

161 FERC ¶ 61,314
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Neil Chatterjee,
Robert F. Powelson, and Richard Glick.

Columbia Gas Transmission, LLC

Docket Nos. CP16-357-000

Columbia Gulf Transmission, LLC

CP16-361-000

ORDER ISSUING CERTIFICATES AND APPROVING ABANDONMENT

(Issued December 29, 2017)

1. On April 29, 2016, Columbia Gas Transmission, LLC (Columbia Gas) filed an application in Docket No. CP16-357-000, pursuant to sections 7(b) and 7(c) of the Natural Gas Act (NGA)¹ and Part 157 of the Commission's regulations,² for authorization to construct, operate, abandon, replace, and modify facilities on its system in West Virginia (Mountaineer XPress Project).
2. On the same date, Columbia Gulf Transmission, LLC (Columbia Gulf) filed an application in Docket No. CP16-361-00, pursuant to section 7(c) of the NGA and Part 157 of the Commission's regulations, for authorization to construct and operate seven new compressor stations, and to modify one previously authorized compressor station and one existing meter station in Kentucky, Tennessee, and Mississippi (Gulf XPress Project).³
3. As discussed below, the Commission grants the requested authorizations, subject to conditions.

¹ 15 U.S.C. § 717(f) (2012).

² 18 C.F.R. pt. 157 (2017).

³ Columbia Gas filed supplements to its application on May 3 and 6, 2016, and Columbia Gulf filed a supplemental errata to its application on May 4, 2016.

I. Background

4. Columbia Gas, a limited liability corporation formed under Delaware law, is a natural gas company as defined by section 2(6) the NGA.⁴ Its natural gas transmission and storage system extends through Delaware, Kentucky, Maryland, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia, and West Virginia.

5. Columbia Gulf, a limited liability corporation formed under Delaware law, is also a natural gas company as defined under section 2(6) the NGA.⁵ Its natural gas transmission system extends approximately 3,300 miles, from Louisiana through Mississippi and Tennessee to northeastern Kentucky.

II. Proposals

A. Columbia Gas (Mountaineer XPress Project)

6. Columbia Gas proposes to construct and operate the Mountaineer XPress Project to provide up to 2,660,000 dekatherms per day (Dth/d) of firm transportation service from receipt points in West Virginia, Ohio, and Pennsylvania, to delivery points at Columbia Gas' TCO Pool (1,800,000 Dth/d),⁶ which supplies multiple Midwest, Northeast, and Mid-Atlantic markets, and at Columbia Gas' Leach interconnect with Columbia Gulf (860,000 Dth/d), which serves markets in the South and the Gulf Coast.

7. The Mountaineer XPress Project will involve the construction of the following pipeline facilities:

- approximately 164.5 miles of new 36-inch-diameter pipeline (MXP-100) located in Marshall, Wetzel, Tyler, Doddridge, Ritchie, Calhoun, Wirt, Roane, Jackson, Mason, Putnam, and Cabell Counties, West Virginia;
- approximately 6.0 miles of new 24-inch-diameter pipeline (MXP-200) located in Doddridge County, West Virginia;
- approximately 0.4 mile of 30-inch-diameter replacement pipeline on Columbia Gas' existing Lines SM-80 and SM-80 Loop (an approximately 0.2-mile continuous segment on each pipeline) located in Cabell County, West Virginia; and

⁴ 15 U.S.C. § 717a(6) (2012).

⁵ *Id.*

⁶ The TCO Pool is the main pooling point on Columbia Gas' system.

- abandonment of the segments of the existing Line SM-80 and SM-80 Loop that are being replaced.

8. Columbia Gas also proposes to construct and operate the following aboveground facilities:

- the MXP-100 Tie-in Site – a bi-directional tie-in facility at the beginning of the MXP-100 pipeline in Marshall County, West Virginia, with pig launcher/receiver equipment connected to Columbia Gas' Leach XPress Pipeline⁷;
- the new Sherwood Compressor Station at the beginning of the Sherwood Lateral on the MXP-100 pipeline in Doddridge County, West Virginia, consisting of two Solar Taurus 60 natural gas turbine-driven compressor units, and two horsepower (hp) Solar Mars 100 natural gas turbine-driven compressor units producing approximately 47,200 ISO rated horsepower, pressure regulation, two pig launcher/receivers for interconnections with the MXP-100 pipeline and the MXP-200 Sherwood Lateral pipeline, and a connection to a planned, non-jurisdictional MarkWest Energy Partners pipeline;
- the Sherwood MXP-200 Tie-in Site – a new bi-directional tie-in facility on the MXP-200 Sherwood Lateral pipeline in Doddridge County, West Virginia, with a pig launcher/receiver, connecting the proposed MXP-200 Sherwood Lateral pipeline to the existing Columbia Gas Line 1983;
- the new White Oak Compressor Station on the MXP-100 pipeline in Calhoun County, West Virginia, consisting of two 22,400 hp Solar Titan 130E natural gas turbine-driven compressor units producing approximately 44,800 ISO rated horsepower and two pig launcher/receivers;
- the new Ripley Regulating Station on the MXP-100 pipeline in Jackson County, West Virginia, to receive and deliver natural gas supplies to and from Columbia Gas' existing X59M1⁸ pipeline;

⁷ The Commission authorized the construction and operation of the Leach XPress Project on January 19, 2017. *Columbia Gas Transmission, LLC*, 158 FERC ¶ 61,046 (2017).

⁸ Line X59M1 is the primary transmission pipeline through which natural gas is injected into and withdrawn from Columbia's existing Ripley Storage Field.

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- the new Mt. Olive Compressor Station on the MXP-100 pipeline in Jackson County, West Virginia, consisting of three 20,500 hp Solar Titan 130 natural gas turbine-driven compressor units producing approximately 61,500 ISO rated horsepower and two pig launcher/receivers;
- the Saunders Creek Tie-in Site – a new regulator station on the MXP-100 pipeline in Cabell County, West Virginia, to deliver natural gas to Columbia Gas’ existing SM80 and SM80 Loop pipelines;
- modifications to the Lone Oak Compressor Station in Marshall County, West Virginia, to add one compressor unit producing approximately 15,900 ISO rated horsepower;
- modifications to the Ceredo Compressor Station in Wayne County, West Virginia, to add two compressor units producing approximately 43,000 ISO rated horsepower. As part of the Mountaineer XPress Project, a new Solar Titan 250 natural gas turbine-driven compressor unit of 30,000 hp will be installed at the Ceredo Compressor Station, and Columbia Gas will replace existing natural gas-fired Unit No. 9 of 12,500 hp with a new electric motor driven Unit No. 13 of 13,000 hp;
- modifications to the Elk River Compressor Station in Kanawha County, West Virginia to add one Solar Mars 100 natural gas turbine-driven compressor unit producing approximately 15,900 ISO rated horsepower; and
- various appurtenances.

9. Columbia Gas explains that it is proposing to abandon and replace 0.4 mile of its existing SM-80/SM-Loop pipeline, as described above, to restore its original maximum allowable operating pressure (MAOP) of 935 pounds per square inch, gauge (psig). Columbia Gas states that this line connects the Leach Interconnect to Columbia Gas’ Line WB⁹ and that restoration of the original MAOP on this line will benefit existing shippers as well as expansion shippers. Columbia Gas states that the costs of replacing these portions of its facilities will be shared by its existing customers and shippers on the Mountaineer XPress Project pursuant to Columbia Gas’ Modernization Settlement that was approved by the Commission on March 17, 2016.¹⁰ Specifically, 50 percent of the

⁹ Columbia Gas received authorization in a separate proceeding to replace another section of its Line SM-80 pipeline system. *Columbia Gas Transmission, LLC*, 156 FERC ¶ 61,125 (2016).

¹⁰ *Columbia Gas Transmission, LLC*, 154 FERC ¶ 61,208 (2016).

estimated costs of replacing the existing SM-80/SM-Loop pipeline segments are included in the incremental rates for the Mountaineer XPress Project shippers, and the remaining 50 percent of estimated costs will be recovered from existing customers through operation of the Capital Cost Recovery Mechanism (CCRM) provided for in the Modernization II Settlement.¹¹

10. Regarding the replacement of Unit No. 9 (12,500 hp) with Unit No. 13 (13,000 hp) at the Ceredo Compressor Station, Columbia Gas explains that the replacement costs (\$30 million) will be recovered from existing shippers through the CCRM in the Modernization II Settlement. Columbia Gas proposes to attribute the fixed costs associated with the 500 hp of additional capacity to the Mountaineer XPress Project.

11. Columbia Gas held a non-binding open season ending on September 20, 2014, and a binding open season from March 27 through April 23, 2015, for service on the Mountaineer XPress Project. Columbia Gas also offered to evaluate proposals from existing shippers to turn back firm transportation capacity under existing service agreements during the binding open season (reverse open season), but received no conforming offers. As a result of the open season, Columbia Gas executed binding precedent agreements with eight shippers for approximately 98 percent of the project's available transportation service of 2,660,000 Dth/d for a primary term of 15 years.¹² The project shippers have elected to pay negotiated rates.

12. Columbia Gas estimates the proposed facilities will cost approximately \$2.059 billion. Columbia Gas proposes to establish an incremental recourse reservation rate for firm transportation service on the project facilities under Rate Schedule FTS (Firm Transportation Service). Columbia Gas also proposes to charge its existing commodity rate under Rate Schedule FTS, generally applicable fuel retention and electric power rates, and other applicable charges set forth in Columbia Gas' FERC Gas Tariff for service on the project.

B. Columbia Gulf (Gulf XPress Project)

13. Columbia Gulf proposes to construct the Gulf XPress Project to provide up to 860,000 Dth/d of firm transportation service from an existing interconnection with

¹¹ The CCRM allows Columbia to make annual limited filings under section 4 of the NGA to charge an additive capital demand rate, to recover Columbia Gas' revenue requirement related to certain eligible facilities.

¹² Columbia filed the precedent agreements in Exhibit I of its application and requested that the agreements be accorded privileged and confidential treatment pursuant to section 388.112 of the Commission's Rules of Practice and Procedure.

Columbia Gas in Leach, Kentucky, south to delivery points on Columbia Gulf's system including the Gulf Mainline Pool.

14. Specifically, Columbia Gulf proposes to construct seven new compressor stations that will allow for bi-directional compression on Columbia Gulf's Lines 200 and 300 and gas flow into Columbia Gulf's Line 100:

- the new 44,800 hp Morehead Compressor Station located in Rowan County, Kentucky, consisting of two Solar Turbines Titan 130E natural gas turbine-driven compressor units, 42-inch-diameter suction and discharge piping, two 30-inch-diameter mainline valves, and one 36-inch mainline valve;
- the new 41,000 hp Paint Lick Compressor Station located in Garrard County, Kentucky, consisting of two Solar Turbines Titan 130 natural gas turbine-driven compressor units, 42-inch-diameter suction and discharge piping, two 30-inch-diameter mainline valves, and one 36-inch mainline valve;
- the new 31,800 hp Goodluck Compressor Station located in Metcalfe County, Kentucky, consisting of two Solar Turbines Mars 100 natural gas turbine-driven compressor units, 42-inch-diameter suction and discharge piping, two 30-inch-diameter mainline valves, and one 36-inch mainline valve;
- the new 41,000 hp Cane Ridge Compressor Station located in Davidson County, Tennessee, consisting of two Solar Turbines Titan 130 natural gas turbine-driven compressor units, 42-inch-diameter suction and discharge piping, two 30-inch-diameter mainline valves, and one 36-inch mainline valve;
- the new 31,800 hp Clifton Junction Compressor Station located in Wayne County, Tennessee, consisting of two Solar Turbines Mars natural 100 gas turbine-driven compressor units, 42-inch-diameter suction and discharge piping, two 30-inch diameter mainline valves, and one 36-inch mainline valve;
- the new 31,800 Albany Compressor Station located in Union County, Mississippi, consisting of two Solar Turbines Mars 100 natural gas turbine-driven compressor units, 42-inch-diameter suction and discharge piping, two 30-inch-diameter mainline valves, and one 36-inch mainline valve; and
- the new 31,800 hp Holcomb Compressor Station located in Grenada

County, Mississippi, consisting of two Solar Turbines Mars 100 natural gas turbine-driven compressor units, 42-inch-diameter suction and discharge piping, two 30-inch-diameter mainline valves, and one 36-inch mainline valve.

15. In addition, Columbia Gulf proposes:

- modifications to the previously authorized 36,000 hp Grayson Compressor Station located in Carter County, Kentucky, consisting of the addition of one 15,900 hp Solar Turbines Mars 100 natural gas turbine-driven compressor unit and associated piping;¹³
- modification to the existing Leach C Meter Station located in Boyd County, Kentucky, consisting of upgrades to flow control capabilities to accommodate increased capacity on Line 300 and other appurtenant facilities; and
- various appurtenances.

16. Columbia Gulf held a binding open season from March 27 through April 23, 2015, for service on the Gulf XPress Project. Columbia Gulf also offered to evaluate proposals from existing shippers to turn back firm transportation capacity under existing service agreements during the binding open season (reverse open season), but received no conforming bids. As a result of the open season, Columbia Gulf executed binding precedent agreements with four shippers for 860,000 Dth/d of firm Gulf XPress Project transportation service.¹⁴ The project shippers elected to pay negotiated rates.

17. Columbia Gulf estimates the proposed facilities will cost approximately \$674.3 million. Columbia Gulf proposes to establish an incremental recourse reservation rate under Rate Schedule FTS-1 for firm transportation service on the project facilities. Columbia Gulf also proposes to charge its existing commodity rate under Rate Schedule FTS-1 and generally applicable fuel retention rates for service on the project.

¹³ Columbia Gulf received authorization from the Commission to construct and operate the Grayson Compressor Station in conjunction with other facilities supporting the Rayne XPress Expansion Project in Docket No. CP15-539-000 on January 19, 2017, *Columbia Gas Transmission, LLC*, 158 FERC ¶ 61,046.

¹⁴ Columbia Gulf filed the precedent agreements in Exhibit I of its application and requested that the agreements be accorded privileged and confidential treatment pursuant to section 388.112 of the Commission's Rules of Practice and Procedure.

III. Procedural Issues

Notice, Interventions, Comments, and Protests

18. Notices of the applications in Docket Nos. CP16-357-000 and CP16-361-000 were published in the *Federal Register* on May 20, 2016.¹⁵ The parties listed in Appendix A filed timely, unopposed motions to intervene, which are granted automatically pursuant to Rule 214 of the Commission's Rules of Practice and Procedure.¹⁶ Friends of Mill Creek Greenway, Mill Creek Park Section; Statoil Natural Gas LLC; and Christopher Tuley and Heather Hixson-McGovern of Keep Southeast Nashville Healthy; filed late motions to intervene in Docket No. CP16-361-000.¹⁷ We find that the late intervenors have demonstrated an interest in the proceeding and that granting intervention at this stage will not cause undue delay or disruption, or otherwise prejudice the applicant or other parties. Accordingly, we grant the motions for late intervention.¹⁸

19. Many comments supporting the projects were filed. Several landowners and environmental groups expressed opposition to the projects, raising various issues including noise, air quality, water quality, public health, safety, siting, zoning, and economic concerns. The concerns raised are addressed in the Environmental Impact Statement (EIS) and as appropriate, in this order.

¹⁵ 81 Fed. Reg. 31,929 and 81 Fed. Reg. 31,935.

¹⁶ 18 C.F.R. § 385.214(c) (2017).

¹⁷ The Commission's regulations provide that interventions are timely if filed during the comment period on the notice of the application or if filed on environmental grounds during the comment period of the draft EIS. 18 C.F.R. §§ 157.10, 380.10(a), 385.214(c) (2017). Thus, if interventions are filed in between these periods, the intervention is late. *See Florida Southeast Connection, LLC*, 154 FERC ¶ 61,080, at P 40 n.13 (2016). However, the Commission has a liberal policy of accepting late interventions in natural gas certificate proceedings.

¹⁸ 18 C.F.R. § 385.214(d) (2017).

IV. Discussion

20. Since the applicants propose to abandon, construct, and operate facilities used to transport natural gas in interstate commerce, subject to the jurisdiction of the Commission, the proposals are subject to the requirements of subsections (b), (c), and (e) of section 7 of the NGA.¹⁹

A. Application of Certificate Policy Statement

21. The Certificate Policy Statement provides guidance for evaluating proposals to certificate new construction.²⁰ 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 explained that in deciding whether to authorize the construction of major new pipeline facilities, the Commission balances the public benefits against the potential adverse consequences. The Commission's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain in evaluating new pipeline construction.

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

¹⁹ 15 U.S.C. §§ 717f(b), (c), (e) (2012).

²⁰ *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).

1. Columbia Gas (Mountaineer XPress Project)

23. As discussed above, the threshold requirement for pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. The Commission has determined that, in general, where a pipeline proposes to charge incremental rates for new construction that are higher than the existing system rates, the pipeline satisfies the threshold requirement that the project will not be subsidized by existing shippers.²¹ As discussed below, Columbia Gas proposes an incremental recourse reservation rate that is higher than its existing system-wide rate to recover the cost of the project. Moreover, we are approving Columbia Gas' request to charge its existing fuel and power cost surcharges because, as discussed below, Columbia Gas submitted a fuel study that shows that system fuel surcharges will decrease with the inclusion of the billing determinants and fuel costs related to the expansion. Under these circumstances, we find Columbia Gas' existing customers will not subsidize the project.

24. We also find that the proposed project will not adversely affect Columbia Gas' existing customers. The Mountaineer XPress Project will enable Columbia Gas to provide incremental firm transportation service to eight project shippers. There is no evidence that the project will degrade service to existing customers and none of Columbia Gas' existing customers have raised any concern that the new service will adversely affect existing services.

25. We further find that there will be no adverse impacts on other pipelines or their captive customers because the project will serve new demand and not replace firm transportation service on any other existing pipeline. No pipelines or their captive customers have protested the application.

26. Regarding impacts on landowners and communities, the Mountaineer XPress Project will impact 3,647.1 acres during construction and permanently affect 1,076.4 acres during operation. Columbia Gas participated in the Commission's pre-filing process and has been working to address landowner and community concerns and input. For example, Columbia Gas modified its pipeline route in 24 specific locations in response to landowner concerns and resource issues raised during the pre-filing process. Further, subsequent to the filing of the formal application, Columbia Gas adopted over 50 pipeline route variations and other adjustments in response to landowner concerns and

²¹ See, e.g., *Dominion Transmission, Inc.*, 155 FERC ¶ 61,106 (2016).

resource issues.²² We also note that approximately 22 percent of the proposed pipeline is co-located with existing utilities. Accordingly, we find that Columbia Gas has taken adequate steps to minimize adverse impacts on landowners and surrounding communities.

2. Columbia Gulf (Gulf XPress Project)

27. As is the case with Columbia Gas with respect to its Mountaineer XPress Project, Columbia Gulf also proposes an incremental recourse reservation rate that is higher than its existing system-wide rate to recover the cost of its Gulf XPress Project. Moreover, we are approving Columbia Gulf's request to charge their existing fuel retention rate because, as discussed below, Columbia Gulf submitted a fuel study that shows that system fuel use will decrease as a result of the project, thereby decreasing fuel costs to existing customers. Under these circumstances, we find Columbia Gulf's existing customers will not subsidize the project.

28. We also find that the proposed project will not adversely affect Columbia Gulf's existing customers. The Gulf XPress Project will enable Columbia Gulf to provide incremental firm transportation service to four shippers. There is no evidence that the project will degrade service to existing customers and none of Columbia Gulf's existing customers have raised any concern that the new service will adversely affect existing services.

29. We further find that there will be no adverse impacts on other pipelines or their captive customers because the project will serve new demand and not replace firm transportation service on any other existing pipeline. No pipelines or their captive customers have protested the application.

30. Regarding impacts on landowners and communities, the Gulf XPress Project will impact 198.1 acres during construction and permanently affect 81.6 acres during operation.²³ The project involves additional compression at new and existing compressor stations along Columbia Gulf's pipeline system, with no greenfield pipeline and associated rights-of-way. In addition, Columbia Gulf has purchased or leased all lands required for construction and operation of its proposed facilities, including additional properties surrounding compressor station sites that are not part of the construction work areas. Accordingly, we find that Columbia Gulf has taken adequate steps to minimize adverse economic impacts on landowners and surrounding communities.

²² Final EIS at 3-18 – 3-20.

²³ Final EIS at 2-16.

3. Need for the Projects

31. Numerous parties and commenters challenge the need for the projects.²⁴ Some commenters claim that there are alternatives available to the Mountaineer XPress and Gulf XPress Projects for meeting future demand, including renewable energy and capacity on existing interstate pipeline.²⁵ Several commenters contend that the projects will not benefit local communities because gas transported on the projects will be exported.²⁶ Finally, in their jointly filed comments, the Allegheny Defense Project, Ohio Valley Environmental Coalition, and Sierra Club (collectively Allegheny) express concern that the projects represents an overbuilding of pipeline capacity in the Appalachian basin, which the Commission must consider in its market need analysis.²⁷

Columbia Gas' and Columbia Gulf's Answers

32. On May 14 and May 15, 2017, respectively, Columbia Gas and Columbia Gulf filed answers disputing the commenters' claims that the projects were not needed. Columbia Gas maintains that substantial need for the Mountaineer XPress Project has been demonstrated by precedent agreements for long-term firm service utilizing approximately 98 percent of the project's capacity. Similarly, Columbia Gulf maintains that that substantial need for the Gulf XPress Project has been demonstrated by precedent

²⁴ Many of the commenters conflate the balancing of economic benefits (market need) and effects under the Certificate Policy Statement with the distinct description of purpose and need in the final EIS. As discussed in the Environmental Section of this order, the purpose and need statement in the final EIS complied with Council on Environmental Quality (CEQ) regulations that provide that this statement "shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed actions" for purposes of its environmental analysis. 40 C.F.R. § 1502.13 (2017).

²⁵ See, e.g., March 27, 2017 Comment of Ohio Valley Environmental Coalition (Ohio Coalition Comments), and March 30, 2017 Comment of Larry Dadisman in Docket No. CP16-357-000.

²⁶ See, e.g., April 24, 2017 Comment of Marijana Beram; April 24, 2017 Comment of William Robertson, and July 5, 2016 Comment of Glenda Kirby.

²⁷ Allegheny April 24, 2017 Comments at 55-66 (citing Institute for Energy Economics and Financial Analysis, Risks Associated with Natural Gas Pipeline Expansion in Appalachia, at 4 (April 2016), <http://ieefa.org/wp-content/uploads/2016/05/Risks-Associated-With-Natural-Gas-Pipeline-Expansion-in-Appalachia-April-2016.2.pdf>).

agreements for long-term firm service utilizing 100 percent of the project's capacity. Both applicants assert that there is no evidence to suggest overbuilding is an issue in these proceedings.

Commission Determination

33. The Certificate Policy Statement established a policy under which the Commission will allow an applicant to rely on a variety of relevant factors to demonstrate need, rather than continuing to require that a percentage of the proposed capacity be subscribed under long-term precedent or service agreements.²⁸ These factors might include, but are not limited to, precedent agreements, demand projections, potential cost savings to consumers, or a comparison of projected demand with the amount of capacity currently serving the market.²⁹ The Commission stated that it will consider all such evidence submitted by the applicant regarding need. Nonetheless, the Certificate Policy Statement made clear that, although precedent agreements are no longer required to be submitted, they are still significant evidence of demand for the project.³⁰ As the court stated in *Minisink Residents for Environmental Preservation & Safety v. FERC*, and again in *Myersville Citizens for a Rural Community, Inc., v. FERC*, nothing in the Certificate Policy Statement or in any precedent construing it suggest that the policy statement requires, rather than permits, the Commission to assess a project's benefits by looking beyond the market need reflected by the applicant's precedent agreements with shippers.³¹ Moreover, it is current Commission policy to not look beyond precedent or service agreements to make judgments about the needs of individual shippers.³²

²⁸ Certificate Policy Statement, 88 FERC at 61,747. Prior to the Certificate Policy Statement, the Commission required a new pipeline project to have contractual commitments for at least 25 percent of the proposed project's capacity. *See* Certificate Policy Statement, 88 FERC at 61,743. Both projects, Columbia Gas at 98 percent subscribed, and Columbia Gulf at 100 percent subscribed, would have satisfied this prior, more stringent, requirement.

²⁹ *Id.* at 61,747.

³⁰ *Id.* at 61,748.

³¹ *Minisink Residents for Env'tl. Pres. and Safety v. FERC*, 762 F.3d 97, 110 n.10 (D.C. Cir. 2014); *see also Myersville Citizens for a Rural Cmty., Inc., v. FERC*, 783 F.3d 1301, 1311 (D.C. Cir. 2015).

³² Certificate Policy Statement, 88 FERC at 61,744 (citing *Transcontinental Gas Pipe Line Corp.*, 82 FERC ¶ 61,084, at 61,316 (1998)). *See also Constitution Pipeline Co., LLC*, 154 FERC ¶ 61,046, at P 21 (2016) ("Although the Certificate Policy

34. We find that Columbia Gas and Columbia Gulf have sufficiently demonstrated that there is market demand for the projects. Columbia Gas has entered into long-term, firm precedent agreements with eight shippers for approximately 98 percent of the 2,660,000 Dth/d of incremental firm service made possible by the project. Columbia Gulf has entered into long-term, firm precedent agreements with four shippers for 100 percent of the project's available firm service capability of 860,000 Dth/d. Further, Ordering Paragraph (C) of this order requires Columbia Gas and Columbia Gulf to file a written statement affirming that it has executed contracts for service at the levels provided for in their respective precedent agreements prior to commencing construction. The shippers on both projects have determined, based on their assessment of the long-term needs of their particular customers and markets, that there is a market for the natural gas to be transported and that the Mountaineer XPress and Gulf XPress Projects are the preferred means for delivering or receiving that gas. Given the substantial financial commitment required under these contracts by the projects' shippers, we find that these contracts are the best evidence that the service to be provided by the project is needed in the markets to be served. We also find that end users will generally benefit from the projects because they will develop gas infrastructure that will serve to ensure future domestic energy supplies and enhance the pipeline grid by providing additional transportation capacity connecting sources of natural gas to markets in the Midwest, Northeast, Mid-Atlantic, South, and Gulf Coast.

35. With respect to the ability of alternatives to meet the projects' needs, our environmental review concluded that the availability of capacity on existing or other proposed natural gas systems or other energy sources, such as renewable energy sources do not presently serve as practical alternatives to the project.³³ The final EIS found that there is not sufficient available capacity on existing pipeline systems to transport all of the volumes contemplated to be transported by the Mountaineer XPress Project to the range of delivery points proposed by Columbia Gas, and that expansion of existing pipeline systems was not a feasible alternative.³⁴ Specifically, the final EIS found that none of the facilities owned and operated by Dominion Transmission Inc., Texas Eastern Transmission, LP (TETCO), and Tennessee Gas Pipeline Company (TGP) would be reasonable system alternatives to the Mountaineer XPress Project and that no other

Statement broadened the types of evidence certificate applicants may present to show the public benefits of a project, it did not compel an additional showing ... [and] [n]o market study or other additional evidence is necessary where ... market need is demonstrated by contracts for 100 percent of the project's capacity.'').

³³ Final EIS at 3-1 – 3-8.

³⁴ *Id.* at 3-3 – 3-7.

systems nearby have sufficient capacity to transport the contracted volumes.³⁵ Moreover, the final EIS found that modifying other systems so that they might be used would require construction of new energy infrastructure, which would result in additional environmental impacts.³⁶ The final EIS also evaluated system alternatives to meet the Gulf XPress Project's purpose and need using TETCO's and TGP's mainlines and modifications to Columbia Gulf's existing system, all of which were eliminated because they were unfeasible or would have greater environmental impact.³⁷

36. Regarding potential overbuilding of pipeline infrastructure in the Appalachian basin, Allegheny quotes a study by the Institute for Energy Economics and Financial Analysis (IEEFA), which argues, in part, that interstate pipeline infrastructure to ship natural gas from the Marcellus and Utica region³⁸ is overbuilt.³⁹ Without providing analysis, Allegheny quotes sections of the study that argue overbuilding is encouraged by a weak regulatory process, lack of coordinated planning for natural gas infrastructure, financial dynamics of the natural gas industry such as low natural gas prices, and upstream producers moving into the pipeline construction business because of its stability compared to the volatility associated with drilling.⁴⁰

37. We do not find that the IEEFA Study demonstrates that the proposed projects are not needed. The study speaks in generalities, focuses on the effects of the Mountain Valley Pipeline (CP16-10-000) and Atlantic Coast Project (CP15-554-000), and does not discuss the proposed Mountaineer XPress or Gulf XPress Projects.⁴¹ However, while it

³⁵ *Id.*

³⁶ *Id.* at 3-7.

³⁷ *Id.* at 3-7 – 3-8.

³⁸ The Marcellus shale formation extends deep underground from Ohio and West Virginia, northeast through Pennsylvania and southern New York. The Utica shale formation lies a few thousand feet below Marcellus shale formation in primarily the same, but slightly larger area as the Marcellus shale formation. *See Beardslee v. Inflection Energy, LLC*, 761 F.3d 221, 224 (2d Cir. 2014).

³⁹ Institute for Energy Economics and Financial Analysis, *Risks Associated With Natural Gas Expansion in Appalachia*, April 2016.

⁴⁰ Allegheny April 24, 2017 Comments at 55-56.

⁴¹ *See Transcontinental Gas Pipe Line Co., LLC*, 158 FERC ¶ 61,125 at P 28 (2017).

does discuss, in general terms, risk factors that might facilitate overbuilding of pipeline infrastructure, it also suggests that pipelines like the proposed projects may serve to aid in the delivery of lower-priced natural gas to higher-priced markets.

38. In addition, the IEEFA Study improperly relies on a U.S. Department of Energy (DOE) study concerning the implication of increased demand for electricity on natural gas infrastructure.⁴² The DOE study does not demonstrate that pipelines are currently overbuilt. Rather, it concludes that demand for natural gas from the electric power sector will only result in modest additions of new pipeline capacity between 2015 and 2030 (34 to 38 billion cubic feet (Bcf) per day) compared to historical capacity additions between 1998 and 2013 (127 Bcf per day).⁴³ The study explains that natural gas production and natural gas demand are geographically dispersed and natural gas companies are increasingly utilizing underutilized capacity on existing pipelines, re-routing natural gas flows, and expanding existing pipeline capacity.⁴⁴

39. Here, project shippers have executed long-term binding precedent agreements for firm service using 98 percent of the design capacity of the Mountaineer XPress Project and 100 percent of the design capacity of the proposed Gulf XPress Project. We find this sufficient to support a finding that there is a need for these two projects.

40. Allegations that the project is not needed because gas transported on the projects may be exported are not persuasive. There is no evidence in the record that indicates that the expansion capacity will be used to transport natural gas for export. Further, even if some of the gas is ultimately destined for export, that can only occur after a finding by the Secretary of Energy that such export is in the public interest. The Commission does not have jurisdiction over the exportation or importation of natural gas.⁴⁵

⁴² U.S. DEP'T OF ENERGY, NATURAL GAS INFRASTRUCTURE IMPLICATIONS OF INCREASED DEMAND FROM THE ELECTRIC POWER SECTOR, <http://energy.gov/epsa/downloads/report-natural-gas-infrastructure-implications-increased-demand-electric-power-sector> (issued Feb. 2015).

⁴³ *See id.* at 31.

⁴⁴ *See id.*

⁴⁵ Section 3(a) of the NGA provides, in part, that “no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the Commission authorizing it to do so.” 15 U.S.C. § 717b(a) (2012). In 1977, the Department of Energy Organization Act transferred the regulatory functions of section 3 of the NGA to the Secretary of Energy. 42 U.S.C. § 7151(b) (2012). Subsequently, the Secretary of Energy delegated to

4. Conclusion

41. In view of the above considerations, we find that Columbia Gas and Columbia Gulf have demonstrated a need for the Mountaineer XPress and Gulf Xpress Projects, respectively, and that each project's benefits to the market outweigh any adverse economic effects on existing shippers, other pipelines and their captive customers, and landowners and surrounding communities. Consistent with the criteria of the Certificate Policy Statement and NGA section 7(c), upon balancing the evidence of public benefits against the potential adverse effect of the projects, we find that the public convenience and necessity requires approval of Columbia Gas' and Columbia Gulf's proposals, subject to the conditions discussed below, including appropriate environmental conditions and mitigation measures.

42. In addition, we find that the public convenience and necessity permits Columbia Gas to abandon the existing Line SM-80 and SM-80 Loop segments and Unit 9 at the Ceredo Compressor Station. Because Columbia Gas will be replacing the facilities it proposes to abandon, the abandonments will have no impact on the services currently provided.

B. Eminent Domain Authority

43. Several commenters assert that it is inappropriate for Columbia Gas and Columbia Gulf to obtain property for the projects through eminent domain since both companies are for-profit corporations.⁴⁶ Another commenter states that it is inappropriate to grant

the Commission authority to “[a]pprove or disapprove the construction and operation of particular facilities, the site at which such facilities shall be located, and with respect to natural gas that involves the construction of new domestic facilities, the place of entry for imports or exit for exports.” DOE Delegation Order No. 00-004.00A (effective May 16, 2006). The proposed facilities are not located at a potential site of exit for natural gas exports. Moreover, the Secretary of Energy has not delegated to the Commission any authority to approve or disapprove the import or export of the commodity itself, or to consider whether the exportation or importation of natural gas is consistent with the public interest. *See Corpus Christi Liquefaction, LLC*, 149 FERC ¶ 61,283, at P 20 (2014) (*Corpus Christi*). *See also National Steel Corp.*, 45 FERC ¶ 61,100, at 61,332-33 (1988) (observing that DOE, “pursuant to its exclusive jurisdiction, has approved the importation with respect to every aspect of it except the point of importation” and that the “Commission’s authority in this matter is limited to consideration of the place of importation, which necessarily includes the technical and environmental aspects of any related facilities”).

⁴⁶ Ohio Coalition Comments at 2.

eminent domain authority for the Mountaineer XPress Project to TransCanada, a foreign-owned company.⁴⁷

44. The Commission does not, itself, confer eminent domain. Under section 7 of the NGA, the Commission has jurisdiction to determine if the construction and operation of proposed interstate pipeline facilities are in the public convenience and necessity. Once the Commission makes that determination, it is section 7(h) of the NGA that authorizes a certificate holder to acquire the necessary land or property to construct the approved facilities by exercising the right of eminent domain if it cannot acquire the easement by an agreement with the landowner.⁴⁸ In constructing this provision, Congress made no distinction between for-profit and non-profit companies. As discussed above, need for the projects has been demonstrated by the existence of long-term precedent agreements for approximately 98 percent of capacity of the Mountaineer XPress Project, and 100 percent of the capacity on the Gulf XPress Project. The precedent agreements are also evidence of the public benefits of the project.⁴⁹

C. Rates

1. Columbia Gas (Mountaineer XPress Project)

45. Columbia Gas proposes to charge an incremental recourse monthly reservation charge of \$9.827 per Dth for firm transportation service on the Mountaineer XPress Project path. The charge was developed using a straight fixed-variable methodology and dividing the project's \$313,677,794 annual fixed costs by the annual incremental billing determinants of 31,920,000 Dth.⁵⁰ In developing the proposed incremental reservation

⁴⁷ See, e.g., April 24, 2017 Comment of Marijana Beram. We note, however, that although TransCanada is the parent company to Columbia Gas and Columbia Gulf, TransCanada is not an applicant in this proceeding.

⁴⁸ 15 U.S.C. § 717f(h) (2012).

⁴⁹ See *Florida Southeast Connection, LLC*, 156 FERC ¶ 61,160, at P 5 (2016); see also *Minisink Residents for Environmental Preservation and Safety v. FERC*, 762 F.3d at 111 n.10.

⁵⁰ Columbia Gas Application at Exhibit P, Page 1.

charge, Columbia Gas uses its existing transmission depreciation rate of 1.50 percent⁵¹ and pre-tax rate of return.⁵²

46. The cost of service for the Mountaineer XPress Project includes 50 percent of the estimated cost of replacing portions of Line SM-80 and Line SM-80 Loop and estimated costs associated with the 500 horsepower of additional capacity associated with the replacement of Unit 9 at the Ceredo Compressor Station.⁵³ Columbia Gas states that it will seek recovery of the remaining costs associated with these replacement facilities from existing customers through operation of the CCRM that is provided for in the Modernization II Settlement.

47. Columbia Gas' proposed incremental recourse reservation charge for the Mountaineer XPress Project of \$9.827 per Dth is higher than the current system reservation charge of \$4.771 per Dth for firm transportation service contained in Columbia Gas' tariff.⁵⁴ Because the proposed incremental recourse rate is higher than the system rate, we will approve Columbia Gas' proposed incremental reservation charge as the initial recourse charge for firm service using the incremental capacity created by the Mountaineer XPress Project. Columbia Gas's proposal to charge its maximum base system usage charge of \$0.0104 per Dth is also approved.⁵⁵

a. Fuel, Other Surcharges, and Request for Rolled-in Rate Treatment

48. Columbia Gas proposes to apply its generally applicable system surcharges to recover the costs of fueling and powering the Mountaineer XPress Project's compressor units and lost and unaccounted for gas, and requests a predetermination of rolled-in rate treatment for these costs. These surcharges consist of the Retainage Adjustment Mechanism (RAM), through which Columbia Gas recovers lost and unaccounted for quantities and company use gas, including the fuel for Columbia Gas' gas-fired

⁵¹ Columbia Gas' current depreciation rate was established in Docket No. RP12-1021-000. *Columbia Gas Transmission, LLC*, 142 FERC ¶ 61,062 (2013).

⁵² Columbia Gas' current pre-tax rate of return was established in Docket No. RP95-408-000. *Columbia Gas Transmission Corp.*, 79 FERC ¶ 61,044 (1997).

⁵³ *Supra* note 9.

⁵⁴ Columbia Gas Transmission, LLC, FERC NGA Gas Tariff, Baseline Tariffs, Currently Effective Rates, FTS Rates, 40.0.0.

⁵⁵ Columbia Gas Application at Page 19.

compressors, and the Electric Power Cost Adjustment (EPCA), through which Columbia Gas recovers the costs of powering its electric-powered compressor stations. Columbia Gas shows in Exhibit Z-3 that the increased billing determinants from the Mountaineer XPress Project will result in an overall decrease in the RAM and EPCA surcharges even though fuel use and electricity expenses will increase.⁵⁶ Accordingly, we will grant Columbia Gas' surcharge proposal.

49. Additionally, Columbia Gas proposes to assess the Mountaineer XPress Project shippers its generally applicable Transportation Cost Rate Adjustment (TCRA), through which Columbia gas recovers third-party transportation costs, and Operational Transaction Rate Adjustment (OTRA), through which Columbia Gas recovers certain operational natural gas purchases and sales. Columbia Gas shows in Exhibit Z-3 that the Mountaineer XPress Project will result in lower TCRA and OTRA surcharges as a result of the added billing determinants from the Mountaineer XPress Project.

50. The Commission approves Columbia Gas proposal to assess its generally applicable system-wide surcharges for TCRA and OTRA and grants the pre-determination request to roll-in the project's operational fuel costs into its RAM and EPCA surcharges, absent a significant change in material circumstances. Columbia Gas has sufficiently demonstrated that such treatment will result in rate benefits to its existing customers.

2. Columbia Gulf (Gulf XPress Project)

51. Columbia Gulf proposes to charge an incremental recourse monthly reservation charge of \$10.256 per Dth for firm transportation service on the Gulf XPress Project path. This charge was developed using a straight fixed-variable methodology and dividing the project's \$105,884,544 annual fixed costs by the annual incremental billing determinants of 10,320,000 Dth.⁵⁷ In developing the proposed incremental reservation charge,

⁵⁶ Columbia Gas Application, Exhibit Z-3.

⁵⁷ Columbia Gulf Application at Exhibit P, Page 1.

Columbia Gulf uses its existing transmission depreciation rate of 1.25 percent, a negative salvage rate of 0.29 percent,⁵⁸ and pre-tax rate of return.⁵⁹

52. Columbia Gulf's proposed incremental recourse reservation charge for the Gulf XPress Project of \$10.256 per Dth is higher than the current system reservation charge of \$4.170 per Dth for firm transportation service contained in Columbia Gulf's tariff.⁶⁰ Because the proposed incremental recourse reservation charge is higher than the system charge, we will approve Columbia Gulf's proposed incremental reservation charge as the initial recourse charge for firm service using the incremental capacity created by the Gulf XPress Project.

53. Columbia Gulf's proposal to charge an incremental usage charge of \$0.0550 per Dth is also approved.⁶¹

a. Fuel

54. Columbia Gulf proposes to apply its generally applicable system fuel retention rate to shippers using the Gulf XPress Project capacity and requests a predetermination of rolled-in treatment of the project's fuel costs through its Transportation Retainage Adjustment mechanism. Based on a study designed to determine the impact of the additional fuel required to operate the Gulf XPress Project facilities, Columbia Gulf determined that system fuel use is expected to decrease on a percentage basis as a result of the Gulf XPress Project, thereby resulting in lower fuel costs to existing customers.⁶² The Commission approves Columbia Gulf's proposal to charge its generally applicable system-wide fuel retention percentage and grants the pre-determination request to roll the project's fuel cost into the system-wide fuel recovery mechanism, absent a significant

⁵⁸ Columbia Gulf's current depreciation rate and negative salvage rate were established in Docket No. RP11-1435-000. *Columbia Gulf Transmission Co.*, 137 FERC ¶ 61,177 (2011).

⁵⁹ Columbia Gulf's current pre-tax rate of return was established in Docket No. RP97-52-000. *Columbia Gulf Transmission Co.*, 83 FERC ¶ 61,094 (1998).

⁶⁰ Columbia Gulf Transmission, LLC, FERC NGA Gas Tariff, Columbia Gulf Tariffs, Currently Effective Rates, FTS-1 Rates, 13.0.0.

⁶¹ Columbia Gulf Application at Exhibit N, Page 1.

⁶² Columbia Gulf Application at Exhibit Z-1.

change in material circumstances. Columbia Gas and Columbia Gulf has sufficiently demonstrated that such treatment will result in rate benefits to its existing customers.

b. Reporting Incremental Project Costs

55. The Commission will require Columbia Gas and Columbia Gulf to keep separate books and accounting of costs and revenues attributable to the proposed incremental services and capacity created by the Mountaineer Xpress Project and the Gulf Xpress Project in the same manner as required by section 154.309 of the Commission's regulations.⁶³ The books should be maintained with applicable cross-reference and the 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. 710.⁶⁴

c. Negotiated Rate Agreements

56. Columbia Gas and Columbia Gulf both propose to provide service to their shippers under negotiated rate agreements. Columbia Gas and Columbia Gulf must file either the negotiated rate agreements or tariff records setting forth the essential elements of the agreements in accordance with the Alternative Rate Policy Statement⁶⁵ and the Commission's negotiated rate policies.⁶⁶ Columbia Gas and Columbia Gulf must file the

⁶³ 18 C.F.R. § 154.309 (2017).

⁶⁴ *Revisions to Forms, Statements, and Reporting Requirements for Natural Gas Pipelines*, Order No. 710, FERC Stats. & Regs. ¶ 31,267 (2008).

⁶⁵ *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines; Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076, *order granting clarification*, 74 FERC ¶ 61,194, *order on reh'g and clarification*, 75 FERC ¶ 61,024, *reh'g denied*, 75 FERC ¶ 61,066, *reh'g dismissed*, 75 FERC ¶ 61,291 (1996), *petition denied sub nom. Burlington Res. Oil & Gas Co. v. FERC*, 172 F.3d 918 (D.C. Cir. 1998) (Alternative Rate Policy Statement).

⁶⁶ *Natural Gas Pipelines Negotiated Rate Policies and Practices; Modification of Negotiated Rate Policy*, 104 FERC ¶ 61,134 (2003), *order on reh'g and clarification*, 114 FERC ¶ 61,042, *reh'g dismissed and denied clarification*, 114 FERC ¶ 61,304 (2006).

negotiated rate agreements or tariff records at least 30 days, but no more than 60 days, before the proposed effective date for such rates.⁶⁷

D. Environmental Analysis

1. Pre-Filing Review

57. On September 16, 2015, Commission staff granted Columbia Gas' request to use the pre-filing environmental review process in Docket Number PF15-31-000.⁶⁸ As part of the pre-filing review, on November 18, 2015, the Commission issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Planned Mountaineer XPress Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings* (Mountaineer XPress NOI). The Mountaineer XPress NOI was published in the *Federal Register* on December 1, 2015,⁶⁹ and mailed to more than 1,300 interested entities, including federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; Native American tribes; potentially affected property owners; other interested parties; and local libraries and newspapers. The Mountaineer XPress NOI briefly described the project and the Commission's environmental review process, provided a preliminary list of issues identified by Commission staff, invited written comments on the environmental issues that should be addressed in the draft EIS, listed the date and location of four public scoping meetings⁷⁰ to be held in the project area, and established December 17, 2015, as the deadline for comments. Approximately 166 people attended the four scoping meetings held for the Mountaineer XPress Project in West Virginia. A total of 24 verbal

⁶⁷ Pipelines are required to file any service agreement containing non-conforming provisions and to disclose and identify any transportation term or agreement in a precedent agreement that survives the execution of the service agreement.

⁶⁸ Columbia Gulf did not participate in the pre-filing review process for the Gulf XPress Project.

⁶⁹ 80 Fed. Reg. 75,083 (2015).

⁷⁰ Commission staff held the public scoping meetings between December 7 and 10, 2015, in New Martinsville, West Union, Ripley, and South Charleston, West Virginia. On December 10, 2015, Commission staff also held a meeting in Charleston, West Virginia for federal, state, and local agencies.

comments and 45 written comments were received at these meetings.⁷¹ Transcripts of the scoping meetings and written comment letters were placed into the public docket.

2. Application Review

58. The pre-filing review period ended when Columbia Gas filed its project application on April 29, 2016. Columbia Gulf filed its project application on the same date. Commission staff issued a *Notice of Application* for each project on May 13, 2016, and the notices appeared in the *Federal Register* on May 20, 2016.⁷²

59. On June 2, 2016, Commission staff issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Gulf XPress Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meeting* (Gulf XPress NOI). The Gulf XPress NOI was published in the *Federal Register* on June 9, 2016,⁷³ and mailed to more than 960 interested entities, including federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; Native American tribes; affected property owners; other interested parties; and local libraries and newspapers. The Gulf XPress NOI established a July 5, 2016, closing date for a public comment period for the submission of comments, concerns, and issues related to the environmental aspects of the Gulf XPress Project. Similar to the Mountaineer XPress NOI, the Gulf XPress NOI briefly described the project and the Commission's environmental review process, provided a preliminary list of issues identified by Commission staff, invited written comments on the environmental issues that should be addressed in the draft EIS, listed the date and location of one public scoping meeting to be held in Antioch, Tennessee, and established July 5, 2016, as the deadline for comments. Approximately 145 people attended the scoping meeting. A total of 28 verbal comments and 149 written comments were received.⁷⁴ Transcripts of the scoping meetings and written comment letters were placed into the public docket for the project.

60. On October 11, 2016, Columbia Gas incorporated several route modifications for its proposed MXP-100 and MXP-200 pipeline routes. Thus, on October 21, 2016, the

⁷¹ Table 1.3-1 starting on page 1-11 of the final EIS provided a list of environmental issues raised during scoping.

⁷² 81 Fed. Reg. 31,929 (2016); 81 Fed. Reg. 31,935 (2016).

⁷³ 81 Fed. Reg. 37,192 (2016).

⁷⁴ Table 1.3-2 starting on page 1-13 of the final EIS provided a list of environmental issues raised during scoping.

Commission mailed a copy of the Mountaineer XPress NOI along with an informational cover letter to 31 newly affected landowners that described 20 route alternatives and 28 minor route adjustments for the Mountaineer XPress Project in West Virginia. The Commission opened a targeted 30-day scoping period for these route modifications.

61. To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA),⁷⁵ Commission staff evaluated the potential environmental impacts associated with the construction and operation of Mountaineer XPress Project and Gulf XPress Project in one EIS because the projects are proposed to be constructed within the same general timeframe and the applicants are both subsidiaries of TransCanada. Thus, the EIS' consideration of company-proposed construction techniques and mitigation measures was facilitated by a combined analysis. The U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers; U.S. Fish and Wildlife Service (USFWS); West Virginia Department of Environmental Protection (WVDEP); and the West Virginia Department of Natural Resources (WVDNR) participated in the NEPA review as cooperating agencies.

62. Notice of the draft EIS was published in the *Federal Register* on March 6, 2017, establishing a 45-day comment period that ended on April 24, 2017.⁷⁶ The draft EIS was mailed to 2,480 stakeholders, including additional interested entities that were added since issuance of the two NOIs and the supplemental scoping for the route modifications. We received more than 230 comments from landowners, public officials, non-government organizations, and government agencies in response to the draft EIS. In addition, Commission staff held five public comment sessions for the draft EIS in West Virginia and Tennessee between March 20 and 28, 2017. In total, 22 people provided verbal comments at those sessions. Transcripts of the public comment sessions and all written comments on the draft EIS are part of the public record for the projects.

63. Commission staff issued the final EIS on July 28, 2017, which was published in the *Federal Register* on August 3, 2017.⁷⁷ The final EIS addressed all substantive comments received on the draft EIS.⁷⁸ The final EIS was mailed to the same parties as

⁷⁵ 42 U.S.C. §§ 4321 *et seq.* (2012). *See also* 18 C.F.R. pt. 380 (2017) (Commission's regulations implementing NEPA).

⁷⁶ 82 Fed. Reg. 12,582 (2017).

⁷⁷ 82 Fed. Reg. 36,130 (2017).

⁷⁸ Appendix Q of the final EIS includes copies of letters in response to the draft EIS received through the close of the comment period, which are presented adjacent to Commission staff responses.

the draft EIS, and to newly identified landowners and any additional parties that commented on the draft EIS.⁷⁹ The final EIS addresses geology; soils; water resources; wetlands; vegetation; wildlife and fisheries; threatened, endangered, and special status species; land use, recreation, special interest areas, and visual resources; socioeconomics; cultural resources; air quality and noise; reliability and safety; cumulative impacts; and alternatives.

64. The final EIS concludes that construction and operation of the Mountaineer XPress and Gulf XPress Projects will result in some adverse environmental impacts, but that most impacts on the environment will be temporary or short-term (e.g., impacts on soils, non-forested vegetation, aquatic resources, wetlands, wildlife, and construction-related air and noise impacts). Some impacts would be long-term, such as those related to operational air emissions and noise.⁸⁰ The final EIS determined that impacts on all of the above-mentioned resources⁸¹ will be reduced to less-than-significant levels with the implementation of mitigation measures proposed by the applicants and with the mitigation measures recommended in the final EIS, as modified herein, and included as environmental conditions in the Appendix C to this order.⁸² The final EIS did conclude that the Mountaineer XPress Project's impacts on upland interior forest habitat and large Core Forest Areas (including habitat for the cerulean warbler, a migratory bird considered sensitive in the project area) will be significant. As recommended in the final EIS, we are including environmental condition 17 in the appendix to this order to promote effective restoration of forested areas (also see discussion in PP 88-89, below).

65. Environmental Recommendation 30(a) of the final EIS would have required Columbia Gas to file a response to the West Virginia SHPO's comments concerning the Phase I Historic Resource Survey, and file the SHPO's comments on Columbia Gas' response. On September 8, 2017, Columbia Gas filed a Revised Phase I Historic Resource Survey and a concurrence letter from the West Virginia Division of Culture and History, which satisfied the requirements of this condition. Therefore, recommendation 30 (a) is no longer necessary and is not included as a condition to this order.

⁷⁹ The distribution list is provided in Appendix A of the final EIS.

⁸⁰ Final EIS at 5-22.

⁸¹ E.g. soils, non-forested vegetation, aquatic resources, wetlands, wildlife, and air quality and noise.

⁸² Final EIS at 5-1; *see also id.* at ES-3 – ES-16.

66. EPA Regions 3 and 4 filed substantive comments on the final EIS. These comments and the major environmental issues raised during this proceeding are addressed below.

3. Request to Supplement or Revise the Draft EIS

67. Allegheny argues that the draft EIS was insufficient and the Commission should revise it or issue a supplemental draft EIS. It asserts that the draft EIS lacks a statement of need as required by the Council of Environmental Quality's (CEQ) regulations implementing NEPA and that the Commission framed its statement of purpose too narrowly.⁸³ Allegheny further states that the Commission inappropriately postpones submittal of certain information to the end of the draft EIS comment period or before commencement of construction. Allegheny argues that it should have an opportunity to comment on this new information.

68. A purpose of a draft EIS is to elicit suggestions for change.⁸⁴ The CEQ regulation that Allegheny relies upon calls for a supplemental draft EIS if the agency "makes substantial changes in the proposed action that are relevant to environmental concerns" or "there are significant new circumstances or information relevant to environmental concerns."⁸⁵ The Supreme Court, in *Marsh v. Oregon Natural Resources Council*, stated that under the "rule of reason," "an agency need not supplement an [EIS] every time new information comes to light after the EIS is finalized."⁸⁶ Further, NEPA only requires agencies to employ proper procedures to ensure that environmental consequences are fully evaluated, not that a complete plan be presented at the outset of environmental review.⁸⁷ In *National Committee for New River v. FERC*,⁸⁸ the court held that "if every

⁸³ Allegheny April 24, 2017 Comments at 4 (citing 40 C.F.R. § 1502.13 (2017)).

⁸⁴ See *City of Grapevine, Tex. v. U.S. DOT*, 17 F.3d 1502, 1507 (D.C. Cir. 1994) ("[t]he very purpose of a [draft EIS] is to elicit suggestions for change.").

⁸⁵ 40 C.F.R. § 1502.9(c)(1) (2017).

⁸⁶ *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 373 (1989).

⁸⁷ See *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989).

⁸⁸ *National Committee for the New River, Inc. v. FERC*, 373 F.3d 1323 (D.C. Cir. 2004) (*New River*).

aspect of the project were to be finalized before any part of the project could move forward, it would be difficult, if not impossible, to construct the project.”⁸⁹

69. As shown in the final EIS, the additional information submitted by the applicants between the issuance of the draft EIS and of the final EIS did not cause the Commission to make “substantial changes in the proposed action,” nor did it present “significant new circumstances or information relevant to environmental concerns.” The final EIS analyzed the relevant environmental information and recommended environmental conditions. We adopt most of the recommended environmental conditions in this order. Applicants must satisfy the environmental conditions contained in Appendix C of this order before they may proceed with their projects.

70. In addition, we note that all applicant-filed information, including that submitted after the issuance of a draft or final EIS, is placed into the public docket for the project. Stakeholders may submit comments on any filed information, even if a formal comment period has not been established, and such comments will be considered as practicable as part of our ongoing project review.

71. Commenters’ argument regarding project need is misplaced. An EIS identifies a project’s purpose and need to define the parameters for the alternatives analysis,⁹⁰ not to determine whether the project is in the public interest. It is the Commission, in its order on the certificate application that evaluates project need under section 7(c) of the NGA.⁹¹

4. Major Environmental Issues and Comments on the Final EIS

a. Geological Resources

72. Several commenters raised issues regarding potential impacts from steep slopes (Mountaineer XPress) and karst topography (Gulf XPress). For the Mountaineer XPress Project, construction is proposed on steep slopes (58.2 miles of terrain with slopes that are 30 percent or greater) that are highly susceptible to landslides. Columbia Gas will implement its Environmental Construction Standards on steep slopes and other landslide-prone areas to minimize construction impacts. Columbia Gas prepared a Phase I Geohazard Assessment to identify areas along the Mountaineer XPress Project where a

⁸⁹ *New River*, 373 F.3d at 1329 (citing *East Tennessee Natural Gas Co.*, 102 FERC ¶ 61,225, at 61,659 (2003)).

⁹⁰ 40 C.F.R. § 1502.13 (2017); *see also National Fuel Gas Supply*, 158 FERC ¶ 61,145, at P 95 (2017) (citing *City of Grapevine, Tex. v. U.S. DOT.*, 17 F.3d at 1506).

⁹¹ *See supra* discussion of Certificate Policy Statement project need.

Phase II analysis will be focused. To further reduce impacts on steep slopes, environmental condition 14 in Appendix C to this order requires Columbia Gas to prepare both a Phase II Landslide Hazard Assessment and a Landslide Mitigation Plan in consultation with WVDEP and WVDNR.

73. Karst features, such as sinkholes and caves, form as a result of the long-term action of groundwater on subsurface soluble carbonate rocks (e.g., limestone and dolostone). These features could present a hazard to the pipeline due to cave or sinkhole collapse. Commenters expressed concerns that karst terrain could be encountered at the Gulf XPress Project Cane Ridge and/or Clifton Junction Compressor Station sites in Tennessee. At these locations, Columbia Gulf will construct foundations that are supported by competent bedrock to mitigate the risk of foundation disturbance due to seismic activity or sinkhole development. If sinkholes or other karst drainage features are encountered at either the Cane Ridge or Clifton Junction Compressor Station sites, Columbia Gulf would seek approval from the Tennessee Department of Environment and Conservation Division of Water Resources through the Underground Injection Control Program before modifying any karst or related geologic features.

74. In comments on the final EIS, EPA raised several issues related to geological resources. First, EPA noted Commission staff's recommendation that Columbia Gas prepare both a Phase II Landslide Hazard Assessment and a Landslide Mitigation Plan, and suggested that the plans be filed in the FERC eLibrary. EPA also suggested that we expand environmental inspector responsibilities to include training to identify acid-producing rocks and acid rock drainage when encountering and constructing in areas with known occurrences of acid producing rocks, soils, and/or potential acid rock drainage. Finally, EPA suggested that the public and stakeholders be made aware of any changes in the status of the McElroy Mine and Mountaineer XPress Project alignment, so that if future mine development occurs in areas crossed by the project route, additional resource impacts resulting from pipeline relocation could be identified.

75. As discussed above, condition 14 in Appendix C to this order requires Columbia Gas to prepare a Phase II Landslide Hazard Assessment and a Landslide Mitigation Plan in consultation with WVDEP and WVDNR, and file the results with the Secretary for review and written approval by the Director of the Office of Energy Projects (OEP). These materials will be publicly available with other project-related filings in our eLibrary.⁹²

76. With respect to EPA's comment regarding whether it may prove beneficial to

⁹² Access to materials filed as privileged or Critical Energy Infrastructure Information is governed by 18 C.F.R. §§ 388.112 and 388.113 of the Commission Rules of Practice and Procedures, respectively.

require that project environmental inspectors have specific acid-producing rock and acid rock drainage expertise, we note that coal and shale can contain pyrite, which can produce acid as the rock weathers. This acid can affect the pH of water features if introduced in sufficient volume. While the Mountaineer XPress Project does cross areas in which coal and shale are present, EPA provides no evidence that these formations contain pyrite in concentrations that would produce acid. In general, the upper 25- to 35-feet of bedrock typically does not contain pyrite because it is not stable under atmospheric conditions and will weather away. Where excavations are shallower than 30 feet, the risk of acid drainage is generally minimal.⁹³ Thus, we do not find it likely that acid-producing rock exposed by a pipeline trench could produce enough acid to have a substantial effect on the pH of surrounding water features. We also note that acid-producing rock has not been viewed as a significant concern for pipeline integrity. Current pipeline design and coating protocols account for corrosion potential, and pipelines are monitored periodically to identify and potential corrosion issues.⁹⁴ Therefore, we find no need to require specific expertise as suggested by EPA.

77. The final EIS provides specific information on active mining in the vicinity of the Mountaineer XPress Project and details the coordination process between Columbia Gas and mine operators to maintain the integrity of the pipeline.⁹⁵ Examples of mitigation to address surface subsidence associated with mining operations include stripping overlying soils to reduce downward pressure on the pipeline, reestablishing the support and stability of the active line as necessary, and backfilling and conducting appropriate restoration activities. Potential effects on the pipeline and all remediation activities would be coordinated with FERC staff.⁹⁶ Relocation of the pipeline as a result of mining operations is not anticipated. However, as required by environmental condition 1 in Appendix C of this order, approval for any pipeline relocation into areas that have not been previously identified in filings with the Secretary must be explicitly requested in writing by Columbia Gas, and would require appropriate environmental review and approval by the Commission. Any request by Columbia Gas will be available with other

⁹³ Pa. Dep't of Env't Prot., *How to Avoid and Handle Acid-Producing Rock Formations Encountered During Well Site Development*, <http://www.elibrary.dep.state.pa.us/dsweb/GetRendition/Document-114982/html>. Acid-producing rock is generally more of a concern for projects on the scale of a coal mine, where large amounts of rock is being exposed and removed.

⁹⁴ U.S. DOT, *Fact Sheet: Pipe Coatings*, <https://primis.phmsa.dot.gov/comm/FactSheets/FSPipeCoatings.htm>.

⁹⁵ Final EIS at 4-46.

⁹⁶ Final EIS at 4-12; 4-46.

project-related filings in our eLibrary. Therefore, we find that additional measures are not required.

b. Water Resources

i. Groundwater

78. The final EIS identified over 40 private wells within 150 feet of the proposed Mountaineer XPress Project construction workspace. Columbia Gas will offer pre- and post-construction monitoring for well yield and water quality for these wells. If testing results indicate any significant changes in water quality between initial testing and post-construction as a result of Mountaineer XPress Project construction activities, Columbia Gas will compensate the landowner for repairs, installation of a new well, or other options as agreed upon with the landowner. Columbia Gas will also implement a landowner complaint resolution process to document and track landowner problems and their resolution. The final EIS recommended additional investigation, information, and protective measures regarding water wells and potable springs. We agree, and thus include environmental condition 15 in Appendix C to this order. Further, environmental condition 26 requires Columbia Gas to implement site-specific protocols and protective measures for four wells within the buffer zones of nearby Wellhead Protection Areas.

ii. Surface Waters

79. The Mountaineer XPress Project will cross 149 perennial waterbodies, 7 of which are defined by the Commission as major crossings (more than 100 feet wide). The Mountaineer XPress Project will cross 4 waterbodies in Marshall and Wetzel Counties that WVDNR has identified as having significant importance as baseline monitoring sites; 2 rivers (the Little Kanawha River and Mud River) listed on the Nationwide Rivers Inventory maintained by the National Park Service as having historic value; 58 sensitive waterbodies; and 78 individual stream segments that are listed by the EPA as impaired.

80. The final EIS reviewed the various crossing methods for these waterbodies (i.e., wet open-cut, dry-ditch [flume or dam-and-pump], and horizontal directional drill [HDD]) and concluded that the proposed crossings were acceptable. Further, impacts on surface water resources will be mitigated by Columbia Gas' and Columbia Gulf's compliance with the conditions of the Clean Water Act sections 404 and 401 permits, which are administered by the U.S. Army Corps of Engineers and the WVDEP, Kentucky Department of Environmental Protection, Tennessee Department of Environment and Conservation, and Mississippi Department of Environmental Quality.

81. The final EIS identified that the Mountaineer XPress Project will cross Zones of Critical Concern and Zones of Peripheral Concern that are categorized as surface water protection areas. These Zones warrant a more detailed inventory and management strategy due to their proximity to a source water and susceptibility to potential

contaminants. Accordingly, environmental condition 16 in Appendix C to this order requires Columbia Gas to consult with the appropriate government entities and/or water utilities to identify any specific protective measures for these crossings.

82. EPA filed several comments regarding wetlands and waterbodies. EPA generally recommended continued avoidance and minimization of impacts on wetlands and streams. EPA also recommended siting additional temporary workspaces at least 50 feet from wetlands and having environmental inspectors onsite during HDD operations. Regarding water withdrawals, EPA recommended that we consider employing a presumptive standard protecting 90 percent of daily flow. EPA also recommended that the withdrawal rate not exceed 10 percent of the stream's instantaneous flow and be adjusted if low-flow conditions occur. Additionally, EPA suggested clarification of how streams' daily flow will be measured, whether directly or indirectly. EPA also suggested monitoring stream flow before a discharge and comparing it to a protective threshold, and limiting and reporting withdrawal location, volume, and rate.

83. EPA suggested that we consider requiring or incorporating elements of a water management plan into the implementation plan for water withdrawal to protect against the spread of invasive species and the transfer of aquatic plants, algae, and aquatic life between watersheds. Finally, EPA recommended consultation with public water utilities whose source water protection areas are crossed by the pipeline project area. This consultation would focus on minimizing potential impacts within Zones of Critical Concern and Zones of Peripheral Concern to ensure protective measures are adopted.

84. To minimize impacts on wetlands and streams, Columbia Gas will implement its project-specific Environmental Construction Standards during construction including erosion controls and revegetation of disturbed areas.⁹⁷ These standards contain some of the measures recommended by EPA, such as workspace setbacks, the use of environmental inspectors, and mitigation measures to minimize impacts on wetlands and waterbodies. Further, Columbia Gas continues to consult with USFWS and WVDNR to avoid and minimize impacts on sensitive waterbodies. We have also included several measures to reduce impacts on surface water resources. We have determined that Columbia Gas' Environmental Construction Standards provide environmental protections that are consistent with our *Wetland and Waterbody Construction and Mitigation Procedures*, which require all extra work areas to be located at least 50 feet away from water's edge, unless specific variances are approved by Commission staff.⁹⁸ We believe these measures are sufficient to protect wetlands, waterbodies, and related aquatic resources and effectively address EPA's overall concerns.

⁹⁷ Final EIS at 4-77.

⁹⁸ *Wetland and Waterbody Construction and Mitigation Procedures* at V.B.2.a.

85. Environmental condition 6(c) in Appendix C to this order requires Columbia Gas to identify the number of environmental inspectors assigned per construction spread, and indicate how the company will ensure that sufficient personnel are available to implement environmental mitigation and other protective measures.⁹⁹ Given that the applicant is required to comply with all environmental regulations during project installation (including use of HDD), it is not necessary for the Commission to dictate more specifically how the applicant would employ its personnel.

86. Columbia Gas and Columbia Gulf will obtain water withdrawal permits from the appropriate regulatory agency for each state, as required. All source water withdrawals will be completed in accordance with the applicable permit conditions, and each company will follow the requirements in its respective Environmental Construction Standards.¹⁰⁰ The Environmental Construction Standards require hydrostatic test water discharges to be directed into dewatering structures located in upland areas, which would eliminate the potential spread of invasive species and the transfer of aquatic plants, algae, and aquatic life between watersheds, since they are removed from the aquatic environment they require. We find these measures adequate to address EPA's concerns regarding the potential spread of aquatic invasive species.

87. Additionally, environmental condition 16 in Appendix C to this order requires Columbia Gas to consult with the appropriate government entities and/or water utilities to identify any specific protective measures for crossing Zones of Critical Concern and Zones of Peripheral Concern that are categorized as surface water protection areas.

c. Vegetation and Forested Land

88. Commission staff received comments during public scoping expressing concern regarding the impacts of the Mountaineer XPress Project on interior forest. Construction of the Mountaineer XPress Project will impact about 2,400 acres of forested land, and operation will affect about 814 forested acres. The final EIS concludes that the temporary clearing and permanent conversion of upland forested habitat will result in a significant impact, due mainly to the impacts on interior forest and Core Forest Areas that represent preferred habitat for a variety of wildlife species, including migratory birds such as the cerulean warbler, a Priority 1 species of special concern in West Virginia.¹⁰¹

⁹⁹ Our staff will review the adequacy of the Columbia Gas and Columbia Gulf plans to employ environmental inspectors, including the number of inspectors to be employed, as a part of the Commission's overall construction compliance oversight responsibilities.

¹⁰⁰ Final EIS at 4-70.

¹⁰¹ Final EIS at 4-112.

In coordination with WVDNR and using that agency's approved methodology, Commission staff assessed interior forest impacts by identifying Core Forest Areas based on the acreage of contiguous habitat. Accordingly, the final EIS reports that Mountaineer XPress Project construction will result in about 1,311 acres of Core Forest Area impact, and operation will result in about 490 acres of permanent Core Forest Areas impact.

89. To minimize impacts on forest and reduce required tree clearing, Columbia Gas co-located the pipeline with other existing rights-of-way in approximately 22 percent of the proposed alignment. Impacts on forested and non-forested vegetation types will be further mitigated through adherence to the measures described in Columbia Gas' Environmental Construction Standards. Further, we are adopting the recommendation in the final EIS regarding restoration of forested areas. Environmental condition 17 in Appendix C to this order requires Columbia Gas to file any specific construction, restoration, replacement, and/or operation mitigation measures identified through its discussions with WVDNR that Columbia Gas will implement to promote compatibility with the restoration and management of upland forested areas.¹⁰²

d. Wildlife

90. Four state-managed Wildlife Management Areas will be traversed by the MXP-100 pipeline corridor: the western unit of the Cecil H. Underwood Wildlife Management Area from milepost (MP) 9.2 to MP 9.4, the Lewis Wetzel Wildlife Management Area from about MP 28.3 to MP 33.4, the Frozen Camp Wildlife Management Area from about MP 113.2 to MP 114.4, and the O'Brien Lake Wildlife Management Area between about MP 120.4 to MP 121.5. These areas are managed by WVDNR for wildlife habitat and to provide opportunities for hunting and fishing. The Lewis Wetzel Wildlife Management Area consists of 14,023 acres of heavily forested area, which is managed for deer, grouse, raccoon, squirrel, and turkey hunting, and is listed as an Important Bird Area for cerulean warblers. Direct impacts on individual warblers or their nests are not expected from the Mountaineer XPress Project; however, as discussed above, the project's impact on priority warbler habitat is considered significant.

91. Columbia Gas proposes various measures to reduce impacts on migratory birds, including the preparation of a Migratory Bird Plan in cooperation with USFWS and WVDNR.¹⁰³ Further, environmental condition 19 in Appendix C to this order requires Columbia Gas to file an update of its Migratory Bird Treaty Act consultations with

¹⁰² In its September 5, 2017 comments, EPA stated that it supports the implementation of a mitigation and reforestation plan to reduce the impacts to upland forested lands, including Core Forest Areas.

¹⁰³ Final EIS at 4-126.

USFWS and WVDNR and to identify any special measures that Columbia Gas will implement to reduce impacts on cerulean warbler habitat.

e. **Threatened, Endangered, and Other Special Status Species**

92. The final EIS identified 13 federally listed or proposed species potentially occurring in the Mountaineer XPress Project area.¹⁰⁴ The final EIS determined that suitable habitat for the federally listed Indiana bat and northern long-eared bat is present within all counties affected by the Mountaineer XPress Project, and that several federal and state protected mussel species are present in several waterbodies that will be crossed by the project. As discussed in the final EIS, in Mountaineer XPress Project areas covered by the USFWS-approved *Multi-Species Habitat Conservation Plan* (Conservation Plan), Columbia Gas will implement the applicable Avoidance and Minimization Measures for these species. In lands not covered by the Conservation Plan, Columbia Gas will submit all outstanding survey information to the Commission, as well as the USFWS, which will work with Columbia Gas to address any species-specific issues and develop Avoidance and Minimization Measures for federally protected species. Environmental conditions 20 and 21 in Appendix C to this order stipulate that construction cannot begin until after Commission staff completes the process of complying with the Endangered Species Act via consultation with USFWS.

93. Columbia Gas is also working with state agencies to coordinate the remaining surveys and develop suitable protocols to protect sensitive state resources, such as potential impacts on West Virginia protected mussel species. West Virginia has no state endangered species legislation; therefore, the only species listed as state-threatened or endangered are those listed as such by the USFWS. As mentioned above, we are requiring Columbia Gas to finalize its mussel surveys and develop mitigation measures that will allow us to complete our Endangered Species Act consultation with the USFWS. Although the WVDNR is not directly involved in such consultation, the EIS discussed the WVDNR's long-range plans and comprehensive goals to protect and conserve the State's biological diversity, including sensitive mussel species (whether federally listed or not). Because consultations with WVDNR are ongoing, environmental condition 22 requires Columbia Gas to file for review the results of its consultation with WVDNR for sensitive mussel species, including any updated stream crossing plans and/or additional mitigation measures for all locations where sensitive mussels may occur.

94. Regarding the Gulf XPress Project, the final EIS identified 31 federally listed or proposed species potentially occurring in the Gulf XPress Project area; however most of

¹⁰⁴ Final EIS at ES-10.

these species would not be adversely affected by construction or operation of the Gulf XPress Project compressor stations.¹⁰⁵ Staff received comments regarding the potential for the federally listed Nashville crayfish to occur in the vicinity of the Cane Ridge Compressor Station. The USFWS Ecological Services Tennessee Field Office stated that the proposed project activities are consistent with the USFWS-approved *Multi-Species Habitat Conservation Plan* and the resulting programmatic Endangered Species Act consultation. USFWS further stated that it does not anticipate the Nashville crayfish to be present at the Cane Ridge Compressor Station site. However, because the crayfish is known to be present in nearby Mill Creek, USFWS recommended that strict sediment and contaminant runoff prevention measures be in place during construction and operation of the facility. Columbia Gulf has agreed to implement the appropriate protective measures. The final EIS determined, and we agree, that the Gulf XPress Project will have either *no effect* or will *not likely adversely affect* any federally listed species (including the Nashville crayfish) that could occur in the vicinity of the Gulf XPress Project.

f. Residential and Recreational Areas

95. Columbia Gas identified 66 residences within 50 feet of its proposed construction work area, and Columbia Gulf identified 3 residences and four other structures within 100 feet of Gulf XPress Project construction areas. Site-specific residential mitigation plans are included as Appendix B-1 of the final EIS for residences within 25 feet of Mountaineer XPress Project work areas. These plans identify the mitigation measures to be implemented by Columbia Gas to further reduce impacts on residents during the construction period. We find these generally sufficient; however, our staff noted a fenced corral and a shed within the construction work area on two tracts (near MPs 51.0 and 124.6). The plans generally indicate that these and other physical features that need to be protected will be enclosed in safety fence to avoid disturbance during construction. However, it appears that these structures may need to be removed or relocated to accommodate construction. Given that Columbia Gas has not demonstrated landowner agreement to have these structures removed, environmental condition 23 in Appendix C to this order requires Columbia Gas to file updated plans for the two tracts that include site-specific impact avoidance or minimization measures.

96. Commission staff also received comments concerning the loss of privacy from clearing mature trees. To limit impacts on residential areas, Columbia Gas and Columbia Gulf have each committed to implementing mitigation measures such as giving landowners 2-weeks' notice before beginning construction on their property and not removing mature trees or landscaping from the edge of the construction right-of-way unless necessary for safe operation of construction equipment, or as specified in

¹⁰⁵ Id.

landowner agreements.¹⁰⁶ We find this sufficient.

97. Two Gulf XPress Project facilities (the Morehead and Holcomb Compressor Stations) will be constructed within 0.25 mile of two publicly owned lands – the Daniel Boone National Forest and the Malmaison Wildlife Management Area, respectively. The Morehead Compressor Station will not affect the recreational use or experience of the National Forest, as the compressor station site is separated from the Forest by Interstate 64. The Holcomb Compressor Station could result in temporary and permanent visual impacts on the Wildlife Management Area. However, the final EIS concluded, and we agree, that the forested areas between the compressor station site and the Wildlife Management Area will provide adequate visual screening.

98. The Mountaineer XPress Project will cross the Little Kanawha Parkway, which is designated as a West Virginia Scenic Byway. As discussed in the final EIS, a pipeline corridor will be cleared through the adjacent forest, resulting in a change in the visual appearance of these lands as viewed from the parkway.¹⁰⁷ Columbia Gas has committed to work with West Virginia Department of Transportation officials to avoid or minimize potential impacts on the parkway and will establish safety protocols at the crossing. Columbia Gas also will coordinate with transportation officials to publish construction alerts on information websites and in local newspapers, providing schedules of the anticipated time and duration of disruptions associated with construction. We find this sufficient.

g. Socioeconomics

i. Property Values, Mortgages, and Insurance

99. Commission staff received multiple comments expressing concerns with reductions in property values that could result from the construction and operation of natural gas facilities near homes, residential areas, or areas identified for future residential or commercial developments. The final EIS cites several studies analyzing presence of natural gas facilities in proximity to residences and finds no conclusive evidence indicating that natural gas pipeline easements would have a negative impact on property values in general.¹⁰⁸ Similarly, the final EIS examines concerns that insurance premiums would increase and/or insurance companies would not insure properties due to pipeline proximity. Based on these investigations, the final EIS found no conclusive

¹⁰⁶ Final EIS at 4-193.

¹⁰⁷ Final EIS at 4-203.

¹⁰⁸ Final EIS at 4-239.

evidence indicating that insurance premiums will be affected by the presence of a natural gas pipeline easement. We agree.

ii. Traffic

100. Commission staff received comments during the draft EIS comment period expressing concern regarding the impacts of the construction and operation of the Cane Ridge Compressor Station on traffic. Unlike the other Gulf XPress Project compressor stations that are in rural settings, the Cane Ridge Compressor Station is in a relatively developed area (suburban Nashville). Given the possibility of traffic delays, Columbia Gulf has committed to work with local transportation officials to mitigate transportation and traffic impacts on Barnes Road during the 10-month station construction period. The final EIS finds that no significant change in traffic patterns during the construction and eventual operation of the compressor station is anticipated. The final EIS concludes that impacts on the local transportation network from operation of the Cane Ridge Compressor Station will be temporary, as the facility will employ only two permanent workers, resulting in about four vehicle trips per day on average during operation. We agree.

h. Cultural Resources

101. Columbia Gas completed cultural resources surveys for all accessible project areas. To date, of the 56 archaeological sites identified, only 1 is eligible for the National Register of Historic Places (National Register). Columbia Gas will avoid this site. Of 188 architectural resources identified, one is listed on the National Register, seven are recommended eligible or contributing, and the remainder are ineligible for the National Register. Portions of the Mountaineer XPress Project still require survey; therefore, compliance with section 106 of the National Historic Preservation Act is not complete. Once cultural resources surveys and evaluations are complete, a treatment plan will be prepared if any historic properties will be adversely affected by the Mountaineer XPress Project. To ensure the Commission's responsibilities under the National Historic Preservation Act and its implementing regulations are met, environmental condition 25 in Appendix C to this order requires that Columbia Gas not begin any construction-related project activities until the Commission completes its section 106 obligations.

102. Columbia Gulf has completed cultural resources surveys for the project and did not document any historic (National Register-eligible or listed) properties. We agree with the findings of the Tennessee, Mississippi, and Kentucky State Historic Preservation Offices (SHPOs) that no historic properties will be affected by the Gulf XPress Project.

i. Air Quality and Noise

i. Air Quality

103. Commenters expressed concern about exposure to chemicals from the construction and operation of gas compressor stations and the resulting impacts on human health, particularly in an urban/suburban setting where the Gulf XPress Project Cane Ridge Compressor Station is proposed. Fugitive gas emissions can occur because of leaks from gas pipeline equipment and can be emitted from blowdowns at compressor stations. Fugitive emissions from equipment leaks are estimated to be less than 1 ton per year (tpy) for each Gulf XPress Project compressor station, and blowdown emissions are estimated to be in the range of 5 to 7 tpy. These fugitive gas emissions will be pipeline quality gas that primarily comprises methane, ethane, and propane (hydrocarbons) and not highly toxic compounds. The principle source of pollutants from the compressor stations, both hazardous air pollutants (HAPs) and criteria pollutants, will occur as a result of natural gas combustion. As shown in the final EIS, combustion emissions were estimated for each Gulf XPress Project compressor station, and all are below the major source HAP thresholds (10 tpy for each individual HAP and 25 tpy for combined HAPs)¹⁰⁹. The remaining criteria pollutants were modeled, and estimated ambient concentrations were found to be below National Ambient Air Quality Standards (NAAQS), which are set by EPA to be protective of the public health.

104. As discussed in the final EIS¹¹⁰ operation of the Mountaineer XPress Project and Gulf XPress Project aboveground facilities will result in long-term air emissions from stationary equipment (e.g., turbines, emergency generators, and heaters at compressor stations and meter & regulator stations), including emissions of nitrogen oxide, carbon monoxide, particulate matter, sulfur dioxide, volatile organic compounds, greenhouse gases (GHGs, including fugitive methane), and HAPs. Modeling results demonstrate that the Mountaineer XPress Project and Gulf XPress Project compressor stations will not exceed the NAAQS, and the project areas will continue to remain protective of human health and public welfare for all listed pollutants. The final EIS concludes, and we agree, the proposed and modified compressor stations and meter stations will not have a significant impact on local or regional air quality.

105. Air quality impacts associated with construction of the projects will include emissions from construction equipment and fugitive dust. The final EIS concludes that such air quality impacts will generally be temporary, localized, and not have a significant

¹⁰⁹ Final EIS section 4.11.1.3.4.

¹¹⁰ Final EIS at 5-22.

impact on air quality or contribute to a violation of applicable air quality standards.¹¹¹
We agree.

ii. Noise

106. Commission staff received comments during public scoping and the draft EIS comment period expressing concern regarding noise impacts from the construction and operation of the Cane Ridge Compressor Station. As shown in the final EIS, the modeled noise levels at the Gulf XPress Project compressor stations during operation will be below the Commission's noise limit of 55 A-weighted decibels (dBA).¹¹² Operation of the Paint Lick, Goodluck, Leach C, and Cane Ridge stations would result in a noticeable increase in noise levels, but total noise levels would remain below our 55 dBA day-night sound level (L_{dn}) criterion. The increase in noise level at the Cane Ridge Compressor Station has been a major issue of public concern. The predicted noise levels attributable to operation of the Cane Ridge Station at the closest noise sensitive area (NSA) is 45.3 dBA equivalent sound level (L_{eq}), which is below the Metropolitan Government of Nashville and Davidson County daytime and nighttime limits. To confirm that actual noise levels attributable to the Gulf XPress Project compressor and meter stations remain below our established noise limit, we are including environmental condition 36 in Appendix C to this order, which requires Columbia Gulf to file noise surveys no later than 60 days after placing each of the Gulf XPress Project compressor stations into service.

107. As stated in the final EIS, Columbia Gas modeled noise levels at NSAs near each compressor station proposed under the Mountaineer XPress Project during operation. Worst case modeled noise levels at each NSA due to typical compressor station operation will be below the Commission's noise limit of 55 dBA, with the exception of the Ceredo Compressor Station. Current noise levels at five NSAs near the Ceredo Compressor Station exceed 55 dBA.¹¹³ However, the modifications associated with the Ceredo Compressor Station are predicted to *decrease* noise levels at these nearby NSAs by 3.6 to 9.1 decibels, which is ensured by environmental condition 33. Environmental condition 32 requires Columbia Gas to make all reasonable efforts to maintain its predicted noise levels from the rest of the Mountaineer XPress Project compressor stations, ensure that these levels are not exceeded at nearby NSAs, and file noise surveys showing this no later than 60 days after placing these stations in service. Environmental condition 35 requires Columbia Gas to file noise surveys no later than 60 days after placing the Ripley and

¹¹¹ Final EIS section 5.1.11.1.

¹¹² Final EIS at 4-309.

¹¹³ Final EIS at 4-303.

Saunders Creek Regulator Stations into service.

108. Columbia Gas proposes to use HDD or Direct Pipe pipeline installation at two locations along the Mountaineer XPress Project pipeline route (HDD at the Kanawha River and Direct Pipe at Highway 50). For entry and exit points at which the predicted construction related noise levels at a NSA are greater than 55 dBA L_{dn} , Columbia Gas will install residential grade exhaust mufflers on engines and install acoustic barriers between the drilling site and the impacted NSA to mitigate noise impacts.¹¹⁴ Even with mitigation measures at the Kanawha River, the expected impacts at NSA #1 will still exceed 55 dBA L_{dn} and will represent more than a doubling of perceived ambient noise levels. Accordingly, environmental condition 28 requires Columbia Gas to file a Kanawha River drilling noise mitigation plan to reduce the projected noise impacts attributable to the proposed drilling operations at nearby NSAs. This condition also requires Columbia Gas to implement the approved plan, monitor noise levels, document the noise levels in its weekly status report required under environmental condition 8, and make all reasonable efforts to restrict the noise attributable to the drilling operations to no more than an L_{dn} of 55 dBA at the NSAs.

109. The final EIS concludes, and we agree, that construction and operation of the projects will not result in significant noise impacts on residents and the surrounding communities.¹¹⁵

110. In its comments on the final EIS, EPA recommended that Columbia Gas and Columbia Gulf notify residents when HDD construction and planned blowdown events at aboveground facilities will be performed. We find this recommendation to be reasonable. Accordingly environmental condition 28 requires Columbia Gas to notify residents in the vicinity of project HDD and Direct Pipe drilling operations of its anticipated construction schedule and hours of operation. In addition, environmental conditions 33 and 35 require that Columbia Gas make all reasonable efforts to notify nearby NSAs in advance of planned blowdown events at the Mountaineer XPress Project Compressor Stations. Environmental condition 37 requires Columbia Gulf to make all reasonable efforts to notify nearby NSAs in advance of planned blowdown events at the Gulf XPress Project Compressor Stations.

j. Safety

111. Numerous commenters questioned the safety of the projects. As discussed in the final EIS, applicable data demonstrate that Commission-jurisdictional pipelines are a

¹¹⁴ Final EIS at 4-301.

¹¹⁵ Final EIS at 4-389.

safe, reliable means of transporting natural gas.¹¹⁶ Further, the project facilities must be designed, constructed, operated, and maintained to meet the U.S. Department of Transportation's (DOT) Minimum Federal Safety Standards¹¹⁷ and other applicable federal and state regulations. These regulations include specifications for material selection and qualification; minimum design requirements; and protection of the pipeline from internal, external, and atmospheric corrosion.

k. Cumulative Impacts

i. Other Projects

112. The final EIS evaluated potential cumulative impacts of the Mountaineer XPress Project and the Gulf XPress Project along with other past, present, and reasonably foreseeable activities, in accordance with the Council on Environmental Quality regulations and guidance.¹¹⁸ The final EIS concludes that when combined with other past, present, and reasonably foreseeable future oil and gas wells and appurtenant facilities, the Mountaineer XPress Project will contribute to some long-term significant cumulative impacts on upland forested vegetation and associated wildlife habitats, particularly interior forest and Core Forest Areas and the associated habitat for the cerulean warbler.¹¹⁹ Regarding the Gulf XPress Project, Commission staff received comments expressing concerns about the cumulative impacts on air quality from the operation of the Cane Ridge Compressor Station and Compressor Station 563, located 31 miles away, which was proposed as part of the Broad Run Expansion Project.¹²⁰ As discussed in the final EIS, modeling results shows concentrations below the NAAQS for both Compressor Station 563 and the Cane Ridge Compressor Station, and concludes that these proposed projects are unlikely to result in significant emission impacts on local air quality.¹²¹

113. Due to the implementation of specialized construction techniques, the relatively

¹¹⁶ Final EIS at 4-326.

¹¹⁷ See 49 C.F.R. pt. 192 (2017).

¹¹⁸ See 40 C.F.R. § 1508.7 (2017).

¹¹⁹ Final EIS at 4-352 – 353.

¹²⁰ The Broad Run Expansion Project was approved in Docket No. CP15-77-000. *Tennessee Gas Pipeline Company, L.L.C.*, 156 FERC ¶ 61,157 (2016).

¹²¹ Final EIS at 4-371 and 4-372.

short construction timeframe in any single location, and carefully developed resource protection and mitigation plans designed to avoid or minimize environmental impacts from the Mountaineer XPress Project and Gulf XPress Project, the final EIS concludes, and we agree, that minimal cumulative effects are anticipated (with the exception of forest impacts) when the effects of each project are added to the past, present, and reasonably foreseeable future projects within the Mountaineer XPress Project's and Gulf XPress Project's geographic scopes.¹²²

I. Climate Change

114. The most common GHGs emitted during fossil fuel combustion and natural gas transportation are carbon dioxide, methane, and nitrous oxide. The final EIS estimates the direct and indirect GHG emissions associated with construction and operation of the Mountaineer XPress Project and Gulf XPress Project.¹²³

115. We recognize the availability of a reasonable EPA-developed methodology to estimate the downstream GHG emissions from a project, assuming all of the gas to be transported is eventually combusted. As such, we have estimated the GHG emissions from the end-use combustion of the natural gas to be transported by the projects.¹²⁴ Total annual downstream emissions of GHG were estimated for the Mountaineer XPress Project and Gulf XPress Project based on the total capacity of 2,700,000 Dth/d of natural gas for the projects, and assuming all the gas being transported is used for additional combustion. End-use combustion will result in about 52.3 million metric tons per year of CO₂. This represents an upper bound of GHG emissions because it assumes the total maximum throughput is transported 365 days per year (and that none is used as an industrial feedstock). As the first assumption is unlikely, it is unlikely that this total amount of GHG emissions would occur. Additionally, using coal or oil for any of the purposes for which the gas is intended would result in greater GHG emissions. The 52.3 million metric tons of GHG emissions would result in about a 3 percent increase in GHG emissions from fossil fuel combustion in states served by the systems at the delivery points,¹²⁵ and a 1 percent increase in national emissions.¹²⁶

¹²² Final EIS at 4-375 – 376.

¹²³ Final EIS section 4.13.2.11.

¹²⁴ Final EIS at 4-374 – 375.

¹²⁵ Based upon Virginia, Ohio, Kentucky, Maryland, Pennsylvania, New York, New Jersey, West Virginia, North Carolina, Tennessee, Mississippi, and Louisiana fossil fuel GHG emissions of 1,644 million metric tons for 2015, per year according to U.S. Energy Information Administration, *State Carbon Dioxide Emissions Data* (October,

m. Alternatives

116. The final EIS analyzes alternatives, including the no action alternative, system alternatives, Mountaineer XPress Project pipeline major route alternatives, minor pipeline route variations, and alternative locations for the proposed Gulf XPress Project Cane Ridge Compressor Station. The final EIS concluded that if the no action alternative is selected, the environmental impacts outlined in the EIS will not occur. However, if the projects are not authorized, their stated objectives will not be realized, and natural gas will not be transported from production areas in the Marcellus and Utica regions in the Northeast, additional capacity of 1,800,000 Dth/d will not be delivered to Columbia Gas' TCO Pool (the main pooling point on Columbia Gas' system), and additional 900,000 Dth/d will not be delivered to Columbia Gulf's system. In response to the no action alternative, shippers may seek other infrastructure to transport natural gas to customers, and construction of those other projects may result in environmental impacts that will be similar to or greater than the proposed projects.

117. The final EIS evaluated potential impacts associated with using other pipelines to transport an equivalent volume of gas to meet the Mountaineer XPress Project purpose and need and to provide firm transportation service to Columbia Gas' TCO Pool and more southerly markets accessible from Columbia Gulf's pipeline. As discussed in the final EIS, there are no existing pipeline systems in the vicinity of the projects that can meet the applicants' stated objectives without major expansions, therefore we do not consider them as reasonable alternatives to the proposed Mountaineer XPress and Gulf XPress Projects.¹²⁷

118. The final EIS also analyzed major pipeline route alternatives to the Mountaineer XPress Project, two that involved looping/upgrades to existing Columbia Gas pipeline systems and one that included modifications to an approved Columbia Gas project currently under construction (Leach XPress; Docket No. CP15-514). These alternatives would require additional length of pipeline and the corresponding additional impacts on the environment.¹²⁸ Further, the final EIS finds that constructability issues associated

2017). <https://www.eia.gov/environment/emissions/state/>.

¹²⁶ Based on 5,411 million metric tons of CO₂ in 2015 as presented by EPA at https://www.epa.gov/sites/production/files/2017-02/documents/2017_complete_report.pdf.

¹²⁷ Final EIS at 5-28.

¹²⁸ The looping alternatives would require an additional 111 and 25 miles of pipeline, respectively, when compared to the proposed pipeline length of 170 miles, and the alternative modifications to the Leach XPress Project would require an additional

with both alternatives and the potential impacts on an increased number of landowners make both alternatives less viable and preferable than the proposed pipeline route. The final EIS determines that the alternatives reviewed were not environmentally preferable to the proposed action. We agree.

119. Commission staff received comment letters from four affected landowners on the Mountaineer XPress Project alignment who requested alternative routes across their properties. The final EIS concludes that these route variations are reasonable and that they address landowner concerns without adding unacceptable environmental impact.

Accordingly, environmental condition 13 in Appendix C to this order directs Columbia Gas to adopt these re-routes and file updated information accordingly.

120. The final EIS considered two alternatives involving Columbia Gulf using its existing system to meet the purpose and need of the Gulf XPress Project: a loop-intensive alternative that would include modifications to an existing facility and seven new pipeline looping sections; and a separate alternative that involved a combination of looping and horsepower increases at five existing compressor stations. The final EIS concludes that looping and addition of compression at Columbia Gulf's existing compressor stations were not preferable or would not provide a significant environmental advantage over the Gulf XPress Project.¹²⁹ We agree and do not require either alternative.

121. Commission staff received numerous letters, comments, and mapping from residents living around the proposed location of the Cane Ridge Compressor Station, suggesting that the site be moved. Based on comments received during the draft EIS comment period regarding alternative sites for the Cane Ridge Compressor Station, the final EIS evaluated an additional 13 alternative sites, some of which were identified by the commenters and some of which were developed by Commission staff. However, the final EIS did not identify any alternative sites that would confer an environmental advantage over the proposed site while still meeting the project need and conforming to required engineering parameters. We confirm the conclusion in the final EIS that the proposed site for the Cane Ridge Compressor Station is acceptable.

122. After the final EIS was issued, Columbia Gas filed, on September 1, 2017, supplemental information requesting that the Commission order approve several route adjustments and waterbody crossing methods. Columbia Gas states that these variations would avoid or reduce impacts on certain streams and aquatic habitat for sensitive mussel

66 miles of pipeline. Final EIS at 3-8 to 3-18.

¹²⁹ Final EIS section 3.6.

species. The specific crossing locations are Meathouse Fork (MP 51.6), South Fork Hughes River (near MP 72.4), South Fork Hughes River (MP 77.0), Little Kanawha River (MP 94.8), and Spring Creek (near MP 97.0). Despite the potential to reduce aquatic impacts at these locations, each proposed crossing variation would affect newly impacted landowners who have not had an opportunity to comment on the proposal. Therefore, we will not approve the requested variations at this time. Instead, we will authorize the route and associated workspaces as described and evaluated in the final EIS, which concluded that Columbia Gas' proposed route at these locations is acceptable, pending the Commission's completion of section 7 consultation with the USFWS for those crossings that contain federally listed mussel species (i.e., South Fork Hughes River and Little Kanawha River).

123. Columbia Gas states it is continuing to conduct easement negotiations with the landowners affected by its requested route revisions. Environmental condition 5 in Appendix C to this order provides a mechanism for a company to request route adjustments or other project variations after receiving a Certificate. Columbia Gas will thus have the opportunity to re-file its requests, as discussed above, if the provisions of condition 5 (including obtaining landowner agreement) are met.

5. Environmental Analysis Conclusion

124. We have reviewed the information and analysis contained in the final EIS regarding the potential environmental effects of Mountaineer XPress and Gulf XPress Projects. We are adopting the environmental recommendations in the final EIS, as discussed and modified above, and are including them as environmental conditions in Appendix C to this order.

125. Based on our consideration of this information and the discussion above, we agree with the conclusions presented in the final EIS and find that the projects, if constructed and operated as described in the applications, supplemental filings, and the final EIS, as modified above, is an environmentally acceptable action. Further, for the reasons discussed throughout the order, as stated above, we find that the projects are in the public convenience and necessity.

126. 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.¹³⁰

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

¹³⁰ See 15 U.S.C. § 717r(d) (state or federal agency's failure to act on a permit considered to be inconsistent with Federal law); see also *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 310 (1988) (state regulation that interferes with FERC's regulatory authority over the transportation of natural gas is preempted) and *Dominion Transmission, Inc. v. Summers*, 723 F.3d 238, 245 (D.C. Cir. 2013) (noting that state and local regulation is preempted by the NGA to the extent it conflicts with federal regulation, or would delay the construction and operation of facilities approved by the Commission).

The Commission orders:

(A) A certificate of public convenience and necessity is issued to Columbia Gas authorizing it to construct and operate the Mountaineer XPress Project, as described and conditioned herein and in the application.

(B) A certificate of public convenience and necessity is issued to Columbia Gulf authorizing it to construct and operate the Gulf XPress Project, as described and conditioned herein and in the application.

(C) The certificate authority issued in Ordering Paragraphs (A) and (B) is conditioned on:

(1) Columbia Gas' and Columbia Gulf's projects being constructed and made available for service within 3 years of the date of this order, pursuant to section 157.20(b) of the Commission's regulations;

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

(3) Columbia Gas' and Columbia Gulf's compliance with the environmental conditions listed in Appendix C to this order; and

(4) Columbia Gas and Columbia Gulf filing written statements affirming that they have executed firm contracts for volumes and service terms equivalent to those in their precedent agreements, prior to the commencement of construction.

(D) Columbia Gas' proposed initial rates for the Mountaineer XPress Project are approved as more fully discussed above.

(E) Columbia Gas shall file actual tariff records setting forth its incremental rates at least 30 days, but no more than 60 days, prior to the date the project facilities go into service. That filing should be made as an eTariff compliance filing using type of filing code 580, and will be assigned an RP docket. It will be processed separately from the instant certificate proceeding in Docket No. CP16-357-000.

(F) Columbia Gas' predetermination request to roll-in the project's fuel costs into its RAM and EPCA fuel recovery mechanisms, absent a significant change in material circumstances, is approved as more fully discussed above.

(G) Columbia Gas is granted permission and approval under section 7(b) of the NGA to abandon the facilities described in this order.

(H) Columbia Gas must notify the Commission within 10 days of the abandonment of the facilities discussed in Ordering Paragraph G.

(I) Columbia Gulf's proposed initial rates for the Gulf XPress Project are approved as more fully discussed above.

(J) Columbia Gulf shall file actual tariff records setting forth its incremental rates at least 30 days, but no more than 60 days, prior to the date the project facilities go into service. That filing should be made as an eTariff compliance filing using type of filing code 580, and will be assigned an RP docket. It will be processed separately from the instant certificate proceeding in Docket No. CP16-361-000.

(K) Columbia Gulf's predetermination request to roll-in the project's fuel cost into the system-wide fuel recovery mechanism, absent a significant change in material circumstances, is approved as more fully discussed above.

(L) The late, unopposed motions to intervene filed before issuance of this order in each respective docket are granted pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure.

(M) Columbia Gas and Columbia Gulf shall notify the Commission's environmental staff by telephone or e-mail of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Columbia Gas or Columbia Gulf. The applicants shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission. Chairman McIntyre is not participating.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A**Timely Unopposed Intervenorors in CP16-357-000**

Allegheny Defense Project
Anadarko Energy Services Company
Antero Resources Corporation
Atmos Energy Marketing, LLC
Calpine Energy Services, L.P.
Chevron U.S.A. Inc.
The Cities of Charlottesville and Richmond, VA
ConocoPhillips Company
Direct Energy Business Marketing, LLC
Duke Energy Ohio, Inc.
Exelon Corporation
Interstate Gas Supply, Inc.
National Grid Gas Delivery Companies
New Jersey Natural Gas Company
NiSource Distribution Companies
NJR Energy Services Company
Noble Energy, Inc.
Ohio Valley Environmental Coalition
Orange and Rockland Utilities, Inc.
Piedmont Natural Gas Company, Inc.
Public Service Company of North Carolina, Inc.
PSEG Energy Resources
Range Resources-Appalachia, LLC
Sierra Club
Statoil Natural Gas LLC
UGI Distribution Companies
Vectren Energy Deliver of Ohio, Inc.
Washington Gas Light Company

Timely Unopposed Intervenorors in CP16-361-000

Allegheny Defense Project
Anadarko Energy Services Company
Antero Resources Corporation
Calpine Energy Services, L.P.
Chevron U.S.A. Inc.
Christopher Tuley, Keep Southeast Nashville Healthy
City of Richmond, VA
Direct Energy Business Marketing, LLC

Docket Nos. CP16-357-000 and CP16-361-000

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Duke Energy Ohio, Inc.
Friends of Mill Creek Greenway, Mill Creek Park Section
Heather Hixson-McGovern, Keep Southeast Nashville Healthy
James N. Tokarski
Lillian L. Hawkins
National Grid Gas Delivery Companies
NiSource Distribution Companies
NJR Energy Services Company
Ohio Valley Environmental Coalition
Orange and Rockland Utilities, Inc.
Piedmont Natural Gas Company, Inc.
Range Resources-Appalachia, LLC
Sierra Club
Tennessee Valley Authority
Washington Gas Light Company

Appendix B

Untimely Intervenors in CP16-361-000

Friends of Mill Creek Greenway

Mill Creek Park Section

Statoil Natural Gas LLC

Christopher Tuley and Heather Hixson-McGovern of Keep Southeast Nashville Healthy

Appendix C

Environmental Conditions

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

These measures will further mitigate the environmental impact associated with construction and operation of the projects. We have included several conditions that require the applicants to file additional information **prior to construction**. Other conditions require actions **during operations**. Some are standard conditions typically attached to Commission Orders. There are conditions that apply to both applicants, and other conditions are specific to either Columbia Gas Transmission, LLC (Columbia Gas) or Columbia Gulf Transmission, LLC (Columbia Gulf).

Conditions 1 through 12 are standard conditions that apply to both Columbia Gas and Columbia Gulf.

1. Columbia Gas and Columbia Gulf shall each follow the construction procedures and mitigation measures described in their respective applications and supplements (including responses to staff data requests) and as identified in the EIS, unless modified by the order. Columbia Gas and Columbia Gulf 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 Projects (OEP) **before using that modification**.
2. The Director of OEP, or the Director's designee, has delegated authority to address any requests for approvals or authorizations to carry out the conditions of the order, and take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the Mountaineer XPress (MXP) and Gulf XPress (GXP) Projects. 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 MXP and GXP construction and operation.
3. **Prior to any construction**, Columbia Gas and Columbia Gulf shall file an affirmative statement with the Secretary, certified by their senior company officials, that all Columbia Gas and Columbia Gulf 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 shown in the EIS, as supplemented by filed alignment sheets, and shall include the staff's recommended route variations identified in section 3.4 of the EIS. **As soon as they are available, and before the start of construction**, Columbia Gas and Columbia Gulf shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the order. All requests for modifications of environmental conditions of the order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

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

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

on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area.**

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

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

- a. implementation of cultural resources mitigation measures;
- b. implementation of endangered, threatened, or special concern species mitigation measures;
- c. recommendations by state regulatory authorities; and
- d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.

6. **Within 60 days of the acceptance of the authorization and before construction begins**, Columbia Gas and Columbia Gulf ("Companies") shall file their respective Implementation Plans with the Secretary for review and written approval by the Director of OEP. Columbia Gas and Columbia Gulf must file revisions to their plans as schedules change. The plans shall identify:

- a. how the Companies will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EIS, and required by the order;
- b. how the Companies 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 Environmental Inspectors (EI) assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
- d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
- e. the location and dates of the environmental compliance training and instructions the Companies will give to all personnel involved with

- construction and restoration (initial and refresher training as the MXP and GXP progress and personnel change), with the opportunity for OEP staff to participate in the training session(s);
- f. the company personnel (if known) and specific portion of the Companies' organization having responsibility for compliance;
 - g. the procedures (including use of contract penalties) the Companies will follow if noncompliance occurs; and
 - h. for each discrete facility, a Gantt or Program Evaluation Review Technique (PERT) chart (or similar project scheduling diagram), and dates for:
 - i. the completion of all required surveys and reports;
 - ii. the environmental compliance training of onsite personnel;
 - iii. the start of construction; and
 - iv. the start and completion of restoration.
7. Columbia Gas shall employ a team of EIs (i.e., two or more or as may be established by the Director of OEP) per construction spread for the MXP. Columbia Gulf shall employ at least two EIs for the GXP. 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**, Columbia Gas shall file updated status reports with the Secretary on a **weekly basis** for the MXP until all

construction and restoration activities are complete. Beginning with the filing of its Implementation Plan, Columbia Gulf shall file updated status reports with the Secretary on a **monthly basis** for the GXP 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 the Companies' efforts to obtain the necessary federal authorizations;
 - b. the construction status of each spread, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
 - c. a listing of all problems encountered and each instance of noncompliance observed by the EIs during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
 - d. a description of the corrective actions implemented in response to all instances of noncompliance, and their cost;
 - e. the effectiveness of all corrective actions implemented;
 - f. a description of any landowner/resident complaints that may relate to compliance with the requirements of the order, and the measures taken to satisfy their concerns; and
 - g. copies of any correspondence received by the Companies from other federal, state, or local permitting agencies concerning instances of noncompliance, and the Companies' response.
9. Columbia Gas and Columbia Gulf must receive written authorization from the Director of OEP **before commencing construction of any project facilities**. To obtain such authorization, Columbia Gas and Columbia Gulf must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
 10. Columbia Gas and Columbia Gulf must receive written authorization from the Director of OEP **before placing their respective facilities into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the project are proceeding satisfactorily.

11. **Within 30 days of placing the authorized facilities in service**, Columbia Gas and Columbia Gulf shall file affirmative statements with the Secretary, certified by a senior company official:
 - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the Certificate conditions the applicant has complied with or will comply with. This statement shall also identify any areas affected by their respective projects where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.

12. Columbia Gas and Columbia Gulf shall develop and implement an environmental complaint resolution procedure during construction and for a period of at least 2 years following the completion of construction. The procedure shall provide landowners with clear and simple directions for identifying and resolving their environmental mitigation problems/concerns during construction of the MXP and the GXP and restoration of the right-of-way or compressor station site. **Prior to construction**, Columbia Gas and Columbia Gulf shall mail the complaint procedures to each landowner whose property will be crossed by the project.
 - a. In its letter to affected landowners, Columbia Gas and Columbia Gulf shall:
 - i. provide a local contact that the landowners should call first with their concerns; the letter should indicate how soon a landowner should expect a response;
 - ii. instruct the landowner that if they are not satisfied with the response, they should call Columbia Gas' or Columbia Gulf's Hotline; the letter should indicate how soon to expect a response; and
 - iii. instruct the landowners that if they are still not satisfied with the response from Columbia Gas' or Columbia Gulf's Hotline, they should contact the Commission's Landowner Helpline at 877-337-2237 or at LandownerHelp@ferc.gov.
 - b. In addition, Columbia Gas and Columbia Gulf shall include in its weekly/monthly status report a copy of a table that contains the following information for each problem/concern:
 - i. the identity of the caller and date of the call;

- ii. the location by milepost and identification number from the authorized alignment sheet(s) of the affected property;
- iii. a description of the problem/concern; and
- iv. an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved.

Conditions 13 through 25 apply only to Columbia Gas and shall be addressed before construction is allowed to commence.

13. **Prior to construction**, Columbia Gas shall finalize the design for and adopt the route variations on the Umstead (milepost [MP] 68.0), Hall (MP 97.1), and Elliot (MP 145.8) properties into its final proposed route for MXP-100. Columbia Gas shall file with the Secretary, for review and written approval by the Director of OEP:
- a. aerial and/or topographic maps identifying the proposed route variation that addresses the identified landowner issue(s);
 - b. documentation of landowner consultation; and
 - c. documentation of any required surveys and agency consultations for each route variation. (*section 3.4*)
14. **Prior to construction**, Columbia Gas shall file with the Secretary, for review and written approval by the Director of OEP, the results of a Phase II Landslide Hazard Assessment, which includes the results of all field activities to investigate and document the status of all potential landslide areas, and provide a Landslide Mitigation Plan that includes site-specific mitigation measures Columbia Gas will implement during construction and operation of the project on steep slopes and slip-prone soils. The Landslide Mitigation Plan shall include:
- a. a description of how construction activities will be conducted on steep slopes and in areas prone to instability;
 - b. safety protocols for personnel working on steep slopes or areas prone to instability;
 - c. measures Columbia Gas will implement if project-related activities result in instability/landslides during, and after, MXP construction; and
 - d. steps to be taken to stabilize and restore such areas affected by project-related activities.

Columbia Gas shall develop the Phase II Landslide Hazard Assessments and the Landslide Mitigation Plan in consultation with the West Virginia Department of Environmental Protection (WVDEP) and West Virginia Division of Natural Resources (WVDNR). (*section 4.1.4.4.1*)

15. **Prior to construction**, Columbia Gas shall:
 - a. file with the Secretary the location of all water wells and potable springs within 150 feet of all areas of disturbance associated with the MXP pipelines and related aboveground facilities; and
 - b. provide the status (active, abandoned, capped, etc.) of the two water wells located at MP 164.3 and, if active, identify measures to protect these water wells during construction, for review and written approval by the Director of OEP. (*section 4.3.1.3.1*)
16. **Prior to construction**, Columbia Gas shall consult with the appropriate government entities and/or water utilities to identify any specific protective measures for surface water protection areas that will be crossed by the MXP. The results of these consultations shall be filed with the Secretary. (*section 4.3.2.1.1*)
17. **Prior to construction**, Columbia Gas shall file with the Secretary any specific construction, restoration, replacement, and/or operation mitigation measures identified through its discussions with the WVDNR that Columbia Gas will implement to promote compatibility with the restoration and management of upland forested areas. (*section 4.5.4.1*)
18. **Prior to construction**, Columbia Gas shall develop, in consultation with the appropriate West Virginia state agencies and local Natural Resources Conservation Service, a noxious and invasive weed management plan. This plan shall include:
 - a. identification of the locations by milepost where noxious or invasive weeds are currently present either within or immediately adjacent to all areas of project-related disturbance; and
 - b. Best Management Practices that include integrated vegetation management and a site-specific plan for each location where weeds are present which:
 - i. describes options for pretreatment (including the month(s) of the year when pretreatment will be effective), treatment during construction (to avoid introducing or spreading invasive species), and post-construction treatment and monitoring;

- ii. identifies who was consulted regarding possible treatment options; and
- iii. includes whether the landowner/administrator has approved of the treatment options proposed.

Columbia Gas shall file this plan with the Secretary, for review and written approval from the Director of OEP, before implementation and include the comments of the various agencies consulted during its development.

(*section 4.5.5.1*)

19. **Prior to construction**, Columbia Gas shall file with the Secretary an update of its Migratory Bird Treaty Act consultations with the U.S. Fish and Wildlife Service (USFWS) and WVDNR regarding the development of its Migratory Bird Treaty Act Tree Clearing Strategy (and provide a copy of the final plan, if available); and identify special measures, if any, that Columbia Gas will implement to reduce impacts on cerulean warbler habitat. (*section 4.6.3.1*)
20. **Prior to construction**, Columbia Gas shall:
- a. complete required mussel surveys **as soon as conditions allow** and file the results of the surveys with the Secretary and concurrently provide the survey results to the USFWS and WVDNR; and
 - b. file an update with the Secretary of any further discussions or progress made with the USFWS regarding recommendations on stream crossing locations and construction methodologies where federally protected mussel species may be present.

Columbia Gas **shall not begin construction** of the MXP until Commission staff has completed all necessary section 7 consultations with the USFWS for federally listed mussel species, and the Director of OEP authorizes construction or implementation of mitigation measures to begin. (*section 4.7.5.1*)

21. **Prior to construction**, Columbia Gas shall:
- a. complete required bat surveys **as soon as conditions allow** and file the survey results with the Secretary and concurrently provide the results to the USFWS and WVDNR; and
 - b. file an update with the Secretary of any further discussions or progress made with the USFWS regarding the Indiana bat and the northern long-eared bat.

- Columbia Gas **shall not begin construction** of the MXP until FERC staff has completed all necessary section 7 consultations with the USFWS for federally listed bat species, and the Director of OEP authorizes construction or implementation of mitigation measures to begin. (*section 4.7.6.1*)
22. **Prior to construction**, Columbia Gas shall file for review documentation with the Secretary regarding Columbia Gas' consultation with the WVDNR for sensitive mussel species, including any updated stream crossing plans and/or additional mitigation measures for all locations where sensitive mussels may occur. (*section 4.7.10.1*)
23. **Prior to construction**, Columbia Gas shall file with the Secretary, for review and written approval by the Director of OEP, an updated site-specific plan for Tract WV-DO-0278.007 near MP 51.0 and Tract WV-JA-0368.000 near MP 124.6 that includes specific impact avoidance or minimization measures for the fenced corral and shed. (*section 4.8.1.3.1*)
24. **Prior to construction**, Columbia Gas shall file with the Secretary, for review and written approval by the Director of OEP, a traffic management plan for the MXP, which includes:
- a. proposed measures for implementing any detours on public roadways;
 - b. timing shifts and worker commutes as to avoid heavy traffic periods; and
 - c. proposed measures for restoration of roadways damaged by project-related activities upon completion of construction. (*section 4.9.6.1*)
25. Columbia Gas **shall not begin implementation** of any treatment plans/measures (including archaeological data recovery), **construction** of facilities, and/or **use** of staging, storage, or temporary work areas and new or to-be-improved access roads **until**:
- a. Columbia Gas files all remaining archaeological resources survey report(s) and any required evaluation reports and treatment plans, and the SHPO's comments on the reports and plans;
 - b. the ACHP is provided an opportunity to comment on the undertaking if historic properties will be adversely affected; and
 - c. the Commission staff reviews and the Director of OEP approves all cultural resources survey reports and plans and notifies Columbia Gas in writing that treatment plans/mitigation measures may be implemented or construction may proceed.

All material filed with the Secretary that contains **location, character, and ownership information** about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: “**CUI/PRIV – DO NOT RELEASE.**” (*section 4.10.4.1*)

Conditions 26 through 28 apply only to Columbia Gas and shall be addressed before construction is allowed to commence within specific project areas.

26. **Prior to commencing construction activities between MP 50 – 51 and MP 113.3-114.3, Columbia Gas shall consult with the Doddridge County Park and Roane-Jackson Technical Center** to establish pre- and post-construction notification protocols and identify any special measures that may be needed to further reduce the potential for impacts on water quality and/or yield of Doddridge County Park Well #1 and Roane-Jackson Technical Center Wells #1, #2, and #3. Columbia Gas shall file with the Secretary documentation of its consultations, and proposed notification and mitigation measures, for review and approval by the Director of OEP. (*section 4.3.1.2.1*)
27. **Prior to withdrawing water for hydrostatic testing from Fish Creek, Piney Fork, Meathouse Fork, McElroy Creek, Slab Creek, or Frozencamp Creek,** Columbia Gas shall consult with the WVDNR to assess whether stream flow is sufficient to protect aquatic life, and to assess whether any specific measures to protect in-stream habitat and downstream uses are warranted at these waterbodies. The results of these consultations shall be filed with the Secretary. (*section 4.3.2.4.1*)
28. **Prior to the construction of the U.S. Highway 50 and Kanawha River crossings,** Columbia Gas shall file with the Secretary, for the review and written approval by the Director of OEP, a drilling noise mitigation plan to reduce the projected noise level attributable to the proposed drilling operations at nearby noise sensitive areas (NSAs). Columbia Gas shall notify residents in the vicinity of these drilling operations of its anticipated construction schedule and hours of operation. During drilling operations, Columbia Gas shall implement the approved plan, monitor noise levels, document the noise levels in its weekly status report, and make all reasonable efforts to restrict the noise attributable to the drilling operations to no more than a day-night sound level (L_{dn}) of 55 A-weighted decibels (dBA) at the NSAs. (*section 4.11.2.2.1*)

Condition 29 applies only to Columbia Gulf and shall be addressed before construction is allowed to commence.

29. **Prior to construction,** Columbia Gulf shall perform a nighttime site visit to the Leach C Meter Station to evaluate stray lighting that may be disruptive to its neighbors. If existing lighting can be angled in a direction that it is no longer a

nuisance to the adjacent residence, Columbia Gulf shall consider making an adjustment, provided it does not jeopardize the safety and/or security of the facility operations, and file a report with the Secretary identifying proposed modifications. (*section 4.8.3.2*)

Condition 30 applies only to Columbia Gulf and shall be addressed during construction, or before specific construction activities are allowed to commence and prior to operation of the GXP.

30. **Prior to removal of any ash tree from the GXP areas in Tennessee**, Columbia Gulf shall inspect all ash trees that will be removed for indications of emerald ash borer infestations, before transporting ash trees away from the area. If signs of an infestation exist, Columbia Gulf shall immediately contact the U.S. Department of Agriculture Emerald Ash Borer Hotline at 866-322-4512 to determine the appropriate method for disposing of the tree(s). **Prior to operation of the GXP**, Columbia Gulf shall file with the Secretary the results of these inspections. (*section 4.5.5.2*)

Condition 31 applies only to Columbia Gas and shall be addressed after construction.

31. **Following construction**, Columbia Gas shall conduct noxious and invasive species monitoring within the maintained rights-of-way **for 3 years** following successful completion of revegetation, and file with the Secretary the results of these surveys. Columbia Gas shall not move mowing and maintenance equipment from an area where invasive species have been encountered during operation of the project unless the equipment is cleaned to remove invasive species and seeds prior to moving. (*section 4.5.5.1*)

Conditions 32 through 35 apply to only Columbia Gas and shall be addressed after construction or during operation of the facilities.

32. Columbia Gas shall make all reasonable efforts to maintain its predicted noise levels from the Lone Oak, Sherwood, White Oak, Mount Olive, and Elk River Compressor Stations and ensure that these levels are not exceeded at nearby NSAs. Columbia Gas shall file noise surveys with the Secretary **no later than 60 days** after placing each of these stations in service. If a full load condition noise survey is not possible, Columbia Gas shall provide an interim survey at the maximum possible horsepower load and provide the full load survey **within 6 months**. If the noise attributable to the operation of all of the equipment at any of the compressor stations under interim or full horsepower load conditions exceeds an L_{dn} of 55 dBA at any nearby NSA, Columbia Gas 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. Columbia Gas shall confirm

compliance with the above requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls. (*section 4.11.2.2.2*)

33. Columbia Gas shall conduct a noise survey at the Ceredo Compressor Station to verify that the noise from all the equipment operated at full capacity does not exceed the previously existing noise levels that are at or above an L_{dn} of 55 dBA at the nearby NSAs. The results of this noise survey shall be filed with the Secretary no later than 60 days after placing the modified units in service. If a full load condition noise survey is not possible, Columbia Gas shall provide an interim survey at the maximum possible horsepower load and provide the full load survey **within 6 months**. If the noise attributable to the operation of all of the equipment at any of the compressor stations under interim or full horsepower load conditions exceeds previously existing noise levels, Columbia Gas shall, within 1 year of the in-service date, implement additional noise control measures to reduce the operating noise level at the NSAs to or below the previously existing noise level. Columbia Gas shall confirm compliance with this requirement by filing a second noise survey with the Secretary no later than 60 days after it installs the additional noise controls.
34. During operation of the MXP compressor stations, Columbia Gas shall make all reasonable efforts to notify nearby NSAs in advance of planned blowdown events.
35. Columbia Gas shall make all reasonable efforts to maintain its predicted noise levels from the Ripley and Saunders Creek Regulator Stations and ensure that these levels are not exceeded at nearby NSAs. Columbia Gas shall file a noise survey with the Secretary **no later than 60 days** after placing the Ripley and Saunders Creek Regulator Stations in service. If a full-load-condition noise survey of the entire station is not possible, Columbia Gas shall instead file an interim survey at the maximum flow and file the full-load survey **within 6 months**. If the noise attributable to the operation of all the equipment at any of these facilities under interim or full flow conditions exceeds 55 dBA L_{dn} at any nearby NSAs, Columbia Gas 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. Columbia Gas 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. (*section 4.11.2.2.2*)

Conditions 36 and 37 apply to only Columbia Gulf and shall be addressed after construction or during operation of the facilities.

36. Columbia Gulf shall make all reasonable efforts to maintain its predicted noise levels from the GXP compressor stations and ensure that these levels are not exceeded at nearby NSAs. Columbia Gulf shall file a noise survey with the

Secretary **no later than 60 days** after placing each of the GXP compressor stations in service. If a full-load-condition noise survey of the entire station is not possible, Columbia Gulf 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 operation of all the equipment at any compressor station under interim or full-horsepower-load conditions exceeds 55 dBA L_{dn} at any nearby NSAs, Columbia Gulf 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. Columbia Gulf 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. (*section 4.11.2.3.2*)

37. During operations, Columbia Gulf shall make all reasonable efforts to notify nearby NSAs in advance of planned blowdown events at any of the GXP Compressor Stations.

Document Content(s)

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