

161 FERC ¶ 61,043
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;
Cheryl A. LaFleur, and Robert F. Powelson.

Mountain Valley Pipeline, LLC
Equitrans, L.P.

Docket Nos. CP16-10-000
CP16-13-000

**ORDER ISSUING CERTIFICATES AND GRANTING ABANDONMENT
AUTHORITY**

(Issued October 13, 2017)

1. On October 23, 2015, Mountain Valley Pipeline, LLC (Mountain Valley) filed an application in Docket No. CP16-10-000, pursuant to section 7(c) of the Natural Gas Act (NGA)¹ and Part 157 of the Commission's regulations,² for authorization to construct and operate its proposed Mountain Valley Pipeline Project in West Virginia and Virginia (MVP Project). The project is designed to provide up to 2,000,000 dekatherms (Dth) per day of firm transportation service from Wetzel County, West Virginia to Transcontinental Pipe Line Company, LLC's (Transco) Compressor Station 165 in Pittsylvania County, Virginia. Mountain Valley also requests a blanket certificate under Part 157, Subpart F of the Commission's regulations to perform certain routine construction activities and operations and a blanket certificate under Part 284, Subpart G of the Commission's regulations to provide open-access transportation services.
2. On October 27, 2015, Equitrans, L.P. (Equitrans) filed an application in Docket No. CP16-13-000, pursuant to section 7(c) of the NGA and Part 157 of the Commission's regulations, for authorization to construct and operate the system modifications necessary to enable Equitrans to provide an additional 600,000 Dth per day of north-to-south firm transportation service from western Pennsylvania to an interconnect with the MVP

¹ 15 U.S.C. § 717f(c) (2012).

² 18 C.F.R. pt. 157 (2017).

Project in Wetzel County, West Virginia (Equitrans Expansion Project). As part of the project, Equitrans also proposes to abandon, pursuant to section 7(b) of the NGA,³ its existing 4,800-horsepower (hp) Pratt Compressor Station in Greene County, Pennsylvania.

3. For the reasons discussed in this order, the Commission grants the requested certificate authorizations, subject to conditions.

I. Background

4. Mountain Valley,⁴ a Delaware limited liability company, does not currently own or operate any interstate pipeline facilities and does not provide any services subject to the Commission's jurisdiction. Upon commencement of operations proposed in its application, Mountain Valley will become a natural gas company within the meaning of section 2(6) of the NGA,⁵ and, as such, will be subject to the jurisdiction of the Commission.

5. Equitrans,⁶ a Pennsylvania limited partnership, is a natural gas company, engaged in the transportation and storage of natural gas in interstate commerce subject to the Commission's jurisdiction. Equitrans' interstate natural gas system is located in northern West Virginia and southwestern Pennsylvania.

³ 15 U.S.C. § 717f(b) (2012).

⁴ Five companies own Mountain Valley: (1) MVP Holdco, LLC, a subsidiary of EQT Corporation; (2) US Marcellus Gas Infrastructure, LLC, a subsidiary of NextEra Energy Capital Holdings, Inc.; (3) WGL Midstream, Inc., a subsidiary of WGL Holdings, Inc.; (4) RGC Midstream, LLC, a subsidiary of RGC Resources, Inc.; and (5) Con Edison Gas Midstream, LLC, a subsidiary of Consolidated Edison, Inc. *See Exhibit A to the Joinder Agreement filed on January 27, 2016; see also Appalachian Mountain Advocates' December 22, 2016 Comment on the Draft EIS at 12-13 (stating that Vega Energy Partners, Ltd., an original owner of Mountain Valley, sold its shares to WGL Midstream, Inc. in late October 2016).*

⁵ 15 U.S.C. § 717(a)(6) (2012).

⁶ Two subsidiaries of EQT Midstream Partners, LLC (Equitrans Investments, LLC and Equitrans Services, LLC) own Equitrans. EQT Midstream Partners, LLC is a subsidiary of EQT Corporation.

II. Proposals

A. Mountain Valley Pipeline Project

6. Mountain Valley proposes to construct and operate its project to provide up to 2,000,000 Dth per day of firm transportation service from Wetzel County, West Virginia to Transco's Compressor Station 165 in Pittsylvania, Virginia, enabling its shippers to access markets in the Northeast, Mid-Atlantic, and Southeast regions.

7. Specifically, Mountain Valley proposes to construct the following facilities:

- A 303.5-mile-long, 42-inch-diameter greenfield natural gas pipeline (the Mountain Valley pipeline) with a maximum allowable operating pressure (MAOP) of 1,480 pounds per square inch gauge (psig), extending from Equitrans' existing H-302 pipeline near MarkWest Liberty Midstream & Resources, L.L.C.'s (MarkWest) Mobley processing facility in Wetzel County, West Virginia at milepost (MP) 0.0, to an interconnection with Columbia Gas Transmission, LLC's (Columbia) WB System in Braxton County, West Virginia, at MP 77.6, and then to an interconnection with Transco's mainline system near Transco's existing Zone 5 Compressor Station 165 at MP 303.5 in Pittsylvania County, Virginia;⁷
- Three new compressor stations in West Virginia, totaling 171,600 nominal hp of compression:⁸
 - Bradshaw Compressor Station, located at MP 2.7 in Wetzel County, comprising four gas-driven turbine units totaling 89,600 hp;
 - Harris Compressor Station, located at MP 77.4 in Braxton County, comprising two gas-driven turbine units totaling 41,000 hp; and
 - Stallworth Compressor Station, located at MP 154.5 in Fayette County, comprising two gas-driven turbine units totaling 41,000 hp;
- Four new interconnections:

⁷ See Mountain Valley's October 14, 2016 Filing (revised pipeline route).

⁸ Mountain Valley also proposes to install ancillary facilities at each compressor station, such as a storage/maintenance building, gas and utility piping, separators, and safety equipment.

- Mobley Interconnect, located at MP 0.0 in Wetzel County, West Virginia, receiving natural gas from Equitans' existing H-302 pipeline via Equitans' proposed H-316 pipeline;⁹
- Sherwood Interconnect, located at MP 23.6 in Harrison County, West Virginia, receiving natural gas from MarkWest's existing upstream non-jurisdictional system at the discharge side of the Sherwood Gas Processing Plant;
- WB Interconnect, located at MP 77.6 in Braxton County, West Virginia, delivering gas from the MVP Project into Columbia's system; and
- Transco Interconnect, located at MP 303.5 in Pittsylvania County, Virginia, delivering natural gas from the MVP Project to Transco pipeline system at Transco's Compressor Station 165;
- Four new meter and regulating stations, one at each of the new interconnects;
- Three new taps:
 - Webster Tap at Equitans' Webster Interconnect at MP 0.8 on the Mountain Valley pipeline in Wetzel County, West Virginia;
 - Lafayette Tap at Roanoke Gas Company's (Roanoke Gas) Lafayette Interconnect at MP 235.7 on the Mountain Valley pipeline in Montgomery County, Virginia; and
 - Franklin Tap at Roanoke Gas' Franklin Interconnect at MP 261.4 on the Mountain Valley pipeline in Franklin County, Virginia; and
- Related appurtenant facilities, such as eight pig launchers and receivers; 36 mainline block valves, cathodic protection, and communication towers.

8. EQT Midstream Partners, LP, a subsidiary of EQT Corporation and a parent of Mountain Valley, will operate the project.

⁹ The MVP Project will receive gas from Equitans at two points: Mountain Valley's proposed Mobley Interconnect and Equitans' proposed Webster Interconnect in Wetzel County, West Virginia.

9. Mountain Valley conducted a non-binding open season for firm transportation service from June 12, 2014 through July 10, 2014 and a binding open season from September 2, 2014 through October 21, 2014, resulting in the execution of binding precedent agreements on October 21, 2014 with EQT Energy, LLC (EQT Energy) and USG Properties Marcellus Holdings, LLC (USG) for 1,790,000 Dth per day of firm transportation on the project. Later, Mountain Valley executed binding precedent agreements with WGL Midstream, Inc. (WGL Midstream) on March 10, 2015, and Roanoke Gas Company on October 1, 2015, for the remaining capacity available on the system. Accordingly, the project is fully subscribed.

10. On January 27, 2016, Consolidated Edison of New York, Inc. (ConEd) executed a binding precedent agreement for 250,000 Dth per day of transportation service made available by USG reducing its firm transportation capacity commitment from 500,000 Dth per day to 250,000 Dth per day.¹⁰ In addition, Con Edison Gas Midstream, LLC, the parent company of ConEd, has become a part owner of Mountain Valley.¹¹ Currently, the project has five shippers for the contracted volumes below:

Shipper	Contracted Volumes
EQT Energy, LLC ¹²	1.29 million Dth per day
Roanoke Gas Company ¹³	10,000 Dth per day

¹⁰ See Mountain Valley's January 27, 2016 Supplemental Information at 1.

¹¹ See *id.* at 1-2.

¹² EQT Energy, LLC is a gas marketing subsidiary of EQT Corporation (an indirect owner of Mountain Valley), providing optimization of capacity and storage assets, natural gas liquids sales and natural gas sales to commercial and industrial customers.

¹³ Roanoke Gas Company, a subsidiary of RGC Resources, Inc. (as is Mountain Valley owner, RGC Midstream, LLC), is a utility that provides local natural gas distribution services in Virginia.

USG Properties Marcellus Holdings,
LLC¹⁴ 250,000 Dth per day

WGL Midstream, Inc.¹⁵ 200,000 Dth per day

Consolidated Edison of New York, Inc.¹⁶ 250,000 Dth per day

The precedent agreements require the project shippers to execute 20-year term firm transportation service agreements.

11. Mountain Valley also conducted a non-binding open season from September 17, 2015 to October 1, 2015, for short-term firm transportation service between various receipt points in the Appalachian Basin area to the new WB Interconnect in Braxton County, West Virginia, during the interim period between when the WB Interconnect with Columbia is placed into service and when the Transco Interconnect is placed into service. No precedent agreements have yet been executed for the offered short-term firm service.

12. Mountain Valley estimates that the MVP Project will cost approximately \$3.7 billion. The project shippers each agreed to pay negotiated rates.

13. Mountain Valley also requests approval of its proposed *pro forma* tariff. Mountain Valley proposes initial maximum and minimum recourse reservation and usage rates set forth under Rate Schedules FTS (Firm Transportation Service), ITS (Interruptible Transportation Service), and ILPS (Interruptible Lending and Parking Service). Mountain Valley also proposes an Interim Service Period, during which it will provide firm and IT service to the WB Interconnect prior to the completion of the entire project.

¹⁴ USG Properties Marcellus Holdings, LLC, a subsidiary of NextEra Energy, Inc., and affiliate of Mountain Valley-owner US Marcellus Gas Infrastructure, LLC, is a natural gas production and distribution company.

¹⁵ WGL Midstream, Inc., which is also an owner of Mountain Valley, engages in developing, acquiring, investing in, managing and optimizing natural gas storage and transportation assets.

¹⁶ ConEd, an affiliate of Mountain Valley-owner Con Edison Gas Midstream, LLC, is a public utility that provides electric and natural gas distribution services.

14. Mountain Valley requests a Part 284, Subpart G blanket certificate of public convenience and necessity pursuant to section 284.221 of the Commission's regulations authorizing it to provide transportation service to customers requesting and qualifying for transportation service under its proposed FERC Gas Tariff, with pre-granted abandonment authority.¹⁷

15. Mountain Valley also requests a blanket certificate of public convenience and necessity pursuant to section 157.204 of the Commission's regulations authorizing future facility construction, operation, and abandonment as set forth in Part 157, Subpart F of the Commission's regulations.¹⁸

B. Equitrans Expansion Project

16. Equitrans proposes to construct and operate its Equitrans Expansion Project to provide up to 600,000 Dth per day of firm transportation service from southern Pennsylvania and northern West Virginia to proposed interconnections with the MVP Project in West Virginia.

17. Specifically, Equitrans proposes to construct the following facilities:

- Six new segments of natural gas pipelines, totaling about 7.87 miles, on Equitrans' existing mainline system:
 - H-318, a new 3.8-mile-long, 20-inch-diameter pipeline with an MAOP of 1,200 psig in Allegheny and Washington Counties, Pennsylvania, which will transport natural gas from EQT Gathering, LLC's¹⁹ Applegate Gathering System to Equitrans' existing H-148 pipeline;
 - H-316, a new 3.0-mile long, 20-inch-diameter pipeline with an MAOP of 1,200 psig in Greene County, Pennsylvania, extending from the new Redhook Compressor Station to Equitrans' existing H-302 pipeline;
 - H-305, a new 550-foot-long, 24-inch-diameter pipeline with an MAOP of 1,200 psig in Greene County, Pennsylvania, extending from the new Redhook Compressor Station to Equitran's existing

¹⁷ 18 C.F.R. § 284.221 (2017).

¹⁸ *Id.* § 157.204.

¹⁹ EQT Gathering, LLC is a gathering subsidiary of EQT Corporation.

Braden Run Interconnect with Texas Eastern Transmission, L.P.
(Texas Eastern);

- H-319, a new 200-foot-long, 16-inch-diameter pipeline with an MAOP of 1,200 psig in Wetzel County, West Virginia, extending from Equitans' existing H-306 pipeline to its new Webster Interconnect;
- An 0.2-mile extension of Equitans' existing 1.38-mile-long, 6-inch-diameter M-80 pipeline with an MAOP of 1,000 psig in Greene County, Pennsylvania, to the new Redhook Compressor Station; and
- An 0.2-mile extension of Equitans' existing 1.42-mile-long, 12-inch-diameter H-158 pipeline with an MAOP of 1,000 psig in Greene County, Pennsylvania, to the new Redhook Compressor Station;
- The new Redhook Compressor Station, located at MP 0.0 in Greene County, Pennsylvania, which is comprised of two gas-fired reciprocating engines and two gas-fired turbine engines totaling 31,300 hp;
- Four new taps:
 - Mobley Tap at MP 0.6 on H-302 in Wetzel County, West Virginia, connecting with the Mountain Valley pipeline;
 - H-302 Tap at MP 3.0 on H-316 in Greene County, Pennsylvania;
 - H-306 Tap at MP 0.0 on H-319 in Wetzel County, West Virginia; and
 - H-148 Tap at MP 3.8 on H-318 in Washington County, Pennsylvania;
- The new Webster Interconnect, located around MP 0.1 in Wetzel County, West Virginia, which would deliver gas from Equitans' H-306 to the new H-319 to the Mountain Valley pipeline;
- Six new tie-ins; and
- Related appurtenant facilities, such as three pig launchers and receivers, cathodic protection, and communication towers.

18. Additionally, Equitans also requests authorization to abandon its existing 4,800-hp Pratt Compressor Station in Greene County, Pennsylvania, which will no longer be needed to provide service after construction of the new Redhook Compressor Station. Equitans will use the abandoned site of the Pratt Compressor Station as a storage yard during operation of the Expansion Project. Specifically, Equitans proposes to abandon two 1,080-hp compressor units, three 880-hp compressor units, the station building, coolers, storage tanks, auxiliary equipment and related piping, and a small portion of Equitans' M-80 and H-158 pipelines.

19. Equitans conducted a non-binding open season for firm transportation capacity from March 5, 2015, through March 20, 2015, for potential deliveries to existing and future interconnects, including interconnects with Texas Eastern, Dominion Transmission, Inc., and the MVP Project. As a result of the open season, Equitans executed a precedent agreement with EQT Energy for 400,000 Dth of firm transportation service on the Expansion Project. Equitans also conducted a reverse open season but did not receive any offers to turn back capacity. Equitans states that it will enter into a 20-year firm transportation service agreement under Equitans' existing Rate Schedule FTS for the subscribed capacity prior to the in-service date of its project.

20. Equitans estimates the total cost of the project is approximately \$172 million. Equitans proposes to use its existing mainline system rates as the initial recourse rates for firm transportation service. Equitans and EQT Energy have entered into a negotiated rate agreement for firm transportation service on the Expansion Project.

III. Procedural

A. Notice, Interventions, Protests, and Comments

21. Notice of Mountain Valley's and Equitans' applications was published in the *Federal Register* on November 13, 2015 (80 Fed. Reg. 70,196), with interventions, comments, and protests due by November 27, 2015.²⁰ The parties listed in Appendix A filed timely, unopposed motions to intervene, which were granted by operation of Rules 214(a)(2) and 214(c) of the Commission's Rules of Practice and Procedure.²¹ Late

²⁰ The Commission's Rules of Practice and Procedure provide that, if a filing deadline falls on a Saturday, Sunday, holiday, or other day when the Commission is not open for business, the filing deadline does not end until the close of business on the next business day. 18 C.F.R. § 385.2007(a)(2) (2017). The filing deadline fell on November 26, 2015, which was Thanksgiving Day. Thus, the filing deadline was the close of business on Friday, November 27, 2015.

²¹ *Id.* §§ 385.214(a)(2) and 385.214(c).

interventions were granted by notice issued on June 9, 2017, and this order, and are listed in Appendix B of this order.²² ICG Eastern, LLC (ICG Eastern) filed a late, opposed motion to intervene, which we grant, as discuss below.

22. ICG Eastern, the owner of coal mines that may be affected by the MVP Project, filed a late motion to intervene in the MVP Project proceeding on July 20, 2017. Mountain Valley filed a motion to oppose the late intervention on August 11, 2017, arguing that ICG Eastern was notified of the application on October 25, 2015, but sat on its right to intervene. To date, the Commission's practice in certificate proceedings has generally been to grant motions to intervene filed prior to issuance of the Commission's order on the merits.²³ While ICG Eastern's motion pushes this practice, we find that ICG Eastern has demonstrated a sufficient interest in the proceeding and under the circumstances here, we will grant its late motion to intervene.

23. Numerous entities and individuals filed comments and protests regarding various issues, including project purpose and need; project alternatives; geological hazards; water resources; wetlands; forested habitat; wildlife and threatened, endangered, and other special status species; land use, recreational areas, and visual resources; cultural resources; air quality and noise impacts; and safety. These concerns are addressed in the final Environmental Impact Statement (EIS) and/or below.

B. Answers

24. Mountain Valley; Coronado Coal, LLC (Coronado Coal); Roanoke County, Virginia; ConEd, NextEra Energy Resources, LLC (NextEra), WGL Midstream, Newport Rural Historic District Committee (Greater Newport); Louisa Gay; Four Corners Farm; and Appalachian Mountain Advocates filed answers. Some submitted multiple answers in response to other's answers.

25. Separately, in Docket No. CP16-13-000, Equitans filed an answer to Peoples Natural Gas Company LLC's (Peoples) protest of Equitans' application, which led Peoples to file a responsive answer. Peoples subsequently withdrew its protest.

26. Although the Commission's Rules of Practice and Procedure do not permit answers to protests or answers to answers, we find good cause to waive our rules and

²² See *id.* § 385.214(d).

²³ See *Dominion Transmission, Inc.*, 155 FERC ¶ 61,106, at P 9 (2016) (finding that granting the untimely motions to intervene filed prior to the issuance of the certificate order generally does not delay, disrupt, or unfairly prejudice other parties to the proceeding).

accept the answers because they provide information that has assisted in our decision making process.²⁴

C. Requests for a Formal Hearing

27. Several entities, including the Blue Ridge Environmental Defense League (Blue Ridge); jointly, the Shenandoah Valley Network, Highlanders for Responsible Development, Virginia Wilderness Committee, Shenandoah Valley Battlefields Foundation, and Natural Resources Defense Council (collectively Shenandoah Valley Network); Preserve Giles County; and Greater Newport request a formal hearing for both projects.

28. Although our regulations provide for a hearing, neither section 7 of the NGA nor our regulations require that such hearing be a formal, trial-type evidentiary hearing.²⁵ When, as is usually the case, the written record provides a sufficient basis for resolving the relevant issues, it is our practice to provide for a hearing based on the written record.²⁶ That is the case here. We have reviewed the requests for an evidentiary hearing and conclude that all issues of material fact relating to Mountain Valley's and Equitans' proposals are capable of being resolved on the basis of the written record. Accordingly, we will deny the requests for a formal hearing.

IV. Discussion

29. Since the proposed facilities will be used to transport natural gas in interstate commerce and the facilities to be abandoned have been used to transport natural gas in interstate commerce subject to the jurisdiction of the Commission, the proposed

²⁴ See 18 C.F.R. § 385.213(a)(2) (2017).

²⁵ See *Minisink Residents for Environmental Preservation and Safety v. FERC*, 762 F.3d 97, 114 (D.C. Cir. 2014) (*Minisink Residents*) (stating “FERC’s choice whether to hold an evidentiary hearing is generally discretionary.”).

²⁶ See *NE Hub Partners, L.P.*, 83 FERC ¶ 61,043, at 61,192 (1998), *reh’g denied*, 90 FERC ¶ 61,142 (2000); *Pine Needle LNG Co., LLC*, 77 FERC ¶ 61,229, at 61,916 (1996). Moreover, courts have recognized that even where there are disputed issues, the Commission need not conduct an evidentiary hearing if the disputed issues “may be adequately resolved on the written record.” *Minisink Residents*, 762 F.3d at 114 (quoting *Cajun Elec. Power Coop., Inc. v. FERC*, 28 F.3d 173, 177 (D.C. Cir. 1994)).

abandonment, construction, and operation of the facilities are subject to subsections (b), (c), and (e) of section 7 of the NGA.²⁷

A. **Certificate Policy Statement**

30. The Certificate Policy Statement provides guidance for evaluating proposals to certificate new construction.²⁸ The Certificate Policy Statement establishes criteria for determining whether there is a need for a proposed project and whether the proposed project will serve the public interest. The Certificate Policy Statement explains, that in deciding whether to authorize the construction of major new natural gas 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.

31. Under this policy, the threshold requirement for pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from 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, the Commission 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 the Commission proceed to complete the environmental analysis where other interests are considered.

1. **Mountain Valley Pipeline Project**

a. **Subsidization and Impacts on Existing Customers**

32. As stated, the threshold requirement is that the applicant must be prepared to financially support the project without relying on subsidization from its existing customers. Mountain Valley is a new pipeline entrant with no existing customers. Thus,

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

²⁸ *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).

there is no potential for subsidization on Mountain Valley's system or degradation of service to existing customers.

b. Need for the Project

33. Several parties and commenters challenged the need for the proposed MVP Project on several grounds, including: (1) the availability of existing infrastructure to serve demand for natural gas in Virginia, North Carolina, and South Carolina; (2) compliance with the Clean Power Plan or a shift in power generation could render the project's capacity unnecessary; (3) need for heightened scrutiny of precedent agreements with Mountain Valley affiliates; (4) potential of shifting of costs to captive ratepayers; (5) unreliability of Mountain Valley's market demand study; and (6) Mountain Valley's open seasons were not legitimate.

i. Ability of Existing Infrastructure to Meet Demand

34. Several commenters, such as Shenandoah Valley Network, argue that the MVP Project, Atlantic Coast Project,²⁹ Transco's Appalachian Connector,³⁰ and Columbia's WB Xpress Project,³¹ are redundant because they all are designed to deliver gas from the Marcellus and Utica production area³² to Transco's mainline system. They argue that

²⁹ The Atlantic Coast Pipeline Project is designed to increase firm transportation service by 1.5 billion Dth per day in West Virginia, Virginia, and North Carolina. The project is currently pending before the Commission in Docket Nos. CP15-554, CP15-555, and CP15-556.

³⁰ Transco has not filed an application, nor has it initiated a pre-filing process, with the Commission for its Appalachian Connector Project.

³¹ Columbia's proposed WB Xpress Project is designed to provide up to an additional 1.3 million Dth per day of bi-directional firm transportation service on Columbia's system. The WB Xpress Project is currently pending before the Commission in Docket No. CP16-38-000.

³² 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).

Transco's Atlantic Sunrise Project³³ and utilization of unused capacity on existing interstate natural gas transmission systems would accommodate the growth in market demand in the Mid-Atlantic and Southeast, specifically Virginia and the Carolinas.³⁴ For that reason, they contend approving the MVP Project would result in the overbuilding of natural gas infrastructure.

35. Commenters, such as Shenandoah Valley Network, also argue that a state's compliance with the Environmental Protection Agency's Clean Power Plan³⁵ or potential switch to renewable fuel for power generation may render the capacity on the Mountain Valley system unnecessary. They argue that this potential should be considered in assessing project need.

36. In support of their positions, commenters rely on several studies. First, they cite a U.S. Department of Energy (DOE) study for the proposition that increasing utilization

³³ The Atlantic Sunrise Project will enable Transco to flow gas bidirectionally on its mainline system in order to provide up to 1.7 million Dth per day of firm transportation service from northern Pennsylvania to Alabama. The Commission issued a certificate for the fully-subscribed project on February 3, 2017. *Transcontinental Gas Pipe Line Company, LLC*, 158 FERC ¶ 61,125 (2017) (*Transo*).

³⁴ In addition to this argument, in its November 25, 2015 Motion to Intervene, Blue Ridge also asserts that the U.S. Department of Energy's estimates of recoverable shale gas supply is overly optimistic and has created a "bubble" for the commodity, which will ultimately harm the economy. Blue Ridge's argument is beyond the scope of this order because the Commission has no jurisdiction to regulate the production or gathering of natural gas. See 15 U.S.C. § 717(b) (2012). States, not the Commission, regulate production activities and are most likely to have the information necessary to foresee future production. The Commission can only act on the application before us.

³⁵ See EPA, *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, 80 Fed. Reg. 64,662 (2015). See also *West Virginia v. Environmental Protection Agency*, 136 S.Ct. 1000 (2016) (staying the final rule).

rates of existing interstate gas pipelines, re-routing gas flows, and expanding existing pipeline capacity are potentially lower-cost alternatives to building new infrastructure.³⁶

37. Commenters also cite to a study by Synapse Energy Economics, Inc. (Synapse) that Southern Environmental Law Center and Appalachian Mountain Advocates commissioned, which asserts that existing gas pipeline capacity, existing storage in Virginia and the Carolinas, and the future operation of Transco's Atlantic Sunrise Project and Columbia's WB Xpress Project can satisfy the growing peak demand in that region.³⁷ The study concludes that the natural gas infrastructure capacity of the Virginia and the Carolinas region is more than sufficient to meet expected future peak demand.³⁸

38. Appalachian Mountain Advocates and others also cite to 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 region is overbuilt.³⁹

³⁶ See Shenandoah Valley Network's November 27, 2015 Motion to Intervene and Protest at 12-13 (quoting U.S. DEP'T OF ENERGY, *NATURAL GAS INFRASTRUCTURE IMPLICATIONS OF INCREASED DEMAND FROM THE ELECTRIC POWER SECTOR* at 31 <http://energy.gov/epsa/downloads/report-natural-gas-infrastructure-implications-increased-demand-electric-power-sector> (DOE Study)).

³⁷ SYNAPSE ENERGY ECONOMICS, INC., ARE THE ATLANTIC COAST PIPELINE AND THE MOUNTAIN VALLEY PIPELINE NECESSARY? (2016) (filed as Exhibit B of Appalachian Mountain Advocates' December 22, 2016 Comment on the Draft Environmental Impact Study) (Synapse Study).

³⁸ Specifically, the Synapse Study analyzes the winter peak hour gas usage under various scenarios, and finds that even under the highest gas usage scenario modeled, natural gas supply exceeds demand by approximately 100 million cubic feet per day (which is equivalent to about 100,000,000 Dth per day) through 2030. Synapse Study at Figure ES-2.

³⁹ INSTITUTE FOR ENERGY ECONOMICS AND FINANCIAL ANALYSIS, RISKS ASSOCIATED WITH NATURAL GAS EXPANSION IN APPALACHIA (April 2016) (attached to Friends of Nelson's December 9, 2016 Comment on the Draft EIS) (IEEFA Study).

39. In response to commenters, Mountain Valley filed its own market demand study.⁴⁰ The Wood Mackenzie Study estimates that demand growth for natural gas capacity in the Southeast will reach 8.3 billion cubic feet (Bcf) per day⁴¹ by 2030.⁴² Much of the gas needed to meet this demand would be from the Marcellus and Utica shale regions, which would require additional pipeline capacity.⁴³ Mountain Valley points out the other new projects, which the commenters argue make its project unnecessary, are being constructed to serve different, specific customers/markets and are themselves nearly fully subscribed. In turn, Appalachian Mountain Advocates and other commenters counter that the Wood Mackenzie Study is unreliable because it relies on data from an unusually cold winter and assumes gas will be flexible to meet the variable needs of generators.

40. The Certificate Policy Statement established a policy under which the Commission would allow an applicant to rely on a variety of relevant factors to demonstrate need, rather than continuing to require that a percentage of the proposed capacity be subscribed under long-term precedent or service agreements.⁴⁴ 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.⁴⁵ The Commission stated that it would consider all such evidence submitted by the applicant regarding project need. However, although the Certificate Policy Statement broadened the types of evidence certificate applicants may present to show the public benefits of a project, it did not compel an additional showing. The policy

⁴⁰ WOOD MACKENZIE, INC., SOUTHEAST U.S. NATURAL GAS MARKET DEMAND IN SUPPORT OF THE MOUNTAIN VALLEY PIPELINE PROJECT (Jan. 2016) (filed as Exhibit A of Mountain Valley's January 27, 2016 Answer) (Wood Mackenzie Study).

⁴¹ A volumetric capacity of 8.3 Bcf per day is equivalent to 8,300,000,000 Dth per day.

⁴² Wood Mackenzie Study at 6.

⁴³ See *id.* at 20-21.

⁴⁴ 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 *id.* at 61,743. The fully subscribed MVP Project and the two-thirds subscribed Equitans Expansion Project would both have satisfied this prior, more stringent, requirement.

⁴⁵ Certificate Policy Statement, 88 FERC at 61,747.

statement made clear that, although precedent agreements are no longer required to be submitted, they are still significant evidence of project need or demand.⁴⁶

41. Mountain Valley has entered into long-term, firm precedent agreements with five shippers for 2,000,000 Dth per day of firm transportation service – the project’s full design capacity. Equitans has entered into a precedent agreement for 66 percent of the design capacity of its project. Further, Ordering Paragraph (C)(4) of this order requires that Mountain Valley and Equitans file a written statement affirming that they have executed final contracts for service at the levels provided for in their precedent agreements prior to commencing construction. The shippers on the MVP and Equitans Expansion Projects will supply gas to a variety of end users and those shippers have determined that there is a market for their gas and the MVP and Equitans Expansion Projects are the preferred means of delivering or receiving that gas. We find that the contracts entered into by the shippers are the best evidence that additional gas will be needed in the markets that the MVP and Equitans Expansion Projects are intended to serve.⁴⁷ We find that Mountain Valley has sufficiently demonstrated that there is market demand for its project. We also find that end users will generally benefit from the projects because they will develop gas infrastructure that will serve to ensure future

⁴⁶ *Id.* at 61,748.

⁴⁷ While, as discussed above, we have relied on the existence of precedent agreements to find there is a need for the proposed projects, we will note that the findings of the studies may have been somewhat over stated by their filers. For example, rather than demonstrating that the current pipeline network is overbuilt, the DOE Study explains that the reason far less pipeline capacity is projected to be added between 2015 and 2030 (34 to 38 Bcf per day) than in the past (127 Bcf per day between 1998 and 2013) [*See* DOE Study at 20-21, 31] is that natural gas production and natural gas demand are now geographically dispersed; instead of pipelines stretching over a thousand miles, e.g., from the Rockies to the East Coast, the Marcellus shale supply is located much closer to the East Coast markets. [*See* DOE Study at 2-3.] Similarly, while the study notes that natural gas companies are increasingly using underutilized capacity on existing pipelines, re-routing natural gas flows, and expanding existing pipeline capacity, it does not contend that this supplants the need to build new infrastructure. [*See* DOE Study at n.51 (acknowledging that in some cases unsubscribed capacity is not available on existing pipelines and expanding existing pipeline capacity is not a viable option)]. The Synapse Study makes an unlikely assumption that all gas is flowed by primary customers along their contracted paths, failing to take into consideration the use of regional pipeline capacity by shippers outside of Virginia and the Carolinas by means of interruptible service or capacity release.

domestic energy supplies and enhance the pipeline grid by connecting sources of natural gas to markets in the Northeast, Mid-Atlantic, and Southeast regions.⁴⁸

42. We disagree with commenters' assertion that the Commission should examine the need for pipeline infrastructure on a region-wide basis. Commission policy is to examine the merits of individual projects and each project must demonstrate a specific need.⁴⁹ While the Certificate Policy Statement permits the applicant to show need in a variety of ways, it does not suggest that the Commission should examine a group of projects together and pick which projects best serve an estimated future regional demand. In fact, projections regarding future demand often change and are influenced by a variety of factors including economic growth, the cost of natural gas, environmental regulations, and legislative and regulatory decisions by the federal government and individual states. Given this uncertainty associated with long-term demand projections, such as those in the various studies noted by the applicants and commenters above, where an applicant has precedent agreements for long-term firm service, the Commission deems the precedent agreements to be the better evidence of demand. Thus, the Commission primarily relies – as it does here – on evaluating individual projects based on demonstrated need from specific shippers in the form of precedent agreements. We also note that neither any existing or proposed pipeline nor any pipeline customers have suggested that the MVP Project would have negative impacts on them, as one would expect them to do if they anticipated being burdened with the cost of unused capacity.

43. The final EIS considers the availability of capacity on other pipelines to serve as alternatives to the MVP and Equitans Expansion Projects and determines that sufficient capacity to and from the necessary receipt and delivery points was not available.⁵⁰ Similarly, the final EIS concludes that renewable energy is not a comparable replacement for the transportation of natural gas to be provided by the projects.⁵¹ It is speculative and outside of the scope of this proceeding to consider whether a state would comply with the EPA's Clean Power Plan regulations (which regulations are subject to a judicial stay and

⁴⁸ See *ETC Tiger Pipeline, LLC*, 131 FERC ¶ 61,010, at P 20 (2010).

⁴⁹ With respect to comments requesting the Commission assess the market demand for gas to be transported by other proposed interstate pipeline projects, we note that the Commission will evaluate the proposals in those proceedings in accordance with the criteria established in the policy statement.

⁵⁰ See Final EIS at 3-1 to 3-4.

⁵¹ *Id.* at 3-1.

a notice of proposed rulemaking to repeal⁵²) and how a state would manage its electric-power fuel source for the next 20 years.

ii. Precedent Agreements with Affiliate Shippers

44. Commenters, such as Appalachian Mountain Advocates, argue that because shippers are affiliated with Mountain Valley, we should exercise heightened scrutiny in reviewing whether there is actual market demand for the project.⁵³ They also rely on former Commission Chairman Bay's statement that the Commission should look behind precedent agreements and reevaluate its test for need⁵⁴ to argue that the Commission's approval of affiliate-backed projects have resulted in the overbuilding of interstate gas infrastructure.

⁵² EPA, Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (Oct. 10, 2017), https://www.epa.gov/sites/production/files/2017-10/documents/frn_cpp_repeal_2060-at55_proposal_20171010disclaimer.pdf.

⁵³ Appalachian Mountain Advocates and other commenters cite to *Millennium Pipeline Co., L.P.*, 100 FERC ¶ 61,277, at P 58 (2002) (*Millennium*), as an example of when the Commission exercised a heightened standard of review to prevent affiliate abuse of our regulation of interstate gas pipelines. However, the Commission did not exercise any heightened standard of review in the cited proceeding. Rather, in the referenced discussion, the Commission explained that it can exercise control over a non-jurisdictional affiliate of a pipeline when there is evidence that that affiliate is acting in concert with its pipeline in connection with interstate transport of natural gas in a manner that frustrates the Commission's effective regulation of the interstate pipeline. *See id.* (citing *Arkla Gathering Services Co.*, 67 FERC ¶ 61,257 (1994)). However, in *Millennium*, as here, the Commission stated that we do not distinguish between pipelines' precedent agreements with affiliates or independent marketers in establishing the market need for a proposed project. *Id.* at P 57.

⁵⁴ *National Fuel Gas Supply Corp.*, 158 FERC ¶ 61,145 (2017) (*National Fuel*).

45. We disagree. The fact that the project shippers are affiliated with Mountain Valley does not require the Commission to look behind the precedent agreements to evaluate project need.⁵⁵ As the court affirmed in *Minisink Residents for Environmental Preservation & Safety v. FERC*, the Commission may reasonably accept the market need reflected by the applicant's existing contracts with shippers.⁵⁶ An affiliated shipper's need for new capacity and its obligation to pay for such service under a binding contract are not lessened just because it is affiliated with the project sponsor.⁵⁷ When considering applications for new certificates, the Commission's primary concern regarding affiliates of the pipeline as shippers is whether there may have been undue discrimination against a non-affiliate shipper.⁵⁸ Here, no such allegations have been made, nor have we found that the project sponsors have engaged in any anticompetitive behavior. As discussed above, Mountain Valley and Equitans held both non-binding and binding open seasons for capacity on their projects and all potential shippers had the opportunity to contract for service.

46. Former Chairman Bay's separate statement in *National Fuel* summarizes recent arguments that appear in our natural gas certificate proceedings. In particular, Chairman Bay encouraged the Commission to not focus exclusively on precedent agreements but to also take into account all the public benefit considerations listed in the Certificate Policy

⁵⁵ *Millennium*, 100 FERC ¶ 61,277 at P 57 (“as long as the precedent agreements are long-term and binding, we do not distinguish between pipelines’ precedent agreements with affiliates or independent marketers in establishing the market need for a proposed project”). See also Certificate Policy Statement, 88 FERC at 61,748 (explaining that the Commission’s policy is less focused on whether the contracts are with affiliated or unaffiliated shippers and more focused on whether existing ratepayers would subsidize the project); see also *id.* at 61,744 (the Commission does not look behind precedent agreements to question the individual shippers’ business decisions to enter into contracts) (citing *Transcontinental Gas Pipe Line Corp.*, 82 FERC ¶ 61,084, at 61,316 (1998)).

⁵⁶ *Minisink Residents*, 762 F.3d at 110 n.10; see also *Sierra Club v. FERC*, 867 F.3d 1357, 1379 (D.C. Cir. 2017) (Sabal Trail) (finding that pipeline project proponent satisfied Commission’s “market need” where 93 percent of the pipeline project’s capacity has already been contracted for).

⁵⁷ See, e.g., *Greenbrier Pipeline Company, LLC*, 101 FERC ¶ 61,122, at P 59 (2002), reh’g denied, 103 FERC ¶ 61,024 (2003).

⁵⁸ See 18 C.F.R. § 284.7(b) (2017) (requiring transportation service to be provided on a non-discriminatory basis).

Statement. Indeed, on a case-by-case basis, the Commission examines all evidence of public benefits and weighs them against adverse project impacts.

47. Appalachian Mountain Advocates also argue that we should treat ConEd as an “overnight” affiliate shipper because it was formed months after Mountain Valley filed its application.⁵⁹ Citing *Independence Pipeline Company*,⁶⁰ it argues that we should be dubious of the demand created by an overnight affiliate of an owner.

48. *Independence* is distinguishable from the facts here. *Independence* was a pre-Certificate Policy Statement proceeding. Thus, as discussed above,⁶¹ under the then-applicable policy the pipeline was required to demonstrate contractual commitments for at least 25 percent of the proposed project’s capacity. However, *Independence* had provided no contractual evidence of market support when it filed its application. After repeated statements by *Independence* that eleven shippers had expressed interest in the project, followed by its failure to provide precedent agreements to support those statements, Commission staff informed *Independence* that it would dismiss *Independence*’s application by September 24, 1997, if the precedent agreements were not submitted.⁶² On the eve of the deadline, *Independence* created an affiliate marketer with whom it signed a precedent agreement.⁶³ The Commission rejected the precedent agreement as evidence of market support for the project finding *Independence* had created an affiliate “virtually overnight” to falsely evidence market need for the project.⁶⁴

49. Here, Mountain Valley’s binding open season conducted in 2014 resulted in commitments from USG and EQT. By the time Mountain Valley filed its application in October 2015, it had signed binding precedent agreements with two additional shippers. Three months after it filed its application, ConEd both became an affiliate of Mountain Valley and a shipper on the project, taking, as described above, capacity previously subscribed by USG, another Mountain Valley affiliate. However, while a new affiliate of

⁵⁹ See Appalachian Mountain Advocates’ December 22, 2016 Comments on the Draft EIS at 12-13.

⁶⁰ 89 FERC ¶ 61,283 (1999) (*Independence*).

⁶¹ See *supra* note 44.

⁶² See 89 FERC at 61,820.

⁶³ See *id.* at 61,840.

⁶⁴ See *id.*

Mountain Valley, ConEd is a longstanding company, created many years prior to the filing date of Mountain Valley's application.⁶⁵

iii. Shifting Costs to Captive Ratepayers

50. Appalachian Mountain Advocates and other commenters argue that two project shippers, Roanoke Gas and ConEd, will pass the cost of the firm transportation service on the MVP Project through to their captive ratepayers through annual gas adjustment mechanisms. Appalachian Mountain Advocates also argue that because neither the Virginia nor New York public utility regulators have approved the precedent agreements, it is important for the Commission to scrutinize the proposal to determine whether the project is needed. Similarly, they argue that because USG and WGL Midstream, both owners of Mountain Valley, signed precedent agreements with Mountain Valley, they are able to bypass state public utility commission regulatory review when they pass the cost of the project through to their affiliate utility companies (i.e., Florida Power & Light Company (FPL) and Washington Gas Light Company (WGL)). Because state regulatory review of the precedent agreements have been lacking, customers of the affiliate utilities do not have a forum to contest rates.

51. In response to Appalachian Mountain Advocates' comment, ConEd states that it filed its precedent agreement with the New York State Public Service Commission and has been transparent with the New York regulators about its subscription to capacity on the MVP Project. It asks that the Commission not substitute its judgment for the judgement of New York regulators.

52. NextEra and WGL Midstream also filed an answer to Appalachian Mountain Advocates' comment, in which they deny the allegation that USG and WGL Midstream are attempting to avoid state regulatory oversight. They assert that both FPL and WGL contract for gas transportation on their own behalf and operate largely independently from their affiliates; thus neither USG nor WGL Midstream can pass along their costs from the MVP Project through to FPL or WGL. NextEra and WGL Midstream also contend that in the event either FPL or WGL enter into gas supply arrangements with any MVP Project shipper, or become project shippers themselves, those actions would be subject to state regulatory prudence review.

⁶⁵ In its December 22, 2016 Comment on the Draft EIS, Appalachian Mountain Advocates specifically identifies Con Edison Gas Midstream, LLC as an "overnight affiliate," but Appalachian Mountain Advocates' argument is misdirected. Its argument is centered on alleged false demand created by an "overnight" affiliate shipper. In this case, ConEd is the affiliate shipper, not Con Edison Gas Midstream, LLC, and has been an active corporation in the state of New York since 1884.

53. We find Appalachian Mountain Advocates' arguments unavailing. State utility regulators must approve any expenditures by state-regulated utilities. We disagree with commenters who suggest that once the Commission has made a determination in this proceeding, state regulators cannot effectively review the expenditures of utilities that they regulate. In fact, any attempt by the Commission to look behind the precedent agreements in this proceeding might infringe upon the role of state regulators in determining the prudence of expenditures by the utilities that they regulate. The Commission's policy of not looking beyond precedent agreements includes not limiting our reliance on such agreements to those which have been previously approved by a state public service commission. Further, Appalachian Mountain Advocates' reliance on *Guardian Pipeline, L.L.C.*⁶⁶ is misplaced. In that order, we stated that it is the Commission's "preference not to second guess the business decisions of end users or challenge the business decisions of an end user on whether it is economic to undertake direct service from a pipeline supplier, particularly when that decision has been approved by the appropriate regulatory body."⁶⁷ *Guardian* follows a long line of orders in which we have stated that we are reluctant to second guess the business decisions of pipeline shippers.⁶⁸ Issues related to a utility's ability to recover costs associated with its decision to subscribe for service on the MVP and Equitans Expansion Projects involve matters to be determined by the relevant state utility commissions; those concerns are beyond the Commission's jurisdiction.

iv. Mountain Valley's Open Seasons

54. Appalachian Mountain Advocates and other commenters argue that the precedent agreements are not a result of the open season process. They contend that Mountain Valley had to extend its binding open seasons five times because no shipper subscribed to service in the prior open seasons. They assert that these extensions—along with the fact that the project is subscribed by only affiliates—suggest that the market does not support the project. Our open season policy for new interstate pipeline construction only requires that a pipeline applicant conduct a fair and transparent open season, prior to filing its application, for potential shippers to seek and obtain firm capacity rights.⁶⁹ One purpose of an open season is to provide the project sponsor with valuable information about

⁶⁶ 91 FERC ¶ 61,285 (2000) (*Guardian*).

⁶⁷ *Id.* at 61,966-67.

⁶⁸ See, e.g., *Southern Natural Gas Co.*, 76 FERC ¶ 61,122, at 61,635 (1996); *Williams Natural Gas Co.*, 70 FERC ¶ 61,306, at 61,924 (1995); *Tennessee Gas Pipeline Co.*, 69 FERC ¶ 61,239, at 61,901 (1994).

⁶⁹ See *Pine Prairie Energy Center, LLC*, 135 FERC ¶ 61,168, at P 30 (2011).

market interest that it can utilize to properly design and size its project.⁷⁰ Our policy does not limit the number of open seasons a project sponsor can hold. The significant fact is that the project is fully subscribed, not how long it took this to occur. The fact that no project was proposed before the Commission until market participants had indicated, by signing precedent agreements, that the ultimate proposal would indeed meet their needs, is indicative of the validity of the Commission's process and policy.

55. In conclusion, we find that the MVP Project will make reliable natural gas service available to end use customers and the market. Precedent agreements signed by multiple shippers for 100 percent of the project's capacity adequately demonstrate that the project is needed.

c. Existing Pipelines and Their Customers

56. The MVP Project is designed to transport domestically-sourced natural gas from the Marcellus and Utica supply areas to markets in the Northeast, Mid-Atlantic, and Southeast regions. No transportation service provider or captive customer has protested this project. Therefore, we find that the MVP Project will have no adverse impact on existing pipelines or their captive customers.

d. Landowners and Communities

57. Regarding impacts on landowners and communities along the project route, Mountain Valley proposes to locate its pipeline within or parallel to existing rights-of-way, where feasible. Approximately 30 percent of the MVP Project's rights-of-way will be collocated or adjacent to existing pipeline, roadway, railway, or utility rights-of-way.⁷¹ The new compressor stations will be constructed on land owned by Mountain Valley. Mountain Valley participated in the Commission's pre-filing process⁷² and has been working to address landowner and community concerns and input. Specifically, in order to address landowner requests, avoid sensitive environmental resources, such as archaeological sites and wetlands, and avoid steep terrain or side slopes, Mountain Valley incorporated over 11 route variations and 571 minor route variations (during pre-filing), and another 2 route variations and 130 additional minor variations (post-application filing) into its proposal.⁷³ Additionally, Mountain Valley has stated that it will make

⁷⁰ *Id.*

⁷¹ Final EIS at 2-10.

⁷² Docket No. PF15-3-000.

⁷³ Final EIS at ES-3 and 3-17.

good faith efforts to negotiate with landowners for any needed rights, and will resort only when necessary to the use of the eminent domain. Accordingly, while we are mindful that Mountain Valley has been unable to reach easement agreements with many landowners, for purposes of our consideration under the Certificate Policy Statement, we find that Mountain Valley has generally taken sufficient steps to minimize adverse impacts on landowners and surrounding communities.

58. Several commenters argue that the use of eminent domain in connection to the project would be unconstitutional because the project would only benefit private entities, not the public.⁷⁴ Several landowners, many of whom are intervenors in this proceeding, filed a complaint and petition for injunctive relief in U.S. District Court for the Western District of Virginia (Berkley Complaint) arguing that the Commission's issuance of a certificate to Mountain Valley, which effectuates eminent domain authority under NGA section 7(h), would result in the unlawful and unconstitutional takings of the plaintiffs' property.⁷⁵ Similarly, Bold Alliance, Bold Education Fund, Friends of Nelson, and individual landowners (collectively, Bold Alliance) filed a petition for declaratory order and injunctive relief in Federal District Court for the District of Columbia.⁷⁶ Bold Alliance alleges that the eminent domain provisions of the NGA and the Commission's Certificate Policy Statement do not further a public use, and therefore, violate the Due Process Clause and Takings Clause of the Fifth Amendment.

59. The Commission itself does not confer eminent domain powers. Under NGA section 7, 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 and issues a natural gas company a certificate of public convenience and necessity, it is NGA section 7(h) that authorizes that 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.⁷⁷

⁷⁴ See, e.g., David and Judith Rauchle's November 25, 2015 Comment at 1; Helena Teekell's July 4, 2016 Comment at 1; and Anthony Novitzki's December 13, 2016 Comment at 1.

⁷⁵ See *Orus Ashby Berkley v. Mountain Valley Pipeline, LLC*, No. 7:17-cv-00357, Plaintiffs' Complaint and Memorandum of Law in Support of Plaintiffs' Motion for a Preliminary Injunction (July 27, 2017).

⁷⁶ The petition was filed with the Commission on September 6, 2017.

⁷⁷ 15 U.S.C. § 717f(h) (2012).

60. While this matter is currently before the court, we note that both the Berkley Complaint’s and Bold Alliance’s legal theory is unfounded. Both sets of plaintiffs generally argue that the Commission’s certification process falls short of the standard required by the Constitution for a taking: that the exercise of eminent domain is for a “public use.” As noted above, Congress provided in NGA section 7(h) that a certificate holder was entitled to use eminent domain. Congress did not suggest that there was a further test, beyond the Commission’s determination under NGA section 7(c)(e),⁷⁸ that a proposed pipeline was required by the public convenience and necessity, such that certain certificated pipelines furthered a public use, and thus were entitled to use eminent domain, while others did not. The Commission has interpreted the section 7(c)(e) public convenience and necessity determination as requiring the Commission to weigh the public benefit of the proposed project against the project’s adverse effects.⁷⁹ We undertake this balancing through our application of the Certificate Policy Statement criteria, under which we balance the public benefits of a project against the residual adverse effects.⁸⁰ Thus, through this balancing process we make findings that support our ultimate conclusion that the public interest is served by the construction of the proposed project.⁸¹ Accordingly, once a natural gas company obtains a certificate of

⁷⁸ 15 U.S.C. § 717f(e) (2012).

⁷⁹ As the agency that administers the Natural Gas Act, and in particular as the agency with expertise in addressing the public convenience and necessity standard in the Act, the Commission’s interpretation and implementation of that standard is accorded deference. *See Chevron, USA, Inc. v. Natural. Res. Def. Council, Inc.*, 467 U.S. 837, 842-43 (1984); *Delaware Riverkeeper Network v. FERC*, 857 F.3d 388, 392 (D.C. Cir. 2017); *Office of Consumers’ Counsel v. FERC*, 655 F.2d 1132, 1141 (D.C. Cir. 1980); *See Total Gas & Power N. Am., Inc. v. FERC*, No. 4:16-1250, 2016 WL 3855865, at *21 (S.D. Tex. July 15, 2016), *aff’d*, 859 F.3d 325 (5th Cir. 2017); *see also MetroPCS Cal., LLC v. FCC*, 644 F.3d 410, 412 (D.C. Cir. 2011) (under Chevron, the Court “giv[es] effect to clear statutory text and defer[s] to an agency’s reasonable interpretation of any ambiguity”).

⁸⁰ Certificate Policy Statement, 88 FERC at 61,747-49.

⁸¹ *Midcoast Interstate Transmission, Inc. v. FERC*, 198 F.3d 960, 973 (D.C. Cir. 2000) (because the Commission declared that the subject pipeline would serve the public convenience and necessity, the takings complained of did serve a public purpose); *see also Guardian Pipeline, L.L.C. v. 529.42 Acres of Land*, 210 F. Supp. 2d 971, 974 (N.D. Ill. 2002) (no evidence of public necessity other than the Commission’s determination is required).

public convenience and necessity, it may exercise the right of eminent domain in a U.S. District Court or a state court.

61. The Commission, having determined that the MVP Project is in the public convenience and necessity, need not make a separate finding that the project serves a “public use” to allow the certificate holder to exercise eminent domain. In short, the Commission’s public convenience and necessity finding is equivalent to a “public use” determination.⁸² In enacting the NGA, Congress clearly articulated that the transportation and sales of natural gas in interstate commerce for ultimate distribution to the public is in the public interest.⁸³ This congressional recognition that natural gas transportation furthers the public interest is consistent with the Supreme Court’s emphasis on legislative declarations of public purpose in upholding the power of eminent domain.⁸⁴

62. Bold Alliance erroneously cites to *Transco*,⁸⁵ where the Commission, after evaluating record evidence of need for the project at issue, found that there was a need

⁸² See *Midcoast Interstate Transmission, Inc. v. FERC*, 198 F.3d at 973; see also *Troy Ltd. v. Renna*, 727 F.2d 287, 301 (3rd Cir. 1984) (“authoriz[ing] an occupation of private property by a common carrier . . . engaged in a classic public utility function” is an “exemplar of a public use”); *E. Tenn. Natural Gas Co. v. Sage*, 361 F.3d 808 (4th Cir. 2004) (“Congress may, as it did in the [Natural Gas Act], grant condemnation power to ‘private corporations . . . execut[ing] works in which the public is interested.’”) (quoting *Miss. & Rum River Boom Co. v. Patterson*, 98 U.S. 403, 406 (1878)).

⁸³ 15 U.S.C. § 717(a) (2012) (declaring that the “business of transporting and selling natural gas for ultimate distribution to the public is affected with a public interest”). See also *Thatcher v. Tennessee Gas Transmission Co.*, 180 F.2d 644, 647 (5th Cir. 1950) (*Thatcher*), cert. denied, 340 U.S. 829 (1950) (explaining that Congress, in enacting the NGA, recognized that “vast reserves of natural gas are located in States of our nation distant from other States which have no similar supply, but do have a vital need of the product; and that the only way this natural gas can be feasibly transported from one State to another is by means of a pipe line.”).

⁸⁴ *Kelo v. City of New London, Conn.*, 545 U.S. 469, 479-80 (2005) (upholding a state statute that authorized the use of eminent domain to promote economic development); see also *id.* at 480 (noting that without exception the Court has defined the concept of “public purpose” broadly, reflecting the Court’s longstanding policy of deference to the legislative judgments in this field).

⁸⁵ *Transcontinental Gas Pipe Line Co., LLC*, 158 FERC ¶ 61,125 (2017).

for the project for purposes of section 7(c) of the NGA⁸⁶ and that the project served a public purpose sufficient to satisfy the Takings Clause.⁸⁷ We have done the same here. The proposed projects in this proceeding, are designed to primarily serve natural gas demand in the Northeast, Mid-Atlantic, and Southeast regions. Through the transportation of natural gas from the projects, the public at large will benefit from increased reliability of natural gas supplies. Furthermore, upstream natural gas producers will benefit from the project by being able to access additional markets for their product. Therefore, we conclude that the proposed project is required by the public convenience and necessity.

63. Notwithstanding the fact that we addressed a takings argument raised in *Transco* and here, such a question is beyond our jurisdiction: only the courts can determine whether Congress' action in passing section 7(h) of the NGA conflicts with the Constitution. We note, however, that courts have found eminent domain authority in section 7(h) of the NGA to be constitutional.⁸⁸

e. **Conclusion**

64. We find that the benefits that the MVP Project will provide to the market outweigh any adverse effects on existing shippers, other pipelines and their captive customers, and landowners or surrounding communities. Consistent with the criteria discussed in the Certificate Policy Statement and NGA section 7(e), and subject to the environmental discussion below, we find that the public convenience and necessity requires approval of Mountain Valley's proposal, as conditioned in this order.

⁸⁶ *Id.* PP 20-33.

⁸⁷ *Id.* PP 66-67.

⁸⁸ See *Thatcher*, 180 F.2d at 647. In addition, the eminent domain authority in many federal statutes mirror the authority in section 7(h) of the NGA. For instance, section 21 of the Federal Power Act (FPA), 16 U.S.C. § 814 (2012), provides that when a licensee cannot acquire by contract lands or property necessary to construct, maintain, or operate a licensed hydropower project, it may acquire the same by the exercise of the right of eminent domain in a U.S. District Court or a state court. The U.S. Supreme Court has not questioned the constitutionality of section 21 of the FPA. See *FPC v. Tuscarora Indian Nation*, 362 U.S. 99, 123-24 (1960). Similarly, Congress included the same eminent domain authority for permit holders for electric transmission facilities when it enacted the Energy Policy Act of 2005. 16 U.S.C. § 824p(e)(1) (2012).

2. Equitrans Expansion Project

65. As stated, the threshold requirement for pipelines proposing new projects is that the applicant must be prepared to financially support the project without relying on subsidization from its existing customers. The Commission has determined, in general, that where a pipeline proposes to charge incremental rates for new construction that are higher than the company's existing system rates, the pipeline satisfies the threshold requirement that the project will not be subsidized by existing shippers.⁸⁹ Here, Equitans calculated the incremental firm transportation base reservation rate, which was lower than its existing system-wide rate. Equitans therefore proposes to charge its existing mainline system rates as the initial recourse rates, which will recover the costs of the project. Accordingly, we find that the Equitans Expansion Project will not be subsidized by existing customers and satisfies the threshold no-subsidy requirement under the Certificate Policy Statement.

66. Peoples, a shipper on Equitans' existing system, protested Equitans' application because it was concerned that the proposed change of gas-flow direction on Equitans' system (i.e., from south-to-north to north-to-south) could disrupt service to Peoples in the northern portion of Equitans' existing system. Subsequently, Equitans negotiated with Peoples to address Peoples' concerns and conducted additional modeling and flow analysis, resulting in an agreed upon statement concerning how operation of the proposed project would not negatively impact Peoples' existing service.⁹⁰ Later, Peoples withdrew its protest, conditioned on the Commission's acceptance and incorporation of specific language agreed to by the parties explaining how Equitans would operate its system to ensure that Peoples' service was not affected.⁹¹

67. Commission staff's review of the engineering data submitted in the proceeding confirms that the Equitans Expansion Project would not adversely affect Equitans'

⁸⁹ See *Transcontinental Gas Pipe Line Corp.*, 98 FERC ¶ 61,155, at 61,552 (2002) (noting that the Commission has previously determined that where a pipeline proposes to charge an incremental rate for new construction, the pipeline satisfies the threshold requirement that the project will not be subsidized by existing shippers) (citations omitted); see also *Dominion Transmission, Inc.*, 155 FERC ¶ 61,106 (2016) (same).

⁹⁰ See Equitans' February 24, 2017 Data Request Response at 1; Peoples' April 18, 2017 Notice of Withdrawal of Protest at 2.

⁹¹ Peoples' April 18, 2017 Notice of Withdrawal of Protest at n.3 (Equitans and Peoples agreed that if the MVP Project shippers nominate natural gas flows less than levels assumed in Equitans' flow models, then flows to Mountain Valley and the use of the Redhook Compressor Station will be reduced accordingly in order to transport gas to Peoples' delivery points "in the same manner as it is today").

ability to meet its firm contractual obligations to Peoples and other existing customers. We appreciate that the parties have negotiated an understanding that reinforces Equitans' certificate obligation to operate its system in a manner that will meet all of its contractual obligations. However, based on Commission staff's finding that operation of the Equitans Expansion Project would not adversely affect Peoples' service on Equitans' existing system, we find that the inclusion of the requested language in this order is unnecessary and therefore, we decline to include it. In the unanticipated event service on the Equitans Expansion Project causes service disruptions to Peoples under its firm transportation service contract, Peoples may file a complaint with the Commission, seek reservation charge credits, or seek damages under its contract in court. Thus, we find that the proposal will not adversely affect Equitans' existing customers because there will be no degradation of existing service. In addition, other pipelines and their captive customers will not be adversely impacted because the proposal is not intended to replace service on other pipelines. Rather, the project would allow Equitans to provide additional transportation services to EQT Energy on its system. Further, no pipeline or their captive customers have protested the application.

68. We also find that the Equitans Expansion Project will have minimal adverse impacts on landowners and communities. Approximately 32 percent of the right-of-way for the proposed project will be collocated or adjacent to existing pipeline, roadway, railway, or utility rights-of-way.⁹² Additionally, the Redhook Compressor Station will be located on land owned by Equitans.

69. We find that Equitans' proposed abandonment of facilities is permitted by the present or future public convenience or necessity.⁹³ Once construction is complete, the Redhook Compressor Station will replace the Pratt Compressor Station. In addition, small portions of Equitans' existing M-80 and H-158 pipelines, which currently connect to the Pratt Compressor Station, will be rerouted from the Pratt Compressor Station to the Redhook Compressor Station in order to continue service. Thus, the proposed abandonment of the Pratt Compressor Station, its appurtenant facilities, and portions of the M-80 and H-158 pipelines will not affect existing customers on Equitans' system. Last, no shipper affected by the proposed abandonment has filed comments in opposition to Equitans' proposal.

70. We find that the benefits that the Equitans Expansion Project will provide to the market outweigh any adverse effects on existing shippers, other pipelines and their captive customers, and on landowners and surrounding communities. Consistent with the criteria discussed in the Certificate Policy Statement and subject to the environmental

⁹² Final EIS at ES-7.

⁹³ 15 U.S.C. § 717f(b) (2012).

discussion below, we find that the public convenience and necessity requires approval of Equitans' proposal, as conditioned in this order.

B. Blanket Certificates

71. Mountain Valley requests a Part 284, Subpart G blanket certificate in order to provide open-access transportation services. Under a Part 284 blanket certificate, Mountain Valley will not require individual authorizations to provide transportation services to particular customers. Mountain Valley filed a *pro forma* Part 284 tariff to provide open-access transportation services. Since a Part 284 blanket certificate is required for Mountain Valley to offer these services, we will grant Mountain Valley a Part 284 blanket certificate, subject to the conditions imposed herein.

72. Mountain Valley also requests a Part 157, Subpart F blanket certificate. A Part 157 blanket certificate gives an interstate pipeline NGA section 7 authority to automatically, or after prior notice, perform certain activities related to the construction, acquisition, abandonment, and replacement and operation of pipeline facilities.

73. Roanoke County, Virginia (Roanoke County) objects to Mountain Valley's request for pre-granted abandonment or acquisition authority under a Part 157 blanket certificate. Roanoke County contends that the Commission must determine the public convenience and necessity of Mountain Valley's request at the time of any proposal to abandon or acquire facilities.

74. Roanoke County presents no arguments why Mountain Valley's specific request for a blanket certificate should be denied; rather it seems to take general issue with the Commission's blanket certificate program. Part 157, Subpart F of the Commission's regulations authorizes a certificate holder to engage in a limited number of routine activities under a blanket certificate, subject to certain reporting, notice, and protest requirements.⁹⁴ The blanket certificate procedures are intended to increase flexibility and reduce regulatory and administrative burdens. Because the eligible activities permitted under a blanket certificate regulations can satisfy our environmental requirements and meet the blanket certificate cost limits, they will have minimal impacts, such that the close scrutiny involved in considering applications for case-specific certificate authorization is not necessary to ensure compatibility with the public convenience and necessity. For almost all eligible activities, a certificate holder seeking to engage in such activities must notify landowners prior to commencing the activity.⁹⁵ For activities that require prior notice, an opportunity to protest is afforded once notice of the certificate

⁹⁴ See 18 C.F.R. § 157.203 (2017).

⁹⁵ See *id.* § 157.203(d).

holder's request is issued to the public.⁹⁶ If a protest cannot be resolved, then the certificate holder may not perform the requested activity under a blanket certificate.⁹⁷ Thus, because Mountain Valley will be operating a jurisdictional pipeline facility for which this order grants certificate authorization, we will also grant the requested Part 157, Subpart F blanket construction certificate authorizing Mountain Valley's performance of certain routine activities in conjunction with its operation of the pipeline.

C. Rates

1. Mountain Valley Pipeline Project

a. Mountain Valley's Initial Recourse Transportation Rates

75. Under the proposed *pro forma* tariff, Mountain Valley proposes to provide firm transportation service under its Rate Schedule FTS, interruptible transportation service under its Rate Schedule ITS, and interruptible lending and parking service under its Rate Schedule ILPS, all pursuant to Part 284 of the Commission's regulations. Instead of paying cost-based recourse rates, the project shippers have elected to pay negotiated rates for transportation service on the project.⁹⁸ Mountain Valley states that it will file the negotiated rate agreements, as specified by the Commission's regulations.

76. To derive its firm recourse transportation charges, Mountain Valley states that it utilized a straight-fixed variable rate design methodology and designed its rates on a postage-stamp basis. For firm transportation service under Rate Schedule FTS, Mountain Valley proposes a monthly reservation recourse charge of \$29.5967 per Dth and a commodity charge of \$0.0035 per Dth based on annual reservation determinants of 730,000,000 Dth and an annual cost of service of \$712,903,260.⁹⁹ Mountain Valley proposes to charge a maximum daily IT recourse rate of \$0.9766 per Dth, based on the maximum daily FTS reservation charge plus the FTS commodity charge. Mountain

⁹⁶ See *id.* § 157.205.

⁹⁷ See *id.* § 157.205(f).

⁹⁸ Details of the negotiated rate authority are contained in Mountain Valley's General Terms & Conditions (GT&C) section 6.27.

⁹⁹ Exhibit P, Schedule 1, Page 2 of Mountain Valley's Application. Mountain Valley breaks down the annual cost of service into \$710,320,684 for fixed costs and \$2,582,576 for variable costs.

Valley also proposes to charge a maximum rate of \$0.9755 per Dth for lending and parking under its Rate Schedule ILPS.

77. In addition, Mountain Valley proposes to offer Interim Period Service, from Wetzel County to the WB Interconnect, prior to the in-service date of the entire project.¹⁰⁰ Mountain Valley's proposed Interim Period Service rates under Rate Schedule FTS consist of a \$15.9014 per Dth monthly reservation recourse charge and a \$0.0032 per Dth commodity charge based on annual reservation determinants of 377,651,265 Dth and an annual cost of service of \$198,628,658.¹⁰¹ The Interim Period Service IT recourse rate of \$0.5260 per Dth is based on the maximum daily FTS reservation rate plus the FTS commodity charge.

78. The Commission has reviewed Mountain Valley's proposed cost of service and initial rates and finds that they generally reflect current Commission policy, except for Mountain Valley's proposed return on equity (ROE), which we discuss below. The Commission accepts Mountain Valley's proposed recourse rates as the initial rates for service on its project, subject to the revisions discussed below.

b. Return on Equity and Capital Structure

79. Mountain Valley developed its proposed initial rates based on a capital structure of 40 percent debt and 60 percent equity, with a debt cost of 6 percent and a ROE of 14 percent. Mountain Valley states that its expected capital structure is reflective of the large capital expenditure necessary to construct the project, which it alleges will result in a large non-recourse placement of debt in the debt markets. Mountain Valley's weighted average cost of capital under its proposed capital structure is 10.8 percent.

80. Mountain Valley's combined return on equity and capital structure proposal does not reflect current Commission policy. For new pipelines, the Commission has approved an ROE of 14 percent, but only where the equity component of the capitalization is no

¹⁰⁰ See Mountain Valley's Application, Exhibit P, Part II – Pro Forma Tariff, Mountain Valley Pipeline, LLC, FERC Gas Tariff, Volume No. 1, Section 4.1 Statement of Rates – FTS.

¹⁰¹ Exhibit P, Schedule 2, Page 2 of Mountain Valley's Application. Mountain Valley breaks down the annual cost of service into \$197,431,290 for fixed costs and \$1,197,368 for variable costs.

more than 50 percent.¹⁰² In *Florida Southeast Connection, LLC*, the Commission approved a greenfield pipeline’s proposed 14 percent ROE but rejected its capital structure of 60-percent equity and 40-percent debt. The Commission found that imputing a capitalization containing such a large equity ratio is more costly to ratepayers, because equity financing is typically more costly than debt financing and the interest incurred on debt is tax deductible.¹⁰³ Consequently, the Commission required that the greenfield pipeline design its cost-based rates on a capital structure that included at least 50-percent debt.¹⁰⁴

81. Appalachian Mountain Advocates argue that Mountain Valley’s requested 14-percent ROE is higher than the ROE in other utility sectors. It also contends that the high ROE motivates the project shippers to become owners of Mountain Valley because the shipper/owner can then recover the “generous” return on equity.¹⁰⁵

82. The Commission’s policy of approving equity returns of up to 14 percent with an equity capitalization of no more than 50 percent provides an appropriate incentive for new pipeline companies to enter the market and reflects the fact that greenfield pipelines undertaken by a new entrant in the market face higher business risks than existing pipelines proposing incremental expansion projects.¹⁰⁶ Thus, approving Mountain Valley’s requested 14-percent return on equity in this instance is in response to the risk Mountain Valley faces as a new market entrant, constructing a new greenfield pipeline system. Moreover, the returns approved for other utilities, such as electric utilities and LDCs are not relevant because there is no showing that these companies face the same level of risk as faced by greenfield projects proposed by a new natural gas pipeline

¹⁰² *Florida Southeast Connection, LLC*, 154 FERC ¶ 61,080, *order on reh’g*, 156 FERC ¶ 61,160 (2016), vacated and remanded *sub nom. Sabal Trail*, 867 F.3d 1357 (affirming the Commission’s approval of a 14-percent ROE based on a 50-50 debt-equity capital structure); *MarkWest Pioneer, L.L.C.*, 125 FERC ¶ 61,165 (2008).

¹⁰³ See *Florida Southeast Connection*, 154 FERC ¶ 61,080 at P 117.

¹⁰⁴ See *id.*

¹⁰⁵ Appalachian Mountain Advocates’ Dec. 22, 2016 Comments on Draft EIS at 11, 17-18.

¹⁰⁶ See, e.g., *Rate Regulation of Certain Natural Gas Storage Facilities*, Order No. 678, FERC Stats & Regs. 31,220, at P 127 (2006) (explaining that existing pipelines who need only acquire financing for incremental expansions face less risk than “a greenfield project undertaken by a new entrant in the market”).

company.¹⁰⁷ Appalachian Mountain Advocates' second argument is inapposite where, as here, the bulk of the shippers are producers or marketers who will be competing against other producers/marketers in the interstate market for the sale of their gas. These parties have no guarantee that they will recover the costs of their capacity commitment and are fully at risk for the cost of that capacity.

83. Further, as explained below, we are requiring Mountain Valley to file a cost and revenue study at the end of its first three years of actual operation to justify its existing cost-based rates. The three-year report will provide an opportunity for the Commission and the public to review Mountain Valley's original estimates, upon which its initial rates are based, to determine whether Mountain Valley is over-recovering its cost of service with its approved initial rates, and whether the Commission should exercise its authority under section 5 of the NGA to establish just and reasonable rates. Alternatively, Mountain Valley may elect to make a NGA section 4 filing to revise its initial rates. In such section 4 proceeding, the public would have an opportunity to review Mountain Valley's proposed return on equity and other cost of service components at that time and would have an opportunity to raise issues relating to the rate of return, as well as all other cost components. Accordingly, we find that Mountain Valley's proposed rates will "ensure that the consuming public may be protected" until just and reasonable rates can be determined through the more thorough and time-consuming ratemaking sections of the NGA.¹⁰⁸

84. For the foregoing reasons we approve Mountain Valley's proposed 14 percent ROE as reflective of current Commission policy for a new pipeline entity. However, Mountain Valley must design its cost-based rates on a capital structure that includes at least 50 percent debt. Mountain Valley is directed to recalculate its recourse rates in its compliance filing.

c. **Fuel Charge**

85. Mountain Valley states that it will implement a retainage factor to track and recover actual experienced fuel and lost and unaccounted for gas. Mountain Valley states that the initial posted retainage factor will be 1.36 percent based on the fuel study submitted as Exhibit Z-3 of its application. The Commission finds the fuel study

¹⁰⁷ The Commission has previously concluded that distribution companies are less risky than a pipeline company. *See, e.g., Trailblazer Pipeline Co.*, 106 FERC ¶ 63,005, at P 94 (2004) (rejecting inclusion of local distribution companies in a proxy group because they face less risk than a pipeline company).

¹⁰⁸ *Id.* at 392.

acceptable and approves the proposed 1.36 percent retainage factor as Mountain Valley's initial retainage rate.

86. As previously mentioned, Mountain Valley will enter into negotiated rate agreements with the project shippers on its system. Such agreements include provisions regarding fuel retention. The Commission prohibits a pipeline from shifting costs associated with negotiated rate shippers to recourse rate shippers.¹⁰⁹ Consistent with this policy, the Commission has held that when a pipeline negotiates fuel retainage percentage factors with a negotiated rate shipper, the pipeline must bear the risk of under-recovery of its fuel costs and cannot shift unrecovered fuel costs to its recourse rate shippers.¹¹⁰ Accordingly, in any fuel proceeding, Mountain Valley will have the burden of showing that its proposal does not shift any unrecovered fuel costs from negotiated rate shippers to recourse rate shippers.

d. Three-Year Filing Requirement

87. Consistent with Commission precedent, Mountain Valley is required to file a cost and revenue study at the end of its first three years of actual operation to justify its existing cost-based firm and interruptible recourse rates.¹¹¹ In its filing, the projected units of service should be no lower than those upon which Mountain Valley's approved initial rates are based. The filing must include a cost and revenue study in the form specified in section 154.313 of the Commission's regulations to update cost of service data.¹¹² Mountain Valley's cost and revenue study should be filed through the eTariff portal using a Type of Filing Code 580. In addition, Mountain Valley is advised to include as part of the eFiling description, a reference to Docket No. CP16-10-000 and the cost and revenue study.¹¹³ After reviewing the data, the Commission will determine whether to exercise its authority under NGA section 5 to investigate whether the rates remain just and reasonable. In the alternative, in lieu of this filing, Mountain Valley may make a NGA general section 4 rate filing to propose alternative rates to be effective no later than three years after the in-service date for its proposed facilities.

¹⁰⁹ See *Ruby Pipeline, L.L.C.*, 128 FERC ¶ 61,224, at P 62 (2009).

¹¹⁰ *Id.*

¹¹¹ *Rover Pipeline LLC*, 158 FERC ¶ 61,109, at P 82 (2017); *Bison Pipeline LLC*, 131 FERC ¶ 61,013, at P 29 (2010); *Ruby Pipeline*, 128 FERC ¶ 61,224 at P 57.

¹¹² 18 C.F.R. § 154.313 (2017).

¹¹³ *Electronic Tariff Filings*, 130 FERC ¶ 61,047, at P 17 (2010).

2. Equitrans Expansion Project

a. Equitrans' Initial Recourse Transportation Rate

88. Equitrans proposes to use its existing mainline system rates as the initial recourse rates for firm transportation service on the Expansion Project. Equitrans calculated an illustrative monthly incremental reservation charge for the project of \$4.2408 per Dth.¹¹⁴ This illustrative charge is lower than Equitrans' currently effective reservation charge for Rate Schedule FTS of \$6.1206 per Dth for Winter (November 1 to March 31) and \$7.5189 per Dth for Non-Winter (April 1 to October 31).¹¹⁵ In addition, Equitrans' illustrative incremental commodity charge is lower than its currently-effective commodity charge.¹¹⁶ Commission policy requires that when an incremental rate is lower than the system rate, the system rate is used as the initial recourse rate for providing service on the expansion project.¹¹⁷ Therefore, we will approve the use of Equitrans' existing system rates as the initial recourse rates for services utilizing the new capacity created by the expansion facilities.

b. Fuel

89. Equitrans states that the expected fuel usage for the new project facilities is approximately 0.98 percent per Dth, which is less than its Mainline System Retainage Factor of 2.72 percent. Therefore, it maintains that existing customers will not subsidize the project. In addition to the lower fuel percentage, Equitrans has a fixed fuel rate set forth in its Commission-approved tariff. Thus, in the event service under the project causes Equitrans to use more fuel than it recovered from its project shipper, Equitrans will bear the risk of any under recovery of fuel as its fuel rates are fixed and it is unable

¹¹⁴ Exhibit N, page 2 of Equitrans' Application. $\$30,522,569 \text{ (Cost of Service)} \div 219,000,000 \text{ (annual billing determinants } [600,000 \times 365]) = \$0.1394 \text{ per Dth. } \$0.1394 \times 365 \div 12 = \$4.2408 \text{ per Dth per month.}$

¹¹⁵ Equitrans, L.P., FERC NGA Gas Tariff, Equitrans Tariff, [Section 4.1, Transportation Rates NOFT, FTS, STS-1 & FTSS, 15.1.0](#).

¹¹⁶ Equitrans calculates a commodity rate of \$0.0071, compared to the mainline commodity rate of \$0.1481 for winter, and \$0.1466 for base, based on total first-year operation and maintenance expense of \$1,562,448.

¹¹⁷ See, e.g., *Tennessee Gas Pipeline Company, L.L.C.*, 157 FERC ¶ 61,208, at P 19 (2016); *Eastern Shore Natural Gas Company*, 156 FERC ¶ 61,054, at P 21 (2016) (*Eastern Shore*).

to pass through any underrecovery of fuel costs.¹¹⁸ Therefore, existing customers will not subsidize the fuel recovery of the project.

c. Predetermination of Rolled-in Rate Treatment

90. Equitans requests a predetermination that it may roll the costs associated with the project into its system-wide rates in a future NGA section 4 rate case. In considering a request for a predetermination that a pipeline may roll the costs of a project into its system-wide rates in its next NGA general section 4 rate proceeding, a pipeline must demonstrate that rolling in the costs associated with the construction and operation of new facilities will not result in existing customers subsidizing the expansion.¹¹⁹ In general, this means that a pipeline must show that the revenues to be generated by an expansion project will exceed the cost of the project. For purposes of making such a determination, we compare the cost of the project to the revenues generated utilizing actual contract volumes and the maximum recourse rate (or the actual negotiated rate if the negotiated rate is lower than the recourse rate).¹²⁰

91. Here, EQT Energy has elected to pay a negotiated rate that is less than the system rate. We find that the projected revenues from actual contract volumes are greater than the expected cost of service. Equitans' Exhibit N estimates a total cost of service of \$30,533,569 for the first year of service, \$29,447,151 for the second year, and \$28,200,111 for the third year, and revenues of \$45,397,640 for each year.¹²¹ The revenues are derived from multiplying the contract quantity by Equitans' maximum rate for the appropriate season. Therefore, we will grant a predetermination of rolled-in rate treatment for the costs associated with the project in its next NGA general section 4 rate proceeding, barring a significant change in circumstances.

3. Negotiated Rates

92. Mountain Valley and Equitans propose to provide service to their project shippers under negotiated rate agreements. Mountain Valley and Equitans must file their negotiated rate agreements or tariff records setting forth the essential elements of the agreements in accordance with the Commission's Alternative Rate Policy Statement and the Commission's negotiated rate policy. Consistent with Commission policy, Mountain Valley and Equitans must either file the negotiated rate agreements or a tariff record

¹¹⁸ See, e.g., *Gulf Crossing Pipeline Company LLC*, 139 FERC ¶ 61,082 (2012).

¹¹⁹ See Certificate Policy Statement, 88 FERC at 61,746.

¹²⁰ See *Eastern Shore*, 156 FERC ¶ 61,219 at P 24.

¹²¹ Exhibit N of Equitans' Application.

setting forth the essential terms of these agreements at least 30 days, but not more than 60 days, before the proposed effective date for such rates.

D. Non-Conforming Contract Provisions

93. Mountain Valley and Equitans entered into precedent agreements that contained certain contractual rights not available to other customers, which they state may be viewed as material deviations, but are necessary incentives to secure the level of contractual commitments to develop the projects. Mountain Valley and Equitans request that the Commission approve these non-conforming contract provisions.

1. Mountain Valley

94. Mountain Valley states that the service agreements will grant the project shippers certain contractual rights not available to other customers, which could be viewed as material deviations, but were necessary to obtain the capacity commitments to advance the project and are provided in recognition of the shippers' financial commitments to the project. Mountain Valley states that all prospective customers were given the opportunity to become an initial shipper through the open season process and requests that the Commission approve its service provisions as permissible deviations.

95. In its April 28, 2016 data response, Mountain Valley provided unexecuted firm transportation agreements and identified the following three non-conforming provisions:

- Most Favored Nations (MFN) clause. The agreement with EQT Energy includes an MFN clause.
- Reservation Charge Crediting. The agreement with EQT Energy includes a provision stating that Mountain Valley will provide full reservation charge credits after the first 30 days of an outage. The agreements with USG, WGL Midstream, and Roanoke Gas provide that the customer is not entitled to reservation charge credits in the event of an outage.
- Credit Agreement. Mountain Valley states the Credit Agreement attached as Exhibit 2 to each of the Precedent Agreements will be incorporated by reference in the firm transportation service agreements.

96. In addition to the these three provisions, we identified two additional nonconforming provisions:

- Contractual Right of First Refusal (ROFR).¹²² The agreements with EGT Energy, USG, WGL Midstream, and Roanoke Gas provide the customer with a ROFR at

¹²² See Mountain Valley's April 28, 2016 Response to Data Request.

the expiration of the Primary Term, for a renewal term of no less than five years, in accordance with Mountain Valley’s tariff.

- Meter Rights. The agreement with EQT Energy provides the customer with in-path meter capacity of at least 1.5 times the Contract MDQ.¹²³

97. In *Columbia Gas Transmission Corporation*, the Commission clarified that a material deviation is any provision in a service agreement that: (a) goes beyond filling in the blank spaces with the appropriate information allowed by the tariff; and (b) affects the substantive rights of the parties.¹²⁴ The Commission prohibits negotiated terms and conditions of service that result in a shipper receiving a different quality of service than that offered other shippers under the pipeline’s generally applicable tariff or that affect the quality of service received by others.¹²⁵ However, not all material deviations are impermissible. As the Commission explained in *Columbia Gas*, provisions that materially deviate from the corresponding *pro forma* agreement fall into two general categories: (a) provisions the Commission must prohibit because they present a significant potential for undue discrimination among shippers; and (b) provisions the Commission can permit without a substantial risk of undue discrimination.¹²⁶ In other proceedings, we have also found that non-conforming provisions may be necessary to reflect the unique circumstances involved with constructing new infrastructure and to provide the needed security to ensure the viability of a project.¹²⁷

98. We find that the above described non-conforming provisions constitute material deviations from Mountain Valley’s *pro forma* service agreement for Rate Schedule FTS. However, with the exception of the contractual ROFR provision, these non-conforming provisions are permissible because they do not present a risk of undue discrimination, do not adversely affect the operational conditions of providing service to other shippers, and do not result in any shipper receiving a different quality of service.

¹²³ Mountain Valley’s January 6, 2017 Response to Data Request.

¹²⁴ See *Columbia Gas Transmission Corp.*, 97 FERC ¶ 61,221, at 62,002 (2001) (*Columbia Gas*).

¹²⁵ *Monroe Gas Storage Co., LLC*, 130 FERC ¶ 61,113, at P 28 (2010).

¹²⁶ *Columbia Gas*, 97 FERC at 62,003-04.

¹²⁷ *Midcontinent Express Pipeline LLC*, 124 FERC ¶ 61,089, at P 82 (2008); *Rockies Express Pipeline LLC*, 116 FERC ¶ 61,272, at P 78 (2006).

99. With regard to the contractual ROFR provision, the provision states that the shipper may apply for a renewal term of “no less than five years.” In contrast, Mountain Valley’s tariff has no term requirement for executing a ROFR. While the negotiation of a contractual ROFR with a shipper is permissible, Commission policy states that it is not permissible for a negotiated contractual ROFR to “supersede” the provisions of the pipeline’s ROFR as stated in its tariff.¹²⁸ A contractual ROFR is equivalent to the tariff ROFR and is subject to the ROFR process set forth in the tariff.¹²⁹ For this reason, we find Mountain Valley’s contractual ROFR provision an impermissible non-conforming provision that violates the Commission’s policy. Therefore, any revised contractual ROFR provision that Mountain Valley files in compliance with this order must in all respects conform to the ROFR open season provisions in revised General Terms and Conditions (GT&C) section 6.21.

100. Mountain Valley is required to file its non-conforming service agreements associated with this project with the Commission at least 30 days, but not more than 60 days, before the proposed effective date for such agreements.¹³⁰ 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.

2. Equitrans

101. Equitrans states that EQT Energy, its anchor shipper, has been granted certain contractual rights as an anchor shipper not available to other customers. Equitrans states it offered these incentives to obtain the capacity commitments required to advance the project and to recognize the shipper’s financial commitments to the project. Equitrans requests that the Commission approve the following non-conforming service provisions as permissible pursuant to these standards:

- The firm transportation agreement includes a MFN clause.

¹²⁸ *Kinder Morgan Interstate Gas Transmission LLC*, 119 FERC ¶ 61,225, at P 8 (2007).

¹²⁹ *Id.*

¹³⁰ Our determination of non-conforming provisions in this certificate proceeding does not waive our right to review such provisions in the future, when the executed copies of the non-conforming agreements and a tariff record identifying the agreements as non-conforming are filed with the Commission, consistent with section 154.112 of the Commission’s regulations. *See Tennessee Gas Pipeline Co., L.L.C.*, 150 FERC ¶ 61,160, at P 44, n.33 (2015).

- Reservation Charge Crediting. The firm transportation agreement includes a provision stating that Equitans will provide full reservation charge credits after the first 30 days of an outage.
- Credit Agreement. Equitans states the Credit Agreement attached as Exhibit 2 to the Precedent Agreement will be incorporated by reference in the Firm Transportation Service Agreement.

102. In addition to the three provisions described by Equitans above, Commission review of the nonconforming provisions identified an additional provision:

- Contractual ROFR.¹³¹ The firm transportation agreement provides the customer with a ROFR at the expiration of the Primary Term, for a renewal term of no less than five years, in accordance with Equitans' tariff.

103. Following the Commission's policy in *Columbia Gas*,¹³² as discussed above,¹³³ we find that the above described non-conforming provisions constitute material deviations from Equitans' *pro forma* service agreement for Rate Schedule FTS. However, we find that, with the exception of the contractual ROFR provision, these non-conforming provisions are permissible because they do not present a risk of undue discrimination, do not adversely affect the operational conditions of providing service to other shippers, and do not result in any shipper receiving a different quality of service.¹³⁴

104. Equitans' contractual ROFR provision states that it will apply for a renewal term of "no less than five years." Equitans' tariff, however, has no term requirement for executing a ROFR. As discussed above, while a contractual ROFR is permissible, Commission policy states it is not permissible for a negotiated contractual ROFR to "supersede" the provisions of the pipeline's ROFR as stated in its tariff. A contractual ROFR must be equivalent to the tariff ROFR and is subject to the ROFR process set forth in the tariff.¹³⁵ For this reason, Equitans' contractual ROFR provision is an impermissible non-conforming provision.

¹³¹ Equitans identified this provision in its initial application.

¹³² *Columbia Gas*, 97 FERC at 62,002.

¹³³ See *supra* P 97.

¹³⁴ See, e.g., *Tennessee Gas Pipeline Co. L.L.C.*, 156 FERC ¶ 61,156 (2016).

¹³⁵ *Wyoming Interstate Co. L.L.C.*, 145 FERC ¶ 61,289, at P 6 (2013).

105. Equitans is required to file any non-conforming service agreements associated with this project with the Commission at least 30 days, but not more than 60 days, before the proposed effective date for such agreements.¹³⁶ 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.

E. Mountain Valley's Pro Forma Tariff

106. As part of its application, Mountain Valley has included a *pro forma* FERC gas tariff. We approve the *pro forma* tariff subject to the revisions discussed below. Mountain Valley is directed to file tariff records 30 to 60 days prior to its in-service date that incorporate the Commission directed revisions

1. Section 6.8(1)(f) – Curtailment

107. Section 6.8(1)(f) of the GT&C of Mountain Valley's *pro forma* tariff states: "To the extent that the desired delivery point is an electricity generation facility, Customer *must* also separately provide the hourly quantity profile for each day's nomination."¹³⁷ In its November 2, 2016 data response, Mountain Valley explained that obtaining hourly quantity profiles for gas-fired electric generation facilities will assist it in planning system flows throughout the day. However, if the hourly quantity is not provided, Mountain Valley states that it will assume that gas will flow at a uniform hourly rate consistent with Daily Rates of Flow detailed in Rate Schedules FTS of its tariff.

108. While the Commission acknowledges the need for pipelines and generators to cooperate and share information, we are concerned about the tariff's requirement that a customer nominating a delivery point to serve an electric generation facility "must" provide the hourly quantity profile. A marketer might not have direct access to hourly quantity profile information when making a nomination to the delivery point and could thus potentially be unduly discriminated against by Mountain Valley. Therefore,

¹³⁶ Our determination of non-conforming provisions in this certificate proceeding does not waive our right to review such provisions in the future, when the executed copy of the non-conforming agreement and a tariff record identifying the agreement as non-conforming are filed with the Commission, consistent with section 154.112 of the Commission's regulations. *See, e.g., Tennessee Gas Pipeline Co., L.L.C.*, 150 FERC ¶ 61,160 at P 44, n.33.

¹³⁷ Section 6.8(1)(f) of Exhibit P, Part II, of Mountain Valley's Application (emphasis added).

Mountain Valley is directed to revise its tariff such that the required information is provided on a “best efforts” or “maximum extent practicable” basis.

2. Section 6.9(3) – Curtailment of Service

109. Section 6.9(3) of the GT&C states that Mountain Valley may request information from a customer in order to implement any curtailment of services. The information requested may include the customer’s monthly requirement by priority service categories, including information for individual industrial customers served by Mountain Valley’s customer. In its November 2, 2016 data response, Mountain Valley states that it does not anticipate utilizing the customer’s monthly requirements by priority service category in a curtailment situation and proposes to eliminate this requirement in its compliance filing. Mountain Valley is directed to revise its tariff accordingly.

3. Section 6.12(9)(a)(i) – Determination of Deliveries and Imbalances

110. Section 6.12(9)(a)(i) of the GT&C sets forth the procedure for calculating the Monthly Index Price for monthly imbalance cashouts. In its November 2, 2016 data response, Mountain Valley notes that it will use the “Columbia Gas, Appalachia” price as published in *Gas Daily* for deliveries to Columbia’s WB System and the “Transco, Zone 5 Delivered” price as published in *Gas Daily* for deliveries to Roanoke Gas and Transco Compressor Station 165.

111. Commission policy requires that pipelines provide supporting liquidity documentation for each price index location to ensure that price index locations are sufficiently liquid.¹³⁸ While Mountain Valley has clarified the indices it will use for the points on its system, it has not provided sufficient supporting documentation regarding the liquidity of the price index locations as required by the Commission’s Price Index Policy Statement. Therefore, Mountain Valley is directed to provide this information in its compliance filing.

4. Section 6.21 – Right of First Refusal

112. GT&C section 6.21 provides a regulatory right of first refusal (ROFR) to shippers whose contracts meet the requirements provided in section 284.221(d)(2) of the Commission’s regulations, and a contractual ROFR to shippers whose contracts do not

¹³⁸ *Policy Statement on Natural Gas and Electric Price Indices*, 104 FERC ¶ 61,121, at P 41 (2003), *Order on Clarification of Policy Statement on Natural Gas and Electric Price Indices*, 105 FERC ¶ 61,282, *Order Further Clarifying Policy Statement on Natural Gas and Electric Price Indices*, 112 FERC ¶ 61,040 (2005) (Price Index Policy Statement).

otherwise qualify for the regulatory ROFR. We will require Mountain Valley to revise the following aspects of GT&C section 6.21 to be consistent with Commission policy and precedent.

113. GT&C section 6.21(2)(b) states that a “Customer shall be permitted to designate a quantity of gas less than its existing [Maximum Daily Quantity (MDQ)] which Customer wishes to retain under the Right of First Refusal.” While this language is permissible, we note that Commission policy entitles the ROFR shipper to decide how much capacity it wishes to retain,¹³⁹ and that the decision to retain only a volumetric portion of its capacity does not have to be made until after the pipeline presents the ROFR shipper with the best bid for the purpose of matching.¹⁴⁰ Although GT&C section 6.21(2)(b) provides that a customer may elect to retain only a portion of its capacity at the start of ROFR process, it does not provide the customer that option after the bids have been received. Therefore, Mountain Valley is directed to clarify GT&C section 6.21 to provide that a shipper is not required to elect how much capacity it will seek to retain through the ROFR process until after receiving notification from Mountain Valley as to the best offer(s) for its expiring capacity, and may then notify Mountain Valley of its intent to match the best offer(s) for all or a volumetric portion of its capacity.

114. GT&C section 6.21(2)(e) states:

If, during the Posting Period, [Mountain Valley] receives an acceptable offer for all or a portion of the service rights under Customer’s Long-Term Agreement, [Mountain Valley] shall notify Customer in writing of the offer having the greatest economic value; provided, that *for purposes of value comparisons under this section the rate utilized shall be limited to the maximum rate that can be charged to the existing Customer*. If Customer elects to match the offer, Customer shall notify [Mountain Valley] of such election in writing within 30 days after receiving notice from [Mountain Valley] and shall execute a new Service Agreement matching the offer within 30 days after [Mountain Valley] has tendered the Service Agreement. If Customer elects not to match the offer or does not execute the Service Agreement within 30 days, [Mountain

¹³⁹ See *Dominion Transmission, Inc.*, 111 FERC ¶ 61,135, at PP 18-22 (2005).

¹⁴⁰ See *Sierrita Gas Pipeline, LLC*, 147 FERC ¶ 61,192, at P 78 (2014); *Transcontinental Gas Pipe Line Corp.*, 101 FERC ¶ 61,267, at P 26 (2002).

Valley] will tender a Service Agreement to the prospective Customer submitting *the offer having the greatest economic value.*¹⁴¹

115. The phrase “the offer having the greatest economic value” in GT&C section 6.21(2)(e) does not clearly describe the methodology to be used. The tariff should clearly state the methodology that the pipeline will use to determine the best third-party bids in a ROFR open season.¹⁴² Mountain Valley is directed to revise this language in its compliance filing to articulate how it intends to evaluate bids in a ROFR open season.

5. Section 6.22(3)(f) – Capacity Release

116. Section 6.22(3)(f) of the GT&C states that a releasing customer may “release capacity on a firm or interruptible basis.” In its November 2, 2016 data response, Mountain Valley proposes to eliminate the “or interruptible” reference from its tariff. Mountain Valley is directed to make the proposed revision in its tariff compliance filing.

6. Section 6.27 – Negotiated Rates

117. Section 6.27 of the GT&C permits Mountain Valley to charge a negotiated rate for service under any Rate Schedule and addresses certain aspects of its negotiated rate transactions, including the types of rates that may be negotiated, how negotiated rate capacity is treated for purposes of capacity release, and the right to seek discount-type adjustments for negotiated rate transactions in future general rate proceedings.

¹⁴¹ Section 6.21(2)(e) of Exhibit P, Part II, of Mountain Valley’s Application (emphasis added).

¹⁴² See, e.g., Transcontinental Gas Pipe Line Company, LLC, FERC NGA Gas Tariff, Fifth Revised Volume No. 1, [Section 48, Right of First Refusal Procedures, 0.0.0](#). Commission policy also requires that the same methodology should be used to determine the best bid and whether the ROFR shipper has matched the bid. See *Transcontinental Gas Pipe Line Corp.*, 105 FERC ¶ 61,365, at P 19 (2003).

118. We find that section 6.27 lacks key provisions required by the Alternative Rate Policy Statement¹⁴³ and the Commission's negotiated rate policy.¹⁴⁴ Commission policy requires pipelines to file with the Commission all negotiated rate service agreements or a tariff record stating the name of the shipper, the rate schedule, the receipt and delivery points, the contract quantity, and, where applicable, the exact formula underlying a negotiated rate.¹⁴⁵ Pipelines with negotiated rate authority are also required to maintain separate records for all revenues associated with negotiated rate agreements and maintain and provide separately identified and totaled volume, billing determinant, rate or surcharge component, and revenue accounting information for their negotiated rate arrangements in any general or limited rate change filing that it makes.¹⁴⁶ Therefore, Mountain Valley is directed to revise section 6.27 to be consistent with the Commission's negotiated rate policy and include these provisions in its tariff.

7. Section 6.28 – Transportation Retainage

119. Mountain Valley is proposing to recover its actual fuel gas, and lost and unaccounted for gas in-kind from shippers pursuant to section 6.28 of its GT&C. Section 6.28(2) describes how Mountain Valley proposes to determine its retainage factor. This section simply states that “[Mountain Valley] shall adjust the Retainage Factor on a quarterly basis to more accurately reflect actual experienced fuel and lost and unaccounted for gas” and, further, “[Mountain Valley] may file to adjust the Retainage Factor to reflect a material change in the actual experienced fuel and unaccounted for gas.” Section 6.28(3) describes how Mountain Valley proposes to reconcile its actual fuel and lost and unaccounted for volumes versus the volumes actually retained. To

¹⁴³ *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).

¹⁴⁴ *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, *dismissing reh'g and denying clarification*, 114 FERC ¶ 61,304 (2006).

¹⁴⁵ *Natural Gas Pipelines Negotiated Rate Policies and Practices; Modification of Negotiated Rate Policy*, 104 FERC ¶ 61,134 at PP 31-34.

¹⁴⁶ *Id.*

accomplish the reconciliation, Mountain Valley proposes a quarterly true-up to determine for each month of the quarter volumes owed to either Mountain Valley or the shipper.

120. Mountain Valley's proposed retainage mechanism fails to comply with the notice and filing requirements of, respectively, sections 154.207¹⁴⁷ and 154.403¹⁴⁸ of the Commission's regulations. Pipelines are not permitted to impose fuel charges on shippers without making a tariff filing and providing notice and the opportunity to participate in the proceedings.¹⁴⁹ As proposed, Mountain Valley's fuel retainage mechanism would allow Mountain Valley to revise its retainage factor without any review or comment by its shippers and without prior Commission approval. Therefore, when Mountain Valley files actual tariff records in accordance with the ordering paragraphs herein, it is required to revise GT&C section 6.28 to conform to the notice and filing requirements of sections 154.207 and 154.403 of the Commission's regulations.

8. Section 6.31 - North American Energy Standards Board (NAESB)

121. GT&C section 6.31 states that Mountain Valley has adopted Version 3.0 of the Business Practices and Electronic Communications Standards adopted by NAESB Wholesale Gas Quadrant (WGQ), which are required by section 284.12(a) of the Commission's regulations.¹⁵⁰ Mountain Valley's *pro forma* tariff generally complies with Version 3.0, but Mountain Valley is directed to make the following ten revisions:

- a. Change the reference from standard 1.3.2(i-v) to 1.3.2(i-vi) in the section titled "Standards not Incorporated by Reference and their Location in Tariff" in GT&C section 6.31;
- b. Remove standard 1.3.2(vi) from the section titled "Standards Incorporated by Reference" in GT&C section 6.31;
- c. Remove standards 0.3.19, 1.3.47, 1.3.49, 1.3.50, 1.3.54, 1.3.57, 1.3.59, 1.3.60, 1.3.61, 1.3.63, 2.3.33, 2.3.34, 2.3.35, 3.3.1, 4.3.5, 4.3.29, 4.3.51, 4.3.56, 4.3.59, 4.3.73, 4.3.74, and 4.3.76 from the section titled "Standards Incorporated by Reference" in GT&C section 6.31;

¹⁴⁷ 18 C.F.R. § 154.207 (2017).

¹⁴⁸ *Id.* § 154.403.

¹⁴⁹ See *MarkWest Pioneer, L.L.C.*, 125 FERC ¶ 61,165 at P 31.

¹⁵⁰ 18 C.F.R. § 284.12(a) (2017).

- d. Remove standard 5.3.73 from the section titled “Standard Incorporated by Reference,” because the text of the standard is included in GT&C section 6.22.11;
- e. Indicate the adoption of standards revised by Minor Corrections MC15003, MC15004, MC15005, MC15009 and MC15012 all marked with an asterisk [*];
- f. Add an asterisk [*] to standards 0.4.2, 1.3.8, 1.3.9, 1.4.1, 1.4.2, 1.4.3, 1.4.4, 1.4.5, 1.4.6, 1.4.7, 2.4.1, 2.4.3, 2.4.4, 2.4.5, 3.4.1, 5.3.56, 5.4.16, 5.4.20, 5.4.21, 5.4.22, 5.4.24, and 5.4.26;
- g. List standards 0.4.1 and 0.4.4 in the section titled “Standards Incorporated by Reference;”
- h. Either list standards 1.3.81, 4.3.104, and 4.3.105 in the section titled “Standards Incorporated by Reference” or include the text of the standards;
- i. Revise the text of the section titled “Timely Nomination Cycle” in GT&C section 6.8, Scheduling of Services, to provide that scheduled quantities should be effective at the start of the next Gas Day; and
- j. Revise the text regarding recall notifications in GT&C section 6.22, Capacity Release, to conform to revised standard 5.3.44.

F. Environmental Analysis

1. Pre-filing Review

122. On October 31, 2014, Commission staff granted Mountain Valley’s request to use the pre-filing process in Docket No. PF15-3-000. As part of the pre-filing review, on April 17, 2015, the Commission issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Planned Mountain Valley Pipeline Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings* (Mountain Valley NOI). The Mountain Valley NOI was published in the *Federal Register* on April 28, 2015,¹⁵¹ and mailed to 2,846 entities, including federal, state, and local government representatives and agencies; elected officials; regional environmental groups and non-governmental organizations; Indian Tribes and Native Americans; affected property owners; other interested entities; and local libraries and newspapers. The Mountain Valley NOI briefly described the project and the Commission’s environmental review process, provided a preliminary list of issues identified by Commission staff, invited

¹⁵¹ 80 Fed. Reg. 23,535 (2015).

written comments on the environmental issues that should be addressed in the draft EIS, listed the date and location of six public scoping meetings¹⁵² to be held in the project area, and established June 16, 2015, as the deadline for comments.

123. A total of 169 people presented oral comments at the pre-filing public scoping meetings. Transcripts of the scoping meeting were placed into the Commission's public record for this proceeding. In addition, during the official scoping period, between April 17 and June 16, 2015, we received well over 1,000 written or electronically filed comment letters.¹⁵³

124. On April 9, 2015, Commission staff granted Equitans' request to use the pre-filing process in Docket No. PF15-22-000. On August 11, 2015, the Commission issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Planned Equitans Expansion Project, and Request for Comments on Environmental Issues* (Equitans NOI). The Equitans NOI stated that because the Equitans Expansion Project would interconnect to the MVP Project, it was the intent of the Commission staff to conduct an environmental analysis of both projects combined in a single comprehensive EIS. The Equitans NOI was sent to 575 entities, and published in the *Federal Register* on August 17, 2015.¹⁵⁴ The comment period closed on September 14, 2015. During that scoping period, we received a total of five comment letters. Because of the low response to the Equitans NOI, Commission staff did not hold separate public scoping meetings in the Equitans Expansion Project area.

2. Application Review

125. The pre-filing review period ended when Mountain Valley filed its project application on October 23, 2015 and Equitans filed its project application on October 27, 2015.

¹⁵² Commission staff held the public scoping meetings between May 4 and 13, 2015, in Pine Grove, Weston, Summersville, and Linside, West Virginia, and Ellison and Chatham, Virginia.

¹⁵³ Table 1.4-1 of the draft and final EIS provides a list of environmental issues raised during scoping.

¹⁵⁴ 80 Fed. Reg. 49,217 (2015).

126. To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA),¹⁵⁵ Commission staff evaluated the potential environmental impacts associated with the construction and operation of the MVP and Equitans Expansion Projects in an EIS. The U.S. Department of Agriculture, Forest Service (Forest Service); U.S. Army Corps of Engineers (Army Corps); U.S. Environmental Protection Agency (EPA); U.S. Department of the Interior, Bureau of Land Management (BLM) and Fish and Wildlife Service (FWS); U.S. Department of Transportation (DOT); West Virginia Department of Environmental Protection (WVDEP), and West Virginia Department of Natural Resources (WVDNR) participated as cooperating agencies.

127. Commission staff issued the draft EIS for the projects on September 16, 2016, addressing the issues raised during the scoping period and up to the point of publication. Notice of the draft EIS was published in the *Federal Register* on September 27, 2016,¹⁵⁶ setting a 90-day comment period ending on December 22, 2016. The draft EIS was mailed to the environmental mailing list for the projects, including additional interested entities that were added since issuance of the NOIs. Commission staff held seven public comment sessions between November 2 and 9, 2016, in the areas of the projects¹⁵⁷ to take comments on the draft EIS. Over 260 speakers provided oral comments at these sessions. Transcripts of the draft EIS comment sessions were placed into the public record for the proceedings.¹⁵⁸ Between the issuance of the draft EIS on September 16 and the end of the comment period on December 22, 2016, we received 1,237 written or electronically filed letters.¹⁵⁹

128. In October 2016, after the issuance of the draft EIS, Mountain Valley filed a number of minor route modifications to address recommendations in the draft EIS, avoid sensitive environmental areas, accommodate landowner requests, or for engineering

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

¹⁵⁶ 81 Fed. Reg. 66,268 (2016).

¹⁵⁷ Commission staff held public comment sessions in Weston, Summersville, and Peterstown, West Virginia, Roanoke, Rocky Mount, and Chatham, Virginia, and Coal Center, Pennsylvania.

¹⁵⁸ Copies of the transcripts were filed in the Commission's eLibrary system on November 3, 2016 (accession number 20161103-4005) and November 16, 2016 (accession number 20161116-4001).

¹⁵⁹ Table 1.4-2 of the final EIS lists the range of issues raised in comments on the draft EIS.

design reasons. On January 17, 2017, Commission staff mailed letters to 45 newly-affected landowners, requesting comments on the route modifications during a supplemental comment period that ended February 21, 2017. In response, three landowners filed letters in the Commission's public record.

129. Commission staff issued the final EIS on June 23, 2017, notice of which was published in the *Federal Register* on June 29, 2017.¹⁶⁰ The final EIS addressed timely comments received on the draft EIS.¹⁶¹ The final EIS was mailed to the same entities as the draft EIS, as well as to newly-identified landowners and any additional entities that commented on the draft EIS.¹⁶² The final EIS addresses geological hazards such as landslides, earthquakes, and karst terrain; water resources including wells, streams, and wetlands; forested habitat; wildlife and threatened, endangered, and other special status species; land use, recreational areas, and visual resources; socioeconomic issues such as property values, environmental justice, tourism, and housing; cultural resources; air quality and noise impacts; safety; cumulative impacts; and alternatives.

130. The final EIS concludes that construction and operation of the MVP and Equitans Expansion Projects may result in some adverse environmental impacts on specific resources. The final EIS concludes that impacts on most environmental resources would be temporary or short-term. However, in the case of the clearing of forest, the final EIS concludes that impacts will be long-term and significant. For the other resources, impacts will be reduced to less-than-significant levels with the implementation of mitigation measures proposed by the applicants and other mitigation measures recommended by Commission staff and included as environmental conditions in this order.

131. Between the issuance of the final EIS on June 23, 2017 and September 11, 2017, the Commission received numerous written individual letters or electronic filings commenting on the final EIS or about the projects. These comments letters raise concerns regarding impacts on drinking water sources, surface water, karst, steep slopes, cultural resources, threatened and endangered species, forests, erosion, invasive species, visual resources, and health and safety.

¹⁶⁰ 82 Fed. Reg. 29,539 (2017).

¹⁶¹ Appendix AA of the final EIS includes copies of letters about the draft EIS received through the close of the comment period on December 22, 2016, along with Commission staff responses.

¹⁶² The distribution list is provided in Appendix A of the final EIS.

3. Major Environmental Issues

a. Requests to Supplement or Revise Draft EIS

132. Several commenters, including Allegheny Defense Project and James Workman, argue that the draft EIS was insufficient and the Commission should revise it or issue a supplemental draft EIS. They assert that the draft EIS lacks a discussion of project need under section 7(c) of the NGA and inappropriately postpones submittal of certain information to the end of the draft EIS comment period or before commencement of construction. Commenters argue that they should have an opportunity to comment on this new information.

133. A purpose of a draft EIS is to elicit suggestions for change.¹⁶³ The Council of Environmental Quality (CEQ) regulation that the commenters reply 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.”¹⁶⁴ 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.”¹⁶⁵ 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.¹⁶⁶ In *National Committee for New River v. FERC*,¹⁶⁷ the court held that “if every 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.”¹⁶⁸

¹⁶³ See *City of Grapevine v. DOT*, 17 F.3d 1502, 1507 (D.C. Cir. 1994) (“[t]he very purpose of a [draft EIS] is to elicit suggestions for change.”).

¹⁶⁴ 40 C.F.R. § 1502.9(c)(1) (2017).

¹⁶⁵ *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 373 (1989).

¹⁶⁶ See *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989).

¹⁶⁷ *National Committee for New River v. FERC*, 373 F.3d 1323 (D.C. Cir. 2004) (*New River*).

¹⁶⁸ *New River*, 373 F.3d at 1329 (citing *East Tennessee Natural Gas Co.*, 102 FERC ¶ 61,225, at 61,659 (2003)).

134. 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.

135. Commenters’ argument regarding project need is misplaced. An EIS identifies a project’s purpose and need to define the parameters for the alternatives analysis,¹⁶⁹ 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.¹⁷⁰

136. Nan Gray states that the final EIS was deficient because it lacked analyses of avoidance areas, no-build zones,¹⁷¹ alternatives, cumulative effects, cultural, visual, aquatic, geological, soil, and biological resources. This is not accurate. The final EIS provides an analysis of alternatives (in section 3), geological resources (section 4.1), soils (section 4.2), biological resources (sections 4.5 and 4.7), aquatic resources (section 4.6), visual resources (section 4.8), cultural resources (section 4.10), and cumulative impacts (section 4.13).

b. Programmatic EIS

137. Nan Gray and other commenters request that the Commission prepare a programmatic EIS. CEQ regulations do not require broad or “programmatic” NEPA reviews. CEQ’s guidance provides that such a review may be appropriate where an agency is: (1) adopting official policy; (2) adopting a formal plan; (3) adopting an agency program; or (4) proceeding with multiple projects that are temporally and

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

¹⁷⁰ See section IV.A.1.b. of this order (discussing project need).

¹⁷¹ Nan Gray and others argue that karst terrain should be considered a “no-build” zone although no law provides such a prohibition. Section 4.1 of the final EIS and section IV.F.3.c. of this order discuss project impacts on karst terrain and mitigation measures.

spatially connected.¹⁷² The Supreme Court has held that a NEPA review covering an entire region (that is, a programmatic review) is required only if there has been a report or recommendation on a proposal for major federal action with respect to the region.¹⁷³ Moreover, there is no requirement for a programmatic EIS where the agency cannot identify projects that may be sited within a region because individual permit applications will be filed later.¹⁷⁴

138. We have explained that there is no Commission plan, policy, or program for the development of natural gas infrastructure.¹⁷⁵ Rather, the Commission acts on individual applications filed by entities proposing to construct interstate natural gas pipelines. Under NGA section 7, the Commission is obligated to authorize a project if it finds that the construction and operation of the proposed facilities “is or will be required by the present or future public convenience and necessity.”¹⁷⁶ What is required by NEPA, and what the Commission provides, is a thorough examination of the potential impacts of specific projects. As to projects that have a clear physical, functional, and temporal nexus such that they are connected or cumulative actions,¹⁷⁷ the Commission will prepare

¹⁷² Memorandum from CEQ to Heads of Federal Departments and Agencies, *Effective Use of Programmatic NEPA Reviews* 13-15 (Dec. 24, 2014) (citing 40 C.F.R. § 1508.18(b)), https://www.whitehouse.gov/sites/default/files/docs/effective_use_of_programmatic_nepa_reviews_18dec2014.pdf. We refer to the memorandum as the 2014 Programmatic Guidance.

¹⁷³ *Kleppe v. Sierra Club*, 427 U.S. 390 (1976) (*Kleppe*) (holding that a broad-based environmental document is not required regarding decisions by federal agencies to allow future private activity within a region).

¹⁷⁴ See *Piedmont Environmental Council v. FERC*, 558 F.3d 304, 316-17 (4th Cir. 2009) (*Piedmont Environmental Council*).

¹⁷⁵ See, e.g., *National Fuel Gas Supply Corp.*, 158 FERC ¶ 61,145 at PP 82-88; *National Fuel Gas Supply Corp.*, 154 FERC ¶ 61,180, at P 13 (2016); *Texas Eastern Transmission, LP*, 149 FERC ¶ 61,259, at PP 38-47 (2014); *Columbia Gas Transmission, LLC*, 149 FERC ¶ 61,255 (2014).

¹⁷⁶ 15 U.S.C. § 717f(e) (2012).

¹⁷⁷ 40 C.F.R. § 1508.25(a)(1)-(2) (2017) (defining connected and cumulative actions).

a multiple-project environmental document.¹⁷⁸ Other than the relationship between the MVP and Equitans Expansion Projects, such is not the case here.

139. The Commission is not engaged in regional planning. Rather, the Commission processes individual pipeline applications in carrying out its statutory responsibilities under the NGA. That there currently are a number of planned, proposed, or approved infrastructure projects to increase infrastructure capacity to transport natural gas from the Marcellus and Utica Shale does not establish that the Commission is engaged in regional development or planning.¹⁷⁹ Instead, this confirms that pipeline projects to transport Marcellus and Utica Shale gas are initiated solely by a number of different companies in private industry. As we have noted previously, a programmatic EIS is not required to evaluate the regional development of a resource by private industry if the development is not part of, or responsive to, a federal plan or program in that region.¹⁸⁰

140. The Commission’s siting decisions regarding pending and future natural gas pipeline facilities respond to proposals by private industry, and the Commission has no way to accurately predict the scale, timing, and location of projects, much less the kind of facilities that will be proposed.¹⁸¹ Any broad, regional environmental analysis would “be little more than a study . . . containing estimates of potential development and attendant

¹⁷⁸ See, e.g., EA for the Monroe to Cornwell Project and the Utica Access Project, Docket Nos. CP15-7-000 & CP15-87-000 (filed Aug. 19, 2015); Final Multi-Project Environmental Impact Statement for Hydropower Licenses: Susquehanna River Hydroelectric Projects, Project Nos. 1888-030, 2355-018, and 405-106 (filed Mar. 11, 2015).

¹⁷⁹ See, e.g., *Sierra Club v. FERC*, 827 F.3d 36, 50 (D.C. Cir. 2016) (*Freeport LNG*) (rejecting claim that NEPA requires FERC to undertake a nationwide analysis of all applications for liquefied natural gas export facilities); cf. *Myersville Citizens for a Rural Cnty., Inc. v. FERC*, 783 F.3d 1301, 1326-27 (D.C. Cir. 2015) (*Myersville*) (upholding FERC determination that, although a Dominion Transmission Inc.-owned pipeline project’s excess capacity may be used to move gas to the Cove Point terminal for export, the projects are “unrelated” for purposes of NEPA).

¹⁸⁰ See *Kleppe*, 427 U.S. at 401-02 (holding that a regional EIS is not required where there is no overall plan for regional development).

¹⁸¹ Lack of jurisdiction over an action does not necessarily preclude an agency from considering the potential impacts. As explained in the indirect and cumulative impact sections of this order, however, it reinforces our finding that because states, and not the Commission, have jurisdiction over natural gas production and associated development (including siting and permitting), the location, scale, timing, and potential impacts from such development are even more speculative.

environmental consequences,”¹⁸² and could not present “a credible forward look” that would be “a useful tool for basic program planning.”¹⁸³ In these circumstances, the Commission’s longstanding practice to conduct an environmental review for each proposed project, or a number of proposed projects that are interdependent or otherwise interrelated or connected, “facilitate[s], not impede[s], adequate environmental assessment.”¹⁸⁴ Thus, the Commission’s environmental review of only the MVP and Equitans Expansion Projects together in a single EIS is appropriate under NEPA.

141. In sum, CEQ states that a programmatic EIS can “add value and efficiency to the decision-making process when they inform the scope of decisions,” “facilitate decisions on agency actions that precede site- or project-specific decisions and actions,” or “provide information and analyses that can be incorporated by reference in future NEPA reviews.”¹⁸⁵ The Commission does not believe these benefits can be realized by a programmatic review of natural gas infrastructure projects because the projects subject to our jurisdiction do not share sufficient elements in common to narrow future alternatives or expedite the current detailed assessment of each particular project. Thus we find a programmatic EIS is neither required nor useful under the circumstances here.

c. **Geological Resources**

i. **Steep Slopes and Landslides**

142. Several commenters, including Giles and Roanoke Counties, Virginia (Counties), expressed concern that the projects could contribute to unstable slopes and cause landslides or other slope and soil failures.

143. About 32 percent of the MVP Project and 45 percent of the approximately eight-mile long Equitans Expansion Project will cross topography with steep (greater than a 15 percent grade) slopes.¹⁸⁶ About 67 percent of the MVP Project and all of the Equitans Expansion Project will cross areas susceptible to landslides.

¹⁸² *Kleppe*, 427 U.S. at 402.

¹⁸³ *Piedmont Environmental Council*, 558 F.3d at 316.

¹⁸⁴ *Id.*

¹⁸⁵ 2014 Programmatic Guidance at 13.

¹⁸⁶ Final EIS at ES-4.

144. The final EIS acknowledges and addresses the projects' landslide potential.¹⁸⁷ Mountain Valley and Equitans have committed to use specialized construction techniques on steep slopes, including cut-and-fill and two-tone grading, to minimize adverse effects.¹⁸⁸ Mountain Valley will use thicker Class 2 pipe to mitigate hazards to the pipeline from triggered slope displacement, and will employ geotechnical experts to inspect construction in areas of potential subsidence or landslide concern.

145. To prevent landslides, both Mountain Valley and Equitans developed Landslide Mitigation Plans, which was revised in March 2017. However, because the Mountain Valley's *Landslide Mitigation Plan* does not adopt some industry best management practices to reduce the potential for landslides in steep slope areas, we require, as Environmental Condition No. 19, that Mountain Valley revise its *Landslide Mitigation Plan* to outline construction measures to be used when crossing steep slopes at angles perpendicular to contours and to include a more robust monitoring program. Moreover, to bolster pipeline integrity and safety in landslide hazard areas, we further require that Mountain Valley revise its *Landslide Mitigation Plan* to expand its post-construction monitoring program to cover all potential landslide areas project-wide. The Commission finds that these additional measures would effectively mitigate potential impacts from the projects' constructions in areas of high susceptibility to landslides.

146. The Virginia Department of Game and Inland Fisheries (Virginia Department of Game) expresses concern that slope failures will cause instream sedimentation. The final EIS discusses the potential for landslides and measures to ensure slope stability and prevent instream sedimentation, including the measures outlined in Mountain Valley's *Landslide Mitigation Plan*, to which, as discussed above, we are requiring enhancements. Mountain Valley also agreed to follow the measures outlined in the Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan* (Commission's Plan) and its *Wetland and Waterbody Construction and Mitigation Procedures*, which include erosion controls to prevent sedimentation into waterbodies. The final EIS concludes that these plans cannot fully prevent sedimentation, but would provide adequate protections by reducing sedimentation into streams and reducing the potential for slope failures.

ii. Seismic Activity and Soil Liquefaction Potential

147. Several commenters note the MVP Project is routed through an area with a history of seismic activity and assert that constructing a gas pipeline in such an area poses a danger to the community.

¹⁸⁷ Final EIS at 4-52 to 4-58.

¹⁸⁸ Final EIS at 4-55.

148. The MVP Project will be in close proximity to the active Giles County Seismic Zone.¹⁸⁹ An earthquake in this zone would only be expected to cause generally light damage. In areas where seismic hazards exist, Mountain Valley will install pipeline with Class 2 or Class 3 thickness, under DOT's pipeline safety regulations in 49 C.F.R. Part 192, to withstand a seismic event and mitigate for potential soil liquefaction. Additionally, Mountain Valley has committed to a post-construction monitoring program utilizing sequentially-acquired the Light Imaging Detection and Ranging (LiDAR) imagery to detect slope movement in the area where the pipeline traverses through the seismic zone. Due to the use of thicker pipe and a post-construction monitoring program, we find that Mountain Valley will sufficiently manage the safety issues from seismic activity in the MVP Project area.

149. The Equitans Expansion Project will not cross any Quaternary faults.¹⁹⁰ It is in an area identified to have a low probability of a significant seismic event. Soil liquefaction is a phenomenon often associated with seismic activity in which saturated, non-cohesive soils temporarily lose their strength and liquefy (i.e., behave like viscous liquid) when subjected to forces such as intense and prolonged ground shaking. Due to the low potential for significant ground shaking, we agree with the final EIS's conclusion that soil liquefaction in the area of the Equitans Expansion Project is unlikely.

iii. **Karst Terrain**

150. Commenters expressed concerns regarding subsidence and sinkholes affecting the construction and integrity of the pipeline in areas of karst terrain and potential impacts on karst-related groundwater.

151. 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). The Equitans Expansion Project will not be located at any areas known to contain karst features. Conversely, the MVP Project will cross about 67 miles of karst terrain. The MVP Project will cross minor karst development from about MPs 172 to 174 and significant karst development from about MPs 191 to 239. As stated in the final EIS, Mountain Valley's Karst Hazard Assessment identified 99 karst features in

¹⁸⁹ The Giles County Seismic Zone is located in the western part of the Valley and Ridge province, south of the Appalachian bend near Roanoke, Virginia. It is considered seismically active, experienced 12 earthquakes that span 4 orders of magnitude and over 2 decades, from 1959 through 1980. *See* Final EIS at 4-23 to 4-24.

¹⁹⁰ A Quaternary fault is a fault that has experienced displacement in the last 2.6 million years and is predicted to most likely demonstrate displacement again. *See* Final EIS at 4-24.

Summers and Monroe Counties, West Virginia, and Giles, Craig, and Montgomery Counties, Virginia.¹⁹¹ Karst features could present a hazard to the MVP Project due to cave or sinkhole collapse.

(a) Variation 250

152. To mitigate potential impacts, Mountain Valley adopted the Mount Tabor Variation into its proposed route, as recommended in the draft EIS, to reduce project impacts on karst features within the Mount Tabor Sinkhole Plain in Montgomery County, Virginia. Section 3.5.1 of the final EIS concludes that Variation 250 would reduce the environmental impacts on the Slussers Chapel Conservation Site (e.g., the variation is shorter and has less impact on perennial waterbodies, forest, and karst features) compared to the proposed pipeline route. It also avoids waterbodies that are of concern to the VADCR. We agree with this conclusion.¹⁹² Thus, Environmental Condition No. 16 of this order requires Mountain Valley to adopt Variation 250, which modifies the Mount Tabor Variation, between MPs 221.0 and 222.2, to further reduce impacts on karst terrain and the Slussers Chapel Conservation Site, which is located within the Mount Tabor Sinkhole Plain.

153. Mountain Valley also developed a *Karst Mitigation Plan* and a *Karst-specific Erosion and Sediment Control Plan*. Environmental Condition No. 20 of this order requires Mountain Valley to revise its *Karst Mitigation Plan* to include post-construction monitoring using LiDAR data to further ensure safe operation of the pipeline over its lifetime. We agree with the final EIS's conclusions that, with implementation Mountain Valley's mitigation measures and the conditions included in the Appendix C, impacts on karst resources would be adequately minimized.

154. The Virginia Department of Conservation and Recreation (VADCR) encourages the Commission to require that Mountain Valley submit a route that more closely follows the VADCR's Slussers Chapel Conservation Site Avoidance Variation as submitted to Commission on September 9, 2016. The VADCR's Slussers Chapel Conservation Site Avoidance Variation provides both advantages and disadvantages when compared with the proposed route. The VADCR's Slussers Chapel Conservation Site Avoidance Variation would be slightly (0.2-mile) longer than the corresponding segment of the proposed route, but more collocated with existing corridors by about 1.6 miles and it would cross about 0.7 fewer miles on the Slussers Chapel Conservation Site, nine fewer parcels, eight fewer acres of forested land, two fewer perennial waterbodies, and 14 fewer karst features such as sinkholes. However, the corresponding segment of the proposed

¹⁹¹ Final EIS 4-37.

¹⁹² The Blue Ridge Land Conservancy states that Variation 250 would result in impacts on the Slusser Chapel Conservation Site.

route would affect about 2.5 miles less of National Forest System lands, 1.1 miles less of side slope, about 25 fewer acres of interior forest, and one mile less of shallow bedrock. In balancing the factors evaluated, the final EIS did not find an overall significant environmental advantage for the VADCR alternative when compared to the proposed route. However, as noted above, we are requiring that Mountain Valley adopt Variation 250 into its proposed route to reduce impacts on the Slussers Chapel Conservation Site.

(b) Dye-Tracing Studies

155. The VADCR requests that Mountain Valley conduct additional dye-tracing studies to determine the underground connectivity and relationships between karst features and sinkholes in the vicinity of the MVP Project. As stated in section 4.1.2.5 of the final EIS, Mountain Valley's *Karst Mitigation Plan* outlines inspection criteria for known karst features identified during construction in proximity to the right-of-way. If a karst feature is identified, Mountain Valley will conduct a weekly inspection and document soil subsidence, rock collapse, sediment filling, swallets, springs, seeps, caves, voids, and morphology. If any changes are identified during the weekly inspection, Mountain Valley will then conduct more in-depth additional inspections. Any required in-depth additional inspections will include visual assessment, geophysical survey, track drill probes, infiltration, or dye tracing. If a feature is found to have a direct connection to a subterranean environment or groundwater flow system, Mountain Valley will work with the karst specialist and appropriate state agencies to develop mitigation measures for the karst feature.

156. Section 4.1.1.5 of the final EIS states that surface water will typically flow overland down slope to recharge features, such as swallets (underground streams). Groundwater will flow vertically through the unsaturated zone along interconnected fractures, and conduits, and along preferential paths downslope until reaching the saturated (phreatic) zone where groundwater will flow from areas of high hydraulic head (recharge locations) to areas of low hydraulic head (discharge locations). Mountain Valley's analysis included evaluating recharge features (swallets, sinkholes, and sinking streams), resurgence features (spring and seeps), topography, bedrock structure (strike and dip) as well as the results of the fracture trace-lineament analysis, and the results of previous dye-trace studies. Using these data, groundwater flow paths can be extrapolated and additional dye testing at these locations would not significantly change the understanding of groundwater flow. Performing a dye-trace analysis of every sinkhole or sink point along the pipeline alignment is not feasible or necessary.

157. We conclude that the impacts to geological resources will be adequately minimized with the implementation of the applicants' best management practices and the implementation of the environmental conditions in Appendix C.

d. Mining Operations

158. After issuance of the final EIS, Coronado Coal and Mountain Valley, through multiple filings, disputed whether the project would cross active mines leased by Coronado Coal in Greenbrier and Nicholas Counties, West Virginia (Pocahontas Nos. 6 and 7). Coronado Coal owns and manages Greenbrier Minerals LLC, which owns Matoaka Land Company, LLC (Matoaka). Matoaka leased the mineral rights to the two coal reserves from Coronado, and then leased its mineral rights to MWV Community Development and Land Management, LLC. Highland Mineral Resources LLC and its affiliate Plum Creek Timberlands L.P. lease the surface rights to the land where the coal reserves are located from Weyerhaeuser, the land owner.¹⁹³ Coronado Coal contends that the project would cause subsidence and other impacts on its existing and future mining operations, resulting in a depreciation of its mineral rights and an increase of its coal-mining operating costs. Coronado Coal requests that the order be conditioned on requiring Mountain Valley to compensate it for loss of coal value and increased costs, which was initially recommended in the draft EIS but was subsequently removed in the final EIS.

159. Coronado Coal and Mountain Valley debate the degree of activity that would constitute as “active” mining. Coronado Coal states that it has developed plans for completing permitting and mining within the schedule set forth in its mineral lease, drove entry-ways and constructed shafts for workers to access and supply the mines, and obtained a permit from West Virginia to install a station to access Pocahontas No. 7 seam, which it completed.¹⁹⁴ In response, Mountain Valley argues that Coronado Coal is not actively mining Pocahontas Nos. 6 or 7 because it does not have a current permit or a pending application to mine those seams.¹⁹⁵ Mountain Valley contends that Coronado Coal’s current permits are for mines located over a mile away from the project.¹⁹⁶

160. For the purposes of whether the project would depreciate the value of Coronado Coal’s mineral rights, the specific level of activity that would constitute “active” mining is irrelevant. The heart of this issue is the value of Coronado Coal’s mineral rights,

¹⁹³ See Coronado Coal’s August 4, 2016 Comment at 2-5.

¹⁹⁴ See Coronado Coal’s August 23, 2017 Answer at n.25.

¹⁹⁵ See Mountain Valley’s August 11, 2017 Answer at 10.

¹⁹⁶ *Id.*

which is not a matter for the Commission to adjudicate.¹⁹⁷ Section 7 of the NGA only authorizes the Commission to grant certificates of public convenience and necessity and does not empower us to determine the value of various property interests or to award related damages.¹⁹⁸ Instead appropriate compensation is a matter of negotiation between the property owner and the pipeline and, if an agreement cannot be made, courts are the appropriate venue.¹⁹⁹ Thus, if negotiation fails, Coronado Coal must seek relief from courts in connection to its claim that the MVP Project would result in a loss in value of its coal mines.

161. As for Coronado Coal’s concern about the project’s potentially disruptive effect on its current and future mining operations, in previous situations where pipeline facilities are proposed to be constructed through active and proposed coal mining areas with known areas of present or potential ground instability resulting from mining operations, the Commission has required a pipeline applicant to establish a site-specific plan addressing specific mining subsidence problems.²⁰⁰ In other instances, where no active or proposed mining activities are occurring near proposed pipeline construction activities, we have refrained from speculating on the details of vague and uncertain potential coal mining activities, their ambiguous effects, and attempts to mitigate such effects through a construction and operation subsidence plan.²⁰¹ We have noted that

¹⁹⁷ 15 U.S.C. § 717f(h) (2012). *American Energy Corp. v. Rockies Express Pipeline LLC*, 622 F.3d 602, 606 (6th Cir. 2010) (*American Energy Corp.*) (holding that the Commission lacks jurisdiction to adjudicate damages to property, including conversion, caused by a certificated gas project).

¹⁹⁸ *American Energy Corp.*, 622 F.3d at 606; see 15 U.S.C. § 717f (2012).

¹⁹⁹ See 15 U.S.C. § 717f(h) (2012).

²⁰⁰ See *Texas Eastern Transmission, LP*, 131 FERC ¶ 61,164, at PP 18-21 (2010) (*Texas Eastern*) (affirming that pipeline must comply with all applicable safety requirements and resolve any subsidence mitigation issues within the purview of the relevant state agency that might come into play at such time as active mining is authorized to proceed under any of its facilities). See also *Rockies Express Pipeline LLC*, 123 FERC ¶ 61,234, reh’g denied, 125 FERC ¶ 61,160 (2008), reh’g granted and denied, 128 FERC ¶ 61,045 (2009) (requiring the pipeline applicant to develop, and file with the Commission prior to construction, a construction and operation plan for a portion of the project to ensure the integrity of the pipeline and to ensure that the project does not compromise existing or future mining activities).

²⁰¹ See, e.g., *Texas Eastern*, 131 FERC ¶ 61,164 at P 19.

pipeline applicants must comply with all applicable safety requirements when they conduct active mining operations in the future.²⁰²

162. Here, the facts align most closely with *Texas Eastern*. As in *Texas Eastern*, the mining company has not actively mined in the project area and has not yet proposed a plan to mine. In the absence of specific information about the details of how potential mining activities would go forward, what they would involve, and how they would likely be affected by the construction of the project, the pipeline mitigation plans that Coronado Coal would have us require would be based only on speculation. Where coal mining in the vicinity of a proposed pipeline is a reasonably foreseeable future action,²⁰³ the Commission has considered the impacts that mining activities might have on a proposed pipeline as part of our environmental review of the project.²⁰⁴ Should Coronado Coal at some point in the future engage in long-wall mining beneath the facilities Mountain Valley will construct, Mountain Valley would remain under an obligation to comply with all relevant DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) safety requirements for existing pipelines.²⁰⁵

163. We expect Mountain Valley to consult with companies planning to extract coal beneath the approved right-of-way and to follow procedures to maintain its facilities' integrity when mining operations undercut a pipeline. As discussed in the final EIS,²⁰⁶ the MVP Project is subject to the oversight of PHMSA, and thus must adhere to any measures that PHMSA requires to mitigate risks when mining operations occur in proximity to pipelines, and is also subject to certain state requirements related to the project's construction and operation.

164. Thus, we reject Coronado Coal's request to condition construction of the MVP Project on mitigation of potential impacts from speculative future coal mining operations.

²⁰² *Id.* at P 22.

²⁰³ See 40 C.F.R. § 1508.7 (2017) (NEPA regulations describing cumulative impacts).

²⁰⁴ See e.g. Final EIS at 4-48 (noting that if subsidence becomes an issue Mountain Valley would supplement its *Mining Area Construction Plan* through consultation with the WVDEP and mine operators with regards to potential hazards).

²⁰⁵ See also Final EIS at 4-48 to 4-49 (addressing future longwall mining).

²⁰⁶ *Id.* at 1-23 and 4-558.

e. **Water Resources**

i. **Groundwater**

165. Commenters argue that the projects would harm groundwater supplies, especially in karst terrain areas.

166. The project areas are primarily comprised of bedrock aquifers with minor surficial aquifers along streams. The pipeline trench will rarely exceed 10 feet in depth, but could encounter shallow groundwater. In those situations, the trench will be dewatered through filters into adjacent vegetated uplands so that there will be some recharge to shallow aquifers.

167. As stated in the final EIS, the MVP Project will cross two groundwater wellhead protection areas²⁰⁷ located in the Nettie-Leivasy Public Service District in Nicholas County, West Virginia. In addition, the MVP Project will cross surface water protection areas, including 6 Zones of Critical Concern and 14 Zones of Peripheral Concern²⁰⁸ in West Virginia. The MVP Project will cross the Red Sulphur Public Service District's Zone of Critical Concern and Zone of Peripheral Concern at MP 195.4 in Monroe County, West Virginia. No groundwater source protection areas were identified in the vicinity of the Equitans Expansion Project.

168. The MVP Project will be within 0.1 mile of two public water supplies: one well in Greenbrier County, West Virginia (the Greenbrier County Public Supply District #2), and the other in Pittsylvania County, Virginia (the Robin Court Subdivision). The MVP Project will also be within 0.3 mile of Rich Creek Spring, located near MP 195.2, which is used as a water supply by the Red Sulphur Public Service District. No public water supply resources were identified within one mile of the Equitans Expansion Project.

169. To minimize potential impact from construction of the MVP Project on groundwater wellhead protection areas or surface water supply protection areas, Environmental Condition No. 24 requires Mountain Valley to develop a contingency plan with measures to protect, repair, or replace the water supplies of public service districts.

²⁰⁷ The 1986 Amendment of the Safe Drinking Water Act required states to develop wellhead protection programs to protect public supply wells from contamination. *See* 42 U.S.C. § 300h-7 (2012).

²⁰⁸ Zones of Critical Concern and Zones of Peripheral Concern are generally established buffers mapped around all sources that contribute directly to a public water supply intake.

170. Commenters note the degree of groundwater interconnectivity in areas of karst terrain. Commenters also state that many landowners depend on wells or springs sourced from karst-generated groundwater for their domestic drinking water supplies, livestock watering, and irrigation of agricultural lands.

171. Because karst features provide a direct connection to groundwater, there is a potential for pipeline construction to increase turbidity in groundwater due to runoff of sediment into karst features or to contaminate groundwater resources by inadvertent spills of fuel or oil from construction equipment. To minimize potential impacts on karst related groundwater through construction associated sedimentation and runoff, Mountain Valley will implement the erosion control measures outlined in the Commission's Plan and its *Karst-specific Erosion and Sediment Control Plan*. Further, to minimize the potential for hazardous materials leaking from construction equipment to contaminate groundwater, Mountain Valley will implement the measures outlined in its *Stormwater Pollution Prevention Plan* (SWPP Plan); *Spill Prevention, Control, and Countermeasures Plan* (SPCC Plan); and *Unanticipated Discovery of Contamination Plan for Construction Activities in West Virginia and Virginia*.

172. Because field surveys for both projects have not been completed due to lack of approved access, Mountain Valley and Equitans have been unable to identify all private wells and springs used for domestic water supplies within 150 feet of the pipelines (500 feet in karst terrain). Therefore, Environmental Condition No. 12 of this order requires the applicants to file an updated list of the locations of water wells, springs, and other drinking water sources within 150 feet (500 feet in karst terrain) of construction work areas and aboveground facilities, prior to construction. In areas where a public or private water supply well or spring is identified within 150 feet of the projects (500 feet in karst terrain), the applicants will flag the wellhead or spring as a precaution and notify the owner or operator of the water resource. The applicants will conduct pre-construction water quality evaluations on water wells. Further, Environmental Condition Nos. 21 and 35 of this order require Mountain Valley and Equitans to conduct post-construction testing of domestic water supplies evaluated during the pre-construction process. In situations where project-related construction damages the quantity or quality of domestic water supplies, the applicants will compensate the landowner for damages, repair or replace the water systems to near pre-construction conditions, and provide temporary sources of water.

173. On July 31, 2017, Indian Creek Watershed Association filed a report prepared by Thomas Bouldin regarding sedimentation in streams crossed by the MVP Project. Mr. Bouldin states that estimates of sedimentation into waterbodies contained in the final EIS are flawed because they do not account for runoff from construction workspaces. In addition, Mr. Bouldin claims that final EIS ignores points made in the *Hydrologic Analysis of Sedimentation* report prepared by Mountain Valley for the Forest Service.

174. We disagree. Section 4.3 of the final EIS discusses runoff caused by construction²⁰⁹ and includes a summary of the findings of Mountain Valley's *Hydrologic Analysis of Sedimentation* report. Further, the final EIS states that Mountain Valley will work with the Forest Service and appropriate agencies to develop a stream monitoring plan that it will implement during operation of the MVP Project.

175. Section 4.3.2 of the final EIS provides a discussion of two peer-reviewed scientific studies, including one prepared by the U.S. Geological Survey, regarding sedimentation into waterbodies crossed from dry-ditch methods. The final EIS states that the dry-ditch methods would result in minor, short-term, and localized increases in sedimentation in waterbodies crossed by the MVP Project.²¹⁰ Those minor increases in sedimentation at pipeline stream crossings should not significantly affect aquatic resources within the waterbodies.

176. As outlined in the final EIS (section 2.4.1.1), Mountain Valley agreed to adopt the Commission's Plan without modifications and the *Wetland and Waterbody Construction and Mitigation Procedures* with modifications. The Commission's Plan and Procedures provide baseline mitigation measures, including erosion control devices, that would limit sedimentation and runoff from all work areas. Based on Commission staff's experience with pipeline construction, and Mountain Valley's commitment to cross waterbodies via dry-ditch methods, adherence to the measures in the Commission's Plan and Procedures, Mountain Valley's proposal to conduct a stream monitoring plan, and use of the Commission's third-party construction compliance program, we determine that impacts on waterbodies due to sedimentation will be effectively minimized.

177. We conclude that impacts on groundwater will be adequately minimized with the implementation of the applicants' best management practices as appropriate and the implementation of the environmental conditions in Appendix C.

²⁰⁹ See, e.g., Final EIS at 4-137 ("The use of heavy equipment for construction could cause compaction of near-surface soils, an effect that could result in increased runoff into surface waters in the immediate vicinity of the proposed construction right-of-way. Increased surface runoff could transport sediment into surface waters, resulting in increased turbidity levels and increased sedimentation rates in the receiving waterbody. Disturbances to stream channels and stream banks could also increase the likelihood of scour after construction.").

²¹⁰ Final EIS at 4-217.

ii. Surface Waters and Fisheries

178. Some commenters, including the Appalachian Mountain Advocates, question the adequacy of the final EIS's discussion on the MVP Project's impacts on surface waters.

179. The MVP Project will cross 389 perennial surface waterbodies, 5 of which are defined as major waterbodies (i.e., more than 100-feet-wide). Mountain Valley will cross all waterbodies using dry open-cut (flumed, dam-and-pump, or cofferdam) methods, except for the Pigg River. The MVP Project crosses the Pigg River, a state-designated Scenic River that contains habitat for the federally-endangered Roanoke logperch (freshwater fish), in Pittsylvania County, Virginia. To minimize potential impacts on the Pigg River and the Roanoke logperch, Environmental Condition No. 23 of this order requires Mountain Valley to use a horizontal directional drill (HDD) to cross under the Pigg River.

180. The Equitans Expansion Project will cross 15 perennial surface waterbodies. Of these, the Monongahela River is a major river more than 100-feet-wide. Equitans will cross all waterbodies using either dry open-cut or HDD crossing methods. Nine waterbody crossings will be completed by HDD: the Monongahela River, South Fork Tenmile Creek, and seven crossings of unnamed tributaries of the South Fork Tenmile Creek. Because Equitans has not completed environmental surveys for the New Cline Variation, which is incorporated in Equitans' proposal, we will require, Environmental Condition No. 36, that Equitans file the results of all the environmental surveys for the New Cline Variation prior to construction.

181. The MVP Project will cross four waterbodies (i.e., Left Fork Holly River, Elk River, Greenbrier River, and Craig Creek) listed on the National Park Service's (NPS) National Rivers Inventory as rivers with outstanding qualities that may qualify for wild, scenic, or recreational designation. The MVP Project will also cross Greenbrier River, a waterbody protected under the Natural Streams Preservation Act of West Virginia, and two waterbodies (i.e., Blackwater River and the Pigg River) on the Virginia Scenic Rivers List.

182. The MVP Project will cross 23 perennial waterbodies in West Virginia and 10 perennial waterbodies in Virginia that contain freshwater mussels. The Virginia Department of Game defines windows in which construction should not occur in streams that contain freshwater mussels characterized as long-term brooders, such as the yellow lampmussel and green floater. The restricted windows are April 15 through June 15 and August 15 through September 30. Further, construction will be restricted in streams that contain freshwater mussels characterized as short-term brooders, such as the James spiny mussel and Atlantic pigtoe, from May 15 through July 31. Mountain Valley has agreed to adhere to these in-water work windows.

183. Mountain Valley estimates that about 58,422,382 gallons of water may be needed for the hydrostatic testing of its pipeline, with about 46,644,831 gallons coming from municipal sources, and about 11,777,551 gallons from surface water sources (i.e., Meadow River and the Greenbrier River). For pipeline segments that will be tested using surface water sources, the withdrawal and discharge of the hydrostatic test water will occur within the same watersheds. About 55,000 gallons per day of water from unidentified surface or groundwater sources may be required for dust control for each spread along the MVP Project. Environmental Condition No. 22 requires Mountain Valley to reveal the sources and quantities of water to be utilized for dust control prior to construction.

184. Commenters, such as the Counties, expressed concerns regarding potential effects on surface waterbodies during construction and operation of the projects due to sedimentation or spills or leaks of hazardous materials.

185. The final EIS concludes that dry open-cut waterbody crossings result in temporary (less than 4 days) and localized (for a distance of only a few hundred feet of the crossing) increases in turbidity downstream of construction, but the magnitude of this increase is minimal compared to increased turbidity associated with natural runoff events. Once construction is complete, Mountain Valley will stabilize and restore streambeds and banks consistent with its *Wetland and Waterbody Construction and Mitigation Procedures*. In addition, Mountain Valley and Equitans will follow their *Wetland and Waterbody Construction and Mitigation Procedures*, which stipulates the use of clean gravel or native cobbles for the upper one foot of trench backfill in all waterbodies that are classified as coldwater fisheries. Mountain Valley and Equitans will minimize impacts on riparian vegetation at the edge of waterbodies by narrowing the width of the standard construction rights-of-way at waterbody crossings to 75 feet, and by locating most temporary workspaces at least 50 feet away from stream banks. Outside of the 10-foot-wide corridor over the pipeline maintained clear of trees, Mountain Valley will hand plant shrubs and trees within the temporary workspaces at specific waterbody crossings, up to 100 feet from the stream bank. The applicants will minimize impacts on surface waterbodies by implementation of the construction practices outlined in their project-specific *Erosion and Sediment Control Plans*, the Commission's Plan (for the MVP Project), Equitans' project-specific *Upland Erosion Control, Revegetation, and Maintenance Plan* (Equitans Plan), and Equitans' project-specific *Wetland and Waterbody Construction and Mitigation Procedures* (Equitans' Procedures). As stated in the final EIS, Commission staff reviewed these plans and procedures and determined that they will provide acceptable protection of surface waterbodies.²¹¹

186. To avoid or minimize the potential impacts of fuel or oil or other hazardous materials spilled from construction equipment, Mountain Valley will follow the

²¹¹ Final EIS at 4-149.

procedures outlined in its SPCC Plan and Equitans will implement its SPCC Plan and/or its *Preparedness, Prevention, and Contingency and Emergency Action Plan* depending on the project location. These plans include both preventative and mitigation measures such as personnel training, equipment inspection, refueling procedures, and spill cleanup and containment.

187. In addition to the measures we require here, the Army Corps, the Pennsylvania Department of Environmental Protection (PADEP), WVDEP, and Virginia Department of Environmental Quality (VADEQ) have the opportunity to impose conditions to protect water quality pursuant to sections 401 and 404 of the Clean Water Act. The applicants must obtain all necessary federal and state permits and authorizations, including the water quality certifications, prior to receiving Commission authorization to commence construction. We expect strict compliance by the applicants with any federal and state-mandated conditions.

iii. Wetlands

188. The final EIS states that construction of the MVP and Equitans Expansion Projects will impact a total of 32.1 acres of wetlands, including 24.9 acres of emergent wetlands, 2.5 acres of scrub-shrub wetlands, and 4.6 acres of forested wetlands.²¹² Because all wetlands will be restored after pipeline installation, there will be no net loss of wetlands. However, in some cases there will be conversions of wetland types and functions.

189. Within the 10-foot-wide corridor centered on the pipeline that will be mowed on a regular basis to comply with DOT's pipeline safety regulations, there will be a permanent conversion of forested and shrub wetlands to herbaceous wetlands. Impacts on emergent and scrub-shrub wetlands within temporary workspaces will be short-term. After construction, those areas are expected to be restored, and emergent and scrub-shrub wetlands return within a few years to their original condition and function. Forested wetlands within temporary workspaces will be subject to long-term impacts. While trees could regenerate in those areas, it will take decades for them to mature and return the forested wetlands to their original condition and function.

190. In general, construction and operation-related impacts on wetlands may also be mitigated by the applicants' compliance with their *Wetland and Waterbody Construction and Mitigation Procedures* and the conditions of the Clean Water Act sections 404 and

²¹² Final EIS 4-153.

401 permits.²¹³ With implementation of the acceptable avoidance and minimization measures, as well as the environmental conditions in this order, we agree with the final EIS's conclusion that impacts on wetland resources will be appropriately mitigated and reduced to less than significant levels.

f. Vegetation, Forested Land, and Wildlife

191. The MVP Project will cross about 235 miles of forest, 2.7 miles of shrublands, and 7.5 miles of grasslands. The Equitans Expansion Project will cross about 4 miles of forest and less than 0.1 mile of grasslands. Construction of the MVP Project will affect a total of about 4,453 acres of forest, while operation of the project will affect about 1,597 acres of forest. Construction of the Equitans Expansion Project will affect a total of about 62 acres of forest and operation of the Equitans Expansion Project will impact a total of about 22 acres of forest.

192. The 50-foot-wide operational pipeline easement in uplands will be kept clear of trees, resulting in the permanent conversion of forest to grasslands/shrub land use. The remainder of the temporary construction workspace along the pipeline routes in forested uplands will be allowed to regenerate, although it would take many years for trees to mature. This long-term impact will affect about 3,164 acres of forest, but the forest is expected to eventually recover.²¹⁴ About 174 acres of forest will be permanently converted to industrial land use at the MVP Project's aboveground facilities and permanent access roads. Construction of the Equitans Expansion Project's aboveground facilities will clear a total of about 5 acres of forest, and operation will permanently remove 4 acres.

193. The removal of interior forest to create the necessary pipeline rights-of-way will result in the conversion of forest area to a different vegetation type. This will contribute to forest fragmentation and the creation of forest edges. The pipeline right-of-way through forest will remove habitat for interior forest wildlife species. The MVP Project will pass through 24 state-listed core forest areas in West Virginia, which will result in temporary impacts from construction on about 2,428 acres of large core forest areas (greater than 500 acres) and permanent impacts from operations on about 872 acres of

²¹³ For unavoidable wetland impacts, the applicants commit to purchase wetland and stream credits from approved mitigation banks in the respective states. In-lieu fee state programs may also be considered. Proof of compensatory mitigation credit purchase will be provided by the applicants to the Army Corps prior to construction.

²¹⁴ This would include the temporary workspace along the pipeline right-of-way outside of the 50-foot-wide permanent easement, additional temporary workspaces, yards, and temporary access roads.

large core forest areas. In Virginia, the MVP Project will pass through 17 state-listed ecological core areas categorized as Outstanding, Very High, or High. Construction of the MVP Project in Virginia will result in temporary impacts on about 547 acres of ecological core areas categorized as Outstanding to High and permanent impacts on about 209 acres of ecological core areas categorized as Outstanding to High. Construction and operation of the Equitans Expansion Project's H-318 pipeline in Pennsylvania will affect one tract of interior forest of about 50 acres.

194. The MVP Project will cross five EPA Level III ecoregions:²¹⁵ the Western Allegheny Plateau, Central Appalachians, Ridge and Valley, Blue Ridge Mountains, and the Piedmont. All components for the Equitans Expansion Project will be within the Western Allegheny Plateau ecoregion. Combined, these ecoregions make up a total area of more than 164 million acres, of which more than 100 million acres is forested. However, in considering the total acres of forest affected, the quality and use of forest for wildlife habitat, and the time required for full restoration in temporary workspaces, the final EIS concludes that the MVP Project will have significant impacts on forested land.²¹⁶

195. To minimize forest fragmentation and edge effects, Mountain Valley has collocated about 30 percent of the pipeline route with existing linear corridors. Mountain Valley will revegetate the right-of-way and workspaces with seeds for species recommended by the Wildlife Habitat Council. Mountain Valley will reduce impacts on vegetation with the implementation of the Commission's Plan and Mountain Valley's project-specific *Erosion and Sediment Control Plan*. Mountain Valley also developed an *Exotic and Invasive Species Control Plan* to minimize impacts from invasive species. Equitans will reduce impacts on vegetation by implementing the measures of its Plan and approved seeding mixes, rates, and dates obtained from the Pennsylvania Erosion and Sediment Control Manuals, and invasive species control measures outlined in Equitans' invasive species control strategies. Commission staff's review of the applicants' proposed seed mixes revealed a limited number of non-native plant species and recommended, in the final EIS, the development of revised erosion control plans. Environmental Condition No. 13 of this order requires the applicants to revise their erosion control plans to contain seed mixes for only native species.

196. The Roanoke Appalachian Trail Club argues that the final EIS underestimates the impacts caused by the clearing of forest because of forest fragmentation. The final EIS

²¹⁵ Ecoregions are areas where ecosystems are generally similar. They are classified into four levels. See EPA, Ecoregions, <https://www.epa.gov/eco-research/ecoregions>.

²¹⁶ Final EIS at 4-191.

appropriately addresses forest habitat impacts, including interior/core forest habitats, in sections 4.4 and 4.5. These sections include mapping, tabular data, impact analyses, and proposed measures to reduce impacts on forest.

197. The Virginia Department of Game expresses concerns about invasive species management. Section 4.4 of the final EIS appropriately discusses Mountain Valley's *Exotic and Invasive Species Control Plan* and determines that the plan is adequate to manage invasive species along the restored right-of-way.²¹⁷

198. Preserve Roanoke expresses concern regarding the use of herbicides along the pipeline route. As stated in the final EIS, Mountain Valley would not use herbicides anywhere on the right-of-way, except where requested by landowners.²¹⁸ We agree that Preserve Roanoke's concern is adequately addressed.

199. The Virginia Department of Game comments on the loss of forested habitat, including core/interior forest habitat. The VADCR also expresses concerns about forest fragmentation. The final EIS addresses forest habitat impacts and impact avoidance, minimization, and mitigation in sections 4.4 and 4.5. It concludes that impacts on forest resources would be significant, but have been minimized to the extent practicable. For example, the final EIS states that impacts on forest will be reduced by collocating the MVP Project adjacent to existing rights-of-way for about 30 percent of the project route. Mountain Valley will also reseed construction areas with native vegetation during restoration.²¹⁹

200. Dr. Carl Zipper contends that the final EIS does not adequately address mitigation of adverse effects on forest, and requests a Supplemental EIS. Other people filed comments supporting Dr. Zipper's statements. Dr. Zipper offers his own recommendations for forest mitigation in comments filed on the draft EIS. The final EIS addresses Dr. Zipper's proposed forest mitigation measures in Appendix AA of the final EIS.²²⁰

201. Further, the final EIS discloses the extent and level of impacts on forest, and outlines measures Mountain Valley proposes to reduce or mitigate those impacts. Dr. Zipper does not offer new information or a change of circumstance since the final EIS was issued. Therefore, a Supplemental EIS is not necessary.

²¹⁷ Final EIS at 4-189 to 4-191.

²¹⁸ Final EIS at 4-187.

²¹⁹ Final EIS at 4-183.

²²⁰ See response to comment IND244 in Appendix AA of the final EIS.

202. The final EIS clarifies that during restoration, Mountain Valley will seed temporary workspaces with species recommended by the Wildlife Habitat Council. In forested areas, Mountain Valley will use a woody seed mix composed of native overstory, understory, and shrub oak-hickory forest species. Environmental Condition No. 13 of this order requires that Mountain Valley only use native species in its seed mixes. Mountain Valley will also plant native shrubs and saplings (outside of the 30-foot-corriodor over the pipeline) within forested wetlands and at the crossings of waterbodies known to contain special status species.

203. Dr. Zipper's comments regarding the effectiveness of hand-planting trees as compared to using a woody seed mix are noted. However, the proposed use of a woody seed mix is a reasonable measure to minimize impacts on forests. As stated in the final EIS, Mountain Valley will monitor revegetation efforts following restoration.²²¹ As stated in the final EIS response to Dr. Zipper's comments on the draft EIS, natural recruitment will allow for the regeneration of more highly variable plant species and trees best suited for local conditions.

204. Dr. Zipper also criticizes Commission staff's approval of Mountain Valley's *Exotic and Invasive Species Control Plan* and recommends handcutting of invasive species. However, as stated in the final EIS, Mountain Valley will adhere to the measures outlined in the Commission's Plan, which provides that “[r]evegetation in non-agricultural areas shall be considered successful if upon visual survey the density and cover of non-nuisance vegetation are similar in density and cover to adjacent undisturbed lands.” Based on our staff's experience monitoring revegetation efforts where the spread of invasive species was successfully limited, we conclude that Mountain Valley's *Exotic and Invasive Species Control Plan* would limit the spread of invasive species during revegetation.

205. A variety of wildlife species occupy the ecoregions and habitats crossed by the MVP and Equitans Expansion Projects. Construction of both projects may result in limited mortality for less mobile animals, such as small rodents, reptiles, amphibians, and invertebrates, that are unable to escape equipment. More mobile animals will likely be displaced to adjacent similar habitats during construction. Once the right-of-way is revegetated, it will be reoccupied by displaced wildlife.

206. Additionally, constructing the projects could disrupt bird courting, breeding, or nesting behaviors. Migratory birds, including Birds of Conservation Concern, are associated with the habitats that will be affected by both projects. Two Important Bird Areas will be crossed: 1) Bird Conservation Region 28 (Appalachian Mountains for both projects) and 2) Bird Conservation Region 29 (Piedmont for the MVP Project). Both Mountain Valley and Equitans developed *Migratory Bird Habitat Conservation Plans* to

²²¹ Final EIS at 4-180.

minimize impacts on bird species. In addition, Equitans has agreed to conduct tree clearing outside of the migratory bird nesting season (generally between April 15 and August). Mountain Valley will potentially conduct tree clearing in select areas during the migratory bird nesting season (during April, May, and August). Environmental Condition No. 27 of this order requires Mountain Valley to finalize its *Migratory Bird Habitat Conservation Plan* and address the comments of resource agencies. As a result, we agree with the final EIS's conclusion that the projects would not result in population-level impacts on migratory bird species.

207. The VADCR points out that Appendix N-15 (Recommended Seed Mixtures and Fertilizer/Mulch for Revegetation Mountain Valley Project – Virginia) in the final EIS lists different seed mixes than those listed in Mountain Valley's *Migratory Bird Conservation Plan* (Appendix D - Restoration and Rehabilitation Plan). We acknowledge that the two seed mix lists are different. Environmental Condition No. 27 of this order requires Mountain Valley to revise its *Migratory Bird Conservation Plan* in order to ensure that the seed mix in the plan matches the seed mix in the final EIS.

208. The Blue Ridge Land Conservancy expresses concerns about scenic views of Brush Mountain, the MVP Project's proximity to the Brush Mountain Wilderness, alterations of wildlife patterns resulting from the MVP Project, and the potential for the introduction of invasive species. Sections 4.4, 4.5, and 4.8 of the final EIS discuss these topics and conclude that the implementation of the measures outlined in the final EIS would minimize adverse effects.²²²

209. In conclusion, the final EIS finds, and we agree, that construction and operation of both projects would not significantly affect wildlife.

g. Threatened, Endangered, and Other Special Status Species

210. The final EIS identifies 23 federally-listed threatened or endangered species (or federal candidate species or federal species of concern) that will be potentially present in the vicinity of the projects.²²³ The final EIS concludes that the MVP Project will have no effect on two species; is not likely to adversely affect eight species; will have no adverse

²²² See also responses to Comments CO-7 and CO-31 in Appendix AA of the final EIS.

²²³ One species, the bog turtle, is not subject to section 7 consultation under the Endangered Species Act.

impacts anticipated for two species of concern;²²⁴ is not likely to contribute to a trend toward federal listing for three species; and is likely to adversely affect seven species (Indiana bat, northern long-eared bat, Roanoke logperch, running buffalo clover, shale barren rock cress, small whorled pogonia, and Virginia spiraea). The likely-to-adversely-affect determination for four of the seven species – the running buffalo clover, shale barren rock cress, small whorled pogonia, and Virginia spiraea – is based on Commission staff’s conservative assumption that these species are present in portions of the MVP Project corridor that Mountain Valley was not granted land access to survey. On July 10, 2017, Commission staff issued a Biological Assessment (BA), which was submitted to West Virginia and Virginia Field Offices of the FWS, that included a detailed assessment regarding the effects of the MVP Project on federally-listed species.

211. The final EIS concludes that the Equitans Expansion Project is not likely to adversely affect the two endangered bats assumed to be present in the vicinity of the project. The conclusion was based in part upon Equitans implementing avoidance and minimization measures outlined in the FWS-approved Myotid Bat Conservation Plan.

212. In response to our BA, the FWS stated, in a letter to the Commission dated August 4, 2017, that based on new information provided by Mountain Valley, it determined that the MVP Project is not likely to adversely affect shale barren rock cress and running buffalo clover. Commission staff agrees with the findings of the FWS for these two species.

213. However, because consultation with the FWS is not yet complete, Environmental Condition No. 28 of this order prohibits construction of the MVP Project until Commission staff completes the process of complying with the Endangered Species Act.

214. The projects could also affect 20 additional species that are state-listed as threatened, endangered, or were noted by the applicable state agencies as being of special concern. Based on implementation of the applicants’ proposed mitigation and the environmental conditions in the appendix of the order, we agree with the final EIS’s conclusion that impacts on special-status species will be adequately avoided or minimized.²²⁵

²²⁴ “Species of concern” is an informal term used by FWS to refer to species that have been identified as important to monitor, but do not have endangered, threatened or candidate status and thus receive no legal protection.

²²⁵ Final EIS at 4-250.

h. Land Use, Recreation, and Visual Resources

i. Land Use

215. Construction of the MVP Project would impact forest land (76.6 percent), agricultural land (14.6 percent), and open land, commercial, open water, and residential (approximately 8.7 percent). Construction of the Equitans Expansion Project would primarily impact the following land use types: agricultural (46.3 percent), forest (37.6 percent), and open land (12.5 percent). Both projects combined would affect about 1,023 acres of agricultural lands. Impacts on agricultural lands will be short-term, lasting during the period of construction and restoration and a few years later.

216. The applicants will compensate farmers for loss of agricultural production during the construction and restoration period. Following pipeline installation, the right-of-way will be restored to near pre-construction conditions and use, and agricultural practices could resume. Except for orchards, crops and pasture can be planted directly over the entire right-of-way. Mitigation measures typically implemented in agricultural lands (as specified in the Commission's Plan) include topsoil segregation, rock removal, soil decompaction, and repair/replacement of irrigation and drainage structures damaged by construction. Mountain Valley developed an *Organic Farm Protection Plan* that outlined measures that it will implement when crossing organic farms to reduce impacts.

217. Mountain Valley identified 118 residences within 50 feet of its proposed construction right-of-way. Site-specific residential mitigation plans for all residences within 50 feet of the construction right-of-way are included as Appendix H of the final EIS, as required by our regulations.²²⁶ Environmental Condition No. 30 of this order requires Mountain Valley to file landowner concurrence with the plans for all residences that will be within 10 feet of the construction work area. In addition, because the final EIS identified an additional residence within 20 feet from MP 216.6 since the issuance of the draft EIS, we also include as part of Environmental Condition No. 30 the requirement that Mountain Valley file a site-specific residential plan within 50 feet of this newly-identified residence.

218. The VADCR indicates that the final EIS incorrectly states that incorporation of the Canoe Cave Variation into the proposed route would avoid the Canoe Cave Conservation Site in Giles County, Virginia. We acknowledge the error and note that the proposed pipeline route will only cross the edges of the Canoe Cave Conservation Site. Further, as table 4.1.1-14 of the final EIS indicates, the pipeline centerline will be about 902 feet away from Canoe Cave.

²²⁶ See 18 C.F.R. § 380.12(j)(10) (2017).

219. The Virginia Outdoors Foundation, which manages land on behalf of Virginia, states that it initially identified the Wimmer Easement (tract MON-VOF-1871 at MP 234.2 in Montgomery County, Virginia) as land that it manages.²²⁷ Virginia Outdoors Foundation now clarifies that the MVP Project will not cross the Wimmer Easement. Therefore, we clarify that the MVP Project will not affect the Wimmer Easement.

220. The final EIS included a recommended condition, which would have required Mountain Valley provide documentation that WVDNR reviewed a crossing plan for the Burnsville Lake Wildlife Management Area. In a communication with Mountain Valley that was forwarded to Commission staff on August 22, 2017, a representative of the WVDNR who reviewed the final EIS clarified that the MVP Project will not cross any portion of the Burnsville Lake Wildlife Management Area that is owned or managed by the state of West Virginia. Instead, the only lands within the boundaries of the Burnsville Lake Wildlife Management Area that will be crossed by the pipeline are owned and managed by the Army Corps (i.e., Weston and Gauley Bridge Turnpike Trail). The BLM will cover Army Corps-owned lands in its future right-of-way grant to Mountain Valley. Therefore, we do not adopt recommended Environmental Condition No. 30 from section 5.2 of the final EIS.

ii. Recreation

221. Federally owned or managed recreational and special use areas that will be crossed by the MVP Project include the Weston and Gauley Bridge Turnpike Trail, the Blue Ridge Parkway, and the Jefferson National Forest. The Weston and Gauley Bridge Turnpike Trail is owned by the Army Corps, and will be crossed with a bore to avoid all surface impacts on the trail. The Blue Ridge Parkway is managed by the NPS, and will also be crossed with a bore. The MVP Project will cross the Appalachian National Scenic Trail and the Brush Mountain Inventoried Roadless Area, both within the Jefferson National Forest and managed by the Forest Service. Mountain Valley proposes to bore under the Appalachian National Scenic Trail, to avoid all surface impacts on the trail.

222. Congressman Beyer expresses concerns about impacts on the Appalachian National Scenic Trail. Section 4.8 of the final EIS discusses impacts on the Appalachian National Scenic Trail and measures Mountain Valley will implement to avoid, reduce, or mitigate those impacts.²²⁸

²²⁷ Citing Final EIS at 4-281.

²²⁸ Final EIS at 4-311 to 4-313.

223. The MVP Project will pass through the Jefferson National Forest for a total of 3.5 miles in three segments between MPs 196.2 and 197.8, MPs 218.5 and 219.4, and MPs 219.8 and 220.8 in Monroe County, West Virginia, and Giles and Montgomery Counties, Virginia. As listed on table 1.3-1 of the final EIS, the MVP Project will affect about 83 acres in the Jefferson National Forest during construction and 42 acres during operation.²²⁹ The Jefferson National Forest operates under a Land and Resource Management Plan (LRMP).²³⁰ The Forest Service analyzed the information provided by Mountain Valley and is amending its LRMP to allow for the MVP Project to be sited within the Jefferson National Forest. On June 23, 2017, the Forest Service issued a draft record of decision for the use and occupancy of the Jefferson National Forest for the MVP Project. The public objection period on the draft record of decision closed on September 21, 2017. After resolving the objections, the Forest Service will issue a final decision on the respective authorization before it. Mountain Valley will implement the measures outlined in its Plan of Development, pending approval by the Forest Service, and its *Construction, Operation, and Maintenance* Plan to minimize the impacts on National Forest resources.

224. The Equitans Expansion Project will not cross any federally designated Wild and Scenic Rivers, National Parks, National Trails, National Landmarks, federal or state designed Wilderness Areas, national or state forests, wildlife refuges, natural preserves or game management areas, Indian reservations, or state or county parks or recreation areas. However, because the Riverview Golf Course will be crossed as a result of the Cline Variation that Equitans incorporated into its proposal, we include Environmental Condition No. 37 requiring Equitans to file a crossing plan and documentation that the landowners have reviewed it.

iii. Visual Resources

225. Mountain Valley conducted visual impact assessments for the Weston and Gauley Bridge Turnpike Trail, Blue Ridge Parkway, Appalachian National Scenic Trail, and the Jefferson National Forest.

226. Based on the visual impact assessments, the final EIS concludes that the MVP Project will not have significant adverse visual impacts on the Weston and Gauley Bridge Turnpike Trail, Blue Ridge Parkway, Appalachian National Scenic Trail, or the Jefferson National Forest.

²²⁹ Final EIS at 1-14.

²³⁰ The LRMP was prepared pursuant to 16 U.S.C. § 1604(e) (2012) and is available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3834582.pdf.

227. We agree with the final EIS's conclusion that, with adherence to the applicants' proposed impact avoidance, minimization, and mitigation plans, and implementation of the environmental conditions in the appendix of this order, the overall impacts on land use will be adequately minimized.²³¹

i. **Socioeconomics**

i. **Property Values, Mortgages, and Insurance**

228. Commenters expressed concerns regarding the potential effect of the projects on property values, mortgages, and homeowners insurance. Several commenters provided anecdotes about property values and public surveys and opinion polls about perceived reductions of property values. However, anecdotes, public surveys, or opinion polls do not constitute substantial evidence that natural gas projects decrease property values. Accordingly, we conclude here, as we have in other cases, that the proposed project is not likely to significantly impact property values in the project areas.²³²

229. A few landowners claim that prospective property buyers cannot obtain mortgages when property is encumbered by a pipeline easement. However, the evidence they provide is an article about natural gas drilling, not natural gas transmission; thus, it does not support their contention. The final EIS also states that banks regularly issues mortgages, including loans from the Veterans Administration and Federal Housing Administration, for properties encumbered with pipeline easements.²³³ The final EIS found no evidence that banks or federal lenders refused to lend to prospective purchasers of property encumbered with a pipeline easement.²³⁴

230. With regard to concerns expressed by commenters regarding the ability to obtain homeowner's insurance, our staff has researched this extensively and has found little evidence that owners of property encumbered with pipeline easements were unable to obtain homeowner's insurance.²³⁵ The final EIS finds that insurance companies do not

²³¹ Final EIS at 4-347.

²³² See, e.g., *Transco*, 158 FERC ¶ 61,125, at P 106 (2017); *Central New York Oil & Gas Co., LLC*, 116 FERC ¶ 61,277, at P 44 (2006).

²³³ Final EIS at 4-367 and 4-392.

²³⁴ Final EIS 4-368.

²³⁵ Final EIS at 4-367, 4-368, and 4-392. See also *Transco*, 158 FERC ¶ 61,125 at PP 107-108.

consider the presence of natural gas pipeline when underwriting homeowner's insurance policies.²³⁶ Nonetheless, Mountain Valley and Equitans have agreed to document, track, investigate, and report to the Commission every quarter for a period of two years following in-service, complaints from any affected landowners whose insurance policy was cancelled or materially increased in price as a direct result of the projects.²³⁷ The applicants have committed to consider any potential mitigation on a case-by-case basis, and address resolutions in quarterly reports to the Commission.²³⁸

231. Based on the foregoing, we agree with the final EIS's conclusion that the projects would not have significant adverse impacts on property values, mortgages, or insurance.

ii. Environmental Justice

232. Executive Order 12898 requires that specified federal agencies make achieving environmental justice part of their missions by identifying and addressing, as appropriate, disproportionately high and adverse human or environmental health effects of their programs, policies, and activities on minorities and low income populations.²³⁹ Executive Order 12898 applies to the agencies specified in section 1-102 of that order. This Commission is not one of the specified agencies, and the provisions of Executive Order 12898 are not binding on this Commission. Nonetheless, in accordance with our usual practice, the final EIS addresses this issue and concludes that the proposed projects will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations.²⁴⁰

233. In its guidance to implement Executive Order 12,898, CEQ instructs that low-income populations be identified with annual statistical poverty thresholds from the

²³⁶ Final EIS at 4-392.

²³⁷ *Id.* at 4-393.

²³⁸ *Id.*

²³⁹ Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Executive Order 12,898 (Feb. 11, 1994), reprinted at 59 Fed. Reg. 7629.

²⁴⁰ See sections 4.9.1.8 and 4.9.2.8 of the final EIS.

Bureau of the Census.²⁴¹ Minority groups compose of American Indian or Alaska Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.²⁴² Further, minority populations are identified where either the minority population of the affected area exceeds 50 percent or the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.²⁴³

234. Relying on census data, the final EIS finds no counties or census blocks in the project areas that have minority populations exceeding 50 percent or have minority populations meaningfully greater than the minority population percentage in the respective states.²⁴⁴ The final EIS identifies low-income populations within the MVP and Equitans Expansion Project areas.²⁴⁵ However, the projects would not result in disproportionate adverse health or environmental impacts on any low-income community because, as discussed in the final EIS, water and air quality would not be significantly affected.²⁴⁶

235. As we have stated in prior cases, the siting of linear facilities between two fixed end points is generally based on environmental and engineering factors.²⁴⁷ Along the way, Mountain Valley selected its pipeline route to take advantage of ridgeline alignments, avoid sensitive natural resources (where possible), and avoid major population centers. The pipeline route mostly crosses rural regions with relatively low population densities. By avoiding metropolitan areas, the MVP Project should reduce impacts on communities with high percentages of minorities, low-income populations,

²⁴¹ CEQ, *Environmental Justice Guidance Under the National Environmental Policy Act*, at 25 (Dec 1997) (CEQ Environmental Justice Guidance), https://www.epa.gov/sites/production/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf. The final EIS relies on the poverty line established by the U.S. Department of Health and Human Services: an individual income of \$11,880 and a family of five income of \$28,440 in 2016. Final EIS at 4-374.

²⁴² CEQ Environmental Justice Guidance at 25.

²⁴³ *Id.*

²⁴⁴ Final EIS at 4-399.

²⁴⁵ Final EIS at 4-373 to 4-378.

²⁴⁶ Final EIS at 4-400.

²⁴⁷ See, e.g., *Florida Southeast Connection, LLC*, 154 FERC ¶ 61,080 at P 262.

and other vulnerable populations. Therefore, we conclude that environmental justice communities would not be significantly affected by the projects.

iii. **Tourism, Transportation, and Housing**

236. Commenters identify construction traffic, restriction of access to tourist attractions, limitations on business opportunities, and competition for accommodations as potential issues.

(a) **Tourism**

237. While construction of the projects will overlap with the peak tourist season, between May and October, the construction in most of the recreational use areas will take only a few weeks. Therefore, the final EIS concludes, and we agree, that the MVP Project would not have significant adverse impacts on specific federally-managed recreational areas in the region, including the Weston and Gauley Bridge Turnpike Trail, Blue Ridge Parkway, Appalachian National Scenic Trail, and the Jefferson National Forest.²⁴⁸ Likewise, the final EIS also concludes, and we agree, that the Equitans Expansion Project would not have a significant adverse impact on housing, tourism, or recreation in the project area.²⁴⁹

(b) **Transportation**

238. Commenters were also concerned about the MVP Project's impacts on local roads. The Virginia Department of Transportation submitted comments on the MVP Project on July 19, 2017, recommending Mountain Valley to continue to coordinate with the agency, conduct detours at times to minimize impacts, and provide signage to alert the public to utility work and detours. The Lynchburg District of the Virginia Department of Transportation also commented on the final EIS, stating that a Virginia Department of Transportation project along U.S. Route 29 in Pittsylvania County, Virginia is planned for the period from 2017 through 2018. In addition, road repaving is ongoing in the Lynchburg District.

239. Transportation and traffic issues are discussed in sections 4.9.1.5 and 4.9.2.5 of the final EIS. Mountain Valley prepared a *Traffic and Transportation Management Plan* that was reviewed by Virginia Department of Transportation. Mountain Valley will obtain permits from Virginia Department of Transportation prior to crossing roads in Virginia. Equitans also prepared a *Traffic and Transportation Management Plan* for West Virginia and Pennsylvania and will obtain road crossing and encroachment permits from

²⁴⁸ Final EIS at 4-389 to 4-392.

²⁴⁹ Final EIS at 4-308, 4-321, and 4-389.

the West Virginia Department of Transportation and highway occupancy permits from the Pennsylvania Department of Transportation. Mountain Valley and Equitans will restore all roads to their pre-construction condition and will coordinate with state and local authorities to obtain the required permits to operate trucks on public roads. As a result, the final EIS finds, and we agree, that the MVP Project would result in temporary to short-term impacts on transportation infrastructure and that the Equitans Expansion Project would not have significant adverse impacts on transportation infrastructure.²⁵⁰

240. Mountain Valley filed a response to recommended Environmental Condition No. 16 in the final EIS, which recommended that Mountain Valley provide an access plan for the right-of-way between MP 237.6 and 240.3 to avoid using proposed access road MVP-RO-279.01. The purpose of this recommendation was to avoid Virginia Outdoor Foundation's open space easement ROA-2563/MON-2563, and minimize impacts on environmental resources and landowners.²⁵¹

241. Mountain Valley contends that access road MVP-RO-279.01 is needed to increase project safety, because of topography in the area. Without use of the road, Mountain Valley contends that it would only have two options. The first involves the use of additional winching. Specifically, Mountain Valley identifies three steeply-sloped areas along the right-of-way that would require up to 10 winch tractors daisy chained together to move a single load of materials, equipment, fuel, or personnel up and down the slopes. Without the use of access road MVP-RO-279.01. Mountain Valley contends that more than 700 additional winch loads would be necessary to transport the required materials, equipment, fuel, and workers along the right-of-way during construction using this chain technique. Mountain Valley contends that the number and complexity of these winching processes create safety concerns. In addition, the required winching is purportedly an extremely slow process that increases the amount of time that Mountain Valley is actively constructing in the area. This, in turn, could increase environmental impacts and safety risks in the area.

242. Mountain Valley states its second alternative is to transport pipe and certain materials to the right-of-way using helicopters. Mountain Valley contends that this could double the number of loads and increase noise impacts on surrounding properties for a much longer period of time. Similar to the winching processes, Mountain Valley believes that using helicopters to bring pipe and equipment to the right-of-way is an extremely slow process that increases the amount of time that Mountain Valley is actively constructing in the area, which increases environmental impacts and safety risks in the area.

²⁵⁰ Final EIS at 4-389 to 4-392.

²⁵¹ Final EIS at 3-75 to 3-76.

243. Finally, Mountain Valley points out that without the use of access road MVP-RO-279.01, it could take up to two additional hours for emergency responders to reach an injured worker on the right-of-way. Similarly, without use of the road, access to repair a section of the pipeline during operation of the MVP Project would be slowed.

244. As stated in the final EIS, the impact of the access road would affect about 0.62 acre. Mountain Valley now proposes to reduce those impacts to 0.32 acre by limiting the width of the road improvements. Mountain Valley now proposes to limit the width of the road to 15 feet in straight sections and 20 feet on curved portions, and narrow additional workspaces to 20 feet on straight sections and 30 feet on curved portions. Mountain Valley will mitigate the impacts by acquiring about 10.25 acres of undisturbed high-quality forest adjacent to the Poor Mountain Natural Area Preserve and providing it to the VOF as compensatory mitigation.

245. We find Mountain Valley's request to use access road MVP-RO-279.01 reasonable because it would improve and ensure project safety. Thus, we include Environmental Condition No. 17 and a modified Environmental Condition No. 16 to this order, to allow use of the road, but require that Mountain Valley incorporate its proposed modifications to minimize impacts.

(c) **Housing**

246. The projects may have temporary impacts on local housing. The influx of non-local construction workers could affect local housing availability, as they compete with visitors for limited accommodations in rural areas with few hotels. Peak non-local employees working on the MVP Project would average between 536 and 671 people per construction spread; with a total of 11 spreads. The total peak workforce for the Equitans Expansion Project, including pipelines and aboveground facilities, would be about 400 people. Non-local construction workers would need to find housing in vacant rental units, including houses, apartments, mobile home parks, hotels/motels, and campgrounds and recreational vehicle parks. The final EIS estimates that the housing stock in the affected counties of West Virginia would include 1,913 rental units, 5,202 hotel/motel rooms, and 2,704 recreational vehicle spaces; while the counties crossed in Virginia have about 1,986 rental units, 6,548 hotel/motel rooms, and 321 recreational vehicle spaces. In those counties where housing is limited, workers would likely find accommodations at adjacent larger communities that are within commuting distance, bring their own lodgings in the form of recreational vehicles, or share units. For the MVP Project, construction workers would be spread out along 11 separate pipeline spreads and 7 aboveground facilities across 17 counties. While it would take about 2.5 years to build the MVP Project, the average worker would only be on the job for about 10 months for the pipeline and 8 months for aboveground facilities. The final EIS

concludes, and we agree, that the projects should not have significant long-term adverse impacts on housing.²⁵²

j. **Cultural Resources**

i. **Historic Districts**

247. The final EIS states that the MVP Project will cross seven Historic Districts: (1) Big Stony Creek Historic District, (2) Greater Newport Rural Historic District, (3) North Fork Valley Rural Historic District, (4) Bent Mountain Rural Historic District, (5) Blue Ridge Parkway Historic District, (6) Coles-Terry Rural Historic District, and (7) the Lynchburg and Danville Railroad Historic District.²⁵³ The Virginia Department of Historic Resources, representing the State Historic Preservation Office (SHPO), states that the Lynchburg and Danville Railroad Historic District is not eligible for inclusion in the National Register of Historic Properties (National Register) and therefore will not be affected by the MVP Project; and Commission staff agrees.²⁵⁴ The Virginia Department of Historic Resources indicated that the MVP Project would have adverse effects on the Big Stony Creek Historic District, Greater Newport Rural Historic District, North Fork Valley Rural Historic District, Bent Mountain Rural Historic District, and Coles-Terry Rural Historic District because visual impacts will diminish the feelings and settings of these historic districts.²⁵⁵ Commission staff agrees with the determination of the Virginia Department of Historic Resources.

248. The Equitans Expansion Project does not cross any Historic Districts.

249. In comments on the final EIS, Preserve Roanoke raises concerns about the Blue Ridge Parkway Historic District and the Coles-Terry Rural Historic District. Preserve Roanoke indicates that construction of the MVP Project could result in visual impacts on the Blue Ridge Parkway Historic District that would impair its historic and cultural values. The Blue Ridge Parkway Historic District is discussed in section 4.10.7 of the final EIS, which states that the District is listed on the National Register. The final EIS also states that Mountain Valley filed a visual impact assessment for the Blue Ridge Parkway Historic District in February 2017. Based on that assessment, Mountain Valley

²⁵² Final EIS at 4-447.

²⁵³ Final EIS 4-447.

²⁵⁴ See section 4.10.7.1 of the final EIS.

²⁵⁵ See July 5, 2017 Letter from the Virginia Department of Historic Resources to Mountain Valley (filed July 20, 2017).

concluded that there would be no significant adverse impacts on the visual resources associated with the Blue Ridge Parkway Historic District at the crossing of the MVP Project. The Blue Ridge Parkway, however, is managed by the NPS which has not yet concurred on the visual impact assessments. In accordance with Environmental Condition No. 15 of this order, visual impacts related to the Blue Ridge Parkway Historic District will be fully identified and appropriate mitigation will be developed, to the extent necessary, once the NPS and the Virginia Department of Historic Resources file their opinions.²⁵⁶

250. Preserve Roanoke also contends that the Roanoke River contributes to the historic integrity of the Coles-Terry Rural Historic District. However, the Roanoke River is a geographic feature and not a cultural resource.

251. The Counties, in comments on the final EIS, also raise concerns about potential project-related effects on the Greater Newport Rural Historic District, Newport Historic District, Blue Ridge Parkway Historic District, Coles-Terry Rural Historic District, and the Bent Mountain Rural Historic District. These Historic Districts are discussed in section 4.10.7.1 of the final EIS. The Newport Historic District, Greater Newport Historic District, and Blue Ridge Parkway Historic District are already listed on the National Register. The final EIS states that the Coles-Terry Rural Historic District and Bent Mountain Rural Historic District are eligible for the National Register. The MVP Project will be outside the boundaries of the Newport Historic District and will not affect that District.

252. On August 28, 2017, after the final EIS was issued, Mountain Valley filed Treatment Plans with the Commission to resolve adverse effects on the Big Stony Creek Historic District, Greater Newport Rural Historic District, North Fork Valley Rural Historic District, Bent Mountain Rural Historic District, and Coles-Terry Rural Historic District. Mountain Valley also submitted these plans to the Virginia Department of Historic Resources. Environmental Condition No. 15 of this order will ensure future consultations with the SHPOs and reviews of treatment plans.

ii. Previously Recorded Cultural Resources

253. The final EIS identifies two previously-recorded historic properties²⁵⁷ in the direct area of potential effect (150 feet from work areas) for the Equitans Expansion Project's

²⁵⁶ Final EIS at 4-442 to 4-443.

²⁵⁷ Historic properties include prehistoric or historic sites, districts, buildings, structures, objects, or properties of traditional religious or cultural importance that are listed or eligible for listing on the National Register, in accordance with 36 C.F.R. § 60.4 (2017). See final EIS at 1-41.

H-318 pipeline: (1) the Monongahela River Navigation System and (2) the Pittsburgh and Lake Erie Railroad. Equitans will use an HDD to cross under the river and railroad to avoid impacts on these two historic properties.

254. In Braxton County, West Virginia, Mountain Valley identified one previously-recorded National Register-listed site (Weston and Gauley Bridge Turnpike Trail [NR#98001430]) in the direct area of potential effect, and intends to bore under the site. The West Virginia Department of Culture and History, representing the SHPO, states that this would result in no adverse effects. Commission staff agrees with this determination.

255. Mountain Valley identified one previously recorded archaeological site (44MY54) and three previously-recorded historic sites (Appalachian National Scenic Trail, Elijah Henry House, and Flora Farm) in the direct area of potential effect in Virginia that are eligible for the National Register. Commission staff and the Virginia Department of Historic Resources agree that the MVP Project would have no adverse effects on those sites.

256. James and Karen Scott (Scotts) state that supplemental materials filed by Mountain Valley on June 30, 2017, after the EIS was issued, misrepresent historic sites on their property, including the Elijah Henry House. Mountain Valley's June 30, 2017 filing indicates that the proposed MVP Project would be 425 feet from the Elijah Henry House, while the final EIS states that the pipeline would be about 139 feet away from the site. In a filing on September 5, 2017, Mountain Valley clarifies that the Elijah Henry House is located about 144 feet away from a proposed access road for the MVP Project. The final EIS states that the Elijah Henry House is eligible for the National Register, and may be considered a contributing resource to the Coles-Terry Rural Historic District. The Virginia Department of Historic Resources found, and Commission staff agrees, that the MVP Project will have no adverse effects on the Elijah Henry House.²⁵⁸

257. The Scotts claim that Mountain Valley's consultant misidentified the Elijah Henry Spring House as a "shed," and failed to record a root cellar at the site. As discussed in the final EIS, the Virginia Department of Historic Resources accepted the cultural reports that described the site, and made an assessment of eligibility and effects. In any case, the distinction the Scotts draw does not change our analysis.

258. The Scotts state that the pipeline would cross the Elijah Henry Spring House water line. The Spring House is outside the area of potential effect and will not be affected by the MVP Project. As indicated in the final EIS, Mountain Valley will attempt to install

²⁵⁸ Final EIS at 4-446.

its pipeline below existing foreign utilities.²⁵⁹ Therefore, Mountain Valley is expected to install its pipeline below the Spring House water line to avoid impacts.

iii. Newly-Recorded Cultural Resource Sites

259. The final EIS indicates that a total of 282 newly-recorded archaeological sites and 116 historic architectural sites have been identified in the direct area of potential effect for the MVP Project, outside of Historic Districts.²⁶⁰ Based on Mountain Valley's cultural resources investigations reports, the final EIS determines that 220 of the newly-recorded archaeological sites and 107 of the newly-recorded historic architectural sites in the direct area of potential effect are not eligible for the National Register, are not historic properties, and require no additional evaluation. A total of 46 newly-recorded archaeological sites are unevaluated and avoidance of these sites was recommended. The final EIS concludes that, for the entire MVP Project, eleven newly-recorded archaeological sites and seven newly recorded historic architectural sites have been evaluated as eligible for nomination to the National Register.

260. Of the total of 18 National Register-eligible newly recorded resources in the direct area of potential (outside of Historic Districts) for the entire MVP Project discussed in the final EIS, eight archaeological sites and two historic architectural sites are located in West Virginia. Mountain Valley's cultural resources consultants recommended that the MVP Project would have either no effect or no adverse effects on the eligible historic architectural sites in West Virginia. Mountain Valley intends to avoid four of the eligible archaeological sites in West Virginia. In the case of the four other eligible archaeological sites in West Virginia, Mountain Valley indicated that significant data were already recovered, and recommended a finding of no adverse effects. Three archaeological sites and five historic architectural sites found to be eligible in the final EIS are located in Virginia. Mountain Valley intends to avoid the three eligible archaeological sites in Virginia. Mountain Valley's cultural resources consultants recommended that the MVP Project will have no adverse effects on the eligible historic architectural sites in Virginia. Commission staff concludes that the MVP Project will have no effect on sites that are avoided. No additional work will be required at historic properties where the MVP Project will have no effect or no adverse effects.

261. After the issuance of the final EIS, the West Virginia Division of Culture and History, made a finding that three National Register-listed or eligible historic architectural sites in West Virginia (Underwood Farmstead [LE-150], St. Bernard's Church [NR#85001583], and Losch Farmstead [BX-351] will be adversely effected by the MVP Project. On September 18, 2017, Mountain Valley filed Treatment Plans to

²⁵⁹ Final EIS at 2-48.

²⁶⁰ Final EIS at 4-479.

mitigate adverse effects at these three historic architectural sites, and the plans are being reviewed by the West Virginia SHPO. Also after the final EIS was issued, the Virginia Department of Historic Resources found that the MVP Project will have adverse effects on three archaeological sites in the Virginia (44GS241, 44RN400 and 44RN401). Mountain Valley filed Treatment Plans to mitigate adverse effects at those three archaeological sites, to be reviewed by the Virginia SHPO.

262. The Scotts also comment on impacts of the MVP Project on the Henry-Waldron Cemetery. The final EIS states that Mountain Valley will avoid the cemetery. Mountain Valley's historic architectural consultant recommended that the Henry-Waldron Cemetery is not individually eligible for the National Register, but could be considered a contributing element to the Coles-Terry Rural Historic District.²⁶¹ The Virginia Department of Historic Resources agreed with the consultant's recommendations for the Henry-Waldron Cemetery in a June 27, 2017 letter accepting the consultant's report.²⁶² Mountain Valley's Treatment Plan for the Coles-Terry Rural Historic District indicates that the Henry-Waldron Cemetery is about 20 feet away from the construction limits for proposed Access Road MVP-EO-281. Mountain Valley will fence the cemetery to avoid impacts.

263. A minor route variation for the Scotts parcel was evaluated in section 3.5 of the final EIS. As stated in table 3.5.3-1 of the final EIS, desktop analysis showed a minor route deviation to address the Scotts' concerns is feasible, but would shift the route onto the properties of adjacent landowners. The minor route deviation was part of a larger route variation (the Poor Mountain Variation), which the final EIS concludes does not offer a significant environmental advantage when compared to the corresponding proposed route segment.²⁶³

264. Preservation Virginia expresses concerns about potential project impacts on pre-contact archaeological sites 44FR240, 372, 392, 398, 399, and 400, in Franklin County, Virginia. Preservation Virginia recommends additional archaeological test excavations at these sites.

265. Preservation Virginia acknowledges, however, that archaeological site 44FR240 is outside of the area of potential effect. Therefore, that site will not be affected by the MVP Project. In addition, the final EIS indicates that archaeological sites 44FR398, 399,

²⁶¹ Final EIS at 4-463.

²⁶² Filed with the FERC by Mountain Valley on June 30, 2017, after the issuance of the final EIS.

²⁶³ Final EIS at 3-80.

and 400 were evaluated as not eligible for the National Register based on a December 2016 survey report, and a determination which the Virginia Department of Historic Resources concurred with. Thus, no further investigations are necessary for those sites. Finally, because archaeological sites 44FR372 and 392 are eligible for the National Register, Mountain Valley proposes to avoid those sites.²⁶⁴

266. The Counties claim that the Commission did not directly consult with them regarding findings of eligibility and effects for cultural resources identified in the areas of potential effect within those counties.

267. We disagree. The Counties were sent copies of both the draft EIS and the final EIS. Those documents present the findings of the Commission staff regarding identification of historic properties and assessment of effects. Commission staff addresses the comments of the Counties on the draft EIS in Appendix AA of the final EIS.²⁶⁵

268. During surveys for the Equitans Expansion Project, Equitans' consultant identified six new archaeological sites within the direct area of potential effect and 115 historic architectural sites within the indirect area of potential effect (0.25-mile from the pipeline), all of which were evaluated as not eligible for the National Register. We have, however, included Environmental Condition No. 36 to this order to require Equitans to file the results of cultural resource surveys for the New Cline Variation, which Equitans incorporated into its proposal, prior to construction.

iv. Conclusion

269. The entire process of compliance with section 106 of the National Historic Preservation Act has not yet been completed for the projects. The applicants will need to conduct surveys and evaluation studies at areas where access was previously denied. Commission staff has not yet finished consultations with the SHPOs. If the Commission staff determines that any historic properties will be adversely affected, staff will notify the Advisory Council on Historic Preservation, and consult with appropriate consulting parties regarding the production of an agreement document to resolve adverse effects, in accordance with 36 C.F.R. § 800.6. Therefore, Environmental Condition No. 15 of this order restricts construction until after all additional required surveys and evaluations are completed, survey and evaluation reports and treatment plans have been reviewed by the

²⁶⁴ Final EIS at 4-463 to 4-465.

²⁶⁵ See responses to Comments LA4, LA7, LA2, and LA15 in Appendix AA of the final EIS.

appropriate consulting parties, the Advisory Council on Historic Preservation has had an opportunity to comment, and the Commission has provided written notification to proceed.

k. Air Quality and Noise Impacts

i. Air Quality

270. Air quality impacts associated with construction of the proposed projects will include emissions from construction equipment and fugitive dust. The final EIS concludes that such air quality impacts will generally be temporary and localized, and are not expected to cause or contribute to a violation of applicable air quality standards.

271. Operational emissions will be mainly generated by the four new compressor stations proposed for the projects. Mountain Valley submitted applications for construction and operation of the Bradshaw, Harris, and Stallworth Compressor Stations to the WVDEP and received construction permits. Equitans' application for construction and operation of the Redhook Compressor Station is pending at the PADEP. All the compressor stations will be minor sources with respect to Prevention of Significant Deterioration and New Source Review under the Clean Air Act.

272. The Clean Air Act Title V permit program, as described in 40 C.F.R. Part 70, requires sources of air emissions to obtain federal operating permits if their criteria pollutant emissions reach or exceed the Title V major source threshold. The new Bradshaw Compressor Station will exceed the Title V major source threshold for nitrogen oxide and carbon monoxide. Therefore, Mountain Valley is required to file a Title V permit application with the WVDEP within 12 months of startup of operations of the Bradshaw Compressor Station. The Harris, Stallworth, and Redhook Compressor Stations will not exceed the major source emissions thresholds or be subject to a Title V operating permit.

273. As stated in the final EIS, minimization of operational air pollutant emissions from the projects' compressor stations, including greenhouse gases (GHG), will be achieved by operating the most efficient turbines available, installing best available technology, adhering to good operating and maintenance practices on turbines and combustion engines, and adhering to applicable federal and state regulations designed to reduce emissions. The screening analyses conducted for Mountain Valley's and Equitans' compressor stations show criteria air pollutant concentrations are below the applicable National Ambient Air Quality Standards.

274. Mr. Workman asserts that the final EIS did not quantify GHGs. The EIS does quantify GHG emissions in table 4.13.2-2, and GHGs are further discussed in sections 4.11 and 4.13.

275. Based on the foregoing reasons, the final EIS concludes, and we agree, that emissions resulting from operation of the compressor stations will not result in significant impacts on local or regional air quality.²⁶⁶

ii. Noise Impacts

276. Noise levels are quantified according to decibels (dB), which are units of sound pressure. The A-weighted sound level, expressed as dBA, is used to quantify noise impacts on people. Sound level increases during pipeline construction will be intermittent and will generally occur during daylight hours, with the possible exception of some HDD activities. Construction equipment noise levels will typically be around 85 dBA at a distance of 50 feet. Blasting may be necessary to trench through shallow bedrock. Blasting noise levels have been documented at about 94 dBA at a distance of 50 feet. Noise impacts during construction will be transient as pipe installation progresses from one location to the next. HDD operations at the entry and exit locations will result in high noise levels at the source location. Typically, noise from HDD are estimated to be about 90 dBA at 50 feet. Therefore, Environmental Condition No. 38 of this order requires, prior to construction at HDD locations, Equitans to file plans outlining measures to be implemented to reduce the projected noise level increases attributable to the proposed drilling operations at noise sensitive areas (NSA).

277. As stated in the final EIS, the applicants modeled noise levels at NSAs near each compressor station 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. Increases over existing ambient noise levels will be barely noticeable, ranging from 0.1 dBA to 3 dBA. Environmental Condition Nos. 40 and 41 of this order requires the applicants to file the results of noise surveys during operation of the compressor stations, and if noise exceeds the day-night sound level of 55 dBA at any NSA, the applicants must install additional noise controls and refile noise survey results within one year.

I. Safety

278. Commenters questioned the safety of the projects. The final EIS states that the project facilities must be designed, constructed, operated, and maintained to meet or exceed the DOT's Minimum Federal Safety Standards²⁶⁷ and other applicable federal and state regulations. These regulations include specifications for material selection and

²⁶⁶ Final EIS at 4-515-516.

²⁶⁷ See 49 C.F.R. pt. 192 (2017).

qualification; minimum design requirements; and protection of the pipeline from internal, external, and atmospheric corrosion.

279. The final EIS concludes that the projects provide a safe, reliable means of transporting natural gas. The low number of incidents distributed over the more than 300,000 miles of natural gas transmission pipelines indicates that the risk is minimal for an incident at any given location. The final EIS concludes, and we agree, that the projects do not represent a significant safety risk to the public.²⁶⁸

280. We also received comments expressing concern that the projects may become a target for a future act of terrorism. The likelihood of future acts of terrorism or sabotage occurring along the project or at any of the myriad natural gas pipeline or energy facilities throughout the United States is unpredictable given the disparate motives and abilities of terrorist groups. Further, the Commission, in cooperation with other federal agencies, including the U.S. Department of Homeland Security, industry trade groups, and interstate natural gas companies, is working to improve pipeline security practices, strengthen communications within the industry, and extend public outreach in an ongoing effort to secure pipeline infrastructure. In accordance with the DOT surveillance requirements, the applicants will incorporate air and ground inspection of its proposed facilities into its inspection and maintenance program. In addition, the applicants propose security measures at the new aboveground facilities that will include secure fencing.

m. Cumulative Impacts

281. A number of commenters generally argue that the final EIS's discussion of the cumulative impacts of the projects is inadequate.

282. CEQ defines "cumulative impact" as "the impact on the environment which results from the incremental impact of the action [being studied] when added to other past, present, and reasonably foreseeable future actions . . .".²⁶⁹ The requirement that an impact must be "reasonably foreseeable" to be considered in a NEPA analysis applies to both indirect and cumulative impacts.

283. The "determination of the extent and effect of [cumulative impacts], and particularly identification of the geographic area within which they may occur, is a task assigned to the special competency of the appropriate agencies."²⁷⁰ CEQ has explained

²⁶⁸ Final EIS at 4-573.

²⁶⁹ 40 C.F.R. § 1508.7 (2017).

²⁷⁰ *Kleppe*, 427 U.S. at 413.

that “it is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that are truly meaningful.”²⁷¹ Further, a cumulative impact analysis need only include “such information as appears to be reasonably necessary under the circumstances for evaluation of the project rather than to be so all-encompassing in scope that the task of preparing it would become either fruitless or well-nigh impossible.”²⁷² An agency’s analysis should be proportional to the magnitude of the environmental impacts of a proposed action; actions that will have no significant direct and indirect impacts usually require only a limited cumulative impacts analysis.²⁷³

284. In considering cumulative impacts, CEQ advises that an agency first identify the significant cumulative effects issues associated with the proposed action.²⁷⁴ The agency should then establish the geographic scope for analysis. Next, the agency should establish the time frame for analysis.²⁷⁵ Finally, the agency should identify other actions that potentially affect the same resources, ecosystems, and human communities that are affected by the proposed action.²⁷⁶ As noted above, CEQ advises that an agency should relate the scope of its analysis to the magnitude of the environmental impacts of the proposed action.²⁷⁷

285. Commission staff defined the geographic scope for its analysis of cumulative impacts on specific environmental resources to include projects/actions within the watersheds crossed by the projects for cumulative impacts on water resources and wetlands, vegetation, land use, and wildlife; cumulative impacts on air quality were evaluated within the Air Quality Control Regions (AQCR) where compressor stations are located; cumulative noise impacts on NSAs within 1 mile of compressor stations;

²⁷¹ CEQ, *Considering Cumulative Effects Under the National Environmental Policy Act* at 8 (January 1997) (1997 Cumulative Effects Guidance).

²⁷² *Id.*

²⁷³ See CEQ, *Memorandum on Guidance on Consideration of Past Actions in Cumulative Effects Analysis* at 2-3 (June 2005).

²⁷⁴ 1997 Cumulative Effects Guidance at 11.

²⁷⁵ *Id.*

²⁷⁶ *Id.*

²⁷⁷ CEQ, *Memorandum on Guidance on Consideration of Past Actions in Cumulative Effects Analysis* at 2 (June 2005).

cumulative impacts on visual resources within 0.25-mile of the pipelines; and cumulative impacts on cultural resources at the county level.

286. The types of other projects, in addition to the MVP and Equitans Expansion Projects, considered by Commission staff that could potentially contribute to cumulative impacts on a range of environmental resources include other Commission-jurisdictional natural gas interstate transportation projects; non-jurisdictional pipelines and gathering systems; oil and gas exploration and production activities; mining operations; transportation or road projects; commercial/residential/industrial and other development projects; and other energy projects, including power plants or electric transmission lines. The MVP Project will cross 31 watersheds, and the Equitans Expansion Project will cross 3 watersheds. The 33 watersheds cover a combined total of 4,557,727 acres (about 7,121 square miles).²⁷⁸ The projects will account for about 6,487 acres of impacts (0.1 percent) within these watersheds, while other projects located within the same watersheds account for 83,722 acres (1.8 percent) of impact.²⁷⁹ The final EIS concludes, and we agree, that when added to other past, present, and reasonably foreseeable future actions, the projects will not result in significant adverse cumulative impacts on environmental resources.²⁸⁰

n. Downstream Greenhouse Gas Emissions

287. Sierra Club²⁸¹ argues that because of the recent decision by the D.C. Circuit Court of Appeals in *Sierra Club v. FERC*²⁸² the Commission should reopen the record in this proceeding and issue a supplemental EIS to address greenhouse gas (GHG) emissions and impacts on climate change as a result of the end-use consumption of the natural gas transported by the pipeline. Sierra Club asserts that, although the final EIS estimated downstream GHG emissions from combustion of the transported natural gas, the final

²⁷⁸ The Fishing Creek watershed contains parts of both projects.

²⁷⁹ As indicated in the final EIS, the footprint of other projects is provided where available. Footprint data for all projects considered was not available.

²⁸⁰ Final EIS at 4-622.

²⁸¹ Sierra Club filed on behalf of Allegheny Defense Project, Appalachian Voices, Dominion Pipeline Monitoring Coalition, Friends of Nelson, Natural Resources Defense Council, Ohio Valley Environmental Coalition, Protect Our Water Heritage Rights, Sierra Club (including its West Virginia and Virginia Chapters), West Virginia Highland Conservancy, West Virginia Rivers Coalition, and Wild Virginia.

²⁸² Sabal Trail, 867 F.3d 1357.

EIS does not analyze the scope, significance, cumulative impact, and potential alternatives of the GHG emissions.²⁸³

288. Sierra Club claims that the final EIS was not only required to quantify the greenhouse gas emissions, but also must include a discussion of their significance and any cumulative impacts associated with greenhouse gas emissions. Sierra Club argues that the final EIS only provides a cursory analysis of the impact associated with downstream combustion. Sierra Club also states that the final EIS relies on the assertion that the projects would result in the displacement of some coal, but that this approach was rejected by the court in Sabal Trail because the Commission failed to assess whether total emissions would be reduced or increased, or what the degree of reduction or increase would be.²⁸⁴

289. Next, Sierra Club dismisses the final EIS's assertions that the Commission is unable to assess the significance of the projects' impacts on climate because it contends the social cost of carbon methodology was available when the Commission prepared the final EIS. Sierra Club asserts that the court in Sabal Trail held that the Commission must explain why it did not use the methodology to determine project-specific impacts.²⁸⁵

290. Last, Sierra Club states that the final EIS's statement that end-use "emissions would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other sources, and contribute incrementally to climate change that produces the impacts previously described" does not adequately address the cumulative impacts of the projects. Sierra Club avers that the final EIS incorrectly downplays the cumulative climate impacts associated with the natural gas infrastructure build out in Pennsylvania, West Virginia, Virginia, and other surrounding states, and does not quantify the project's GHG emissions in combination with these past, present, and reasonably foreseeable gas projects.

291. Sierra Club concludes that as a result of the final EIS's failure to address these concerns, the Commission did not conduct an informed public process and failed to provide information necessary to assess potential alternatives and mitigation measures.

²⁸³ Sierra Club also requests that the Commission supplement or revise the final EIS based on purported new information received after the close of the comment period on the draft EIS. However, as discussed in PP 134-135 of this order, there is no new information here that would necessitate a supplemental or revised EIS.

²⁸⁴ *Sabal Trail*, 867 F.3d at 1375.

²⁸⁵ *Id.*

292. The court in Sabal Trail held that where it is known that the natural gas transported by a project will be used for end-use combustion, the Commission should “estimate[] the amount of power-plant carbon emissions that the pipelines will make possible.”²⁸⁶ As Sierra Club acknowledges, the final EIS did just that.²⁸⁷ Thus, the Commission and the public were fully informed of the potential impacts from the projects.

293. The final EIS conservatively estimates that full combustion of the volume of natural gas transported would produce GHG emissions of up to about 48 million metric tons per year.²⁸⁸ We note that this estimate represents an upper bound for the amount of end-use combustion that could result from the gas transported by these projects. This is because some of the gas may displace other fuels, which could actually lower total GHG emissions. It may also displace gas that otherwise would be transported via different means, resulting in no change in GHG emissions.

294. In an effort to put these emissions in to context, we examined both the regional²⁸⁹ and national emissions of GHGs. If only the regions identified by the applicants as prospective markets are considered, the volume of GHG emissions by the MVP and Equitans Expansion Projects will result in a two percent increase of GHG emissions

²⁸⁶ *Id.* at 1371. We note that the end users in Sabal Trail were known (i.e., FPL and Duke Energy Florida power plants in Florida), *see id.* at 1364 and n.8, which is dissimilar to the situation here. While Mountain Valley has entered into precedent agreements with two end users (Roanoke Gas and ConEd) for approximately 13 percent of the MVP project capacity, the ultimate destination for the remaining gas will be determined by price differentials in the Northeast, Mid-Atlantic, and Southeast markets and, thus, is unknown.

²⁸⁷ Final EIS at 4-620 (providing table with Total Projected GHG Emissions from End-Use Combustion).

²⁸⁸ Final EIS at 4-620. Our estimate here is based on GHG emissions caused by the combustion of the full design capacity of the projects.

²⁸⁹ Commission staff looked at the Transco, Columbia, and Texas Eastern systems to identify the states where those pipeline systems serve. Natural gas can move anywhere on these systems. Thus, we used the combined inventory of: (1) states served by Transco’s system; (2) states served by Transco and Columbia; and (3) states served by Transco and Texas Eastern (the Columbia system overlapped the Texas Eastern system). We compared the 2014 inventory of these states served by the three systems in comparison to the downstream emissions to arrive at the potential increase in GHG emissions.

from fossil fuel combustion in these states. From a national perspective, combustion of all the gas transported by the MVP and Equitans Expansion Projects will, at most, result in a one percent increase of national GHG emissions.

295. The final EIS acknowledged that the emissions would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other sources, and contribute incrementally to climate change.²⁹⁰ However, as the final EIS explained, because the project's incremental physical impacts on the environment caused by climate change cannot be determined, it also cannot be determined whether the projects' contribution to cumulative impacts on climate change would be significant.²⁹¹

296. We also disagree with Sierra Club's assertion that the Commission should have used the social cost of carbon methodology to determine how the proposed projects' incremental contribution to GHGs would translate into physical effects on the global environment. While we recognize the availability of the social cost of carbon methodology, it is not appropriate for use in any project-level NEPA review for the following reasons: (1) EPA states that "no consensus exists on the appropriate [discount] rate to use for analyses spanning multiple generations"²⁹² and consequently, significant variation in output can result;²⁹³ (2) the tool does not measure the actual incremental impacts of a project on the environment; and (3) there are no established criteria identifying the monetized values that are to be considered significant for NEPA reviews. The methodology may be useful for rulemakings or comparing regulatory alternatives using cost-benefit analyses where the same discount rate is consistently applied; however, it is not appropriate for estimating a specific project's impacts or informing our analysis under NEPA. Moreover, Executive Order 13783, Promoting Energy Independence and Economic Growth, has disbanded the Interagency Working Group on Social Cost of Greenhouse Gases and directed the withdrawal of all technical support documents and instructions regarding the methodology, stating that the documents are "no longer representative of governmental policy."²⁹⁴

²⁹⁰ Final EIS at 4-620.

²⁹¹ *Id.*

²⁹² See Fact Sheet: *Social Cost of Carbon* issued by EPA in November 2013, https://19january2017snapshot.epa.gov/climatechange/social-cost-carbon_.html.

²⁹³ Depending on the selected discount rate, the tool can project widely different present day cost to avoid future climate change impacts.

²⁹⁴ Exec. Order No. 13,783, 82 Fed. Reg. 16093 (2017).

o. Alternatives

297. The final EIS analyzes alternatives, including the no-action alternative, system alternatives, and route alternatives. If the no-action alternative is selected, the environmental impacts outlined in the final 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 Appalachian Basin to end-users in the Southeast and Mid-Atlantic regions. 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 MVP and Equitans Expansion Projects.

298. A number of commenters suggested that the contracted volumes of natural gas could be transported via existing pipeline systems. The final EIS concludes, and we agree, that no existing pipeline system in the vicinity of the projects can meet their stated objectives without major expansions, which might result in environmental impacts similar to or greater than the impacts of the proposed the MVP and Equitans Expansion Projects.²⁹⁵

299. The final EIS also considers if the contracted volumes of the MVP and Equitans Expansion Projects could be transported through the Supply Header - Atlantic Coast Pipeline (Atlantic Coast) proposed in Docket Nos. CP15-554-000 and CP15-555-000. The final EIS examines two hypothetical scenarios²⁹⁶ for this: (1) the “one-pipe” alternative in which the MVP Project volumes would be transported together with the Atlantic Coast volumes in a single pipeline along the proposed Atlantic Coast route; and (2) the “two-pipe, one right-of-way” alternative, where the MVP Project would be relocated adjacent to the Atlantic Coast Project.²⁹⁷

300. A hypothetical “one-pipe” alternative to transport the combined volumes of both the MVP and Atlantic Coast Projects, totaling about 3.44 Bcf per day, would require either significant additional compression or a larger diameter pipeline as described below. If the alternative utilized Atlantic Coast Project’s currently proposed single 42-inch-diameter pipeline, Commission staff estimated that transporting the MVP and Atlantic Coast Projects’ combined volumes would require construction of eight additional new

²⁹⁵ Section 3.3.1 of the final EIS.

²⁹⁶ We note that no applicant has proposed to construct, and no shipper indicated an interest in utilizing, either of the hypothetical alternative pipeline systems.

²⁹⁷ See sections 3.3.2.1 and 3.4.2.1 of the final EIS.

compressor stations totaling about 873,015 hp of additional compression.²⁹⁸ Commission staff further estimated that the additional compression could triple air quality impacts compared to construction and operation of both the MVP and Atlantic Coast Projects as proposed. In addition, more laterals would need to be constructed in order to reach the MVP Project taps, thereby resulting in impacts to many new landowners, who have thus far not been part of the pre-filing or certification process. Ultimately, this alternative might not be able to provide service as contracted for to the MVP Project shippers, which is the purpose of the project.

301. Construction of an alternative system utilizing larger, non-typical 48-inch-diameter pipeline instead of the additional compression would require a wider construction right-of-way.²⁹⁹ The final EIS found that the larger right-of-way could not be accommodated in many areas along route due to the topography of the area, rendering this alternative technically infeasible.³⁰⁰ Moreover, each of these one-pipe scenarios (more compression or larger diameter pipeline) would require construction of at least 353 miles of greenfield pipeline in order to reach the contracted-for receipt and delivery points for the MVP Project.³⁰¹ We therefore find that based on all the factors described above, the “one-pipe” alternative is not technically feasible or practical, nor does it offer a significant environmental advantage over the proposed MVP and Equitans Projects.³⁰²

²⁹⁸ Final EIS at 3-15 (noting that this amount of additional compression is greater than the total compression of both the Atlantic Coast and MVP Projects combined).

²⁹⁹ Final EIS at 3-15 (installation of 48-inch-diameter pipeline would require 30 feet or more of additional construction right-of-way over the entire length of the pipeline route and would displace about 30 percent more soil).

³⁰⁰ Final EIS at 3-16.

³⁰¹ Final EIS at 3-14.

³⁰² The Commission need not analyze “the environmental consequences of alternatives it has in good faith rejected as too remote, speculative, or . . . impractical or ineffective.” *Fuel Safe Washington v. FERC*, 389 F.3d 1313, 1323 (10th Cir. 2004) (quoting *All Indian Pueblo Council v. United States*, 975 F.2d 1437, 1444 (10th Cir. 1992) (internal quotation marks omitted)); see also *Nat'l Wildlife Fed'n v. F.E.R.C.*, 912 F.2d 1471, 1485 (D.C. Cir. 1990) (NEPA does not require detailed discussion of the environmental effects of remote and speculative alternatives); *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 837-38 (D.C. Cir. 1972) (same).

302. Under a hypothetical “two-pipe, one right-of-way” scenario, the MVP Project would be collocated with the Atlantic Coast Project for about 205 miles.³⁰³ While the final EIS identified environmental benefits that might be realized with such an alternative, there are also disadvantages such as additional environmental impacts associated with construction of multiple laterals necessary to reach the receipt and delivery points required to fulfill Mountain Valley’s contractual obligations with its shippers.³⁰⁴ Additionally, as described in the final EIS, the narrow ridgelines along the Atlantic Coast route are currently too narrow to accommodate two parallel 42-inch-diameter pipelines. To be able to fit two parallel 42-inch-diameter pipelines, the project sponsors would need to utilize extensive side-hill or two-tone construction techniques and disturb additional acres to prepare workspaces to safely accommodate equipment and personnel, as well as spoil storage. The final EIS concludes that collocating two pipes in a single right-of-way with the Atlantic Coast Project has constructability issues that likely render the “two-pipe” alternative technically infeasible.³⁰⁵ Moreover, this alternative does not provide a significant environmental advantage over the proposed MVP Project.³⁰⁶ We agree with the final EIS’s conclusion.

303. We are mindful, as the D.C. Circuit has acknowledged, that “given the choice, almost no one would want natural gas infrastructure built on their block.”³⁰⁷ But as the court noted:

[G]iven our nation’s increasing demand for natural gas . . . it is an inescapable fact that such facilities must be built somewhere . . . Congress decided to vest the [Commission] with responsibility for overseeing the construction and expansion of interstate natural gas facilities. And in carrying out that

³⁰³ See Final EIS at 3-29 (detailing this alternative). A collocated route would not be reach the receipt and delivery points for the MVP Project, which might adversely affect Mountain Valley’s agreements with its shippers.

³⁰⁴ See Final EIS at 3-29 through 3-32 (including table comparing the environmental impacts of the two-pipe, one-ROW alternative with the MVP project).

³⁰⁵ Final EIS at 3-32.

³⁰⁶ Final EIS at 3-32.

³⁰⁷ *Minisink Residents for Environmental Preservation and Safety v. FERC*, 762 F.3d 97, 100 (D.C. Cir. 2014) (affirming the Commission’s decision to approve project where two dissenting commissioners preferred an alternative pipeline project).

charge, sometimes the Commission is faced with tough judgment calls as to where those facilities can and should be sited.³⁰⁸

304. While “the existence of a more desirable alternative is one of the factors which enters into a determination of whether a particular proposal would serve the public convenience and necessity,”³⁰⁹ that is not at issue in this case. Here, neither the “one-pipe” nor the “two-pipe, one right-of-way” alternative is a viable or desirable alternative. The final EIS nonetheless took a hard look at these alternatives.³¹⁰ We agree with the determination in the final EIS and need not consider either alternative any further.³¹¹

305. James Workman claims that the final EIS excluded consideration of the no-action alternative. However, the final EIS discusses the no-action alternative in section 3.1.³¹² Mr. Workman suggests that an alternative route following the Rover Pipeline Project (Rover)³¹³ should be studied. While Rover’s CGT Lateral is about five miles from the MVP Project near about MP 20.0 in Doddridge County, West Virginia, Rover heads northwest into Ohio. In order to reach Mountain Valley’s proposed terminus and delivery point at Transco Station 165 in Pittsylvania County, Virginia, the MVP Project would need to be routed southeast from Doddridge County, West Virginia, which is the opposite direction from Rover. Therefore, collocating the MVP Project along Rover’s CGT Lateral is not practical.

306. The final EIS also considers 3 other major route alternatives (Alternative 1, Hybrid 1-A, and Hybrid 1-B) and 15 route variations along the MVP Project, and 5 route

³⁰⁸ *Id.*

³⁰⁹ *City of Pittsburgh v. FPC*, 237 F.2d 741, 751 n.28 (D.C. Cir. 1956).

³¹⁰ Indeed, CEQ regulations implementing NEPA explicitly permit the Commission, in rejecting alternatives, merely to “briefly discuss the reasons for their having been eliminated.” *City of Rockingham, N. Carolina v. FERC*, No. 15-2535, 2017 WL 2875112, at *5 (4th Cir. July 6, 2017) (quoting 40 C.F.R. § 1502.14(a)).

³¹¹ The Commission’s NEPA obligation requires that it “‘identify the reasonable alternatives to the contemplated action’ and ‘look hard at the environmental effects of [its] decision[].’” *Midcoast Interstate Transmission, Inc. v. FERC*, 198 F.3d 960, 967 (D.C. Cir. 2000) (quoting *Corridor H Alternatives, Inc. v. Slater*, 166 F.3d 368, 374 (D.C.Cir.1999)) (alterations in original).

³¹² Final EIS at 3-4.

³¹³ *Rover Pipeline LLC*, 158 FERC ¶ 61,109.

variations along the Equitans Expansion Project.³¹⁴ The final EIS finds, and we agree, that these alternative routes generally did not provide a significant environmental advantage over the proposed route segments to justify affecting additional landowners, and were not recommended. However, the final EIS recommends that Mountain Valley adopt Variation 250 into its proposed route between MPs 220.7 and 223.7, and we include that recommendation in Environmental Condition No. 16 of this order.

4. Environmental Analysis Conclusion

307. We have reviewed the information and analysis contained in the final EIS regarding the potential environmental effects of the MVP and Equitans Expansion Projects, as well as the other information in the record. We are accepting the environmental recommendations in the final EIS, as modified herein, and are including them as conditions in Appendix C to this order.

308. 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 final EIS, are environmentally acceptable actions. Further, for the reasons discuss throughout the order, as stated above, we find that the projects are in the public convenience and necessity.

309. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. We encourage 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.³¹⁵

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

³¹⁴ See section 3.5 of the final EIS.

³¹⁵ 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 Mountain Valley, authorizing it to construct and operate the proposed Mountain Valley Pipeline Project, as described and conditioned herein, and as more fully described in the application as supplemented.

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

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

(1) Mountain Valley's and Equitans' 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) Mountain Valley's and Equitans' 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) Mountain Valley's and Equitans' compliance with the environmental conditions listed in Appendix C to this order; and

(4) Mountain Valley and Equitans 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) Equitans' request to abandon facilities, as described in this order and in its application, is granted, subject to the conditions described herein and in Appendix C of this order.

(E) Equitans shall notify the Commission within 10 days of the date(s) of its abandonment(s) of facilities as authorized by this order. Equitans shall complete authorized abandonments within one year from the date of this order.

(F) Mountain Valley's request for a blanket construction certificate under Subpart F of Part 157 of the Commission's regulations is granted.

(G) Mountain Valley's request for a blanket transportation certificate under Subpart G of Part 284 of the Commission's regulations is granted.

(H) Mountain Valley's initial rates and tariff are approved, as conditioned and modified above.

(I) Mountain Valley is required to file actual tariff records reflecting the initial rates and tariff language that comply with the requirements contained in the body of this order not less than 30 days and not more than 60 days prior to the commencement of interstate service.

(J) Mountain Valley must file not less than 30 days and not more than 60 days before the in-service date of the proposed facilities an executed copy of the non-conforming agreements reflecting the non-conforming language and a tariff record identifying these agreements as non-conforming agreements consistent with section 154.112 of the Commission's regulations.

(K) Within three years after its in-service date, as discussed herein, Mountain Valley must make a filing to justify its existing cost-based firm and interruptible recourse rates. Mountain Valley's cost and revenue study should be filed through the eTariff portal using a Type of Filing Code 580. In addition, Mountain Valley is advised to include as part of the eFiling description, a reference to Docket No. CP16-10-000 and the cost and revenue study.³¹⁶

(L) Equitans' proposal to use its existing Mainline System rates as the initial recourse rates for firm transportation service on the Equitans Expansion Project is granted.

(M) Equitans' request for a predetermination supporting rolled-in rate treatment for the costs of the Equitans Expansion Project in its next NGA general section 4 rate proceeding is granted, absent a significant change in circumstances.

(N) Equitans shall file an executed copy of the negotiated rate agreement as part of its tariff, disclosing and reflecting all non-conforming language not less than 30 days and not more than 60 days, prior to the commencement of service on the Equitans Expansion Project.

(O) Mountain Valley and Equitans shall notify the Commission's environmental staff by telephone, e-mail, and/or facsimile of any environmental noncompliance identified by other federal, state or local agencies on the same day that such agency notifies either Mountain Valley or Equitans. Mountain Valley or

³¹⁶ *Electronic Tariff Filings*, 130 FERC ¶ 61,047 at P 17.

Equitans shall file written confirmation of such notification with the Secretary of the Commission (Secretary) within 24 hours

(P) 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.

(Q) ICG Eastern, LLC's late, opposed motion to intervene filed before issuance of this order in Docket No. 16-10-000 is granted pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure.

(R) The requests for full evidentiary, trial-type hearing are denied.

By the Commission. Commissioner LaFleur is dissenting with a separate statement attached.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A

List of Timely Intervenors

Docket No. CP16-10-000 – Mountain Valley Pipeline Project

Adam Brauns

Black Diamond Property Owners, Inc.

Alice Martin Taylor Wilson and
Maurice E. Taylor Tate

Blue Ridge Environmental Defense
League

Allegheny Defense Project

Blue Ridge Land Conservancy

Alpha Natural Resources Services,
LLC (and affiliates, Green Valley Coal
Company and Brooks Run Mining
Company, LLC)

Bold Alliance

American Electric Power Service
Corporation

Border Conservancy

Andrew Geier

Brian R. Murphy

Anita M. Puckett

Bruce M. Coffey and Mary Coffey

Ann Marie L. Conner

Bruce W. Zoecklein

Anna L. Karr

Cahas Mountain Rural Historic District

Appalachian Mountain Advocates

Cameron Bernand

Appalachian Trail Conservancy

Carl E. Zipper

Appalachian Voices

Carol C. Bienstock

Ariel Darago

Carolyn Jake

Association for the Study of
Archaeological Properties

Carolyn Reilly

Becky Crabtree and Roger Crabtree

Cave Conservancy of the Virginias

Bill Dooley

Charles D. Nikolaus

Charles F. Chong and Rebecca A.
Eneix-Chong

Cheryl Borgman

Chesapeake Climate Action Network	David J. Wemer
Chris Asmann	David M. Hancock
Chris Roberts	David Rauchle and Judith Rauchle
Christian M. Reidys	Deborah E. Hammond
Christina Witcher	Delwyn A. Dyer
Christopher B. Kaknis	Dennis Jones
Christopher L. Barrett	Dennis M. Bryant
Clifford A. Shaffer	Don Barber
Clifford S. Cleavenger and Laura J. Cleavenger	Donald Jones
Consolidated Edison Company of New York, Inc.	Donna M. Riley
County Commission of Monroe County, West Virginia	Donna Pitt and Joseph Pitt
County of Montgomery, Virginia	Donna Reilly
Craig County Board of Supervisors, Virginia	Dragana Avirovik
Craig-Botetourt Electric Cooperative	Duke Energy Carolinas, LLC
Cynthia B. Morris	Duke Energy Progress, LLC
Dana O. Olson	Dwayne Milam
Dane Webster	Edward M. Savage
Daniel C. Campbell	Eleanor M. Amidon
Daniel Moore	Elizabeth D. Covington
	Elizabeth E. Ackermann
	Elizabeth Hahn

Elizabeth Struthers Malbon	Harriet G. Hodges
Elizabeth Terry Reynolds	Headwaters Defense
EQT Energy, LLC	Heartwood
Erin McKelvy	Helena Teekell
Ernest Q Reed, Jr.	Hersha Evans
Frank Terry, Jr.	Highlanders for Responsible Development
Frank Wickline	Holly L. Scoggins
Fred W. Vest	Holly Waterman
Friends of Nelson	Hope Gas, Inc. d/b/a Dominion Hope
Friends of the Lower Greenbrier River	Howdy Henritz
General Federation of Women's Clubs	Ian Reilly
George Lee Jones	Independent Oil & Gas Association of West Virginia, Inc.
Gerald M. Jones	Indian Creek Watershed Association
Getra Hanes	J. Phillip Pickett
Giles County Board of Supervisors	James Chandler
Grace M. Terry	James McGrady
Greater Newport Historic District Committee	Jana M. Peters
Greater Newport Rural Historic District Committee	Jason Boyle
Greenbrier River Watershed Association	Jason Donald Jones
Gwynn L. Kinsey	Jean L. Porterfield

Jennifer J. Henderson	Lindsay Newsome
Jobyl A. Boone	Lois K. Waldron
John Coles Terry, III	Lois Martin
John M. Henrietta	Loretta Broslma
Johnathan Lee Jones	Louisa Gay and Kenneth Gay
Jonathan D. McLaughlin	Lynda Majors
Joseph H. Fagan	Madison A. Roberts
Julian Clark Hansbarger	Margaret A. Roston
Justin Haber	Marjorie Lewter
Kali Casper	Mark A. Laity-Snyder
Kara Jeffries	Marshall D. Tessnear
Keith M. Wilson	Mary Keffer
Kelley S. Sills	Matthew Denton-Edmundson
Landcey Ragland	Maury W. Johnson
Laura K. Berry and David E. Berry	Michael Bortner
Lauren C. Malhotra	Michael T. Martin
Lauren Eanes Jones	Monroe County Organic District
Laurie Ardison	Nadia Doutcheva
Lenora Montuori	Nancy Guile
Leon G. Gross	Natural Resources Defense Council
Leslie Day	Nature Conservancy

NextEra Energy Power Marketing, LLC	Raymond D. Roberts
Norfolk Southern Railway Company	Rebecca Dameron
Ohio Valley Environmental Coalition	Red Sulphur Public Service District
Olivia F. Foskey	Renee Howell
Orus Ashby Berkley	Renee Powers
Pamela S. Tessnear	Rex Coal Land Co., Inc.
Patricia Tracy	RGC Midstream, LLC
Paula L. Mann and Herman Mann	RGC Resources, Inc.
Piedmont Natural Gas Company, Inc.	Richard Shingles
Pittsylvania County Historical Society	Roanoke County, Virginia
PJ Crabtree	Roanoke Gas Company
Preserve Bent Mountain	Robert B. Lineberry
Preserve Craig, Inc.	Robert E. Gross and Rosemary C. Gross
Preserve Giles County	Robert J. Tracy
Preserve Greenbrier County	Robert K. Johnson
Preserve Monroe	Roberta C. Johnson
Preserve Montgomery County Virginia	Robin Austin
Preserve the New River Valley	Robin S. Boucher
Protect Our Water, Heritage and Rights	Ronald Tobey and Elisabeth Tobey
Rachel L. Warnock	Roseanna E. Sacco
	Roy S. Quesenberry

Samuel V. Gittelman	Susan A. Cornish
Sandra Schlaudecker	Susan B. Ryan
Save Monroe, Inc.	Susan G. Barrett
Serina Garst	Susan M. Crenshaw
Shenandoah Valley Battlefields Foundation	Tammy A. Capaldo
Shenandoah Valley Network	Taylor Johnson
Sierra Club	Terry Hrubec
Sierra Club (Virginia Chapter)	Thomas Tyler Bouldin
Stephen C. Browning, Jr.	Timothy Ligion
Stephen D. Gallagher, Jr.	Tina Badger
Stephen D. Slough	Tom Ryan and Susan Ryan
Stephen K. Wood	Ursula Halferty
Stephen Legge	Valerie Ughetta
Stephen M. Miller	Vicki Pierson
Stephen T. Whitehurst	Victoria J. Stone
Steven C. Hodges and Judy R. Hodges	Virginia Cross
Steven Hanes	Virginia Wilderness Committee
Steven Hodges	W. Sam Easterling and Pamela J. Easterling
Steven L. Cass	Washington Gas Light Company
Steven L. Powers	West Virginia Highlands Conservancy
Summers County Residents Against the Pipeline	

West Virginia Rivers Coalition

William J. Sydor

WGL Midstream, Inc.

Wilmer E. Seago and Patricia A. Seago

Wild Virginia

Yvette Jones

Wildest Society

Zane R. Lawhorn

Docket No. CP16-13-000 – Equitans Expansion Project

Appalachian Mountain Advocates	Norfolk Southern Railway Company
Appalachian Voices	Ohio Valley Environmental Coalition
Betty Jane Cline	Peoples Gas WV LLC
Blue Ridge Environmental Defense League	Peoples Natural Gas Company LLC (including its Equitable Division)
Bold Alliance	Peoples TWP LLC
Chesapeake Climate Action Network	Preserve Bent Mountain
Eleanor Sawyers	Preserve Craig, Inc.
EQT Energy, LLC	Preserve Giles County Virginia
Friends of the Lower Greenbrier River	Preserve Greenbrier County
Greenbrier River Watershed Association	Preserve Monroe
Headwaters Defense	Preserve Montgomery County Virginia
Highlanders for Responsible Development	Protect Our Water, Heritage, Rights
Hope Gas, Inc. d/b/a Dominion Hope	Roanoke County, Virginia
Independent Oil & Gas Association of West Virginia, Inc.	Save Monroe, Inc.
Natural Resources Defense Council	Shenandoah Valley Battlefields Foundation
Nature Conservancy	Shenandoah Valley Network
NJR Energy Services Company	Sierra Club
Norfolk Southern Railway Company	Sierra Club (Virginia Chapter)
	Summers County Residents Against the Pipeline

Thomas W. Headley

Virginia Wilderness Committee

Thomas Prentice

West Virginia Highlands Conservancy

Timothy Detwiler

West Virginia Rivers Coalition

Appendix B

List of Untimely Intervenors

Docket No. CP16-10-000 – Mountain Valley Pipeline Project

Ann Petrie Brown ICG Eastern, LLC

Ashley L. Johnson Jean Porterfield

Bradley R. Foro Jennifer Fenrich

Brian Murphy Joe Pitt

Bruce Bzoeckle John Garrett Baker

Carol Geller Joseph L. Scarpaci

Coronado Coal, LLC Kelsey A. Williams

County of Franklin, Virginia Linda E. Parsons Sink

Culy Hession Michael E. Slayton

Darlene Cunningham Mode A. Johnson

David A. Brady Nan Gray

Donna Pitt New River

Eldon L. Karr Patricia Ann Cole

Felicia Etzkornik Patrick Robinson

Friends of Claytor Lake Paul E. Washburn

Guy W. Buford Rick Shingles

Robert M. Jones

Roberta Motherway Bondurant

Russell Chisholm

Shirley J. Hall

Smith Mountain Lake Association

Suzie Henritz

Thomas Gilkerson and Betty Gilkerson

Thomas W. Triplett

Tina Smusz

Tom Hoffman

Tom J. Bondurant, Jr.

Town of Rocky Mount, Virginia

Victoria Jordan Stone

Wilbur Larew and Irene Larew

Docket No. CP16-13-000 – Equitans Expansion Project
Consolidated Edison Company of New York, Inc.

Coronado Coal, LLC

Smith Mountain Lake Association

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 would 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 Mountain Valley Pipeline LLC (Mountain Valley) or Equitans LP (Equitans).

Conditions 1 through 11 are standard conditions that apply to both Mountain Valley and Equitans.

1. Mountain Valley and Equitans shall each follow the construction procedures and mitigation measures described in their application and supplements, including responses to staff data requests and as identified in the final EIS, unless modified by the order. The applicants 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 Office of Energy Projects (OEP) **before using that modification**.
2. The Director of OEP, or the Director's designee, has delegated authority to address any requests for approvals or authorizations necessary to carry out the conditions of the order, and take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project and activities associated with abandonment. This authority shall allow:
 - a. the modification of conditions of the order;
 - b. stop work authority; and
 - c. the imposition of any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the order as well

as the avoidance or mitigation of unforeseen adverse environmental impacts resulting from project construction and operation and abandonment.

3. **Prior to any construction**, Mountain Valley and Equitans shall each file an affirmative statement with the Secretary of the Commission (Secretary), certified by a senior company official, that all company personnel, environmental inspectors (EI), and contractor personnel will be informed of the EIs' authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.
4. The authorized facility locations shall be as shown in the final EIS, as supplemented by filed alignment sheets, and shall include all of the staff's recommended facility locations identified in conditions 16, 17, and 23. **As soon as they are available, and before the start of construction**, Mountain Valley and Equitans shall each file 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.

The exercise of eminent domain authority granted under Natural Gas Act Section 7(h) in any condemnation proceedings related to the Mountain Valley Pipeline (MVP) Project or Equitans Expansion Project must be consistent with the facilities and locations approved in the Commission Order. The right of eminent domain granted under Natural Gas Act Section 7(h) does not authorize either Mountain Valley or Equitans to increase the size of the natural gas pipelines approved in the Commission Order to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. Mountain Valley and Equitans shall each file detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, yards, new access roads, and other areas that would 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 would 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 the FERC *Upland Erosion Control, Revegetation, and Maintenance Plan* and/or minor field

realignments 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 their acceptance of a Certificate and before construction begins,** Mountain Valley and Equitans shall each file their respective Implementation Plans for review and written approval by the Director of OEP. Mountain Valley and Equitans must each file revisions to their plans as schedules change. The plans shall identify:
 - a. how Mountain Valley and Equitans will each implement the construction procedures and mitigation measures described in their applications and supplements (including responses to staff data requests), identified in the final EIS, and required by the Order;
 - b. how the Mountain Valley and Equitans will each incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
 - c. the number of EIs assigned to each project and spread, and how Mountain Valley and Equitans will each 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 materials;
 - e. the location and dates of the environmental compliance training and instructions Mountain Valley and Equitans will each give to all personnel involved with construction and restoration (initial and refresher training as the projects progress and personnel change) with the opportunity for OEP staff to participate in the training sessions;
 - f. the company personnel (if known) and specific portion of the company's organization having responsibility for compliance;

- g. the procedures (including use of contract penalties) that Mountain Valley and Equitrans will each follow if noncompliance occurs; and
 - h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - i. the completion of all required surveys and reports;
 - ii. the environmental compliance training of onsite personnel;
 - iii. the start of construction; and
 - iv. the start and completion of restoration.
7. Mountain Valley and Equitrans shall each employ a team of EIs for each construction spread. The EIs shall be:
- a. responsible for monitoring and ensuring compliance with all mitigation measures required by the Order and other grants, permits, certificates, or other authorizing documents;
 - b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of the Order, and any other authorizing document;
 - d. a full-time position, separate from all other activity inspectors;
 - e. responsible for documenting compliance with the environmental conditions of the Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - f. responsible for maintaining status reports.
8. **Beginning with the filing of its Implementation Plan**, Mountain Valley and Equitrans shall each file updated status reports with the Secretary on a **weekly basis until all construction and restoration activities are complete**. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
- a. an update on Mountain Valley and Equitrans efforts to obtain the necessary federal authorizations;
 - b. the construction status of their respective project facilities, 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 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 Mountain Valley and Equitrans from other federal, state, or local permitting agencies concerning instances of noncompliance, and the responses of Mountain Valley and Equitrans to each letter.
9. Mountain Valley and Equitrans must receive written authorization from the Director of OEP **before commencing construction of any project facilities**. To obtain such authorization, Mountain Valley and Equitrans must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
10. Mountain Valley and Equitrans must each receive separate written authorization from the Director of OEP **before placing their respective projects into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of areas affected by the projects are proceeding satisfactorily.
11. **Within 30 days of placing the authorized facilities in service**, Mountain Valley and Equitrans shall each file an affirmative statement with the Secretary, certified by a senior company official:
- a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the Certificate conditions Mountain Valley and Equitrans has complied 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.

Conditions 12 to 15 apply to both Mountain Valley and Equitrans, and shall be addressed before construction is allowed to commence.

12. **Prior to construction**, Mountain Valley and Equitrans shall each file with the Secretary the location of all water wells, springs, and other drinking water sources within 150 feet (500 feet in karst terrain) of construction work areas and aboveground facilities. (*section 4.3.1.2*)
13. **Prior to construction**, Mountain Valley and Equitrans shall file with the Secretary, for review and written approval by the Director of OEP, revised erosion control plans that contain only native species. (*section 4.4.2.7*)

14. **Prior to construction**, Mountain Valley and Equitans shall each file with the Secretary copies of their environmental complaint resolution procedures. The procedures shall provide landowners with clear directions for identifying and resolving concerns resulting from construction and restoration of the projects. Mountain Valley and Equitans shall mail copies of their complaint procedures to each landowner whose property would be crossed by the projects.

In their letters to affected landowners, Mountain Valley and Equitans shall:

- a. provide a local contact that the landowners shall call first with their concerns; the letter shall indicate how soon a landowner shall expect a response;
- b. instruct the landowners that if they are not satisfied with the response, they shall call the Mountain Valley or Equitans Hotline, as appropriate. The letter shall indicate how soon to expect a response from the company; and
- c. instruct the landowners that if they are still not satisfied with the response from the company Hotline, they shall contact the Commission's Landowner Helpline at 877-337-2237 or at LandownerHelp@ferc.gov.

In addition, Mountain Valley and Equitans shall include in their weekly status reports to the FERC a table that contains the following information for each problem/concern:

- a. the identity of the caller and date of the call;
- b. the location by milepost and engineering station number from the alignment sheet(s) of the affected property;
- c. a description of the problem/concern; and
- d. an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved. (Section 4.8.2.2)

15. Mountain Valley and Equitans **shall not begin construction** of facilities and/or use staging, storage, or temporary work areas and new or to-be-improved access roads **until**:

- a. Mountain Valley and Equitans each files with the Secretary:
- b. remaining cultural resources survey reports;
- c. site evaluation reports, avoidance plans, or treatment plans, as required; and comments on the reports and plans from the appropriate State Historic Preservation Offices, federal land managing agencies, interested Indian tribes, and other consulting parties.
- d. the Advisory Council on Historic Preservation has been afforded an opportunity to comment if historic properties would be adversely affected; and
- e. the FERC staff reviews and the Director of OEP approves all cultural resources reports and plans, and notifies Mountain Valley and/or Equitans

in writing that either treatment measures (including archaeological data recovery) may be implemented or construction may proceed.

All materials filed with the Commission containing **location, character, and ownership** information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: “**CUI//PRIV- DO NOT RELEASE.**” (*section 4.10.10.3*)

Conditions 16 through 34 are project-specific conditions that apply only to Mountain Valley and shall be addressed before construction is allowed to commence.

16. **Prior to construction,** Mountain Valley shall adopt Variation 250 into its proposed route. As part of its Implementation Plan, Mountain Valley shall file with the Secretary the results of all environmental surveys, an updated 7.5-minute USGS topographic quadrangle map, and a large-scale alignment sheet that illustrates this route change. (*section 3.5.1.11*)
17. **Prior to construction,** Mountain Valley shall file with the Secretary, for review and approval by the Director of OEP, a segment-specific construction and operation access plan for the area between mileposts 237.6 and 240.3, that includes access road MVP-RO-279.01. The plan shall incorporate the measures proposed in Mountain Valley’s July 20, 2017 filing to minimize and mitigate impacts resulting from use of the road. (*section 3.5.1.12*)
18. **Prior to construction,** Mountain Valley shall file landowner-specific crossing plans developed in coordination with the affected landowners which contain impact avoidance, minimization, or mitigation measures, as appropriate, for review and written approval of the Director of OEP. The landowner-specific crossing plans shall be prepared in relation to the draft EIS comments in the following accession numbers: 20161024-5011 (water well), 20161212-5046 (steep ravines), 20161212-5234 (forest impacts, road frontage), 20161213-5021 (cattle and hay operations), 20161223-0033 (gravel road and reconfiguration of temporary workspaces), 20161228-0073 (water well and waterline for the campground), and 20170324-5140 (home under construction and septic system). (*section 3.5.3.1*)
19. **Prior to construction,** Mountain Valley shall file with the Secretary, for review and written approval by the Director of OEP, a revised *Landslide Mitigation Plan* that includes the following best management practices and measures:
 - a. describe methods that will ensure backfill, compaction, and restoration activities occur only during suitable soil moisture content conditions for steep (greater than 15 percent) slopes perpendicular to the slope contour, not just for steep (greater than 15 percent) side slopes;

- b. as identified for steep side slopes, place backfill material in compacted lifts no greater than 12 inches thick and compact using an excavator bucket, sheep's foot, roller, or similar for all steep slopes;
 - c. geotechnical personnel that will be employed and onsite to prescribe additional mitigation measures for steep slopes shall have regional experience for constructing in and mitigating steep slopes and associated hazards; and
 - d. monitoring of all landslide hazard areas identified in the final EIS in addition to any hazard areas identified during construction using the methods prescribed for the Jefferson National Forest. (section 4.1.2.4)
20. **Prior to construction**, Mountain Valley shall file with the Secretary, for review and written approval by the Director of OEP, a revised *Karst Mitigation Plan* that includes monitoring of all potential karst areas for subsidence and collapse using the same acquired Light Imaging Detection and Ranging (LiDAR) monitoring methods and procedures currently proposed to monitor for earth movements at landslide hazard areas within the Jefferson National Forest. LiDAR data shall be provided in a form that is conducive to comparison of repeat surveys, such as a Digital Elevation Model or Digital Terrain Model. (section 4.1.2.5)
21. **Prior to construction**, Mountain Valley shall file with the Secretary, for review and written approval of the Director of OEP, a revised *Water Resources Identification and Testing Plan* which includes:
- a. water quality testing for oil and grease, volatile organic compounds, and hydrocarbons; and
 - b. post-construction monitoring, with the landowner's permission, of all water wells, springs, and other drinking water supply sources within 150 feet of construction workspaces or 500 feet of construction workspaces in karst terrain. (section 4.3.1.2)
22. **Prior to construction**, Mountain Valley shall file with the Secretary, for review and written approval of the Director of OEP, source, location, and quantities of water which would be used for dust control. (section 4.3.2.1)
23. **Prior to construction**, Mountain Valley shall adopt into its proposed pipeline route the alternative alignment for the crossing of the Pigg River and adopt a horizontal directional drill (HDD) as the crossing method. As part of its Implementation Plan, Mountain Valley shall file with the Secretary a revised alignment sheet, a summary comparison of impacts between the HDD alignment and the original alignment, and an HDD Contingency Plan, for the review and approval of the Director of OEP. (section 4.3.2.2)

24. **Prior to construction**, Mountain Valley shall file with the Secretary, for review and written approval of the Director of OEP, water supply contingency plans, prepared in coordination with the Public Service/Supply Districts, outlining measures to minimize and mitigate potential impacts on public surface water supplies with intakes within 3 miles downstream of the workspace, and Zones of Critical Concern within 0.5 mile of the workspace. The measures shall include, but not be limited to, providing advance notification to water supply owners prior to the commencement of pipeline construction. (*section 4.3.2.2*)
25. **Prior to construction**, Mountain Valley shall file with the Secretary, for review and approval by the Director of OEP, either a plan to maintain a 15 foot buffer from the tributary to Foul Ground Creek or proposed mitigation measures to minimize impacts on the waterbody. (*section 4.3.2.2*)
26. **Prior to construction**, Mountain Valley shall file with the Secretary, for review and written approval by the Director of OEP, site plans and maps that illustrate how permanent impacts on wetlands W-EE6 and W-EE7 will be avoided at the Stallworth Compressor Station. (*section 4.3.3.2*)
27. **Prior to construction**, Mountain Valley shall file with the Secretary its final *Migratory Bird Conservation Plan*. The plan shall include impact avoidance, minimization, restoration, and/or mitigation measures for the impacts on migratory birds and it shall be prepared in coordination with the U.S. Fish and Wildlife Service (FWS), West Virginia Department of Natural Resources, and the Virginia Department of Game and Inland Fisheries. Appendix D (Restoration and Rehabilitation Plan) of the final *Migratory Bird Conservation Plan* shall be modified to match the seed list in appendix N-14 and N-15 of the EIS; and shall include only native species, as required in Environmental Condition 13 of this order. (*section 4.5.2.6*)
28. Mountain Valley shall not begin construction of the proposed facilities **until**:
 - a. all outstanding and required biological surveys for federally listed species are completed and filed with the Secretary;
 - b. the FERC staff completes any necessary Endangered Species Act Section 7 informal and formal consultation with the FWS; and
 - c. Mountain Valley has received written notification from the Director of OEP that construction and/or use of mitigation (including implementation of conservation measures) may begin. (*section 4.7.1.3*)
29. **Prior to construction**, Mountain Valley shall file with the Secretary the results of all remaining environmental surveys (water resources, wetlands, cultural resources, and threatened and endangered species) for all cathodic protection groundbeds. (*section 4.8.1.2*)

30. **Prior to construction**, Mountain Valley shall file with the Secretary evidence of landowner concurrence with the site-specific residential construction plans for all locations where construction work areas will be within 10 feet of a residence. Mountain Valley shall also file with the Secretary a site-specific residential construction plan, including site-specific justification for locating project components within 50 feet of structures located on parcel VA-GI-5673 at about MP 216.6. (*section 4.8.2.2*)
31. **Prior to construction**, Mountain Valley shall file with the Secretary documentation that the U.S. Highway 50 and North Bend Rail Trail Crossing Plan was provided to the West Virginia Department of Transportation and WVDNR for review and comment. (*section 4.8.2.4*)
32. **Prior to construction**, Mountain Valley shall file with the Secretary documentation that The Nature Conservancy (TNC) Property Crossing Plan was provided to the TNC for review and comment. (*section 4.8.2.4*)
33. **Prior to construction of the Pig River Horizontal Directional Drill (HDD) crossing**, Mountain Valley shall file with the Secretary an HDD noise analysis identifying the existing and projected noise levels at each noise sensitive area (NSA) within 0.5 mile of the HDD entry and exit site. If noise attributable to the HDD is projected to exceed a day-night sound level (L_{dn}) of 55 decibels on the A weighted scale (dBA) at any NSA, Mountain Valley shall file with the noise analysis a mitigation plan to reduce the projected noise levels for the review and written approval by the Director of OEP. During drilling operations, Mountain Valley shall implement the approved plan, monitor noise levels, and make all reasonable efforts to restrict the noise attributable to the drilling operations to no more than an L_{dn} of 55 dBA at the NSAs. (*section 4.11.2.3*)

Recommendations 35 through 39 are project-specific conditions that applies only to Equitans and shall be addressed before construction is allowed to commence.

34. **Prior to construction**, Equitans shall offer to conduct, with the landowner's permission, post-construction monitoring of all water wells, springs, and other drinking water supply sources within 150 feet of construction workspaces or 500 feet of construction workspaces in karst terrain. (*section 4.3.1.2*)
35. **Prior to construction**, Equitans shall file with the Secretary, for review and written approval by the Director of OEP, a plan to identify septic systems and avoidance, minimization, and mitigation measures. (*section 4.3.1.2*)
36. **Prior to construction**, Equitans shall file with the Secretary the results of all environmental surveys (water resources, wetlands, cultural resources, and threatened and endangered species) for the New Cline Variation. (*section 4.3.2.1*)

37. **Prior to construction**, Equitans shall file with the Secretary, for the review and written approval of the Director of OEP, a crossing plan for the Riverview Golf Course that includes mitigation measures and documentation that the plan was reviewed by the landowners. (*section 4.8.2.4*)
38. **Prior to construction of the South Fork Tenmile Creek and Monongahela River HDD crossings**, Equitans shall file with the Secretary, for the review and written approval by the Director of OEP, an HDD noise mitigation plan to reduce the projected noise level increase attributable to the proposed drilling operations at NSAs. **During drilling operations**, Equitans shall implement the approved plan, monitor noise levels, include noise levels in weekly reports to the FERC, and make all reasonable efforts to restrict the noise attributable to the drilling operations to no more than a 10 dBA increase over ambient noise levels at the NSAs. (*section 4.11.2.3*)

Condition 40 is a project-specific condition that applies only to Mountain Valley and shall be addressed during operation of facilities.

39. Mountain Valley shall file noise surveys with the Secretary **no later than 60 days** after placing the equipment at the Bradshaw, Harris (including the WB Interconnect), and Stallworth Compressor Stations into service. If full load condition noise surveys are not possible, Mountain Valley shall provide interim surveys at the maximum possible horsepower load **within 60 days** of placing the equipment into service and provide the full load survey **within 6 months**. If the noise attributable to the operation of all of the equipment at each station under interim or full horsepower load exceeds an L_{dn} of 55 dBA at the nearest NSA, Mountain Valley 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. Mountain Valley shall confirm compliance with the above requirement by filing a second noise survey with the Secretary for each station **no later than 60 days** after it installs the additional noise controls. (*section 4.11.2.3*)

Condition 41 is a project-specific condition that applies only to Equitans and shall be addressed during operation of facilities.

40. Equitans shall file a noise survey with the Secretary **no later than 60 days** after placing the Redhook Compressor Station into service. If a full load condition noise survey is not possible, Equitans shall provide an interim survey at the maximum possible horsepower load **within 60 days** of placing the Redhook Compressor Station into service and provide the full load survey **within 6 months**. If the noise attributable to operation of the equipment at the Redhook Compressor Station exceeds an L_{dn} of 55 dBA at the nearest NSA, Equitans 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. Equitans 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 4.11.2.3*)

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Mountain Valley Pipeline, LLC
Equitrans, L.P.

Docket Nos. CP16-10-000
CP16-13-000

(Issued October 13, 2017)

LaFLEUR, Commissioner *dissenting*:

With the increasing abundance of domestic natural gas, the Commission plays a key role in considering applications for the construction of natural gas infrastructure to support the delivery of this important fuel source. Under the Certificate Policy Statement, which sets forth the Commission's approach to evaluating proposed projects under Section 7 of the Natural Gas Act, the Commission evaluates in each case whether the benefits of the project as proposed by the applicant outweigh adverse effects on existing shippers, other pipelines and their captive customers, landowners, and surrounding communities.¹ For each pipeline I have considered during my time at the Commission, I have tried to carefully apply this standard, evaluating the facts in the record to determine whether, on balance, each individual project is in the public interest.² Today, the Commission is issuing orders that authorize the development of the Mountain Valley Pipeline Project/Equitrans Expansion Project (MVP) and the Atlantic Coast Pipeline Project (ACP). For the reasons set forth herein, I cannot conclude that either of these projects as proposed is in the public interest, and thus, I respectfully dissent.

Deciding whether a project is in the public interest requires a careful balancing of the need for the project and its environmental impacts. In the case of the ACP and MVP projects, my balancing determination was heavily influenced by similarities in their respective routes, impact, and timing. ACP and MVP are proposed to be built in the

¹ *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999) (Certificate Policy Statement), *order on clarification*, 90 FERC ¶ 61,128, *order on clarification*, 92 FERC ¶ 61,094 (2000); 15 U.S.C. 717h (Section 7(c) of the Natural Gas Act provides that no natural gas company shall transport natural gas or construct any facilities for such transportation without a certificate of public convenience and necessity.).

² See *Millenium Pipeline Company, L.L.C.*, 140 FERC ¶ 61,045 (2012) (LaFleur, Comm'r, dissenting).

same region with certain segments located in close geographic proximity. Collectively, they represent approximately 900 miles of new gas pipeline infrastructure through West Virginia, Virginia and North Carolina, and will deliver 3.44 Bcf/d of natural gas to the Southeast. The record demonstrates that these two large projects will have similar, and significant, environmental impacts on the region. Both the ACP and MVP cross hundreds of miles of karst terrain, thousands of waterbodies, and many agricultural, residential, and commercial areas. Furthermore, the projects traverse many important cultural, historic, and natural resources, including the Appalachian National Scenic Trail and the Blue Ridge Parkway. Both projects appear to be receiving gas from the same location, and both deliver gas that can reach some common destination markets. Moreover, these projects are being developed under similar development schedules, as further evidenced by the Commission acting on them concurrently today.³ Given these similarities and overlapping issues, I believe it is appropriate to balance the collective environmental impacts of these projects on the Appalachian region against the economic need for the projects. In so doing, I am not persuaded that both of these projects as proposed are in the public interest.

I am particularly troubled by the approval of these projects because I believe that the records demonstrate that there may be alternative approaches that could provide significant environmental advantages over their construction as proposed. As part of its alternatives analysis, Commission staff requested that ACP evaluate an MVP Merged Systems Alternative that would serve the capacity of both projects.⁴ This alternative would largely follow the MVP route to deliver the capacity of both ACP and MVP in a single large diameter pipeline. Commission staff identifies significant environmental advantages of utilizing this alternative. For example, the MVP Merged Systems Alternative would be 173 miles shorter than the cumulative mileage of both projects individually. This alternative would also increase collocation with existing utility rights-of-way, avoid the Monongahela National Forest and the George Washington National Forest, reduce the number of crossings of the Appalachian National Scenic Trail and Blue Ridge Parkway, and reduce the amount of construction in karst topography. Commission staff eliminated this alternative from further consideration because it failed to meet the project's objectives, in particular that it would "result in a significant delay to the delivery of the 3.44 Bcf/d of natural gas to the proposed customers of both ACP and MVP"⁵ due to the significant time for the planning and design that would be necessary to

³ ACP and MVP filed their applications for approval pursuant to section 7(c) of the Natural Gas Act on September 18, 2015 and October 23, 2015, respectively.

⁴ ACP Final Environmental Impact Statement (FEIS) at 3-6 – 3-9.

⁵ *Id.* at 3-9.

develop a revised project proposal.⁶

Similarly, in the MVP FEIS, Commission staff evaluated a single pipeline alternative to the MVP project that would utilize the proposed ACP to serve MVP's capacity needs.⁷ While this alternative was found to have certain environmental disadvantages, such as the need for additional compression to deliver the additional gas, the EIS acknowledges that this alternative would "essentially eliminate all environmental impacts on resources along the currently proposed MVP route."⁸

I recognize that the two alternatives described above were eliminated from further consideration because they were deemed not to meet each project's specific stated goals. However, I believe that these alternatives demonstrate that the regional needs that these pipelines address may be met through alternative approaches that have significantly fewer environmental impacts.

While my dissents rest on my concerns regarding the aggregate environmental impacts of the proposed projects, particularly given the potential availability of environmentally-superior alternatives, I believe that the needs determinations for these projects highlight another issue worthy of further discussion.

The Commission's policy regarding evaluation of need, and the standard applied in these cases, is that precedent agreements generally are the best evidence for determining market need. When applying this precedent here, I believe there is an important distinction between the needs determinations for ACP and MVP. Both projects provide evidence of precedent agreements to demonstrate that these pipelines will be fully subscribed. ACP also provides specific evidence regarding the end use of the gas to be delivered on its pipeline. ACP estimates that 79.2 percent of the gas will be transported to supply natural gas electric generation facilities, 9.1 percent will serve residential purposes, 8.9 percent will serve industrial purposes, and 2.8 percent will serve other purposes such as vehicle fuel.⁹ In contrast, "[w]hile Mountain Valley has entered into precedent agreements with two end users ... for approximately 13% of the MVP

⁶ Staff also found that this alternative would likely limit the ability to provide additional gas to the projects' customers, another of the stated goals for the original proposal. *Id.*

⁷ MVP FEIS at 3-14.

⁸ *Id.*

⁹ ACP FEIS at 1-3.

project capacity, the ultimate destination for the remaining gas will be determined by price differentials in the Northeast, Mid-Atlantic, and Southeast markets, and thus, is unknown.”¹⁰

In my view, it is appropriate for the Commission to consider as a policy matter whether evidence other than precedent agreements should play a larger role in our evaluation regarding the economic need for a proposed pipeline project. I believe that evidence of the specific end use of the delivered gas within the context of regional needs is relevant evidence that should be considered as part of our overall needs determination. Indeed, the Certificate Policy Statement established a policy for determining economic need that allowed the applicant to demonstrate need relying on a variety of factors, including “environmental advantages of gas over other fuels, lower fuel costs, access to new supply sources or the connection of new supply to the interstate grid, the elimination of pipeline facility constraints, better service from access to competitive transportation options, and the need for an adequate pipeline infrastructure.”¹¹ However, the Commission’s implementation of the Certificate Policy Statement has focused more narrowly on the existence of precedent agreements.

I believe that careful consideration of a fuller record could help the Commission better balance environmental issues, including downstream impacts, with the project need and its benefits.¹² I fully realize that a broader consideration of need would be a change in our existing practice, and I would support a generic proceeding to get input from the regulated community, and those impacted by pipelines, on how the Commission evaluates need.¹³

¹⁰ *Mountain Valley Pipeline, LLC, Equitans, L.P.*, 161 FERC ¶ 61,043 at FN 286 (October 13, 2017).

¹¹ *Certificate Policy Statement*, 88 FERC ¶ 61,227 at 61,744.

¹² I note that this approach would not necessarily lead to the rejection of more pipeline applications. Rather, it would provide all parties, including certificate applicants, the opportunity to more broadly debate and consider the need for a proposed project. This could, for example, support development of new infrastructure in constrained regions where there may be demand for new capacity, but barriers to the execution of precedent agreements that are so critical under the Commission’s current approach. In such situations, evidence of economic need other than precedent agreements might be offered as justification for the pipeline.

¹³ See also, *National Fuel Gas Supply Corporation, Empire Pipeline, Inc.*, 158 FERC ¶ 61,145 (Bay, Comm’r, Separate Statement).

I recognize that the Commission's actions today are the culmination of years of work in the pre-filing, application, and review processes, and I take seriously my decision to dissent. I acknowledge that if the applicants were to adopt an alternative solution, it would require considerable additional work and time. However, the decision before the Commission is simply whether to approve or reject these projects, which will be in place for decades. Given the environmental impacts and possible superior alternatives, approving these two pipeline projects on this record is not a decision I can support.

For these reasons, I respectfully dissent.

Cheryl A. LaFleur
Commissioner