 miles northeast of the Charles Station site. EA at 71-72; 75-76 tbl.B.10.

[237] EA at 70-72 (Section B(10.0) – Cumulative Impacts); EA at 75-76 tbl.B.10.1-1 (Section B(10.3) – Cumulative Impacts: Land Use) (describing these generating facilities); EA at 76*, 77* tbl.B.10-2, 78* (Section B(10.5) – Cumulative Impacts: Air Quality) (noting that combined impacts to air quality are the primary potential cumulative impacts).

[238] EA at 6 tbl.A.4.3-1.

of the Mattawoman Energy Center on October 13, 2015.[239] As part of the Maryland Public Service Commission's review of the proposed Mattawoman Energy Center, it conducted a thorough environmental review of the project.[240] That review concluded, among other things, that if the Mattawoman Energy Center is constructed and operated in accordance with the state's recommended licensing conditions, it would have minimal impacts on visibility, vegetation, wildlife, soils, and growth in the region,[241] would have no significant impacts on wetland communities;[242] would have no noted impacts on rare, threatened, and endangered species;[243] would have no impact on historic properties;[244] and would not cause significant noise impacts.[245] With respect to air quality, the Maryland Public Service Commission found that the proposed Mattawoman Energy Center would not cause any significant impacts to air quality and would not adversely affect the attainment of NAAQS or Prevention of Significant Deterioration increments.

135. With respect to the other generating facilities in the area, information was publicly available to estimate the emissions of criteria pollutants, hazardous air pollutants, and greenhouse gases from the Keys Energy Center and Panda Stonewall Power Project.[246] The EA explains that only the Eastern Market Access Project's new Charles Station

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[239] *Mattawoman Energy, LLC*, Order No. 87243, Case No. 9330 (Md.P.S.C. Oct. 13, 2015) (final on Nov. 13, 2015).

[240] Environmental Review Document, Case No. 9330 (Md.P.S.C. July 10, 2015) http://www.psc.state.md.us/ (type 9330 in the "Case Search" field and select item 83 from the search results).

[241] *Id*. at 6-2.

[242] *Id.* at 6-4.

[243] *Id.* at 6-5-6-6.

[244] *Id*. at 6-14.

[245] *Id*. at 6-15.

[246] EA at 77* tbl.B.10-2 (Section B(10.5) – Cumulative Impacts: Air Quality). For the Keys Energy Center and Panda Stonewall Power Project these are NO_x (157.1 tpy, 159 tpy); CO (203.9 tpy, 205.6 tpy); VOCs (56.4 tpy, 37.6 tpy); SO_2 (10.7 tpy, 5.44 tpy); $PM_{2.5}$ (94.5 tpy, 98.1 tpy); total HAPs (2.9 tpy, 7.9 tpy); and GHGs (2,467,912 tpy CO_2e, 2,468,468 tpy CO_2e).

would be a "minor source" of air emissions.[247] Based on the distance of the Charles Station from the identified generating facilities, the EA concludes that the project would not contribute to a cumulative impact on air quality during construction.[248] The EA adds that all of the generating facilities are or would be required to comply with all applicable federal air quality permitting programs, including the NAAQS, any associated monitoring or reporting requirements, and each state's State Implementation Plan (SIP).[249] These facilities also do or will employ various emissions-reducing technologies and system efficiencies, including SCR, oxidation catalysts, and waste-heat recovery to ensure regulatory compliance and minimize operational air emissions.[250]

136. We accept the EA's analysis of the Mattawoman Energy Center and other generating facilities in the area. Based on the EA, supplemented with the analysis from the Maryland Public Service Commission, we conclude that these generating facilities will not contribute to significant cumulative impacts on air quality during construction and operation of the Eastern Market Access Project.

137. The EPA recommends that the Commission analyze the cumulative impact to air quality of other activities near the Loudoun Compressor Station regardless of the fact that there would be no long-term air quality impacts associated with the project's modifications to that compressor station. We conclude that further analysis is not warranted. "The scope of the cumulative impact analysis is related to the magnitude of the environmental impacts of the proposed action," and actions that will have no significant direct and indirect impacts usually require only a limited cumulative impacts analysis.[251] The EA reflects this relationship. Because the Loudoun Compressor Station will result in minor temporary impacts on air quality, the EA also consider the potential cumulative impact from the construction of a new housing development in the same timeframe. But because the Loudoun Compressor Station would result in only very minor operational impacts related to fugitive emissions, the EA makes no further analysis of potential cumulative impact during operations.

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[247] EA at 76* (Section B(10.5) – Cumulative Impacts: Air Quality).

[248] EA at 77* (Section B(10.5) – Cumulative Impacts: Air Quality).

[249] *Id.*

[250] EA at 77* (Section B(10.5) – Cumulative Impacts: Air Quality).

[251] *See* CEQ, *Memorandum on Guidance on Consideration of Past Actions in Cumulative Effects Analysis* at 3 (June 24, 2005).

138. The EA states that it is highly likely that gas-fired generation facilities in Maryland would replace coal-fired generation facilities, thus resulting in reduced air emissions.[252] The EPA recommends that the EA compare the emissions of a gas-fired generation facility to those from a coal-fired generation facility. If the Mattawoman Energy Center matches the 2016 average capacity factor for natural gas combined-cycle plants, then it will produce 4,856,544 megawatt-hours (MWh) of electricity each year.[253] This level of generation would require 37.2 trillion British Thermal Units (BTU) of natural gas or 48.9 trillion BTU of coal.[254] The combustion of 37.2 trillion BTU of natural gas would emit 2.2 million tpy of carbon dioxide.[255] The combustion of 48.9 trillion BTU of coal would emit 5.1 million tpy of carbon dioxide.[256] The difference of 2.9 million tpy represents a 57 percent reduction in carbon dioxide emissions.

139. The EA uses publicly available information to estimate maximum potential emissions of other pollutans from the 990-megawatt Mattawoman Energy Center: nitrogen oxides (242.1 tpy), carbon monoxide (568.8 tpy), sulfur dioxide (19.6 tpy),

[252] EA at 77-78.

[253] This figure is 56.3 percent of the Mattawoman Energy Center's maximum potential output of 8,672,400 MWh (i.e., 900 megawatts multiplied by 8760 hours in one year). U.S. Energy Information Administration, *Electric Power Monthly* at 164 tbl.6.7.A (Sept. 26, 2017), https://www.eia.gov/electricity/monthly/archive/september2017.pdf.

[254] The heat rate for a natural gas combined cycle plant is 7.6 million BTU per MWh and for a coal-fired steam generator is 10.1 million BTU per MWh. U.S. Energy Information Administration, *Electric Power Annual* at 168 tbl.8.2 (Nov. 2016), https://www.eia.gov/electricity/annual/pdf/epa.pdf. The product of 4,856,544 MWh multiplied by 7.6 million BTU/MWh is 37.2 trillion BTU. The product of 4,856,544 MWh multiplied by 10.1 million BTU/MWh is 48.9 trillion BTU.

[255] Natural gas has a carbon dioxide emission factor of 116.9 pounds per million BTU. EPA, Combined Heat and Power Partnership, *Fuel and Carbon Dioxide Emissions Savings Calculations for Combined Heat and Power Systems* at 8 tbl.1 (Feb. 2015). The product of 116.9 pounds per million BTU multiplied by 37.2 trillion BTU is 4.3 billion pounds or 2.2 tons.

[256] Coal (of mixed types) has a carbon dioxide emission factor of 207.1 pounds per million BTU. *Id.* The product of 207.1 pounds per million BTU multiplied by 48.9 trillion BTU is 10.1 billion pounds or 5.1 million tons.

particulate matter (161.3 tpy), and volatile organic compounds (149.5 tpy).[257] The combustion of 48.9 trillion BTU of bituminous coal (equal to 1.7 million tons)[258] would emit the same pollutants at the following levels: nitrogen oxides (4,250 tpy), carbon monoxide (15,300 tpy), and sulfur dioxide (31,350 tpy);[259] filterable particulate matter (24,990 tpy);[260] and many volatile organic compounds including benzene (1.07 tpy) and formaldehyde (0.20 tpy).[261] The combustion of coal would also emit several unique pollutants, for example, the acid gases hydrogen chloride (990 tpy) and hydrogen fluoride (123.75 tpy)[262] and the trace metals arsenic (676 pounds per year), lead (693 pounds per year), and mercury (134 pounds per year).[263]

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[257] EA at 77* tbl.B.10-2 (estimating potential-to-emit emissions associated with several area generating stations).

[258] The quotient of 48.9 trillion BTU divided by a conservatively high estimate of 14,730 BTU per pound of bituminous coal is 3.3 billion pounds or 1.7 million tons. EPA, *AP-42: Compilation of Air Emission Factors*, vol. I, at 1.1-1 (5th ed. Jan. 1995) (as supplemented in 1996 and 1998), https://www3.epa.gov/ttn/chief/ap42/ch01/index.html.

[259] *Id*. at 1.1-19 tbl.1.1-3 (providing emission factors for nitrogen oxides (5.0 lb/ton) and carbon monoxide (18 lb/ton) associated with circulating fluidized bed combustion).

[260] EPA, *AP-42: Compilation of Air Emission Factors*, vol. I, at 1.1-21 to 1.1-23 tbl.1.1-4 (5th ed. Jan. 1995) (as supplemented in 1996 and 1998) (providing emission factors for filterable particulate matter (17 lb/ton) and filterable particulate matter sized 10 microns (12.4 lb/ton) associated with circulating fluidized bed combustion). The estimate combines 14,450 tpy of filterable particulate matter and 10,540 tpy of filterable particulate matter sized 10 microns.

[261] *Id*. at 1.1-34 tbl.1.1-14 (providing emission factors for benzene (1.3×10^{-3} lb/ton) and formaldehyde (2.4×10^{-4} lb/ton)). The EPA also identifies several types of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, *id*. at 1.1-32 tbl.1.1-12; 16 types of polycyclic aromatic hydrocarbons, *id.* at 1.1-33 tbl.1.1-13; and 37 types of organic compounds including benzene and formaldehyde, *id.* at 1.1-34 to 1.1-35 tbl.1.1-14.

[262] *Id*. at 1.1-36 tbl.1.1-15 (providing emission factors for hydrogen chloride (1.2 lb/ton) and hydrogen fluoride (0.15 lb/ton)).

[263] *Id*. at 1.1-39 tbl.1.1-18 (providing emission factors for arsenic (4.1×10^{-4} lb/ton), lead (4.2×10^{-4} lb/ton), and mercury (8.3×10^{-5} lb/ton)). Other trace metals

140. Erica Barry states that emissions from the Charles Station will contribute to climate change. The EA discusses the expected impacts from climate change in the project region and acknowledges that the quantified greenhouse gas emissions from the project itself and from the end use combustion of transported gas will contribute incrementally to climate change.[264] The EA also explains that there is currently no scientifically accepted methodology to correlate specific quantities of greenhouse gas emissions with discrete changes to average temperature, annual precipitation, surface water temperature, or other physical effects on the environment in the Northeast region.[265] We agree with the EA's conclusion that we cannot determine whether the project's contribution to cumulative impacts on climate change would be significant.[266]

D. Conclusion

141. Based on the analysis in the EA, as supplemented herein, we conclude that if constructed and operated in accordance with Cove Point LNG's application and supplements, and in compliance with the environmental conditions in the appendix to this Order, our approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

142. 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.[267]

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include antimony, beryllium, cadmium, chromium, cobalt, magnesium, manganese, nickel, and selenium.

[264] EA at 54-57, 76*-80.

[265] EA at 80.

[266] *Id*.

[267] *See* 15 U.S.C. § 717r(d) (2012) (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).

143. The Commission on its own motion received and made a part of the record in this proceeding all evidence, including the applications, and exhibits thereto, and all comments and upon consideration of the record,

The Commission orders:

(A) A certificate of public convenience and necessity is issued authorizing Dominion Energy Cove Point LNG, LP, to construct and operate the Eastern Market Access Project, as described in this order and in the application.

(B) The certificate authority issued in Ordering Paragraph (A) is conditioned on Dominion Energy Cove Point LNG, LP:

(1) completing the authorized construction of the proposed facilities and making them available for service within two years from the date of this order, pursuant to section 157.20(b) of the Commission's regulations;

(2) complying with all applicable Commission regulations under the NGA including, but not limited to, Parts 154 and 284, and paragraphs (a), (c), (e), and (f) of section 157.20;

(3) complying with the environmental conditions listed in the Appendix to this order;

(4) prior to commencement of construction, filing a written statement affirming that it has executed firm contracts for the volumes and service terms equivalent to those in its precedent agreements.

(E) Dominion Energy Cove Point LNG, LP's, proposed incremental recourse reservation and usage charges are accepted as initial rates for the project, subject to the changes discussed above.

(F) Dominion Energy Cove Point LNG, LP, must file actual tariff records with the incremental firm reservation and usage charges no earlier than 60 days and no later than 30 days prior to the date that project facilities go into service.

(G) Dominion Energy Cove Point LNG, LP, shall notify the Commission's environmental staff by telephone and/or e-mail of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Dominion Energy Cove Point LNG, LP. Dominion Energy Cove Point LNG, LP shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

(H) The late motions to intervene are granted.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix

Environmental Conditions for the Eastern Market Access Project

As recommended in the Environmental Assessment (EA) and modified herein, this authorization includes the following conditions:

1. Dominion Energy Cove Point LNG, LP (Cove Point LNG) 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 EA, unless modified by the Order issuing Certificate (Order). Cove Point LNG 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
   d. receive approval in writing from the Director of the Office of Energy Project (OEP) before using that modification.

2. The Director of OEP, or the Director's designee, has delegated authority to address any requests for approval or authorizations necessary to carry out the conditions of the Order, and to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the Eastern Market Access Project (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 impact resulting from project construction and operation.

3. **Prior to any construction**, Cove Point LNG shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, Environmental Inspectors (EI), and contractor personnel will be informed of the EI's 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 EA, as supplemented by filed facility maps. **As soon as they are available and before the start of**

construction, Cove Point LNG shall file with the Secretary any revised detailed facility maps/plot plans at a scale not smaller than 1:6,000 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 maps/plans.

5. Cove Point LNG shall file with the Secretary detailed maps/plot plans and aerial photographs at a scale not smaller than 1: 6,000 identifying all facility relocations and all 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/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area.**

   This requirement does not apply to extra workspace allowed by the Commission'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 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. **Within 60 days of the acceptance of the Certificate and before construction begins**, Cove Point LNG shall file an Implementation Plan for the project with the Secretary for review and written approval by the Director of OEP. Cove Point LNG must file revisions to their plan as schedules change. The plan shall identify:

   a. how Cove Point LNG will implement the construction procedures and mitigation measures described in its applications and supplements (including responses to staff data requests), identified in the EA, and required by the Order;

   b. how Cove Point LNG 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 onsite construction and inspection personnel;

c. the number of EIs assigned, 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 the company will give to all personnel involved with construction and restoration (including initial and refresher training as the project progresses and personnel change);

f. the company personnel (if known) and specific portion of the company's organization having responsibility for compliance;

g. the procedures (including use of contract penalties) Cove Point LNG will follow if noncompliance occurs; and

h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:

(1) the completion of all required surveys and reports;

(2) the environmental compliance training of onsite personnel;

(3) the start of construction; and

(4) the start and completion of restoration.

7. Cove Point LNG shall employ at least two EIs for the project. 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, Cove Point LNG shall file updated status reports for the project with the Secretary **on a monthly 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 efforts to obtain the necessary federal authorizations;

   b. the construction status of the project, 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 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 the company from other federal, state, or local permitting agencies concerning instances of noncompliance, and Cove Point LNG's response.

9. **Cove Point LNG must receive written authorization from the Director of OEP before commencing construction of any project facilities.** To obtain such authorization, Cove Point LNG must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).

10. Cove Point LNG must receive written authorization from the Director of OEP **before placing its project into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of the areas affected by the project are proceeding satisfactorily.

11. **Within 30 days of placing its authorized facilities in service**, Cove Point LNG 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 the Certificate conditions with which Cove Point LNG has complied or will comply. 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.

12. Cove Point LNG shall file a noise survey with the Secretary **no later than 60 days** after placing the Charles Station in service. If a full load condition noise survey is not possible, Cove Point LNG shall instead file an interim survey at the maximum possible horsepower load and file the full load survey **within 6 months**. If the noise attributable to the operation of all of the equipment at the station under interim or full horsepower load exceeds a day-night level (L_{dn}) of 55 decibels on the A-weighted scale (dBA) at any nearby noise sensitive area, Cove Point LNG shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year of the in-service date**. Cove Point LNG shall confirm compliance with the of 55 dBA L_{dn} requirement by filing a second noise survey with the Secretary **no later than 60 days after** it installs the additional noise controls.

13. Cove Point LNG shall file a noise survey with the Secretary **no later than 60 days** after placing the new equipment at the Loudoun Compressor Station in service. If a full load condition noise survey is not possible, Cove Point LNG shall instead file an interim survey at the maximum possible horsepower load and file the full load survey **within 6 months**. If the noise attributable to the operation of all of the equipment at the Loudoun Compressor Station under interim or full horsepower load exceeds 55 dBA L_{dn} at any nearby noise-sensitive area, Cove Point LNG shall file a report on what changes are needed and shall install the additional noise controls to meet the level within **1 year of the in-service date**. Cove Point LNG shall confirm compliance with the 55 dBA L_{dn} requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls.